

# Mohave County Department of Public Health



## Health Impact Assessment Bullhead City Rotary Park 2014

This page intentionally left blank.

## Table of Contents

<b><u>List of Figures and Tables</u></b>	ii
<b><u>Executive Summary</u></b> . . . . .	1
<b><u>Acknowledgements</u></b> . . . . .	2
<b><u>Key HIA Concepts &amp; Terms</u></b> . . . . .	3
<b><u>Introduction: The Effect of Land Use on Health</u></b> . . . . .	4
<b><u>What is a Health Impact Assessment (HIA)</u></b> . . . . .	6
<b><u>Population and Demographics</u></b> . . . . .	8
<b><u>Background Information on Bullhead City</u></b> . . . . .	9
Obesity . . . . .	9
Physical Activity . . . . .	10
Health Status and Chronic Disease . . . . .	10
<b><u>Scoping</u></b> . . . . .	12
Pathway Diagram . . . . .	13
<b><u>Assessment</u></b> . . . . .	14
Increased Sense of Community . . . . .	14
Increased Physical Activity . . . . .	16
Increased Foot & Bike Traffic . . . . .	19
Increased Vehicular Traffic . . . . .	20
Increased Noise & Light Pollution . . . . .	21
<b><u>Discussion and Conclusions</u></b> . . . . .	22
<b><u>Recommendations for Implementation</u></b> . . . . .	23
<b><u>References</u></b> . . . . .	26
<b><u>Appendices</u></b>	
Selected Survey Respondent Comments . . . . .	32

## List of Figures and Tables

<b><u>Figure 1:</u></b> Factors That Influence Health . . . . .	5
<b><u>Figure 2:</u></b> Health Impact Assessment Study Area Map. . . . .	7
<b><u>Figure 3:</u></b> Percentage of Adults Who are Obese (BMI >30), 2006-2012. . . . .	10
<b><u>Figure 4:</u></b> Percent of Adults Who are Physically Inactive, 2010. . . . .	10
<b><u>Figure 5:</u></b> Heart Disease Death Rate (per 100,000), 2008-2010 . . . . .	11
<b><u>Figure 6:</u></b> Stroke Death Rate (per 100,000), 2008-2010 . . . . .	11
<b><u>Figure 7:</u></b> Percent of Adults With Diabetes, 2010. . . . .	11
<b><u>Figure 8:</u></b> Pathway Diagram. . . . .	13
<b><u>Figure 9:</u></b> Would Addition of Athletic Fields to Rotary Park Increase Sense of Community? HIA Survey, 2014. . . . .	15
<b><u>Figure 10:</u></b> Did Not Attend Physical Education Classes 1 or More Days, 2013. . . . .	17
<b><u>Figure 11:</u></b> Played video/computer games or used computer 3 or more hrs/day, 2013. . . . .	18
<b><u>Figure 12:</u></b> Which Would Increase Likelihood Using Rotary Park, HIA Survey, 2014 . . . . .	18
<b><u>Figure 13:</u></b> How Do You Access Rotary Park, HIA Survey, 2014 . . . . .	20
<b><u>Table 1:</u></b> Bullhead City Population & Demographics, US Census. . . . .	8

## Executive Summary

### Background

In a September 2013 meeting between the Mohave County Department of Public Health (MCDPH) and a member of the Mohave County Board of Supervisors, it was learned that an expansion of Rotary Park in Bullhead City was planned which would include development of approximately 38 acres to include additional soccer, football, and baseball fields and parking. In the following weeks, the MCDPH applied for and was awarded a \$20,000 grant to work on the Public Health in Action initiative. A Rapid Health Impact Assessment (HIA) was proposed to be conducted under the grant, which presented a great opportunity to consider the health impacts of the prospective park expansion.

The HIA for this project has given the Department an opportunity to engage key stakeholders and the community and to formulate data-driven recommendations that consider the value of community health. The objective of this HIA is to provide decision makers with facts and recommendations they need to make informed decisions that will contribute to positive health outcomes when considering the expansion of the park and surrounding infrastructure. Additionally, it has provided an avenue for fostering relationships between the key stakeholders and the Department which will undoubtedly result in productive future partnerships and collaborations.

### Conclusions

The Bullhead City Rotary Park HIA concludes that the current plans the City and other non-profit groups have for this park will continue to promote physical activity. In fact, the plans will potentially increase the number of people that use the park for physical activity – youth and adults alike. There are several recommendations that will improve the safety and accessibility of community members using the park, and for surrounding neighborhoods.

### Recommendations

Recommendations for the expansion of Rotary Park were made based on feedback from stakeholders, input from major players in the future of Bullhead City and observations made by the HIA team. Recommendations include [addition of athletic fields](#), [connection of bike paths and sidewalks](#), [addition of a centrally-located public transit stop](#), [addition of crosswalks](#), [installation of distance markers](#) and [fitness stations along walking paths](#), [addition of signs pertaining to dogs at large](#), [consideration of noise and light pollution](#) and [designation of safe swimming areas along the beaches](#). More detail regarding these recommendations is found on page 23 of this report.

## Acknowledgements

### Health Impact Assessment Team

Rachel C. Patterson, RS, REHS, Environmental Health Manager

Stacey Meier, RS, RN, Environmental Health Specialist II

Mohave County Department of Public Health would like to express its appreciation for the following individuals and agencies that were instrumental in collection of data, input and expertise.

#### Arizona Department of Health Services

Michele Scanze, MPH, Community Planner  
Cynthia Melde, Nutrition & Physical Activity Manager  
Deborah Robinson, Chief, Community Innovations

#### Bullhead City School District #15

Riley Frei, Superintendent  
Benje Hookstra, Assistant Superintendent

#### City of Bullhead City

Susan Betts, Human Services/Transit Director  
Dave Heath, Recreation Manager  
Robert Bower, Police Communications Coordinator  
Pawan Agrawal, Public Works Director/City Engineer

#### Mohave County Board of Supervisors

Hildy Angius, Supervisor, District 2  
Steve Moss, Supervisor, District 5

#### Mohave County Department of Public Health

Patty Mead, Health Director  
Jennifer McNally, Assistant Health Director  
Susan Williams, Community Health Education Specialist Senior  
Jacqueline Larson, Community Health Education Specialist I

#### Project for Livable Communities

Dean Brennan, FAICP, Principal

#### Sonoran Institute

Mia Stier, Communications Specialist

#### Western Arizona Council of Governments

Michele Walker, Transportation Planner

## Key HIA Terms and Concepts

### Acronyms

<b>CDC</b>	Centers for Disease Control and Prevention
<b>EHD</b>	Environmental Health Division
<b>HIA</b>	Health Impact Assessment
<b>HiAP</b>	Health in All Policies
<b>MCDPH</b>	Mohave County Department of Public Health
<b>WHO</b>	World Health Organization

### Glossary

**Health:** A state of complete physical, mental and social well-being, not merely the absence of disease or infirmity.

**Health impact:** Any change in the health of a population or any change in the physical, natural or social environment that has a bearing on public health

**Health Impact Assessment:** HIA is a systematic process that uses an array of data sources and analytic methods in addition to input from stakeholders to determine the potential effects of a policy, plan, program, or project on the health of a population and the distribution of the effects within the population. HIA provides recommendations on monitoring and managing those effects.

**Stakeholder:** Any individual or group that will be affected by the outcome of a decision. Stakeholders may include the affected community or specific interest groups, individuals, or organizations that have an economic stake in the outcome and the proponents of a project.

## Introduction: The Intersection of Land Use, Obesity and Physical Activity

The effect of land use on public health is not a new concept. In 1926, the U.S. Supreme Court recognized zoning ordinances as a proper exercise of the state's police power to protect community health and safety (Ransom, 2011). Since then, land use planning has been a key part in protecting people from exposure to pollutants and unsanitary conditions that pose serious health risks.

While environmental hazards, such as flooding and extreme heat, especially in Bullhead City, remain serious issues, chronic diseases, such as heart disease, stroke and diabetes, pose a far greater health risk. Physical inactivity and obesity are major risk factors for these diseases and drive the chronic disease epidemic. The Centers for Disease Control and Prevention (CDC) reports that more than one-third of U.S. adults and approximately 17%, or 12.5 million, children and adolescents aged 2 – 19 years are obese. Looking more locally, according to the CDC (2012), 31.7 % of Mohave County adults are obese compared to a state average of 25.7%. Nearly one in three deaths in the U.S. each year is caused by heart disease and stroke; at least 200,000 of these deaths could have been prevented through changes in health habits (CDC VS, 2013).

Treating these conditions is very expensive. Obesity costs the United States about \$150 billion a year, or almost 10% of the national medical budget (CDC, 2014). For sustainable solutions to address physical inactivity and obesity, communities must look upstream, where these health conditions are prevented rather than treated. The question becomes 'how can the healthy choice, such as being physically active, become the easy choice for community members?'

Preventing obesity and physical inactivity is multi-factorial and requires collaboration from non-traditional health partners. A growing body of research from the transportation, planning and health fields tells us that community design can encourage healthy behaviors, making it easier for residents to lead healthy and active lives. The built environment includes the physical form of communities such as urban design (how a city is designed; its physical appearance and arrangement), land use patterns (how land is used for commercial, residential and other activities), and the transportation system (the facilities and services that link one location to another) (USDHHS, 2012). Changes in this built environment are important because if designed properly, they allow for an increase in physical activity levels for adults and youth.

The features of the built environment most relevant to physical activity in youth include parks and recreation facilities, transportation systems, and community development patterns. Research suggests that youth active transportation (i.e., walking or biking to school or other destinations) is influenced by aspects of the built environment, including neighborhood walkability, provision of sidewalks, and reasonable distances for youth to walk or bike to school (USDHHS, 2012).

