

Dignity Health Arizona Orthopedic Surgical Hospital

Community Health Needs Assessment 2015







Maricopa County Coordinated Community Health Needs Assessment

Dignity Health
Arizona Orthopedic Surgical Hospital
Chandler, AZ

This community health needs assessment report is a customized version of the coordinated community health needs assessment that the Maricopa County Department of Public Health conducted in partnership with Adelante Healthcare, Banner Health, Dignity Health, Health Care for the Homeless, Mayo Hospital, Mountain Park Health Center, Native Health, and Phoenix Children's Hospital.

January 13, 2016



Table of Contents

I.	Executive Summary	4
II.	Assessment Purpose and Organizational Commitment	9
III.	Community Definition	11
A.	Definition of Community	11
В.	Demographic and Socioeconomic Profile	12
IV.	Assessment, Process and Methods	
A.	Process and Methods	15
В.	Secondary Data Collection	15
C.	Primary Data	17
D.	Data Limitations and Information Gaps	21
V.	Prioritized Description of Community Health Needs	22
A.	Identifying Community Health Needs	22
В.	Process and Criteria for Prioritization	22
C.	Description of Prioritized Community Health Needs	22
VI.	Resources Potentially Available to Address Needs	40
VII.	Impact of Actions Taken Since Preceding CHNA	42
/III.	Input Received on Most Recent CHNA and Implementation Strategy	
Apper	ndix A. List of Data Sources	
	ndix B. Primary Data Collection Tools	
Apper	ndix C. References	55

Executive Summary

Community Health Needs Assessment (CHNA) Background

The Patient Protection and Affordable Care Act (ACA) added new requirements which nonprofit hospitals must satisfy in order to maintain their tax-exempt status under section 501(c)(3) of the Internal Revenue Code. One such requirement added by ACA, Section 501(r) of the Code, requires nonprofit hospitals to conduct a Community Health Needs Assessment (CHNA) and adopt implementation strategies to meet the identified needs of 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 2015, Arizona Orthopedic Surgical Hospital (AOSH), in partnership with the Maricopa County Coordinated Health Needs Assessment (CCHNA) collaborative and the Maricopa County Department of Public Health (MCDPH) conducted an assessment of the health needs of residents of Maricopa County as well as those in their primary service area. The CHNA process undertaken and described in this report was conducted in compliance with federal requirements.

Purpose Statement

The purpose of this community health needs assessment (CHNA) is to identify and prioritize significant health needs of the community served by AOSH. The priorities identified in this report help to guide the hospital's community health improvement programs and community benefit activities, as well as its collaborative efforts with other organizations that share a mission to improve health. This CHNA report meets requirements of the Patient Protection and Affordable Care Act that not-for-profit hospitals conduct a community health needs assessment at least once every three years.

Community Definition

The geographic area for this CHNA is Maricopa County, the common community for all partners participating in the CCHNA collaborative. 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), 197,000 African Americans, 156,000 Asian Americans, and 65,000 American Indians. According to the U.S. Census Bureau, 14% percent of the population does not have a high school diploma, 17% are living below the federal poverty level, and over 600,000 are uninsured.¹

Dignity Health defines the community served by a hospital as those individuals residing within its primary and secondary service areas. For this report the focus will be on the primary service area of AOSH. The primary service area includes all residents in a defined geographic area surrounding the hospital and does not exclude low-income or underserved populations. The city of Chandler is primarily served by AOSH. Chandler is a growing and diverse city in Maricopa County, Arizona with nearly 250,000 residents of many ethnicities, various incomes and education levels. Surrounding communities include Gilbert, Mesa, Tempe, Ahwatukee, Sacaton, Apache Junction, Casa Grande, Pinal County, Gila River Indian Reservation, and Guadalupe. Chandler is home to several major industrial firms that include Intel, Microchip and Orbital. However, despite strong economic growth, there continues to be many factors and social determinants of health in the suburban

Chandler communities that need to be addressed in order to improve the health and wellbeing for the broader community and the underserved. According to the Community Need Index (CNI), a proprietary tool developed by Dignity Health, the primary service area includes both moderate and high-risk areas with significant socio-economic barriers. Zip code areas with the highest risks include 85122, 85128, 85139, 85202, 85225, 85282, and 85283.²

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, Adelante Healthcare, Banner Health, Dignity Health, Health Care for the Homeless, Mayo Hospital, Mountain Park Health Center, 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.

The process of conducting this assessment began with a review of approximately 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. Health needs were identified through the combined analysis of secondary data and community input. 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 who identified community concerns and assets. Surveys were collected from key informants to help determine community needs and priorities. Additionally, meetings were held with stakeholders from the Community Benefit Committee and Community Partnership Collaboration to assist with the analysis and interpretation of data findings.

Summary of Prioritization Process

To be a considered a health need, a health outcome or a health factor had to meet two criteria; first, existing data had to demonstrate that the primary service area had a health outcome or factor rate worse than the average Maricopa County rate, demonstrate a worsening trend when compared to Maricopa County data in recent years, or indicate an apparent health disparity; second, the health outcome or factor had to be mentioned in a substantial way in at least two primary data collection sources which were focus groups, surveys, or stakeholder meetings.

The process for prioritization included engagement with both internal Dignity Health stakeholders and community partners. The first step of the process was a comprehensive presentation by MCDPH that included an overview of the CHNA findings and key emerging health needs. The second step in the process involved review and prioritization of the key emerging health needs outlined in the MCDPH presentation by the Community Benefit Committee and Community Partnership Collaboration. A Dignity Health Six Sigma expert led the sessions using a 4-square, priority/benefit matrix. The X axis showed the level of effort required to address a particular health need whereas the Y axis showed the benefit to the community by addressing the

health need. As participants discussed each health need, consideration was given to the size of the problem, disparity and equity, known effective interventions, resource feasibility and sustainability, and community salience. Through consensus, participants made final recommendations to AOSH for priority health needs.

Summary of Prioritized Needs

The following statements summarize each of the areas of priority for AOSH, and are based on data and information gathered through the CHNA.

Access to Care

Community members and key informants overwhelmingly felt that access to care is an important issue for the community. Within AOSH's primary service area, one out of every seven residents lack health insurance.³ Additionally, there are disparities experienced across members of certain racial/ethnic backgrounds, with Hispanics and American Indians being least likely to have insurance. The number of adults reporting they have a usual source of health care is decreasing, with one out of every three reporting they do not have a regular doctor they see for care.⁴

Problems of Aging

Problems of aging were ranked in the top five areas of concern by key informants and two disease-specific categories were highlighted within this broader category: Alzheimer's and cardiovascular disease. Alzheimer's is the most common form of dementia, with symptoms most often appearing after the age of 60. The risk of Alzheimer's increases with age and the number of people with the disease doubles every five years beyond age 65. By 2050, this number is projected to rise to 14 million in the United States, a nearly three-fold increase. Alzheimer's is the third leading cause of death for the primary service area.

Cardiovascular disease is second leading cause of death for Maricopa County and the primary service area. Adults age 75 and older have the highest rates of cardiovascular disease-related hospital visits in Maricopa County. Although White non-Hispanics have the highest rates of cardiovascular disease-related mortality, African Americans have the highest rate of emergency department visits which indicates a potential health disparity in cardiovascular disease diagnoses, treatments, or preventative care. 9

Mental/Behavioral Health

Mental and behavioral health are terms often used interchangeably to refer to a spectrum of health conditions which are each distinct yet often co-occurring and overlapping. Behavioral health includes not only ways of promoting well-being by preventing or intervening in mental illness such as anxiety or depression, but also has an aim preventing or intervening in substance abuse and suicide.

Mental health was ranked as the most important health problem impacting the community by key informants. This was echoed by participants in the focus groups who believe mental health is one of top health issues impacting community residents. Mental health is among the top ten leading causes of emergency department visits for AOSH's primary service area and the highest rate of visits can be attributed to adults ages 18 to 34.¹⁰

Substance abuse was one of the top concerns for both focus group participants and key informants. Key informants listed alcohol and drug abuse as two of the riskiest health behaviors community members are engaging in. Fifteen percent of Maricopa County adults 18 years of age and older report binge drinking (defined as having 5 or more drinks for men and 4 or more drinks for women on one occasion) in the last 30 days on the Behavioral Risk Factor Surveillance System survey. Furthermore, approximately one out of every four high school seniors reported binge drinking in the last 2 weeks on the Arizona Youth survey.

The majority of people who experience a mental illness do not die by suicide. However, of those who die from suicide, more than 90% have a diagnosable mental disorder. Suicide was the eighth leading cause of death for Maricopa County and AOSH's primary service area in 2013. Although women are more likely to attempt suicide, men have higher rates of death by suicide. In Maricopa County rates of suicide are higher in the elderly and American Indian population which indicates a potential health disparity in identification, referral or treatment of suicidal ideation.

Diabetes

The number of deaths related to diabetes is decreasing in Maricopa County, but it is still the seventh leading cause of death in AOSH's primary service area indicating a sustained health need. Additionally, the number of adults reporting they have been told they have diabetes is increasing. In 2013, 10.2% of Maricopa County adults responding to the Behavioral Risk Factor Surveillance survey reported having been told they have diabetes by a healthcare professional.

Injury

Unintentional injury is the sixth leading cause of death for AOSH's primary service area. ¹⁸ It is also the leading cause of emergency department visits and the second leading cause of inpatient discharges. ¹⁹ Males are more likely to suffer from an unintentional injury with the exception of falls which are more prevalent among females. ²⁰

Cancer

While advancements continue to be made in the fight against cancer, it remains the leading cause of death in AOSH's primary service area and was identified as one of the top five areas of concerns from key informants. The highest site-specific cancer incidence rate in the primary service area is due to lung cancer. Nationally, cancer mortality is higher among men than women with the highest rates in African American men and the lowest rates in Asian/Pacific Islander women which indicates a potential health disparity in cancer disease diagnoses, treatments, or preventative care. ²²

Resources Potentially Available

Resources potentially available to address identified needs include services and programs available through hospitals, government agencies, and community based-organizations. Resources include access to over 40 hospitals for emergency and acute care services, over 10 Federally Qualified Health Centers (FQHC), over 12 food banks, 8 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.

The Health Improvement Partnership of Maricopa County (HIPMC) is a collaborative effort between MCDPH and a diverse array of public and private organizations addressing healthy eating, active living, linkages to care and tobacco-free living. With more than 70 partner organizations, this is a valuable to resource to help AOSH connect to other community based organizations that are targeting many of the same health priorities.²³

This CHNA report was adopted by the AOSH community board in January 2016.

This report is widely available to the public on the hospital's web site, and a paper copy is available for inspection upon request at Arizona Orthopedic Surgical Hospital Department of Community Health Integration.

Written comments or questions on this report can be submitted to the Arizona Orthopedic Surgical Hospital Department of Community Health Integration by e-mail to CommunityHealth-SHJMC@DignityHealth.org or by phone 602-406-2288.

Assessment Purpose and Organizational Commitment

Community Health Needs Assessment (CHNA) Background

Arizona Orthopedic Surgical Hospital (AOSH) is dedicated to enhancing the health of the communities it serves. The findings from this Community Health Needs Assessment report will 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 law requirements set forth in Internal Revenue Code section 501(r) requiring hospital facilities owned and operated by an organization described in Code section 501(c)(3) to conduct a CHNA at least once every three years. With regard to the CHNA, the ACA specifically requires nonprofit hospitals to: (1) collect and take into account input from public health experts as well as 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; (4) and 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.

Purpose Statement

The purpose of this CHNA is to identify and prioritize significant health needs of the community served by AOSH. The priorities identified in this report help to guide the hospital's community health improvement programs and community benefit activities, as well as its collaborative efforts with other organizations that share a mission to improve health. This CHNA report meets requirements of the Patient Protection and Affordable Care Act) that not-for-profit hospitals conduct a community health needs assessment at least once every three years.

Organizational Commitment

AOSH is an affiliate of Chandler Regional Medical Center (CRMC). Rooted in Dignity Health's mission, vision and values, CRMC is dedicated to delivering community benefit with the engagement of its management team, Community Board and Community Benefit Committee. The board and committee are composed of community members who provide stewardship and direction for the hospital as a community resource.

CRMC is committed to meeting the health needs of the community by ensuring implementation of successful programs that meet the specific needs of the people it serves. Success is achieved through assessment of community needs, involvement of key hospital leaders, and implementation of community benefit activities. Organizational and community commitment includes:

Executive Leadership Team: The CRMC Hospital Executive Leadership Team is responsible for reviewing the Community Benefit Report and Plan prior to presentation and approval by the Community Board. The Executive Leadership Team's contribution to the community benefit plan includes reviewing alignment of the Community Benefit Plan with the CHNA, the hospital's overall strategic plan, and budgeting for resources.

