Yavapai County Mobility Health Impact Assessment

Yavapai County Community Health Services

Prepared for

CYMPO - Central Yavapai Metropolitan Planning Organization

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Executive Summary

Background

Yavapai County area transportation organizations, including Northern Arizona Council of Governments (NACOG), Central Yavapai Metropolitan Planning Organization (CYMPO), and Arizona Department of Transportation (ADOT), are focusing on providing improved transportation options throughout the county.

The central Yavapai Region, or Quad Cities, is separated from the Verde Valley by the Mingus Mountain Range within Yavapai County. The Verde Valley Transportation Planning Organization (VVTPO) completed the Verde Valley Transportation Master Plan in 2015. Yavapai County Community Health Services was asked to conduct a Health Impact Assessment (HIA) to illustrate health impacts of the Verde Valley Transportation Plan. The HIA findings were presented to Cottonwood Area Transit in October 2015.

The Regional Mobility Management Implementation Plan (RMMIP) for Yavapai County, developed by CYMPO and the consultant firm TransitPlus, illustrates the future plans for Prescott, Prescott Valley, Dewey-Humboldt and Chino Valley (Quad Cities area). The HIA conducted by Yavapai County Community Health Services focused on the potential health impacts of the RMMIP. The RMMIP is focused on strengthening mobility and improving access within and beyond Yavapai County. The plan will also investigate how to improve mobility through customer outreach and information, administrative and operating services, technology, cost-saving measures, and evaluation of services and systems. It will also address linkages between existing transit systems and services.

Pathways

The HIA project team developed pathways by which the Regional Mobility Management Implementation Plan could have a long-term impact on health outcomes. The pathways were identified through discussion with stakeholders early on in the HIA process. These pathways were utilized to guide the assessment and recommendations phases. The pathways which were developed are:

1. Access to Health Care
2. Access to Education
3. Access to Employment
4. Access to Recreation
5. Access to Healthy Food
6. Air Quality Improvements
7. Safer Roadways for Motorists, Bicyclists, and Pedestrians
8. Improved Mobility, Especially for Seniors, Disabled and Low Income Citizens

Assessment

During the assessment step, stakeholder input was gathered through a series of meetings. In addition to meetings, community feedback was obtained through community-wide surveys, both online and a paper version that was mailed. Through these surveys, many of the health impacts of the Regional Mobility Management Implementation Plan were identified. These health impacts identified by the community include decreased obesity and other chronic diseases, improved mental health, cleaner air quality, and both an increase as well as decrease in the number of pedestrian & bicyclist injuries.

Key Findings

Yavapai County Statistics

- Yavapai County has a significantly high rate of suicide, close to double the state's average
- Yavapai County residents are significantly older than the rest of the state's population
- The number of Yavapai County residents with a disability is much higher than the state's disability rate
- The median income per household is less in Yavapai when compared to the state average

Yavapai County Mobility Survey 2016

- 52 percent of residents 60 years or older have a chronic disease
- 74 percent of residents 60 years or older would use public transit
- 76 percent of people in rural areas would use public transit
- 67 percent of high-income residents would use public transit
- 81 percent of low-income residents would use public transit
- 84 percent of responders in Mayer/Dewey would use public transit
- 64 percent of the survey respondents said they would use it daily or weekly
- 97 percent of people who have missed an appointment or work because of transportation said they would use public transit
- 68 percent who stated they use a personal vehicle as their main source of transportation would also use public transit if available

Recommendations

The HIA project team has developed recommendations based on the identified pathways and the assessment of the information collected.

- Establish a daily fixed route public transit system connecting the Quad Cities, including Mayer and Paulden, incorporating routes along State Route 89 (SR-89), State Route 89A (SR-89A), and State Route 69 (SR-69)
- Establish a daily fixed route public transit system to major medical centers in Prescott and Prescott Valley from Prescott, Prescott Valley, Dewey-Humboldt, and Chino Valley

- Provide safe public transit infrastructure stops that are clearly marked and accessible by pedestrians and cyclists
- Provide public transit vehicles that are ADA compliant and equipped with bicycle racks
- Provide weekend fixed route and special services for recreational activities including, but not limited to, special events, the downtown area of Prescott (The Square), shopping centers, and recreational areas
- Implement rideshare and/or shuttle service for rural areas allowing for medical appointments, access to shopping centers, and employment opportunities
- Implement rideshare and/or connect major hubs and county services in Yavapai County, specifically, the Yavapai County Camp Verde Judicial Court
- Establish a working committee of all transportation agencies to ensure inclusion within public transportation and cohesion of government, private, and non-profit entities
- Establish a complete streets policy regarding pedestrian and bicycle improvements and infrastructure

Conclusions

The Regional Mobility Management Implementation Plan Health Impact Assessment concludes that Yavapai County will see positive health impacts with the creation of the mobility plan. Specifically, this RMMIP will positively impact Yavapai County residents in areas of obesity and chronic diseases, mental health, and air quality. In addition, the RMMIP will positively affect community economics, social opportunities, public/personal safety, mobility for all (including seniors, low income, and disabled), and medical care. The RMMIP has the potential to increase pedestrian and bicyclist injuries in some situations because of the greater use of pedestrian and bicycle facilities once infrastructure improvements are made. Those incidents decrease as vehicle drivers become more aware of the increased presence of pedestrians and bicyclists. These recommendations within the HIA can provide guidance and structure as the plans for implementation of the RMMIP move forward.

Introduction

Health Impact Assessments

A Health Impact Assessment (HIA) as defined by the CDC is, "a process that helps evaluate the potential health effects of a plan, project or policy before it is built or implemented. An HIA can provide recommendations to increase positive health outcomes and minimize adverse health outcomes. HIAs bring potential public health impacts and considerations to the decision-making process for plans, projects, and policies that fall outside the traditional public health arenas, such as transportation and land use." An HIA consists of six steps.

Step 1- Screening

The first step of the HIA determines if the HIA is feasible and relevant to the decision-making process. During this stage, it is established that health impacts would result from the project- especially in disadvantaged groups, provide new information that may not otherwise be presented, and potentially influence the decision-making process.

Step 2- Scoping

This step identifies all potential health effects related to the project. Stakeholders are identified during the scoping process and it is determined how those stakeholders will be engaged throughout the process.

Step 3- Assessment

In the third step, health indicators related to the project are described and identified. Reliable and consistent data must be used during this step.

Step 4- Recommendations

Recommendations related to the project are evidence based and specific to how they benefit community health. Each recommendation should be able to be monitored in the future.

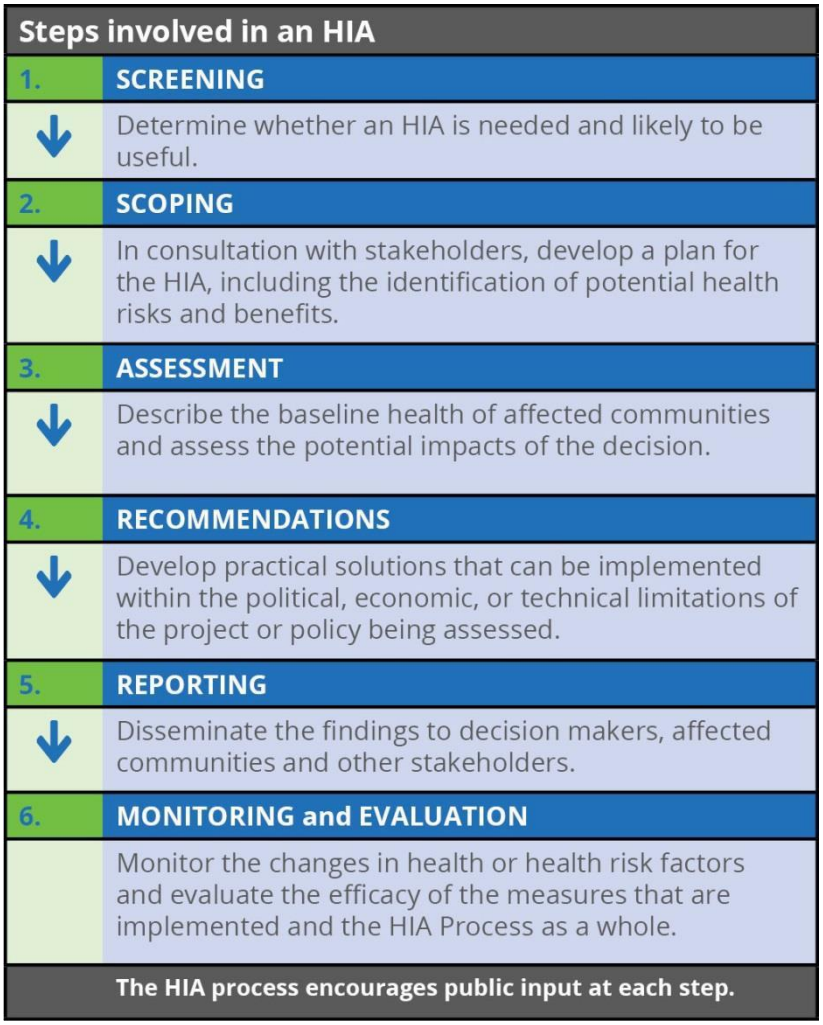


Figure 1- This figure represents the steps involved in a health impact assessment.

Step 5- Reporting

In this step the stakeholders and community are informed of the HIA process and recommendations.

Step 6- Monitoring and Evaluation

HIAs are most helpful when a decision has yet to be made. HIAs should engage communities and stakeholders. During this stage, the process of the HIA is evaluated and potential indicators are identified to be monitored in the future.

The Relationship of Health to Transportation

Physical activity has been shown to decrease chronic disease, improve mood, and increase musculoskeletal capacity. In turn, public transportation is linked to greater physical activity. According to research conducted by Active Living Research, transportation systems influence our level of physical activity in the following ways (Rodriguez, 2009):

- Streets can be designed as Complete Streets. Streets with sidewalks and bike lanes help bicyclists and pedestrians feel safer and more likely to use them for physical activity.
- Streets can be narrow and curvilinear to discourage automobile travel at high speeds.
- The availability of public transportation can increase physical activity and provide access to a wider range of services. Public transportation users walk an average of 19 minutes daily getting to and from transit stops.

In 2014, the National Center for Transit Research published an article titled

Figure 2- This infographic illustrates the link between health and public transportation. It shows that 30 percent of public transit users get 30+ minutes of physical activity each day. ***Source: Robert Wood Johnson***

"Cost-Benefit Analysis of Rural and Small Urban Transit" (Godavarthy, Mattson, Ndembe, 2014). The results showed that the benefits provided by transit services in rural areas are greater than the costs of providing those services. Results also showed that fixed-route services have higher benefit-cost ratios than demand-response service. The greatest benefits of public transit were shown in work trips and medical trips.

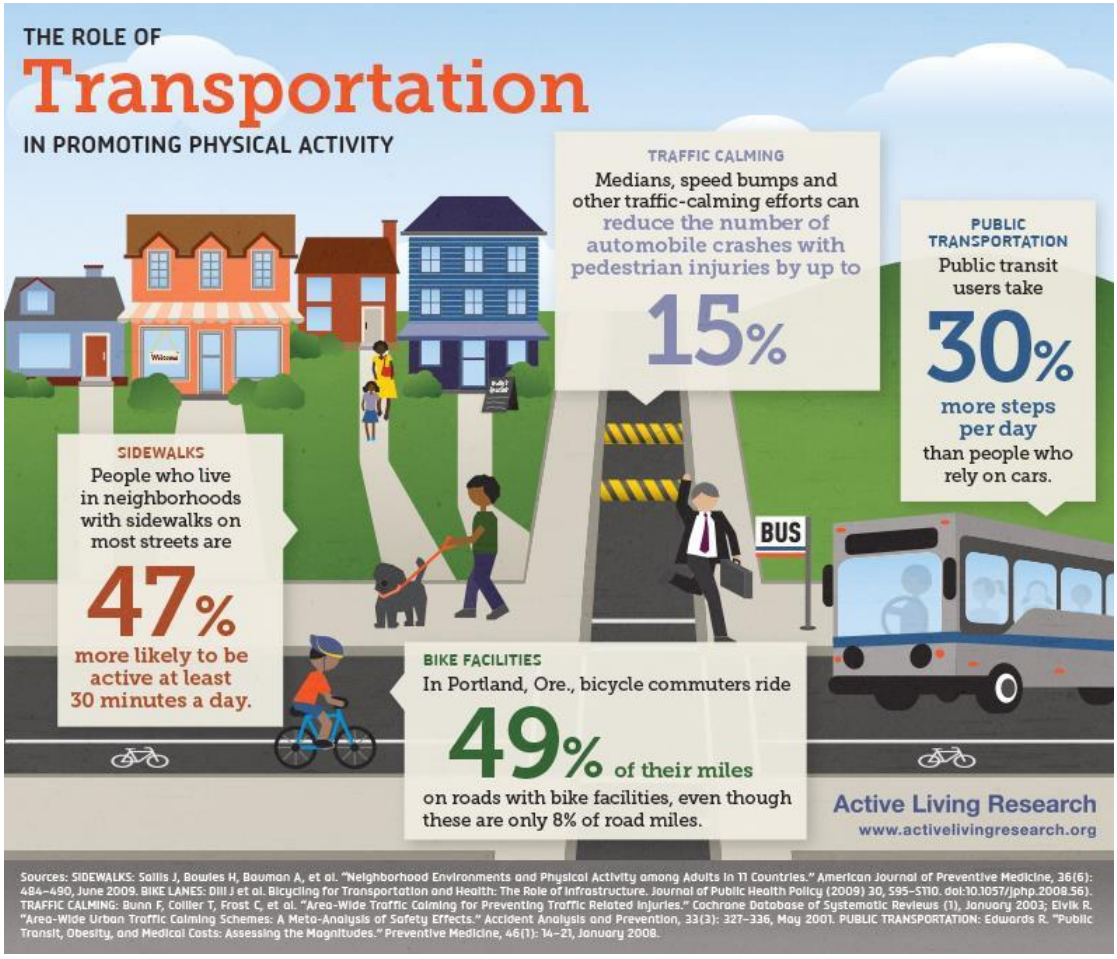


Figure 3- This infographic illustrates the benefits of public transportation related to physical activity. Complete streets promote safer and more active communities. ***Source: Active Living Research***

