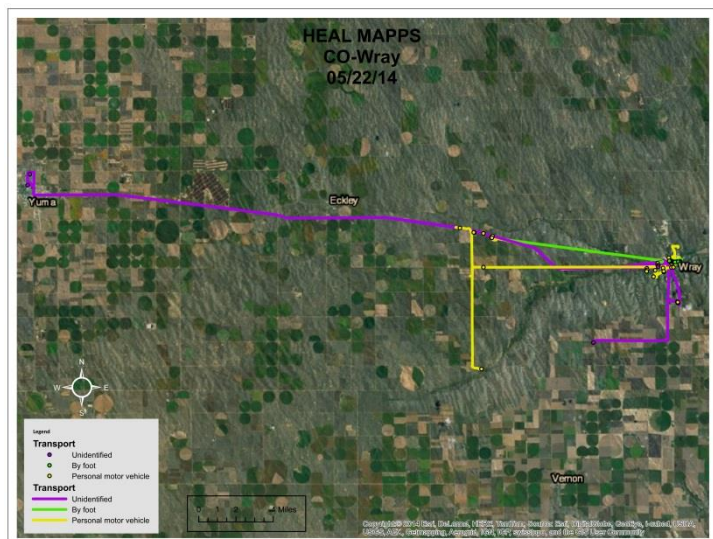




## Wray Community HEAL MAPPS™ Report

Wray is a rural city located in Yuma County, Colorado. Located about 3,566 feet above sea level and situated on the eastern plains of Colorado, the community is only a short distance from both Nebraska and Kansas, and a quick trip to Colorado's largest metropolitan areas.<sup>1</sup> The total population of Wray is 3,773.<sup>2</sup> Average annual precipitation in rainfall is 18 inches with snow fall at about 28 inches. Weather is fairly mild to cool in the area with an average high temperature of 65 and an average low of about 37.<sup>3</sup>

Wray School District RD-2 serves the community of Wray and includes one elementary school, one middle school, and one high school.<sup>4</sup> Local recreation options include a public golf course, recreation center, aquatic center, a walking and bicycle path, fishing, hunting, and hiking. Annual events include the prairie chicken tour, an outdoor quilt show, Wray Days—a three day celebration of events, a car show, chili cook-off, and a holiday parade of lights. Wray is also home to a regional medical center and clinic, a cardiac and general rehabilitation center, public day care center, library, museum, and new senior center.<sup>1</sup> In 1993, Wray was named an All-American City by the National Civic League.<sup>5</sup>



**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 Wray 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 MAPPS™ (Healthy Eating Active Living: Mapping Attributes using Participatory Photographic Surveys). HEAL MAPPS™ is our community resource and readiness tool that 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.

<sup>1</sup> <http://www.wrayco.net/index.html>

<sup>2</sup> U.S. Census Bureau, 2008-2012 American Community Survey 5-year Estimates  
[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_B01003&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_B01003&prodType=table)

<sup>3</sup> <http://www.usclimatedata.com/climate/wray/colorado/united-states/usco0419>

<sup>4</sup> <https://sites.google.com/a/wrayschools.org/home/our-schools>

<sup>5</sup> [http://en.wikipedia.org/wiki/Wray,\\_Colorado](http://en.wikipedia.org/wiki/Wray,_Colorado)

HEAL MAPPS™ projects conducted in partnership with rural communities across several Western States (CO, ID, 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 in the forefront of nationwide research efforts and 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 have targeted either behaviors 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 daily physical activity their easy and preferred choice.

### **Relevance for Wray Community**

According to the US Census Bureau, 29% of family households in Wray have children under the age of 18 years.<sup>6</sup> The median household income is \$34,901, and the poverty rate is 6.0%.<sup>6</sup> The obesity rate for adults in the North East Region (Region 1) of Colorado is 29%, compared to the state average of 20%. For children aged 2-14 the obesity rate is 20%, compared to the state average of 14%. In 2010, 59% of children in the North East Region aged 1-14 years ate fast food one or more times a week, and 42% consumed sugar sweetened beverages one or more times a day.<sup>7</sup> Additionally, over half of the adults and children in this community are not meeting daily physical activity recommendations.

Helping children develop healthy habits, and providing healthy eating and physical activity supports to balance their dietary energy intake with activity 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 Wray.

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<sup>6</sup> U.S. Census Bureau, 2008-2012 American Community Survey 5-year Estimates  
[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_B01003&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_B01003&prodType=table)

<sup>7</sup> <http://www.chd.dphe.state.co.us/HealthIndicators/indicators.aspx?dID=5&sdID=26&cid=125&rlID=1>

## **Methods and Preliminary Results**

A HEAL MAPPS™ team (n=16) comprised of Wray community members with an interest in creating a healthier community volunteered and were first trained to individually photograph and map the Wray community features that they perceived as either supports or barriers to eating healthy and being physically active most every day. Collectively, over 150 photographs were taken and mapped along 16 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 three square miles of the city of Wray and included features in the surrounding unincorporated areas (see Figure 1).<sup>[1]</sup> The HEAL MAPPS™ team reconvened to discuss the photographs and maps during a focus group meeting. The most relevant 41 photographs, based on group consensus, were included in a presentation to provoke a larger community conversation. Nine Wray residents and stakeholders attended and participated in a community dinner and discussion held at the Wray Rehabilitation and Activities Center on May 28, 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. Child care was generously provided by the daughters of Joy Akey, Yuma County Extension Agent.