Community Benefit Committee: The Community Benefit Committee (CBC), chaired by a board member, assists the community board in meeting its obligations by reviewing community needs identified in CHNA,

recommending health priorities, recommending implementation strategies, presenting the hospital's annual Community Benefit Report and Plan, presenting the hospitals CHNA Implementation Strategy, and monitoring progress.

Community Board: The Community Board is responsible for oversight and adoption of the CHNA and, Implementation Strategy, approval of the Community Benefit Report and Plan, and program monitoring. Throughout the fiscal year the community board receives reports on community benefit programs. The chair of the Community Benefit Committee reports to the board regarding strategies, programs, and outcomes.

Community Benefit Department: The Community Benefit Department, under the Vice President of Mission Integration, is accountable for planning, implementing, evaluating, reporting, and ultimately for the success of designated programs. The Community Benefit Department is directly responsible for the CHNA and Implementation Strategy, Community Benefit Report and Plan, Dignity Health Community Grants committee, program implementation, evaluation, and monitoring, community collaboration, and reporting of community benefit activities. Key staff positions include: Director of Community Integration, Senior Coordinator for Community Benefit, Manager of Center for Diabetes Management, Manager of Community Education, Manager of Oral Health Program, Manager of Community Wellness, and Charge Nurse of Lactation Services.

CRMC's community benefit program includes financial assistance provided to those who are unable to pay the cost of their care, unreimbursed costs of Medicaid, subsidized health services that meet a community need, and community health improvement services. Our community benefit also includes monetary grants we provide to not-for-profit organizations that are working together to improve health on significant needs identified in our Community Health Needs Assessment.

In addition, we are investing in community capacity to improve health – including by addressing the social determinants of health – through Dignity Health's Community Investment Program, examples Include:

ICAN

ICAN is a free, family-centered youth service in the East Valley providing a full complement of programs proven effective in equipping youth to achieve personal and academic success by tackling substance abuse, gang involvement and juvenile delinquency.

In 2010, ICAN received a \$1,200,000 loan from Dignity Health. The loan was part of a \$5 million campaign to build a new center in Chandler to deliver services to more at-risk children. The new center opened in 2012, serving over 350 more children with services that include after-school meals, tutoring, and physical fitness activities. Through ICAN services, fewer children engage in risky behaviors, gang activity, alcohol, and drug abuse. The loan was fully reimbursed to Dignity Health.

Chandler Christian Community Center

In 2012, the Chandler Christian Community Center (CCCC) used its \$150,000 loan from Dignity Health to renovate and expand their center in Chandler, Arizona. The construction was completed and ribbon cutting took place in March 2015. CCCC provides emergency food services, home-delivered meals to seniors, English as a Second Language classes, income tax assistance, and 12-step support groups to adults and children. As a Family Resource Center, they also offer programs to help individuals and families combat conditions that exacerbate poverty, such as early literacy education and health and wellness services.

Community Definition

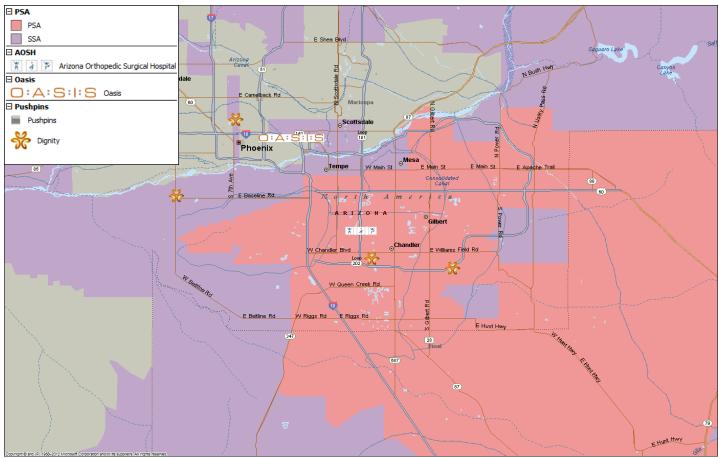
Definition of Community

The geographic area for this CHNA is Maricopa County, the common community for all partners participating in the Maricopa County Coordinated Health Needs Assessment collaborative (CCHNA). However, AOSH's primary service area specific information will also be provided when available.

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.

Dignity Health defines the community served by a hospital as those individuals residing within its primary and secondary service areas. For this report the focus will be on the primary service area of AOSH. The primary service area includes all residents in a defined geographic area surrounding the hospital and does not exclude low-income or underserved populations. The primary service area for AOSH includes the zip codes making up the top 75% of the total patient cases.

The City of Chandler is primarily served by AOSH. Surrounding communities also being served by AOSH include Gilbert, Mesa, Tempe, Ahwatukee, Sacaton, Apache Junction, Casa Grande, Pinal County, Gila River Indian Reservation, and Guadalupe.



Arizona Orthopedic Surgical Primary and Secondary Service Areas

Demographic and Socioeconomic Profile

Primary Care Area (PCA) Statistical Profiles are revised annually and provide detailed information on the demographics, health resources, hospital utilization, and health status indicators in defined geographic areas throughout Arizona. According to the Arizona Department of Health Services (ADHS), the Chandler Central PCA has been federally designated as a Medically Underserved Area. More than half of the population of AOSH's primary service area is adults between 20-64 years of age. Nearly 9.6% of residents do not have a high school diploma, 7.3% are unemployed and approximately 13.8% are without health insurance. This data shows that the population as a whole is majority white, and with a median income above Maricopa County and the state of Arizona. Table 1 provides the specific age, sex, and race/ethnicity distribution and data on key socioeconomic drivers of health status of the population in AOSH's primary service area compared to Maricopa County and the state of Arizona.

	AOSH PSA	Maricopa County	Arizona		
Population: estimated 2015	1,384,473	3,947,382	6,561,516		
Gender					
• Male	49.7%	49.4%	49.7%		
 Female 	50.2%	50.6%	50.3%		
Age					
 0 to 9 years 	14.3%	14.2%	13.9%		
• 10 to 19 years	13.4%	14.1%	13.8%		
• 20 to 34 years	21.4%	21.3%	20.5%		
• 35 to 64 years	37.0%	37.4%	37.0%		
• 65 to 84 years	12.3%	11.4%	13.1%		
• 85 years and over	1.6%	1.6%	1.7%		
Race					
• White	75.5%	80.0%	78.9%		
Asian/Pacific Islander	4.9%	3.9%	3.1%		
Black or African American	4.3%	5.2%	4.2%		
 American Indian/Alaska 	2.5%	1.9%	4.4%		
Native					
• Other	8.9%	6.0%	6.3%		
• 2 or more races	3.9%	3.0%	3.1%		
Ethnicity					
• Hispanic	22.9%	29.9%	30.1%		
Median Income	\$58,626	\$53,596	\$49,774		
Uninsured	13.8%	17.2%	16.8%		
Unemployment	7.3%	6.1%	6.3%		
No HS Diploma	9.6%	13.6%	14.3%		
Limited English Proficiency	3.5%	10%	9.5%		
Renters	30.6%	37.5%	35.6%		
Medicaid Patients	10.8%	13.8%	20.0%		
CNI Score	3.1 Yes	3.4			
Medically Underserved Area					

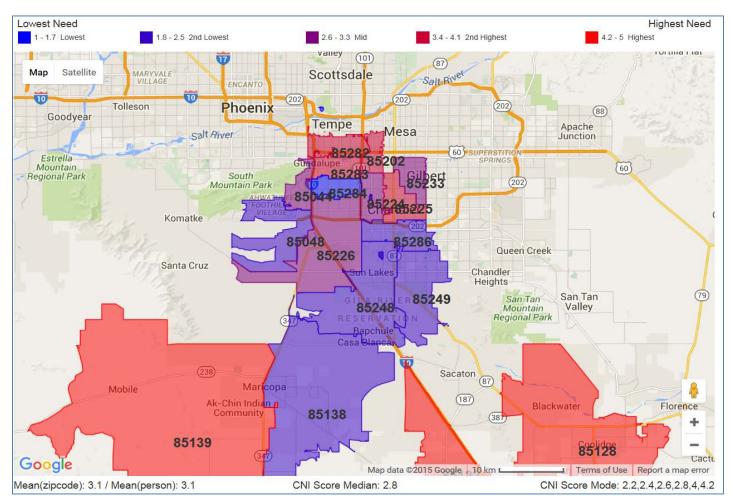
Source U.S. Census American Community Survey

Chandler is home to several major industrial firms that include Intel, Microchip and Orbital. Despite strong economic growth, there continue to be many factors and social determinants of health in the suburban Chandler community that needs to be addressed in order to improve the health and wellbeing for the broader community, and the underserved. Challenges for this community include high rates of poverty, violence-associated injuries, a large non-English speaking population, and low education attainment, all of which create

barriers to access. Downtown Chandler has a significant population of uninsured and underinsured non-English speaking persons of all age groups. A large majority of this population is also indigent with their primary source of income through day labor and seasonal work.

Community Need Index

Dignity Health has developed the nation's first standardized Community Need Index (CNI) in partnership with Truven Health Analytics. The CNI identifies the severity of health disparity for every zip code in the United States based on specific barriers to healthcare access. The CNI considers multiple factors that are known to limit health care access such as income, language, educational, insurance and housing barriers. The ability to pinpoint neighborhoods with significant barriers to health care access is an important new advancement for public health advocates and care providers. According to the CNI illustrated below, the primary service area has a mean CNI score of 3.1 and includes both moderate and high-risk areas with significant socio-economic barriers. Zip code areas with the highest risks include 85122, 85128, 85139, 85202, 85225, 85282, and 85283.



Primary Service Area CNI score

Zip Code	CNI Score	Population	City	County	State
85044	2.6	38849	Phoenix	Maricopa	Arizona
85048	2.4	33983	Phoenix	Maricopa	Arizona
85122	4.2	52773	Casa Grande	Pinal	Arizona
85128	4.6	17308	Coolidge	Pinal	Arizona
85138	2.2	38868	Maricopa	Pinal	Arizona
85139	4.2	19844	Maricopa	Pinal	Arizona
85202	4	38759	Mesa	Maricopa	Arizona
85224	2.8	44774	Chandler	Maricopa	Arizona
85225	4	71319	Chandler	Maricopa	Arizona
85226	2.6	39457	Chandler	Maricopa	Arizona
85233	2.8	38565	Gilbert	Maricopa	Arizona
85248	2.2	33226	Chandler	Maricopa	Arizona
85249	2	44861	Chandler	Maricopa	Arizona
85282	3.6	50161	Tempe	Maricopa	Arizona
85283	3.8	45033	Tempe	Maricopa	Arizona
85284	1.6	16454	Tempe	Maricopa	Arizona
85286	2.4	45310	Chandler	Maricopa	Arizona

Assessment, Process and Methods

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. 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, Health Care for the Homeless, Mayo Hospital, Mountain Park Health Center, 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.

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, surveys, and meetings with community stakeholders. The process was reiterative as both the secondary and primary 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.

Secondary Data

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. Population health can be defined as "the health outcomes of a group of individuals, including the distribution of such outcomes within the group." 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.

CCHNA 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.²⁸ 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):

- <u>Health Outcomes</u> 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.);
- <u>Health Care</u> 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;
- <u>Health Behavior</u> 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.);
- <u>Demographics and social environment</u> 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;
- <u>Physical Environment</u> 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.).

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 Rates	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.

Primary Data

The broad interests of the community were incorporated through three means. First, data was collected through focus groups engaging members of underserved populations and communities. Second, surveys were conducted with key informants who serve the primary service area. Finally, a series of meetings were held with key stakeholders from AOSH's primary service area. Members of the Community Benefit Committee and the Community Partnership Collaboration provided input on the selection of data indicators, provided feedback on data collected, and aided in the selection of final priorities. Membership of the above mentioned committees and collaborations intentionally represent vulnerable and disenfranchised populations including the homeless, uninsured/underinsured, Medicaid, Medicare, immigrant, disabled, mentally ill, and elderly.

Focus Groups

Members of the community representing subgroups, defined as groups with unique attributes (race and ethnicity, age, sex, culture, lifestyle, or residents of a particular area of Maricopa County), were recruited to participate in focus groups. A standard protocol was used for all focus groups (See Appendix B) 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 (65-74 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).