Background Information

Health Impact Assessment Grant

The Arizona Department of Health Services (ADHS) received funding from Centers for Disease Control and Prevention (CDC) in September 2014 to award three $30,000 Health Impact Assessment (HIA) grants per year to rural areas, to focus on transportation or land use specific projects. The Improved Community Design (ICD) funding awarded by the CDC-Center for Environmental Health has allowed ADHS to establish the AzHealthy Communities program, which has worked over the last two years to (September 1, 2014 to August 31, 2016) increase the capacity for public health, land use, and transportation professionals to conduct HIAs and ensure that public sector decision making incorporates health and establishes a change

approach that strengthens efforts in the sectors of health, planning, and transportation for using HIA and healthy community design strategies. It is expected that long-term outcomes from improvements to the built environment will include environmental and behavioral improvements and a reduction in morbidity and mortality.

Yavapai County Community Health Services applied for and was awarded the grant through ADHS to prepare an HIA in conjunction with the Regional Mobility Management Implementation Plan 2016 (RMMIP) by Central Yavapai Metropolitan Planning Organization (CYMPO). The RMMIP will be completed in September 2016.

Public Transportation in Central Yavapai County

Yavapai County transit authorities are currently working to improve public transportation within the central Yavapai County region. CYMPO has partnered with NACOG and ADOT, along with other entities, to implement and promote the Regional Transportation Plan Update 2040 completed in 2015 and the 2016 Regional Mobility Management Improvement Plan. Both plans are focused in the central Yavapai County region. Transportation and congestion continues to be a rising concern in the area, especially without coordinated public transportation options.

Figure 4- This map illustrates Yavapai County within the state of Arizona. *Source: Wikipedia Yavapai County*

Limited access to safe, affordable, and reliable transportation options can significantly impair one's quality of life, especially for the low-income and disabled community members. Currently there are small transportation operations comprised of primarily grant funded or non-profit organizations in the central Yavapai County region. The available public transportation options are geared toward the low-income and disabled communities.

Step 1: Screening

Introduction

The first step of an HIA is Screening. During this step it is determined whether or not a HIA is applicable and relevant.

Through meeting with stakeholders, it was determined that an HIA would be relevant and would add valuable information to the public transportation efforts in Yavapai County. It was decided that health and policy would be impacted. Additionally, through the CDC grant awarded to ADHS, financial resources were available to help fund the project.

Yavapai County Community Health Services determined that relevant data could be gathered regarding public transportation and health. The decision to move forward with a coordinated public transit system is a controversial topic within the central Yavapai County region. Having health-supported evidence may influence further decisions in regards to establishing a coordinated public transportation system.

Central Yavapai County

For this Health Impact Assessment, central Yavapai County will be looked at in detail. The major city within this region is Prescott. Other cities in the region are Prescott Valley, Chino Valley and Dewey-Humboldt. These four communities are designated as the Quad Cities. Unincorporated towns and rural areas that depend on these communities for health care, jobs, and education are Bagdad, Ash Fork, Seligman, Yarnell, Congress, Wickenburg, Mayer, Paulden, Wihoit, Williamson Valley, and Black Canyon City.

The Verde Valley region is separated from the Quad Cities area by the Mingus Mountain range. The Verde Valley region includes the towns of Jerome, Cottonwood, Clarkdale, Sedona, Village of Oak Creek, Lake Montezuma, and Camp Verde. Most but not all services in the Verde Valley region are located in Cottonwood.

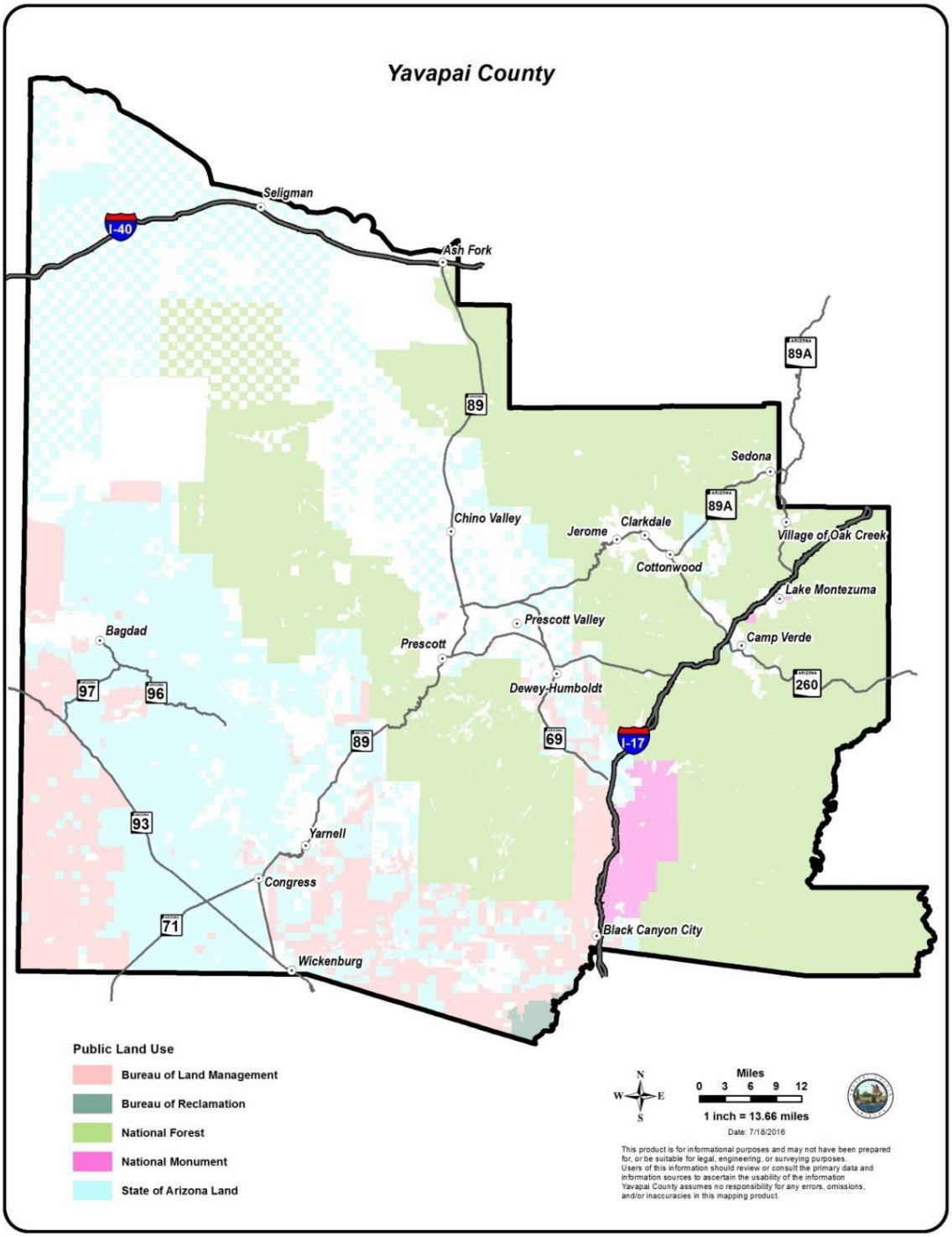


Figure 5- This figure identifies all of Yavapai County with Prescott, Prescott Valley and Cottonwood as the primary cities for services within Yavapai County. *Source: Yavapai County GIS*

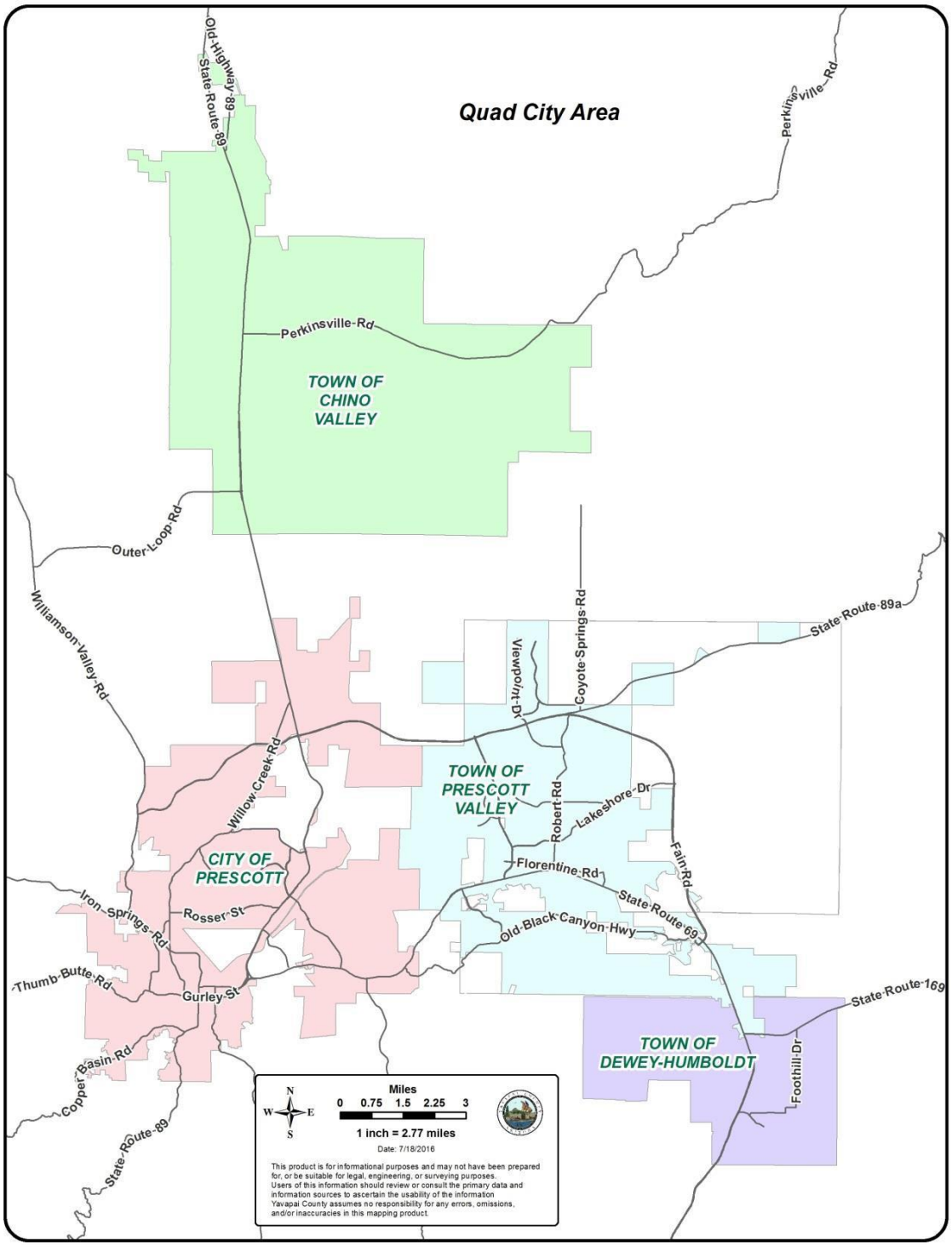


Figure 6- This map illustrates the Quad Cities area. This is the area served by CYMPO. ***Source: Yavapai County GIS Services***

