

Tucumcari Community HEAL MAPPS™ Report

Tucumcari is a rural city located in Quay County New Mexico. The town is located on Interstate 40/historic route 66; 180 miles East of Albuquerque New Mexico and 115 miles West of Amarillo, Texas. U.S. Highway 54 enters New Mexico in the Northern part of Quay County and then joins with I-40 in Tucumcari. Tucumcari is advertised as the gateway to the West. Tucumcari is the home of Mesalands Community College with a world class bronze foundry and farrier science programs. The college is also home to the North American Wind Energy Research Center aimed at studying green energy solutions.

Tucumcari is the county seat and houses multiple government agencies. In addition to education and government, tourism is a major industry in the town. Historically the county had an agriculture economic base, but after 12 years of drought, many of the farms and ranches have downsized, resulting in many agriculture service businesses closing.

The population in the city of Tucumcari was 5,363 according to 2010 census data; 1287 residents are under 18 years old. It is speculated that the population has continued to shrink since the census was conducted. The median income is \$33,039 with 18.3% of the population living below poverty level. The percentage of people classifying themselves as white alone is 37.9%; 57.4% classify themselves as Hispanic/Latino. 76.6% of Tucumcari graduated from high school; however, only 12.5% have obtained a bachelor's degree or higher.¹

Tucumcari has three schools which house students in elementary, middle school, and high school, with some shared facilities such as gyms and an auditorium. Students who do not live close to the school complexes, walk to a nearby park and are bused to school. The re-building of the high school was completed in 2012, the junior high was remodeled in 2008 and the elementary school was built in a new location around 2000. All construction of school buildings was done in phases over several years. The community college has also recently gone through a remodel and has two new buildings. There are approximately 75 youth per grade at the schools and each elementary grade has four teachers. Half day pre-school is offered through a federal program. The community also has Head Start, a private Christian pre-school and one day care center. Other child care is provided by relatives or in-home providers.

There is one grocery store in the community but over the last few years the two department stores have begun offering basic groceries and snack foods. Two dollar stores were built recently and they offer a variety of groceries at a lower price. All four have recently added refrigerator and freezer sections and have begun offering frozen convenience foods as well as milk and eggs. In addition, there are four convenience stores that cater to the traveler, but some also offer basic groceries like bread and milk. Within the last year, a produce distribution business moved to Tucumcari and they offer limited produce on Saturday mornings.

Tucumcari has six parks which are well maintained and have playground equipment. There is an active youth sports program that offers football, basketball, soccer, softball, and baseball through city leagues coached by parents. These programs are for youth 6th grade and under. The middle school and high

¹ US Census Bureau <http://www.census.gov/2010census/popmap/ipmtext.php?fl=35>

Participatory Photographic Surveys), our community resource and readiness tool, to assess community resources for and readiness to improve and implement healthy eating and physical activity supports along with environmental and policy actions to make easier these obesity preventing behaviors.

HEAL MAPPS™ projects conducted in partnership with rural communities across several Western States (AZ, CO, NM, NV, OR, WA) will provide evidence and insights that will drive the development of a rural obesity prevention model. The model will be used as a framework for rural community actions aimed to promote healthy eating and physical activity behaviors, environments, and policies to prevent overweight and obesity among children and families.

The problem of obesity in children is at the forefront of nationwide research efforts. There are documented physical and mental health outcomes associated with childhood obesity that contribute to lifelong chronic health problems, which may disproportionately affect people living in rural places. Rural residency tends to increase the risk of overweight and obesity for children and adults, in fact, the prevalence of childhood overweight and obesity is higher among children living in rural areas.

To date, most evidence-based strategies to combat the childhood obesity epidemic have been developed and tested in non-rural settings and target either individuals or environments. The overall goal of the GROW Healthy Kids and Communities (HKC) project is to learn more about the factors influencing health behaviors in rural places in order to prevent obesity in rural children **by improving their behavioral environments – at home, in school, and in the community** – to make healthy eating and activity options their easy and preferred choice.