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 included 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 strategies for health improvement discussed amongst the participants included:

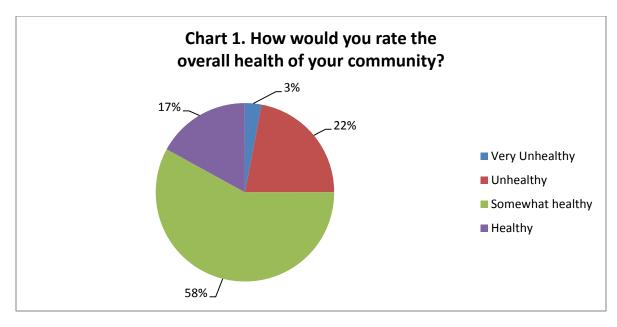
- More health care navigators/advocates
- More community education/awareness of resources
- More transparency in health care (insurance, side effects, alternatives, toxins, etc.)
- Better access to healthy, affordable food
- Increased training/education of health care professionals (e.g., proper use of pronouns for transgendered individuals, updated technologies/medical research, alternative medicine options, etc.)

Key Informant Surveys

In order to identify and understand community health needs, a community health survey was administered to key informants. Key informants were identified as health or community experts familiar with target populations and geographic areas within AOSH's primary service area. 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 Dignity Health leadership.

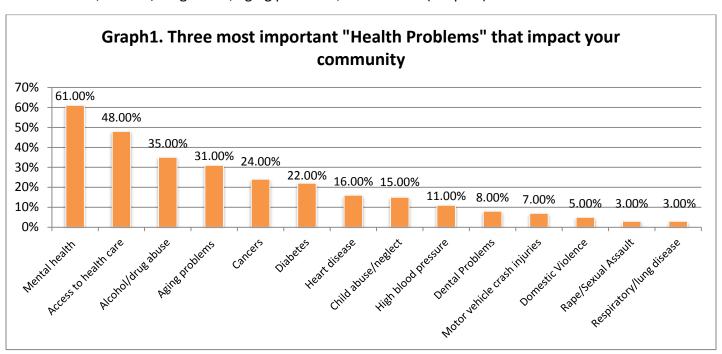
The survey was administered to 100 key informants who provide services throughout AOSH's primary service area. The survey asked respondents about factors that would improve "quality of life," most important "health problems," in the community, "risky behaviors" of concern, and their overall rating of the health of the community (Appendix B).

When surveyed about the overall health of the community, an alarming 25% of respondents felt the community was either "very unhealthy" or "unhealthy" (Chart 1).



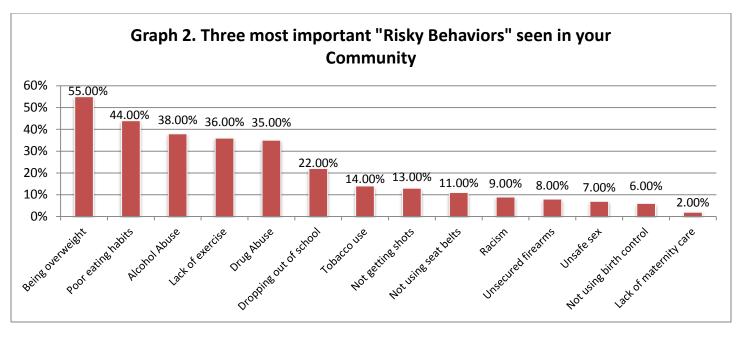
Source Key Informant Survey

Key informants felt the most important health problems impacting their community are mental health, access to health care, alcohol/drug abuse, aging problems, and cancers (Graph 1).



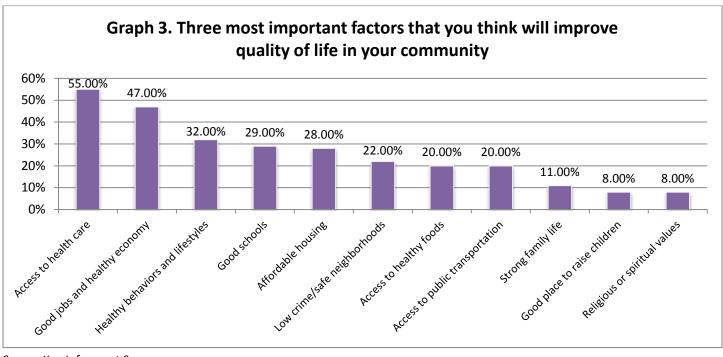
Source Key Informant Survey

When asked to rank the three most important risky behaviors seen in the community, the top five answers selected by respondents included being overweight, poor eating habits, alcohol abuse, lack of exercise, and drug abuse (Graph 2). 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.



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, healthy behaviors and lifestyles, good schools and affordable housing (Graph 3).



Source Key Informant Survey

Community Input/Engagement

Community input for the CHNA included engagement from the following Dignity Health sponsored stakeholder groups:

Chandler Regional Medical Center and Mercy Gilbert Medical Center Community Benefit Committee (CBC)

The Community Benefit Committee is a sub-committee of the Dignity Health East Valley Community Board and comprised of representation from Dignity Health, community agencies, and community members. A key function of the Community Benefit Committee is to participate in the process of establishing program priorities based on the community needs and assets and to review, advise and make recommendations to Dignity Health – Chandler Regional Medical Center.

Chandler Regional Medical Center and Mercy Gilbert Medical Center Community Partnership Collaboration

The Community Partnership Collaboration involves Dignity Health leadership, Dignity Health Community Grants Committee members, Dignity Health Community Benefit Committee members, community agencies, and community members. The collaboration works collectively address health needs of the community, with particular focus on disenfranchised populations. Throughout the year, the Community Partnership Collaboration (open to all community agencies) meets to share information, ideas, and/or recommendations to improve health through Dignity Health Community of Care Grant Program and other initiatives that include the CHNA process.

The information from the key informant survey along with the key findings from the MCDPH assessment data report was presented on September 28, 2015 to the Executive Leadership Team, Community Board, and Community Benefit Committee. Attendees were surveyed on the information provided in this presentation in order to further narrow down the list of significant health needs. Following the survey feedback, MCDPH provided additional presentations incorporating focus group findings and gathered final recommendations from the Community Benefit Board and the Community Partnership Collaboration in order to solidify the recommended priorities.

Data limitations and Gaps

The data used in this report are from various reliable sources, but there are limitations to the data that need to be considered. When reviewing birth and death records some of the fields in these records are filled in based on recall. Example, a mother is asked when she began prenatal care and may have an estimate but typically not the exact date. With death records a family member assists when filling in information on the death certificate. If the individual doesn't know about an individual's personal habits (like smoking) it may not get recorded on the death certificate. With Hospital Discharge Data (HDD) for Inpatient (IP) discharges and Emergency Department (ED) visits the data is from all licensed facilities, but does not include Federal, military, and the Department of Veteran Affairs. When reviewing this data we have to consider the fact that these are those individuals that are seeking care. There are various reasons why and individual does not go to a hospital for care (like lack of money to pay) or individuals may use the ED for routine care that they could receive if they had a primary care physician. The year we evaluated for HDD used the ICD-9 code, which is different from the death certificate coding which utilizes ICD-10.

The survey data used from our state and national partners also have limitations since they are self-reported surveys. The Behavioral Risk Factor Surveillance System survey (BRFSS) is a survey of adults within Maricopa County. This data could not be drilled down to each hospitals primary service area. The survey questions can be personal in nature and individuals have the option of not responding, or they may answer what they feel the best answer is, causing issues with the data. The Youth Risk Behavior survey (YRBS) is a survey of students in 8th, 10th, and 12th grades of school. The survey is done every other year and cannot be drilled down to the county level. All data from the YRBS is for the entire state. The Arizona Youth survey (AYS) is done every other year, opposite of the YRBS, and is of 8th, 10th, and 12th grade students in Arizona schools. This data can be evaluated at the county level, but not at the hospital service area.

Prioritized Descriptions of Significant Community Health Needs

Identifying Community Health Needs

To be a considered a health need, a health outcome or a health factor had to meet two criteria; first, existing data had to demonstrate that the primary service area had a health outcome or factor rate worse than the average Maricopa County rate, demonstrate a worsening trend when compared to Maricopa County data in recent years, or indicate an apparent health disparity; second, the health outcome or factor had to be mentioned in a substantial way in at least two primary data collection sources which were focus groups, surveys, or stakeholder meetings.

Process and Criteria for Prioritization

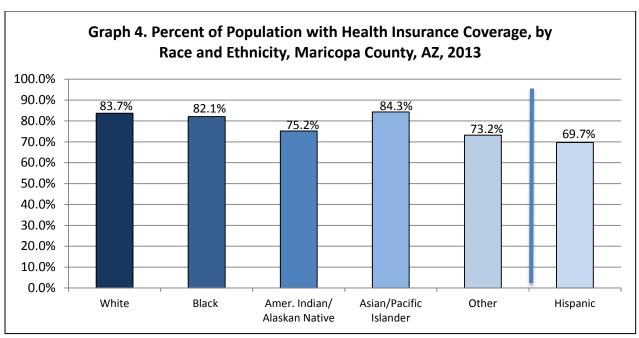
The process for prioritization included engagement with both internal Dignity Health stakeholders and community partners from the Community Benefit Board and the Community Partnership Collaboration (See Appendix A for list of participating organizations). The first step of the process was a comprehensive presentation by MCDPH that included an overview of the CHNA findings and key emerging health needs. Throughout the presentation, stakeholders in attendance responded to survey questions that would later be used during strategy sessions to identify health priorities. After completion of the presentation, stakeholders were given the opportunity to provide additional feedback and recommendations. The second step in the process involved review and prioritization of the key emerging health needs outlined in the MCDPH presentation. A Dignity Health Six Sigma expert led the sessions using a 4-square, priority/benefit matrix. The X axis showed the level of effort required to address a particular health need whereas the Y axis showed the benefit to the community by addressing the health need. As participants discussed each health need, consideration was given to the size of the problem, disparity and equity, known effective interventions, resource feasibility and sustainability, and community salience. Through consensus, participants made final recommendations to AOSH for priority health needs.

Description of Prioritized Community Health Needs

The following statements summarize each of the areas of priority for AOSH, and are based on data and information gathered through the CHNA.

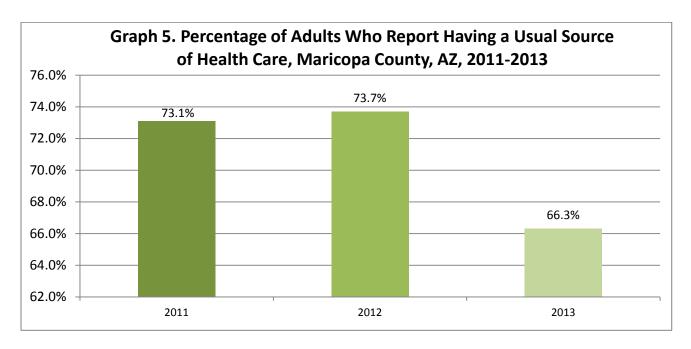
Access to Care

Focus group participants and key informants overwhelmingly felt that access to care is an important issue for the community. Within AOSH's primary service area, one out of every seven residents lack health insurance. According to the American Community survey (2013), the uninsured population in Maricopa County has increased over the past ten years. There are disparities experienced across members of certain racial/ethnic backgrounds, with Hispanics and American Indians being the least likely to have insurance (Graph 4). Additionally, there is still a large portion of undocumented citizens that do not qualify for health care coverage under the Affordable Care Act (ACA).



Source U.S. Census Bureau's American Community survey

Despite the increase in the ability to purchase health insurance through the federal marketplace, this does not appear to be translating to more people receiving care. The number of adults reporting they have a usual source of health care has decreased from 2011, with one out of every three Maricopa County residents saying they do not have a regular doctor they see for care (Graph 5). Women are more likely to report having a regular source of care when compared to men. Unfortunately, there is no data available from the last two years to measure the true impact of ACA.



Source Center for Disease Control and Prevention Behavioral Risk Factor Surveillance System survey

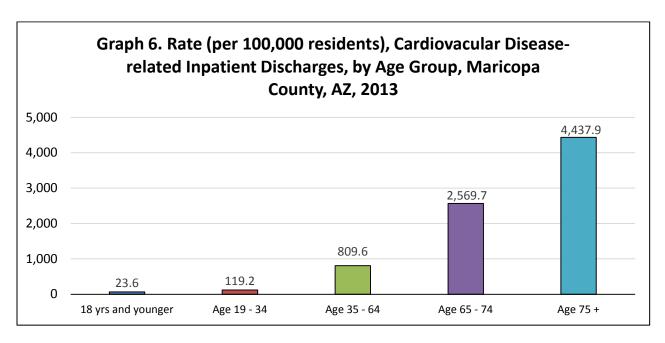
Access to care is a critical component to the health and well-being of the community members in the primary service area. Often individuals without insurance, and even those who are underinsured, experience greater difficulty readily accessing health care services, particularly preventive and maintenance health care. This can be very costly, both to the individuals and the health care system. The most frequently identified barriers to health care discussed amongst focus group participants included cost, complication of navigating the system, lack of cultural competency, and respect among healthcare providers. Focus group participants also discussed the need to educate the community and increase awareness of available resources, such as free or low cost clinics, financial aid for medical bills, and other community programs.