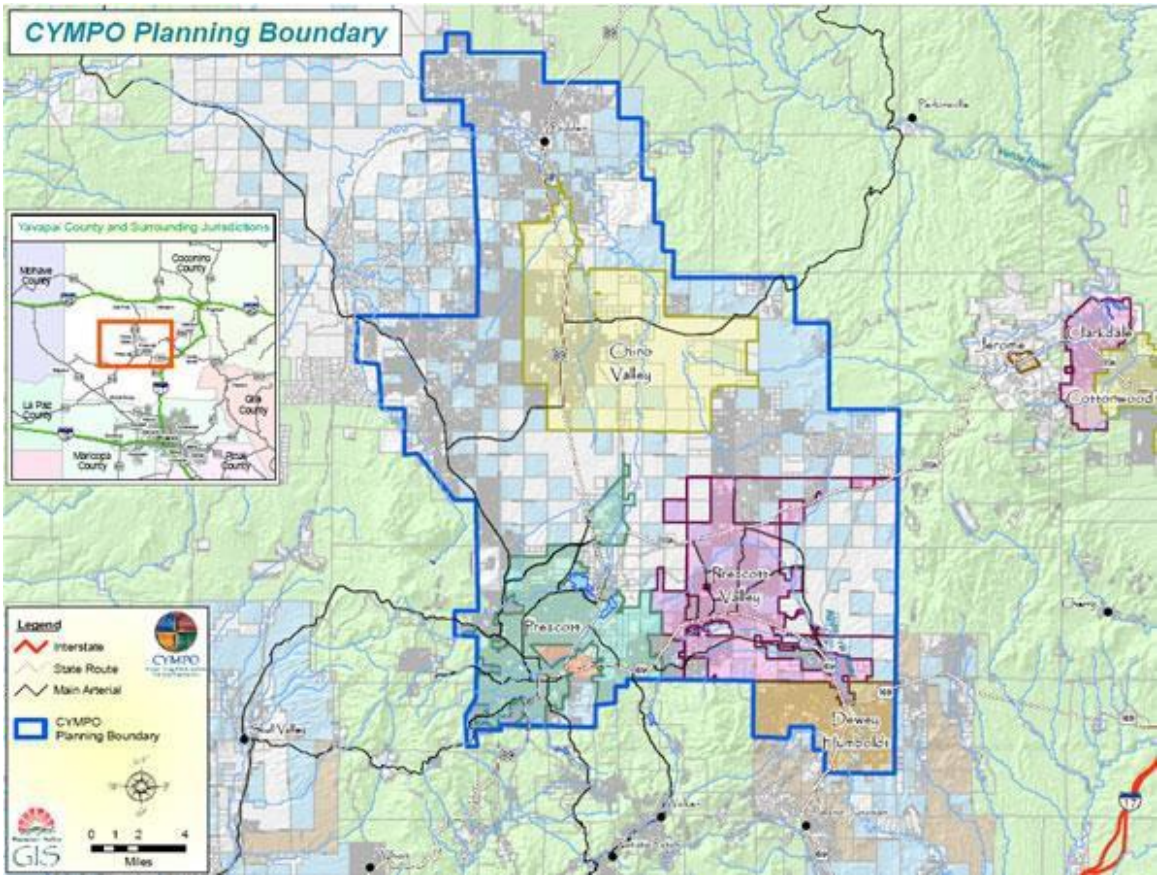


Figure 7- This figure illustrates the CYMPO planning boundary. ***Source: CYMPO***

Prescott

Prescott is the major city within Yavapai County, with a population of approximately 41,899 in 2015. The city of Prescott is the home of Yavapai College, Yavapai Regional Medical Center, Prescott College, Yavapai County Seat, retail centers, the tourism area of Whiskey Row in the downtown area, as well as other cultural and recreational opportunities. A popular recreation area is the Granite Dells, including Watson Lake and surrounding recreation areas. Many of the jobs in the area are located within Prescott. Interestingly, Prescott also has the unofficial title of "Arizona's Recovery City." Many people (approximately 1,500 every three months) come to Prescott from all over the country to recover from various addictions.

Prescott Valley

Prescott Valley has surpassed Prescott in population, with an estimated population of 42,197 in 2015. It was incorporated as a town in 1978 having originally started as a ranching town called Lonesome Valley. Prescott Valley is home to Lynx Lake, a popular recreation area. It also includes various retail areas and is home to the Prescott Valley Event Center and the Northern Arizona Suns since 2015.

Chino Valley

Chino Valley is the site of the first Territorial Capital of Arizona, before moving to Prescott and eventually to Phoenix. It was incorporated in 1970 and in 2015, the population was estimated at approximately 11,137 residents.

Dewey-Humboldt

Originating as a mining town, Dewey-Humboldt eventually became more popular for ranching and agriculture. Its population in 2015 was estimated to be approximately 3,988. It was incorporated in 2004.

Rural Areas Surrounding the Quad Cities

Many of the surrounding areas of the Quad Cities are rural with populations under 2,000. All are unincorporated and depend on services offered within the Quad Cities, specifically Prescott and Prescott Valley.

Health in Transportation Policy

Transportation and community health are strongly related. The US Department of Transportation Federal Highway Administration (FHWA) recognized the important connection between health and transportation and developed the Health in Transportation Working Group in 2012. The FHWA Working Group developed a "Health in Transportation Corridor Planning Framework," connecting public health and transportation and the necessary steps to include health in all policy, similar to an HIA. The Framework is depicted in Figure 8.

According to the Health in Transportation Framework, public transportation can have impacts on health within the community. Considering health early on in the decision-making process can produce better health outcomes in the future.

Figure 8-This graphic illustrates the Health in Transportation Framework presented by USDOT. ***Source: USDOT***

Determinants of Health

There are many factors to consider when determining what makes someone healthy or unhealthy. The US Office of Disease Prevention and Obesity Control and Healthy People 2020 (HealthyPeople.gov, 2014) define five different categories that influence one's health, including policymaking, social factors, individual behaviors, health services and biology, and genetics.

Figure 9 demonstrates how all factors come together to impact an individual's overall health.

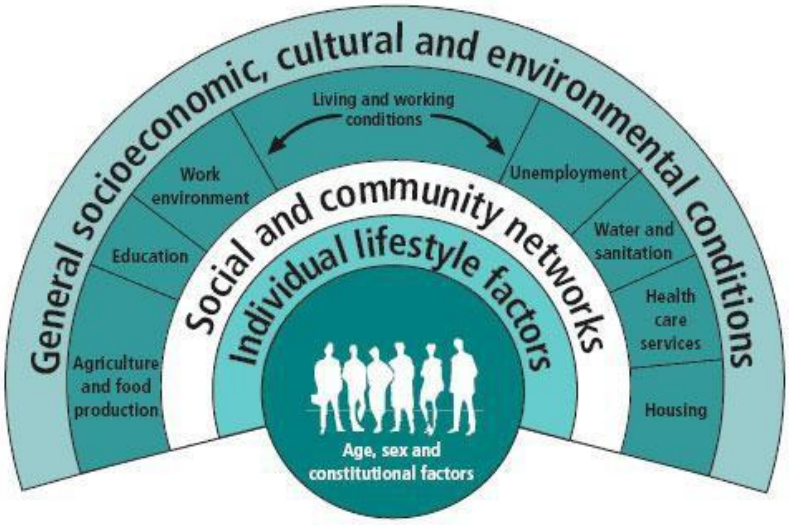


Figure 9- This diagram illustrates how social, individual lifestyle, culture, environment, and socioeconomic factors all impact an individual's health. ***Source: Healthy People 2020***

Within the Healthy People 2020 social determinants of health, the following are related to public transportation:

- Access to educational, economic, and job opportunities
- Access to health care services
- Transportation options

The physical determinants of health, according to Healthy People 2020, affected by public transportation are as follows:

- Natural environment, such as green space (e.g., trees and grass) or weather
- Built environment, such as buildings, sidewalks, bike lanes, and roads

Relationship of the RMMIP to Determinants of Health

The Quad Cities area is considered an urban metropolitan area due to its population. The surrounding areas and towns are rural in nature. Prescott and Prescott Valley are connected by SR-69 which also connects the area to Interstate 17 (I-17), the freeway connecting Phoenix and Flagstaff, through Dewey-Humboldt. Chino Valley is connected to Prescott via SR-89 and Prescott Valley via SR-89A. These communities are the main focus for connecting cities through public transportation services. The RMMIP and public transportation will impact the following determinants of health:

Access to Health Care, Jobs, Economic Opportunities, and Education

There are six hospitals in Yavapai County located in Prescott, Prescott Valley, and Cottonwood. According to the Yavapai County Community Health Assessment in 2012, of the 420 physicians with a medical license in Yavapai County, 405 practice in Prescott, Prescott Valley, Cottonwood, or Sedona. The RMMIP will address how residents will be able to access medical services from the rural areas.

There are three colleges within Yavapai County, including Prescott College, Embry-Riddle Aeronautical University, and Yavapai College. The campuses are located in Prescott, Prescott Valley and Clarkdale, respectively, making it difficult for rural areas to access education. A majority of Yavapai County residents also commute to work, with an average commute time of 22.9 minutes ("Travel Time to Work", *American FactFinder, 2014).* The RMMIP will address access to education, jobs, and healthcare.

Transportation Options

The current transportation options are inconsistent and disjointed. A consideration of the RMMIP will be to connect current transportation options and possibly add destinations. By connecting current options and implementing new destinations, individuals may have easier access to services and potentially relieve roadway congestion.

Social and Economic Environment

Residential areas have limited access to social and economic opportunities throughout the Quad Cities. Using public transportation to connect residential and business areas will increase economic and social activity.

Individual Characteristics and Behaviors

The RMMIP plan provides for better access to recreation areas. It also provides safer facilities for walking, biking, and public transportation, allowing for increased mobility.

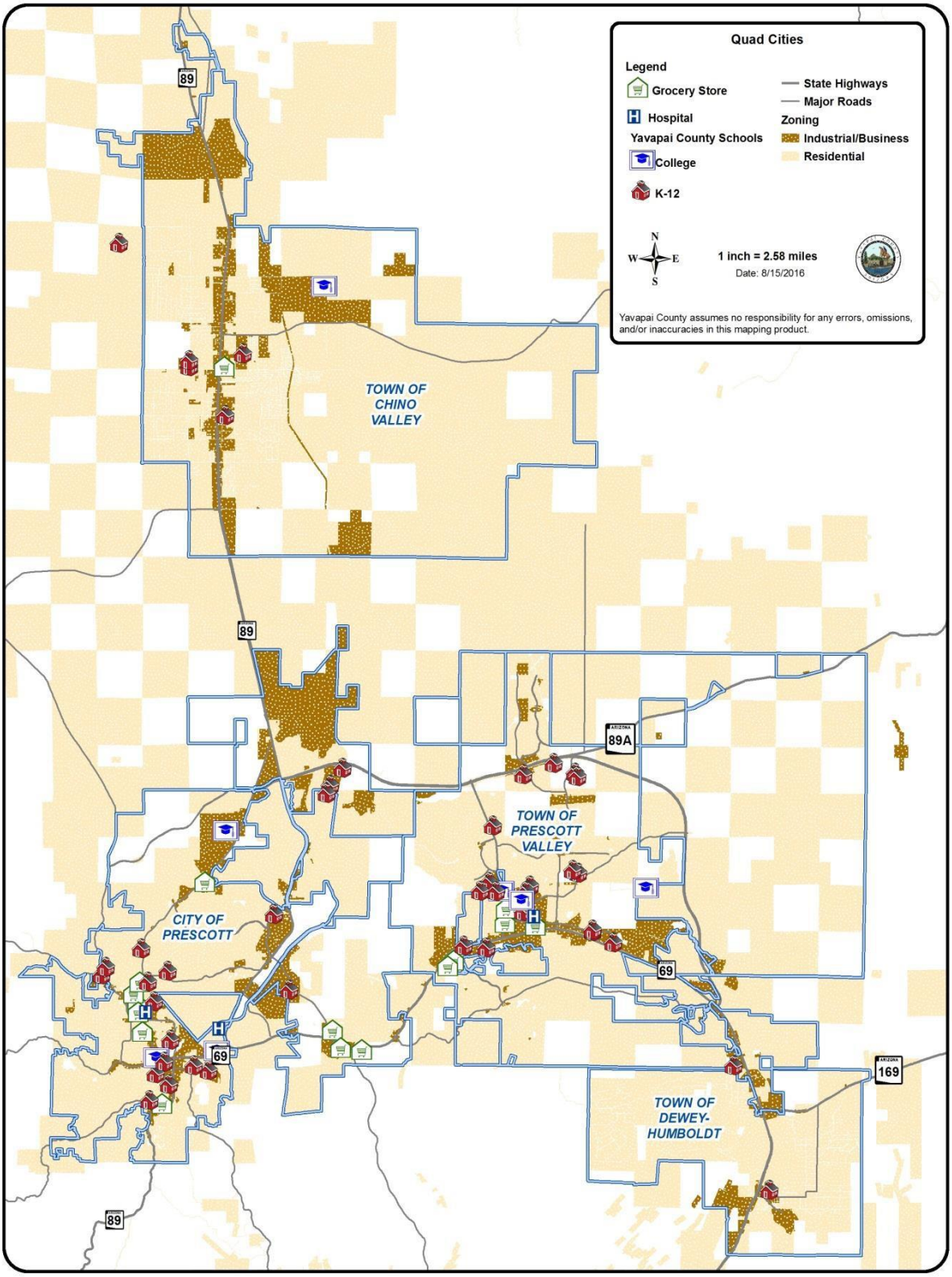


Figure 10- This map illustrates residential and business areas in the Quad Cities area. The map also indicates where schools, colleges, hospitals, and grocery stores are located. ***Source: Yavapai County GIS***

Step 2: Scoping

During Scoping the goal is to identify specific issues that should be addressed in the HIA and incorporated into future public discussions of the Yavapai countywide transportation system. The following objectives were identified to be addressed:

- Review determinants of health
- Identify potential health impacts
- Identify stakeholders
- Construct a logical framework for the health impacts
- Prepare a pathway diagram

Scoping highlights the key issues presented in this HIA. Scoping requires development of goals with stakeholders, identification of the primary health issues, selection of an assessment process, identification of the study area, and engagement of the community.