Relevance for Tucumcari Community

The poverty rate of Tucumcari is 23.4%, as a result, every student enrolled in Tucumcari Public Schools is provided a free breakfast, lunch and snack for the four days of school each week regardless of family income. Meal service is provided by Summit Food Services and meets all regulations set forth by the Federal government for calories, fat, etc. The high school has started a back pack food program with high school students holding fundraisers to provide back packs of food each weekend for those without. The high school also provides laundry service and personal hygiene for homeless students with donations from civic groups.

Hunger is an issue in the community with the food pantry providing food for approximately 700 families a month. Approximately 100 families receive commodities once a month. Periodically some of the churches will offer the Manna or Angel Food Ministry program, but because of the high number of volunteers needed and the timing required for people to pick food up, this service is not always available in Tucumcari. A community 20 miles away does offer the service monthly and some people do travel to pick up the food boxes. During the summer there is a free breakfast and lunch in the parks for youth under 18. Many of our families receive food stamps or WIC to purchase food. WIC also has special checks that can be used to purchase fresh produce at the farmers market. There is a similar senior citizen's program, but our community did not qualify for the grant. One hidden problem in our community is a large number of parents who sell their food stamps at a lesser value for cash to spend on drugs instead of feeding their children.

The quality of produce at Tucumcari's one grocery store is often poor and the prices are high. From July to October the farmer's market is open twice a week. Since the drought and extremely hot summers, growers are limited and there is not much variety. Kodiak produce moved to Tucumcari this past year; they are a produce distribution company specializing in organic produce. They are open to the public on Saturday mornings to sell the produce they have left from filling orders. Sometimes they have unique items that are not common to our community like fennel or fresh herbs. The local Farm and Ranch store has branched out and is offering frozen meat, some dry goods, and limited fruit and vegetables. They are the only place to get Tucumcari Mountain Cheese which is organic cheese produced in Tucumcari; they also offer fresh eggs.

A local food cooperative, Azzure, has formed, but is struggling. Members are currently ordering from Azzure and orders are delivered once a month. The minimum order is \$50.00 per family per month and the membership fee \$15.00/year. Several single households who were using the service of the co-op are no longer using it because of the minimum order.

Quay County ranks 32nd out of 32 counties for Health Outcomes according to the Robert Wood Johnson Foundation. 24% percent of adults are obese and 29% of adults are physically inactive.² The New Mexico Health Department's District IV Epidemiologist determined an obesity rate of 23.7 for youth in Quay County. Several programs have been conducted to encourage physical activity in the schools including fitness week, jump rope, and walking contests to earn money for charity. Currently the community's efforts are focused on encouraging families to train for, and participate in, a 5K fun run the first Saturday of October. Approximately 200 people participated in this event in 2013.

ICAN was the Extension SNAP-Ed program which taught healthy eating in the schools and to low-income families. The program was removed from Quay County due to Federal budget cuts. The only other nutrition programs offered in the community are one time classes to specific groups and a yearly Diabetes Cooking School provided by the Extension Office.

Helping children develop healthy habits, and providing healthy eating and activity supports to balance their energy intake with energy expenditure, is an important aspect to maintaining healthy weight, preventing overweight and obesity, and minimizing chronic disease risk. Because obesity prevention among rural populations requires an understanding of the supports and barriers to healthy eating and active living within and among rural communities, we are pleased to provide this report of resources and readiness to prevent childhood obesity for the community of Tucumcari.

Methods and Preliminary Results

A HEAL MAPPS™ team (n=13) comprised of Tucumcari community members with an interest in creating a healthier community volunteered and were first trained to individually photograph and map the Tucumcari community features that they perceived as either supports or barriers to eating healthy and