Problems of Aging

Problems of aging were ranked in the top five areas of concern by key informants and two disease-specific categories were highlighted within this broader category: Alzheimer's and cardiovascular disease. Alzheimer's is the most the common form of dementia, with symptoms most often appearing after the age of 60. The risk for Alzheimer's increases with age and the number of people with the disease doubles every five years beyond age 65. By 2050, this number is projected to rise to 14 million in the United States, a nearly three-fold increase. ³³Alzheimer's is the third leading cause of death for AOSH's primary service area (Appendix A). ³⁴

Cardiovascular disease is the second leading cause of death for Maricopa County and AOSH's primary service area.³⁵ The primary risk factors include diabetes, overweight/obesity, poor diet, physical inactivity and excessive alcohol use. Many of these are the same risky behaviors key informants reported being concerned about for the primary service area.

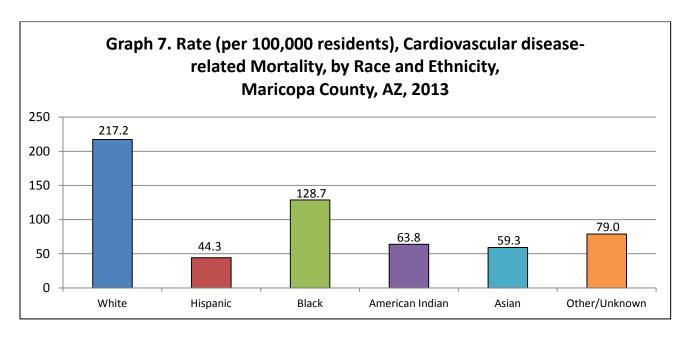
Overall the number of deaths related to cardiovascular disease in Maricopa County is decreasing. However, adults age 75 and older have the highest rate of cardiovascular disease-related inpatient discharges (Graph 6). 36



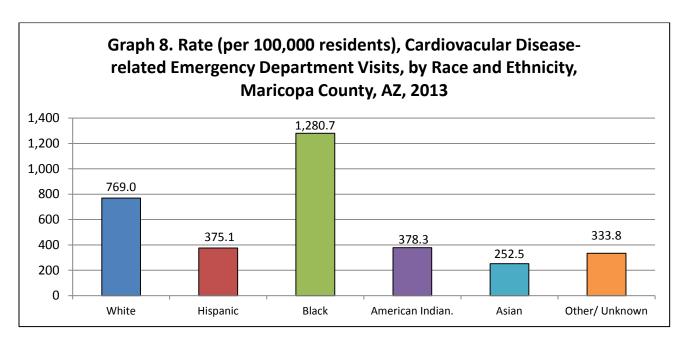
Source Arizona Department of Health Services, Health Care Institution Facility Data, Hospital Inpatient Discharge Reporting

Although White non-Hispanics have the highest rate of cardiovascular disease-related mortality, African Americans have the highest rate of cardiovascular disease-related emergency department visits which

indicates a potential health disparity in cardiovascular disease diagnoses, treatments, or preventative care (Graphs 7- 8).³⁷

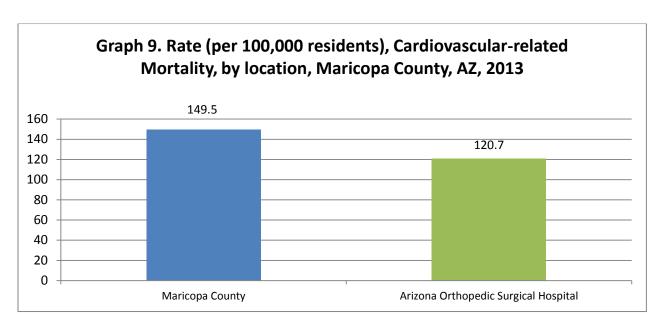


Source Arizona Department of Health Services, Vital Records and Statistics



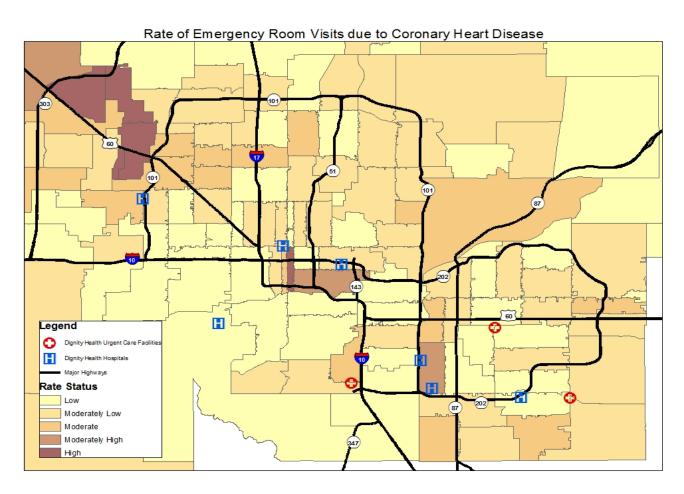
Source Arizona Department of Health Services, Health Care Institution Facility Data, Hospital Inpatient Discharge Reporting

The rate of deaths attributed to cardiovascular disease in AOSH's primary service area is better than the average Maricopa County rate and the Healthy People 2020 goal of 103.4 per 100,000 individuals (Graph 9). However, cardiovascular disease still accounted for nearly 14,000 hospital visits in primary service area in 2013. 39



Source Arizona Department of Health Services, Vital Records and Statistics

Lastly, the rate of emergency department visits due to Coronary Heart Disease is in the moderate to moderately high range in areas within AOSH's primary service area (Map 3). 40

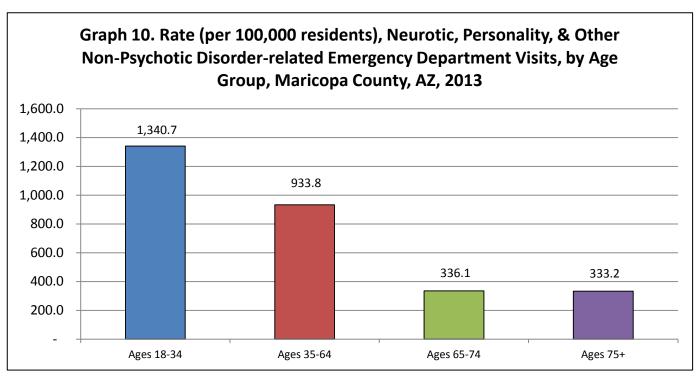


Mental/Behavioral Health

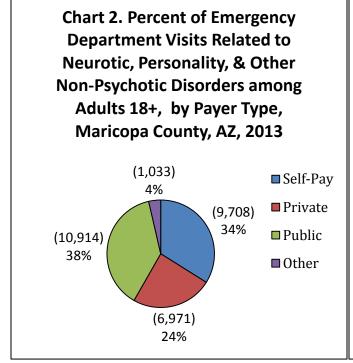
Mental and behavioral health are terms often used interchangeably to refer to a spectrum of health conditions which are each distinct yet often co-occurring and overlapping. Behavioral health includes not only ways of promoting well-being by preventing or intervening in mental illness such as anxiety or depression, but also has an aim preventing or intervening in substance abuse and suicide. Mental health was ranked as the most important health problem impacting the community by key informants. This was echoed by participants in the focus groups who felt it was among their top concerns.

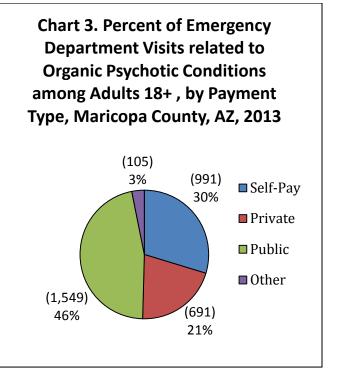
Mental health is among the top ten leading causes of emergency department visits for AOSH's primary service area (Appendix A).⁴¹ Of those adults that participated in the Behavioral Risk Factor Surveillance System survey in Maricopa County, they reported an average of three days each month where their mental health was "not good".⁴² According to the National Institute of Mental Health, as of 2013, an estimated 43.8 million Americans over the age of 18 had a diagnosed mental disorder, and nearly 6% suffer from serious mental illness. In fact, Major Depressive Disorder is the leading cause of disability in the United States for individuals ages 15 to 44, and is more prominent in females than males.⁴³

Adults ages 18 to 34 have the highest rate of Neurotic, Personality, & Other Non-Psychotic Disorder-related emergency department visits within Maricopa County (Graph 10).⁴⁴



It is important to note that a significant percentage of individuals are paying for mental health related hospital visits out of pocket which indicates a high severity of need for treatment (Charts 2 and 3).⁴⁵



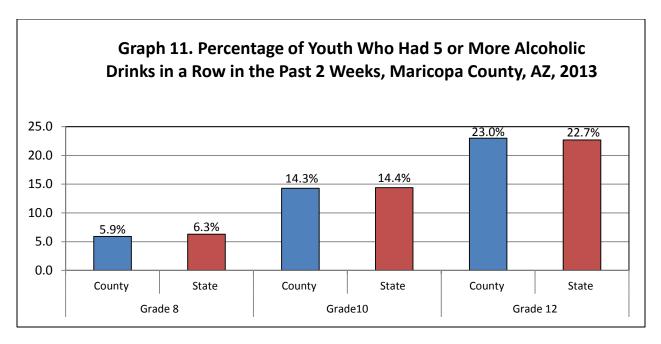


Source Arizona Department of Health Services, Health Care Institution Facility Data, Hospital Inpatient Discharge Reporting

Key informants listed alcohol and drug abuse as two of the top risky health behaviors community members are engaging in. The substances most frequently cited in the survey as being of concern included methamphetamines, prescription drugs, heroin, marijuana, cocaine and alcohol. Additionally, substance abuse was frequently mentioned as a concern amongst focus group participants.

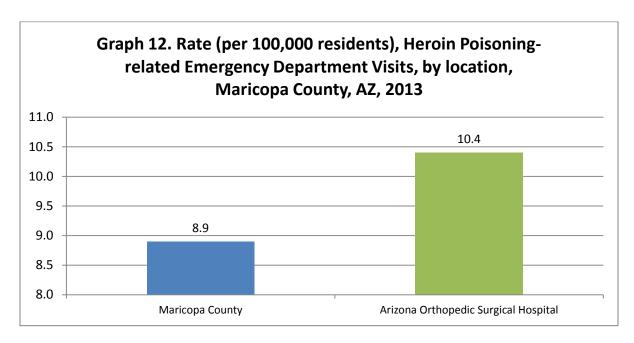
According to the Centers for Disease Control and Prevention, substance abuse cost our nation \$700 billion dollars annually in costs related to crime, lost productivity, and health care. ⁴⁶ According to the Substance Abuse and Mental Health Service Administration's (SAMHSA's) National Survey on Drug Use and Health, 23.5 million persons aged 12 or older needed treatment for an illicit drug or alcohol abuse problem in 2009. Of these, only 2.6 million—11.2% of those who needed treatment—received it at a specialty facility. ⁴⁷

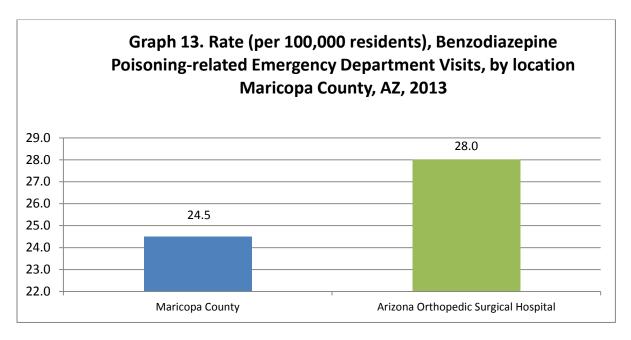
According to the Behavioral Risk Factor Surveillance System survey 15% of adults 18 years of age and older report binge drinking (defined as having 5 or more drinks for men and 4 or more drinks for women on one occasion) in the last 30 days. ⁴⁸ Furthermore, according to the Arizona Youth survey, in 2014, 23% of high school seniors reported binge drinking in the last 2 weeks (Graph 11). ⁴⁹ The most common substances used by youth throughout Maricopa County include alcohol, tobacco, marijuana, and prescription drugs. ⁵⁰ For the majority of substances there has been a decrease in use with the exception of marijuana use which is increasing. This is likely due in part to the passing of medical marijuana legislation in the state of Arizona.