Goals

The HIA team agreed on the following goals to guide the HIA process:

- Engage stakeholders during each step of the process
- Identify potential public health outcomes impacted by Regional Mobility Management Implementation Plan
- Seek community input about health outcomes
- Develop recommendations to inform key decision-making processes
- Increase awareness of HIAs as a tool for illustrating health outcomes in community development

Decision Timeline

Public transportation within Yavapai County is a concern for many individuals. This HIA will help illustrate the health impacts of public transportation specific to Yavapai County. CYMPO prepared the Regional Transportation Plan Update 2040 in April 2015 with assistance from AECOM, Hexagon Transportation Consultants, and Central Creative. CYMPO also prepared the Regional Mobility Management Implementation Plan with assistance from Transit Plus consultants and NACOG, which is scheduled for adoption in Fall 2016.

The Yavapai County Transportation HIA report is focused on informing the RMMIP of the health impacts surrounding transportation, with completion of the HIA report by August 31, 2016.

The next step after completion of the HIA will be for CYMPO to accept or reject the HIA recommendations, and for CYMPO, city officials from involved communities, and other transit authorities in Yavapai County to initiate a coordinated public transportation system throughout the county.

Pathway Diagram

The HIA team developed a pathway diagram to illustrate potential health determinants. A pathway diagram can be defined as, “a map of the casual pathway by which health effects might occur. In general, this approach describes effects directly related to the proposal and traces them to health determinants and finally to health outcomes” (NIH.gov, 2011).

The Pathway Diagram is as follows:

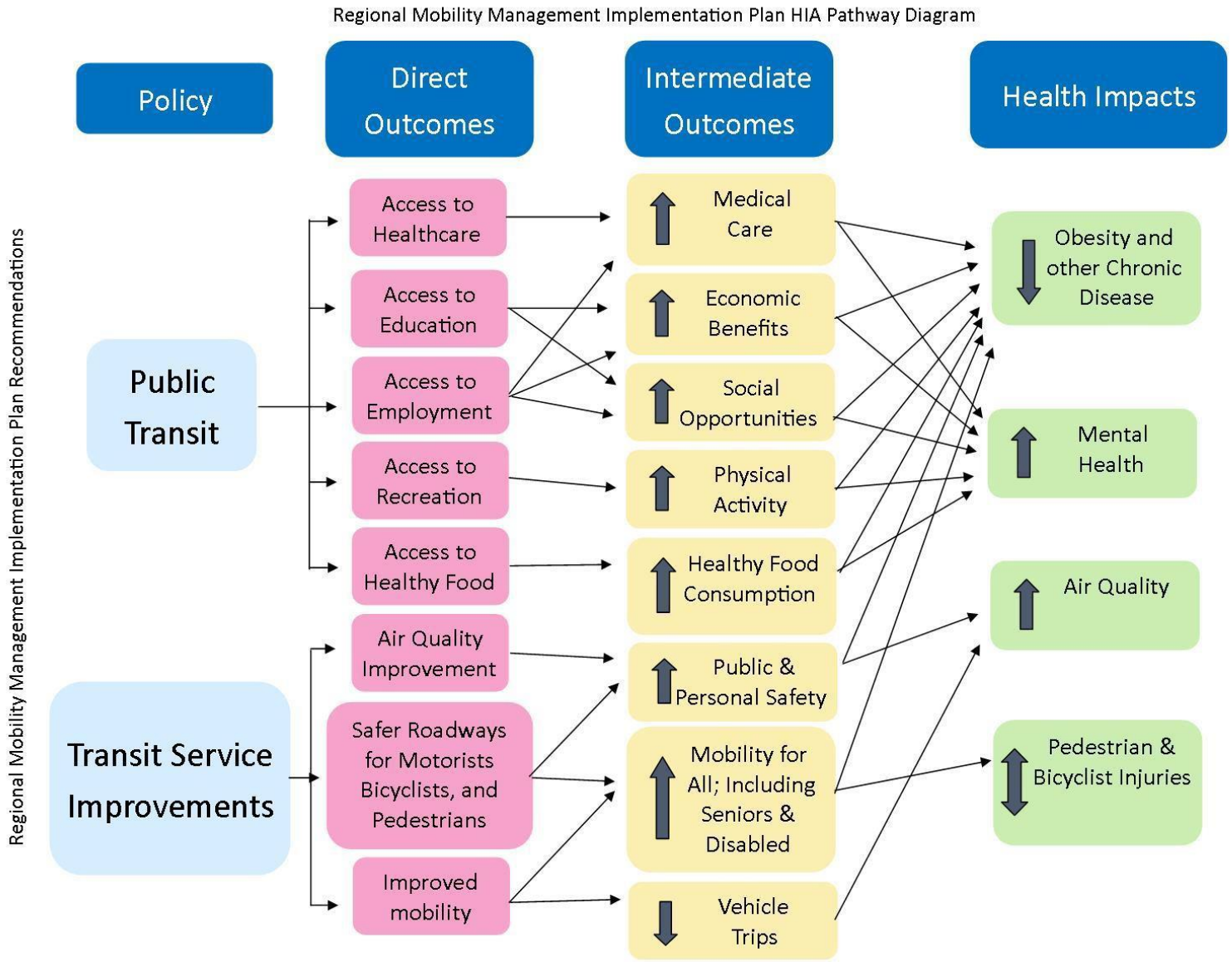


Figure 11- RMMIP Pathway Diagram

Pathway Diagram Description		
Pathway/ Direct Outcome	**Intermediate Outcomes**	**Description**
1. Access to Health Care	Increase in Medical Care	• Increasing the number of people taking public transportation, resulting in more physical activity and better access to services and health care. • Decreasing social isolation. • Improving access to health care. • More people having regular access to services in other communities. More employment, higher incomes, less depression. Improving access to health care, healthy food, and decreasing obesity and obesity-related chronic disease.
2. Access to Education	Increase in Economic Benefits to the Community Increase in Social Opportunities	• Resulting in more people shopping locally, positively impacting local businesses. • Making it easier to travel by bicycle and on foot may help to revitalize or further economic development in smaller downtowns and town centers. Making it easier to access jobs, resulting in increased incomes. • Providing non-motorized transportation options would allow people who do not drive to access education and other community services throughout Yavapai County, reducing isolation and potentially increasing incomes.
3. Access to Employment	Increase in Medical Care Increase in Economic Benefits Increase in Social Opportunities	• People within Yavapai County communities become more connected, reducing social isolation • Increasing social interaction resulting in less isolation and a decrease in depression and substance abuse. • Increasing job opportunities resulting from enhanced transportation options. • Multiple transportation options to get to and from work.
4. Access to Recreation	Increase in Physical Activity	• Resulting in more people walking and biking instead of driving to destinations within Yavapai County communities, and helping residents be more physically active. • More people walking and bicycling will increase physical activity, resulting in lower rates of obesity and obesity-related chronic disease. Exercise is also associated with improved emotional health.

		• People perceiving walking and bicycling to be safer and engaging in this activity more frequently. • Providing healthy transportation options for residents and tourists to access natural resources. • More people taking public transportation, resulting in more physical activity. • Improving individual health with more information about healthy lifestyles and behaviors.
5. Access to Healthy Food	Increase in Healthy Food Consumption	• Multiple transportation options for getting to and from markets and grocery stores. • Rural areas may have better access to healthy foods resulting in a reduction of the number of food deserts.
6. Air Quality Improvements	Increase in Public and Personal Safety	• Potentially decreasing the number of asthma cases.
7. Safer Roadways for Motorists, Bicyclists, and Pedestrians	Increase in Public and Personal Safety Increase Mobility for All, Including Seniors, Disabled, and Low Income	• Fewer people being injured due to crashes between vehicles, vehicles and pedestrians, and vehicles and bicycles.
8. Improved Mobility	Increase Mobility for All, Including Seniors, Disabled, and Low Income Decrease in Vehicles	• Improving the ability to move around the community will contribute to a decrease in social isolation and depression, and less alcohol/substance abuse, resulting in more community cohesion.

Scoping Research Questions

After completing the Pathway Diagram, the HIA team constructed research questions pertaining to the impact of health related to public transportation.

Pathway 1- Access to Health Care

- Do people miss medical appointments because of lack of transportation?
- Will people have more access to medical care?

Pathway 2- Access to Education

- Will public transportation increase access to community, social, and educational opportunities?

- What is the current mental health status of community residents?
- Will isolation of community residents decrease?

Pathway 3- Access to Employment

- Will public transportation increase employment opportunities?

Pathway 4- Access to Recreation

- What are the current levels of physical activity of community residents?
- Will public transportation increase physical activity?
- What is the current state of health of community residents related to chronic disease?
- Will the health of community residents improve?

Pathway 5- Access to Healthy Food

- What is the current rate of obesity-related diseases?

Pathway 6- Air Quality Improvement

- Will air quality improve?

Pathway 7- Safer Roadways for Motorists, Bicyclists, and Pedestrians

- Is there a difference between a fixed route system and direct door-to-door service?
- Does public transportation and infrastructure provide a safer environment?

Pathway 8- Improved Mobility

- Where are the low-income areas?
- What areas have the highest elderly populations?
- What areas have higher disabled populations?
- What are the current transportation options?

Health Issues in Yavapai County

Yavapai County implemented the Community Health Improvement Plan (CHIP) in 2012, which was developed from the county's Community Health Assessment (CHA). During this process the county found several health concerns based on the general population's responses to the CHA. The HIA team adopted several of the health concerns from the CHA that may be impacted by public transportation. The health concerns can be found in Table 1.

Physical Health	Mental Health	Social Health
Cardiovascular Disease	Depression	Access to services
Diabetes	Isolation	
Regular physical activity	Stress	
Injuries		
Obesity		

Table 1- This table illustrates the health concerns of the Yavapai County Community Health Assessment

Physical Health

Determinants such as cardiovascular disease, diabetes, obesity, and respiratory disease are all considered chronic diseases defined by the CDC as long-lasting conditions that can be controlled but not cured (CDC). In 2012, approximately 50 percent of Americans lived with a chronic disease and seven of the top causes of death are due to chronic disease (Ward, Schiller, Goodman, 2014).

There is a link between public transportation and increased physical activity (Rissel C., Curac N., Greenaway M., Bauman A., 2012). With the addition of public transportation, Yavapai County residents may increase their physical activity by either walking or biking to the pick-up/drop-off locations and having easier access to recreational activities. According to the CDC, physical activity decreases the risk of diabetes, cardiovascular disease, some cancers, and metabolic syndrome. Metabolic syndrome is defined as a clustering of at least three of the five following medical conditions: abdominal (central) obesity, elevated blood pressure, elevated fasting plasma glucose, high serum triglycerides, and low high-density lipoprotein (HDL) levels.

Mental Health

Evidence suggests that physical activity can decrease incidence of conditions such as stress and depression. Within Yavapai County, isolation and suicide are concerns identified by the Yavapai County Community Health Assessment. In general, people who are inactive are twice as likely to have depressive symptoms. The Yavapai County suicide rate of 30.9 deaths per 100,000 people is significantly higher than the state of Arizona's rate of 16.5 deaths per 100,000, which is illustrated in Table 2.

