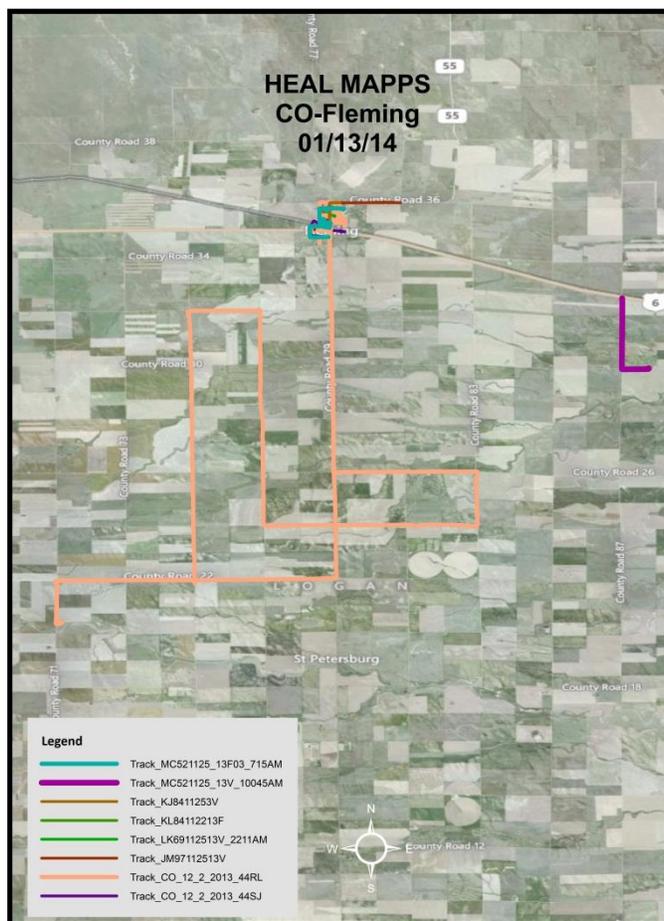


Fleming Community HEAL MAPPS™ Report

Fleming is a rural community located in Logan County, Colorado. The population, based on the 2010 census, is 408.¹ The population has only slightly decreased since the 2000 census (pop. 426).² Fleming is a relatively young community, with a median age of 38 years, and over 60% of households are family households.¹ Fleming contains one school which houses grades K-12, one gas station, one restaurant, a community center, one bank, no grocery or convenience stores, and a grain co-op elevator where many residents are employed. There are three parks, a skate park, a football field, a track, and a baseball field, all of which may be utilized by community members outside of their general purposes.



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 Fleming 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 evaluates community resources for and readiness to improve and implement

healthy eating and physical activity supports, along with environmental and policy actions, in order to facilitate 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 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; 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 Fleming Community

According to the US Census Bureau, the percentage of families in Fleming with children under the age of 18 is 52.3%.³ The median household income is \$40,385 and the poverty rate is 16.2%.³ The percentage of families in Fleming that are below the federal poverty line is 8.4%; and 17.6% of these families have children under the age of 18.3 Colorado obesity rates for adults (20.5%) are the lowest in the nation, while Colorado ranks 23rd in the nation for childhood obesity with 23% of children, ages 2-14, being overweight or obese.⁴ Nearly a quarter (23.7%) of the population of Logan County residents were classified as obese in 2010.⁵ 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 Fleming.

Methods and Preliminary Results

A HEAL MAPPS™ team (n=12) comprised of Fleming community members with an interest in creating a healthier community volunteered and were first trained to individually photograph and map the Fleming community features that they perceived as either supports or barriers to eating healthy and being physically active most every day. Collectively, over 80 photographs were taken and mapped along 8 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 0.5 square miles of the city of Fleming 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 30 photographs, based on group consensus, were included in a presentation to provoke a larger community conversation. Seven Fleming residents and stakeholders attended and participated in a community dinner and discussion held at the Fleming School on January 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.