Evidence suggests that changes in the following may increase activity in children:

- Increasing access to, density of, and proximity to parks and recreation facilities.
- Improving walking and biking infrastructure, such as sidewalks, multi-use trails, and bike lanes.

- Improving pedestrian safety structures, such as traffic lights and crosswalks.
- Increasing vegetation, such as trees along streets (USDHHS, 2012).

The Physical Activity objectives for Healthy People 2020 highlight how physical activity levels are positively affected by structural environments, such as the availability of sidewalks, bike lanes, trails, and parks, and legislative policies that improve access to facilities that support physical activity (HealthyPeople.gov, 2014).

The purpose of this report is to assess how one community planning effort – the addition of athletic fields to Rotary Park – can help create a health-supportive environment in Bullhead City. Figure 1 shows how health can be viewed from a broad perspective during an HIA by showing factors that influence health.

In partnership with Bullhead City, Arizona Department of Health Services (ADHS) and MCDPH an HIA has been integrated into part of the planning process of the Rotary Park expansion. The HIA took place between October of 2013 and April of 2014. Figure 2 depicts the expansion areas within Rotary Park which includes additional soccer, baseball and football fields as well as more parking.

**Figure 1: Factors that Influence Health**

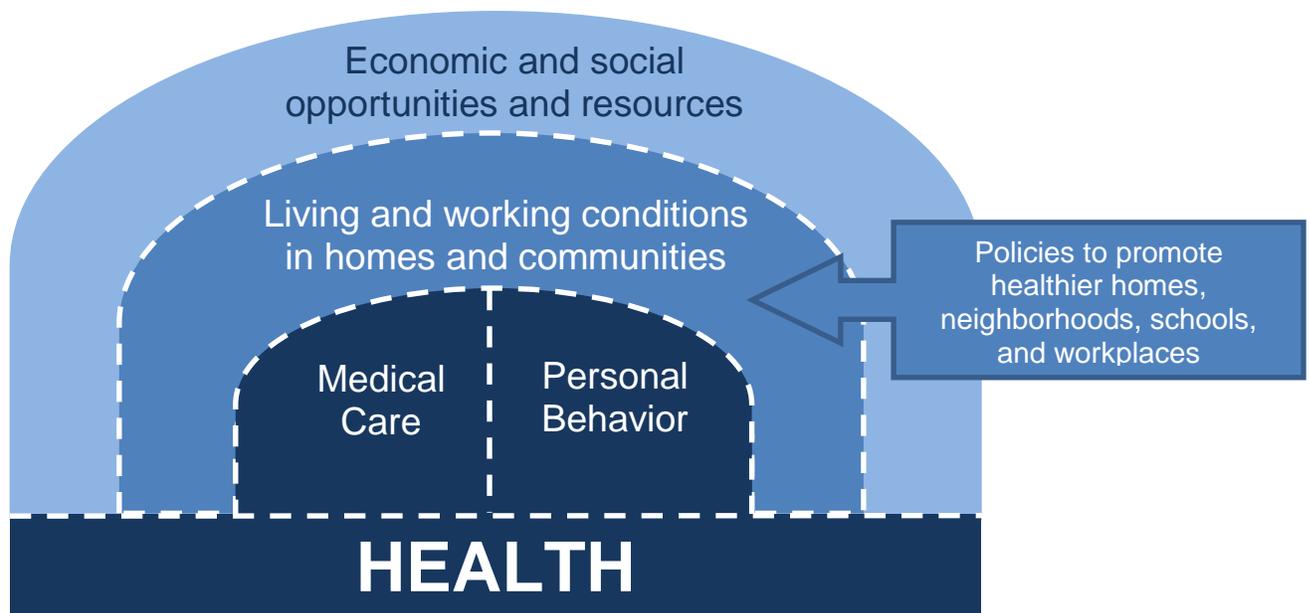


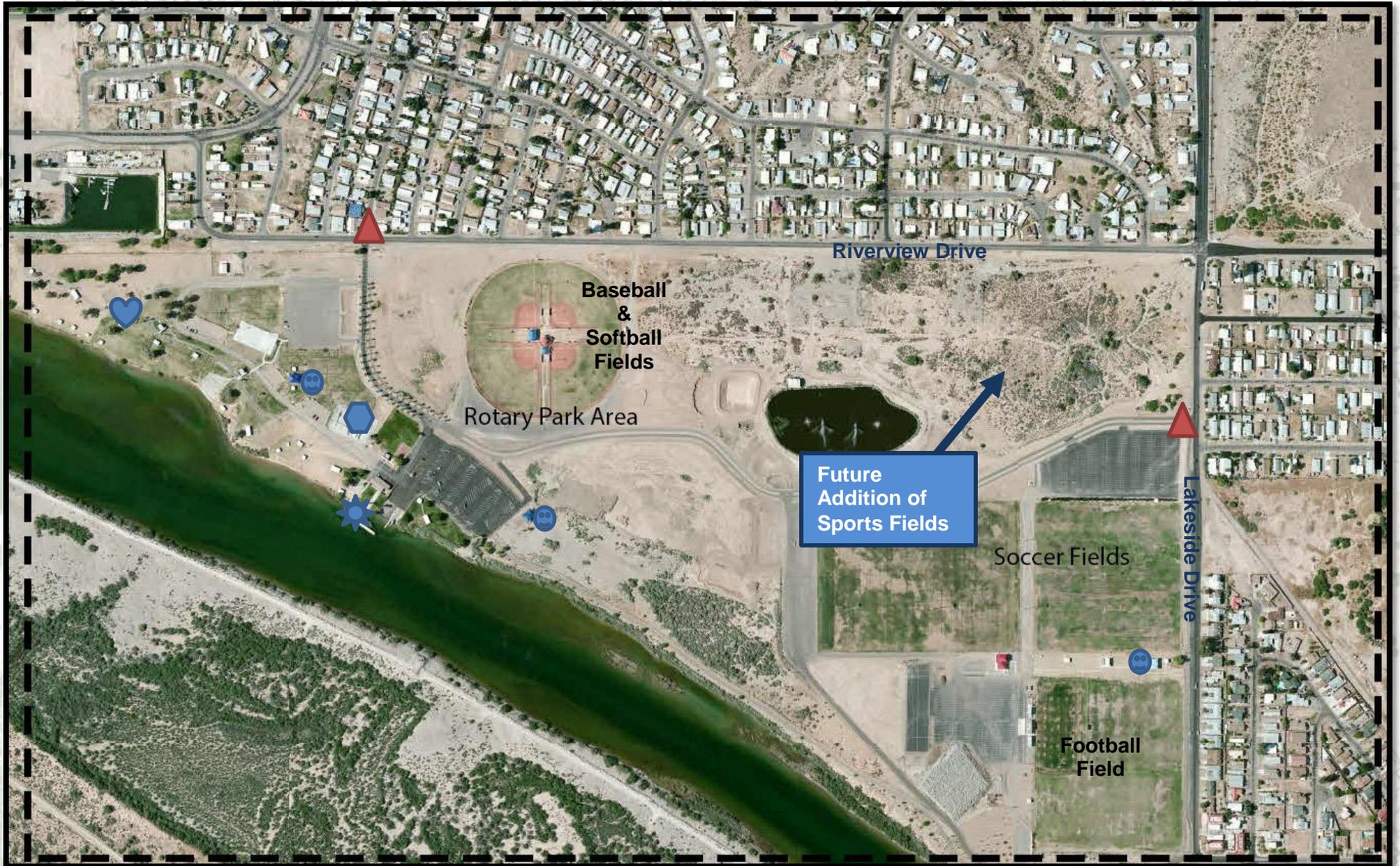
Figure 1 based on graphic found at: Lytton, 2013, <http://ajpmonline.wordpress.com/2013/11/27/social-determinants-of-health-us-and-them/>

## What is a Health Impact Assessment?

According to the World Health Organization, a Health Impact Assessment (HIA) assesses how policy, future plans, or projects will impact the health of the surrounding community. It is meant to aid decision-makers and promote health in all policies. While HIAs have been applied to a variety of decisions, they have been used extensively with community design related decisions. An HIA uses quantitative, qualitative and participatory analysis in order to make final recommendations to decision-makers. Below is an outline of the six steps in the HIA process (Health Impact Project, 2011):

1. **Screening:** The project is identified and determination is made as to whether performing an HIA will add value to a project. This step in the process will ask what decision needs to be made, how the decision will affect the community's health, whether the HIA will provide new information for decision makers and if there are enough resources to complete the HIA.
2. **Scoping:** Development of objectives and formulation of steps staff will take to identify what health effects the HIA will study is completed; identifying who will be affected by the project and stakeholder involvement is key during the scoping process to gather input and concerns about the pending project
3. **Assessment:** Information on the existing health of the population that will be affected by the decision will be gathered then analyzed in an attempt to describe what is causing these health issues and what the effects of the final decision will be on the population's health.
4. **Recommendations:** By providing an analysis of existing and potential future impacts of the decision, recommendations can be made that outline both the positive and negative impacts of the decision and provide alternatives to remedy negative effects. Further, the recommendations could simply encourage the project and provide back-up for proceeding with the project if the health effects will be positive. The recommendations may also outline what health effects should be monitored in the future.
5. **Reporting:** The draft report is given to the key decision-makers and/or stakeholders and comments on the report are requested. A final report is drafted and distributed to the key policy and decision makers.
6. **Monitoring and Evaluation:** Changes in health are evaluated as the project/decision and recommendations of the assessment are employed.