Source Arizona Criminal Justice Commission, Arizona Youth survey

Injury and poisoning are the leading cause of emergency department visits for AOSH's primary service area (Appendix A).⁵¹ The rate of emergency department visits related to heroin and benzodiazepines are higher than the average Maricopa County rate which indicates a potential opportunity for screening, brief intervention and referral to substance abuse treatment (Graphs 12-13).⁵²



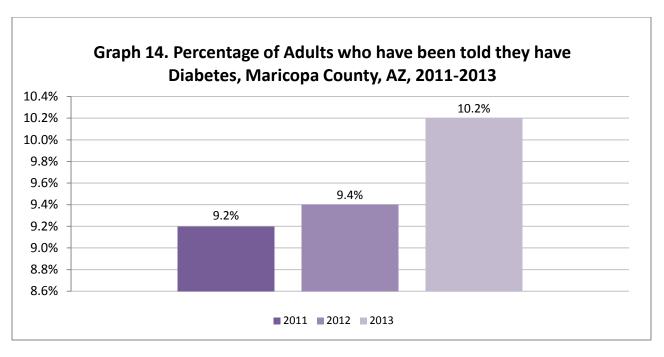


Source Arizona Department of Health Services, Health Care Institution Facility Data, Hospital Inpatient Discharge Reporting

The majority of people who experience a mental illness do not die by suicide. However, of those who die from suicide, more than 90% have a diagnosable mental disorder. ⁵³ Individuals with a substance use disorder (i.e., either a diagnosis of abuse or dependence on alcohol or drugs) are almost six times more likely to report a lifetime suicide attempt than those without a substance use disorder. ⁵⁴ Suicide was the eighth leading cause of death for Maricopa County residents and the primary service area in 2013 (Appendix A). ⁵⁵ The 2013 suicide rate for Maricopa County was 15.2 deaths per 100,000 individuals, which is better than the state average; however, it still exceeds both the national average and is considerably higher than the Healthy People 2020 goal of 10.2 deaths per 100,000. Although women are more likely to attempt suicide, men have higher rates of death by suicide. Rates of suicide are higher in the elderly and American Indian population indicates a potential health disparity in identification, referral or treatment of suicidal ideation. ⁵⁶

Diabetes

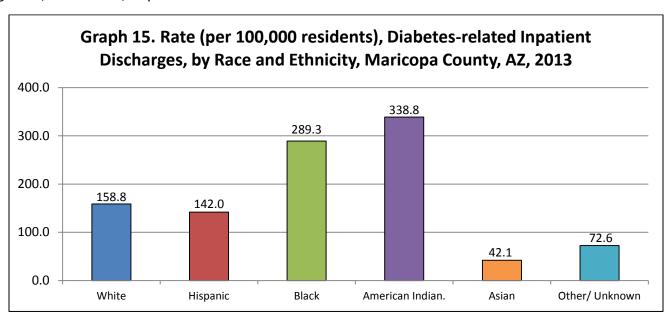
The number of deaths related to diabetes is decreasing in Maricopa County, but it is still the seventh leading cause of death in AOSH's primary service area indicating a sustained health need (Appendix A).⁵⁷ The number of people reporting they have been told they have diabetes is also increasing. In 2013, 10.2% of adults responding to the Behavioral Risk Factor Surveillance survey reported having been told they have diabetes (Graph 14).⁵⁸

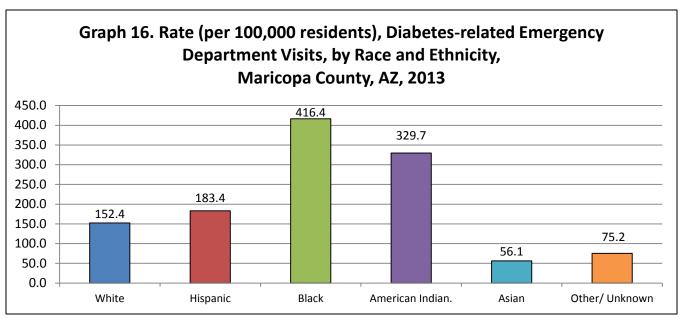


Source Center for Disease Control and Prevention Behavioral Risk Factor Surveillance System survey

According to the American Heart Association, in 2010 19.7 million Americans over the age of 20 had physician diagnosed diabetes. An estimated 8.2 million Americans have undiagnosed diabetes. Complications of Diabetes include heart disease, stroke, high blood pressure, blindness, kidney disease, neuropathy, amputation and death.

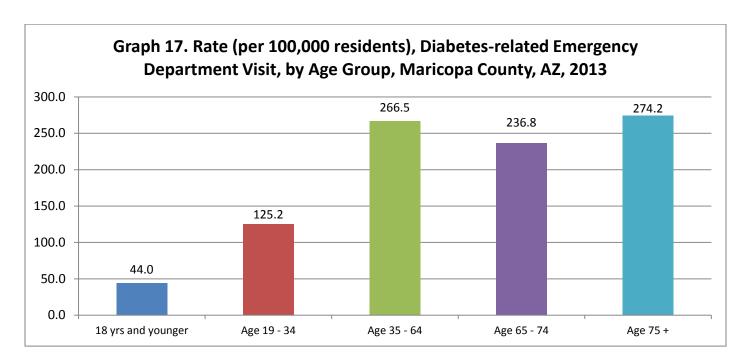
African American and American Indian adults that participated in the focus groups identified diabetes as one of the most concerning health problems within their communities. This is supported by the rates of hospital visits for these populations within Maricopa County (Graphs 15-16). The higher rates of inpatient discharges and emergency department visits for these populations indicates a potential health disparity in diabetes diagnoses, treatments, or preventative care.





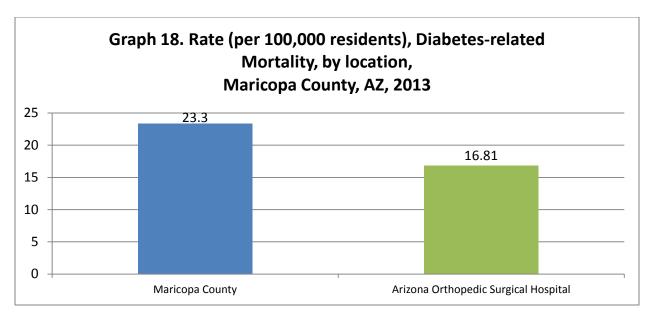
Source Arizona Department of Health Services, Health Care Institution Facility Data, Hospital Inpatient Discharge Reporting

Adults age 75 and older have the highest rate of diabetes-related emergency department visits, however this is closely followed by adults ages 35-64 which indicates a need for earlier screening and prevention of diabetes (Graph 17).⁶⁰



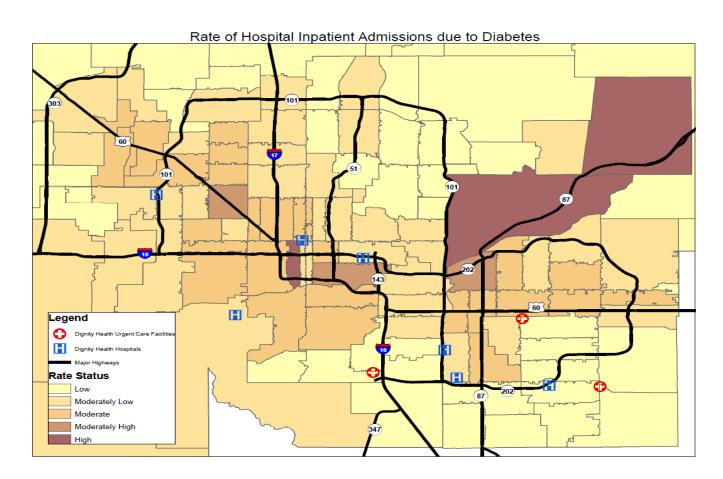
Source Arizona Department of Health Services, Health Care Institution Facility Data, Hospital Inpatient Discharge Reporting

The rate of diabetes-related death in AOSH's primary service area is better than the average Maricopa County rate and the Healthy People 2020 goal of 66.6 per 100,000 individuals (Graph 18).⁶¹



Source Arizona Department of Health Services, Vital Records and Statistics

However, the rate of diabetes-related inpatient discharges is in the moderate to high range in areas within AOSH's primary service area (Map 4). ⁶²

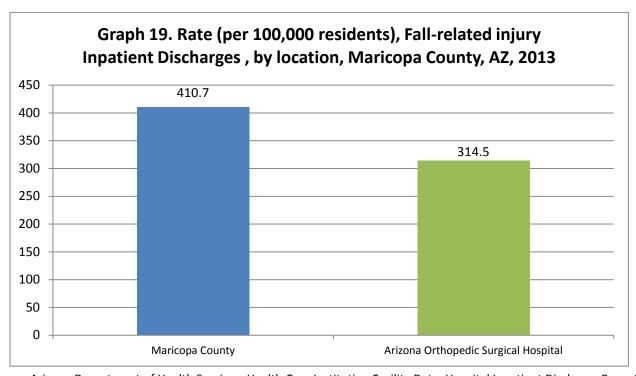


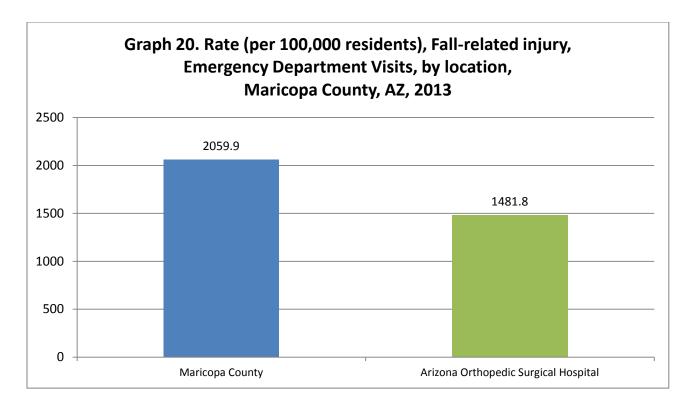
<u>Injury</u>

In 2013 unintentional injury was the sixth leading cause of death for AOSH's primary service area (Appendix A).⁶³ Unintentional injuries are preventable and largely due to lifestyle choices. Nationally, nearly one-third of these deaths are due to car crashes and nearly another one-third is due to accidental poisonings. Males are more likely to suffer from an unintentional injury with the exception of falls which are more prevalent among females.⁶⁴ Information on hospital visits related to poisonings was presented in the substance abuse section and is a significant concern for AOSH's primary service area.

The rate of motor vehicle accident-related inpatient discharges, emergency department visits and mortality within the primary service area are not higher than the average Maricopa County rates, and are better than the Healthy people 2020 goal of 12.4 deaths per 100,000 individuals. However, in 2013 approximately 6,500 hospitals visits were attributed to motor vehicle accidents in the primary service area. 65

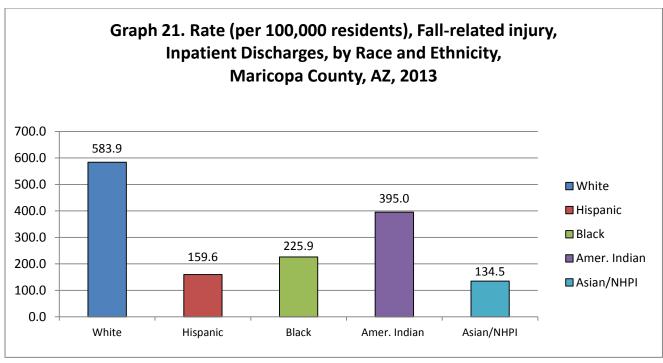
Of major concern for AOSH are injuries related to falls due to the growing aging population in the primary service area. The rate of fall-related injury inpatient discharges and emergency department visits are not higher than the average Maricopa County rate (Graphs 19-20). However, in 2013, approximately, 23,000 hospitals visits were attributed to fall-related injuries in the primary service area. 67

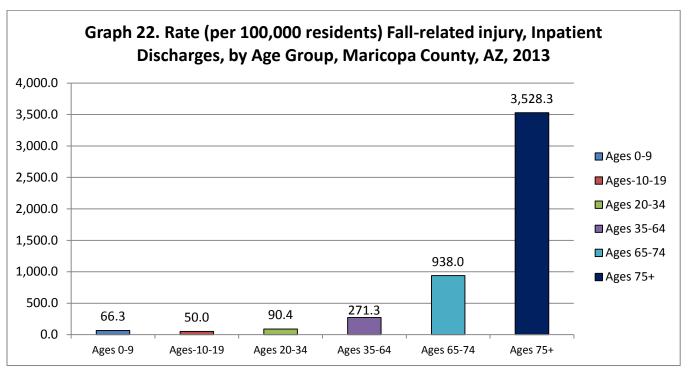




Source Arizona Department of Health Services, Health Care Institution Facility Data, Hospital Inpatient Discharge Reporting

White non-Hispanics and adults age 75 and older have the highest rates of fall-related injury inpatient discharges (Graphs 21-22).⁶⁸ Many older adults may feel that falls are an inventible part of aging, however improving muscle strength and balance can have a tremendous impact on the prevention of fall-related injury.