Community Readiness

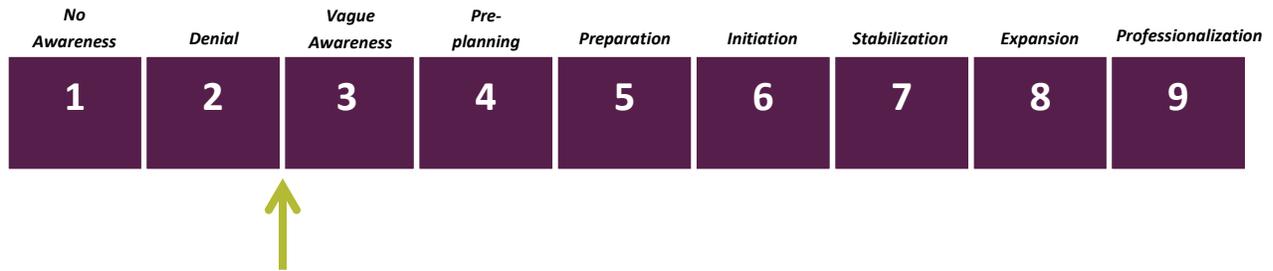
Communities differ in many ways, including their readiness to take action on an issue and implement relevant programs. The level of community readiness is a major factor in determining whether a particular program can be effectively implemented and supported by a community. Assessing the level of readiness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

The Community Readiness Assessment Model (CRM) is a tool we used to gain an understanding of the Fleming 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 Fleming Community Conversation, an Extension educator posed questions related to each of the dimensions and prompted discussion around Fleming’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.

Fleming’s stage of readiness to implement environmental and policy strategies to prevent obesity falls somewhere between stage **2** (denial) and stage **3** (vague awareness) as indicated by the arrow on the Stages of Readiness graph.

¹ The ‘mappers’ individually determined the community boundaries as within the city and unincorporated land approximately served by the Fleming school district.

Stages of Community Readiness



A few Fleming community organizations and efforts emerged as supports for healthy eating and physical activity, these included efforts by the school to establish a school garden and support athletic programs, and community-based athletic organizations. These efforts and organizations contributed positively to the readiness score given to the community.

Perceived barriers to healthy eating and physical activity include no access to healthy, fresh fruits and vegetables, unmaintained park/park equipment, and lack of recreational activities for youth not involved in sports or athletics. It seems community members are interested in developing community efforts to increase supports for physical activity and healthy eating; however, there is a lack of motivation to initiate the effort. Similarly, community members do not view this as an issue the community can address collectively, but instead are waiting for one or two individuals to take the lead. The narrative data revealed a disconnect between Fleming leaders interest in supporting weight healthy kids and communities, and community members perception of leadership engagement in this effort. This provides an opportunity for Fleming leaders to become more engaged and to confirm their support for healthy eating and physical activity

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

- 1) Raise awareness that leaders in Fleming are committed to increasing supports and improving accessibility for physical activity and healthy eating for all community members.
- 2) Suggest where and how current and future efforts to improve community and neighborhood conditions should be prioritized based on resident input and identified barriers; conduct public forums to develop strategies from the grassroots level; utilize key leaders and influential people to speak to groups and participate in local media, including newspaper, radio and television.
- 3) Raise awareness that the community can do something about the problem, create a sense of urgency, communicate the magnitude of the problem, build and communicate Fleming'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 Fleming Community Conversation

Physical Activity

Supports

- School recreation programs/initiatives include youth sports programs.
- Outdoor trails and parks include playgrounds, skate park and sports court.

Barriers

- Lack of recreation programs/facilities for youth and adults.
- No indoor rec/exercise facilities, residents must travel to neighboring communities to use indoor facilities.
- Some parks and sports fields are not well maintained.
- Lack of sidewalks.
- Strong reliance on personal motor vehicle due to vast distances to resources.

Healthy Eating

Supports

- Efforts through the school include a new school garden.
- Local foods production including local agriculture.

Barriers

- Limited access to healthy, fresh fruits and vegetables; no grocery store.
- No healthy food retail options.

Resident-Informed Recommendations for Community Change

The following recommendations emerged from the data generated during the Fleming community conversation and represent those of the Fleming 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 food co-op in Fleming.

- Implement sports/non-sports afterschool recreation activities.
- Increase awareness among community members to become involved in this effort.
- Create a central location for information about Fleming, create a town website or a Google Document.

