



# Hualapai Neighborhood Parks HIA

AUGUST 2016  
FINAL DRAFT





ADHS  
PREVENTION SERVICES



# ACKNOWLEDGEMENTS

The following individuals and entities generously contributed their time and expertise in the development of this HIA:

## HUALAPAI PARK STEERING COMMITTEE

---

Hualapai Planning & Economic Development

Hualapai Health Education & Wellness

Boys & Girls Club of Peach Springs

Hualapai Tribal Police Department

Hualapai Housing

Hualapai Public Works

Hualapai Child Care

Hualapai Natural Resources

Peach Springs School District

Hualapai Tribal Cultural Department

Hualapai Senior Citizens Center

## ARIZONA DEPARTMENT OF HEALTH SERVICES

---

Anissa Jonovich, Healthy Community Design Manager

Deborah Robinson, Office Chief of Community Innovations

## FUNDING

---

Funding for this project was provided by the Center for Disease Control and Prevention- National Center for Environmental Health under grant number **1UE1H001193-01**

---

-----THIS PAGE INTENTIONALLY LEFT BLANK-----

# TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	1
ABOUT.....	5
SCREENING .....	11
SCOPING .....	17
ASSESSMENT .....	23
RECOMMENDATIONS .....	47
REPORTING .....	53
MONITORING AND EVALUATION .....	55
REFERENCES.....	61
APPENDICES.....	63

---

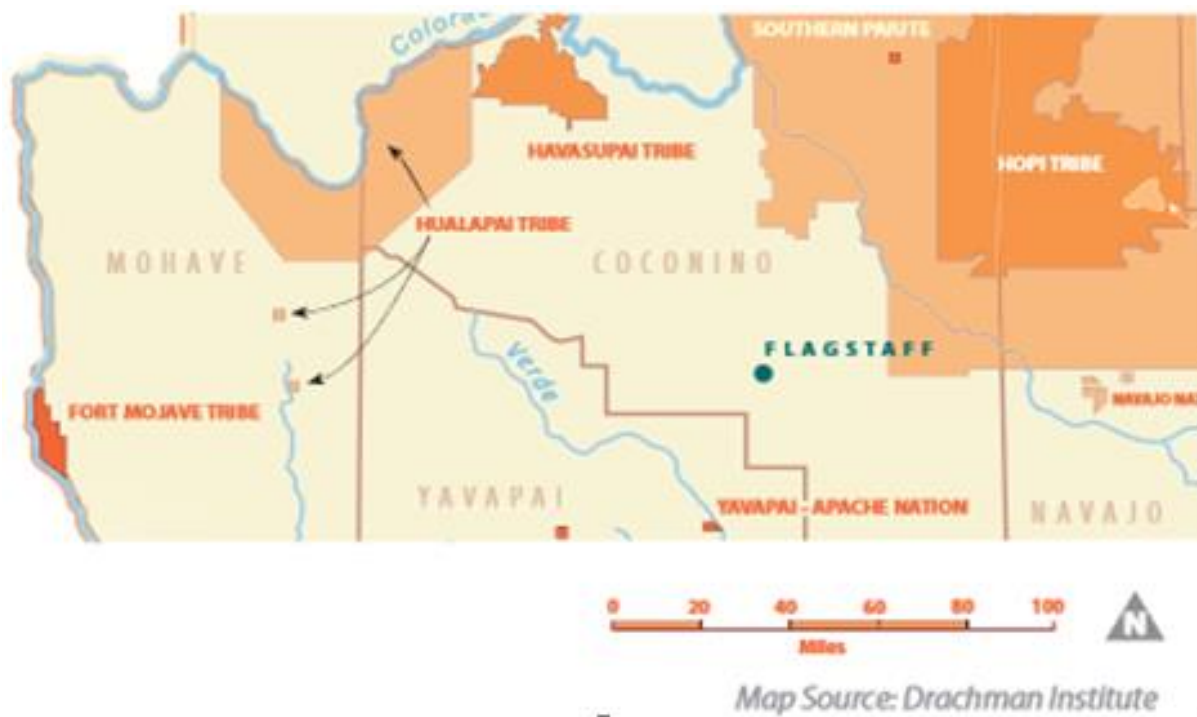
-----THIS PAGE INTENTIONALLY LEFT BLANK-----

# EXECUTIVE SUMMARY

## HIA CONTEXT, PURPOSE, & GOALS

### CONTEXT

The Hualapai Tribe, meaning “People of the Tall Pines”, was established by executive order in 1883, and is currently a federally recognized tribe in northwestern Arizona. The tribal boundaries are within three counties: Mohave, Yavapai, & Coconino. Enrolled tribal members on the reservation number approximately 1,335<sup>1</sup>, with a majority of tribal residents on the reservation living in Peach Springs. Peach Springs is located on historic Route 66, and named for the peach trees historically grown at nearby springs. The majority of tribal members living off the reservation reside throughout Arizona. Kingman is located 55 miles west of Peach Springs, and is the closest full-service community to the tribe. The Hualapai Peach Springs population has a high percentage of youth and single mothers, compared to Arizona State and Mohave, Coconino, and Yavapai Counties.<sup>2</sup> Most tribal full-time employment is composed of tribe administration, public schools, and state/federal government; the main economic activities on the reservation are tourism, cattle ranching, and arts and crafts.<sup>3</sup> Grand Canyon Resort Corporation also employs over 250 Hualapai tribal members, most of whom work at Grand Canyon West.



<sup>1</sup> 2010 US Census

<sup>2</sup> University of Arizona: Native Peoples Technical Assistance Office (NPTAO)- Hualapai Tribe-Community Health Profile; Accessed 25 May 2016

<sup>3</sup> 2016 Hualapai Tribe Community Health Profile

## PURPOSE

This Health Impact Assessment (HIA) provides information about health impacts of enhancing existing and providing new parks and trails within Peach Springs.

## GOALS & OBJECTIVES

- Raise awareness within the community of the beneficial relationship of parks, trails, and community health.
- Inform tribal members of the current health status of the community as a whole
- Provide recommendations to the tribe on opportunities to increase the health benefits of community parks and trails
- Provide information that can be incorporated into the General Plan.
- Provide an opportunity for collaboration and partnerships between different tribal departments, the tribe, and non-tribal and tribal organizations that will result in improved community health.

## HIA TEAM & SPONSORSHIP

This Health Impact Assessment was developed in partnership with the Hualapai Planning Department and Peach Springs Steering Committee. The HIA was funded by the Arizona Department of Health Services (ADHS) with a grant from the Center for Disease Control and Prevention-National Center for Environmental Health under grant number 1UE1H001193-01.

The team conducting the Health Impact Assessment Included:

- Anissa Jonovich, Healthy Community Design Manager, Arizona Department of Health Services
- Deborah Robinson, Office Chief, Community Innovations, Arizona Department of Health Services
- Richard Knott, Grant Writer, Hualapai Planning and Economic Development
- Kevin Davidson, AICP Planning Director, Hualapai Planning and Economic Development
- Leslie Dornfeld, FAICP, CSBA, PLAN\*et Communities PLLC
- Christiane Quintans, Project Lead, PLAN\*et Communities

## SUMMARY OF FINDINGS

Enhancements to existing parks and construction of the new Hualapai Park; identifying staff with direct responsibilities for maintaining parks and developing recreation programs that occur within them; and providing better trail connections between homes, parks, and other community destinations will result in increased park use. Removing blight and preventing hazardous materials from parks will create safe spaces, where tribal members can go to alleviate stress and take part in physical and community activities that residents of all ages can participate. Infrastructure including, and not limited to, shade structures, incorporation of Hualapai Artists in overall park design, and the design of infrastructure and park amenities, will promote community pride and identity. Creating a pleasant place where tribal members of all ages want to go will help reduce or avoid isolation. In combination, these elements can



result in increased community use of tribal parks, helping it to manage preventable chronic diseases like obesity, type II diabetes, and depression. Although not an immediate cure, allowing more access to engage in physical activity has positive repercussions; physical activity has been proven to decrease stress, depression, and isolation which are significant factors related to the potentially fatal diseases of alcohol and drug addiction.

## RECOMMENDATIONS

This Assessment focuses on the health impacts of parks and trails on the Hualapai Reservation, in particular, Peach Springs. The Recommendations in this HIA focus on making existing parks more safe, enjoyable, and comfortable, so residents will use them more often and be more physically active. Some opportunities for new parks were identified based on conversations with tribal staff.

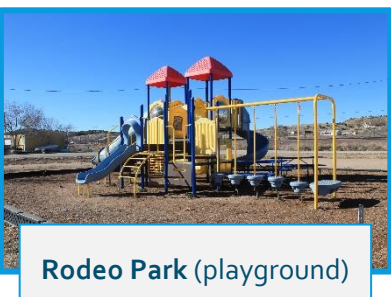
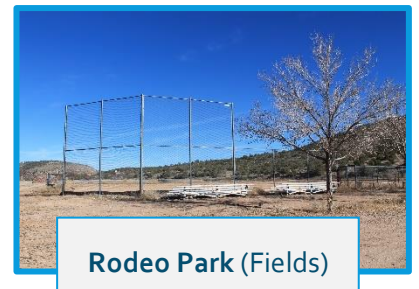
## CURRENT CONDITIONS



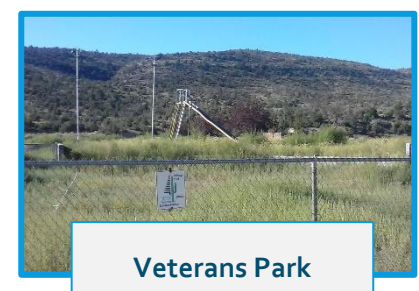
The Tribe is constructing a new park along Route 66, which is easily accessible and within ½ mile walking distance to many tribal residents living with in Peach Springs.



The Milkweed and Buck and Doe Subdivisions approximately two miles from Peach Springs will not be within walking distance of this park; the two parks within these subdivisions are not maintained, and most of the equipment is broken or damaged.



The tribe has a community park with sports fields and lights (Rodeo Park), and an extended park area outside the fields (Veterans Park). Both parks are also not maintained, and unusable for team sports. Additionally, this park is located across Route 66, and not easily accessible by foot due to topography.



There is also a park at the intersection of Diamond Creek Road and Route 66 that underwent recent enhancements. Although there is no playground equipment, it serves as a destination area along the highway for tourists and is situated nearby to Hualapai Lodge.



Route 66 Park

## RECOMMENDATIONS

- Build trails to connect parks with the surrounding community, particularly extending proposed sidewalks in the Safe Routes to School Plan along Diamond Creek Road and Hualapai Way to Hualapai Park
- Promote consistent design elements that incorporate cultural icons to visually connect parks to the culture of the community
- Locate future parks within walking distance to neighborhoods and away from Route 66
- Develop and implement maintenance programs for all parks
- Provide lighting and secure fencing around parks to protect them from vandalism
- Diversify the equipment provided in parks to accommodate various intensity levels of activity and for those with disabilities or limited mobility
- Designate age appropriate equipment in specific areas of the parks
- Provide amenities such as seating, BBQ grills and shade
- Encourage the Hualapai Department of Health Education and Wellness to hold events in parks
- Expand the Recreation Department to include parks that oversee recreation programming and park maintenance
- Provide a community garden in one of the parks
- Create a way for people who use the parks to alert the tribe to maintenance issues, and suggest enhancements to parks
- Create a cultural park
- Restore Rodeo/Veterans Park fields and play area, and provide a safe pedestrian connection across Route 66 to Rodeo/Veterans Park

## PUBLIC ENGAGEMENT

A variety of stakeholder engagement techniques were employed to educate the community about the relationship between parks and trails, physical activity, and health and to engage them in the development of the HIA. These include:

- Engaging the Parks Steering Committee as the HIA Stakeholder group in February 2016;
- Providing information about the relationship of parks and community health, and soliciting community ideas about what would make them use parks and be more physically active at the 2016 Earth Day lunch;
- Collecting over 60 surveys from tribal members about parks in Peach Springs;
- Conducting two meetings with the Parks Steering Committee to inform them about the HIA process, gather resources and input, and share community feedback and results;
- Publishing an article in the Gam'Yu bi-weekly newsletter.

# ABOUT

## CONTEXT

### THE PROJECT

This Health Impact Assessment (HIA) will examine the benefits of the Hualapai Park currently under construction and enhancing existing parks in Peach Springs. This HIA is an outgrowth of the tribal police department's request to build a playground to replace the basketball courts in central Peach Springs that were torn down. Working with the Tribal Planning Department, a Parks Steering Committee worked to design a new playground. The first phase of this playground (Hualapai Park) had not proceeded beyond groundbreaking at the time of this report.

As the design and construction of Hualapai Park moved forward, the tribe worked with a consultant to successfully apply for an Arizona Department of Health Services grant and conduct an HIA. This HIA is to understand how improving four other existing playgrounds in Peach Springs could provide health benefits to the tribe. At the first Steering Committee meeting, the tribe stated that it had funding to build trails, and were seeking guidance on how they could connect to parks. As a result, and at the request of tribal staff, this HIA also examines how trails could increase park use.

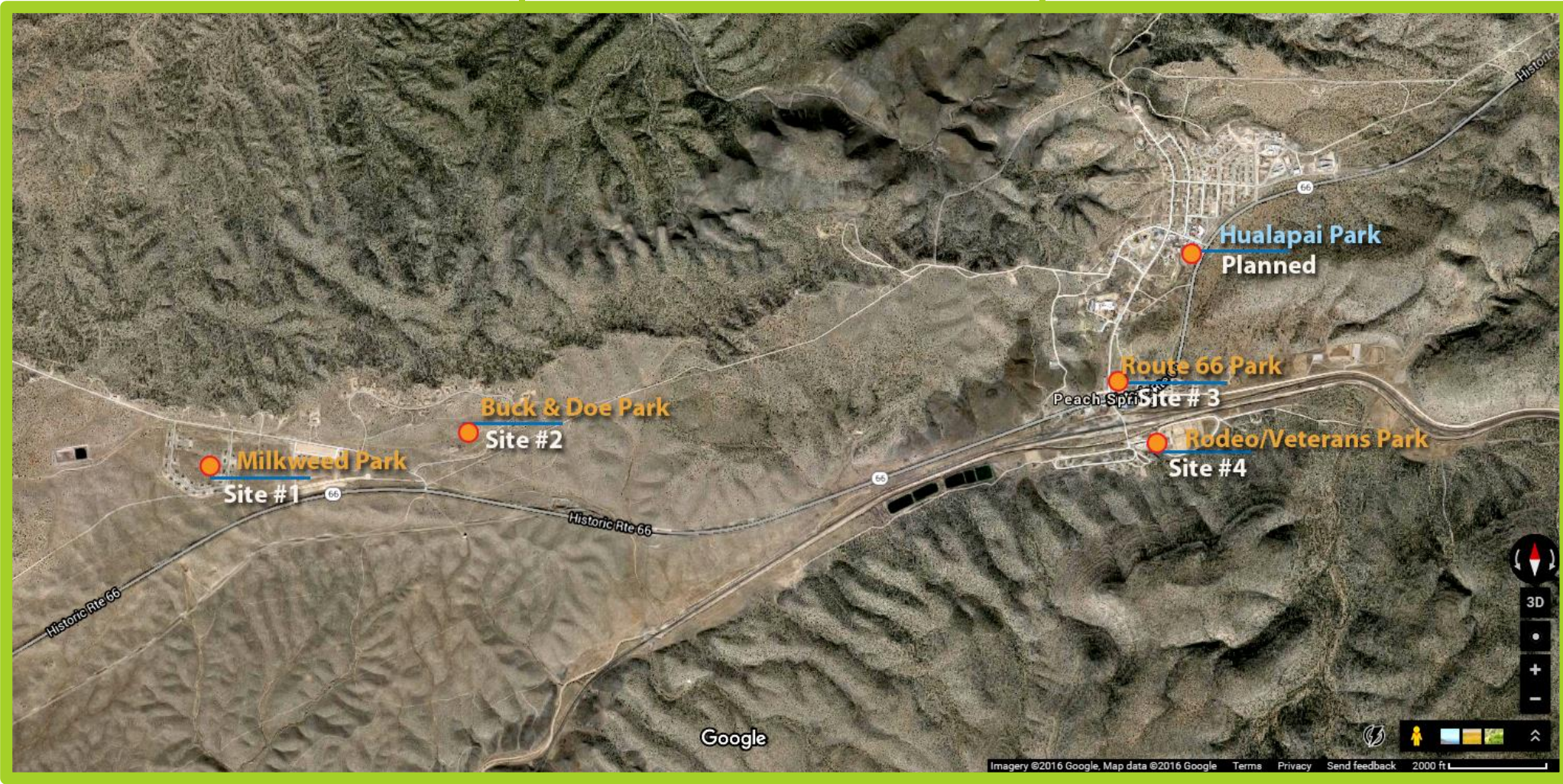
This HIA will:

- Make recommendations to improve community use of existing parks in Peach Springs.
- Recommend potential design and recreation facilities for existing parks and proposed trails that could benefit community health.



Figure 1: Hualapai Peach Springs Park Locations

HUALAPAI PEACH SPRINGS PARK LOCATIONS

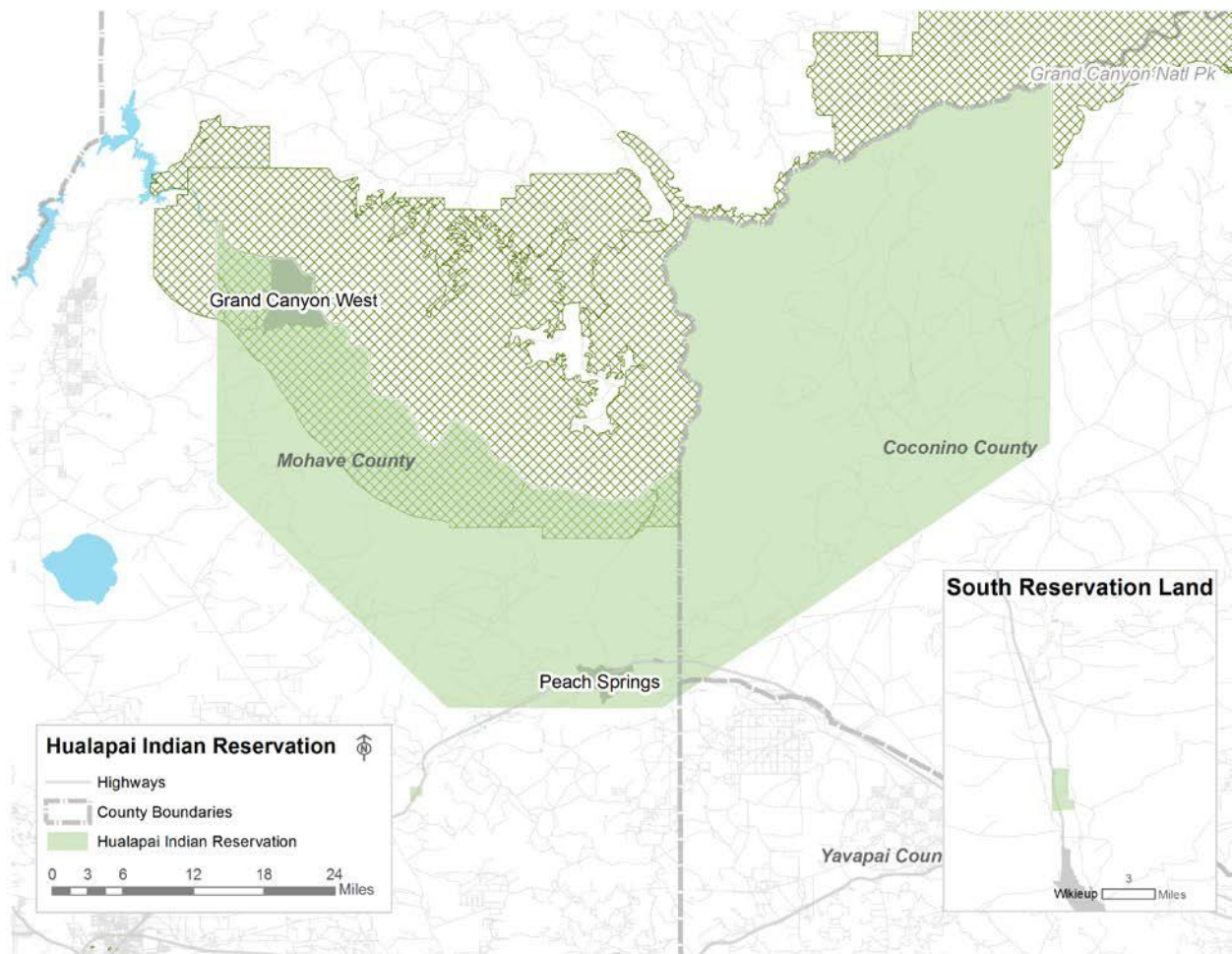




## HUALAPAI TRIBE

The *Hualapai* (pronounced Wal-lah-pie), meaning “People of the Tall Pines,” are nestled in the plains near Grand Canyon West and Kingman located in northwestern Arizona. The Hualapai Reservation boundaries are defined by the federal Executive Order of 1883 and include 992,463 acres. The reservation is located within three Arizona counties: Coconino, Mohave, and Yavapai. The total population residing within the Hualapai Reservation and Trust lands is 1,335<sup>4</sup>. A majority of the tribe’s population is located in the capital, Peach Springs.