## **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.

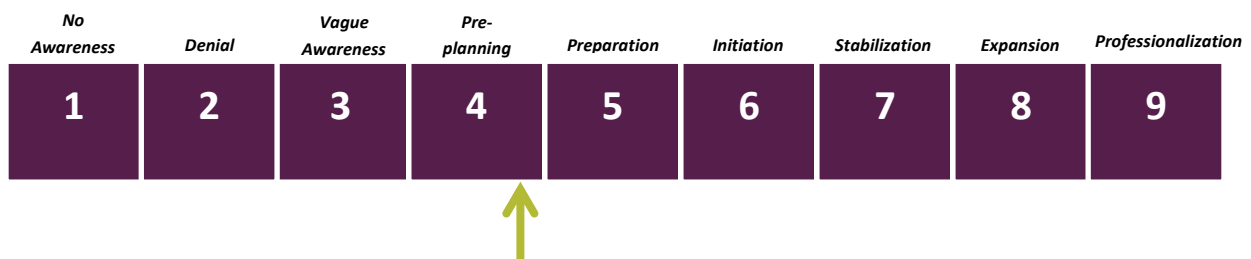
The Community Readiness Model (CRM) is a tool we used to gain an understanding of the Wray community's resources and readiness for obesity prevention efforts. The model is comprised of six dimensions that influence a community's readiness to take action on an issue. The six dimensions are: community 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 and can vary across dimensions and community sectors. During the Wray Community Conversation, an Extension educator posed questions related to each of the dimensions and prompted discussion around Wray'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 were then scored by a researcher trained to utilize the CRM and combined to identify the overall stage of readiness.

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<sup>[1]</sup> The 'mappers' individually determined the community boundaries as within the city and unincorporated land approximately served by the Wray school district.

Several Wray community organizations such as the Wray Rehabilitation and Activities Center (WRAC) and local schools, emerged as supports for healthy eating and physical activity. These organizations, as well as resources such as the twice-yearly health fairs and multiple engaged volunteers, contributed positively to the readiness score given to the community. Perceived barriers to healthy eating and physical activity include barriers to walkability, due to unmaintained sidewalks and crosswalks, and a scarcity of food retail outlets, including few fresh produce retailers and restaurants. Participants mentioned multiple resources and community efforts in Wray to support healthy kids and families, particularly the efforts by the WRAC to provide activities for all age groups, continually applying for grants to obtain funding, and conducting evaluations to determine effectiveness and participant needs. The numerous efforts in Wray to support a healthy community indicates strong leadership involvement, however, participants suggested that the conditions of the sidewalks and curbs may indicate a lack of leadership engagement in this area. One issue Wray leaders, and community members, should prioritize is the sustainability of the pool, as participants voiced the benefits of having a pool in Wray, but also their concern of a lack of funds to support the facility.

### Stages of Community Readiness



Wray’s stage of readiness to implement environmental and policy strategies to prevent obesity was evaluated to be between pre-planning (stage 4) and preparation (stage 5) as indicated by the arrow on the **Stages of Community Readiness** graph. Preplanning indicates that there is clear recognition that something must be done, and there may even be a group addressing it. However, efforts are not focused or detailed. In the preparation stage, active leaders begin planning in earnest. The community offers modest support of their efforts. A community may be at different stages for healthy eating and physical activity readiness.

General strategies for progress in stage of community readiness are based on the CRM, including:

- 1) Gather existing and new local information about childhood obesity prevalence, the food environment, and physical activity resources in order to plan strategies. Conduct local focus groups to discuss issues and develop strategies. *The HEAL MAPPS activities and information provided in this report support these strategies.* Partner with schools to conduct annual height-weight assessments of students to track overweight and obesity prevalence.
- 2) Raise awareness that efforts to address childhood obesity are happening in Wray. Introduce information about the issue through presentations and media. Increase media exposures, such as articles in local newspapers, radio and television public service announcements. Sponsor a community

picnic or fun-run to kick off the effort, conduct public forums to develop strategies from the grassroots level, and utilize key leaders and influential people to speak to groups and participate in local radio and television.

3) Develop a framework or model for change, including a strategic action plan. Include a plan for evaluating the successes of your efforts. Review existing efforts in the community (curriculum, programs, activities, etc.) to determine who the target populations are and consider the degree of success of the efforts.

4) Visit and invest community leaders in the cause. Search for additional resources and potential funding. Build and communicate Wray's capacity to change – *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 Wray Community Conversation**

### ***Physical Activity***

#### Supports

- Multiple recreation programs and organizations for youth and adults.
- Active leisure supports include indoor recreation and exercise facilities.
- Outdoor trails and parks are well maintained and resourced.