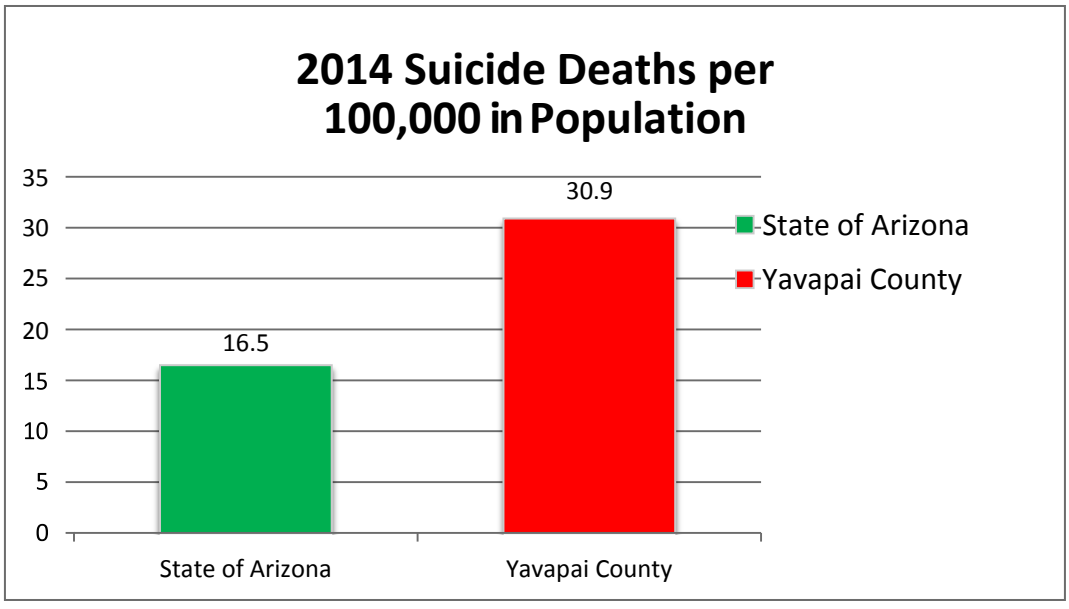


Table 2- This table illustrates the average number of suicide deaths per 100,000 in population between the state and Yavapai County. The county's suicide rate is significantly higher than the state's. ***Source: Arizona Department of Health Services***

Social and Economic Health

Residents may have more access to education, community events, jobs, shopping, and health care with the provision of public transportation. Due to disabilities and economic reasons, some persons may depend on public transportation as their sole mobility option. Seniors and elderly populations may be able to access a greater number of community events as a result of increased mobility.

Stakeholder Engagement

Public transportation within Yavapai County is an ongoing process with multiple agencies and entities involved. The Yavapai County HIA team made connections with Central Yavapai Metropolitan Planning Organization (CYMPO) and Northern Arizona Council of Governments (NACOG) on past projects and the Verde Valley Master Transportation Plan HIA. CYMPO specifically expressed an interest in finding more information on the health aspect of public transportation in the central Yavapai Transportation region. CYMPO is a key stakeholder in the HIA and has been engaged throughout the process.

CYMPO consulted with TransitPlus for their 2016 Regional Mobility Management Implementation Plan in order to set goals and objectives for transportation in the area. TransitPlus has also been involved in the HIA process.

The Yavapai County Community Health Services HIA is part of the Community Health Improvement Plan (CHIP) which conducts monthly meetings where transportation stakeholders are engaged. The stakeholders include People Who Care, CYMPO, and New Horizons. All the stakeholders currently assisting with transportation in central Yavapai County can be found in Figure 12.

A very important stakeholder is the general public, specifically those that fall below the federal poverty line, senior citizens, and persons with disabilities. To engage stakeholders, the HIA team created an online survey. The same survey was also made into a free mailer and placed at various locations throughout the county. The HIA team took them to low-income housing, rural areas, and clinics.

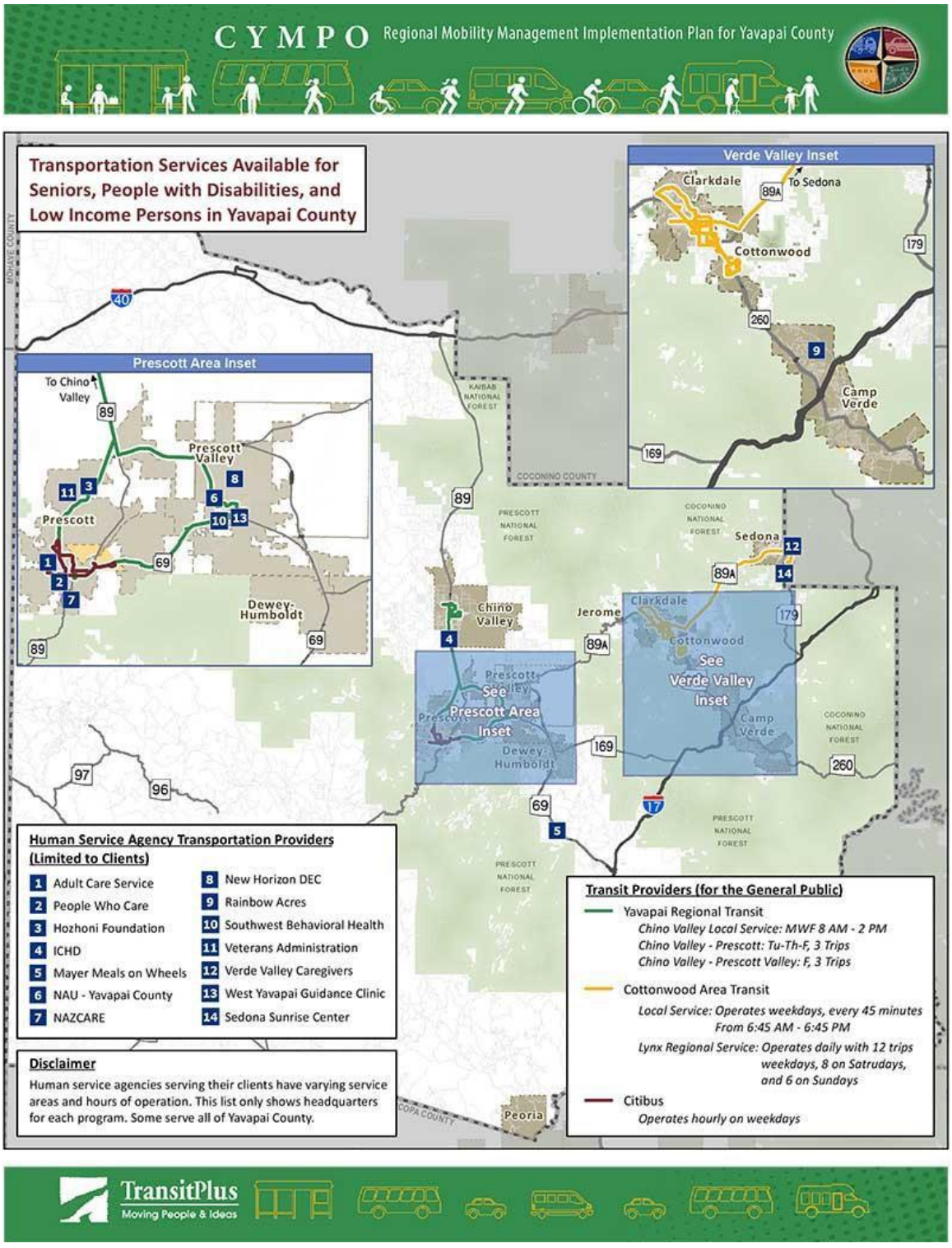


Figure 12- This map identifies all the transportation authorities in Yavapai County. *Source: CYMPO*

Step 3: Assessment

The Assessment process focused on identifying current county demographics along with health and economic barriers facing county residents. Public transportation was looked at as a possible solution to the identified barriers and analyzed for potential health outcomes. Data for the assessment was collected through a variety of sources, including the US Census Bureau, the 2012 Yavapai County Community Health Assessment (CHA), and a countywide survey. The transportation survey was created with input from stakeholders and local transportation agencies to address specific concerns and help identify pertinent needs for the health of county residents. Additionally, the HIA team looked at what was currently available to residents for transportation along with the feasibility of walking and bicycling in the Quad Cities.

Socioeconomic Overview

Yavapai County

According to the US Census Bureau, Yavapai County is large, with an area of 8,128 square miles or roughly the size of the state of New Jersey. In 2015, the population was estimated at 222,255 and has seen 24 percent growth since 2000. The Arizona Department of Economic Security has predicted that if the growth stays on the same path, that the county will have more than 400,000 people by 2050, nearly doubling its current population. The majority of residents live in rural communities, with the cities of Prescott and Prescott Valley being the county's only metropolitan areas.

Yavapai County Demographics

According to the 2010 US Census, 29.3 percent of the population in Yavapai County is over 62 years of age. Of the total population, 82 percent of the population is Caucasian, with 13.6 percent of the non-Caucasian population being Hispanic or Latino. In additional to the elderly population living with a disability, approximately 13.2 percent of those under the age of 65 reported having a disability as well.

In 2014, total households in Yavapai County were estimated at 91,508. Of those households, 4,649 were estimated to not have a vehicle. This is a concerning statistic, due to the rural nature of the county and the travel distance for many residents to needed amenities such as healthy food options and health care. In Prescott alone, 1,667 households did not have a vehicle, roughly 11 percent of its total household population.

Elderly Population

Due to its nationwide popularity as a retirement community, Yavapai County residents are considerably older than other counties' populations around the state. The median age for Yavapai residents in 2014 was 50.8 years, while the median age for the rest of the state was 36.5 years during that same time. Those that are 65 years of age or older make up 26.3 percent of the county's population compared to the 14.9 percent for the rest of Arizona. This is significant because older residents are less likely to drive and also require more frequent access

to health care. Data provided by Yavapai Regional Medical Center showed that 37 percent of all emergency room visits in Prescott for 2015 were patients 64 years or older, making it the age group most frequently in need of treatment. In comparison, only 24 percent of emergency room visits belonged to those 64 years or older in Prescott Valley, where the median age is nine years younger, making it the second most frequent age group behind those 25-45 years old. Table 3 breaks down the median age of residents by city, town, or unincorporated area compared to the state and county averages.

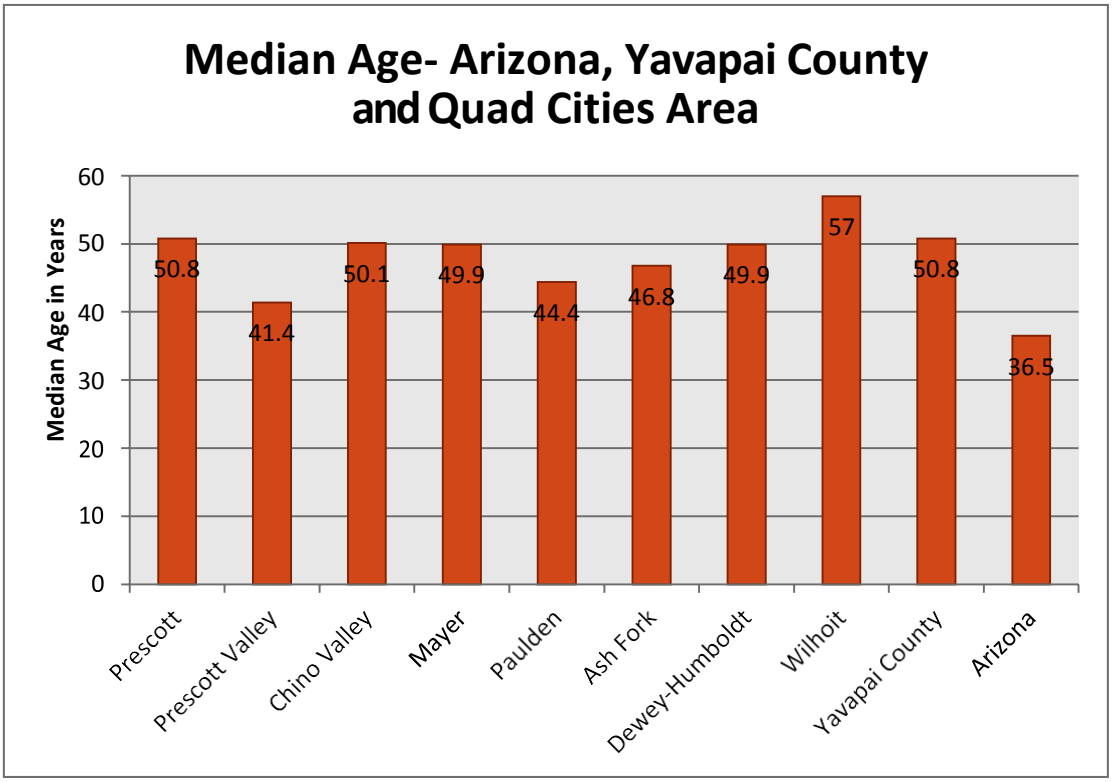


Table 3- The chart above shows the median household income for the state of Arizona, Yavapai County and the Quad Cities Area. ***Source: American Factfinder***

Disabled Population

The number of Yavapai County residents living with a disability is significantly higher than state averages as well. Of the total county population, 18.2 percent reported having a disability versus the Arizona average of 11.9 percent. This statistic is critical because persons with disabilities and those living with someone who has a disability have significant barriers to transportation (Rosenbloom, 2007). Table 4 illustrates the percent of disabled residents by city, town, or unincorporated area compared to the state and county averages.