**Figure 2: Hualapai Reservation Boundaries and Counties**



2010 TIGER/Line Shapefiles prepared by the US Census, 2010; 2014 Needs & Assets Report Final Draft

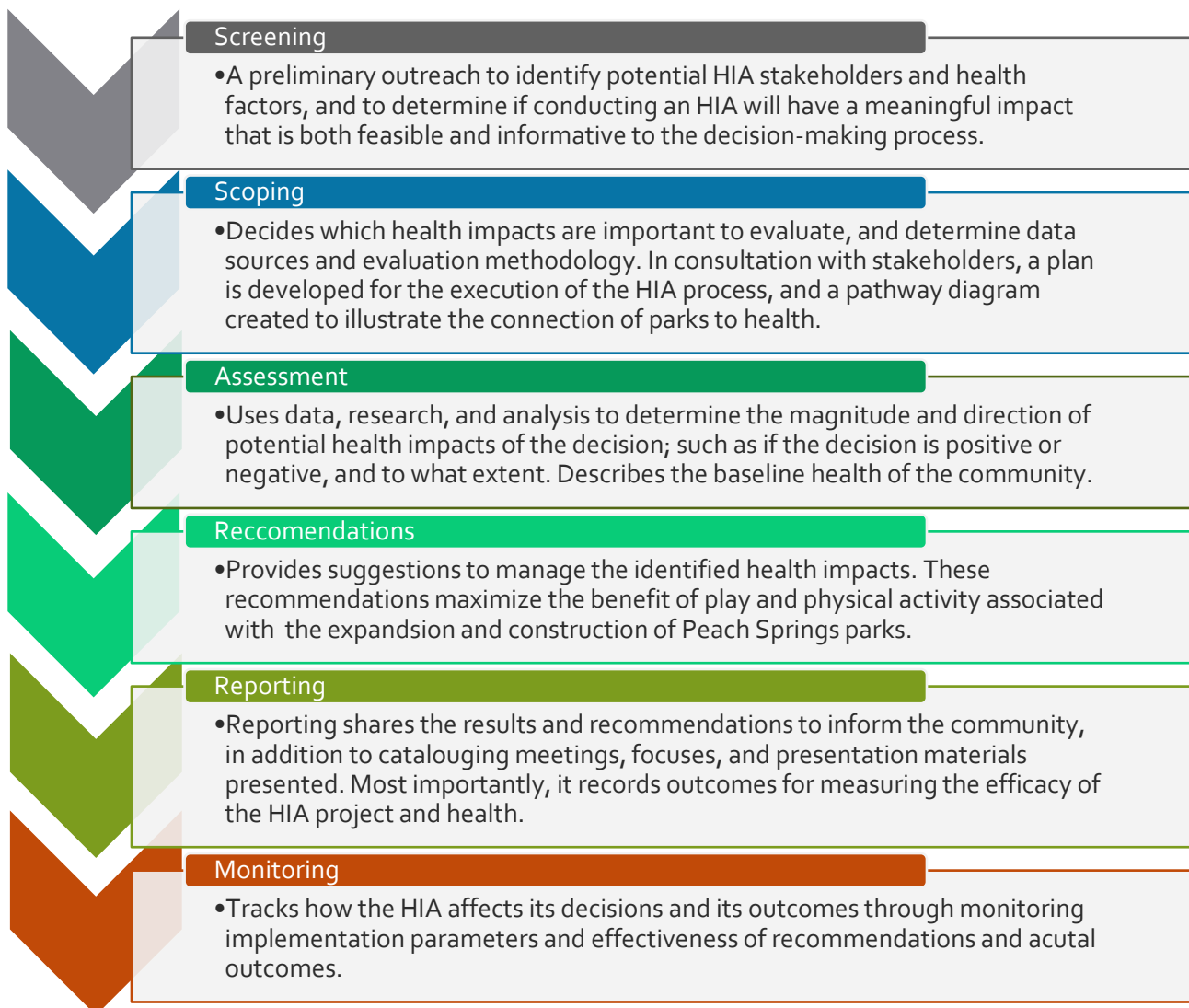
<sup>4</sup> 2010 US Census, SF1

## HEALTH IMPACT ASSESSMENT

An HIA is a systematic assessment that combines scientific data, professional expertise, and stakeholder involvement to determine the effects that a potential policy, plan, program, or project might have on the health of a particular population. HIAs provide information to decision-makers that can help minimize the anticipated adverse health effects and maximize positive health outcomes. It can be applied at the federal, state, tribal, and local levels (NRCNA, 2011).<sup>5</sup>

HIAs consist of six steps: screening, scoping, assessment, recommendations, reporting, and monitoring/evaluation of the plan.

Figure 3: Health Impact Assessment Process



<sup>5</sup> NRCNA (2011). Improving Health in the United States: The Role of HIA. [http://www.nap.edu/catalog.php?record\\_id=13229](http://www.nap.edu/catalog.php?record_id=13229)

## WHY PARKS?

In the United States more than 80% of adults do not meet the guidelines for both aerobic and muscle-strengthening activities<sup>6</sup>. The Center for Disease Control and Prevention (CDC) recommends that children participate in at least 60 minutes of physical activity. Within Arizona, only 25.7% of adolescents met the minimum<sup>7</sup>, and in Mohave County, 27.3% of adults reported no leisure time physical activity<sup>8</sup>.

Research links parks to public and individual health. Parks can affect a range of public health issues, including injuries, mental health, and pollution exposures, particularly through physical activity<sup>9</sup>.

Literature shows that regular physical activity:

- Decreases the risk of cardiovascular disease, colon cancer, and diabetes;
- Maintains muscle strength and joint structure and function;
- Is necessary for normal skeletal and behavioral development during childhood;
- May relieve depression, anxiety, and other mental illnesses;
- Along with appropriate dietary patterns, may lower obesity levels.

Park systems influence our level of physical activity in the following ways:

1. Park trails can connect and accommodate different types of physical activity.
2. Good park design can encourage more frequent use with different equipment and accommodation of varying intensities of exercise.
3. Parks can create suitable environments for stress reduction, provide safe places for people to play and exercise away from busy streets, and accommodate community interaction to sustain visitors to engage in physical activity more often.

In collaboration with various health organizations on a national scale, HIAs are used to consider more connections to policies and projects that may impact community health to the physical environment. These will be used to inform health initiative policies on both a local and federal scale, and evaluate the effectiveness of the current infrastructure.

---

<sup>6</sup> U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC. Available at <http://www.healthypeople.gov>

<sup>7</sup> September 2012 Arizona State Nutrition & Physical Obesity Profile: <http://www.cdc.gov/obesity/stateprograms/fundedstates/pdf/arizona-state-profile.pdf>

<sup>8</sup> CHSI Health Behaviors Adult Physical Inactivity 2006-2012: <http://wwwn.cdc.gov/CommunityHealth/profile/currentprofile/AZ/Mohave/120> [Accessed 2016 April 4]

<sup>9</sup> Parks and Trails Health Impact Assessment Tool-Kit.

-----THIS PAGE INTENTIONALLY LEFT BLANK-----



# SCREENING

## SCREENING SUMMARY

**Screening** is considered the primary stage of the HIA, and is used to evaluate the feasibility, barriers, effectiveness, and potential stakeholders and data sources for the HIA. Screening explores the determinant factors that define health, and identifies those most applicable to the community.

## BACKGROUND COMPONENTS

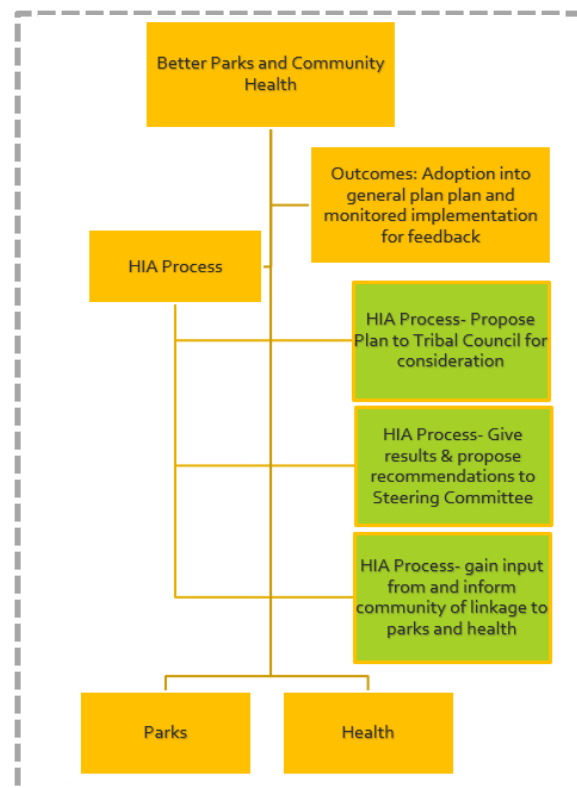
This HIA was granted through the Arizona Department of Health Services (AZDHS) with funding from the Centers for Disease Control (CDC)-National Center for Environmental Health. The grant is one of three HIAs awarded to AZDHS with RFGA#: 1UE1H001193-01. The focus of this HIA is to increase the prevalence of health in rural areas as part of an ongoing effort with AzHealthy Communities; the aim is to use HIAs/health as a criterion in decision making, and to increase the number of resources to monitor and evaluate healthy community design efforts.

## PROPOSED PARK IMPROVEMENTS & LEVEL OF DECISION-MAKING

In Peach Springs, parks are overlooked as an important determinant of community health. This HIA will be developed with the guidance of the Hualapai Parks Steering Committee (described on p.12), and will evaluate pre-existing community health conditions and the health implications associated with park improvements. The findings from this HIA will be presented to the Hualapai Tribal Council for their consideration as they develop their annual budget (which includes funding for park improvements and trails), and will be incorporated into the tribe's General Plan. The General Plan provides a guide to future growth, land use, and development. PLAN\*et coordinated with the Hualapai Planning and Economic Development Department, with oversight of AZDHS, to contact and form the Stakeholder Committee.

**Figure 4: HIA Role & Process** illustrates how the HIA process (green) evaluates the connection of parks and health to produce possible outcomes to contribute to better parks and community health.

**Figure 4: HIA Role & Process**



## STEERING COMMITTEE

The development of this HIA included a diversity of stakeholders, represented by a Park Steering Committee. As a small community, most of the members of the Park Steering Committee also represent multiple tribal departments and are residents of Peach Springs Community. These departments include Hualapai Planning & Economic Development, Health Education & Wellness, Boys & Girls Club of Peach Springs, Tribal Police, Public Works, Child Care, Natural Resources, & Housing. Other stakeholders identified by the Park Committee include representatives from the Peach Springs School District, Hualapai Tribal Cultural Department, & Hualapai Senior Citizens Center.

## SIGNIFICANCE AND VALUE

The external aims of the HIA are to provide a community health perspective of the benefits of implementing park enhancements, raise awareness of community health and the benefits of participating in physical activity, and to build capacity among community members, so they can continue to advocate for improvements that will increase their use and enjoyment of tribal parks.

**Figure 5: Arizona Health in Policy and Practice HIA Screening Criteria outlines how this HIA will help to inform the Hualapai Tribe about the potential health impacts of enhancing existing and providing new parks.**

Figure 5: Arizona Health in Policy and Practice HIA Screening Criteria		
Criteria	Response	Discussion
<b>Tier I</b>		
Is there a specific decision being made?	Yes	The future improvements to parks and expansion of proposed site locations.
Policy Area	Land Use Physical Activity	This HIA examines how increasing community use of parks can impact individual and community health.
Proposal Status	Awarded and Active	
Proposal Timing	This HIA will start in January of 2016. Planned Completion is August 2016.	This HIA is to be conducted from February 2016 through August 2016. During this timeframe, the opportunity for the HIA provides input to recommendations to the general plan.
Potential Health Impacts (Initial Screening)	Yes	The Hualapai Reservation is a rural area with a high percentage of youth adolescents.
Impact on Health Disparities	Yes	Will help address information to the community of the importance of physical activity and the role of parks as an outlet.

**Figure 5: Arizona Health in Policy and Practice HIA Screening Criteria (Continued...)**

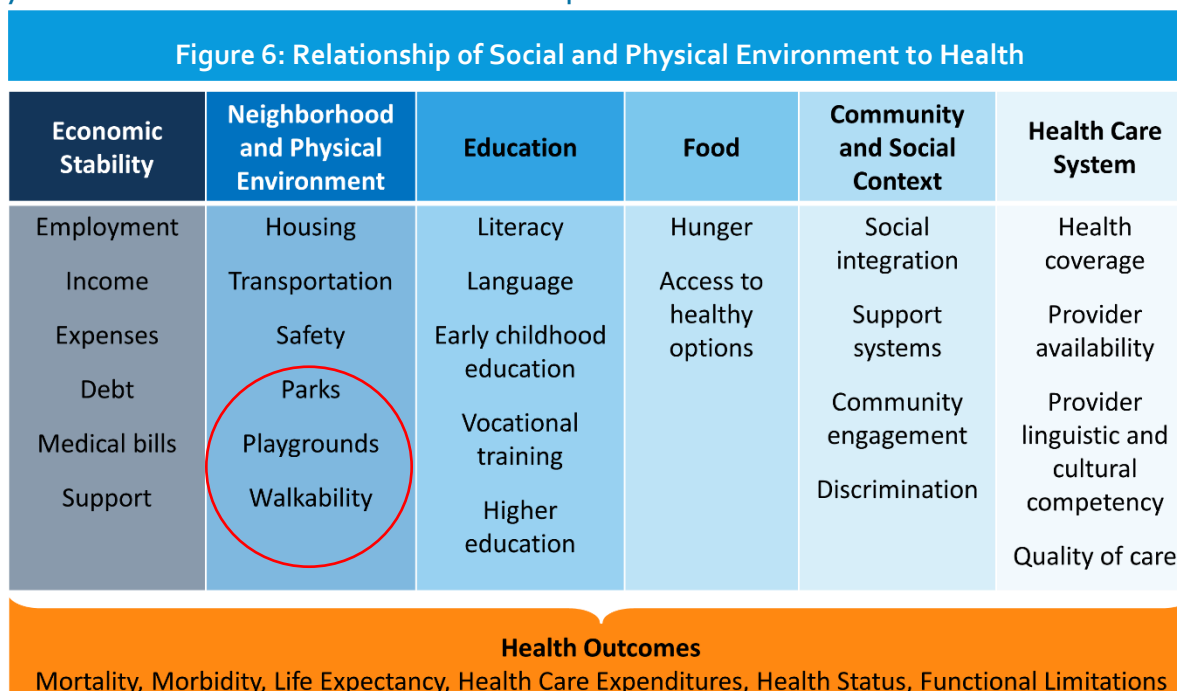
Criteria	Response	Discussion
Local vs. State	N/A	This is a tribal project.
Discretion of Stakeholder Group	Guidance	Stakeholders will provide input on key health issues data resources and opportunities to implement HIA
<b>Tier II</b>		
Receptivity of Decision Makers	High	Tribal planning department is a partner in project.
Partners Exist to Help with HIA	Yes	This HIA will be prepared in partnership with the Park Steering Committee, where many tribal departments aid in implementation of the HIA
Potential for Systemic and/or Institutional Change	Yes	Intent to include HIA in tribe general plan and future park planning and use it to guide future trail improvements.

## DETERMINANTS OF HEALTH

According to a 2007 study, 40% of premature deaths are a result of individual behaviors, genetics accounts for 30%, social and environmental factors accounts for 20%, and health care accounts for 10% of all premature deaths<sup>10</sup>. These components, individual behavior, genetics, social and environmental factors are known as determinants of health. Studies show that making changes to our physical environment will impact our individual behaviors, and consequently, impact our health and longevity.

<sup>10</sup> Schroeder, AZ. (2007) We Can Do Better – Improving the Health of the American People. NEJM. 357-1221-8.

Figure 6: Relationship of Social and Physical Environment to Health (below) identifies components of the physical and social environment and their health impacts.



SOURCE: KAISER FOUNDATION. BEYOND HEALTH CARE: THE ROLE OF SOCIAL DETERMINANTS IN PROMOTING HEALTH EQUITY

## RELATION OF THIS PROJECT TO HEALTH DETERMINANTS

### PHYSICAL ACTIVITY

#### Built Environment

Parks are a publicly accessible means for all age groups to safely engage in recreational and physical activities that contribute to better community and personal health. The built environment can pose barriers to engaging in recreational activities. The location of a park within the community can influence if a people are able to access it. If people cannot easily access the park, they will not use it frequently or at all, which may impact the overall physical activity levels of individuals. Physical activity is related to chronic obesity related diseases such as hypertension and diabetes. Park infrastructure can contribute to health by providing protection from weather elements including UV exposure, dust storms, and rain—which can trigger respiratory issues or increase likelihood for skin cancer. The absence of other infrastructure elements, such as lighting, fencing and security, or access ramps, can negatively impact the use of the park as an outlet for stress and a place to exercise. Exercise is shown to reduce stress and improve mood, which helps to prevent depression and related diseases of substance and alcohol abuse.

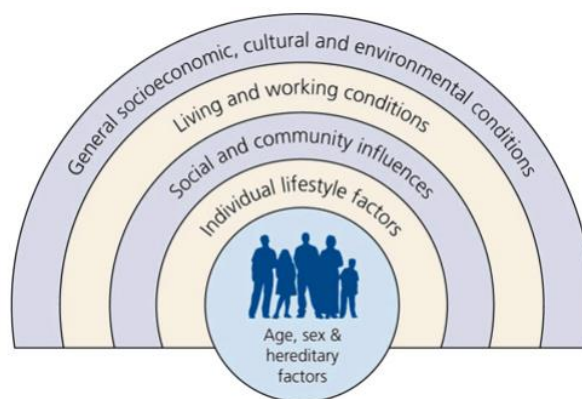


Figure 7: Scales of Health Determinants

## Social & Cultural Environment

Parks allow for people to freely engage in public gatherings, and express themselves through public art and cultural performances. Having a sense of community and fostering identity in parks can reduce the feeling of isolation and strengthen social support networks for individuals. Having a social support system can allow for the development of healthy social interactions, help identify and share causes of behavioral problems, and proactively engage in preventative measures as a group or task force.

### VULNERABILITY

In 2010, Native Americans in the US accounted for about 2% of the population<sup>11</sup>. Since the arrival of European explorers, Native Americans have been historically disadvantaged socioeconomically, resulting in many health disparities.

Particularly in minorities, negative health outcomes are prevalent with hindrances to accessing adequate nutrition, preventative medical care, and housing; this leads to increased morbidity and premature mortality. Native Americans have disproportionately high rates of cardiovascular disease (CVD) mortality, partially due to the high relation of multiple chronic disease risk factors such as smoking and obesity.

Other vulnerable populations include elderly, youth, disabled, and single-parent households. All of these populations are represented in Peach Springs. Elderly are more prone to injuries and have limited mobility, with a dependency towards automotive transit instead of physical exercise. Similarly, youth are also dependent on the householder's income, which in communities with higher rates of poverty, can limit access to recreational facilities or programs that can provide opportunities for physical activities and leave kids housebound. The high prevalence of youth in a community means that while they may compose a large portion of the population, they may not have a say in decisions that impact their health. Similarly, family householders that are predominantly run by single parents can be at an economic disadvantage compared to two-income households. These single parents who are the sole caretakers and income-earners for the family may not have the time or energy to engage in physical activities that are not convenient and affordable. Those with disabilities may also be overlooked in public engagement opportunities, and consequently, in the park planning and design process where many decisions about park facilities and design are made.