#### Barriers

- Barriers to walkability due to a lack of sidewalks, existing sidewalks and crosswalks are not maintained.
- Lack of available and accessible (across demographic groups) exercise and recreation facilities; no/few activities for kids under 3 years old and the childcare fees associated with recreation facilities is prohibitive for some parents.

### ***Healthy Eating***

#### Supports

- Recent improvements to the school food environment, offering salads for lunch and more fresh fruits for breakfast.
- Some food retail options; one grocery store.

#### Barriers

- Limited access to health, fresh fruits and vegetables.
- Few food retail options, specifically restaurants.

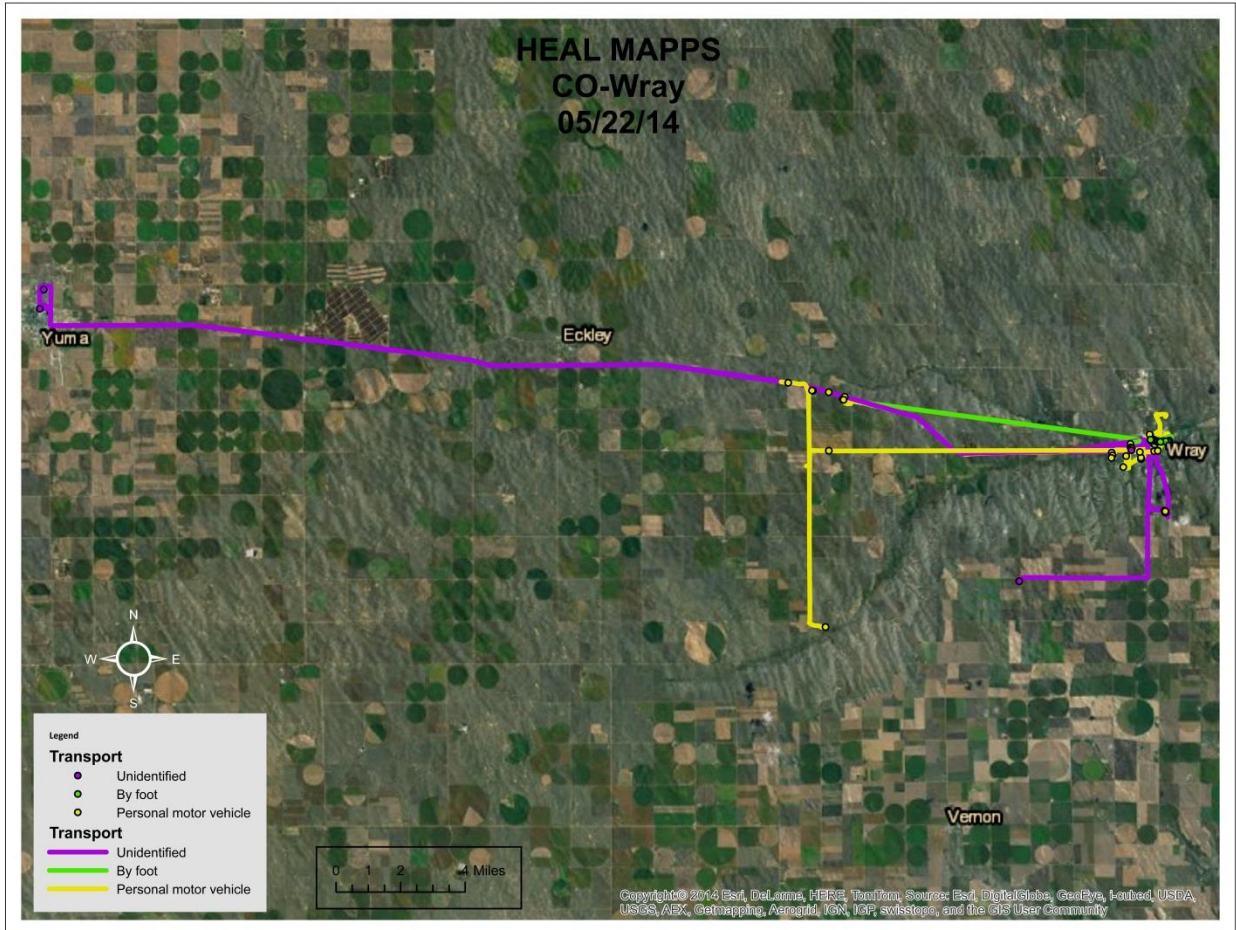
### **Resident-Informed Recommendations for Community Change**

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

- Encourage parks and recreation department to conduct evaluations on their programs, including how to engage more participants, and determine which groups (age, income, gender, etc.) they are not engaging to improve program impacts.

Figures 1 through 4 represent the routes navigated by local residents as they mapped the physical features of the Wray 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 Wray community mappers.







**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 not identified by mode of transportation.