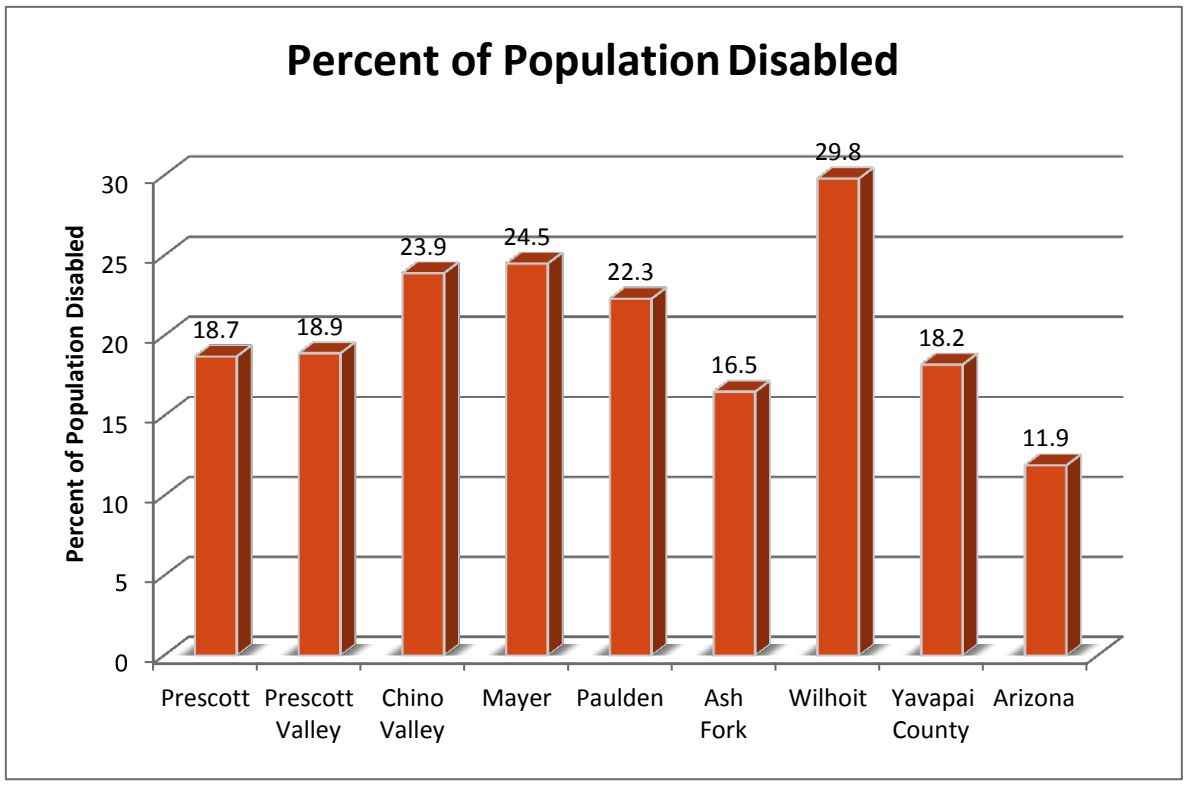


Table 4- This chart illustrates the percent of disabled residents per city, town, and unincorporated area compared to the state and county percentages. ***Source: American Factfinder***

Income

The state median income per household is $49,928, nearly $6,000 more than Yavapai County's median income of $44,000. However, cost of living is considerably higher than national averages in terms of housing and health care (Sperling's, 2014). With a lower median income compounded by a higher cost of living, there is a greater occurrence of poverty. The poverty line is defined as the minimum income needed to live comfortably based on the area's food costs and need. From 2006-2010, the county saw a dramatic increase in poverty that now has one in every four children under the age of 18 living below the poverty line (CHA). Furthermore, in 2014 the US Census Bureau determined that approximately 16 percent of the county residents live below the poverty level. For the Hispanic or Latino population, 28.3 percent are living in poverty. Those living at or below the poverty level have considerable barriers to reliable and affordable transportation that negatively impact quality of life and mental health.

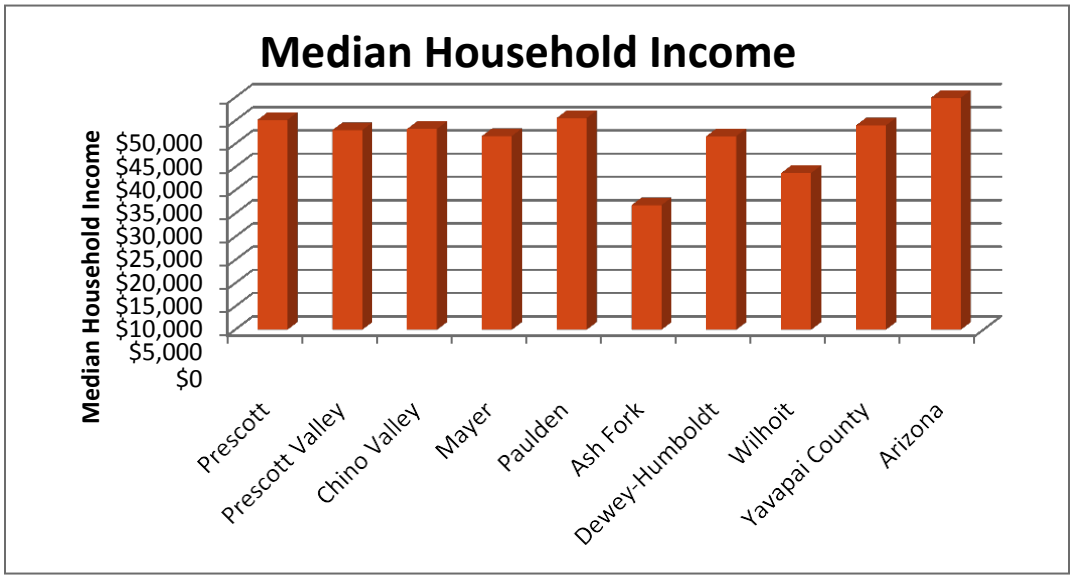


Table 5- This chart shows the median household income for the state of Arizona, Yavapai County and the Quad Cities Area. ***Source: American Factfinder***

Yavapai County Health

Yavapai County is divided geographically by the Mingus Mountain Range, with approximately 70 percent of the population residing on the Quad Cities side of the mountain. Most of the health data available is only available countywide rather than separated by city or region.

When compared to the rest of the state, Yavapai County ranks higher in several categories for death per 100,000 individuals (see Table 6). The most notable statistic is the high rate of death by suicide in which Yavapai County has 30.1 per 100,000 compared to the state average of 16.9 per 100,000. In the 2010 Community Health Assessment, county residents stated drug and alcohol abuse as the most concerning factors of behavioral health in the region, followed closely by depression, all three of which are highly influential in suicide rates along with feelings of isolation. Public transportation has shown to limit the effects of isolation by connecting

communities and improving quality of life. Reliable transportation allows for more access to recreational and social activities as well as better treatment for mental health disorders, helping to alleviate some of the feelings of isolation and depression related to suicide.

Yavapai County also ranked higher than Arizona averages for deaths due to Chronic Lower Respiratory Disease (CLRD). The two greatest causes affecting CLRD are tobacco smoke and outdoor air pollutants, and age (WHO, 2015). Public transportation lowers carbon emissions, provides an alternative means of travel for single occupancy drivers, and potentially limits the number of vehicles on the road. Air pollution levels may decrease as a result of more viable public transportation options.

Additionally, Yavapai County ranked higher in deaths by car accidents, cancer, and drugs when compared to the rest of the state. There is no significant data to support that public transportation will impact these areas.

The county fell below state averages in relation to deaths by heart disease and diabetes, which may be due to the high availability of outdoor activities such as hiking and mountain biking. Although Yavapai County has shown lower rates in both heart disease and diabetes, public transportation may help to further improve those numbers by allowing access to those activities for people who previously had no way to access them.