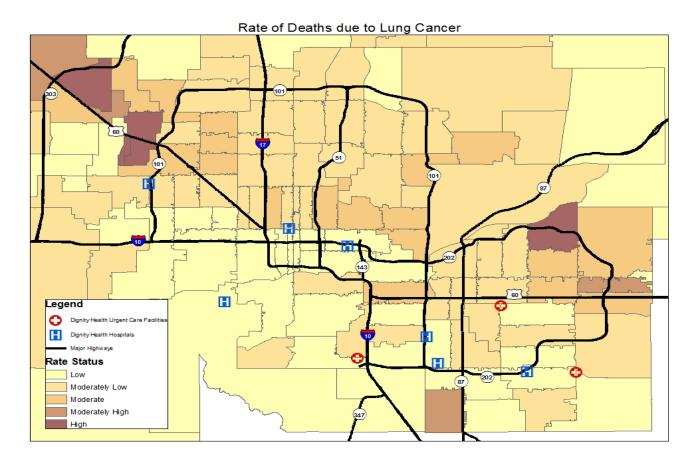


Source Arizona Department of Health Services, Health Care Institution Facility Data, Hospital Inpatient Discharge Reporting

Cancer

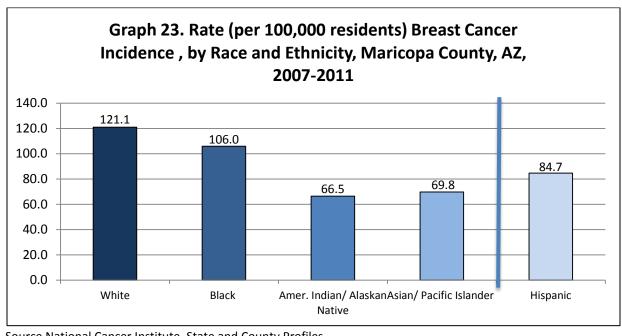
While advancements continue to be made in the fight against cancer, it remains the leading cause of death in AOSH's primary service area and was identified as one of the top five areas of concerns from key informants (Appendix A).⁶⁹ The highest site-specific cancer incidence rates in Arizona are due to breast, prostate, lung and bronchus, colon and rectum and uterine cancer.⁷⁰ It is estimated that approximately 39% of men and women will be diagnosed with cancer at some point during their lifetime.⁷¹

The highest site-specific cancer incidence rate in the primary service area is due to lung cancer.⁷² The rates of death due to lung cancer are in the moderate to moderately high range in areas within AOSH's primary service area (Map 5).⁷³



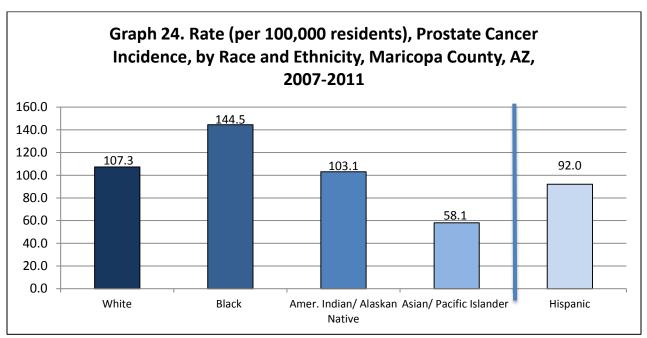
Source Arizona Department of Health Services, Vital Records and Statistics

Nationally, cancer-related mortality is higher among men than women with the highest rates in African-American men and lowest in Asian/Pacific Islander women. 74 Specific to Breast Cancer incidence in Maricopa County, the highest rates can be attributed to White non-Hispanics, followed by African-Americans (Graph 23).75

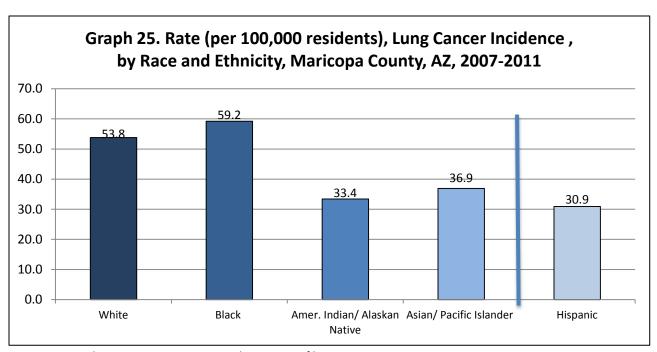


Source National Cancer Institute, State and County Profiles

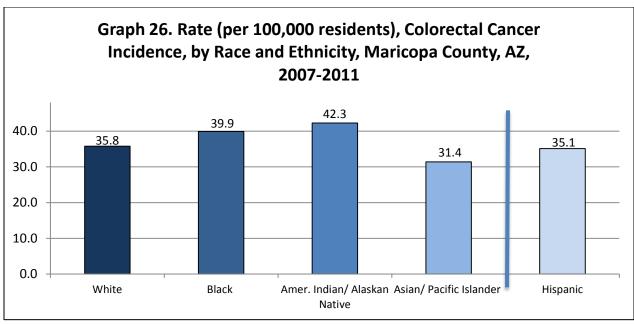
Prostate cancer and lung cancer are impacting African- Americans at the highest rate, while the highest rate of colorectal cancer can be attributed to American Indians which indicates a potential health disparity in cancer screening, diagnoses, or treatments (Graphs 24-26).⁷⁶



Source National Cancer Institute, State and County Profiles



Source National Cancer Institute, State and County Profiles



Source National Cancer Institute, State and County Profiles

Resources Potentially Available to Address Needs

Resources potentially available to address identified needs include services and programs available through hospitals, government 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 listing of potential resources to address prioritized community health needs:

Hospitals and Hospital Systems providing emergency care, acute care, outpatient services, and community programs:

- Arizona Heart Hospital
- Banner Health
- Dignity Health
- Honor Health
- Ironwood Cancer and Research Center
- Maricopa County Integrated Health System
- Phoenix Children's Hospital
- Valley Hospital
- OASIS Hospital
- Arizona Orthopedic Surgical Hospital

Community-Based Agencies:

Organization Name	Services Provided
Keogh Health Connection	Heath insurance enrollment and navigation
Foundation for Senior Living	Adult Health Services
Mission of Mercy Mobile Health Program	Primary medical care for uninsured/underserved
Society of St. Vincent De Paul	Medical, dental, food, clothing for underserved
Circle the City	Medical care and respite for homeless
Mountain Park Health Center	Primary medical care for uninsured/underserved
Mathew's Crossing	Food bank
Clinica Adelante	Primary medical care for uninsured/underserved
Faith Community/Churches	Parish Nurse Program
Community Action Program	Emergency Assistance
I-Help Interfaith Homeless	Shelter, food, and resources for homeless,
	Emergency Lodging Program
A New Leaf	Shelter, housing, support services for homeless and underserved
Chandler Care Center	Medical, Dental, WIC, Food bank, Behavioral
	Health, and support services for Chandler school
	children and their families.
Rebuilding Together Valley of the Sun	Home repair and modification

Chandler Christian Community Center	Family Resource Center, Food Bank, Emergency Services
Community Action Program (CAP)	Emergency Services
Tempe Community Action Agency	Temporary Shelter, Food, elderly services and Support
Lutheran Social Services of the Southwest	Temporary shelter, Food, elderly, housing, support services
ICAN (Improving Chandler Area Neighborhoods)	After school programs for Chandler School Children
About Care and Neighbors Who care	Transportation and case management for the elderly
United Food bank	Food Bank
Valley of the Sun United Way/Ahwatukee YOPIS	Transportation and health and wellness,
Valley of the Sun United Way Chandler/Gilbert YMCA	Health and wellness
Living Well Institute	Chronic Disease Management
East Valley Adult Resources	Support services for senior citizens
AT Still University	Falls prevention education, oral health
Public Service Agencies (Fire Department, Police Department)	Health and injury prevention collaborative
Indian Health Services	Health Services for Native American Population

The Health Improvement Partnership of Maricopa County (HIPMC) is a collaborative effort between MCDPH and a diverse array of public and private organizations addressing healthy eating, active living, linkages to care and tobacco-free living. The HIPMC provides a forum to share ideas and resources as well as a data-driven process to identify gaps and barriers to health improvement, especially among vulnerable populations. With more than 70 partner organizations, this is a valuable to resource to help Arizona Orthopedic Surgical Hospital connect to other community based organizations that are targeting many of the same health priorities.⁷⁷

Impact of Actions Taken Since Preceding CHNA

From fiscal year 2013 through fiscal year 2015, Dignity Health – Chandler Regional Medical Center Medical Center provided for \$92,069,460 in patient financial assistance, unreimbursed cost of Medicaid, community health improvement services, and other benefits. Including the unreimbursed cost of caring for patients covered by Medicaid, the hospital's total community benefit expense from 2013 – 2015 was \$115,253,934.

In addition, the number of persons served through financial assistance and community health improvement services between fiscal year 2013-2015 further demonstrates the impact of Dignity Health actions through community outreach services. For Chandler Regional Medical Center 9,259 people received financial assistance and 119,601 people were served through community health services. Below is a listing of key community benefit services:

- I-Help for the homeless
- Senior Community Wellness Coalition
- Partnership to Build Resilient Families
- Early Childhood Oral Health Program
- Dignity Health Children's Dental Clinic
- Chronic Disease Self-management Program
- Center for Diabetes Management
- Center for Health Faith Ministries
- Teen Pregnant and Parenting Program
- Think First Injury Prevention Program
- Immunization Program
- Building Blocks for Children Hearing and Vision Program

Input Received on Most Recent CHNA and Implementation Strategy

Arizona Orthopedic Surgical Hospital has not tracked or recorded written comments for the most recently conducted CHNA and adopted Implementation Strategy. Positive feedback on the value and benefit of the CHNA report has been received verbally by many internal and external stakeholders. In addition, many individuals and agencies have requested the CHNA report to use for grant applications, assessments, and planning. Although there have not been formal mechanisms in place to receive and track written comments in the past, a process will be in place for newly conducted CHNA's, including this report, to comply with the regulatory requirement to solicit and take into account input received from written comments.

This report is widely available to the public on the hospital's web site, and a paper copy is available for inspection upon request at Arizona Orthopedic Surgical Hospital Department of Community Health Integration.

Written comments or questions on this report can be submitted to the Arizona Orthopedic Surgical Hospital Department of Community Health Integration by e-mail to CommunityHealth-SHJMC@DignityHealth.org or by phone 602-406-2288.