² Robert Wood Johnson Foundation <http://www.countyhealthrankings.org/app/new-mexico/2013/quay/county/outcomes/overall/snapshot/by-rank>

being physically active most every day. Collectively, over 87 photographs were taken and mapped along 13 routes that represented the community's active (i.e. walking, bicycling, skateboarding, etc.) and motor vehicle transportation system. The 'mappers' covered the land area included within the 9.5 square miles of the city of Tucumcari and included features in the surrounding unincorporated areas (see Figure 1).^[1] The HEAL MAPPS™ team reconvened to discuss the photographs and maps during a focus group meeting. The most relevant 50 photographs, based on group consensus, were included in a presentation to provoke a larger community conversation. Over 17 Tucumcari residents and stakeholders attended and participated in a community dinner and discussion held at the Tucumcari Convention Center on March 13, 2014. The community conversation was facilitated by a member of the GROW HKC team trained to conduct HEAL MAPPS™ processes. Following the community dinner, photographs were displayed, participants were polled as to whether the feature made eating healthy or being physically active easier or harder for themselves or others in the community, and discussed their thoughts and feelings that led to their ratings.

Community Readiness

Communities differ in many ways including their readiness to take action on an issue and implement relevant programs. The level of community readiness is a major factor in determining whether a particular program can be effectively implemented and supported by a community. Assessing the level of readiness for obesity prevention efforts is thereby a critical component of obesity prevention program planning and evaluation.

The Community Readiness Model (CRM) is an assessment tool we used to gain an understanding of the Tucumcari community's resources and readiness for obesity prevention efforts. The model is comprised of six dimensions that influence a community's readiness to take action on an issue. The six dimensions are: community knowledge about the issue, community efforts, community knowledge of the efforts, local leadership, community climate, and local resources related to the issue. Community readiness is issue specific, can vary across dimensions and community sectors. During the Tucumcari Community Conversation, an Extension educator posed questions related to each of the dimensions and prompted discussion around Tucumcari's resources as supports or barriers to weight healthy behaviors. The entire conversation narrative was transcribed verbatim and coded for themes by independent evaluators. The data related to each dimension was then scored by an Extension researcher trained to utilize the CRM and combined to identify the overall stage of readiness.

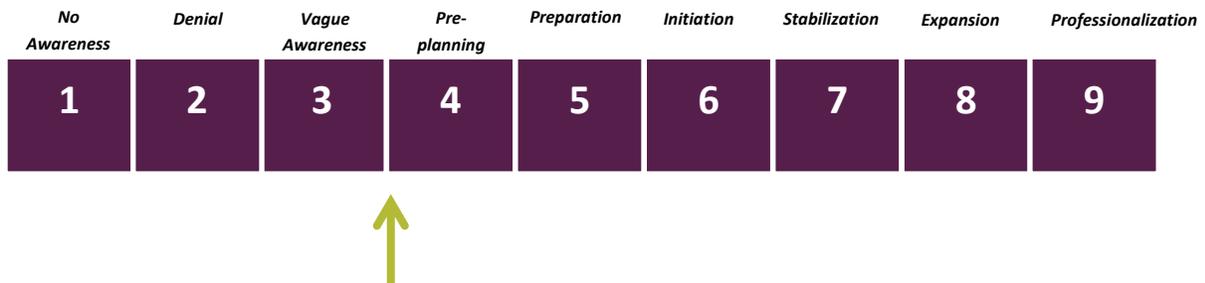
Several Tucumcari community organizations and leaders such as the local schools, farmers market, and churches emerged as supports for physical activity and healthy eating in the community. Recent efforts to improve the school food environment include introducing new foods, improving the salad bar, and providing free breakfast, lunch and snack to all Tucumcari students. These efforts, as well as leadership engagement, contributed positively to the readiness score given to the community. There seem to be

^[1] The 'mappers' individually determined the community boundaries as within the city and unincorporated land approximately served by the Tucumcari school district.

quite a few resources, such as parks, grocery stores, fitness facilities, pools, and farmers market that support healthy eating and physical activity in Tukumcari.