---

<sup>11</sup> <http://www.census.gov/newsroom/facts-for-features/2015/cb15-ff22.html>

-----THIS PAGE INTENTIONALLY LEFT BLANK-----

# SCOPING

## SCOPING

Scoping establishes and defines the roles of the HIA team, funders, stakeholders, and other partners. It also identifies the goals, anticipated outcomes, and a tentative plan of action and assessment throughout the process. Through the input of the stakeholders and community, a pathway diagram was created based on their ideas and connections to health. The Pathway Diagram ([Figure 9: Pathway Diagram](#)) illustrates how specific improvements to make parks safer and more accessible would impact the determinants of health and result in specific health impacts.

## PATHWAY DIAGRAM

The Pathway Diagram shows potential projects that can impact the physical, individual, and social environments that produces health outcomes. The playground enhancements will change the physical environment of the playground, and more trails will change the physical environment by making playgrounds more accessible to the entire community. The physical environment is a determinant of health. Playground enhancements with a planned trail could include the availability of a variety of play facilities such as: multi-activity structures, swings, jungle gyms, walking trails, sports courts, community gardens, spaces for family and community gatherings, and venue for educational programs and activities. At a Parks Committee meeting, participants identified how these improvements could result in individual behavioral changes and community activities that were then related through the pathway diagram to individual and community health benefits. Figure 8 (below) uses a community garden to illustrate how using the diagram can relate and impact health.

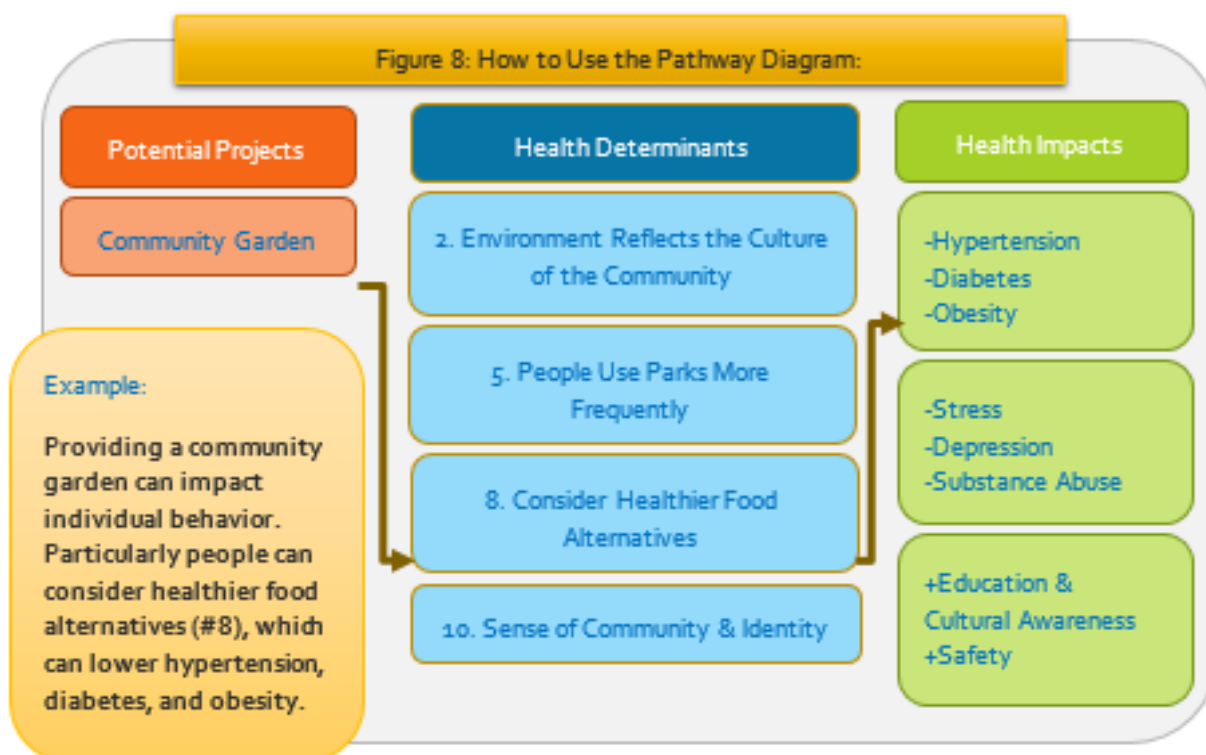
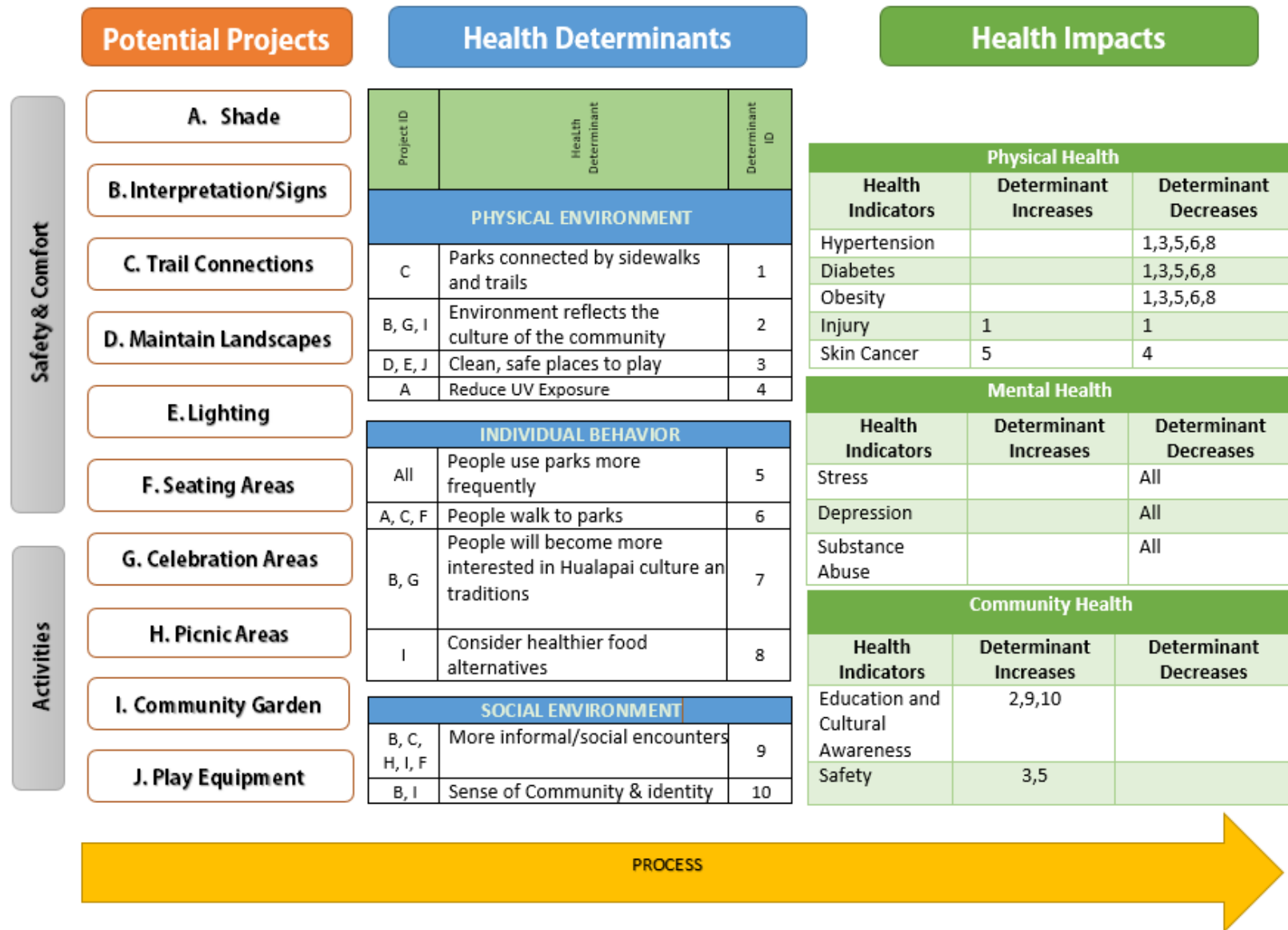


Figure 9: Pathways Diagram





## RELEVANCE OF PROJECT TO COMMUNITY HEALTH

The Pathway Explanation Table ([Figure 10: Pathway Explanation Table](#)) describes how each Health Determinant listed in the Pathway Diagram could impact individual and community health.

Figure 10: Pathway Explanation Table		
Determinant ID	Determinant	Description
1	<b>Built Environment-</b> Parks connected by sidewalks and trails	<p>Enhancing access to parks will reduce barriers to their use. If people have a quality walkable experience that is connected to a park, they may walk to a park, and potentially extend their walk to other locations. Walking more and being more inclined to engage in physical activity can reduce chronic issues like hypertension, diabetes, and obesity. While people walk, they engage in nature. This provides a third place aside from work and home to visit and alleviate stress, which can lower anxiety and potentially provide a healthier alternative to substance abuse.</p> <p>Providing trails that enable community members to access parks safely will minimize risk of auto-accidents, and reduce stress both on the way and to the park. With safer ways to access the parks, people who do not drive (such as children and elders) can access them independently, which may increase their use. Walking to a park instead of driving increases the physical activity associated with parks, and multiplies the health benefits of going to a park.</p>
2	<b>Built Environment-</b> Environment reflects the culture of the community	<p>Including cultural art and positive signage into trail and park design will improve the quality of paths and visually connect the built environment to the community. Physical accommodations such as providing seating areas and sidewalks enhance the pedestrian experience, making walking along and between parks more enjoyable and frequent.</p> <p>Signs and cultural elements can provide opportunities to learn about Hualapai culture, and how physical activity can connect to health. More frequent use of trails allows more social engagements to avoid isolation and encourage community events.</p>
3	<b>Built Environment-</b> Provide clean, safe places to play	<p>Providing better lighting and landscape management, and removing harmful debris such as broken glass, undergarments, needles, etc. will result in parks being a safer place to play. Replacing broken equipment with new equipment and repairing sports courts will provide more opportunities for children to play. Ensuring play equipment is maintained and park landscaping is maintained reduces the</p>

Figure 10: Pathway Explanation Table (Continued...)

Determinant ID	Determinant	Description
		<p>chances of injury from uneven surfaces, unmanaged vegetation, or equipment failure.</p> <p>The perception of safety is also linked to user visitor frequency. A clean park indicates reduces mental stress associated with concerns about physical hazards.</p> <p>Clean and maintained parks also indicate that the area is managed and less dangerous. People feel safer frequenting managed areas. This can increase the amount of times people come to the park expand the number of people using it. As more people visit the site, more people are watching what occurs there, and increases social accountability.</p>
4	<b>Built Environment-</b> Reduce UV exposure	Peach Springs is at an altitude of 4,700 feet. The higher the altitude, the quicker a person will develop sunburn. Shade provided through ramadas and vegetation can alleviate UV exposure that is often correlated to skin cancer.
6	<b>Individual Behavior-</b> People use parks more frequently	By making parks more usable and attractive, people will be more physically active. Engaging in physical activity improves mobility, decreases hypertension, diabetes, and obesity, and allows for educational opportunities to learn about health and food while reducing stress.
7	<b>Individual Behavior-</b> People will walk to parks	Providing trails to parks with benches and shade will enable people to walk to parks more easily and enjoyably. For those who prefer low-intensity activities or suffer from chronic disease like obesity, providing an area to rest or stop is important to incorporate physical activity to a sedentary lifestyle. Exclusion of these areas will only discourage those who may be limited, or be more harmful for exercise if they become over-exhausted. Conversely, as more people walk to parks, the risk of collisions with automobiles may increase.
8	<b>Individual Behavior-</b> People will become more interested in culture and traditions	Incorporating local art, culture, and traditional design into the park will help people learn about Hualapai Culture and Traditions. As people become more connected to their community through culture, the less chance they will experience isolation which is associated with depression. They may also learn more about traditional diet, which could help to address obesity and obesity related chronic diseases.
9	<b>Individual Behavior-</b> Consider healthier food alternatives	Providing a community garden and awareness to educate of the connection between diet and physical health through park elements may serve to aid access to better food alternatives.

Figure 10: Pathway Explanation Table (Continued...)		
Determinant ID	Determinant	Description
10	<b>Social Environment-</b> Engage in more social encounters	Providing more opportunities to interact with other members of the community will allow community members to meet each other in a pleasant environment, and build upon previous encounters. This will reduce isolation associated with chronic depression and related diseases of alcohol and substance abuse, while overall lessening the feeling of loneliness.
11	<b>Social Environment-</b> Foster sense of community & identity to encourage social cohesion	Similar to the above, meeting people and having the chance to engage with them continuously can expand social networks. Cultural identity among youth and adolescents can help improve self-esteem. By incorporating cultural elements in the design of parks, parks can strengthen community pride.

---

## HEALTH OUTCOMES

Based on scoping, this HIA will focus on the health determinants of the Built Environment, Social and Cultural Environment, and the Individual Behaviors and community health outcomes below:

**Physical Health** • Obesity • Chronic Disease • Hypertension (blood-pressure)

•Traffic related injuries or deaths

**Mental Health** • Substance Abuse • Depression • Suicide

**Social Health** • Cultural Identity • Sense of Community

---

## DATA RESOURCES

The following resources have been identified and will be used to provide data for this Assessment:

- 2016 Hualapai Tribe Community Health Profile
- Hualapai Tribe Regional Partnership Council- 2014 Needs and Assets Report
- Peach Springs Safe Routes to School Program- School Route Travel Plan
- AZ Safe Routes to School Program-Local Community Meeting-4/3/12
- AZ Hazard & Mitigation Plan

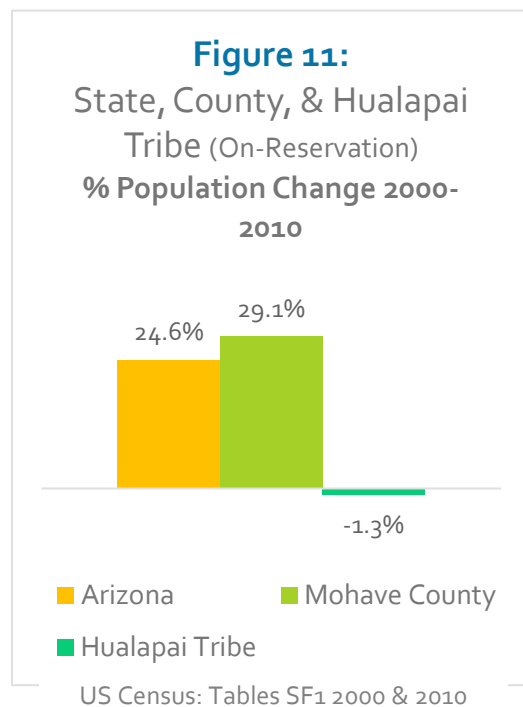
-----THIS PAGE INTENTIONALLY LEFT BLANK-----

# ASSESSMENT

## DATA ASSESSMENT

The assessment is used to examine the baseline of pre-existing conditions, and present a profile of the relevant health status and determinants among the affected communities<sup>12</sup>. The assessment reviews other peer literature, data sources, and input from members of the affected community; this involves public input and other participatory methods to assess both qualitative and quantitative evidence of the impacts of parks.

## DEMOGRAPHIC ASSESSMENT



### SOCIO-ECONOMIC OVERVIEW

According to the 2010 Census, the Hualapai population in Peach Springs decreased slightly from 1,353 to 1,335 persons since 2000, whereas both Mohave County and the State have conversely increased significantly (**Figure 11: State, County, & Hualapai Tribe (On-Reservation) % Population Change 2000-2010**).

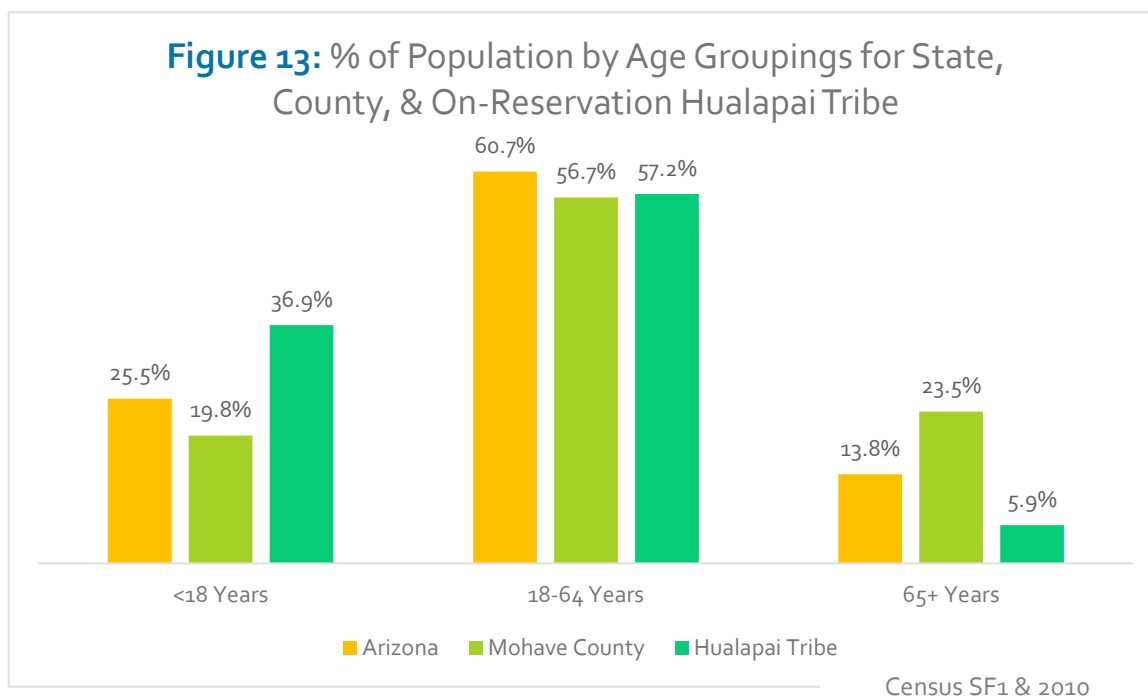
In comparison with the State and County: A majority of the tribal population in Peach Springs are youth (<18 years), with an overall median age of 25 years. There are slightly more females than males, with larger households that are predominantly family.

It is important to note that census data for federally recognized reservations may not match tribal enrollment numbers which are held by the tribe and include tribal members on- and off-reservation.

Total Population & Trends	Arizona	Mohave County	On Reservation Hualapai Tribe
Total Population 2000	5,130,632	155,032	1,353
Total Population 2010	6,392,017	200,186	1,335
Change in Population 2000-2010	24.6%	29.1%	-1.3%

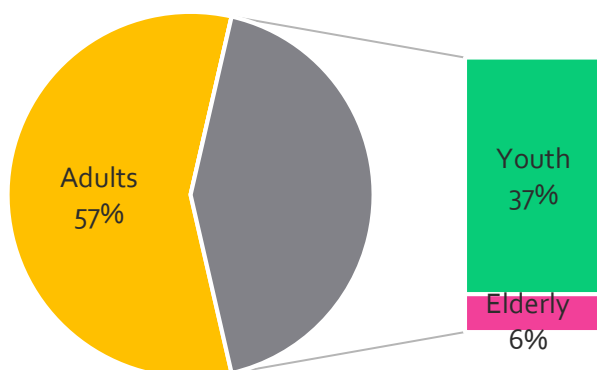
**Figure 12: Total Population & Trends- Arizona, Mohave County, On-Reservation Hualapai Tribe**

<sup>12</sup> Minimum Elements and Practice Standards for Health Impact Assessment v.3, September 2014



**Figure 13: % of Population by Age Groupings for State, County, & On-Reservation Hualapai Tribe** illustrates the breakdown of age groupings between State, County, and the Hualapai Tribe. There are more youth and less elderly in the Hualapai Tribe than the State and County.

**Figure 14: % Age Breakdown in Hualapai Tribe (On-Reservation)**



The on-reservation Hualapai Tribe has a high percentage of youth under the age of 18. Minors compose more than a third of all tribal members (36.9%), and represents a larger ratio than the State (25.5%) or Mohave County (19.8%)<sup>13</sup>. The higher than average percent of youth should be an important consideration in this HIA. Besides the community center, there are limited opportunities for youth recreation and physical activity in Peach Springs.

In comparison, on-reservation Hualapai elderly population ages 65 or older account for only 5.9% of tribal members, a relatively lower proportion to the State (13.8%) and County (23.5%)<sup>14</sup>. Adults age 18-64 years compose more than half of the population (57.2%) and compare reasonably with the State (60.7%) and County (56.7%)<sup>15</sup>.

