This report was generated by Debra Marcusson¹, MEd, Courtney Coughenour², PhD, Anne Lindsay³, MS, Deborah John³, PhD, and Kathy Gunter³, PhD, in partnership with Generating Rural Options for Weight Healthy Kids and Communities (GROW HKC) using data collected during the HEAL MAPPS™ processes and provided to the Laughlin Community to support the community’s initiative to prevent childhood obesity.

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Laughlin Community HEAL MAPPSTM Report

Laughlin is a rural city located in the southern tip of Clark County, NV. Situated just 90 miles south of Las Vegas, Laughlin is bordered by Arizona and California. The arid desert climate provides mild temperatures most of the year with over 300 days of sunshine and an average annual rainfall of about 6 inches\(^1\). Temperatures average 109°F in the summer months and 65°F in the winter months. With its rugged mountain terrain and proximity to the Colorado River, Laughlin is not only a destination for gaming, but also attracts tourists for hiking and water sports. The total population of Laughlin at the 2010 Census was 7,232 with the race and ethnicity breakdown of 85% White, 3.1% African American, 2.1% Asian, 1.2% Native American, 0.4% Native Hawaiian or other Pacific Islander, 4.4% some other race, and 3.8% of 2 or more races\(^2\). Laughlin has a large retiree population with 55.4% of the population not in the labor force\(^3\).

Laughlin’s public schools are part of the Clark County School District and they include William G. Bennett Elementary School with approximately 300 students and Laughlin Middle/Senior High School with approximately 400 students\(^4\).

Generating Rural Options for Weight Healthy Kids and Communities (GROW HKC) is a USDA-funded, participatory childhood obesity prevention study conducted by Oregon State University’s Extension researchers in partnership with rural residents and communities. GROW HKC and the Laughlin community have partnered to map features of the local environment and discuss residents’ perceptions of the community supports and barriers to regularly eating healthy and being physically active, particularly for children and families. Community members were mobilized and trained to use HEAL MAPPSTM (Healthy Eating Active Living: Mapping Attributes using Participatory Photographic Surveys). HEAL MAPPSTM is our community resource and readiness tool which is used 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.

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\(^3\) U.S. Census Bureau. (2010). American Community Survey Selected Economic and Housing Estimates 2007-2011 5 year estimates; Laughlin CDP, NV.

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. This 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.

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 Laughlin Community**

In Clark County, 37.3% of adults are overweight and 23.1% are obese;\(^5\) 12.9% of high school students are overweight and 12.3% are obese\(^6\). Over 76% of Clark County adults do not consume the recommended five servings of fruits and vegetables per day\(^7\). According to the U.S. Census Bureau, 17.6% of households have children less than 18 years of age; 24% of these families have a median household income below the poverty level. Of the children in Laughlin schools, 72% receive free or reduced lunch. The median household income for Laughlin residents is $37,593\(^8\); this is below the national median household income level of $50,502. This is concerning, as low income adults and children are more likely to be obese. 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 Laughlin.

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\(^8\) U.S. Census Bureau. (2010). *American Community Survey Selected Economic and Housing Estimates 2007-2011 5 year estimates; Laughlin CDP, NV.*
Methods and Preliminary Results

A HEAL MAPPS™ team (n=9) comprised of Laughlin community members with an interest in creating a healthier community volunteered and were first trained to individually photograph and map the Laughlin community features that they perceived as either supports or barriers to eating healthy and being physically active most every day. Collectively, over 130 photographs were taken and mapped along 9 routes that represented the community’s active (i.e. walking, bicycling, skateboarding, etc.) and motor vehicle transportation system. The ‘mappers’ covered the land area within the 90 land miles of the city of Laughlin and included features in the surrounding unincorporated areas (see Figure 1).9 The HEAL MAPPS™ team reconvened to discuss the photographs and maps during a focus group meeting. The most relevant 33 photographs, based on group consensus, were included in a presentation to provoke a larger community conversation. Over 20 Laughlin residents and stakeholders attended and participated in a community dinner and discussion held at the Laughlin Government Center on October 17, 2013. 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 and 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 followed by a discussion of 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 a tool we used to gain an understanding of the Laughlin 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 Laughlin Community Conversation, an Extension educator posed questions related to each of the dimensions and prompted discussion around Laughlin’s resources as supports or barriers to weight healthy behaviors. The entire conversation narrative was scribed verbatim and coded for themes by independent evaluators. The data related to each dimension was then scored by a researcher trained to utilize the CRM and combined to identify the overall stage of readiness.