Figure 2: Health Impact Assessment Study Area



-  Entrance
-  Skate Park
-  Boat Launch
-  Playground
-  Dog Park

## Bullhead City Population & Demographics

**Table 1**

People QuickFacts	Bullhead City	Arizona
Population, 2012 estimate	39,571	6,551,149
Population, 2010 (April 1) estimates base	39,540	6,392,015
Population, percent change, April 1, 2010 to July 1, 2012	0.1%	2.5%
Population, 2010	39,540	6,392,017
Persons under 5 years, percent, 2010	5.4%	7.1%
Persons under 18 years, percent, 2010	19.6%	25.5%
Persons 65 years and over, percent, 2010	23.9%	13.8%
Female persons, percent, 2010	50.6%	50.3%
White alone, percent, 2010 (a)	81.9%	73.0%
Black or African American alone, percent, 2010 (a)	1.3%	4.1%
American Indian and Alaska Native alone, percent, 2010 (a)	1.1%	4.6%
Asian alone, percent, 2010 (a)	1.4%	2.8%
Native Hawaiian and Other Pacific Islander alone, percent, 2010 (a)	0.1%	0.2%
Two or More Races, percent, 2010	3.0%	3.4%
Hispanic or Latino, percent, 2010 (b)	23.7%	29.6%
White alone, not Hispanic or Latino, percent, 2010	71.1%	57.8%
Living in same house 1 year & over, percent, 2008-2012	74.6%	80.4%
Foreign born persons, percent, 2008-2012	9.9%	13.6%
Language other than English spoken at home, pct age 5+, 2008-2012	15.8%	26.9%
High school graduate or higher, percent of persons age 25+, 2008-2012	81.4%	85.4%
Bachelor's degree or higher, percent of persons age 25+, 2008-2012	13.1%	26.6%
Veterans, 2008-2012	5,696	530,693
Mean travel time to work (minutes), workers age 16+, 2008-2012	18.2	24.6
Housing units, 2010	23,464	2,844,526
Homeownership rate, 2008-2012	63.2%	65.5%
Housing units in multi-unit structures, percent, 2008-2012	15.8%	20.6%
Median value of owner-occupied housing units, 2008-2012	\$112,200	\$175,900
Households, 2008-2012	16,739	2,357,158
Persons per household, 2008-2012	2.36	2.66
Per capita money income in past 12 months (2012 dollars), 2008-2012	\$20,741	\$25,571
Median household income, 2008-2012	\$37,770	\$50,256
Persons below poverty level, percent, 2008-2012	21.2%	17.2%

Geography QuickFacts	Bullhead City	Arizona
Land area in square miles, 2010	59.38	113,594.08
Persons per square mile, 2010	665.9	56.3
FIPS Code	8220	4
Counties	Mohave County	

Source: US Census Bureau State & County QuickFacts 2010

## Background Information on Bullhead City

Originally founded in the 19<sup>th</sup> century as a small frontier town named “Hardyville,” offering a ferry service across the Colorado River, Bullhead City now has a population of 39,540 (2010 U.S. Census). Incorporated in 1984, the city’s main economic resource is tourism. Today, 20% of its residents are under the age of 18 and 24% over the age of 65. There is a relatively high poverty rate at 21%, with 7% of households having no access to vehicles and 46% with only one vehicle available (American Fact Finder, 2012).

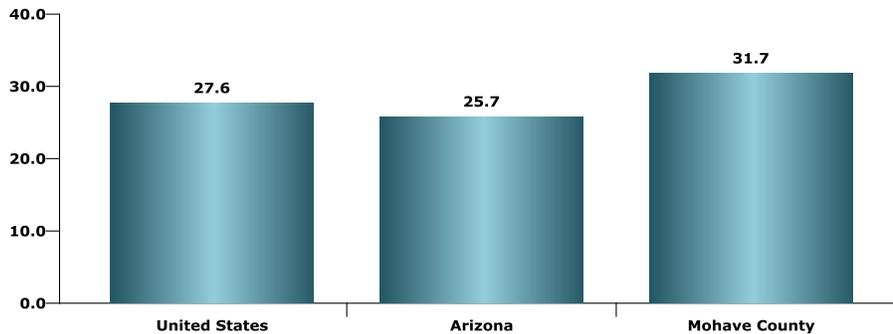
Bullhead City has approximately 21 acres of parkland per 1,000 residents. Due to the high poverty rate among the Bullhead City residents and the demand for more space for athletic events for both youth and adults, it is imperative that these parks are readily available to all community members as many of them may not have any other opportunity for physical activity or interaction.

The Rotary Park soccer fields were developed in the early 1990’s with expansions of the park taking place in 1995 and in 2011. The Rotary Club has been extremely instrumental in the development (hence, the name) along with the contributions of other local organizations. The goal of this HIA is to aid developers and planners in the decisions that will be made as the newest expansion of Rotary Park takes place. Stakeholders were comprised of members of the surrounding community, and included key decision makers at the City and County levels as well as other organizations that may have influence. Stakeholders were engaged via phone calls, in-person interviews and mailed surveys. Baseline information was gathered in preparation for stakeholder engagement, specifically, on obesity rates, physical activity and fitness and health status in Arizona, Mohave County and Bullhead City. While the target population is, of course, Bullhead City, with the subpopulation being the communities surrounding Rotary Park, specific data was not always available for these populations. Therefore, the following data are general for Arizona and Mohave County. If the data is specific to Bullhead City, it is clearly noted.

### **Obesity**

Obesity is defined as an excessively high amount of body fat or adipose tissue in relation to lean body mass. An adult is considered obese if his or her body mass index (BMI), a calculation based on an individual’s weight and height, is 30 or higher (TFAH, 2012). Obesity is considered a chronic health condition and can be influenced by several factors such as the individual’s behavior, environmental elements, and genetics. The Healthy People 2020 goal is simply to “reduce the proportion of adults who are obese.”

**Figure 3** **Percent of Adults Who are Obese (BMI>30), 2006-2012**



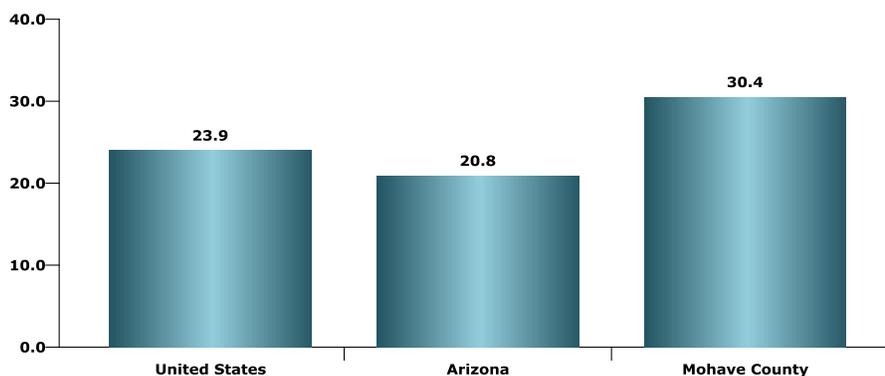
Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2012

### Physical Activity and Fitness

The following graph represents the percentage of adults aged 18 and older who self-report minimum physical activity (Health Information Warehouse/BRFSS, 2010). The question asked, “During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?” Inadequate physical activity can lead to obesity and cardiovascular disease. The Healthy People 2020 goal is to “improve health, fitness, and quality of life through daily physical activity.”

**Figure 4**

**Percent of Adults Who are Physically Inactive 2010**



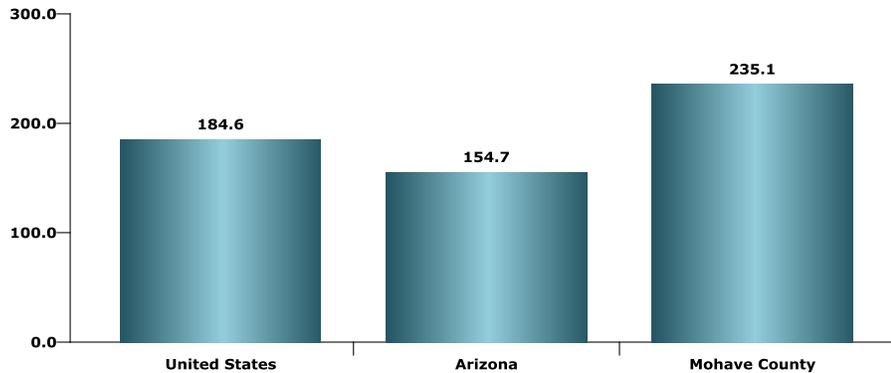
Data source: HIW/Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2010

### Health Status and Chronic Disease

The following graphs represent death rates contributed to heart disease and stroke and diabetes prevalence of adults in Mohave County. The Healthy People 2020 goal is to reduce the rate of coronary heart disease deaths to 103.4 and stroke deaths to 34.8 (per 100,000). In addition, a goal was set to reduce the disease and economic burden of diabetes mellitus (DM) and improve the quality of life for all persons who have, or are at risk for, DM (Healthypeople.gov, 2014).