Community aesthetics and lack of funding to improve outdoor spaces were frequently mentioned as barriers to physical activity, as well as pedestrian safety concerns due to loose dogs and a lack of walkability supports (few/no sidewalks). Barriers to healthy eating were mentioned regarding the grocery store and food retailers; community members perceive there is a limited variety of food offered and that the foods offered are of lower quality. The perception among some participants is that community leaders are only mildly engaged in efforts to promote weight healthy kids and families, and as a result, the community relies on volunteers and private funds to sponsor community efforts. However, various leaders in Tukumcari are engaged in supporting health-promoting efforts as evidenced during the Community Conversation. Thus, a future strategy would be to engage more leaders in this work, increase awareness of the issue among local leaders, and raise awareness among community members regarding current leadership engagement.

Stages of Community Readiness



Tukumcari’s stage of readiness to implement environmental and policy strategies to prevent obesity falls somewhere between stage 3 (vague awareness) and stage 4 (preplanning) as indicated by the arrow on the Stages of Readiness graph.

General strategies for improving community readiness, based on the CRM include:

- 1) Raise awareness that the community can do something about the problem by improving communications and increasing local messaging about successful efforts.
- 2) Gather and utilize existing information about childhood obesity, the food environment, and physical activity resources in order to plan strategies aimed at improving resource availability, accessibility, and affordability.
- 3) Provide suggestions on where and how efforts should be focused based on resident input and identified barriers. Present information at local community events and to unrelated groups; launch a media campaign-post flyers, posters, and billboards.

4) Work with the New Mexico GROW Healthy Kids and Communities HEAL MAPPS™ team and utilize Extension GROW HKC, HEAL MAPPS™ and other resources to plan obesity preventing environment and policy efforts. Build and communicate Tucumcari's capacity to change – *Our Community can GROW Healthy Kids and Communities.*

For more information about the Community Readiness Model, stages of community readiness, and stage-based strategies to increase community readiness to address health issues visit:

<http://triethniccenter.colostate.edu/communityReadiness.htm>

Summary of Results based on Tucumcari Community Conversation

Physical Activity

Supports

- Active leisure supports include indoor recreation and exercise facilities, including pools and gym facilities, and exercise classes
- Public parks and playgrounds.
- Recreational sports programs for adults and youth.
- Some recent renovations to downtown areas to improve community aesthetics.
- School policies allow community members to use track and high school gym is open in summers for students to use.

Barriers

- Barriers to walkability include a lack of sidewalks and existing sidewalks are unmaintained.
- Some parks, playgrounds, and outdoor spaces are not well maintained.
- Community aesthetics, burned buildings and loose trash discourage walking or exercise.
- Pedestrian safety concerns due to limited safe places to walk because of loose dogs and high vehicular speeds.
- Lack of available and accessible exercise and recreation facilities due to limited hours of operation; affordability of existing exercise facilities- fee structure hinders accessibility for some community members.

Healthy Eating

Supports

- Local food resource centers which bridge local food production with distribution include farmers market, co-op, and community garden.
- Multiple food assistance programs.
- Improvements to the school food environment include: improving salad bar, introducing new foods, adhering to federal guidelines, and providing free breakfast, lunch and snack to Tucumcari students.
- Various food vendors/retailers accept food stamps and WIC.

Barriers

- Limited access to healthy, fresh fruits and vegetables; participants perceive food at grocery stores is poor quality.

Resident-Informed Recommendations for Community Change

The following recommendations emerged from the data generated during the Tucumcari community conversation and represent those of the Tucumcari community members who shared their ideas during the facilitated discussion of the photographed community features. These recommendations do not represent those of the GROW Healthy Kids and Communities project members or Oregon State University.

- Create and identify walking paths, signage for walking routes, and mileage markers.
- Work with the grocery stores to improve variety and options; contact Affiliated Foods (grocery store distributor) to see what they offer and then request those items through the grocery store.

Figures 1 through 4 represent the routes navigated by local residents as they mapped the physical features of the Tukumcari community using participatory photographic survey methods. Include one route from each different mode of transportation the mappers used.

Figure 1. Represents all routes generated by the Tukumcari community mappers.