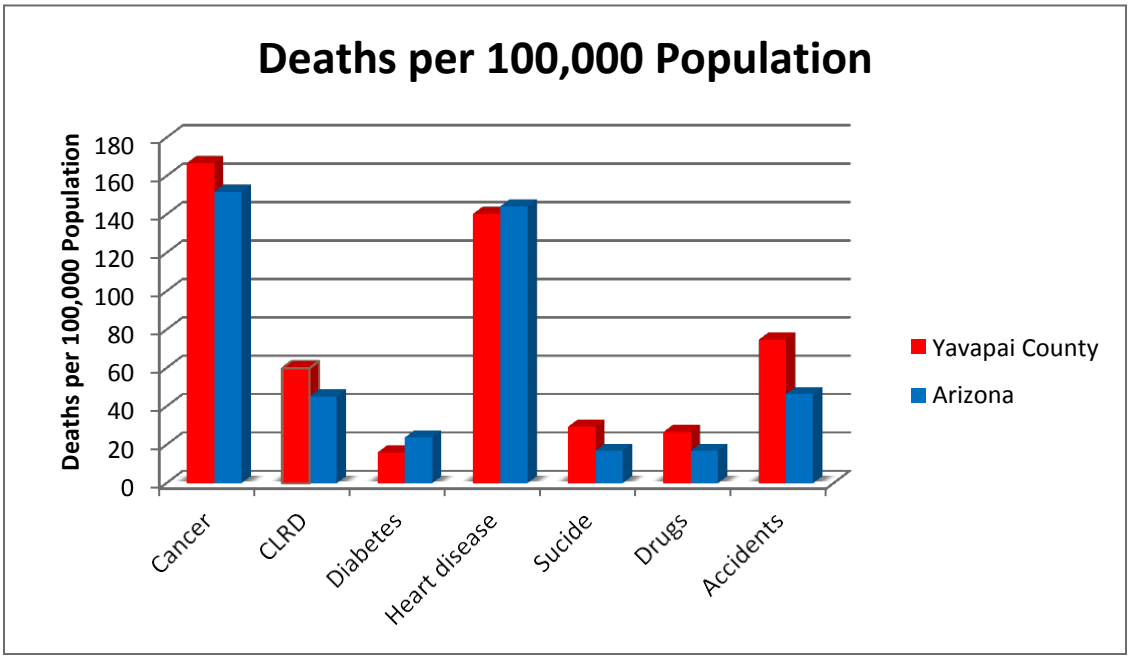


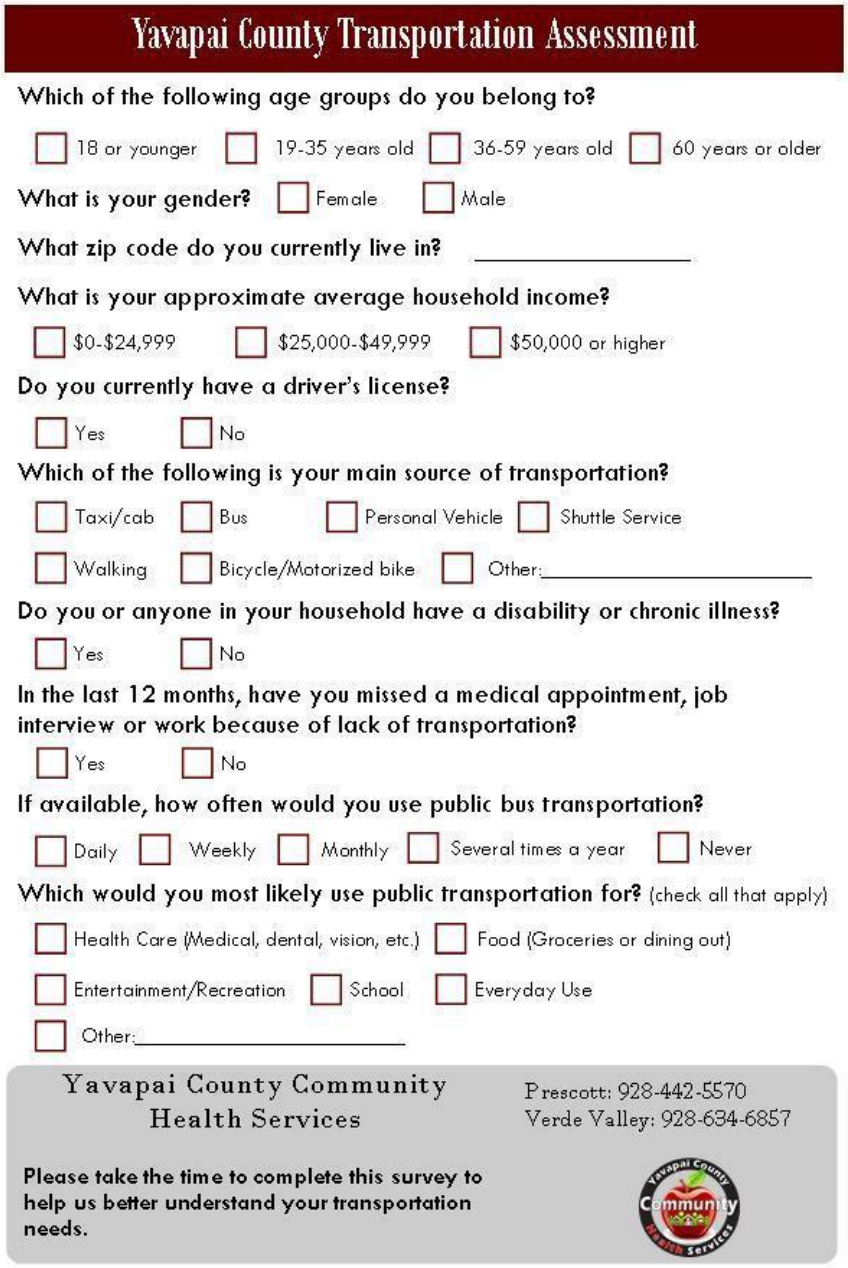
Table 6- Deaths per 100,000 population in Yavapai County compared to the state average. *Source Robert Wood Foundation*

The University of Wisconsin Population Health Institute measured various health outcomes and factors within Yavapai County and the state of Arizona. The following are important statistics from this measurement tool (Robert Wood Johnson Foundation, 2014):

- Approximately 11 percent of the Yavapai County population suffers from mental distress
- Approximately 10 percent of the population has diabetes
- Yavapai County has a 25 percent rate of adult obesity
- Approximately 18 percent of the population has limited access to healthy foods
- Health care costs are approximately $7,796, the amount of price-adjusted Medicare reimbursements per enrollee

Community Survey

After meeting with health and transportation partners throughout the county, the HIA team decided that a community survey would be the most useful tool in engaging public opinion and getting a larger picture of the present needs in the county. The survey consisted of 10 questions related to health, income, and transportation and was distributed throughout the county using various methods including paid-postage mailers, social media, and local newspapers. In total, 750 mail-in surveys were handed out to Prescott College, Yavapai College, Embry-Riddle University, Skull Valley Elementary, Bagdad Medical Center, local recovery homes, Prescott Valley Library, Prescott Library, WIC offices, county clinics, apartment complexes, and various merchants in the town of Mayer. A links to the online version of the survey was posted through social media sites and local newspapers and was passed through email to stakeholders. Overall, 437 people responded from 23 of 32 Yavapai County zip codes.



Yavapai County Transportation Assessment

Which of the following age groups do you belong to?

☐ 18 or younger ☐ 19-35 years old ☐ 36-59 years old ☐ 60 years or older

What is your gender? ☐ Female ☐ Male

What zip code do you currently live in? _____

What is your approximate average household income?

☐ $0-$24,999 ☐ $25,000-$49,999 ☐ $50,000 or higher

Do you currently have a driver's license?

☐ Yes ☐ No

Which of the following is your main source of transportation?

☐ Taxi/cab ☐ Bus ☐ Personal Vehicle ☐ Shuttle Service

☐ Walking ☐ Bicycle/Motorized bike ☐ Other:_____

Do you or anyone in your household have a disability or chronic illness?

☐ Yes ☐ No

In the last 12 months, have you missed a medical appointment, job interview or work because of lack of transportation?

☐ Yes ☐ No

If available, how often would you use public bus transportation?

☐ Daily ☐ Weekly ☐ Monthly ☐ Several times a year ☐ Never

Which would you most likely use public transportation for? (check all that apply)

☐ Health Care (Medical, dental, vision, etc.) ☐ Food (Groceries or dining out)

☐ Entertainment/Recreation ☐ School ☐ Everyday Use

☐ Other:_____

Yavapai County Community Health Services

Prescott: 928-442-5570
Verde Valley: 928-634-6857

Please take the time to complete this survey to help us better understand your transportation needs.

Figure 13- The Yavapai County Community Health Services HIA Community Survey

Results for the survey are shown below:

What is your gender?

Answer Options	Response Percent	Response Count
Female	71.80%	305
Male	28.20%	120
	answered question	**425**
	skipped question	**12**

What is your approximate average household income?

Answer Options	Response Percent	Response Count
$0-$24,999	33.30%	143
$25,000-$49,999	32.60%	140
$50,000 or higher	34.20%	147
	answered question	**430**
	skipped question	**7**

Do you currently have a driver's license?

Answer Options	Response Percent	Response Count
Yes	83.00%	361
No	17.00%	74
	answered question	**435**
	skipped question	**2**

Which of the following is your main source of transportation?

Answer Options	Response Percent	Response Count
Personal Vehicle	75.50%	330
17Bus	2.50%	11
Shuttle Service	3.90%	17
Bicycle/Motorized Bike	4.80%	21
Taxi/Cab	6.60%	29
Walking	11.70%	51
Other (please specify)	8.00%	35
	answered question	**437**
	skipped question	**0**

Which of the following age groups do you belong to?

Answer Options	Response Percent	Response Count
18 or younger	4.30%	19
19-35 years of age	28.80%	126
36-59 years of age	32.50%	142
60 years or older	34.30%	150
	answered question	**437**
	skipped question	**0**

Do you or anyone in your household have a disability or chronic illness?

Answer Options	Response Percent	Response Count
Yes	40.70%	174
No	59.30%	253
	answered question	**427**
	skipped question	**10**

In the last 12 months, have you missed a medical appointment, job interview or work because of lack of transportation?

Answer Options	Response Percent	Response Count
Yes	24.40%	106
No	75.60%	328
	answered question	**434**
	skipped question	**3**

If available, how often would you use public bus transportation?

Answer Options	Response Percent	Response Count
Daily	21.60%	94
Weekly	24.40%	106
Monthly	12.90%	56
Several times a year	15.40%	67
Never	25.70%	112
	answered question	**435**
	skipped question	**2**

Which would you most likely use public transportation for? (Check all that apply)

Answer Options	Response Percent	Response Count
Health Care (Medical, dental, vision, etc.)	50.80%	190
Food (Groceries or dining out)	42.80%	160
Entertainment/Recreation	44.40%	166
School	11.80%	44
Everyday Use	31.80%	119
Other (please specify)	17.40%	65
	answered question	**374**
	skipped question	**63**

Table 7- HIA Community Survey Results

Summary of Survey Results

Returned surveys showed a wide range of responses from across the county with nearly even distribution among age and income groups. The HIA team felt it represented an accurate population sample size and would be a useful tool in helping to determine needs for county residents. The results were analyzed for patterns related to health and transportation and where potential barriers may exist. Focus was placed on the elderly, disabled and low-income groups which typically have a higher need for reliable and affordable transportation but are often presented with greater obstacles. Furthermore, we looked beyond need and gauged public opinion by asking "If available, how often would you use public bus transportation?"

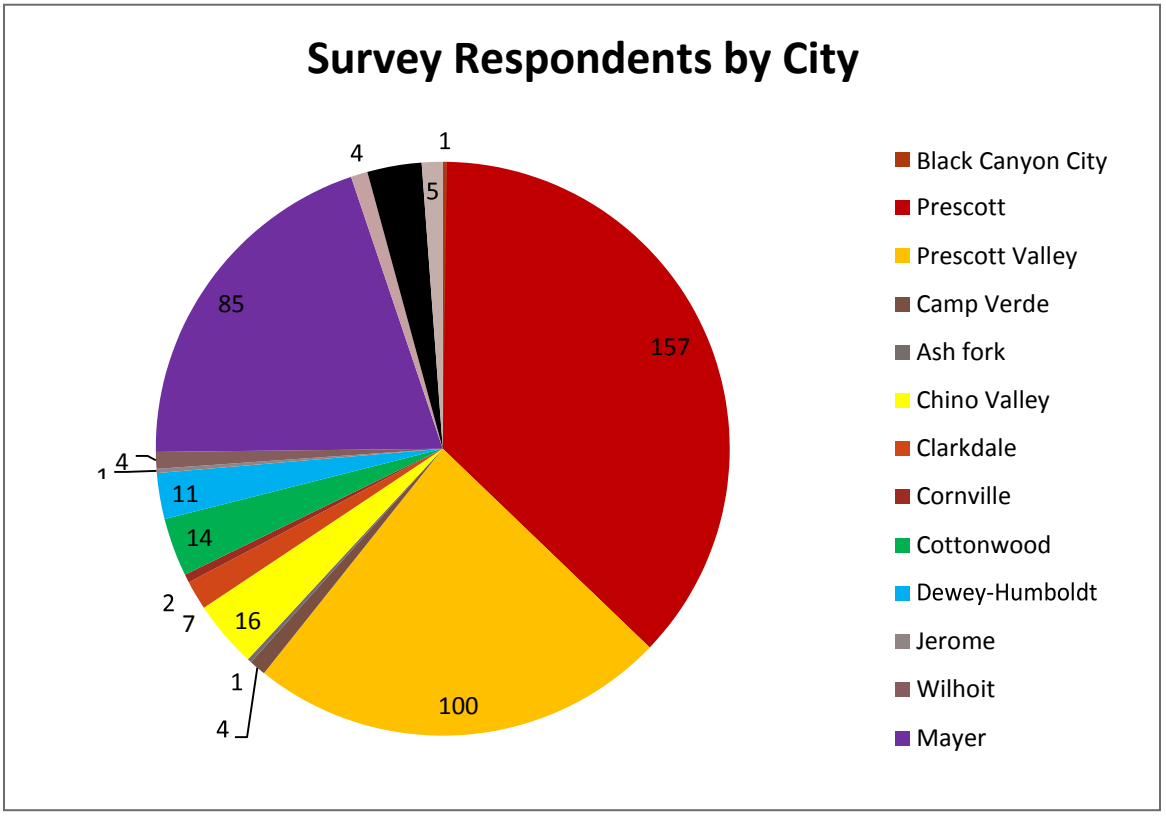


Table 8- HIA Survey Respondents by Community

Overall, 74.3 percent of respondents said they would use public transportation if available, albeit the amount of use varied from yearly to daily. The following statistics were taken from individual survey answers that they HIA team felt were pertinent to the study and determining transportation needs:

- 52 percent- Respondents 60 years or older living with a chronic disease
- 80 percent- Respondents with a chronic disease that would use public transit
- 74 percent- Respondents 60 years or older that would use public transit
- 76 percent- Respondents in rural zip codes that would use public transit
- 81 percent- Low-income respondents who would use public transit
- 84 percent- Respondents in Mayer and Dewey-Humboldt that would use public transit

- 97 percent- Respondents who have missed an appointment or work because of transportation and said they would use public transit
- 67 percent- High-income respondents that would use public transit
- 68 percent- Respondents who identified a personal vehicle as their main source of transportation that would also use public transit if available

In summary, the survey results show that all communities and members, regardless of income or age, support public transportation. The two groups that typically do not present a high need for transportation help, specifically those in higher income brackets and those with personal vehicles, each had a majority that said they would use public transit if available. Residents in rural communities, such as Mayer and Dewey-Humboldt, showed a greater need for transportation, with 64 percent stating they would use public transit with greater frequency either daily or weekly. Furthermore, the elderly, disabled, and low-income residents all showed a need for transportation as well.

Current Transportation in Yavapai County

There are several independent and nonprofit organizations that provide most of the public transportation in the county, most of which are funded by federal grants. Door-to-door shuttle services and taxicabs are the most popular form of public transit in the Quad Cities area. However, there is a bus system that services primarily Chino Valley residents that makes stops in Prescott and Prescott Valley several times a week.

In discussions with local agencies, there is a great need for transportation and many of the agencies do not have the staffing or the funding to keep pace with the demand. Additionally, there is very little collaboration between agencies currently, but it has been identified as an area of focus in hopes of better serving the Quad Cities.