Figure 5

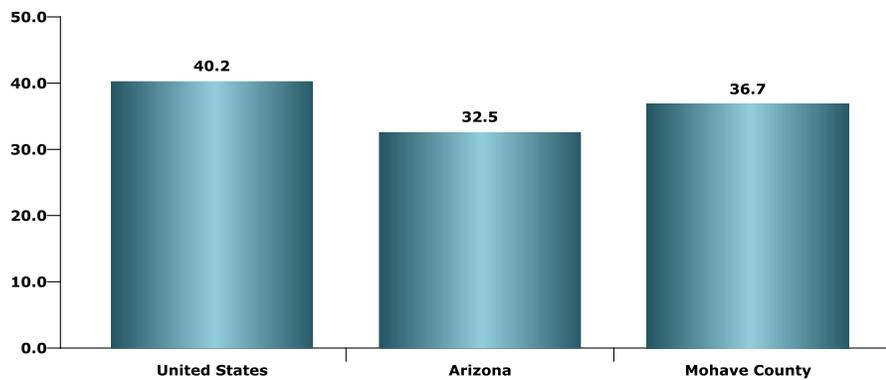
**Heart Disease Death Rate (per 100,000),  
2008-2010 Age-Adjusted**



Data source: HIW/Centers for Disease Control and Prevention, National Vital Statistics System-Mortality (NVSS-M) 2008-2010

Figure 6

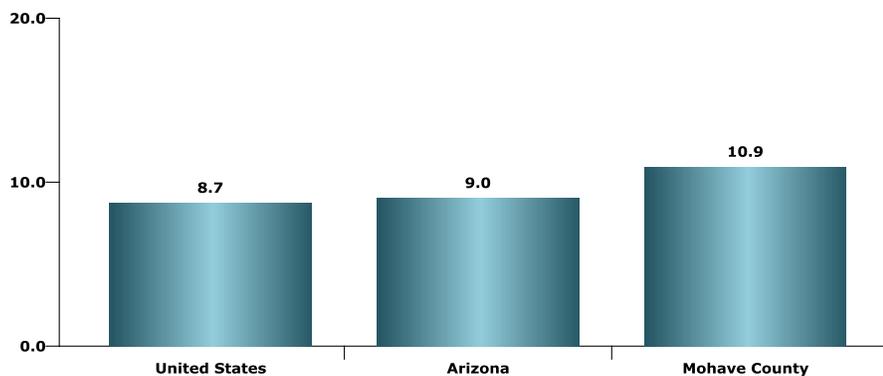
**Stroke Death Rate (per 100,000),  
2008-2010 Age-Adjusted**



Data source: HIW/Centers for Disease Control and Prevention, National Vital Statistics System-Mortality (NVSS-M) 2008-2010

Figure 7

**Percent of Adults With Diabetes  
2010**



\*Indicates adults with Type II diabetes which is often diagnosed in those who are overweight or don't exercise. This is in contrast with Type I diabetes which is most often diagnosed in children and young adults and is an immune system disorder.

Data source: HIW/Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2010

## Scoping

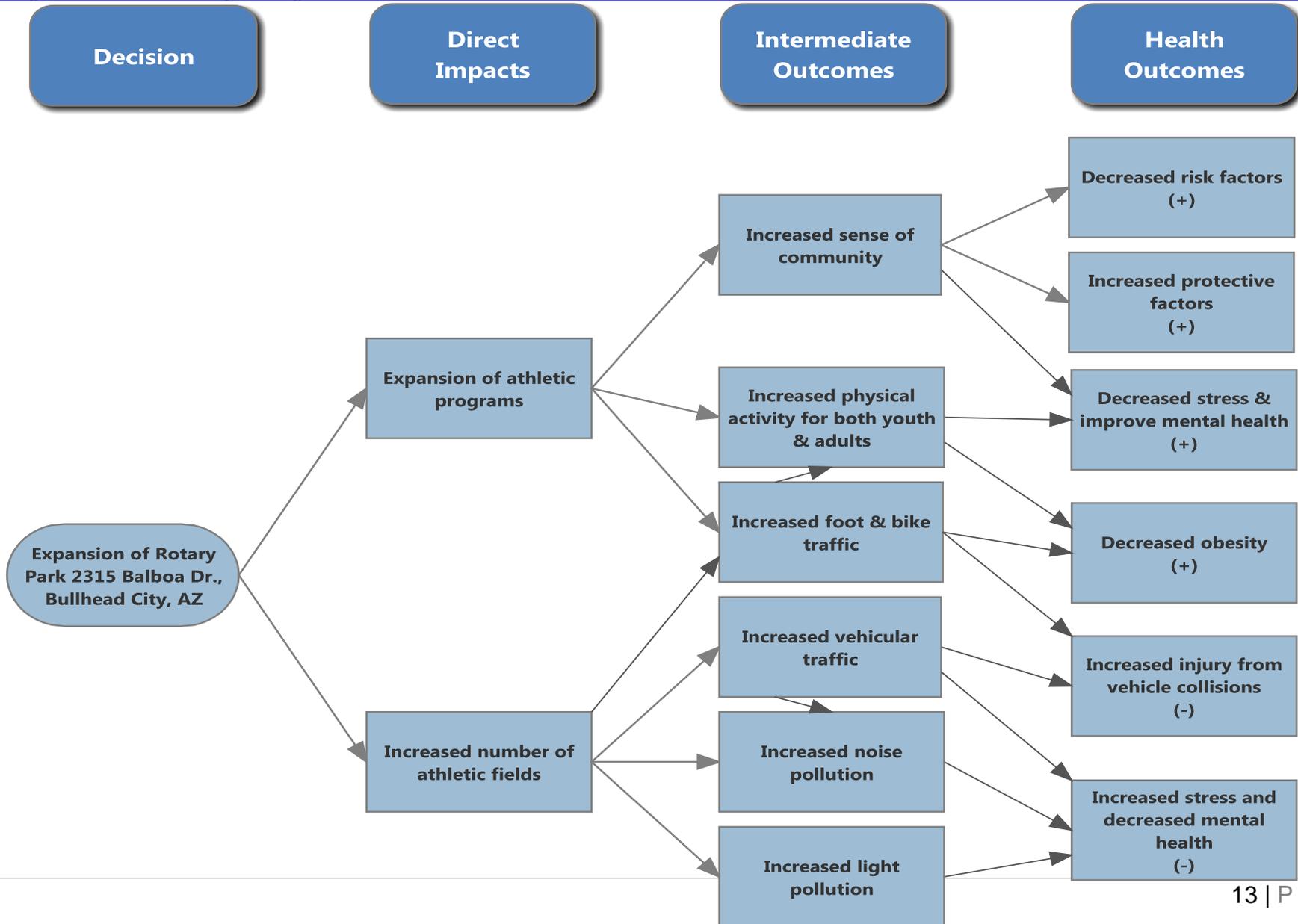
As part of the scoping process, a pathway diagram (Figure 8) was developed during an HIA training with varied input from other stakeholders allowing MCDPH to gather multiple perspectives on the project. The pathway diagram assists in visualizing potential health outcomes, positive and negative, that might be expected from the park expansion.

The pathway diagram begins by identifying the decision that needs to be made - in this case, whether an expansion of Rotary Park should be pursued. It then moves to the obvious or direct impacts of the proposed park expansion. Direct impacts identified are the expansion of athletic programs and the increase in the number of athletic fields. The logic model then looks at intermediate outcomes or what will happen as a result of the direct impacts. There are six listed in this particular diagram. The reader can see how the direct impacts result in intermediate outcomes and which of those have an effect on each other.

Finally, the health outcomes are considered based on the intermediate outcomes. This is where the park planners can actually visualize in simple terms what health effects, both positive and negative, can be expected based on the decisions proposed

The intermediate outcomes are discussed in more depth in the following pages.

**Figure 8: Pathway Diagram**



## Assessment

### Increased Sense of Community

Webster defines community as a unified body of individuals. In the past, one's community served an important role in terms of providing companionship and support. However, our society is moving faster and becoming more detached due to technology, busy schedules and the ability to relocate, making it more difficult to feel a sense of community. Isolation begins and certain populations tend to create a sense of loneliness and depression, which can lead to the increase in risk-based behaviors such as alcohol consumption, tobacco use and drug abuse.

The idea of community may simply come down to supporting and interacting positively with other individuals who share a common interest such as:

- Participating in community events
- Joining a club or sports team
- Walking in your neighborhood

A strong community benefits an individual and increases that person's sense of belonging, making him more likely to lead a happier and healthier life. Strong communities generate a more stable and supportive society. An increase in a sense of community also increases protective factors for both adults and youth. Protective factors may be a strong tie to family, friends, school, church, community, and a clear moral code.

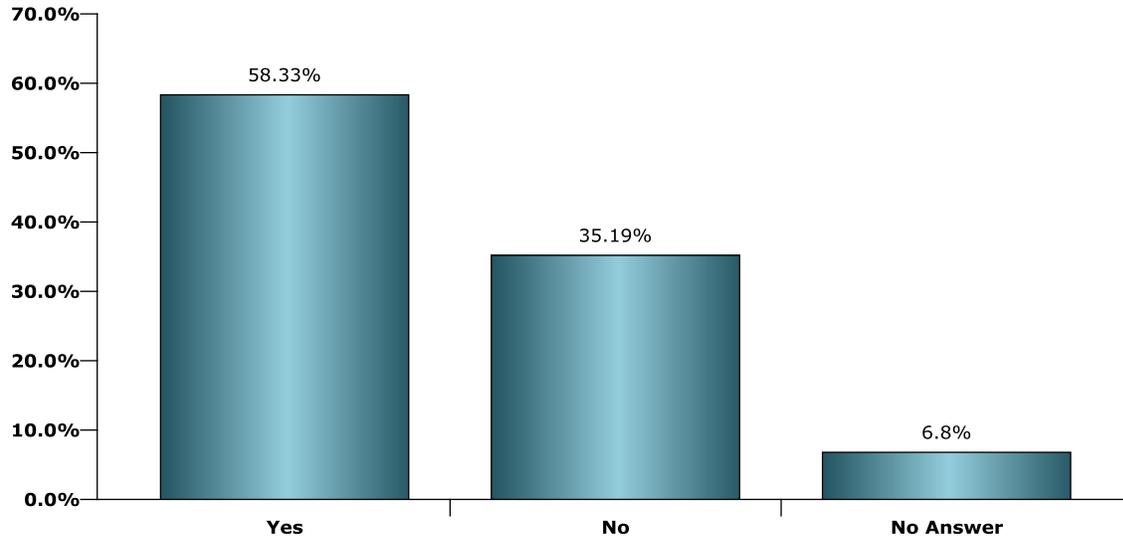
Based on the scoping process, the HIA team was able to gather information related to whether the residents believed addition of athletic fields at Rotary Park would add to their sense of community. Fifty-eight percent of the respondents believed this expansion would have a positive impact (Figure 9). Further, the existing fields are able to accommodate at least 1,000 kids playing soccer each year (with effective planning). This number accounts for only one league and demand for field space continues to increase each year. From speaking with community leaders, including members of the American Youth Soccer Organization and the Manager of the Recreation and Community Services Department in Bullhead City, it is clear that after the fields are added, the park will be able to handle many more youth and adult athletic events.