Figures 1 through 3 represent the routes navigated by local residents as they mapped the physical features of the Fleming 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 Fleming community mappers.

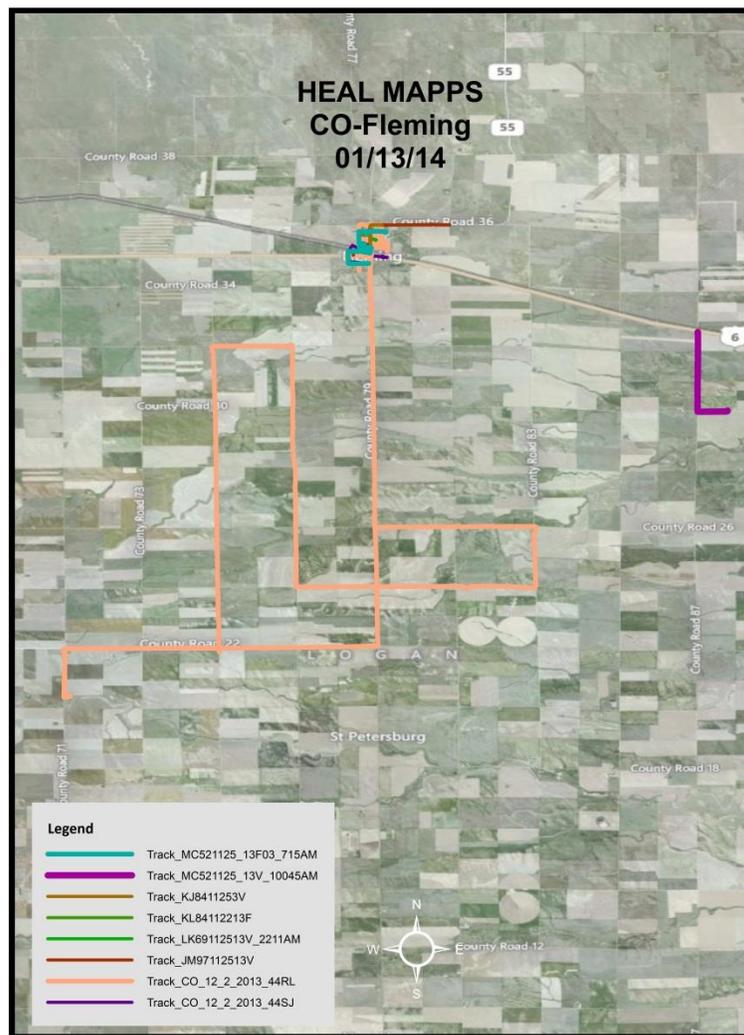


Figure 2. Represents an example of a route generated while using a personal motorized vehicle. All photograph location coordinates are in decimal degrees.