Appendix A - List of Data Sources

Data Sources

- 2013 Vital Statistics data
 - Birth Certificates
 - Death Certificates
- 2013 Hospital Discharge Data (HDD)
 - Emergency Department visits (ED)
 - Inpatient discharges (IP)
- 2012 Behavioral Risk Factor Surveillance System survey (BRFSS)
 http://www.maricopa.gov/PublicHealth/Services/EPI/pdf/hsr/2013BRFSS.pdf
- 2013 Youth Risk Behavior survey (YRBS)
 https://nccd.cdc.gov/youthonline/App/Results.aspx?LID=AZB
- American Community Survey (ACS)
 http://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/
- Dignity Health. Community Need Index. http://cni.chw-interactive.org/

Data Indicators

Population Demographics

Gender, Age Group, and Racial/Ethnicity in Maricopa County

Access to Health Care

- Health Insurance Coverage Demographics in Maricopa County
- Primary Payer Type of Hospitalizations in Maricopa County

Behavioral Health Risk Factors

- Alcohol Consumption & Drug Use in Maricopa County
- Smoking in Maricopa County
- Nutrition/Diet in Maricopa County
- Physical Activity in Maricopa County
- Obesity in Maricopa County

Cancer Incidence and Prevention Screening

- Breast Cancer Incidence in Maricopa County
- Breast Cancer Screening in Maricopa County
- Cervical Cancer Incidence in Maricopa County
- Cervical Cancer Screening in Maricopa County
- Colorectal Cancer Incidence in Maricopa County

- Colorectal Cancer Screening in Maricopa County
- Prostate Cancer Incidence in Maricopa County
- Prostate Cancer Screening in Maricopa County

Environmental Health

Asthma in Maricopa County

Chronic Disease

- Stroke in Maricopa County
- Cardiovascular Disease in Maricopa County
- Diabetes in Maricopa County
- Congestive Heart Failure in Maricopa County

Mental Illness - Emergency Department Visits (EDV)

- EDV due to Organic Psychotic Conditions in Maricopa County
- EDV due to Other Psychoses in Maricopa County
- EVD due to Neurotic, Personality, & Other Non-Psychotic Disorders in Maricopa County

Mental Illness - Inpatient Hospitalization Discharges (IHD)

- IHD due to Organic Psychotic Conditions in Maricopa County
- IHD due to Other Psychoses in Maricopa County
- IHD due to Neurotic, Personality, & Other Non-Psychotic Disorders in Maricopa County

Injury

- Motor Vehicle Occupant Accidents in Maricopa County
- Motorcycle Accidents in Maricopa County
- Bicycle Accidents in Maricopa County
- Pedestrian Accidents in Maricopa County
- Fall Accidents in Maricopa County
- Interpersonal Violence in Maricopa County

Prevention Quality Indicator's (PQI)

Inpatient Admissions in Maricopa County

- Chronic Obstructive Pulmonary Disease
- Bacterial Pneumonia
- Urinary Infection
- Dehydration
- Congestive Heart Failure
- Hypertension
- Asthma
- Angina
- Diabetes Short Term Complication
- Diabetes Long Term Complication
- Uncontrolled Diabetes
- Lower Extremity Amputation
- Perforated Appendix
- Prevention Quality Overall
- Prevention Quality Acute
- Prevention Quality Chronic

Emergency Room Visits in Maricopa County

- Chronic Obstructive Pulmonary Disease
- Bacterial Pneumonia

- Urinary Infection
- Dehydration
- Congestive Heart Failure
- Hypertension
- Asthma
- Angina
- Diabetes Short Term Complication
- Diabetes Long Term Complication
- Uncontrolled Diabetes
- Lower Extremity Amputation
- Perforated Appendix
- Prevention Quality Overall
- Prevention Quality Acute
- Prevention Quality Chronic

Indicators compared by PSA & Maricopa County

Cancer (Death, Inpatient, Emergency Dept.)

- Colon
- Bronchus, Lung or Trachea
- Uterus, Cervix, Ovary
- Breast
- Prostate

Chronic Disease (Death, Inpatient, Emergency Dept.)

- Diabetes
- Cardiovascular Disease
- Stroke
- Congested Heart Failure
- Asthma

Injury (Death, Inpatient, Emergency Dept.)

- Falls (by age group)
- Motor Vehicle
- Motorcycle
- Pedestrian
- Bicycle
- Interpersonal Violence
- Alcohol Related
- Non and Dependent Opiate Use
- Opiate Poisoning
- Heroin Poisoning
- Cocaine Poisoning
- Benzodiazepine Poisoning

Top 10 Leading Causes of Death*

Rank	Maricopa County	Arizona Orthopedic Surgical Hospital
1	Cancer	Cancer
2	Heart Disease	Heart Disease
3	Chronic Lower Respiratory	Alzheimer's
4	Unintentional Injury	Chronic Lower Respiratory
5	Alzheimer's	Stroke
6	Stroke	Unintentional Injury
7	Diabetes	Diabetes
8	Suicide	Suicide
9	Fall	Fall
10	Liver Disease	Liver Disease

Top 10 Leading Causes for Inpatient Discharges*

Rank	Maricopa County	Arizona Orthopedic Surgical Hospital
1	Digestive System	Digestive System
2	Injury and poisoning	Injury and poisoning
3	Musculoskeletal system and connective tissue	Infectious and parasitic diseases
4	Infectious and parasitic diseases	Musculoskeletal system and connective tissue
5	Reproductive & Urinary System	Reproductive & Urinary System
6	Neoplasms	Neoplasms
7	Mental disorders	Heart disease
8	Heart disease	Cerebrovascular disease
9	Skin and subcutaneous tissue	Skin and subcutaneous tissue
10	Nervous system and sense organs	Nervous system and sense organs

Top 10 Leading Causes for Emergency Department Visits*

Rank	Maricopa County	AOSH
1	Injury and poisoning	Injury and poisoning
2	Musculoskeletal system and connective tissue	Musculoskeletal system and connective tissue
3	Digestive System	Reproductive & Urinary System
4	Reproductive & Urinary System	Digestive System
5	Nervous system and sense organs	Nervous system and sense organs
6	Skin and subcutaneous tissue	Mental disorders
7	Mental disorders	Skin and subcutaneous tissue
8	Infectious and parasitic diseases	Infectious and parasitic diseases
9	Asthma	Asthma
10	Pneumonia	Pneumonia

*Definitions for Medical Diagnostic Codes (utilized in tables above)

<u>Cerebrovascular Disease</u> – Subcategory under Diseases of the Circulatory System; includes subarachnoid hemorrhage; intracerebral hemorrhage; other and unspecified intracranial hemorrhage; occlusion and stenosis of precerebral arteries; occlusion of cerebral arteries; transient cerebral ischemia; acute but illdefined cerebrovascular disease; other and ill-defined cerebrovascular disease, and late effects of cerebrovascular disease.

<u>Chronic Lower Respiratory</u> – Bronchitis; simple and mucopurulent chronic bronchitis; unspecified chronic bronchitis; emphysema; other chronic obstructive pulmonary disease; asthma; bronchiectasis.

Digestive System – Diseases of the oral cavity, salivary glands, jaw, esophagus, stomach and duodenum; appendicitis; hernia of abdominal cavity; non-infective enteritis and colitis, other diseases of intestines and peritoneum, other diseases of digestive system.

<u>Fall</u> – Subcategory under External Causes of Death titled slipping, tripping, stumbling and falls; includes fall due to ice and snow; fall on same level from slipping, tripping and stumbling; other fall on same level due to collision with another person; fall while being carried or supported by other persons; fall from non-moving wheelchair, non-motorized scooter and motorized mobility scooter; fall from bed, chair, fall other furniture, tree, cliff, fall, jump, or diving into water; fall on and from playground equipment, stairs and steps, ladder, scaffolding; fall from out of or through building or structure; other fall from one level to another; other slipping, tripping and stumbling falls; unspecified fall.

<u>Heart Disease</u> – Under Diseases of the Circulatory System; acute rheumatic fever; chronic rheumatic heart diseases; hypertensive heart disease; hypertensive heart and chronic kidney disease; ischemic heart diseases; pulmonary heart disease and diseases of pulmonary circulation; other forms of heart disease.

<u>Infectious & Parasitic Diseases</u> – Intestinal infectious disease; tuberculosis; zoonotic bacterial diseases; other bacterial diseases; HIV; poliomyelitis and other non-arthropod borne viral diseases of the central nervous system; viral diseases accompanied by exanthema; arthropod borne viral diseases; other diseases due to viruses and chlamydiae; rickettsioses and other arthropod borne diseases; syphilis and other venereal diseases; other spirochetal diseases; mycoses; helminthiases; other infectious and parasitic diseases; late effects of infectious and parasitic diseases.

<u>Injury & Poisoning</u> – Fracture; dislocation; sprains and strains of joints and adjacent muscles; intercranial injury (excluding those with skull fracture); internal injury of chest, abdomen, and pelvis; open wound; injury to blood vessels; late effects of injuries, poisonings, toxic effects and other external causes; superficial injury; contusion with intact skin surface; crushing injury; effects of foreign body entering through orifice; burns; injury to nerves and spinal cord; certain traumatic complications and unspecified injuries; poisoning by drugs, medicinals and biological substances; toxic effects of substances chiefly nonmedicinal as to source; other and unspecified effects of external causes; complications of surgical and medical care not elsewhere classified.

<u>Mental Disorders</u> – Organic (due to a medical or physical disease) psychotic conditions; other psychoses; neurotic disorder; personality disorders; other nonpsychotic mental disorders; intellectual disabilities.

<u>Musculoskeletal System & Connective Tissue</u> – Arthropathies and related disorder; dorsopathies; rheumatism (excluding the back); osteopathies; chondropathies and acquired musculoskeletal deformities.

<u>Neoplasms</u> – Malignant neoplasms; benign neoplasms; carcinoma in situ; neoplasms of uncertain behavior and neoplasms of unspecified nature.

<u>Nervous System & Sense Organs</u> – Inflammatory diseases; hereditary and degenerative disease; pain; other headache syndromes; other disorders; disorders of the peripheral nervous system; disorders of the eye and adnexa; diseases of the ear and mastoid process.

<u>Reproductive & Urinary System</u> – Glomerular diseases; renal tubulo-interstitial diseases; acute kidney failure and chronic kidney disease; urolithiasis; other disorders of kidney and ureter; other diseases of urinary system; diseases of the male genital organs; disorders of the breast; inflammatory diseases of female pelvic organs; non-inflammatory disorders of female genital tract; intraoperative and post procedural complications and disorders of genitourinary system not elsewhere specified.

<u>Skin & Subcutaneous Tissue</u> – Infections; other inflammatory conditions; other diseases of skin and subcutaneous tissue.

<u>Unintentional Injury</u> – Any of the following injured in a transport accident: pedestrian, pedal cycle rider, motorcycle rider, occupant of three-wheeled motor vehicle, car occupant, occupant of pick-up truck or van, occupant of heavy transport vehicle, bus occupant. Other land, water, air, space, or other unspecified transport accidents. Exposure to inanimate or animate mechanical forces; accidental non-transport drowning and submersion; exposure to electric current, radiation, extreme ambient air temperature and pressure,

smoke, fire, flames, forces of nature; contact with heat and hot substances, accidental exposure to other specified or unspecified factors.

Key Informant Survey

Total Number of Participants	100
Characteristic	Percentage of Participants
Male	20%
Female	80%
0-17	0%
18-24	1%
25-39	18%
40-54	37%
55-64	31%
65 or older	13%
American Indian/Alaskan Native	0%
Asian/Pacific Islander	1%
African American	4%
Hispanic	11%
White	84%

Focus Groups

Total Number of Participants = 127

Date	Time	Population	Location
9/25 (Fri.)	9:30-11:30am	Older adults (65-74)	Sun City Branch Library
		[n=10]	(16828 N 99th Ave, Sun City, AZ 85351)
9/28 (Mon.)	5:30-7:30pm	Native American adults	Phoenix Indian Center
		(x2) [n=24]	(4520 N Central Ave #250, Phoenix, AZ 85012)
9/29 (Tues.)	5:30-7:30pm	Adults without children	Mesa Main Library
		[n=10]	(64 E. 1 st St., Mesa, AZ 85201)
9/30 (Wed.)	6:00-8:00pm	Lesbian, Gay, Bisexual,	Phoenix Pride LGBT Center
		Transgender, Questioning (LGBTQ) adults [n=6]	(801 N 2nd Ave, Phoenix, AZ 85003)
10/2 (Fri.)	9:00-11:00am	Adults with children	Maryvale Community Center
		under age 18 [Spanish; n=15]	(4420 N. 51st Avenue, Phoenix, AZ, 85031)
10/2 (Fri.)	6:00-8:00pm	Low-income Adults	Sojourner Center
		[Spanish; n=15]	(2330 E Fillmore St, Phoenix, AZ 85006)
10/4 (Sun.)	2:00-4:00pm	Hispanic/Latino adults	Cesar Chavez Library

		[English; n=8]	(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. 32 nd St., Phoenix, AZ 85040)
10/8 (Thurs.)	11:30-1:30pm	LGBTQ adults [n=9]	ASU/SIRC (502 E. Monroe St., Phoenix, AZ 85004)

Stakeholder Meetings

Agencies represented included:

- Chandler Christian Community Center
- Dignity Health
 - o Leadership
 - o Community Board
 - o Community Benefit Committee
- Mission of Mercy
- Chandler Care Center
- Mathew's Crossing
- Marc Community Resources
- Ahwatukee YMCA
- Southwest Behavioral Health
- Chandler/Gilbert YMCA
- Maricopa County Department of Public Health
- Improving Chandler Area Neighborhoods (ICAN)
- Dignity Health East Valley Community Board
- Dignity Health East Valley Community Benefit Committee
- Community Citizens

Appendix B – Primary Data Collection Tools

CHNA Focus Group Questions

Community = where you live, work, and play

Introductions: State your name and what makes you most proud of your community.