In addition to the athletic events, multiple community events are held at this park throughout the year that give child and adult both an opportunity to get out into their community and take part. The Recreation Manager for Bullhead City estimates the park has just over 60,000 visitors per year, excluding special events which could potentially push this number to over 100,000. Events range from large city events to smaller, local club outings and fundraisers (Rotary Club, churches, soccer, baseball and softball leagues, Bullhead City Disc Golf Society, schools, Special Olympics, and more). It is adjacent to the Colorado River which is a major draw for organizers. Published data indicate that parks are one of the easiest and most cost effective ways to improve both a sense of community and well-being. They provide a place where the residents of a community can engage with each other, and work together toward common goals, whether that be getting into shape, athletics, fundraising or other events

(American Planning Association, 2002). Expansion of the services at this park will result in more opportunities for residents to feel engaged in the community, thereby increasing protective factors.

Figure 9

### Would Addition of Athletic Fields to Rotary Park Increase the Sense of Community?



Source: 2014 HIA Survey Data. Rotary Park Expansion

## Increased Physical Activity – Youth & Adult

Obesity rates continue to grow as physical activity among the population decreases and/or the consumption of food increases. The benefits of physical activity are well-known. It helps to promote healthy heart and lung function, prevents certain forms of cancer, lowers stress levels, controls weight, strengthens muscles and bones, and contributes to longevity. The benefits, too numerous to list, point to the fact that the more active you are, the healthier you are physically, emotionally and mentally (Harvard, 2014).

The Surgeon General recommends that adults 18 and over accumulate a minimum of 150 minutes of moderate intensity physical activity per week. But, even with so many health benefits associated with physical activity, inactivity rates have skyrocketed.

- 20.8% of adults in Arizona and 30.4% of adults in Mohave County are physically inactive (BRFSS, 2010)
- Less than 30% of high school students are physically active at least 60 minutes per day (CDC, 2014)
- 60% of high school students in Arizona did not go to a physical education class at least once per week compared with 52% nationally (Figure 10) (CDC, 2013)
- Almost 40% of high school students played video or computer games or used a computer (other than required school work) for three or more hours per day (Figure 11) (CDC, 2013)

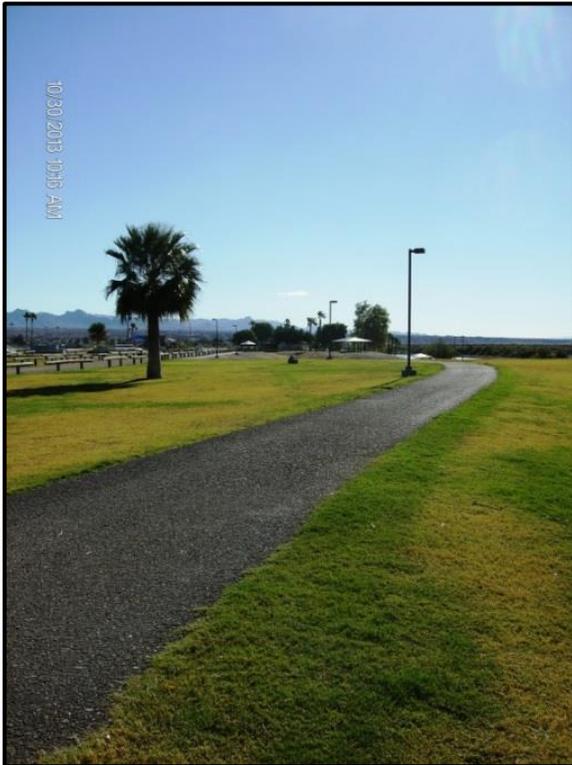
Paralleling and intertwined with the physical inactivity epidemic is the obesity epidemic. Decreased physical activity and rising obesity rates resulted in \$147 billion in medical costs in 2008. Those who are obese can expect to pay an average of \$1,429 more per year in medical costs than individuals who are at a healthy weight (CDC, 2014). Undoubtedly, increased physical activity is needed in Arizona and locally.

Solutions to this problem include the development of more physical activity programs, walking and biking paths and open space in which to exercise. Currently, Rotary Park offers age-appropriate playgrounds for kids, walking and biking paths, disc golf, a skate park, a dog park, horseshoe pits, basketball and volleyball courts, and softball, baseball and soccer fields among several other opportunities for locals to get out and get active! The expansion of Rotary Park can help to further contribute to solutions by providing even more space for physical activities, connection of bike and walk ways to the rest of the community, addition of fitness stations and installation of distance markers on the pathways. In fact, when asked what would increase the likelihood of using Rotary Park, 24% said added bike routes and 34% said the addition of fitness stations (Figure 12)

***“Along with bike and walking trails a fitness course would also be a healthy choice for our parks.”***

***-Survey Respondent***

Healthy People 2020, the federal government’s initiative to improve the nation’s health, ranks physical activity as one of 10 leading health indicators. The most common moderate activity is brisk walking, in which a majority of adults can participate. The Goal of Healthy People 2020 is to improve health, fitness, and quality of life through daily physical activity (HealthyPeople.gov, 2014).



***“We need more things to do to get healthy.”***  
***-Survey Respondent***



**Figure 10**

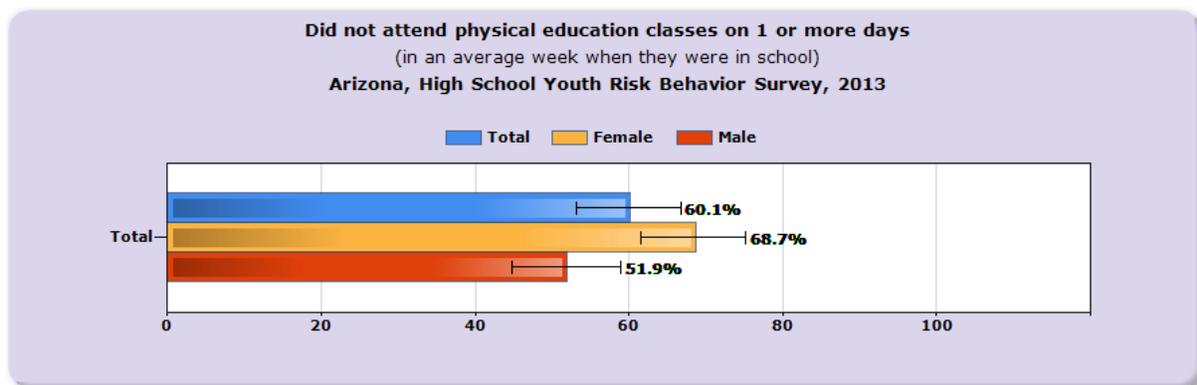
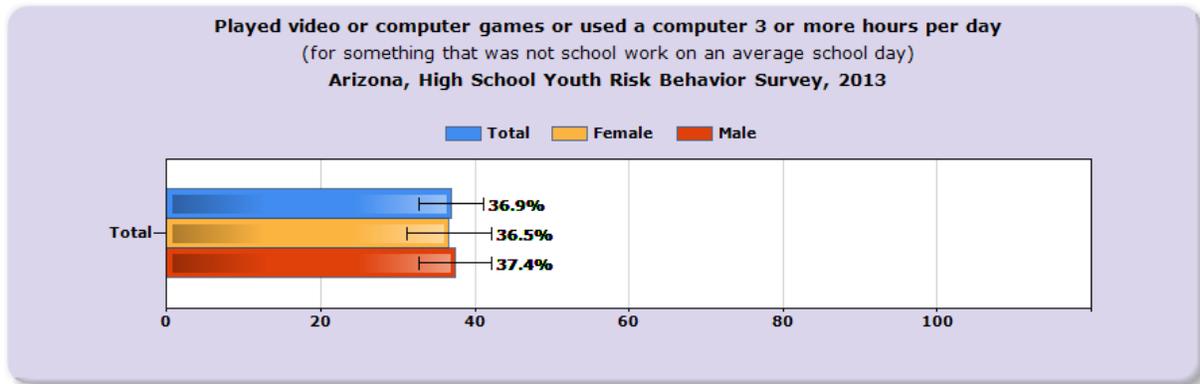


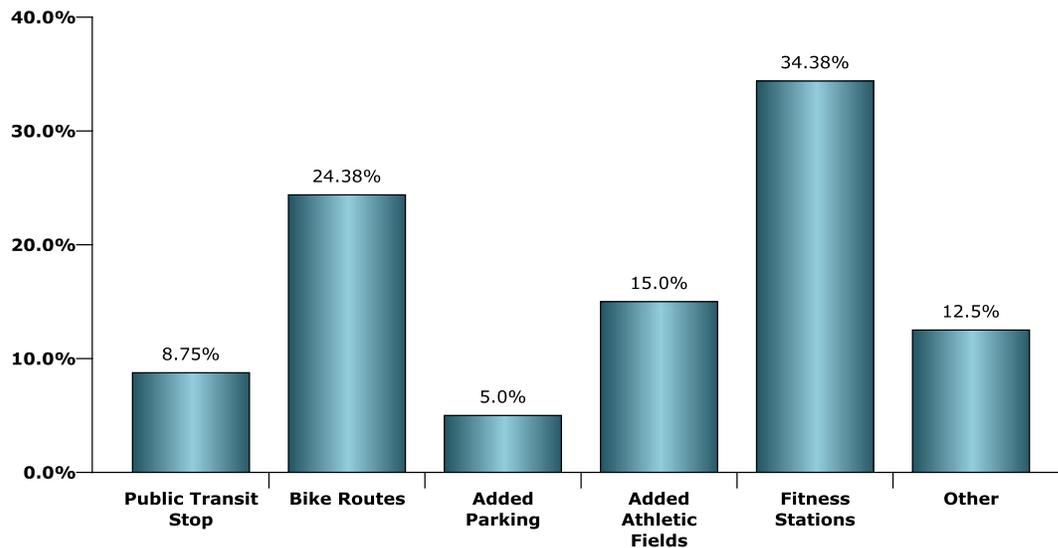
Figure 11



Source: <http://nccd.cdc.gov/youthonline/App/Results.aspx?LID=AZB>

Figure 12

### Which Would Increase the Likelihood of You Using Rotary Park?



Source: 2014 HIA Survey Data. Rotary Park Expansion

## Increased Foot & Bike Traffic

With the gradual increase in obesity rates among both adults and children, public health officials have been very vocal about the need for people to incorporate physical activity into their daily routines. Initiatives to increase active commuting, or biking or walking as transportation, have increased nationally by 6% between 2005 and 2010 (Smart Growth America, 2014). Unfortunately, in the Bullhead City area, the number of people walking to work dropped from 2.9% to 1.3% between 2000 and 2012. This presents an opportunity for local planners to propose policy and design that will encourage the increase of foot and bike traffic as a mode of transportation and a healthy lifestyle choice.