9 The ‘mappers’ individually determined the community boundaries as within the city and unincorporated land approximately served by the Laughlin school district.
Laughlin’s stage of readiness to implement environmental and policy strategies to prevent obesity is around stage 3, vague awareness, as indicated by the arrow on the Stages of Readiness graph.

Several Laughlin community organizations, such as the Parks and Recreation department and various food assistance groups, emerged as resources for healthy eating and physical activity. Supportive efforts to improve the food and physical activity environment were noted, including the development of an extensive community garden, expansion and addition of trails, and scholarships/fee assistance for physical activity programs in the community. These efforts, along with evidence of organizational support, contributed positively to the community readiness score given to the community.

Perceived barriers to healthy eating and physical activity included few walkability supports and limited access to healthy, affordable fresh fruits and vegetables. Though Laughlin has various resources available to support physical activity, residents expressed barriers to access and affordability, including fees, limited hours of operation, locked gates prohibiting entrance to public resources, and the need for an automobile due to difficult terrain and distance to resources. Thus, Laughlin has resources available; however, existing resources are inaccessible for many residents. Increasing access to resources is an opportunity for Laughlin leaders to demonstrate their support for efforts to promote healthy kids and communities, as many participants were unaware of leadership engagement in this domain.

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

1) Raise awareness among sectors that the community can do something about the problem. Engage local leaders in this awareness campaign at every level.

2) Use objective, local data to identify where and how efforts should be focused, and provide suggestions based on resident input and identified barriers. Present information about the “problem” of obesity and the rural context that makes it hard for residents to develop and maintain healthy lifestyle habits. Share results of HEAL MAPPS™ at local community events and to unrelated groups; participate in event planning where information about obesity prevention can be integrated into the program; launch a media campaign-post flyers, posters, and billboards to raise awareness about the problem and solutions.

3.) Work with GROW Healthy Kids and Communities team in Nevada to add to the conversation and gather more information from community groups who are not represented in this report. Publish
newspaper articles and editorials with general information related to local situation. Build and communicate Laughlin’s capacity to change – adopt the motto, Our Community can GROW Healthy Kids.

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 Laughlin Community Conversation

Physical Activity

Supports
- Outdoor trails and parks are well maintained and resourced.
- Public transportation.
- Fee assistance offered for some recreational programs.
- Active leisure supports include skate park and aquatic center
- Fitness classes and activities offered through the community and senior center.

Barriers
- Public transportation barriers include a lack of features such as shade covers and bus bays.
- Lack of available and accessible (across demographic groups) recreational programs and facilities; affordability of existing programs/facilities-fee structure hinders accessibility for some community members.
- Some parks and natural landscape features are inaccessible due to reliance on automobile, limited parking, limited hours of operation, and other restrictions (e.g. gates, difficult terrain).
- Few walkability supports like crosswalks, sidewalks and traffic calming features; existing crosswalks are unmaintained.

Healthy Eating

Supports
- Food assistance programs such as the food bank and mobile food pantry.
- Addition of an expansive community garden.

Barriers
- Limited access to affordable, fresh fruits and vegetables.
- Few/no healthy food retail options.
Resident-Informed Recommendations for Community Change

The following recommendations emerged from the data generated during the Laughlin community conversation and represent those of the Laughlin 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.

- Establish a commercial kitchen at the senior or community center to host nutrition classes for community members.
- Start community clubs/fitness classes taught by community members.

Figures 1 through 4 represent the routes navigated by local residents as they mapped the physical features of the Laughlin 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 Laughlin 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 in which the mode of transportation was not identified.