**Figure 14: % Age Breakdown in Hualapai Tribe (On-Reservation)- Aside from adults, youth hold a large presence in population**

<sup>13</sup> Demographic Analysis of the Hualapai Tribe-2010 Census & 2010 ACS Estimates; AZ Rural Policy Institute

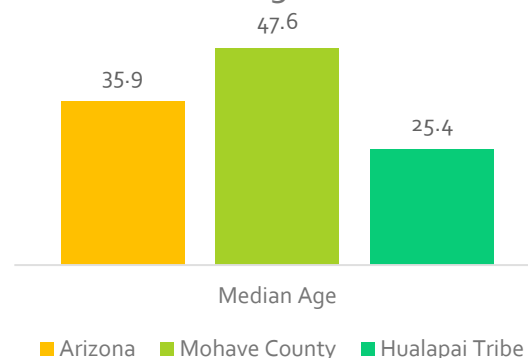
<sup>14</sup> IBID

<sup>15</sup> IBID

The median age for the on-reservation Hualapai Tribe (**Figure 15: State, County, & Hualapai Tribe (On-Reservation) Median Age in Years**) is 25 years, with males slightly younger at 24 years and females older at 26. This is a decade younger than the State median age of 36 years, and almost half of the County median age of 48 years.

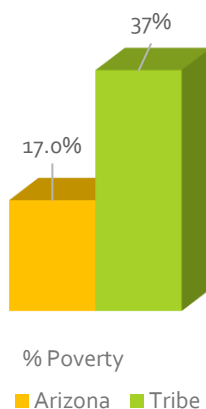
Census SF1 2010

Figure 15: State, County, & Hualapai Tribe (On-Reservation) Median Age in Years



## INCOME & POVERTY

Figure 16: % Poverty Arizona and Hualapai Tribe (On Reservation)



Census SF1 2010

Low socioeconomic status is associated with an increased risk for many diseases, including cardiovascular disease, arthritis, diabetes, chronic respiratory diseases, and cervical cancer as well as for frequent mental distress. Among the main factors that compose socioeconomic status are income, education, and employment or occupation<sup>16</sup>.

Hualapai living on the reservation have a high percentage of poverty (37%) when compared to the State (17%) (**Figure 16: Percent Poverty on Reservation**). Among those, 52% are children affected by poverty. The average Hualapai household living on the reservation makes \$34,375 per year, less than those in the County (\$39,785) and State (\$50,448).

Most of the population workforce in Peach Springs are either a federal or local government worker. Aside from tribal administration and the public school system, Grand Canyon Resort Corporation is one of the main tribal employers of the region. Tourism, cattle ranching, and arts and crafts are the main economic activities in the community. The Hualapai Lodge, Hualapai River Runners, Grand Canyon West resort and the Skywalk are part of the tribal enterprises for tourism that help support resources for the tribal government and community programs and services<sup>17</sup>.

<sup>16</sup> Healthy People 2020: /CDC Promoting Health Equity A Resource to Help Communities Address Social Determinants of Health

<http://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/tools/pdf/SDOH-workbook.pdf>

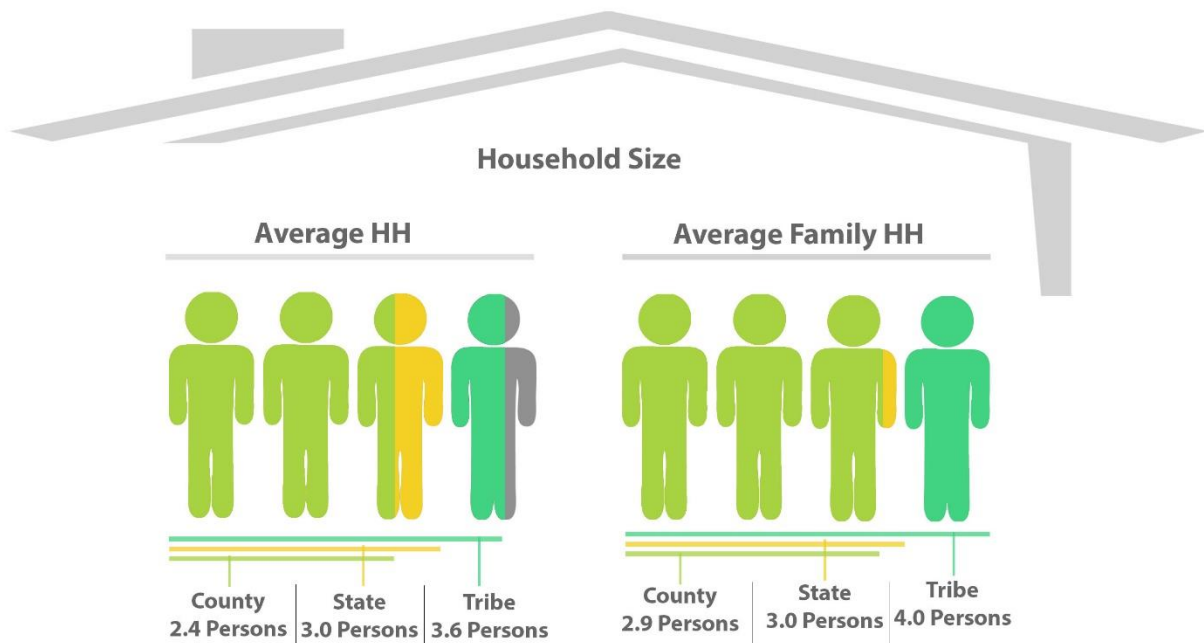
<sup>17</sup> 2014 Needs and Assets Report- Hualapai Tribe Regional Partnership Council

---

## HOUSEHOLDS

There were 362 households living on the Hualapai reservation in 2010, with an average household size of 3.6 persons and family size of 4 persons<sup>18</sup>.

**Figure 17: Household Size Comparison-** illustrates the Hualapai on-reservation large household size compared to the average State and County, even larger are family households dominant in the Hualapai tribe.



A majority of the Hualapai population living on the reservation are family households, accounting for 76% of all households. In contrast to the State (48.1%) and County (45%), only 26.8% of households are married couple families.

Single family Hualapai householders living on the reservation with no spouse present account for 49.1% of all residents, particularly prominent are female householders (35.6%) that compose a third of all households. Of these, single moms with young children (under 18 years) compose 17.1%, three times more likely than the State (7.1%) or County (5.3%)<sup>19</sup>. Nonfamily households compose 24% of the population.

---

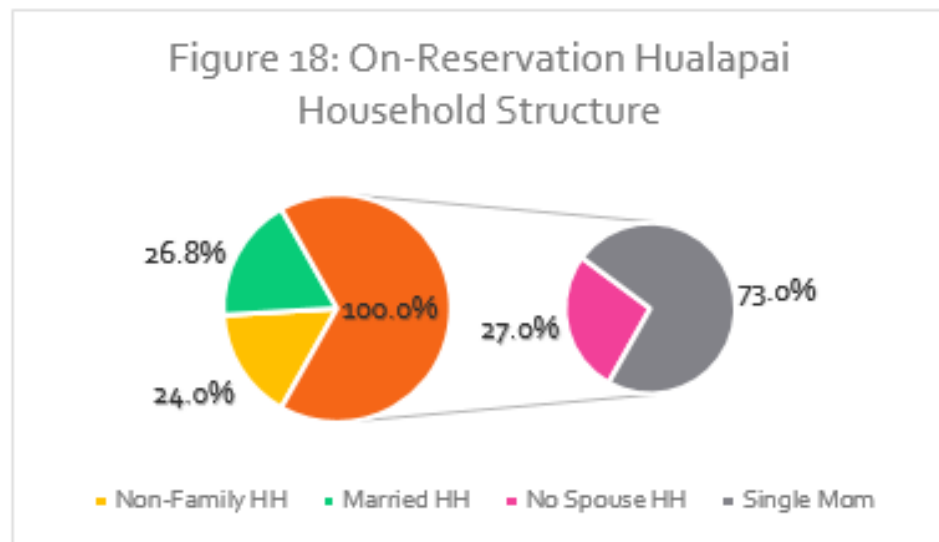
<sup>18</sup> Demographic Analysis of the Hualapai Tribe-2010 Census & 2010 ACS Estimates; AZ Rural Policy Institute

<sup>19</sup> IBID



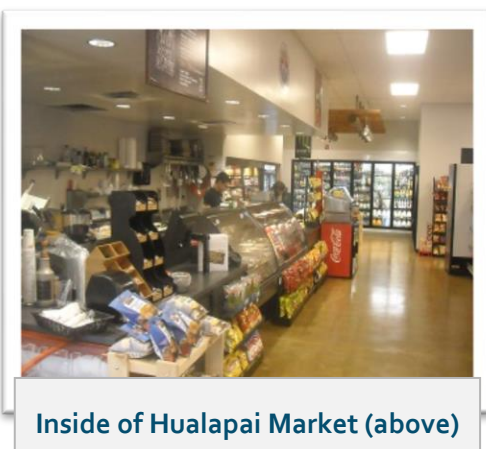
Hualapai households are more likely (54%) to have children under the age of 18 living in the house than the State (34%) or County (25%)<sup>20</sup>. 25% of children under the age of five live with grandparents, higher than the State (14%), and common among Native American on-reservation families (40%).

**Figure 18: On-Reservation Hualapai Household Structure-demonstrates that family households on reservation occupy a large percentage of households, and of those most are single moms or have no-spouse.**



## ACCESS TO HEALTHY FOODS

A food desert is defined as living more than a half-mile from a grocery store in urban areas and more than 10 miles in rural. In 2010, about 20% Arizonians lived in a food desert<sup>21</sup>. The tribe recently renovated the Walapai Market. This tribal enterprise provides fresh produce and meats and is within walking distance of the majority of Peach Spring's residents.



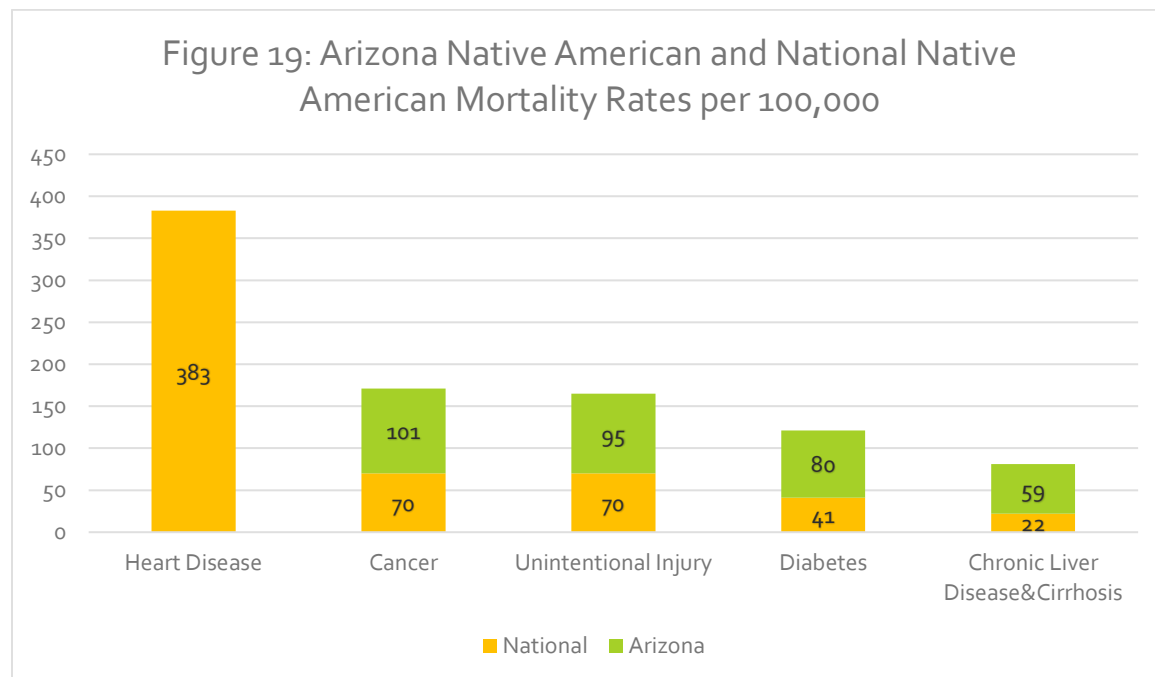
<sup>20</sup> IBID

<sup>21</sup> US Department of Agriculture Economic Research Service: Food Deserts

## HEALTH REPORTING

### HUALAPAI TRIBE 2016 COMMUNITY HEALTH PROFILE

Nationally, the leading causes of death for American Indians and Alaska Natives (AI/AN) include heart disease, cancer, unintentional injury, diabetes, & chronic liver disease and cirrhosis. Cancer mortality rates per 100,000 in the region exceeds the national level (70) for American Indians in the states of Arizona (101), Nevada (100), and Utah (122); Arizona's top mortality rates for AI/AN specifically reflect the leading causes of death at much higher mortality rates for all categories. (See [Figure 19: Arizona Native American and National Native American Mortality Rates per 100,000](#))



Source: Department of Health; HIS National Patient Information and Resources System

The Hualapai Tribe 2016 Community Health Profile analyzed a variety of health outcome indicators using Arizona Hospital Discharge Data (AZ HDD) and Resource and Patient Management Systems (RPMS) data. Health outcome indicators included pertaining to our HIA include: chronic disease, mental health, injury, infectious disease, and maternal/child health.

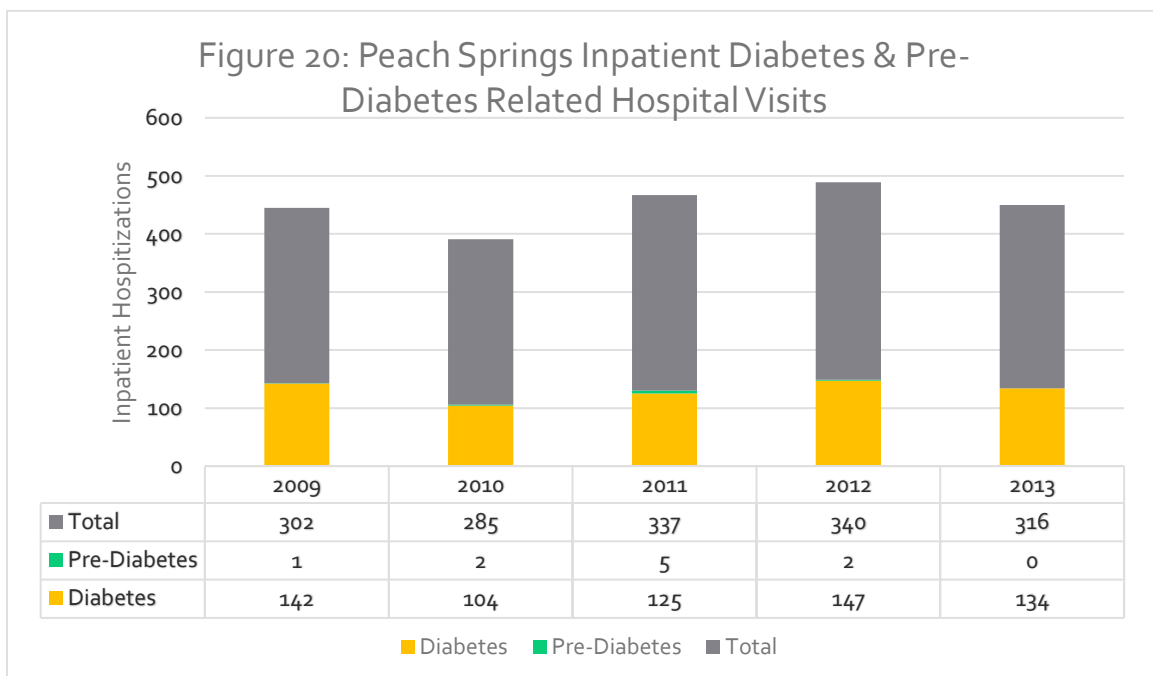
## DIABETES

Diabetes is a disease where blood sugar levels are above normal due to an inability of the pancreas to produce enough insulin. Insulin is a hormone that converts sugar (glucose), found in most foods, into energy. Individuals with diabetes either cannot release insulin (Type 1), or are unable to utilize insulin efficiently (Type 2)—resulting in a buildup of sugar in the body.

**Type 1 Diabetes-** The exact cause and cure for Type 1 diabetes currently remains unknown, but is associated with genetic and environmental risk factors. Type 1 diabetes is managed through insulin shots to keep blood glucose levels within a normal range.

**Type 2 Diabetes-** In comparison, Type 2 diabetes (acquired) is the most common form of diabetes, and can be prevented or delayed through maintaining a healthy weight, diet, and exercising regularly. The risk of having Type 2 diabetes increases as a person gets older, and has been linked to obesity, genetic risk factors, and physical inactivity.

According to the IHS, American Indians are twice as likely to have diagnosed diabetes. American Indian children ages 10-19 are 9 times more susceptible to being diagnosed with diabetes in comparison to non-Hispanic whites in the same age group.<sup>22</sup> Diabetes in both forms is often the lead cause to serious complications, such as blindness and kidney failure; it is also a critical risk factor for heart disease, stroke, and lower-extremity amputations.<sup>23</sup> In Mohave County, 12% of the population were diabetic<sup>24</sup>. Of the inpatient hospitalizations in 2014 in Peach Springs (the latest year for which these figures are available), 42.4% were diagnosed with diabetes. (See **Figure 20: Peach Springs Inpatient Diabetes & Pre-Diabetes Related Hospital Visits**).



<sup>22</sup> Hualapai Tribe 2016 Community Health Profile (Draft), pg.8

<sup>23</sup> <http://www.webmd.com/diabetes/tc/diabetes-differences-between-type-1-and-2-topic-overview>

<sup>24</sup> 2016 County Health Rankings

Hypertension (high blood pressure) is a risk factor for people with diabetes, and among the Peach Springs Hualapai Tribe is relatively high among certain age groups. In 2012, more than half of elderly patients (50-69 years) with diabetes had hypertension, putting them at higher risk for eye and kidney problems. There are no symptoms for hypertension, and can lead to serious complications such as heart disease and stroke. However, this disease is easily prevented or controlled through regular physical activity, well-balanced diet, and limiting of risk factors such as tobacco, and in some cases medication<sup>25</sup>.

## CARDIOVASCULAR DISEASE

From 2009-13, inpatient hospitalizations relating to heart disease in Peach Springs constituted about 21 percent. Although some risk factors are easily determined (ie. ethnicity, age, and family history), others are more influenced by personal behavioral choices, such as high blood pressure, high cholesterol, tobacco use, obesity, physical inactivity, unhealthy diets, and harmful use of alcohol. The risk for stroke is 2-4 times higher among people with diabetes; and among the Strong Heart Study results, the risk for cardiovascular disease (CVD) may be as high as 3-8 times higher for American Indian (AI) adults with diabetes, than those without<sup>26</sup>. In 2014, 24% of the Hualapai population over age 19 had hypertension. Among young adults, 18% had hypertension, with adults ages 30-69 at a higher rate of 35%. (See [Figure 21: Peach Springs Cardiovascular Disease Related Hospital Visits](#)).

Figure 21: Peach Springs Cardiovascular Disease Related Hospital Visits					
	Heart Disease		Stroke		
Year	#	%	#	%	Total Patients
2009	71	23	5	1.7	303
2010	61	21	2	0.7	285
2011	69	20	7	2.1	337
2012	65	19	5	1.5	340
2013	71	22	3	0.9	316

<sup>25</sup> P.18 Hualapai Tribe 2016 Community Health Profile

<sup>26</sup> 2012 Facts-at-a-Glance: Diabetes in American Indians and Alaska Natives (<http://www.ihs.gov/medicalprograms/diabetes>)

---

## OBESITY

Mohave County has a 38% obesity rate for the entire population. In 2014, 92% of the Hualapai Tribe population were either overweight (21%) or obese (71%)<sup>27</sup>. Childhood obesity is associated with different types of health and psycho-social problems, including high blood pressure, high cholesterol, Type 2 diabetes and asthma, and is a strong predictor of adult obesity with related health risks. Research shows that a child who enters kindergarten overweight is more likely to become obese between the ages of five and 14 than a child who is not overweight before kindergarten<sup>28</sup>.

