# Kalama, Washington

HEAL MAPPS™

Community Report

Kalama Community HEAL MAPPS™ Report

Kalama is a rural city located in Cowlitz County, Washington. The city is situated on the Columbia River, 30 miles north of Portland, Oregon. Kalama's total population based on the 2010 census is 2,344[1]. Because of Kalama's proximity to the Columbia River Gorge, it experiences mild weather. In its coldest month Kalama experiences an average low of 35°F in January and in the hottest month of August has an average high of 79°F.[2] The annual precipitation is on average 62.9 inches.[3]

There is one public high school, one middle school, and one elementary school. A grocery store, two convenience stores, and eight restaurants serve the Kalama community. The Port of Kalama ties a nearby railroad and major freeway to five marine terminals serving ships from across the world. Kalama is home to a large marina, over 20 businesses and a community park that accommodates fishing, camping and kayaking. Local recreation opportunities include Cress Lake for boating and fishing, several hiking trails, and four city parks. Annual events include Kalama City Fair and River to River Run in July; the Kalama Blues festival and Untouchables Car Show in August; and city celebrations such as the Christmas tree lighting.[4]
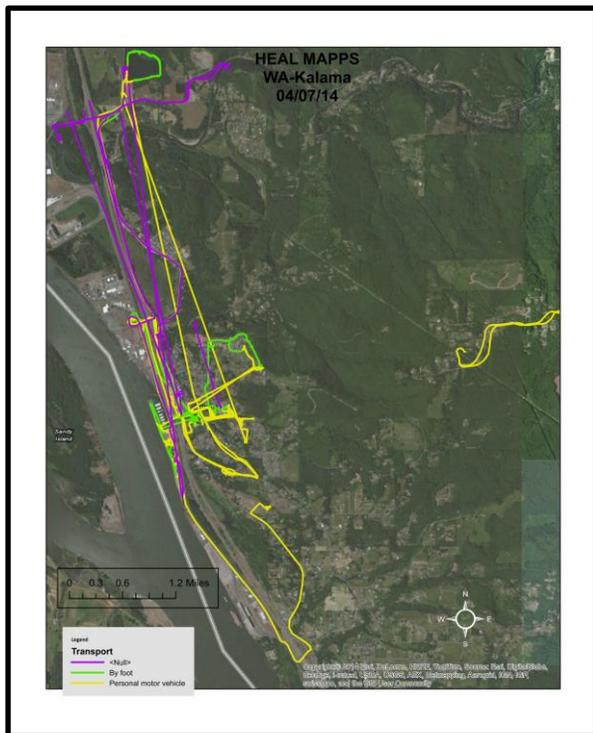
Generating Rural Options for Weight Healthy Kids and Communities (GROW HKC) is a USDA-funded, community-based participatory research study aimed at childhood obesity prevention conducted by Oregon State University's Extension researchers in partnership with rural residents and communities. GROW HKC and the Kalama 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) to assess community resources for and readiness to improve and implement local healthy eating and physical activity supports – environmental and policy actions to make easier these obesity preventing behaviors for all community residents.

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[1] http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml

[2] http://www.weather.com/weather/wxclimatology/monthly/graph/98625

[3] http://www.weatherbase.com/weather/weather

[4] http://www.cityofkalama.com/home

HEAL MAPPS™ programs 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; 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 Kalama Community

According to the US Census Bureau, 17% of the Kalama population is under the age of 18 years. The median household income is $58,145 and the poverty rate is 8%.[5] In 2010, 30.9% of students enrolled at Kalama were eligible for free lunch.[6] According to the Cowlitz County Healthy Communities Workbook, 14% of 10th graders smoke, 10% use smokeless tobacco, 40% do not get physical activity, 50% do not eat dinner with the family, and 20% drink sugar sweetened beverages at school seven times or more a week.[7] Residents in Cowlitz County were asked, "In the past 12 months, did you or other adults in your household ever cut the size of your meals or skip meals because there was not enough money for food?" The report found that 50.6% responded yes, and 8.6% said they had cut a meal or skipped a meal for a child.[8]

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 Kalama.

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[5] http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml

[6] http://k12rate.com/washington176/cowlitz-county-schools.php

[7] http://depts.washington.edu/waaction/action/n2/DOH-HC_Workbook_Cowlitz.pdf

[8] http://www.pathways2020.org/sites/default/files/Report%20Card%20web%205%2029%2013_0.pdf

Methods and Preliminary Results

A HEAL MAPPS™ team, comprised of Kalama community members (n=10) with an interest in creating a healthier community, volunteered and were first trained to individually photograph and map the Kalama community features that they experienced as either supporting or hindering eating healthy and being physically active most every day. Collectively, over 313 photographs were taken and mapped along 23 routes that represented the community's active (i.e. walking, bicycling, skateboarding, etc.) and motor vehicle transportation system. The 'mappers' covered approximately 30% of the land area included within the two square miles of the city of Kalama 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 broader community conversation. Kalama residents and local stakeholders were invited to attend and participate in a community dinner and discussion held at the Kalama Community Center on April 10, 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 carried out and supported by a community. Assessing the level of readiness for local obesity prevention efforts aimed at policies, systems, and environments is thereby a critical component of obesity prevention program planning, evaluation and impacts.