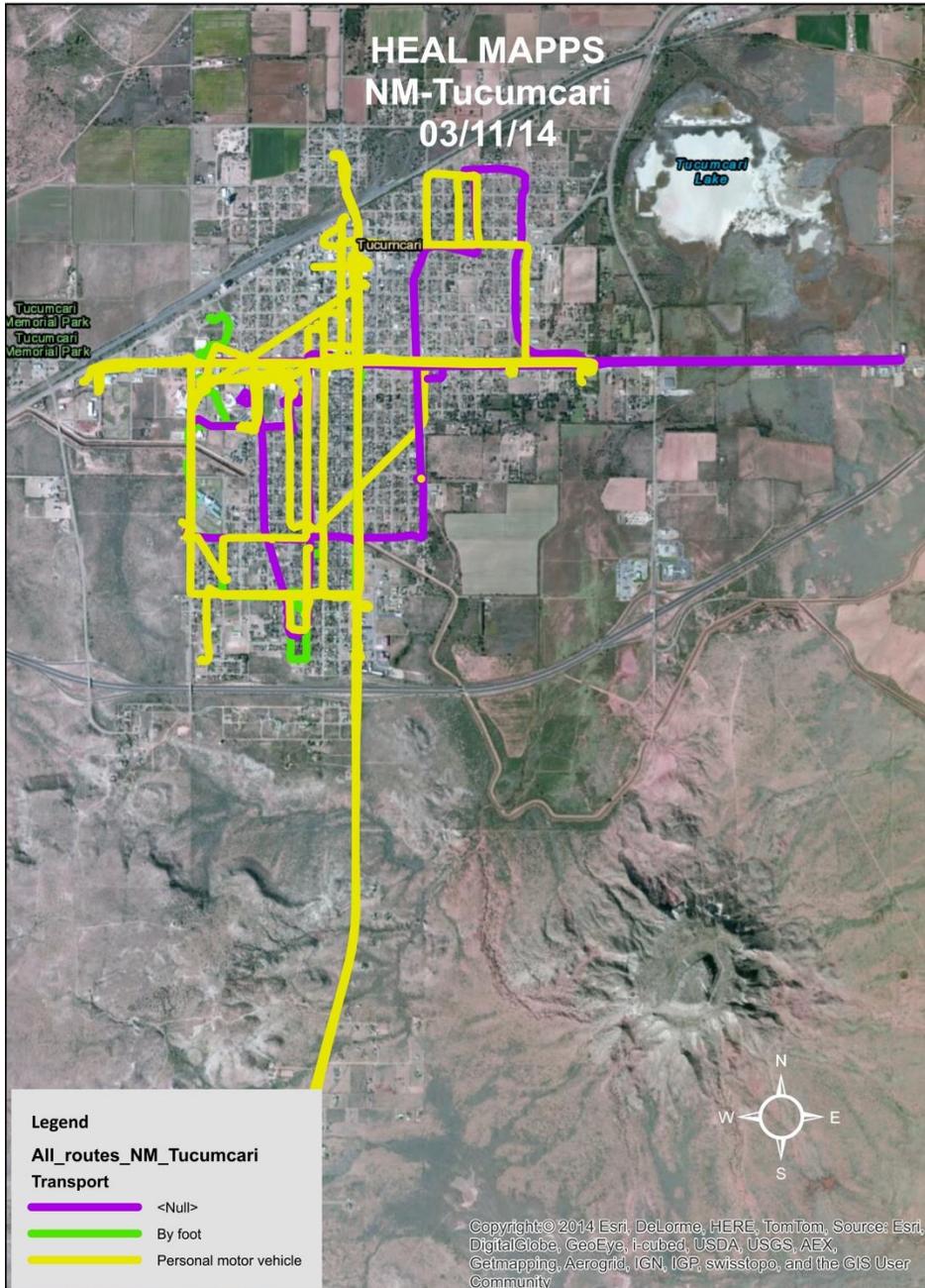


Figure 2. Represents an example of a route generated while using a personal motorized vehicle. All photograph location coordinates are in decimal degrees.