Among the children ages 2-5 enrolled in the Hualapai Tribe WIC, Head Start, and IHS programs, about 25% were overweight. The Hualapai WIC for Peach Springs had 14% of children obese, which was less than the Head Start preschool and IHS Service rates where at least a quarter of the children were obese. (See **Figure 22: Hualapai Tribe Children Weight Table**).

Figure 22: Hualapai Tribe Children Weight Table					
	Ages	Underweight	Normal Weight	Overweight	Obese
Hualapai WIC2012	2-4	1%	61%	24%	14%
Head Start 2012-2013	3-4	0%	48%	26%	26%
Indian Health Service (FY2011-2013)	2.5-5	1%	50%	25%	25%

Office of Head Start (2013). 2013 Performance Indicator Report Data Extract <sup>29</sup>

---

<sup>27</sup> P.26 Hualapai Tribe 2016 Community Health Profile

<sup>28</sup> <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4017620/>

<sup>29</sup> 2014 Needs and Assets Report

## MENTAL HEALTH

According to a RWJ Health Survey, 12% of respondents in Mohave County identified as being mentally distressed<sup>30</sup>. Mental well-being is an important aspect in health, and can often be undiagnosed without proper evaluation; it can lead to poor mental health conditions such as anxiety, depression, substance abuse, and thoughts of self-harm or suicide. In the Hualapai community, 4.2% of the population were subject to alcohol or substance abuse, and 1.2% experienced depression<sup>31</sup>.

Among Hualapai children enrolled in the Hualapai Head Start program, 9% of children were assessed and referred outside for mental health services, of which all received services. (See **Figure 23: Mental Health Services Referrals- Hualapai Head Start Program**).

<b>Figure 23: MENTAL HEALTH SERVICES REFERRALS – HUALAPAI HEAD START PROGRAM</b>				
	Mental Health Professional On-Site (Average)	% Children with Individual Mental Health Assessments	%Children Referred for Outside Mental Health Services	% Children Referred for Mental Health Services that Received Services
Hualapai Head Start	6 hours/month	9%	9%	100%
2014 Needs and Assets Report: Office of Head Start (2013). 2013 Performance Indicator Report Data Extract.				

Mental Health in the 2016 Community Health Profile utilized IHS Data and the following indicators to assess mental health: Alcohol/Substance Abuse, Anxiety, Depressive Disorder, Mood Disorder, & Domestic Violence. Generally, from the period of 2009-2014, the number of individuals who reported in those categories decreased. Domestic violence can impact children in the household who can experience trauma impacting behavioral and emotional development. While a domestic violence incident occurs two out of three days each year in Peach Springs, the number of domestic offenses reported also decreased by 14% from the period of 2010-2013 (See **Figure 24: Reported Domestic Violence Offenses in Peach Springs**).

<b>Figure 24: REPORTED DOMESTIC VIOLENCE OFFENSES IN PEACH SPRINGS</b>				
	2010	2012	2013	Change 2010-2013
Domestic Violence Offenses	298	276	256	-14%
Hualapai Tribal Police Department (2014).[Crime Statistics, 2010-2013]. Pg.88, 2014 Needs and Assets Report.				

<sup>30</sup> <http://www.countyhealthrankings.org/app/arizona/2016/rankings/cochise/county/factors/overall/snapshot>

<sup>31</sup> P.37 2016 Hualapai Community Health Profile

## EXISTING CONDITIONS ASSESSMENT

### HEALTH ORGANIZATIONS

The Hualapai Health Education and Wellness Department oversees various intensive and comprehensive programs concerning health issues such as diabetes, cardiovascular disease prevention, obesity, and youth services. Among them include:

- **Behavioral Health**- Provides counseling services, evaluations, referrals and support for individuals or families in traditional and non-traditional settings. This organization helps alleviate the social and emotional impact from mental illness and substance abuse.
- **Community Health Representatives (CHR)**- Provide service for homebound patients and the community to improve the quality of life through preventative services and educational initiatives set forth by the IHS and Hualapai Health Department.
- **Diabetes/ Fitness Program**- In addition to overseeing many health-engaging activities for the community, the Diabetes Prevention Program oversees the fitness center and provides health assessments and personalized programs that may include guidance on the use of equipment and diet.
- **Healthy Heart (Cardiovascular Diabetes Program)**- this program is funded through IHS
- **Native American Research Center for Health (NARCH)**- part of a research project currently operating an internet radio station (EPCH) with the aim of involving youth-operated broadcasts to influence community health behaviors.
- **Women, Infant, and Children Program (W.I.C.)**- As mentioned above, W.I.C. assists mothers and families with children below five years old through educational and financial support to promote healthy youth and reduce obesity.
- **Peach Springs Youth Services Coalition (PSYSC)**- part of the Youth Services Program that meets monthly. This organization is dedicated to youth representation and issues to connect them to services. The Youth Services Program is also responsible for coordinating the Tribal Youth Council, La Paz Run, and Indian Day events and activities.



## SITE VISITS & OPPORTUNITIES





Peach Springs has five parks; Hualapai Park (under construction as of the writing of this HIA), Route 66 Park (across from the Hualapai Lodge), Rodeo/Veterans Park, which includes fields that have not been maintained and are not useable, unmaintained play equipment, lights, and amenities that are not operable or usable, and Buck and Doe Park and Milkweed Parks. These two parks were constructed as part of the surrounding housing developments and have not been maintained. Most of the park equipment is broken, covered in graffiti, and overblown with sand. Most to all park amenities are not usable. No formal access exists to the parks. The tribe also provides a fitness center for its members near Rodeo/Veterans Park.



**Park Conditions (above) include graffiti on equipment, overgrown landscape, debris and litter preventing access and comfort.**



Figure 25: Site Visit Findings-Assesses the condition of parks into four major categories based on comments and areas of challenges brought by the community.

Figure 25: SITE VISIT FINDINGS		
Illustrations	Condition Category	Assessment
	<b>Amenities &amp; Equipment</b>	Most of the equipment was damaged, covered in graffiti, and not fully functional. Access to the parks was undefined, and usually via a dirt 'cattle track' type of path.
	<b>Maintenance &amp; Safety</b>	A majority of comments received from meetings, site encounters, and survey responses related to lack of maintenance and safety as an issue. Incidents of broken glass, overgrown shrubs, vandalism or graffiti on equipment, and underwear were cited as deterrents of park use.
	<b>Park Programming &amp; Organization</b>	Currently no parks and recreation department exists to oversee maintenance or programming. Programming in parks and around amenities would increase their use (for example, sports leagues could use fields, events in parks would result in more use of equipment and amenities). Other fitness programs are located in the Hualapai fitness center near Rodeo Park.
	<b>Social Activities &amp; Comfort</b>	None of the parks provided shade, protection from blowing sand and wind, water fountains, or comfortable places to sit. The parks were not lit. Sticker bushes makes it difficult to use the parks and to access them.

## COMMUNITY INPUT

### STEERING COMMITTEE MEETING

Two steering committee meetings were held at the Health Education and Wellness (HEW) building involving several stakeholders from various tribal departments. The Park Steering Committee was also involved, and had members from the planning, health and educational wellness, housing, cultural, and daycare departments to name a few; most of which were residents of the community as well.



2/16/16 Park Steering Committee



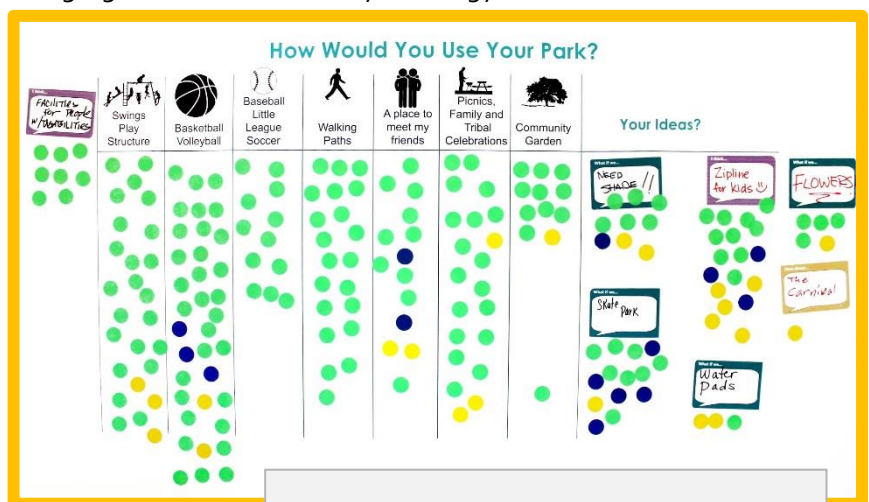
PLAN\*et presenting HIA

The first meeting introduced the purposes and process of conducting an HIA, and explored ideas for what the perceptions of health concerns are and possible ways to mitigate them from their perspective. The stakeholders provided valuable insights as parents, youth activity organizers, health practitioners, and general views of residents and Hualapai culture. Among the health topics discussed were: age, cancer, depression, diabetes, diet, heart disease, hypertension, and liver disease.

The second meeting of the Stakeholder Steering Committee included a presentation and discussion of the Pathways Diagram, discussion of potential use of trails to connect parks, and a separate discussion with the Cultural Department about creating a cultural park at the Cultural Center next to Hualapai Lodge.

### EARTH DAY & SENIOR CENTER MEETING

For the annual Earth Day celebration, students and parents participate with tribal staff to clean debris and trash around the community, and congregate at the community center gym for food and raffles after the event. A survey questionnaire was published in the Gam'Yu newsletter prior to the event, and also provided at an informational booth during the event, in which the community could exchange their responses for

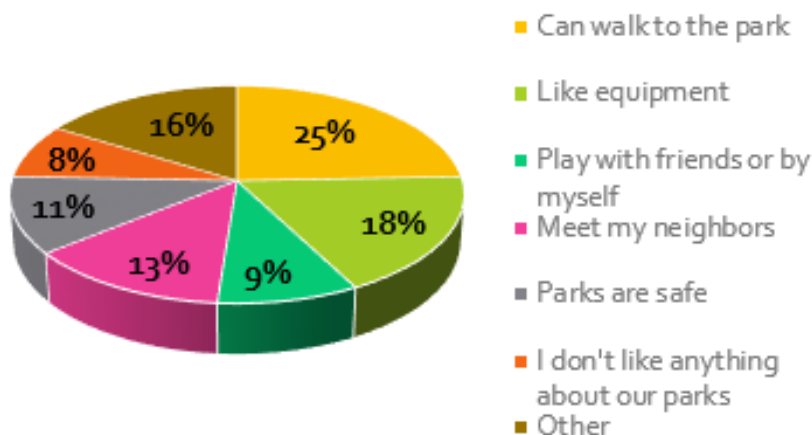


Dot Responses from 4/28/16 Earth Day

a raffle ticket prizes including a fit-bit<sup>32</sup>. The following images below include the poster boards and responses from the event:

## SURVEY RESPONSES

What Do You Like About Your Parks?



When asked what the community loved about their parks, 25% of respondents liked that they could walk to their park and the equipment. Other things they liked were that parks were safe (11%) and that they could meet their neighbors (13%). 8% said they were not satisfied or liked anything about their parks.

Members felt that parks could contribute to their health as a place for family and community celebrations and be more active (13%); a place to go after school or on weekends (12%), a place to exercise (12%); and make Peach Springs a nicer place to live, reduce stress, and feel part of the community (11%).

HOW A PARK COULD CONTRIBUTE TO MY HEALTH



<sup>32</sup> A fit-bit is a flexible, digital wrist-band that serves as a physical activity tracker, and is designed to help you become more active, eat a more well-rounded diet, sleep better, along with other functions depending on the model. Like a pedometer it can measure number of steps taken, distance walked, calories burned, floors climbed, and activity duration and intensity. It can also keep food logs, measure sleep quality (ie: how long it takes to fall asleep, duration of actual sleep), and share results online with other users.

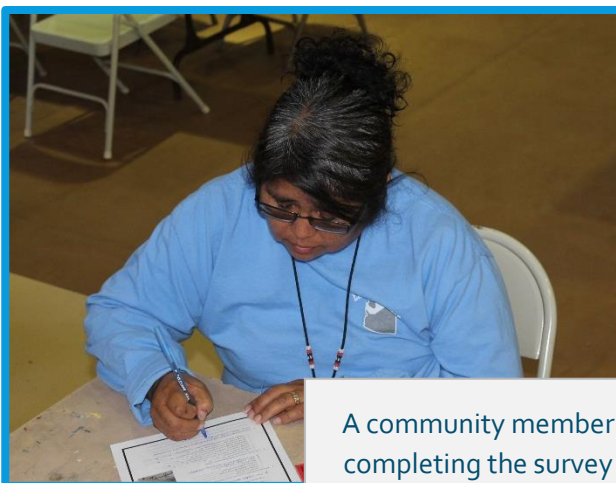
61 survey responses were submitted that have been categorized into the following below:

### Maintenance & Safety

- Keeping the place clean of broken bottles- no graffiti, lights for might use
- Maintain a little better
- Be a lot cleaner. Good equipment
- The parks need to be cleaned of trash, weeds.
- Clean Up. Hazardous to children. Broken Glass
- Fenced for safety
- Milkweed Spring Park over weeded & stickers need to be cleaned. Court playground is cleaner.
- If they were more clean, no weeds/ glass/vandalism
- Clean environment, no alcohol or other drugs to be left at park or utilizing it
- Be cleaned; more exercise active children/adults that have no transportation
- Safety, for self & children while using it.



Youth and adults provided dots for desired uses and vision comments in the park (above & below)



A community member completing the survey about parks

### Park Programming & Organization

- More park locations around the town
- Closer to home
- Have one built in up town area
- Just playing for kids
- Music Mountain football field and gym should be available to the community.



## Amenities & Equipment

- Trees, places to sit, walking paths, BBQ grills, play equipment for the kids, Basketball courts, Baseball/soccer area, small zip-line and splash pad. :)
- I like to have a basketball and swings
- Trees, shade and table w/bench
- More plants (Flowers)
- Skate Parks
- B-Ball court
- Glass, Shade, A Big Pond or Water Source to make a nice place to sit & visit. TO take pride in the community with a walk/run track around the big pond.
- Grass, security, Bathrooms, water fountain, more equipment. BBQ grills

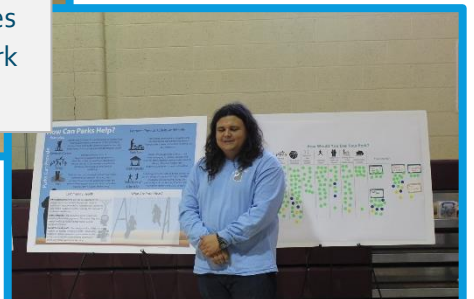
Little Miss Hualapai 2016  
visiting the booth for  
Earth Day (right)



A respondent provides  
her comments for park  
uses (above)



Department staff, Richard Knott, in front  
of information boards (above)



Attendees of Earth Day gather to set-up  
for raffles and food (below)



## Social Activities & Comfort

- More chairs & tables to have family gatherings
- Celebrations. Maybe depts can semi-annual cook-outs
- Promote healthy lifestyles for children.

Overall, the responses given above represent the need for park maintenance and concern for safety; having park programming organizations; offering different amenities and equipment; and making parks a place for social activities and comfort.

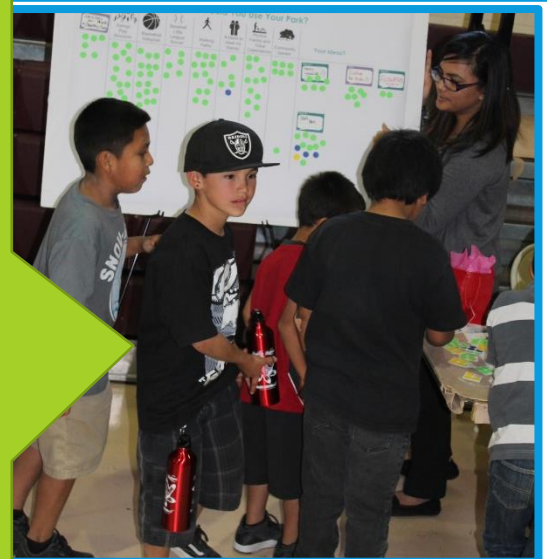


Participants waiting for raffle call (top)  
Kids line up to provide their interests (below)



#### Other Comments:

- They need a big clean NO weeds/ or stickers... workout equipment also needs to be available
- Safe place with equipment
- Walking path, horse shoes, zip line, better maintenance.
- Parks need cleaning, lots of stickers and trash. Could put a water fountain
- A walking track for exercise- grass and trees to lounge in and around restrooms. Safe equipment for kids.
- Have equipment for special needs children + learn activity
- Place to sit that is comfortable
- A place where I know my nephews will be safe to play and have fun with other youth their age. Help them become more active outside.



#### HEALTH FACTORS CONSIDERED IN THIS ASSESSMENT

Based on the above research, the following factors were determined to be relevant to Hualapai Neighborhood Parks:

##### Physical Health

- Cardiovascular Disease
  - Hypertension
  - Obesity
  - Diabetes

##### Mental Health

- Drug Abuse
- Alcohol Abuse
- Suicide

##### Social/Cultural Health

- Access to employment
- Cultural Identity

### PHYSICAL ACTIVITY AND CHRONIC DISEASES

Chronic disease is a condition that is long-lasting and cannot be prevented with a vaccine or cured with medication. According to the Centers for Disease Control (CDC), 7 out of 10 deaths are due to chronic diseases each year, and treating people with chronic disease accounts for 86% of national health care costs. Diabetes, obesity, asthma, addiction, hypertension, and heart disease are considered chronic diseases. Mohave County has high morbidity rates for many chronic diseases that could be affected by physical activity including diabetes, hypertension, and obesity.

Ethnic minorities such as American Indians and Alaskan Natives experience low socio-economic statuses that are related to many health disparities. These inequalities can lead to lower educational attainment, limited access to resources and employment, which in turn affect higher risk for health issues. AI/AN communities in particular have disproportionately high rates of type II diabetes and obesity; these rates are now of growing concern into native youth who experience childhood obesity and related diseases like hypertension and diabetes into adulthood. Organizations such as Healthy People 2020 and Native Strong target these health concerns of preventing type-II diabetes and obesity through better built environments and activity. According to the IHS Division of Diabetes Statistics, the number of Native American youth diagnosed with type 2 diabetes (1.74 per 1,000) was 9 times higher compared to non-Hispanic whites (.1 per 1,000)<sup>34</sup>. From 1990-2009, American Indian and Alaska Native youth aged 15-19 years also experienced a 110% increase in diagnosed diabetes<sup>35</sup>. Physical inactivity is prevalent among Native communities, and in rural locations like Peach Springs, access to healthy food and recreational activities are limited which can relate to higher rates of crime and substance abuse.



Parks can be used to influence health by providing a place for increased physical activity, improving mental health, promoting environmental benefits, fostering community interactions, and reducing injury<sup>36</sup>. This HIA focuses on how the built environment through park and trail enhancements impact community health, primarily through physical activity.

<sup>34</sup> SEARCH for Diabetes in Youth Study (<http://www.ncbi.nlm.nih.gov/pubmed/17015542>)

<sup>35</sup> [https://www.ihs.gov/MedicalPrograms/Diabetes/HomeDocs/Resources/FactSheets/Fact\\_sheet\\_AIAN\\_5o8c.pdf](https://www.ihs.gov/MedicalPrograms/Diabetes/HomeDocs/Resources/FactSheets/Fact_sheet_AIAN_5o8c.pdf)

<sup>36</sup> Parks and Health HIA ToolKit



## POTENTIAL PUBLIC HEALTH IMPACTS OF PLAYGROUNDS AND PLANNED TRAILS

### PROMOTE PHYSICAL ACTIVITY–

Physical activity is a primary avenue to prevent Type II diabetes, obesity, and hypertension. Physical activity partnered with better nutrition (and access to healthy foods), are both vital solutions to better health. Among different age groups, native youth are shown to have higher rates of sedentary activity, and in some cases having 3 or more hours of TV on an average school day, with some having no days of 60 minutes of physical activity; in contrast, the National Survey of Children’s Health found that nearly 50% of AI/AN 10-17 year-olds were in sports teams or lessons, and participated in at least 20 minutes of moderate to vigorous physical activity 4.8 days per week<sup>37</sup>. Inactivity in native youth is of growing concern, and existing recreational activities need to be supported more to give the opportunity for kids to engage in physical activity. When looking at the social determinants of health, the organization *Native Strong* lists the ability to engage in physical activity and have a safe place to play and exercise as an indicator of health, in addition to other factors like chronic stress from unemployment, minority status, and food insecurity affecting mental health. Parks allow a safe place to play and facilitates physical activity.