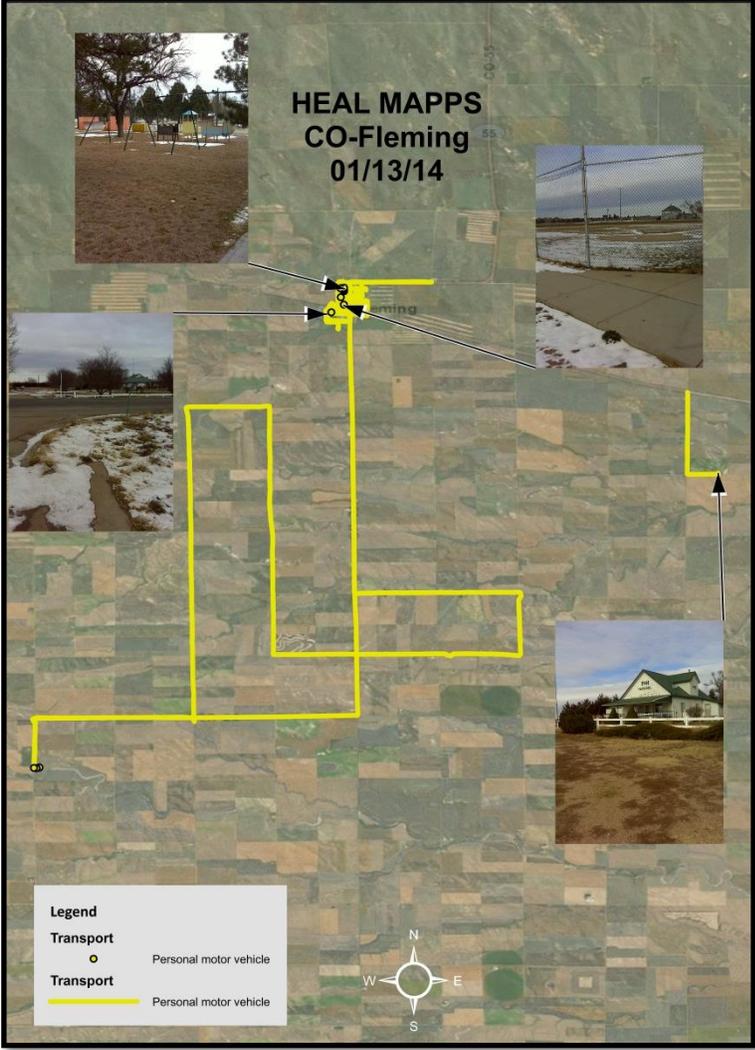
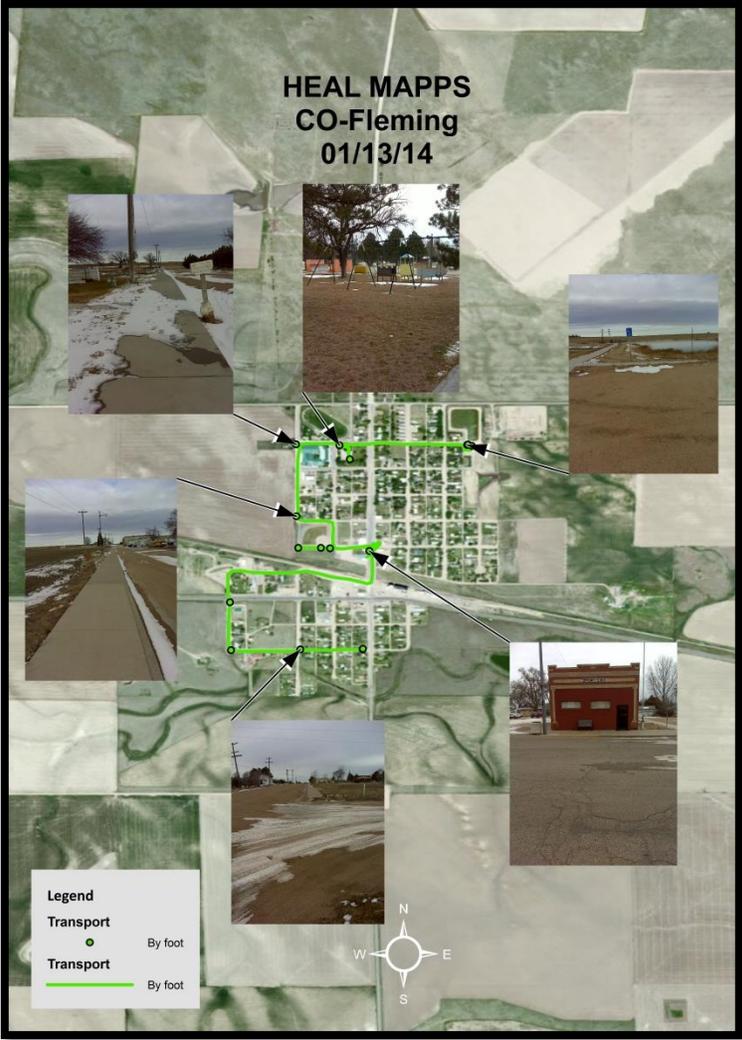


Figure 3. Represents a walking route and the features encountered along the route that enable or hinder healthy eating and/or physical activity.



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4. *Colorado Child Health Survey*: Colorado Department of Public Health and Environment;2010.
5. Obesity Prevalence, Year = 2010. In: Data C, ed: Centers for Disease Control; 2013.