In addition, there is a large volume of traffic on SR-69, which is the main service route for the Quad Cities. According to statistics provided by the Arizona Department of Transportation (ADOT), traffic between Prescott and Prescott Valley averages approximately 41,000 vehicles a day and as high as 46,000 on a weekend. In comparison, the Interstate 10 (I-10) between Arizona's two largest metropolitan areas, Phoenix and Tucson, produces roughly the same volume of traffic daily but with a significantly greater population. Along with a high volume of traffic, the US Census Bureau reported that approximately 75 percent of Quad Cities' drivers are single occupancy vehicles. Public transportation could lower both the volume of traffic and the number of single drivers with an efficient and consistent system.

Lastly, the Quad Cities scored on the lower end of the spectrum in walkability according to www.walkscore.com. On a scale from 1 to 100, with 100 being the best overall score, each city scored in a range where almost all errands require the use of a vehicle or transportation. The highest scoring city was Chino Valley with a score of 32, followed by Prescott with a 24, Prescott Valley with a 17, and Dewey-Humboldt with 4. This can be interpreted as communities being isolated from needed amenities and lacking the infrastructure, such as sidewalks, for traveling from one place to another. Public transportation is ideal for connecting communities and providing a means of travel when one may not already exist.

Step 4: Recommendations

The HIA team developed recommendations based on the identified pathways and the assessment of the information collected.

Policy/ Pathway	Recommendation	Rationale	Timeline
Public Transit System **Policies 1, 2, 3, 4 & 5**	1. Establish a regional public transit system that serves the Quad Cities, surrounding communities, and rural areas.	Stakeholder engagement determined that a fixed route public transit system is needed within the CYMPO region with extensions to the towns of Mayer and Paulden. A fixed route system will provide consistency throughout the region and increase the use of public transit. Responsibility: Entities participating should include, but not be limited to, CYMPO, Prescott, Prescott Valley, Chino Valley, Dewey-Humboldt, Yavapai County and existing transportation authorities.	TBD- This is a top priority but will require time and effort to establish. This will require financial support, infrastructure, and collaborative planning by the various transportation entities.
Public Transit System **Policies 1, 2, 3, 4 & 5**	2. Establish a public transit daily fixed route connecting the Quad Cities and smaller communities such as Mayer and Paulden.	Stakeholder engagement determined that daily fixed routes are needed, not only for the Quad Cities, but also for the more rural towns where few services currently exist. Responsibility: Public transit agency	In conjunction with the fixed route system
Public Transit System **Policy 1**	3. Establish a public transit daily fixed route that serves major medical centers in Prescott and Prescott Valley.	Stakeholder engagement determined that transportation for health care needs is a top priority of the public, especially those with disabilities, seniors and the low-income population. Responsibility: Public transit agency	In conjunction with the fixed route system
Transit Service Improvements **Policies 6, 7 & 8**	4. Provide safe, clearly and well-marked public transit stops accessible to bicyclists and pedestrians.	Infrastructure is required to ensure stops are visible, accessible, and safe. Responsibility: CYMPO	In conjunction with the fixed route system

Transit Service Improvements **Policies 6, 7 & 8**	5. Provide public transit vehicles that are ADA compliant and equipped with bicycle racks.	ADA compliant and inclusive transportation is required by federal law. Bicycle racks provide greater inclusion for all. Responsibility: CYMPO	In conjunction with the fixed route system
Public Transit System **Policy 4**	6. Provide weekend fixed routes and special service for recreational activities including, but not limited to, special events, the downtown area of Prescott (The Square), shopping centers, and recreational areas.	Recreational activities are a vital part of the community and will allow for greater participation and less isolation. Special services will provide safer roads by decreasing traffic and driving while impaired. Responsibility: Public transit agency	After development of the fixed route system (healthcare, education and employment are top priorities).
Public Transit System **Policies 1, 2, 3, 4 & 5**	7. Implement rideshare and/or shuttle service for rural areas and for the Yavapai County Camp Verde Judicial Court.	Access to health care, county services, and court service was identified as a concern by stakeholders. Potentially partner with Verde Valley Lynx to ensure transportation from Camp Verde Judicial Court. Responsibility: Public transit agency	November 1, 2017
Public Transit System **Policies 1, 2, 3, 4 & 5**	8. Establish a working committee of all transportation agencies to ensure inclusion within public transportation and cohesion of government, private, and nonprofit entities.	Transportation entities and government communicating and working together will make for a better overall outcome for a public transit system. Responsibility: Public Transit Agency	As soon as feasible
Municipalities and Unincorporated Areas **Policies 4, 8 & 9**	9. Adopt a Complete Streets policy regarding pedestrian and bicycle improvements and infrastructure.	Complete Streets ensure better health outcomes for the community. Responsibility: CYMPO and member communities	After development of the fixed route system

Table 9- HIA Recommendations

Step 5: Reporting

The reporting step is how the information of the HIA is presented to the stakeholders. This written report serves as one mode of presentation to involved parties. It shows documentation of HIA steps, data collected and analyzed, and supporting pieces of previous research.

The second mode of presentation is oral presentations to stakeholders. The following is a list of presentations:

Reporting Presentations		
Entity	Date	Reporting By
CYMPO Meeting	October 3, 2016	Yavapai County Community Health Services
CYMPO Technical Advisory Committee Meeting	October 6, 2016	Yavapai County Community Health Services
CYMPO Executive Board Meeting	November 16, 2016	Yavapai County Community Health Services
CHIP Meeting- Verde Valley	November 16, 2016	Yavapai County Community Health Services
CHIP Meeting- Prescott	December 1, 2016	Yavapai County Community Health Services

Table 10: This table illustrates the presentations given by YCCHS

The HIA findings will also be presented on Yavapai County Community Health Services website and Facebook page.

The written report will be presented to government agencies with a vested interest in public transportation. This includes, but is not limited to, Prescott, Prescott Valley, Chino Valley, Dewey-Humboldt, Mayer, Paulden, ADOT and Yavapai County.

Step 6: Monitoring and Evaluation

Evaluation is an important and critical step in the HIA process but is often overlooked or not considered. It is essential to determine if the HIA influenced the community and the decision makers. There are three steps in the monitoring and evaluations phase: evaluation of the process, evaluation of recommendations, and evaluation of implementation.

Evaluation of the Process

The purpose of this step is to determine what worked and what did not work throughout the HIA process. The purpose of this is to inform future HIAs.

Strengths

The major strength in the process of formulating this HIA was the community survey. The survey was promoted both online via Facebook and through the use of self-addressed, postage-paid postcards that were mailed directly back to the HIA team and manually entered into Survey Monkey. The survey was distributed throughout the county at local schools, colleges and universities, medical centers and clinics, and libraries, as well as being promoted in the local newspaper. The response from community members was generally positive, as many seemed eager to share their opinions on public transportation, especially in the more rural areas around the Quad Cities.

Another strength is the public agency collaboration that has been established as a result of this process. Involving all entities and convening about the issue of public transit is something our team is eager to continue. The health impact on the community as a result of a comprehensive public transit plan is something our team will continue to inform the public on. One of our recommendations involves forming a working committee and we are dedicated to that becoming a reality.

Challenges

A major challenge in the process was the stakeholder meetings, gaining public input, and working directly with the stakeholders. This challenge arose as the result of the on-going changes in the make-up of the HIA team. The team was evolving throughout the process. Team members were added at times during the process and did not have the background information from previous team members, particularly relating to stakeholder meetings and discussions. As the team membership evolved, connections with stakeholders were difficult to re-establish. As those stakeholder connections were re-established, the primary purpose for the HIA, as identified by CYMPO, evolved to focus on the resolution of the proposed plan for public transit.

Another challenge is the geographical size of Yavapai County. According to the US Census Bureau, the county has a total area of 8,128 square miles. Our population is growing and with the county also being split by a mountain range, both factors present unique challenges for public transportation being expanded throughout the county.

The goal of the HIA team is for the recommendations to inform stakeholders and community members regarding implementation of the Regional Mobility Management Implementation Plan. More importantly, it is hoped that the HIA will help change the conversation and/or course of action and that the effects of public transit on the health of community members will be strongly considered and incorporated into a future plan for public transit in the Quad Cities.

Evaluation of this HIA will be ongoing as HIA team members will participate in stakeholder meetings, give public presentations, and engage with community members and interested parties.

Lessons Learned

After the completion of the Yavapai County Mobility Health Impact Assessment, the HIA team identified the following as lessons learned:

- *Multiple Leadership Changes*- The Yavapai County Mobility Health Impact Assessment process was delayed due to multiple staff turnovers within Yavapai County Community Health Services and the Arizona Department of Health Services related to the HIA. Although not within our control, the HIA process is more difficult without consistent and dedicated staff.
- *HIA Team Building*- Building a solid, trained HIA team is vital for a quality Health Impact Assessment.
- *Health in Policy*- The goal of an HIA is show how the health of the community can be improved through the adoption of healthy community policies. As employees of the health department, the HIA team has a strong connection to improving the health of the community. While we may feel passionate about this topic, other stakeholders may need to be provided with a detailed explanation of the benefits derived from healthy community policies.
- *Creation of a Countywide Transit System and Agency Relationships*- Throughout stakeholder engagement opportunities, it became clear that outside agencies were finding it challenges to collaborate. Due to the rural character of the communities surrounding the urban areas, collaboration is essential. An umbrella agency, such as a countywide transit system, may be beneficial to bring all agencies together and initiate public transportation in Yavapai County. It was a challenge for the HIA team to navigate through the various agency relationships to build strong working partnerships.
- *Community Champion*- Finding a champion(s) within the community is crucial to successfully engage the community throughout the HIA process and contributes to receiving more public feedback during the community outreach and engagement process.

Evaluation of Recommendations

The HIA recommendations are large-scale and broad-based, but are necessary if public transit will be successful in the future. Many issues need to be resolved before several of the recommendations can be implemented, and implementation is closely tied to political standpoints and financial roadblocks.

At the time of the preparation of this report, it currently remains to be seen if the primary objective of informing CYMPO has been met. Ultimately CYMPO is responsible for reviewing and accepting/rejecting the recommendations. It may be determined that further input is needed from stakeholders in order to prioritize the recommendations in the HIA. Again, evaluation of the recommendations will be ongoing.

Monitoring of Implementation

This component involves monitoring the recommendations over time to determine if they have been implemented. This process may be lengthy, as is the transportation project itself, taking months or years to conclude. The process for monitoring and implementation is detailed below in Table 11.

Outcomes/ Pathways	Recommendation	Indicator	Agency Responsible	Timing
Policies 1, 2, 3, 4 & 5	1. Establish a regional public transportation system that serves the Quad Cities, surrounding communities, and rural areas.	Creation of a regional public transit system	CYMPO, cities/towns, non-profit transportation providers, NACOG, Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA)	Potentially five years
Policies 1, 2, 3, 4 & 5	2. Establish a public transit daily fixed route connecting the Quad Cities and smaller communities such as Mayer and Paulden.	Ridership totals	CYMPO	Monitor annually
Policy 1	3. Establish a public transit daily fixed route that serves major medical centers in Prescott and Prescott Valley.	Ridership totals	CYMPO	Monitor annually
Policies 6, 7 & 8	4. Provide safe, clearly and well-marked public transit stops accessible to bicyclists and pedestrians.	Pedestrian activity and census statistics	CYMPO	Monitor annually

Policies 6, 7 & 8	5. Provide public transit vehicles that are ADA compliant and equipped with bicycle racks.	Number of new transit vehicles properly equipped	ADOT	Monitor annually
Policy 4	6. Provide weekend routes and special service for recreational activities and special events.	Ridership totals	CYMPO	Monitor annually
Policies 1, 2, 3, 4 & 5	7. Implement rideshare or shuttle service for rural areas and for Yavapai County Camp Verde Judicial Court.	Ridership totals	CYMPO	Monitor annually
Policies 1, 2, 3, 4 & 5	8. Establish a working committee to ensure inclusion and cohesion.	Committee established	CYMPO, ADOT, NACOG?	January 1, 2017
Policies 4, 8 & 9	9. Adopt a Complete Streets policy regarding pedestrian and bicycle improvements.	Adopted policies	Cities/towns, Yavapai County, CYMPO	Can be started as soon as feasible and on-going

Table 11- HIA Process for Monitoring and Implementation

Conclusion

The Regional Mobility Management Implementation Plan has the potential to positively impact the health of the central Yavapai County region residents by offering transportation options which can increase physical activity, decrease social isolation, increase access to services, and increase mobility. Increased physical activity can reduce rates of hypertension, cardiovascular disease, and diabetes.

The recommendations made by the HIA team are meant to assist decision makers throughout the central Yavapai County region and those assisting with the RMMIP. The recommendations were related specifically to the health of the community. Some of the recommendations may not necessarily be feasible without consent of local government. Funding and support for public transportation in the area is the biggest obstacle when considering recommendations.

Public transportation is a vital part of a healthy community. The recommendations support increasing public transportation options within the central Yavapai region.

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