### PROVIDE INFRASTRUCTURE WITHIN PARK SITES THAT ENCOURAGE PHYSICAL ACTIVITY

In a 2005 report, the US Department of Health and Human Services demonstrated that a lack of built environment appropriate for safe physical activity increases risk of obesity and type 2 diabetes. In a 2007 US DHHS study, many Native communities were found to lack facilities, equipment, and trained physical education staff to provide opportunities for safe physical activity<sup>38</sup>. Providing the infrastructure—such as sidewalk connections, better lighting and playground equipment, shade ramadas, and activity programming—can help encourage physical activity through trail connections, better accessibility, clean, safe places to play, reduce risk of injury away from busy streets, and less UV exposure. Having better equipment, site management, with consideration of location and activity types, can play a crucial role in promoting physical activity.

Having infrastructure such as sidewalk and trail connections can create a safe walking space to access the park and facilitate people with physical challenges or disabilities to get to the park. Better lighting can also allow the park to have broader users through different times of day, and serve to strengthen a sense of security—an important indicator to park usage. Parks with low perceptions of safety or crime are less likely to be utilized, or at times avoided altogether; lighting can enhance visibility<sup>39</sup>. Providing appropriate play equipment such as swings or basketball courts can allow the availability of different types of recreational activities to take place. Shade ramadas with seating are also important in mitigating exposure to UV rays that can increase risk for skin cancer, and allow for immediate access to

---

<sup>37</sup> USDHHS, 2013; Native Strong Report

<sup>38</sup> Halpern, 2007- Native Strong Report

<sup>39</sup> A 2009 survey of 10 Chicago parks found that park programming and maintenance did not impact user activity, however more people visited the park for the first time following improvements when compared to parks without (Cohen DA et al. Effects of Park Improvements on Park Use and Physical Activity. Policy and Programming Implications. AJPM 2009;37(6): 475-480)

respite and recover from exhaustion. Implementing other amenities such as community gardens can be beneficial with proper park programming to maintain and oversee the equipment and activities in the park.

### *PROMOTE MENTAL WELL-BEING*

A person's mental well-being can often be overlooked in the traditional analysis of health, however mental health can affect a person's individual choices that may harm them or prevent them from engaging in beneficial activities. As opposed to physical well-being, mental health may not always be apparent and can involve one's emotional and spiritual well-being that are not easily measured. It is also influenced by one's physical and social environments, and can have physiological impacts. Being connected to nature, avoiding isolation, and engaging in physical activity and better diet have all been shown to help improve community health, and can be holistically addressed through better park design.

### *PROMOTE PARKS/ TRAILS DESIGNS THAT IMPROVE INDIVIDUAL MENTAL HEALTH*

Parks provide open spaces and connection to nature that can alleviate anxiety and stress, factors that have negative health ramifications such as depression that can lead to substance abuse. Neighborhood parks can serve as an accessible outlet to reduce stress and aggression.

Gardening is another commonly associated way that parks can promote mental health. Researchers have found that gardening can help to lower blood pressure, reduce stress, increase brain activity and produce endorphins<sup>40</sup>. Community gardens through parks can provide access to healthier food while simultaneously educating one's awareness of diet and nutrition. Community gardens not only provide an outlet that engages in physical activity, but allows for social opportunities that can create a sense of connection and avoid isolation.

Aside from the physical exposure to nature and keeping active when gardening, children who grow their own vegetables are five times more likely to eat them<sup>41</sup>. Introducing a connection to growing food is essential for a basic understanding of proper nutrition. Additionally, promoting natural, unprocessed foods can aid healthy diet, which can affect mental health. Diets high in refined sugars can impair the brain, impacting regulation in insulin and promoting inflammation and oxidative stress<sup>42</sup>. Your gastrointestinal tract produces about 95% of serotonin, a neurotransmitter that helps regulate sleep and appetite, mediate moods, and inhibit pain<sup>43</sup>.

Possible design elements that can influence a person's individual and mental health include incorporating positive affirmation signs for physical activity or designs with cultural significance and celebrations to identify with.

---

<sup>40</sup> American Horticultural Therapy Association (AHTA); Parks: Improving Mental Health and Well-Being, 2015 April. ParksandRecreation.org.

<sup>41</sup> <http://www.dailymail.co.uk/sciencetech/article-3083454/Sowing-seeds-healthy-eating-Children-grow-veg-FIVE-times-likely-eat-them.html>

<sup>42</sup> <http://www.health.harvard.edu/blog/nutritional-psychiatry-your-brain-on-food-201511168626>

<sup>43</sup> <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2694720/>

## PROMOTE SOCIAL CULTURAL ACTIVITIES –

Social activities are vital to providing support networks and can be a potential catalyst for positive health enablers. Social activities can serve as an event or destination to attract people to parks and motivate people to physically frequent and engage the activity. Cultural celebrations are also important as they can reflect the values of the community and strengthen a sense of identity to aid in mental health.

## MAKE PARKS SERVE AS NEIGHBORHOOD GATHERING SPACES AND SOCIAL DESTINATIONS

Access to open space and recreational opportunities often require traveling farther distances and can be costly; parks serve as an affordable asset that can serve the community, and serve as a walkable destination to frequent from nearby households. With the physical infrastructure, such as seating and eating areas, parks can accommodate social activities in a comfortable setting that encourages people to congregate together.

Encouraging both youth and adults to engage in parks can allow for more supervision and chance encounters to take place. Physical injuries on playgrounds are nationally on the rise for head injuries despite safe-paving, a majority which could be prevented through adult supervision of children playing on age-appropriate equipment. Playgrounds are also important developing children's physical and social behavioral development as they encounter other people and role models through play. By making parks more accommodating to all age ranges with activities for everyone to do, adults can also take part in the benefit of parks while also helping to keep users accountable for park behavior.

Social activities are important in fostering support networks that can aid in physical and mental health behaviors. For example, although having park activities does not guarantee that a person who is depressed will attend them, building positive relationships with activities close by in a neighborhood park can prevent isolation since it is more accessible to meet people. Including cultural elements or celebrations of significance can help in fostering a sense of identity in the community.

According to the Aspen's Center report for Voices of Native Youth, many native youth face a disproportionate amount of poverty and significant rates of substance abuse, teen pregnancy, and suicide. They also address concern that there is a will to learn of native traditions and cultural language and activities, but lack the resources or opportunities to do so<sup>44</sup>. Jennifer Ruiz of the Fresno American Indian Health Project in California conducted a survey of Native youth in urban areas, and found that programs with traditional and cultural activities are well received, and can be used to cope and form

---

<sup>44</sup>[https://assets.aspeninstitute.org/content/uploads/files/content/upload/Voices%20of%20Native%20Youth%20Report\\_CNAY.pdf](https://assets.aspeninstitute.org/content/uploads/files/content/upload/Voices%20of%20Native%20Youth%20Report_CNAY.pdf)

identity; traditional cultural practices signify to everyone in the community who they are and where they belong—giving them a purpose and pride, which is particularly important for suicide prevention.<sup>45</sup>

Although no households are defined as *linguistically isolated* according to the census (66% speak only English), only 33% of persons above age five speak a native language at home. Including design elements such as native words and their translations can provide a learning activity in parks for the elder and younger generations to converse and learn, especially with the high rates of multigenerational households to strengthen relationships.

---

<sup>45</sup> [http://www.samhsa.gov/sites/default/files/programs\\_campaigns/tloa/prevention-recovery-special-edition-spring-2015.pdf](http://www.samhsa.gov/sites/default/files/programs_campaigns/tloa/prevention-recovery-special-edition-spring-2015.pdf)

-----THIS PAGE INTENTIONALLY LEFT BLANK-----

# RECOMMENDATIONS

## RECOMMENDATIONS

These recommendations maximize the benefit of play and physical activity associated with the expansion and construction of Peach Spring's parks.

This chapter includes recommendations regarding healthy park enhancement considerations for future land use. The CDC's *Healthy Places: Parks and Trails HIA Toolkit* provides a variety of broad recommendations listed below for guidance. These all-encompassing suggestions should be considered in future park planning, and will be used as goals to improve upon in this HIA recommendation.

### Common Park & Trail HIA Recommendations:

**Connectivity**- Incorporate park-level (trail) design that supports connectivity

**Access to parks**- Examine walking access to parks

**Inclusive Access**- Provide adequate physical access to the park for everyone, regardless of user ability

**Equitable Access**- Ensure equality in distribution of park access throughout the community among diverse populations

**Safety**- Address safety concerns such as crime, vandalism, traffic, maintenance, and management

**Traffic Injuries**- Encourage park and adjacent neighborhood design that protects users travelling to the parks/trails and users within parks from motor vehicle crashes

**Multi-functional**- Design park sites to promote a variety of users and facilities

**Physical Activity**- Provide infrastructure within park sites that encourage physical activity

**Social Cohesion**- Design parks to serve as neighborhood gathering spaces and social destinations

**Mental Health**- Promote parks/trails designs that improve individual mental health

**Outreach**- Undertake education and engagement activities to promote park sites

**Air & Water Quality**- Implement mitigation strategies for parks and trails to improve: conservation, storm water management and hazard mitigation

*HIA Tool-Kit*

Figure 26: Recommendations

Pathway/Health Determinant (reference Fig. 19: Pathway Diagram, pg. 18, for definition)	Recommendation	Rationale
1,2,3,6,8,10,11	Build trails to connect parks with the surrounding community, particularly extending proposed sidewalks in the Safe Routes to School Plan along Diamond Creek Road and	Extending the future sidewalk along Hualapai Way to the new Hualapai Park can allow the park to better serve as a destination point between the northern neighborhood residents, town center, and SRTS path on Diamond Creek Road. Sidewalks and trails promote connectivity in the region by allowing more pedestrian-

Figure 26: Recommendations (Continued...)

Pathway/Health Determinant	Recommendation	Rationale
	Hualapai Way to Hualapai Park	friendly and accessible routes during inclement weather. By being connected to the SRTS plan along Diamond Creek Rd., students and parents can walk on a safe, guided path in conjunction with SRTS initiatives that allows bikes and encourages street-safety education. Similarly, sidewalks can promote accessibility for those with physical disabilities.
1, 2, 7, 9, 10	Promote consistent design elements that incorporate cultural icons to visually connect parks to the culture of the community	Positive affirmation signs and markers can provide visual support to both mentally connect spaces and encourage physical activity. Cultural art, with consideration to cultural privacy for display to the public or tourists, can also create subtle connections to cultural identity, and potentially inspire dialogue about native heritage. Other signage around play equipment can include benefits of physical activity related to health, language learning activities, and rules and regulations for the playground. For example, create questions such as, "15 minutes of play can burn XY calories. A soda is XY calories. How many minutes of play would it take to burn off a soda?"
2,3,5,6,9,10	Locate future parks within walking distance to neighborhoods and away from Route 66	Residents who live closer to parks tend to visit them more frequently and report more leisure and recreational time spent. This is important in mitigating chronic stress by providing an easily accessible and affordable option to walk and engage in recreational activities. The closer parks are located to homes, the less planning and travel is necessary to visit them; allowing for residents to have a safe space to walk to and participate in physical exercise with little commitment necessary. A carefully placed park considers both walking distance and protection from highway traffic and noise. With a distanced park, potential vehicle accidents are less likely to affect park users. The recommendation also allows park expansion without the restriction of a highway road boundary.



Figure 26: Recommendations (Continued...)

Pathway/Health Determinant	Recommendation	Rationale
2,3,5,6,7,9,10	Develop and implement maintenance programs for all parks including an adopt-a-park program.	Having a local connection to the area establishes and strengthens a sense of pride in the community and desire to continue upkeep when members can feel invested. Almost all comments received pertained to the lack of maintenance as barriers to engaging in physical and recreational activities in visiting the park. A task force or maintenance program will serve to enforce the “eyes-on-the-street” visibility and safety in the park, and can draw from community volunteers and local organizations. Adopt-a-park is one such agency to bring community accountability and upkeep of the parks; Hualapai’s Green Reentry program <sup>46</sup> is a similar group, but is currently inactive.
3,4, 5, 6,9	Provide lighting and secure fencing around parks to protect them from vandalism	Adequate lighting along the path to the park extends usable hours during early morning and night. A sense of security is valuable to park users and encourages increased park usage.
5,6,10	Diversify the equipment provided in parks to accommodate various intensities of activity and for those with disabilities or limited mobility	Inclusion is key for maximum park usage. Ranging from simple jungle gym equipment or walking paths, to assisted exercise equipment, infrastructure must accommodate different users and activities. Wide entry ways and ramps can be implemented for assisted users, and equipment with lower levels of physical intensity can be located closer to the entrance so there is less distance to travel to equipment for anyone with limited mobility.
2,5,9,10	Designate age-appropriate equipment in specific areas of the parks	Recent studies concerning hospital related head trauma injuries reveal that despite safe paving of playground equipment, adult supervision and age-specified areas can aid in reducing head injuries. Exploring risks and playing is important to a child’s psychological, physical, and social development, but can lead to potentially

<sup>46</sup> [https://www.rti.org/sites/default/files/resources/lessons\\_learned\\_brief\\_link\\_added.pdf](https://www.rti.org/sites/default/files/resources/lessons_learned_brief_link_added.pdf) The Green Reentry is a program like many around the nation to allow remedial re-entry for juveniles, provide jobs, and contribute to the community with activities away from dangerous influences.

Figure 26: Recommendations (Continued...)

Pathway/Health Determinant	Recommendation	Rationale
		hazard situations for children who are too young to differentiate their level of appropriate risk. For example, a four-year-old may be inclined to jump off a small platform built for his age with no injuries, but similar equipment for older children nearby may prompt him to assume the same for a larger equipment twice his size. Designating spaces can deter young children from involvement in inappropriate use of complex equipment, until they are ready to do so. This reduces head injury, and can aid in similar social interactions of their same level.
4,5,6,8,9,10	Provide amenities such as seating, BBQ grills, and shade	Picnic areas allow a broader use of parks such as social festivities to congregate, eat, or respite from other activities in the park. People can have a neighborhood gathering space as a social destination to walk to the park, even if the activity is sedentary once within the park. Seating is important for providing area of comfort for users to rest within the park and prolong activities, versus avoiding the park to rest elsewhere. Shade ramadas protect users from inclement weather and reduce UV exposure. Parents can have a place to watch kids play and spend more time with kids comfortably.
2,5,7,8,9,10	Encourage the Hualapai Department of Health Education and Wellness to hold events in parks	The Health Education and Wellness department provides a variety of health, education, and prevention service events throughout the community with trained staff who can inform the benefits of health with physical activity. Collaboration to host educational workshops or community events at the park can provide activities for adults and kids to gather and bond. Examples can include group walks around the park for diabetes prevention awareness while socializing to foster community and avoid isolation.
2,3,5,8,10	Expand mission of the Recreation Department to include parks for recreation	To oversee administration and managing of programs, the Recreation Department should expand to include parks, and should

Figure 26: Recommendations (Continued...)

Pathway/Health Determinant	Recommendation	Rationale
	programming and park maintenance.	be considered to implement recommendations and sustain or broaden outreach among the community. Parks can serve as a catalyst for addressing health, and including them in the Recreation Department's mission can help oversee the organizing of different activities and collaborating amongst organizations and departments to pursue that.
3,5,7,8,10	Provide a community garden in one of the parks	Community gardens provide accessible opportunities to engage in physical activity and provide affordable, healthy foods. Since Peach Springs is considered a food desert, there are many potential beneficiaries, including the SNAP program and neighborhood residents. Participants can learn about healthy diets and partner with the schools to teach about edible landscapes. Eating events from the produce can further this and also provide nutritious food for the community to help address obesity, heart disease, and depression.
2,3,5,10	Create a way for people who use the parks to alert the tribe to maintenance issues, and suggest enhancements to parks	Allow for either the planning department or proposed parks division to solicit feedback and follow-up from the community. Feedback can be a valuable asset to improving parks to sustain park users and take preventative management to improve parks.
2, 6, 7, 8, 9, 10	Create a cultural park	Currently, Route 66 Park is located downtown across from the Hualapai Lodge. Hualapai Lodge is the launch point for tourists going on river rafting tours, and other tourists passing through on Historic Route 66. Route 66 Park provides seating, and little information about the Hualapai or its culture. Creating a cultural park at the Hualapai Cultural Center would provide a place where tribal members could come to relax by themselves or with family, and teach and enjoy tribal traditions. It could also provide a place for visitors to the Hualapai to learn about Hualapai Culture. If a vending area were included, it could help.

Figure 26: Recommendations (Continued...)

Pathway/Health Determinant	Recommendation	Rationale
		to increase resident income. A cultural park could increase a sense of belonging. Walking areas could increase physical activity. A garden with traditional crops could provide produce for the Hualapai Market and increase access to healthy food
<b>1, 3, 5, 6, 9, 10</b>	Restore Diamond Park fields and play area, and provide a safe pedestrian connection across Route 66 to Diamond Park	This park includes lit fields and play areas and could provide a facility for team sports. Currently, there are not formal Hualapai sport leagues. Providing this facility could support the formation of these leagues for softball and potentially soccer (which could be played on the outfields of the ball fields). Engaging in leagues could increase community pride and regular practices could result in increased physical activity. Providing a connection across Route 66 would enable youth to safely go from school to practice.
<b>1,2,3, 5,9,10</b>	Involve collaboration to solicit feedback between the park steering committee, recreation department, Good Health and Wellness Coalition, and Youth Council.	Involving partnership to oversee recommendations from different groups can promote diverse representation from the large presence of youth in the community, health representatives, and recreation employees to create effective programs.

# REPORTING

## REPORTING

Reporting describes how the results of this assessment are disseminated to entities that will be responsible for implementation. The primary mode to report the results of this study includes presentations to the Park Steering Committee, the Hualapai Tribal Council, and inclusion of this study in the Hualapai General Plan Update.

## PRESENTATIONS

Presentations related to this study are shown in the chart below (Reporting) Meetings with the Park Steering Committee were used to solicit feedback in conjunction with the Hualapai Planning Department. The annual Earth Day was used to gather input from the community through surveys published in the Gam'Yu Newsletter and face-to-face encounter. Participation in the survey and raffle were well received, with many comments submitted even after the event.

**Figure 27: REPORTING**

Entity	Date(s)	Report Provided By	Info Presented/Topics
Parks Steering Meeting	2/16/16 5/11/16	PLAN*et Communities	About HIA Community Results
Gam'yu Newsletter/ Surveys	4/6-4/19 edition	PLAN*et Communities	Announcement of Earth Day & Fit-Bit Raffle Surveys for park feedback
Earth Day	4/8/16	PLAN*et Communities	Community Health Issues & How Parks Impact Health with dot board for preferred park usage
Senior Center Presentation	Planned during October 2016	Hualapai Planning & Economic Development	About HIA and community feedback
Tribal Council	9/10/16 Additional progress meeting planned in October 2016	Hualapai Planning & Economic Development	Present report for proposed adoption in General Plan Land Use
Phone Correspondences	Bi-weekly through presentation to Tribal Council on 9/10/16.	AZDHS, Hualapai Planning Department, & PLAN*et	Project management, event coordination, and follow-ups

-----THIS PAGE INTENTIONALLY LEFT BLANK-----

# MONITORING AND EVALUATION

## MONITORING AND EVALUATION

This chapter includes identification of indicators that can be used to monitor and evaluate implementation of HIA recommendations; and an discussion of the efficacy of the HIA process.

## IMPLEMENTATION RESPONSIBILITY AND TIMING

**Figure 31: Implementation Responsibility and Timing** identifies indicators that can be used to measure the efficacy of recommendations contained in this HIA, the entities that could collect data for the indicator, and how the data could be collected (implementation methodology). It is understood that many of these recommendations are dependent on funding. However, monitoring to evaluate the impacts of these recommendations should be started now, so changes in community health can be measured.