- 1. What does quality of life mean to you?
- 2. What makes a community healthy?
- 3. Who are the healthy people in your community?

[Prompts]

- a. What makes them healthy?
- b. Why are these people healthier than those who have (or experience) poor health?
- 4. 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?

[Prompt]

- a. What are the biggest health problems/conditions in your community?
- 5. What types of services or support do you (your family, your children) use to maintain your health?

[Prompt]

- a. Why do you use them?
- 6. Where do you get the information you need related to your (your family's, your children's) health?
- 7. What keeps you (your family, your children) from going to the doctor or from caring for your health?
- 8. What are some ideas you have to help your community get or stay healthy?
- 9. What else do you (your family, your children) need to maintain or improve your health?

[Prompts]

- i. Services, support or information to manage a chronic condition or change health behaviors such as smoking, eating habits, physical activity, or substance use
- ii. Preventive services such as flu shots or immunizations
- iii. Specialty healthcare services or providers
- 10. What resources does your community have that can be used to improve community health?

Community Health Survey

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" refer	s to the major area where yo	ou provide services. Please check one from the followin	ıg
list:			
Northeast (Scottsdale, Carefre	e, Fountain Hills, Cave Creek		
Northwest (Peoria, Surprise, E			
Central (Phoenix, Paradise Vall			
Central west (Glendale, Avond	,,		
Central West (Glendale, Avoid Central East (Tempe, Mesa)	ale, Literineia i arkj		
	oo Cilbout)		
Southeast (Chandler, Ahwatuk	-		
Southwest (Tolleson, Buckeye,	Goodyear)		
Part I: Community Health			
,			
1. Please check the three most i	important factors that you t	hink will improve the quality of life in your community	y?'
Check only three:			
Good place to raise children	Exce	ellent race/ethnic relations	
Low crime / safe neighborhoods	God	d jobs and healthy economy	
Low level of child abuse	Stro	ng family life	
Good schools	Hea	Ithy behaviors and lifestyles	
Access to health care (e.g., famil	ly doctor) Low	adult death and disease rates	
Safe Parks and recreation	Low	infant deaths	
Clean environment	Reli	gious or spiritual values	
Affordable housing		rgency preparedness	
Arts and cultural events		ess to public transportation	
Access to Healthy Food		er	
2. In your oninion, what are the	three most important "hea	Ith problems" that impact your community?	
2. In your opinion, what are the	tinee most important nea	that impact your community:	
Check only three:			
Access to Health care	Heart disease and strok		
Aging problems (e.g., arthritis,	High blood pressure	Respiratory / lung disease	
hearing/vision loss, etc.)	HIV / AIDS	Sexually Transmitted Diseases	
Cancers	Homicide	(STDs)	
Child abuse / neglect	Infant Death	Suicide	
Drug and Alcohol abuse	Infectious Diseases (e.g.	Teenage pregnancy Other	
Dental problems	hepatitis, TB, etc.)	· 	
Diabetes	Mental health problems		
Domestic Violence	Motor vehicle crash inju	ıries	
Firearm-related injuries			

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
Lack of exercise	helmets
Lack of maternity care	Unsafe sex
Poor eating habits	Unsecured firearms
Not getting "shots" to prevent disease	Other
4. If you selected drug abuse in question 3 please s	pecify substances of use here:
you oncome and a made in queenene pressed	poon, 00000000000000000000000000000000000
	
5. How would you rate the overall health of your c	ommunity?
Very unhealthy Unhealthy Somewha	t healthy Healthy Very healthy
	· · ·
Part II: Demographics	
rarem Bemograpmes	
Please answer questions #5-8 so we can see how d	ifferent types of people feel about local health issues.
6. Zip code where you work:	
6. Zip code where you work:	
6. Zip code where you work:	
6. Zip code where you work: 7. Age:	
7. Age: 0-17	
7. Age:0-1718-25	
7. Age:0-1718-2526-39	
7. Age:0-1718-2526-3940-54	
7. Age: 0-17 18-25 26-39 40-54 55-64	
7. Age:0-1718-2526-3940-54	
7. Age: 0-17 18-25 26-39 40-54 55-64	
7. Age: 0-17 18-25 26-39 40-54 55-64	
7. Age: 0-17 18-25 26-39 40-54 55-64 65 or over	
7. Age: 0-17 18-25 26-39 40-54 55-64 65 or over	
7. Age: 0-1718-2526-3940-5455-6465 or over	
7. Age: 0-1718-2526-3940-5455-6465 or over 8. Sex:MaleFemale 9. Ethnic group you most identify with:	
7. Age: 0-1718-2526-3940-5455-6465 or over 8. Sex:MaleFemale 9. Ethnic group you most identify with: African American	Asian/Pacific Islander Hispanic/Latino
7. Age: 0-1718-2526-3940-5455-6465 or over 8. Sex:MaleFemale 9. Ethnic group you most identify with:	Asian/Pacific Islander
7. Age: 0-1718-2526-3940-5455-6465 or over 8. Sex:MaleFemale 9. Ethnic group you most identify with: African American	 .

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

Appendix C –References

- 1. U.S. Census Bureau. (2013). *American Fact Finder fact sheet:* Maricopa County, AZ, Retrieved from http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
- 2. Dignity Health. Community Need Index. http://cni.chw-interactive.org/
- 3. U.S. Census Bureau. (2013). *American Fact Finder fact sheet:* Maricopa County, AZ, Retrieved from http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
- Center for Disease Control and Prevention. (2013). Behavioral Risk Factor Surveillance System survey: Maricopa County, AZ, Retrieved from http://www.maricopa.gov/PublicHealth/Services/EPI/pdf/hsr/2013BRFSS.pdf
- 5. Hebert LE, Weuve J, Scherr PA, Evans DL. Alzheimer disease in the United States (2010–2050) estimated using the 2010 census. Neurology. 2013;80:1778-83.
- 6. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 7. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 8. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 9. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 10. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 11. Centers for Disease Control and Prevention. (2013). *Behavioral Risk Factor Surveillance System survey*: Maricopa County, AZ, Retrieved from http://www.maricopa.gov/PublicHealth/Services/EPI/pdf/hsr/2013BRFSS.pdf
- 12. Arizona Criminal Justice Commission (2014). *Arizona Youth Survey*: Maricopa County. Retrieved from http://azcjc.gov/ACJC.Web/sac/AYS.aspx
- 13. University of Washington. Facts about Mental Illness and Suicide. *Mental Health Reporting*. Retrieved from http://depts.washington.edu/mhreport/facts_suicide.php
- 14. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 15. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.

- 16. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 17. Centers for Disease Control and Prevention. (2013). *Behavioral Risk Factor Surveillance System survey*: Maricopa County, AZ, Retrieved from http://www.maricopa.gov/PublicHealth/Services/EPI/pdf/hsr/2013BRFSS.pdf
- 18. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 19. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 20. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 21. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 22. National Cancer Institute. Cancer Statistics. Retrieved from http://www.cancer.gov/about-cancer/what-is-cancer/statistics
- 23. Health Improvement Partnership of Maricopa County. http://www.hipmcsummit.org/index.php
- 24. Arizona Department of Health Services. Arizona Medically Underserved Areas. Retrieved from http://www.azdhs.gov/hsd/shortage/azmua.htm
- 25. Dignity Health. Community Need Index. http://cni.chw-interactive.org/
- 26. Kindig, D., & Stoddart G. (2003). What is population health? American Journal of Public Health. *93*, 380-383.
- 27. Evans, R. G., & Stoddart, G. L. (1990). Producing health, consuming health care. Social Science and Medicine, *31*, 1347-1363.
- 28. Boothe, Sinha, Bohm, & Yoon (2013). Community health assessment for population health improvement; resource of most frequently recommended health outcomes and determinants. Centers for Disease Control and Prevention (U.S.), Office of Surveillance, Epidemiology, and Laboratory Services.
- 29. U.S. Census Bureau. (2013). *American Fact Finder fact sheet:* Maricopa County, AZ, Retrieved from http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
- 30. U.S. Census Bureau. (2013). *American Fact Finder fact sheet:* Maricopa County, AZ, Retrieved from http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
- 31. Centers for Disease Control and Prevention. (2013). *Behavioral Risk Factor Surveillance System survey*: Maricopa County, AZ, Retrieved from http://www.maricopa.gov/PublicHealth/Services/EPI/pdf/hsr/2013BRFSS.pdf
- 32. Centers for Disease Control and Prevention. (2013). *Behavioral Risk Factor Surveillance System survey:*Maricopa County, AZ, Retrieved from
 http://www.maricopa.gov/PublicHealth/Services/EPI/pdf/hsr/2013BRFSS.pdf
- 33. Hebert LE, Weuve J, Scherr PA, Evans DL. Alzheimer disease in the United States (2010–2050) estimated using the 2010 census. Neurology. 2013;80:1778-83.

- 34. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 35. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 36. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 37. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 38. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 39. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 40. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 41. County Health Rankings and Roadmaps. (2011). Poor Mental Health days: Maricopa County, Retrieved from http://www.countyhealthrankings.org/app/arizona/2013/measure/outcomes/42/description
- 42. National Institute of Mental Health. (2013). Any Mental Illness Among Adults. Retrieved from http://www.nimh.nih.gov/health/statistics/prevalence/any-mental-illness-ami-among-adults.shtml
- 43. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 44. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 45. Centers for Disease Control and Prevention. Excessive Drinking Costs U.S. \$223.5 Billion. www.cdc.gov/features/alcoholconsumption/. Updated April 17, 2014. Accessed March 9, 2015.
- 46. NSDUH (formerly known as the National Household Survey on Drug Abuse) is an annual survey of Americans aged 12 and older conducted by the Substance Abuse and Mental Health Services Administration, Department of Health and Human Services
- 47. Centers for Disease Control and Prevention. (2013). *Behavioral Risk Factor Surveillance System survey*: Maricopa County, AZ, Retrieved from http://www.maricopa.gov/PublicHealth/Services/EPI/pdf/hsr/2013BRFSS.pdf

- 48. Arizona Criminal Justice Commission (2014). *Arizona Youth Survey*: Maricopa County. Retrieved from http://azcjc.gov/ACJC.Web/sac/AYS.aspx
- 49. Arizona Criminal Justice Commission (2014). *Arizona Youth Survey*: Maricopa County. Retrieved from http://azcjc.gov/ACJC.Web/sac/AYS.aspx
- 50. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 51. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 52. University of Washington. Facts about Mental Illness and Suicide. *Mental Health Reporting*. Retrieved from http://depts.washington.edu/mhreport/facts_suicide.php
- 53. Llgen, M. and Kleinberg, F. (2011). The link between substance abuse, violence and suicide. *Psychiatric Times*. Retrieved from http://www.psychiatrictimes.com/substance-use-disorder/link-between-substance-abuse-violence-and-suicide
- 54. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 55. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 56. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 57. Centers for Disease Control and Prevention. (2013). *Behavioral Risk Factor Surveillance System survey*: Maricopa County, AZ, Retrieved from http://www.maricopa.gov/PublicHealth/Services/EPI/pdf/hsr/2013BRFSS.pdf
- 58. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 59. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 60. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 61. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 62. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.

- 63. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 64. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 65. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 66. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 67. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 68. Arizona Administrative Code (A.A.R.) Title 9. Health Services, Chapter 11. Department of Health Services, Health Care Institution Facility Data, Article 4. Hospital Inpatient Discharge Reporting (R9-11-402) and Article 5. Emergency Department Discharge Reporting (R9-11-502) requires all hospitals to submit their data to ADHS.
- 69. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 70. U.S. Cancer Statistics Working Group. United States Cancer Statistics: 1999–2012 Incidence and Mortality Web-based Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2015. Available at: www.cdc.gov/uscs.
- 71. National Cancer Institute. Cancer Statistics. Retrieved from http://www.cancer.gov/about-cancer/what-is-cancer/statistics
- 72. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 73. Arizona Administrative Code Title 9. Health Services, Chapter 19. Department of Health Services, Vital Records and Statistics, Article 1. Administrative Organization, Duties, and Procedures. R9-19-104 Duties of local registrars; Promptly register every properly completed certificate received.
- 74. National Cancer Institute. Cancer Statistics. Retrieved from http://www.cancer.gov/about-cancer/what-is-cancer/statistics
- 75. National Cancer Institute. State and County Profiles, Centers for Disease Control and Prevention (CDC)
- 76. National Cancer Institute. State and County Profiles, Centers for Disease Control and Prevention (CDC)
- 77. Health Improvement Partnership of Maricopa County. http://www.hipmcsummit.org/index.php