There are some environmental safety factors to consider while encouraging outdoor exercise, namely, pedestrian and bike safety. In many communities there are challenges providing a safe environment for pedestrians and bikers due to incomplete streets and lack of sidewalks or crosswalks. Between 2008 and 2012, there were 12 pedestrian fatalities in the Bullhead City area, and 24 in Mohave County, according to Smart Growth America (2014) and the National Highway Traffic Safety Administration (NHTSA). In the same time period, there were two pedacyclist (bicyclist) deaths in Mohave County (NHTSA, 2012).

Results of surveys collected in the immediate neighborhood to Rotary Park indicated that 52% of people accessed the park by walking, while 17% accessed the park by bicycling. With the expansion of the park, these numbers will only increase (and as noted above in Figure 12, the addition of bike paths would result in a 24% increase in usage) making it vital that pedestrian and bike safety is taken into account in all aspects of planning. In fact, there were several comments made by survey respondents indicating the desire for more sidewalks and pathway connections (see appendix A) including taking ADA accessibility factors into account. Planners can help better protect pedestrians and bicyclists by considering new and expanding on existing policies, designs, practices and regulations, such as requiring complete streets and walkways. The National Center for Bicycling & Walking ([www.bikewalk.org](http://www.bikewalk.org)) has several comprehensive design guides available including guidelines for both bikeway and pedestrian facilities.

Including these design principles and guidelines in the area general plan would be an effective way to ensure healthy community design is considered at all levels of development.

***“It would be nice to have a sidewalk all the way around the park as I have to walk in the street or the dirt to get to the park trail around the river side or the canoe launch area. Kids walking in the street is also a concern.”***

***-Survey Respondent***

### Increased Vehicular Traffic

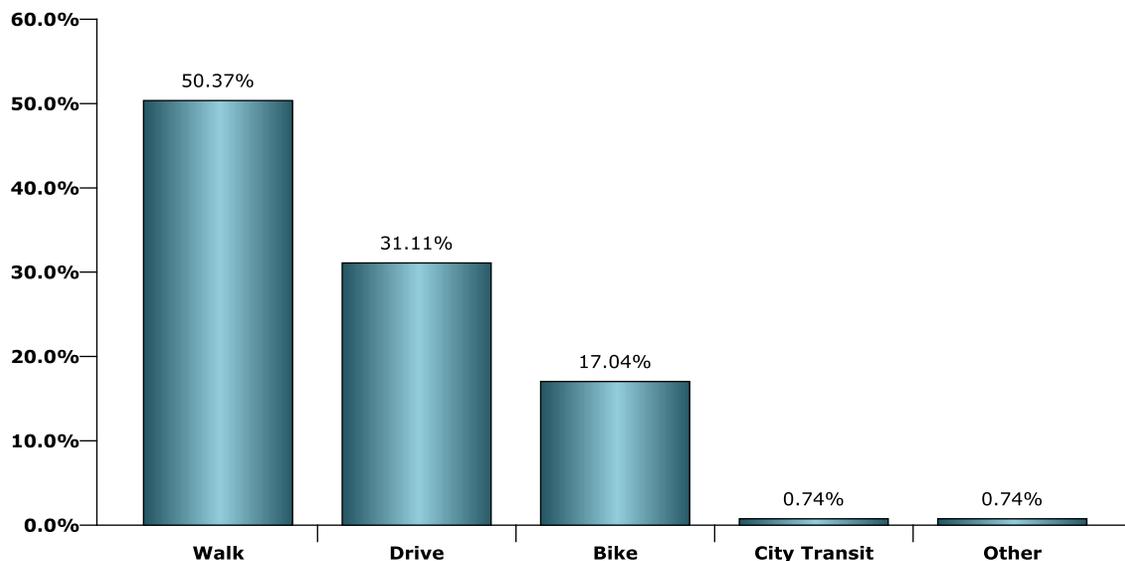
Increased vehicular traffic congestion can lead to more traffic and pedestrian accidents, increased noise pollution, emotional and mental stress, and greater levels of air pollution, which can result in higher risk for certain cancers (Copeland, 2014). Between 2008 and 2012, according to NHTSC, there were 231 fatalities related to motor vehicle crashes in Mohave County and 4,154 in the State of Arizona.

While traffic congestion most often follows an expansion project or new development of property, there are strategies that can help in this regard. Providing more transit options for commuters or users of open space such as buses, trolleys or street cars can help lighten the traffic load on streets especially during busy times (Smart Growth America, 2014). This also helps save gas, lowers air pollution in the area and provides a safer environment for pedestrians and bicyclists.

Further, planners can design pedestrian friendly streets, allowing more people to safely walk to their destinations and home again. While it is absolutely commendable that just over 50% of survey respondents living within approximately ½ mile radius walk to the park in order to access it, the survey also indicated that 31% of same still drive to the park! This number could increase with the planned expansion of the park. Reducing this number will help to reduce traffic and noise in the area with the added benefit of increasing physical activity among residents. Addition of bike racks and bike paths benefits the 17% that use their bikes as transportation to the park and could encourage more people to do so.

Figure 13

### How Do You Access Rotary Park?



Source: 2014 HIA Survey Data. Rotary Park Expansion

## Increased Noise & Light Pollution

Light and noise pollution can have a significant effect on mental health. As of 2012, Mohave County had the fourth highest rate of suicide in the State of Arizona according to Arizona Health Matters (2014). Additionally, a study conducted by the CDC indicated that adults in Mohave County aged 18 and older reported 4.2 mentally unhealthy days per month between 2006-2012 compared with a state average of 3.4 (Health Indicators Warehouse, 2012).

### Light Pollution

Studies have shown that the amount of light a person is exposed to is directly related to their production of melatonin, necessary to maintain a person's circadian rhythm (Schernhammer & Schulmeister, 2003). Melatonin is produced when it is dark and aids in sleep. When melatonin is not produced at night due to light exposure, it can interfere with the circadian rhythm and therefore, with a person's sleeping patterns, which can in turn cause a litany of other health problems including increased blood pressure, stress, fatigue and anxiety, leading to other, more serious complications. Some studies even suggest a link between light pollution and breast cancer (Schernhammer & Schulmeister, 2003). Therefore, it is imperative, for the health of the population, to ensure light pollution is kept to a minimum.

***“I live near [the] park with [the] lights on every night. It is never quiet. Lots of traffic and noise from non-residents....Aim lights at fields not houses.”  
-Survey Respondent***

### Noise Pollution

Most people would not make the connection between heart disease and noise pollution. While there are numerous other causes of heart disease, studies have now shown that noise pollution can be added to the many other risk factors already identified.

In 2007, a European study concluded that about 2% of the population suffered sleep disturbances and 15% suffered a high level of irritation due to environmental or community noise coming from such sources as traffic, trains and aircraft (Mead, 2007). Further, the study indicated that chronic exposure at night was riskier and more connected to cardiovascular problems than daytime exposure. The biological process happens as the noise causes stress, increasing the production of cortisol, adrenaline and noradrenaline. These hormones can lead to hypertension, stroke, heart failure and issues with the immune system (Mead, 2007). Clearly, noise pollution is a public health issue that should be addressed through healthier community planning and taking the surrounding residents' opinions into consideration as events are planned.

## Discussion and Conclusions

Cultivating an environment that is built to encourage, promote, and sustain healthy communities is one way planners can help curb the many health issues that are prevalent in today's society, including obesity, diabetes, and heart disease. While it is difficult to say that a built environment can ultimately prevent these issues, as much of that is up to the individual, we can say that access to walkable streets, open space and activity areas offers the surrounding community an opportunity to live physically, emotionally and mentally healthier lives. The American Public Health Association conducted a survey in which 75% of adults indicated they felt parks were an imperative part of infrastructure that ultimately could help address the obesity epidemic in the U.S. (American Planning Association, 2003).

The survey responses received throughout this process demonstrate that the residents are interested in living active, healthy lives. It should be said that Rotary Park is already light years ahead of many other parks of the same size. It does a great job of offering a gathering place to the residents of Bullhead City. This HIA was meant to look at the proposed expansion and study what effects, both positive and negative, may result from a health perspective, then offer recommendations and act as a guide to local planners and decision makers for further development and/or suggestions for making the park even more user friendly.

Proactively integrating health considerations into all policies at the planning level to be used during development, expansion or redevelopment projects will help to assure residents that their total well-being is taken into account in all decisions. By ensuring that the area general plan, zoning and land use regulations and road design policies provide specific guidance on public open space, foot and traffic safety, noise and light pollution, walkability and opportunity for recreation, a strong message will be sent to the populace that their health is important and assist in encouraging healthier habits.