**Figure 28: Implementation Responsibility and Timing**

Pathway	Recommendation	Indicator	Responsible Hualapai Tribal Entity	Implementation Methodology	Timing
1,2,3,6,8, 10,11	Build trails to connect parks with the surrounding community, particularly extending proposed sidewalks in the Safe Routes to School Plan along Diamond Creek Road & Hualapai Way to Hualapai Park	Monitor percent of children walking to school through school transportation surveys	Public Works Department	Administer a survey of children who walk to school to measure usage of trail system as a component of the SRTS program	Medium-term
1, 2, 7, 9, 10	Promote consistent design elements that incorporate cultural icons to visually connect parks to the culture of the community	Resident surveys to identify how much they connect to their culture and suggest local artists	Cultural Department & Health Education and Wellness	Community-wide survey	Short-term



**Figure 28: Implementation Responsibility and Timing (Continued...)**

<b>Pathway</b>	<b>Recommendation</b>	<b>Indicator</b>	<b>Responsible Hualapai Tribal Entity</b>	<b>Implementation Methodology</b>	<b>Timing</b>
<b>2,3,5,6,9, 10</b>	Locate future parks within walking distance to neighborhoods and away from Route 66	% Resident households more than ½ mile from a park	Planning Department	Adoption of park location guidelines included in this HIA	Long-term
<b>2,3,5,6,7,9, 10</b>	Develop and implement maintenance programs for all parks	Community survey evaluations	Planning Department	Maintenance to address these issues	Short-term
<b>3,4, 5, 6,9</b>	Provide lighting and secure fencing around parks to protect them from vandalism	Observe vandalism incident increases	Recreation and Public Works Departments	Installation of lighting	Short-term
<b>5,6,10</b>	Diversify the equipment provided in parks to accommodate various intensities of activity and those with disabilities or limited mobility	Resident surveys of activity types used in the park	Recreation, Housing, and Public Works Departments	Adoption of parks design that responds to community needs	Medium-term
<b>2,5,9,10</b>	Designate age appropriate equipment in specific areas of the parks	Monitor age of children in designated equipment	Recreation Department	Quarterly informal surveys of park use	Short-term
<b>4,5,6,8,9, 10</b>	Provide amenities such as seating, BBQ grills and shade	Resident surveys to identify comfort level	Housing and Public Works Department	Annual community survey on parks	Medium-term
<b>2,5,7,8,9, 10</b>	Encourage the Hualapai Department of Health Education and Wellness to hold events in parks	Number of coordinated events and participant feedback	Health Education and Wellness	Hold events	Short-term
<b>1,2,3, 5,9,10</b>	Involve collaboration between the park steering committee, Good Health and Wellness Coalition, and Youth Council	Number of joint meetings	Tribal Council	Forum and community surveys for program suggestions	Short-term

**Figure 28: Implementation Responsibility and Timing (Continued...)**

Pathway	Recommendation	Indicator	Responsible Hualapai Tribal Entity	Implementation Methodology	Timing
<b>2,3,5,8,10</b>	Expand the Recreation Department to oversee recreation programming and include park maintenance	Establishment of department	Tribal Council	Council Action to expand recreation to parks	Short-term
<b>3,5,7,8,10</b>	Provide a community garden in one of those parks	Number of participant plots and volume of produce	Cultural Resources and Health Education and Wellness Departments	Track number of households participating in the community garden pilot program, and survey community to determine interest in additional community gardens.	Short-term
<b>2,3,5,10</b>	Create a way for people who use parks to alert the tribe to maintenance issues, and suggest enhancements to parks	Monitor feedback submitted via calls to department Establish website survey to collect responses	Public Works Department	Adopt a program/process to encourage residents to notify the Recreation department of issues	Short-term
<b>2, 6, 7, 8, 9, 10</b>	Create a cultural park	Resident surveys of community on connection to heritage	Cultural Resources Department	Conduct resident surveys	Long-term
<b>1, 3, 5, 6, 9, 10</b>	Restore Rodeo/Veterans Park fields and play area, and provide a safe pedestrian connection across Route 66 to Diamond Park	Monitor pedestrian traffic usage on new crossing and fields	Public Works and Housing Departments	Conduct visual counts to determine the number of residents using new crossings and fields	Long-term

## IMPACT EVALUATION

As an HIA is implemented, and if baseline information is established, it can be monitored and over time, the effectiveness of its recommendations can be evaluated. At the conclusion of an HIA, the assessment process can be also be evaluated.

## MEETING OBJECTIVES OF HIA

The primary objective of this HIA was to inform the Peach Springs community and the Tribal Council's General Plan Update about the healthy benefits of park and community health, and the health impacts of potential park improvements with the new construction of Hualapai Park. Using baseline conditions, the goal was to provide recommendation options for future plan considerations.

A secondary objective of the HIA was to build community partnerships and support for health relevant parks and trails recommendations. This objective has been met. For example, the Parks Steering Committee provided great health profiles and data from the Hualapai Education and Wellness Department, and coordinated with the Hualapai Planning Department's events. Future collaborations to host events in parks, or support a Parks and Recreation department, can be supported by both departments with the community.

A third objective of this HIA was to raise community awareness about the relationship between health and parks and trails. This objective was met. At the steering committee meetings and community events, many residents discussed the importance of park activities to their individual health; those that did not see the connection reported seeing how parks can impact community health in their surveys.

## ACCEPTANCE OF RECOMMENDATIONS

This HIA was presented for adoption to the Park Steering Committee and presented with the report to the Tribal Council's General Plan Update for consideration in land use for parks and trails. The Tribal Council was excited upon reviewing the recommendations, and further motioned for continuing public input from the Youth Council and community in future meetings to be held by Tribal Staff.

## OTHER IMPACTS/OUTCOMES

Through presentations of this HIA to entities and agencies in the Hualapai Tribe in Peach Springs, Parks and trails stakeholders, health, and human services providers have become more aware of the value of conducting HIAs as part of the decision making process. In many cases, stakeholders only knew about HIA through classes or word of mouth. Participation in this process provided first-hand experience where stakeholders could experience the value of this process.

## PROCESS EVALUATION

### RESOURCES

This HIA was funded by the Arizona Department of Health Services through a CDC grant. The HIA was conducted from February 2016 to July 2016. The determination to conduct this HIA was made by the Arizona Department of Health Services through a competitive grant process.

The HIA was conducted by a consultant working with the Hualapai Planning Department and its Park Steering Committee as they identified the linkages between recommendations made in Hualapai planning documents and community health. Because the consultant and HIA recipient worked closely on the development of the application for funding for this HIA, the execution of the HIA continued with close involvement from the recipient and the consultant.

### AVAILABILITY AND QUALITY OF DATA

There is limited health data that is openly available and specifically addressed to Peach Springs, however several key documents that contained high-quality comprehensive data of the Hualapai Tribe were used. When possible, data specific to Peach Springs was used, supplemented with county wide data or those of the general Tribe.

The 2016 Community Health Profile provided helpful information related to the main causes of morbidity, such as hospitalization rates of diabetes, hypertension, mental health, and others. The Hualapai Tribe Regional Partnership Council 2014 Needs and Assets Report also provided a breakdown of several elements pertaining to family health; among them tribal enrollment, childhood obesity programs, educational status, food supplements programs, and woman infant and children programs. The Mohave County data was referenced, but most were irrelevant due to the nature of Peach Spring's geographic size and independent status as an independent tribe.

The Hualapai Health Education and Wellness was found to be involved in several reports and healthy initiatives, like the Green Re-entry program, but were not easily centered in one document database. The department is involved in various comprehensive health programs targeted at obesity, young mothers and children, and diabetes, so should be contacted for further information directly.

### PUBLIC ENGAGEMENT

The Hualapai Department of Health Education and Wellness and Department of Planning were actively engaged and participated in this HIA process. At the Parks Steering committee several departments and residents were represented from the Cultural Department, Hualapai Daycare, Public Works, among others.

The public participation in the Earth Day event was well attended with over 60 surveys submitted for feedback and input received for park enhancements, however since it was also a community event some residents were not interested in participating. Posters were placed at the event, with articles about the HIA published in the local newsletter. Overall, a majority of residents were open to participate and provide comment at the event and on site visits.

Further involvement in the public processes can be used to disseminate HIA findings, particularly to the youth presence and leadership councils. The introduction and results of the HIA process were also presented to the Hualapai Elder Senior Center. In the follow-up Parks Steering committee, input was provided and a consensus to present it to the Tribal Council in the upcoming General Plan update was established for further review and adoption.

## FORMULATION OF RECOMMENDATIONS

Priorities for this HIA with respect to existing plans were developed based on vulnerable populations, and recommendations that could have the biggest impact on chronic disease that could be reduced through physical activity. Additional recommendations incorporated public comment and ideas from research about how future planning, such as the general plan update, and in process plans such as construction of the new Hualapai Park could provide opportunities for physical activity.

The recommendations in this HIA were presented for adoption to the Hualapai Tribal Council.

## PROCESS EFFICACY

This HIA process resulted in an increase in the awareness of the relationship of health and physical activity and health and the Built Environment. The Parks Steering Committee had formally agreed to advocate for the implementation of this HIA. The Gam'Yu newsletter initiated a mass survey. Surveys distributed at community presentations resulted in participants stating that they were more informed about the relationship between parks and health. These surveys are located in Appendix D-2.

# REFERENCES

1. 2010 US Census
2. University of Arizona: Native Peoples Technical Assistance Office (NPTAO)- Hualapai Tribe-Community Health Profile; Accessed 25 May 2016
3. 2016 Hualapai Tribe Community Health Profile
4. 2010 US Census, SF1
5. NRCNA (2011). Improving Health in the United States: The Role of HIA.  
[http://www.nap.edu/catalog.php?record\\_id=13229](http://www.nap.edu/catalog.php?record_id=13229)
6. U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC. Available at <http://www.healthypeople.gov>
7. September 2012 Arizona State Nutrition & Physical Obesity Profile:  
<http://www.cdc.gov/obesity/stateprograms/fundedstates/pdf/arizona-state-profile.pdf>
8. CHSI Health Behaviors Adult Physical Inactivity 2006-2012:  
<http://wwwn.cdc.gov/CommunityHealth/profile/currentprofile/AZ/Mohave/120> [Accessed 2016 April 4]
9. Parks and Trails Health Impact Assessment Tool-Kit.
10. Schroeder, AZ. (2007) We Can Do Better – Improving the Health of the American People. NEJM. 357-1221-8.
11. <http://www.census.gov/newsroom/facts-for-features/2015/cb15-ff22.html>
12. Minimum Elements and Practice Standards for Health Impact Assessment v.3, September 2014
13. Demographic Analysis of the Hualapai Tribe-2010 Census & 2010 ACS Estimates; AZ Rural Policy Institute
14. Healthy People 2020: /CDC Promoting Health Equity A Resource to Help Communities Address Social Determinants of Health  
<http://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/tools/pdf/SDOH-workbook.pdf>
15. 2014 Needs and Assets Report- Hualapai Tribe Regional Partnership Council
16. Demographic Analysis of the Hualapai Tribe-2010 Census & 2010 ACS Estimates; AZ Rural Policy Institute
17. US Department of Agriculture Economic Research Service: Food Deserts
18. Hualapai Tribe 2016 Community Health Profile (Draft), pg.8
19. <http://www.webmd.com/diabetes/tc/diabetes-differences-between-type-1-and-2-topic-overview>
20. 2016 County Health Rankings
21. P.18 Hualapai Tribe 2016 Community Health Profile
22. 2012 Facts-at-a-Glance: Diabetes in American Indians and Alaska Natives  
(<http://www.ihs.gov/medicalprograms/diabetes>)
23. P.26 Hualapai Tribe 2016 Community Health Profile
24. 2014 Needs and Assets Report
25. Acton, Rios Burros, Moore, Querec, Geiss, & Engelgau, 2002). Native Strong Report
26. Parks and Health HIA ToolKit
27. USDHHS, 2013; Native Strong Report
28. Halpern, 2007- Native Strong Report
29. A 2009 survey of 10 Chicago parks found that park programming and maintenance did not impact user activity, however more people visited the park for the first time following improvements when compared to parks without (Cohen DA et al. Effects of Park Improvements

on Park Use and Physical Activity. Policy and Programming Implications. AJPM 2009;37(6): 475-480)

30. American Horticultural Therapy Association (AHTA); Parks: Improving Mental Health and Well-Being, 2015 April. ParksandRecreation.org.
31. <http://www.dailymail.co.uk/sciencetech/article-3083454/Sowing-seeds-healthy-eating-Children-grow-veg-FIVE-times-likely-eat-them.html>
32. <http://www.health.harvard.edu/blog/nutritional-psychiatry-your-brain-on-food-201511168626>
33. [https://assets.aspeninstitute.org/content/uploads/files/content/upload/Voices%20of%20Native%20Youth%20Report\\_CNAY.pdf](https://assets.aspeninstitute.org/content/uploads/files/content/upload/Voices%20of%20Native%20Youth%20Report_CNAY.pdf)
34. [http://www.samhsa.gov/sites/default/files/programs\\_campaigns/tloa/prevention-recovery-special-edition-spring-2015.pdf](http://www.samhsa.gov/sites/default/files/programs_campaigns/tloa/prevention-recovery-special-edition-spring-2015.pdf)
35. [https://www.rti.org/sites/default/files/resources/lessons\\_learned\\_brief\\_link\\_added.pdf](https://www.rti.org/sites/default/files/resources/lessons_learned_brief_link_added.pdf)



# APPENDICES

## APPENDIX A: COMMUNITY COMMENTS

### **February 16, 2016- Hualapai Parks Steering Committee Meeting:**

The Parks Steering Committee Meeting was the kick-off event to gather information from the various departments, residents, and general community representatives for resources and comments in regards to how parks and trails can benefit health in their community.

Most of the committee were aware of existing health resources and documents, but thought of parks mainly in regards to the youth and concern for safety and lack of maintenance in the neighborhood parks. This meeting included information on the HIA process, but also a visioning activity for how parks can play a part in their community aside from just youth activities. Comments included general attitudes of parents sending their kids to the parks from their home, with younger children accompanied for supervision. Ideas were also brought up for activities to meet at the park more, such as social gatherings and barbeques, but concern for privacy of culture and from tourists were also a priority for consideration. Overall, the debris and lack of activities and maintenance were major barriers for using the park.

### **Site Visit Comments:**

A site visit to all four parks confirmed the attitudes towards park maintenance and activities solely for the kids. Two mothers commented that they would prefer more seating to make supervision more comfortable, and did not trust their younger kids playing unattended with hazardous litter present, such as broken glass and needles. In contrast, two children were independently at another neighborhood park with their dog, and commented on broken play equipment such as swings.

### **Earth Day Participant & Survey Respondents:**

The absence of the previous park that was demolished for the Senior Center was a main point of verbal comments from both parents and youth. One mother expressed that her family does not have activities close enough for her kids to participate now, and are constantly bored. Others expressed some concern for crime with the previous playground being a main outlet for activities. Several youth commented that without the park they can only take part in boys and girls club, or participate in the team sports that travel further for games. On the dot board, several people liked the idea of a splash pad and zipline, with others wanting more consideration for those with special needs.

(See pg.38-40 for specific survey comments & Appendix D-2 for results)

## APPENDIX B: ABOUT OBESITY & CHRONIC DISEASE

### **BMI**

A healthy body weight is determined by ratio between height and weight, also called Body Mass Index (BMI.) A normal or healthy BMI for adults falls within a range of 18.5 – 24.9%. Adults with a BMI in the range of 25-29.9% are classified as overweight and those with a BMI of greater than 30% are classified as obese. BMI for youth is calculated as Obese individuals have a much higher risk for heart disease, stroke, type 2 diabetes and some types of preventable cancer. The aforementioned chronic health conditions are considered some of the leading causes of preventable death in the United States. Obesity and the resulting health conditions cost \$147 billion annually according to figures amassed in 2008. An individual's likelihood of becoming obese is influenced by three main factors: genetic characteristics, individual behaviors and their living and work environments.

Because weight and height change during growth and development, as does their relation to body fatness, a child's BMI must be interpreted relative to other children of the same sex and age.

Source: [Centers for Disease Control and Prevention \[CDC\], 2014.](#)

### **HEART DISEASE**

The term "Heart Disease" encompasses several conditions of the heart. In the United States, coronary artery disease is the most common ailment of the heart, frequently causing heart attack, failure and arrhythmias (Centers for Disease Control and Prevention [CDC], 2009). Coronary artery disease is caused when cholesterol is deposited along the walls of the coronary arteries (the arteries which supply blood to the heart), creating a buildup of plaque and narrowing the blood supply available to the heart (Centers for Disease Control and Prevention [CDC], 2013). As the buildup of plaque continues and the heart muscle continues to get insufficient blood supply, the heart will eventually stop pumping, which is commonly called a heart attack (Centers for Disease Control and Prevention [CDC], 2013).

Most heart disease can be prevented by eating a healthy, high fiber diet, consisting of plenty of fruits and vegetables, and foods low in sodium and saturated fat. Another equally important component to the prevention of heart disease is regular physical activity. Those engaging in the recommended 2.5 hours of physical activity per week will have a significantly lower risk of developing heart disease.

Source: [Centers for Disease Control and Prevention \[CDC\], 2013](#)

**DIABETES** In the United States, diabetes is the seventh leading cause of death and is responsible for a myriad of other health problems. Complications from diabetes include, neuropathy (nerve damage), problems with the eyes/blindness, heart disease, kidney disease, high blood pressure, stroke and lower extremity amputation (Centers for Disease Control and Prevention [CDC], 2015) (American Diabetes Association, N.D.). 9.3% of the population in the United States, or 29.1 million people currently have diabetes, with 8.1 % being undiagnosed and unaware of their condition.

Source: [Centers for Disease Control and Prevention \[CDC\], 2014.](#)

**ASTHMA** Hypertension is often called the "silent killer" because it has no obvious warning signs or symptoms (Centers for Disease Control and Prevention [CDC], 2015). Gila County residents have more

than twice the morbidity rate for Hypertension than any other county in the state. According to 2013 data, Gila County has 610.7 hypertensive residents per 100,000 persons, in comparison with the Arizona state average of 299.5 residents per 100,000

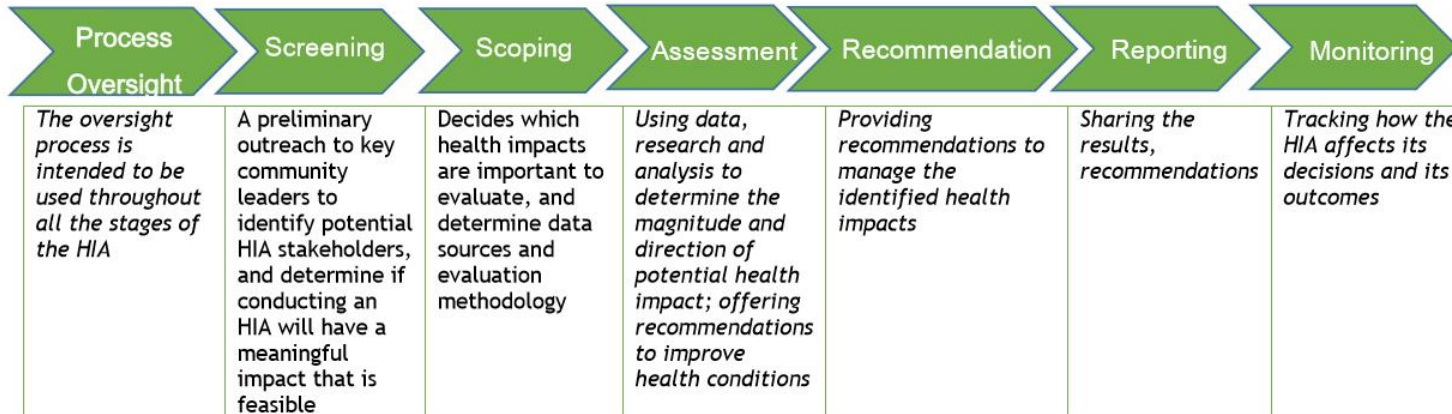
Source: [Arizona Department of Health Services \[ADHS\], Bureau of Public Health Statistics, 2013](#)

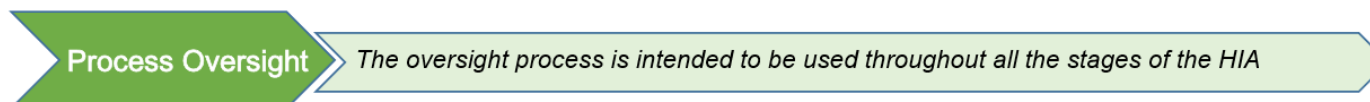


# Hualapai Neighborhood Parks Health Impact Assessment

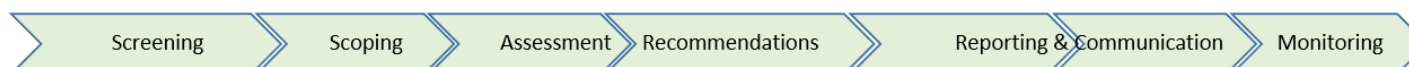
## Stakeholder Engagement Plan

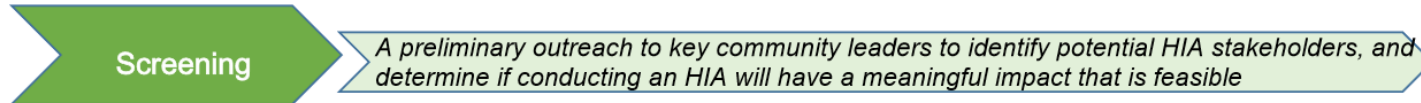
Community Engagement for the Hualapai Neighborhood Parks HIA