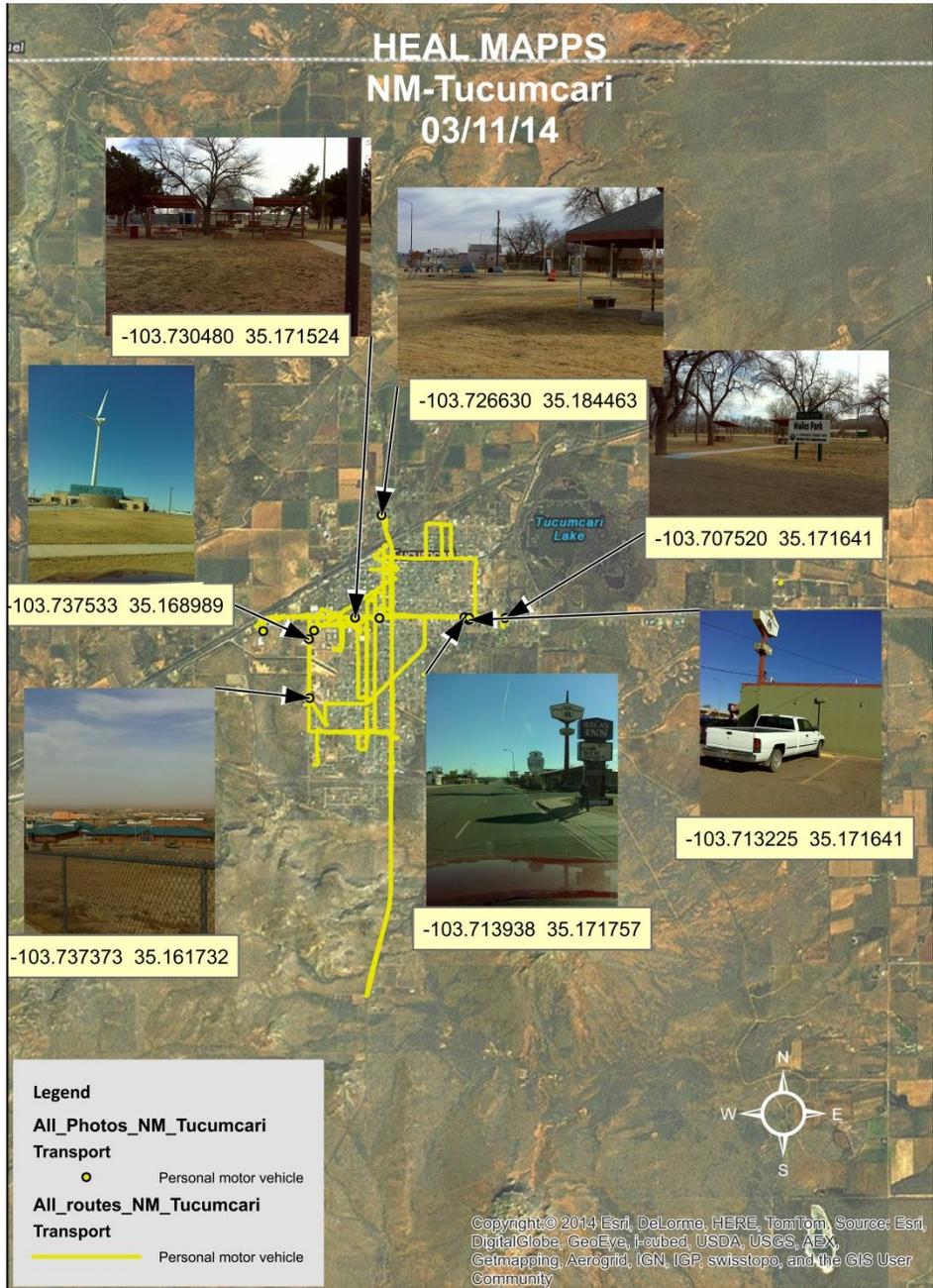


Figure 3. Represents a walking route and the features encountered along the route that enable or hinder healthy eating and/or physical activity.



Figure 4. Represents a route that was unidentified (null).