Following are the recommendations, in detail, that the HIA team has deemed appropriate for this report. It is worth noting that the surrounding neighborhood residents are very interested in what happens at this park. Many of them use it on a daily basis and had very good comments about what they would like to see, whether those recommendations can be considered or not. See Appendix A for selected survey respondent comments.

## Recommendations for Implementation

### 1. Recommendation: Construct additional sports fields at Rotary Park based on the identified community needs

**Rationale:** Rotary Park has become a popular destination for sports tournaments and a variety of large community events. It is so popular that sports leagues (both youth and adult) are in constant competition for field space. For example, the American Youth Soccer Organization (AYSO), in 2010, had 616 youth playing soccer. For the 2013 season, it was anticipated that 1,100 youth would play. This is just one of the many leagues competing for space.

Dave Heath, Recreation Manager for Bullhead City, has stated that adult leagues have minimal, if any access to fields due to the enormous demand of the youth leagues. Additionally, a second soccer league has been set up for local elementary school children which the schools operate during AYSO's off-season, making soccer a year-round sport. This says nothing of the Pop Warner league and the Mohave Accelerated Learning Center football season, all of which use the fields at Rotary Park.

Undoubtedly, space is an issue and the addition of athletic fields to Rotary Park is imperative. Plans are underway to develop an additional 38 acres into additional soccer, football and baseball fields.

From a health perspective, the addition of these fields is vital to continuing encouragement of physical activity among the youth and adults. Additionally, assuring that the fields may be used for non-athletic events or open use by community members will further promote healthy living, physical activity and a sense of community within the City.

### 2. Recommendation: Construct sidewalk and bike paths that will connect adjacent neighborhoods to Rotary Park

**Rationale:** Current bike paths and sidewalks exist outside Rotary Park, but stop short of connecting to the walkways and bike paths within the park. Connection of these paths to Rotary Park would enhance the ability of the community to access the park by foot or bicycle rather than by vehicle. According to the City of Bullhead City (BHC), future plans for Riverview Drive include addition of sidewalks. The City should continue with these plans as stated ensuring all ADA standards are taken into account. Bikewalk.org offers a guide titled "Accessible Sidewalks and Street Crossings: An Informational Guide" that may be helpful to planners. It can be accessed at [http://www.bikewalk.org/pdfs/sopada\\_fhwa.pdf](http://www.bikewalk.org/pdfs/sopada_fhwa.pdf). Furthermore, incorporating bike paths and sidewalks into the Bullhead City General Plan would help future planners to direct healthy development.

**3. Recommendation: Provide public transit service to a transit stop centrally located within Rotary Park**

**Rationale:** Currently, no public transit stop exists inside Rotary Park; the closest stop is several blocks from the main entrance on Riverview Drive and even further from the entrances on Lakeside. Surveys showed that while those in the immediate area often walked to the park, those living on a transit line farther away most often drove. Providing a public transit option into the park would decrease motor traffic in the area, resulting in lower air pollution and decrease in gas consumption. Additionally, it would provide a safe way for younger and older people to get to the park.

**4. Recommendation: Add new pedestrian crosswalks at appropriate locations within the park**

**Rationale:** Rotary Park is used year-round for multiple community events including very large sports tournaments and community gatherings where attendance could be in the thousands. Therefore, traffic congestion can be an issue both inside and outside of the park. The addition of crosswalks within Rotary's parking lots and in the main driveways where foot traffic could be heavy would help to protect pedestrians.

**5. Recommendation: Install distance markers along walking paths within and adjacent to the perimeter of the Park**

**Rationale:** As a convenience for those who choose to walk or run within Rotary Park, the recommendation is to add distance markers along the trail so users are able to gauge how much physical activity they are getting. It could even provide a challenge for those who are just beginning a physical activity routine.

**6. Recommendation: Install fitness stations along walking paths within Rotary Park**

**Rationale:** When asked via survey, 34% of respondents indicated the addition of fitness stations would increase their use of the park. Clearly, the addition of fitness stations would further enhance the amenities offered by the park by making it more appealing to those who are interested in becoming active or maintaining some level of fitness.

**7. Recommendation: Install signage within the park and adjacent neighborhoods describing the responsibilities of dog owners and consequences of non-compliance**

**Rationale:** Between 2008 and 2012, according to the Arizona Department of Health Services (2014), there were 34,151 ER visits with 2,358 inpatient hospitalizations costing 55 million dollars as a result of dog bites in Arizona. In Mohave County alone, there were 1,622 ER visits and 62 inpatient hospitalizations. Overall, in the past five years dog bites in Arizona have increased by 139%. In and around the immediate neighborhood of Rotary Park, according to records obtained from the Bullhead City Police Department, there have been 23 bite incidents in the past five years. Addition of signage pertaining to dogs at large, whom to call, and leash law information would be an appropriate step to take in order to

assist in decreasing incidents as well as possible increased patrols by Bullhead City Animal Control.

**8. Recommendation: Work with residents of adjacent neighborhoods to coordinate operation of the active recreation programs to minimize noise and light pollution impacts**

**Rationale:** Due to the health effects of excess light and noise pollution, it may be helpful to include the surrounding community members in the creation of athletic event or other community event schedules so they have a voice in how long the noise and light pollution will last.

Guidance documents exist that may assist planners, developers and event coordinators in consideration of noise and light pollution in the surrounding neighborhood. The World Health Organization offers a guideline titled “Night Noise Guidelines” that may be helpful. This document can be downloaded at <http://www.euro.who.int/en/health-topics/environment-and-health/noise/publications/2009/night-noise-guidelines-for-europe>.

**9. Recommendation: Designate swimming area(s) along the banks of the Colorado River**

**Rationale:** A designated swimming area would be helpful for increasing physical activity and potentially decreasing accidents in the water and at the beaches adjacent to the park. *Please note that liability issues should be considered PRIOR to proceeding with this recommendation.*

## References

American Fact Finder US Census 2008-2012 (2012). Means of transportation to work by selected characteristics. Retrieved from

[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_S0802&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_S0802&prodType=table)

American Planning Association (2002). How cities use parks for community engagement.

Retrieved from

<https://www.planning.org/cityparks/briefingpapers/communityengagement.htm> and

American Planning Association (2003). How cities use parks to improve public health.

Retrieved from

<https://www.planning.org/cityparks/briefingpapers/physicalactivity.htm>

Arizona Department of Health Services. (2014). Who let the dogs out? Dog bites in Arizona.

Retrieved from <http://www.azdhs.gov/phs/phstats/meddir/pdf/a-research-brief-on-dog-bites-in-arizona.pdf>

Arizona Health Matters (2014). Age-adjusted death rate due to suicide: County view (measurement period 2012). Retrieved from

<http://www.arizonahealthmatters.org/modules.php?op=modload&name=NS-Indicator&file=overview&indid=4959000010&regionzoom=County>

Centers for Disease Control and Prevention (2014). Adult obesity facts. Retrieved from

<http://www.cdc.gov/obesity/data/adult.html>

Centers for Disease Control and Prevention (2012). BRFSS prevalence and trends data:

Overweight and Obesity (BMI), 2012. Retrieved from <http://apps.nccd.cdc.gov/brfss/>

Centers for Disease Control and Prevention (2010). BRFSS prevalence and trends data:

Exercise, 2010. Retrieved from

<http://apps.nccd.cdc.gov/brfss/display.asp?cat=EX&yr=2010&qkey=4347&state=UB>

Centers for Disease Control and Prevention (2010). BRFSS prevalence and trends data:

Diabetes, 2010. Retrieved from

<http://apps.nccd.cdc.gov/brfss/display.asp?cat=DB&yr=2010&qkey=1363&state=UB>

Centers for Disease Control and Prevention (2014). Childhood obesity facts: prevalence of childhood obesity in the United States, 2011-2012. Retrieved from

<http://www.cdc.gov/obesity/data/childhood.html>

Centers for Disease Control and Prevention (2014). Facts about physical activity. Retrieved from <http://www.cdc.gov/physicalactivity/data/facts.html>

Centers for Disease Control and Prevention (2014). Overweight and obesity facts. Retrieved from <http://www.cdc.gov/obesity/data/facts.html>

Centers for Disease Control and Prevention (2011). Physical activity and health. Retrieved from <http://www.cdc.gov/physicalactivity/everyone/health/index.html>

Centers for Disease Control and Prevention (2013). Preventable deaths from heart disease & stroke: Improving care can save more lives. Retrieved from <http://www.cdc.gov/vitalsigns/heartdisease-stroke/index.html>

Centers for Disease Control and Prevention (2013). Youth online: High school YRBS. Retrieved from <http://nccd.cdc.gov/youthonline/App/Results.aspx?LID=AZB>

Copeland, L. (2014). CDC: Higher cancer risk for kids living near busy roads. Retrieved from <http://www.usatoday.com/story/news/nation/2014/03/20/childhood-leukemia-linked-to-heavy-traffic-exposure-cdc-says/6658919/>

Harvard School of Public Health (2014). The benefits of physical activity. Retrieved from <http://www.hsph.harvard.edu/nutritionsource/staying-active-full-story/#references>

Health Impact Project (2011). The HIA process. Retrieved from <http://www.healthimpactproject.org/hia/process>

Health Indicators Warehouse (2010). Adults that report no leisure time exercise in the past month. Retrieved from [http://www.healthindicators.gov/Indicators/No-exercise-adults-percent-Source-BRFSS\\_120/Profile/ClassicData](http://www.healthindicators.gov/Indicators/No-exercise-adults-percent-Source-BRFSS_120/Profile/ClassicData)

Health Indicators Warehouse (2010). Percent of adults that report having been diagnosed as having diabetes 2010. Retrieved from [www.healthindicators.gov/Indicators/Diabetes-adults-percent\\_125/Profile/ClassicData](http://www.healthindicators.gov/Indicators/Diabetes-adults-percent_125/Profile/ClassicData)