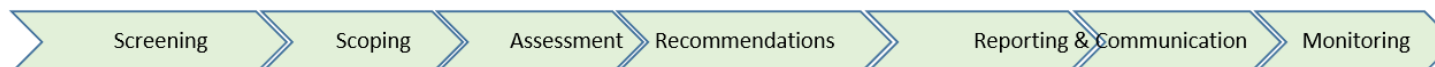


Stakeholder Engagement Activities	Format/Methodologies	Purpose/Desired Outcome	Desired Participants	Proposed Date
<ul style="list-style-type: none"> <li>Project team is to attend public engagement events, such as the three Health and Wellness Meetings scheduled</li> <li>Monthly Project Updates</li> </ul>	<ul style="list-style-type: none"> <li>Telephonic every other week</li> <li>Written, provided with invoice</li> <li>Form a project stakeholder committee consisting of Hualapai Boys and Girls Club, Public Works, Child Care, Housing, Natural Resources, Hualapai Planning, Hualapai Tribal Police, Hualapai Education &amp; Wellness Departments</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing project communication</li> </ul>	<ul style="list-style-type: none"> <li>ADHS</li> <li>Hualapai Planning Department</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing</li> </ul>





Stakeholder Engagement Activities	Format/Methodologies	Purpose/Desired Outcome	Desired Participants	Proposed Date
<ul style="list-style-type: none"> <li>• Generate ideas for best techniques for outreach relevant to the community</li> <li>• Examine opportunities for coordination with other ongoing efforts</li> <li>• Explore ways to communicate the benefits of an HIA to the community</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate with Planning Department in contacting Park Stakeholder Committee</li> <li>• Coordinate with Health Department Director to assist with identifying potential stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Determine level of interest in HIA within the community</li> <li>• Determine if the IHS/Tribe has capacity to support &amp; provide data for HIA</li> <li>• Increase awareness of the benefits of an HIA</li> <li>• Expand the number of stakeholders to be more inclusive</li> <li>• Assess best and most effective outreach methodology</li> <li>• Engage potential entities that can assist in data collection and implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Peach Spring Unified School District</li> <li>• Peach Springs Park Committee</li> <li>• Senior Center Representative</li> </ul>	<ul style="list-style-type: none"> <li>• As part of Grant Application Deadline</li> </ul>



**Scoping**

*Decides which health impacts are important to evaluate, and determine data sources and evaluation methodology*

Stakeholder Engagement Activities	Format/Methodologies	Purpose/Desired Outcome	Desired Participants	Proposed Date
<ul style="list-style-type: none"> <li>• Solicit input from the community about important health issues</li> <li>• Coordinate with Planning Department to identify opportunities for collaboration/interface/coordination</li> <li>• Research other studies to determine key health issues that might not be apparent to the community</li> <li>• Identify potential improvements related to Community Health</li> <li>• Present the HIA process and scope to Steering Committee</li> <li>• Conduct field work to review the site and opportunities associated with it</li> </ul>	<ul style="list-style-type: none"> <li>• Present information to the Park Steering Committee on the relationship between community health and community design</li> <li>• Share information from training with other tribal staff</li> </ul>	<ul style="list-style-type: none"> <li>• Develop community interest in the HIA</li> <li>• Develop potential support for conducting the HIA and future parks</li> <li>• Educate the Community about the benefits of an HIA</li> <li>• Promote interest in the benefit of parks</li> <li>• Engage local health providers and schools</li> <li>• Encourage partnerships for funding</li> </ul>	<ul style="list-style-type: none"> <li>• Tribal Health Staff</li> <li>• Housing Department</li> <li>• Public Works Department</li> <li>• Planning Department</li> </ul>	<ul style="list-style-type: none"> <li>• 1<sup>st</sup> Kick-off meeting on Feb. 16<sup>th</sup>, and throughout public engagement activities</li> </ul>

Screening

Scoping

Assessment

Recommendations

Reporting & Communication

Monitoring



**Assessment**

*Using data, research and analysis to determine the magnitude and direction of potential health impact; offering recommendations to improve health conditions*

Stakeholder Engagement Activities	Format/Methodologies	Purpose/Desired Outcome	Desired Participants	Proposed Date
<ul style="list-style-type: none"> <li>• Attend Earth Day Clean Up <u>Data Research</u></li> <li>• Collaborate with other HIAs to identify best practices for analysis</li> <li>• Work with IHS &amp; Hualapai Health Department to analyze data and verify data sources</li> <li>• Reach out to IHS, Director of senior center, and clinic to provide data and other resources</li> <li>• Solicit input on Assessment from Technical Advisory Committee and local officials</li> <li>• Conduct field work to view the parks opportunities associated with them</li> </ul>	<ul style="list-style-type: none"> <li>• Publish article in Gam'Yu to encourage interest in HIA</li> <li>• Collect surveys from people attending earth day event about how parks could benefit community health <u>Data Research</u></li> <li>• Email Health staff &amp; departments</li> <li>• Work with Steering Committee to secure studies/data</li> <li>• Research websites of ADHS, Pew Trust, Collaborate with Alliance for Livable Communities (ALC) for other resource ideas</li> <li>• Apply Walk Score to Peach Springs</li> <li>• Participate in Radio Show to talk about the connection between parks and health on Wed. April 20<sup>th</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Educate the community about the relationship between parks and playgrounds and community health for people of all ages and abilities</li> <li>• Document intuitive expectations with fact</li> <li>• Build fact based support for the connection between physical activity and health that is directly related to the community</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> <li>• Department</li> <li>• AZDHS</li> <li>• Steering Committee &amp; Planning Dept.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop data resources and assessment prior to 2nd Steering Committee Meeting;</li> <li>• Present Assessment at 2nd Steering Committee Meeting-Fri April 21st-22<sup>nd</sup></li> <li>• April 22<sup>nd</sup> Earth day</li> </ul>

Screening

Scoping

Assessment

Recommendations

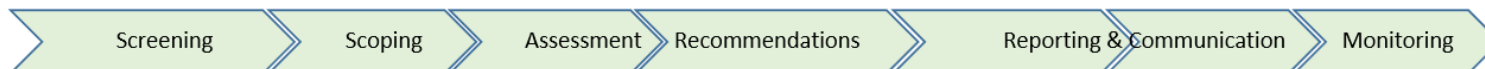
Reporting & Communication

Monitoring

## Recommendations

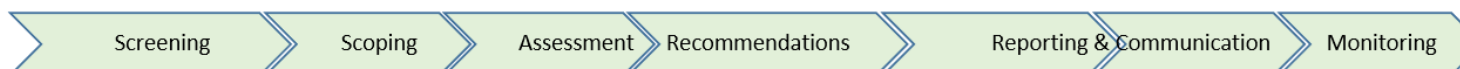
*Providing recommendations to manage the identified health impacts*

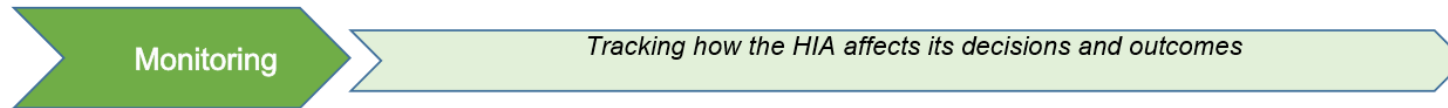
Stakeholder Engagement Activities	Format/Methodologies	Purpose/Desired Outcome	Desired Participants	Proposed Date
<ul style="list-style-type: none"> <li>• Provide short, mid and long term recommendations to Steering Committee with regards to increasing park use</li> <li>• Integrate ideas provided by Community</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation at Park Steering Committee Meeting and Public Meeting</li> <li>• Present to elders at the lunch</li> </ul>	<ul style="list-style-type: none"> <li>• Solicit feedback on recommendations and refine them for implementation</li> <li>• Develop support for recommendations and potentially identify options for implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Community</li> <li>• Steering Committee</li> <li>• Public Works Department</li> <li>• Planning Department</li> </ul>	<ul style="list-style-type: none"> <li>• 3<sup>rd</sup> Meeting</li> </ul>



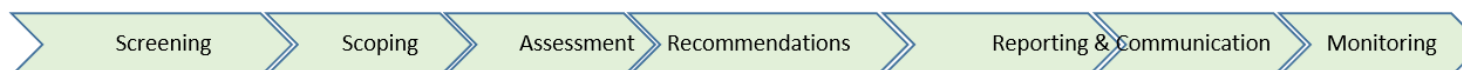


Stakeholder Engagement Activities	Format/Methodologies	Purpose/Desired Outcome	Desired Participants	Proposed Date
<ul style="list-style-type: none"> <li>• Report to Tribal Council</li> <li>• Include recommendations in Tribal Comprehensive Plan</li> <li>• Publish Recommendations in Gam'Yu</li> <li>• Piggyback on other community events such as Housing Fair to present recommendations (third week in June)</li> </ul>	<ul style="list-style-type: none"> <li>• In person presentation at Steering Committee Meeting</li> <li>• Digital Transmittal to Tribal Department &amp; State Health Department</li> </ul>	<ul style="list-style-type: none"> <li>• Identify potential support for short, medium, and long term recommendations</li> <li>• Increase awareness if the connection between physical activity and community design</li> </ul>	<ul style="list-style-type: none"> <li>• Community</li> <li>• Steering Committee</li> <li>• Planning Department</li> <li>• Public Works &amp; Housing Department</li> <li>• Community</li> </ul>	<ul style="list-style-type: none"> <li>• After &amp; At 3<sup>rd</sup> meeting</li> </ul>





Stakeholder Engagement Activities	Format/Methodologies	Purpose/Desired Outcome	Desired Participants	Proposed Date
<ul style="list-style-type: none"> <li>• Present regular updates on progress of HIA Implementation at Council Meetings</li> <li>• Keep Council informed of implementation progress</li> <li>• Engage the Public Works &amp; Housing Department in implementation</li> </ul>	<ul style="list-style-type: none"> <li>• In person presentation at Council Meetings</li> <li>• Planning Department to monitor recommendations &amp; implementations</li> </ul>	<ul style="list-style-type: none"> <li>• Increased park use and ongoing pursuit of recommendations in HIA</li> </ul>	<ul style="list-style-type: none"> <li>• Public Works &amp; Housing Dept.</li> <li>• Health Department</li> <li>• Planning Dept.</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing</li> </ul>



## APPENDIX D: PROCESS EVALUATION

Meeting	Page
February 16, 2016 Kick-Off Meeting.....	Appendix D-1
April 16, 2016 Earth Day Event.....	Appendix D-2
May 10, 2016 Steering Presentation.....	Appendix D-3
September 10, 2016 Presentation to Hualapai Tribal Council.....	Appendix D-4



## APPENDIX D1: FEBRUARY 16, 2016 KICK-OFF MEETING





## APPENDIX D-2: APRIL 16, EARTH DAY EVENT

## SURVEY RESPONSES

### BRING THIS COMPLETED SURVEY TO THE COMMUNITY HEALTH TABLE AT THE EARTH DAY LUNCH AND GET A RAFFLE TICKET FOR A FITBIT!

#### Tell us how to make our parks better by taking this survey!

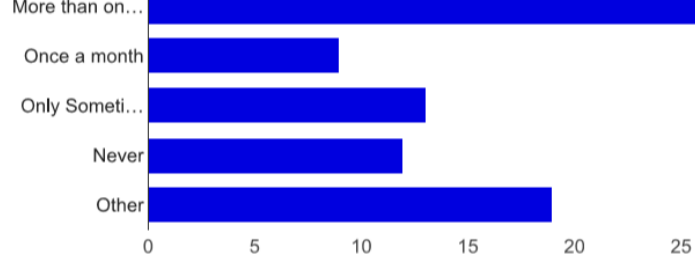
The tribe is conducting a study to learn how making our parks better can contribute to the health of our residents. Better parks can improve the health of the community because:

- We will use the parks more and we will be more active
- We can connect to our community and to each other through design and art that celebrates and teaches us about our culture and traditions
- We can have a place to gather or celebrate family and community events

### SURVEY

- How often do you or your children go to the park?
  - More than once a week \_\_\_\_\_
  - Once a month \_\_\_\_\_
  - Only sometimes \_\_\_\_\_
  - Never \_\_\_\_\_
- What do you like most about our parks? (Select all that apply)
  - I can walk to the park \_\_\_\_\_
  - I like the equipment \_\_\_\_\_
  - I can play with friends or by myself \_\_\_\_\_
  - I meet my neighbors at the park \_\_\_\_\_
  - They are safe \_\_\_\_\_
  - Other? \_\_\_\_\_
  - I don't like anything about our parks \_\_\_\_\_
- How do you think parks could improve your health?
  - I could be more active. Yes \_\_\_\_\_ No \_\_\_\_\_
  - I could meet my neighbors. Yes \_\_\_\_\_ No \_\_\_\_\_
  - Provide a place for family and community celebrations. Yes \_\_\_\_\_ No \_\_\_\_\_
  - Provide a place where I could feel a part of my community. Yes \_\_\_\_\_ No \_\_\_\_\_
  - Provide a place that would help me reduce stress. Yes \_\_\_\_\_ No \_\_\_\_\_
  - Make Peach Springs a nicer place to live. Yes \_\_\_\_\_ No \_\_\_\_\_
  - Provide a place for children to go after school or on the weekends. Yes \_\_\_\_\_ No \_\_\_\_\_
  - Provide a place where I could exercise. Yes \_\_\_\_\_ No \_\_\_\_\_
  - Provide a place for a community garden where I could grow health. Yes \_\_\_\_\_ No \_\_\_\_\_
- What would make you use the parks in Peach Springs more? Be Specific! / Other Comments?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

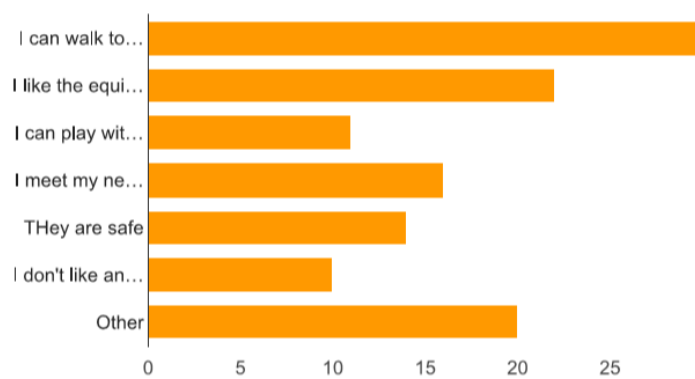




## 61 Responses

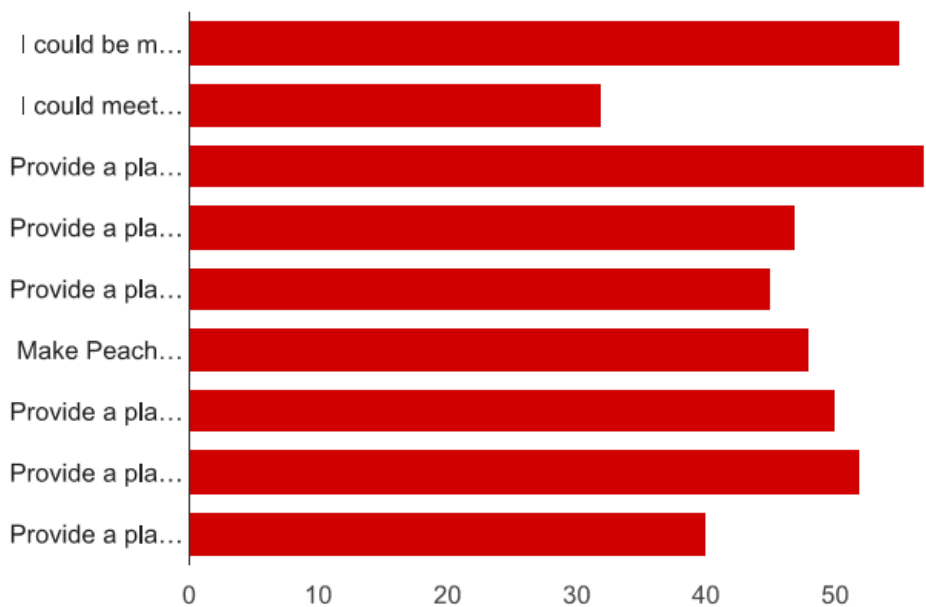
More than once a week	26	44.1%
Once a month	9	15.3%
Only Sometimes	13	22%
Never	12	20.3%
Other	19	32.2%

## What do you like most about our parks? (Select all that apply)



I meet my neighbors at the park	16	28.6%
They are safe	14	25%
I don't like anything about our parks	10	17.9%
Other	20	35.7%
I can walk to the park	30	53.6%
I like the equipment	22	39.3%
I can play with friends or by myself	11	19.6%

**How do you think parks could improve your health?**



I could be more active	55	91.7%
I could meet my neighbors	32	53.3%
Provide a place for family and community celebrations	57	95%
Provide a place where I could feel a part of my community	47	78.3%
Provide a place that would help me reduce stress	45	75%
Make Peach Springs a nicer place to live	48	80%
Provide a place for children to go after school or on the weekends	50	83.3%
Provide a place where I could excercise	52	86.7%
Provide a place for a community garden where I could grow health	40	66.7%

## **What would make you use the parks in Peach Springs more? Be Specific!/Other Comments?**

Yes, my kids miss the old parks that was replaced. Be nice & look forward to the new park! :)

More trees

Nice clean, safe playground for children to play. Hire a person to upkeep maintenance on playgrounds. Current playgrounds are in poor unsafe place for children.

Swings! Bigger swings! I love Swings

Picnics

Keep the drugs/alcohol out of our parks

To have more community gatherings, Ice Family Gatherings, to also be adult equipped. Such as Sand VolleyBall, Walking Park, and some grass.

A level walk path

Keeping the place clean of broken bottles- no graffiti, lights for night use

More chairs & tables to have family gatherings

Maintain a little better

Be a lot cleaner. Good equipment

The need a big clean NO weeds/ or stickers... workout equipment also needs to be available

The parks need to be cleaned of trash, weeds.

Clean Up. Hazardous to children. Broken Glass

Walking path, horse shoes, zip line, better maintenance.

Celebrations. Maybe dept's can semi-annual cook-outs

Music Mtn football field and gym should be available to the community.

Safe place with equipment

More park locations around the town

Fenced for safety

The park is fun

The park is funny

I don't know

Closer to home

Grass, security, Bathrooms, water fountain, more equipment. BBQ grills

Safety, for self children while using it.

Promote healthy lifestyles for children.

Have equipment for special needs children + learn activity

Milkweed Spring Park over weeded & stickers need to be cleaned. Court playground is cleaner.

More plants (Flowers)

Trees, places to sit, walking paths, BBQ grills, play equipment for the kids, Basketball courts, Baseball/soccer area, small zipline and splash pad. :)

Need parks no parks

I like to have a basketball and swings

Trees, shade and table w/bench

A place where I know my nephews will be safe to play and have fun with other youth their age.

Help them become more active outside.

Parks need cleaning, lots of stickers and trash. Could put a water fountain

Just playing for kids

If they were more clean, no weeds/ glass/vandalism

Have one built in up town area

Skate Parks

Be cleaned; more exercise active children/adults that have no transportation

Glass, Shade, A Big Pond or Water Source to make a nice place to sit & visit. TO take pride in the community with a walk/run track around the big pond.

B-Ball court

A walking track for exercise- grass and trees to lounge in and around restrooms. Safe equipment for kids.

No Fees!

Clean environment, no alcohol or other drugs to be left at park or utilizing it

Place to sit that is comfortable



## APPENDIX D<sub>3</sub>: MAY 10, 2016 STEERING PRESENTATION



## APPENDIX D<sub>4</sub>: SEPTEMBER 10, 2016 TRIBAL COUNCIL PRESENTATION