Health Indicators Warehouse (2010). Heart disease death rate: National, Arizona, Mohave County. Retrieved from [http://www.healthindicators.gov/Indicators/Heart-disease-deaths-per-100000\\_83/Profile/ClassicData](http://www.healthindicators.gov/Indicators/Heart-disease-deaths-per-100000_83/Profile/ClassicData)

Health Indicators Warehouse (2012). Mentally unhealthy days: Adults (per person) – Mohave County, Arizona & Arizona. Retrieved from [http://www.healthindicators.gov/Indicators/Mentally-unhealthy-days-adults-per-person\\_9/Profile/ClassicData](http://www.healthindicators.gov/Indicators/Mentally-unhealthy-days-adults-per-person_9/Profile/ClassicData)

Health Indicators Warehouse (2012). Percent of adults 18 years and over that report BMI $\geq$ 30 – Mohave County, Arizona & Arizona. Retrieved from [http://www.healthindicators.gov/Indicators/Obesity-adults-percent-Source-BRFSS\\_15/Profile/ClassicData](http://www.healthindicators.gov/Indicators/Obesity-adults-percent-Source-BRFSS_15/Profile/ClassicData)

- Health Indicators Warehouse (2010). Stroke deaths (per 100,000) – National, Arizona, Mohave County, Arizona. Retrieved from [http://www.healthindicators.gov/Indicators/Stroke-deaths-per-100000\\_881/Profile/ClassicData](http://www.healthindicators.gov/Indicators/Stroke-deaths-per-100000_881/Profile/ClassicData)
- HealthyPeople.gov (2014). 2020 topics & objectives – physical activity. Retrieved from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=33>
- HealthyPeople.gov (2014). 2020 topics & objectives – heart disease and stroke. Retrieved from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=21>
- HealthyPeople.gov (2014). 2020 topics & objectives – diabetes. Retrieved from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=8>
- Lytton, M. (2013). Social determinants of health: Us and them. *American Journal of Preventive Medicine*. Retrieved from <http://ajpmonline.wordpress.com/2013/11/27/social-determinants-of-health-us-and-them/>
- Mead, N.M. (2007). Noise pollution: The sound behind heart effects. *Environmental Health Perspectives*, 115(11), A536-A537. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2072857/>
- National Highway Traffic Safety Administration (2012). Traffic safety facts for Arizona: 2008-1012 pedalcyclist fatalities. Retrieved from [http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/4\\_AZ/2012/Arizona\\_Map\\_17\\_DATA\\_2012.PDF](http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/4_AZ/2012/Arizona_Map_17_DATA_2012.PDF)
- National Highway Traffic Safety Administration (2012). Traffic safety facts Mohave County, Arizona 2008-2012: Fatalities by person/crash type. Retrieved from <http://www->

[nrd.nhtsa.dot.gov/departments/nrd-](http://nrd.nhtsa.dot.gov/departments/nrd-)

[30/ncsa/STSI/4\\_AZ/2012/Counties/Arizona\\_Mohave%20County\\_2012.HTM](http://30/ncsa/STSI/4_AZ/2012/Counties/Arizona_Mohave%20County_2012.HTM)

Ransom, M.M., Greiner, A., Kochtitzky, C. & Major, K. S. (2011). Pursuing health equity: Zoning codes and public health. Retrieved from

<https://www.aslme.org/media/downloadable/files/links/2/1/21.Ransom.pdf>

Schernhammer, E.S., & Schulmeister, K. (2003). Melatonin and cancer risk: Does light at night compromise physiologic cancer protection by lowering serum melatonin levels? *British Journal of Cancer*, 90(5), 941-943. Retrieved from

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2409637/>

Smart Growth America. (2014). Dangerous by design 2014 Arizona. Retrieved from

<http://www.smartgrowthamerica.org/documents/dangerous-by-design-2014/dangerous-by-design-2014-arizona.pdf>

Trust for America's Health (TFAH) (2012). Bending the obesity cost curve in Arizona.

Retrieved from

[http://www.healthymamericans.org/assets/files/obesity2012/TFAHSept2012\\_AZ\\_ObesityBrief02.pdf](http://www.healthymamericans.org/assets/files/obesity2012/TFAHSept2012_AZ_ObesityBrief02.pdf)

U.S. Census Bureau (2014). State & county quickfacts: Bullhead City, Arizona. Retrieved from

<http://quickfacts.census.gov/qfd/states/04/0408220.html>

U.S. Department of Health and Human Services (USDHHS). (2012). Physical activity guidelines for Americans midcourse report strategies to increase physical activity among youth. Retrieved from

<http://www.health.gov/paguidelines/midcourse/pag-mid-course-report-final.pdf>

World Health Organization. (2003). WHO definition of health. Retrieved from:

<http://www.who.int/about/definition/en/print.html>

## Appendices

### Appendix A: Selected Survey Respondent Comments

“You can smell the treatment plant at night.”

“I live near park with lights on every night. It is never quiet. Lots of traffic and noise from non-residents....Aim lights at fields not houses.”

“Riverview traffic is too fast.”

“I have met many nice people in BHC and at Rotary Park!”

“Thanks to our police department, it is a good neighborhood.”

“Because I am disabled I have to drive a mobility scooter to the park. I use last gate before dog park. It would be great if you made a complete cemented path from Riverview Drive through the little side gate I go through so I don't have to go through rocks, mud, stickers and bumpy, holy spots. Gate is real bad to drive through and a tight fit for my scooter.”

“Bike/scooter path would be great right along the river – close enough to step off scooter and get in the water at the river! ... Also, would be nice to have bike/scooter paths that go to beach from up the hills or at least make a continuous path close to river. Spaced paths from top of hills down to that bike path would be WONDERFUL for us handicapped.”

“The removal of trees and bushes along and around the river have resulted in the loss of habitat for the numerous wildlife that previously existed there. These creatures have nowhere to go, and we enjoyed seeing them when we utilized the park and river....I understand that the “trimming down” of vegetation is necessary occasionally, however I dislike the total removal of so much of the natural habitat. I would also advise that the park seriously needs more garbage receptacles down by the Sullivan Park along the river!”

“We need [a] sidewalk along Chaparral Drive.”

“My biggest concern is the dog issue in my neighborhood or anywhere in Bullhead for that matter. I shouldn't have to carry a bat to the bus stop with my daughter. I know others in the community feel the same way.”

“As for Rotary Park, which is basically across the street, we enjoy...I would love to see a path along the entire outside of it. Most people are respectful of the rules and keeping it clean.....A larger Frisbee golf area would be nice as well as away from water and walking path. It gets dangerous. What's with no doors on the toilet stalls? I like the new beach area.”

“I would enjoy my neighborhood much more if there were not so many pit bulls running loose.”

“Quiet except for speeding vehicles.”

“Provide [sidewalks] along Chaparral Drive. Too dark at night.”

“Would stay longer at park if light would stay on longer. Would like more light in neighborhood.”

“On our block we are a tight group of neighbors but outside our group, we have break-ins and some violence. We would love to walk to park but cannot due to stray aggressive dogs. We love Rotary Park for biking, walking, swimming and dog park.”

“Children not safe with motorcycles speeding and doing wheelies...”

“Turn the lights off at the park after the sporting events. Sometimes they burn all night.”

“I think the new athletic fields will be a good addition to the park. It will also help keep dust down. I would much rather have a park than a bunch of houses.”

“More patrolling by the police would be nice.”

“Along with bike and walking trails a fitness course would also be a healthy choice for our parks.”

“People use Lakeside as a way to stay off Hwy 95 – they drive too fast, they race, and are a danger to the kids and pets. We as residents call this Lakeside freeway. I think that says it all.”

“I fear dogs.”

“It would be nice to have a sidewalk all the way around the park as I have to walk in the street or the dirt to get to the park trail around the river side or the canoe launch area. Kids walking in the street is also a concern.”

“We have enough athletic fields! We could use a public pool, and tennis courts. The park needs someone there to catch the people who let their dogs run loose!”

“The lack of street lighting is a concern...The speed limit is ignored by the majority of drivers...lack of sidewalks from Riverview Dr. to Rotary Park entrance on Lakeside Dr. is a little hazardous at times.”

“Very dark at night on our street, street lights would help out a lot, some[thing] needs to be done with all of the cats. We have a big cat problem. Too many [darn] pigeons. Dirty, nasty, flying rats!”

“When kids use the skate park should have lights where they skate at night and automatic turn off when not in use.”

“Pave the parking lots!”

“Ball field lights on when no activities, waste energy and take away from star gazing.”

“The Rotary Park has had a lot of improvements in recent years – it’s great – I enjoy walking through dark in the AM. The closing of coal burning electric in Laughlin has improved air quality.”

“Lights on field until 10 PM make it very unpleasant to sit out in our yard – used to have view of stars. We are stuck now in a neighborhood with more noise, more unnatural light, less wildlife and more crime.”

“Our road is a safety hazard on Swan Dr. because we have radical drivers on our road and speed bumps and lamp posts would make our neighborhood safer.”

“Speed bumps would be a big help on Navajo Dr. due to children and fast cars.”

“I believe the children of this BHC Community need more outdoor venues – whether for sports or simply fitness, then I believe the expansion is a positive thing. And I would suggest hiring security personnel and maintenance personnel. Create more jobs in this town.”

“We need more things to do to get healthy.”

“It would be nice is the soccer fields did not smell so badly and wasn’t watered with reclaimed water. Kids play in the grass and sprinklers!”

“Dogs are always barking. I have never been in a town with dogs that bark constantly.”

“Need no loose dogs in neighborhoods. Some dogs are dangerous.”

“Need more control of dogs. People speeding in the neighborhood. More police patrols.”

“Love the dog park.”