The Community Readiness Assessment Model (CRM) is a tool we used to gain an understanding of the Kalama 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 Kalama Community Conversation, an Extension educator posed questions related to each of the dimensions and prompted discussion around Kalama'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 community readiness to tackle the contextual factors that increase obesity risk for Kalama citizens.
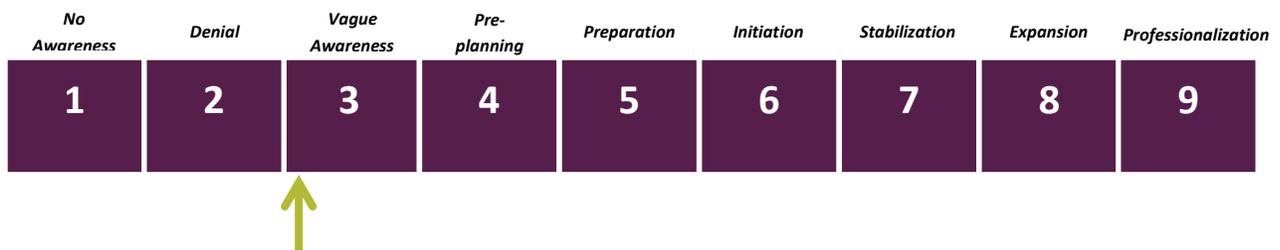
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[9] The 'mappers' individually determined the community boundaries as within the city and unincorporated land approximately served by the Kalama school district.

Several Kalama community organizations and leaders emerged as supports for physical activity and healthy eating. Some efforts and resources to improve the local food and physical activity environment include new playground equipment at the park, new sports facilities and track, and the community garden which provides food to Helping Hands, the local food bank. These resources and efforts contributed positively to the readiness score given to the community. Furthermore, participants mentioned these resources and efforts were developed by community leaders and other community members.

Some barriers to physical activity include a lack of sidewalks in town, as well as the natural hilly landscape which was mentioned as a barrier to walkability for some residents; outdoor walkways and stairways are often unmaintained and covered in moss which is a safety concern. There was no mention of barriers to healthy food in the community, possibly because there was little discussion regarding the local food environment. Participants voiced their belief that recent improvements to parks and play facilities as well as other infrastructure reflect the leaders' interest and concern for the Kalama residents, including youth – as one participant commented, "Kalama works hard to take care of their residents."

Though Kalama has some resources to support physical activity and healthy eating, there was no mention of *programs* in the community or in the schools to support healthy eating and physical activity for community members; it may be because there are no programs or participants are unaware of existing programs. A common sentiment among participants is pride in their community; it would be worthwhile for community members to identify and bring awareness to the existing programs and efforts that support healthy families in Kalama.

Stages of Community Readiness

No Awareness	Denial	Vague Awareness	Pre-planning	Preparation	Initiation	Stabilization	Expansion	Professionalization
1	2	3	4	5	6	7	8	9

Based on the conversation narrative, Kalama's stage of readiness to implement local environmental and policy strategies to improve the obesity preventing context and promote healthy dietary and physical activity lifestyle habits falls on the lower end of stage 3, vague awareness, as indicated by the arrow on the Stages of Readiness graph.

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

1) Raise awareness that the community can do something about the problem by launching a media campaign, i.e. post flyers, posters, and billboard to advertise current efforts aimed at supporting healthy eating and physical activity in and around Kalama.

2) Provide suggestions on where and how current and future efforts should be focused based on resident input and identified barriers, specifically as it relates to accessing and utilizing community resources.
3) Work with the Washington State University's GROW Healthy Kids and Communities HEAL MAPPS™ team and utilize Cooperative Extension GROW HKC, HEAL MAPPS™ and other resources.
    a. Gather additional and ongoing input from others, including diverse groups of residents and community sectors;
    b. Publish newspaper articles and opinion editorials with general information related to the local food and physical activity policies, situations, and environmental features;
    c. Build and communicate Kalama's capacity to "change" reflecting 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 Kalama Community Conversation

Physical Activity

Supports

- Public parks and playgrounds, which are well maintained and resourced.
- New sports facilities at school, including batting cage, track, and field – school policies allow facilities to be used by community members.

Barriers

- Lack of sidewalks and the steep natural landscape limit walkability – some walkways and outdoor stairs are not well maintained.

Healthy Eating

Supports

- Healthy, fresh fruits and vegetables are available; one grocery store, which carries an adequate variety of produce.
- Food assistance program
- Community garden provides space for community members to rent and donates produce to Helping Hands food bank.

Barriers

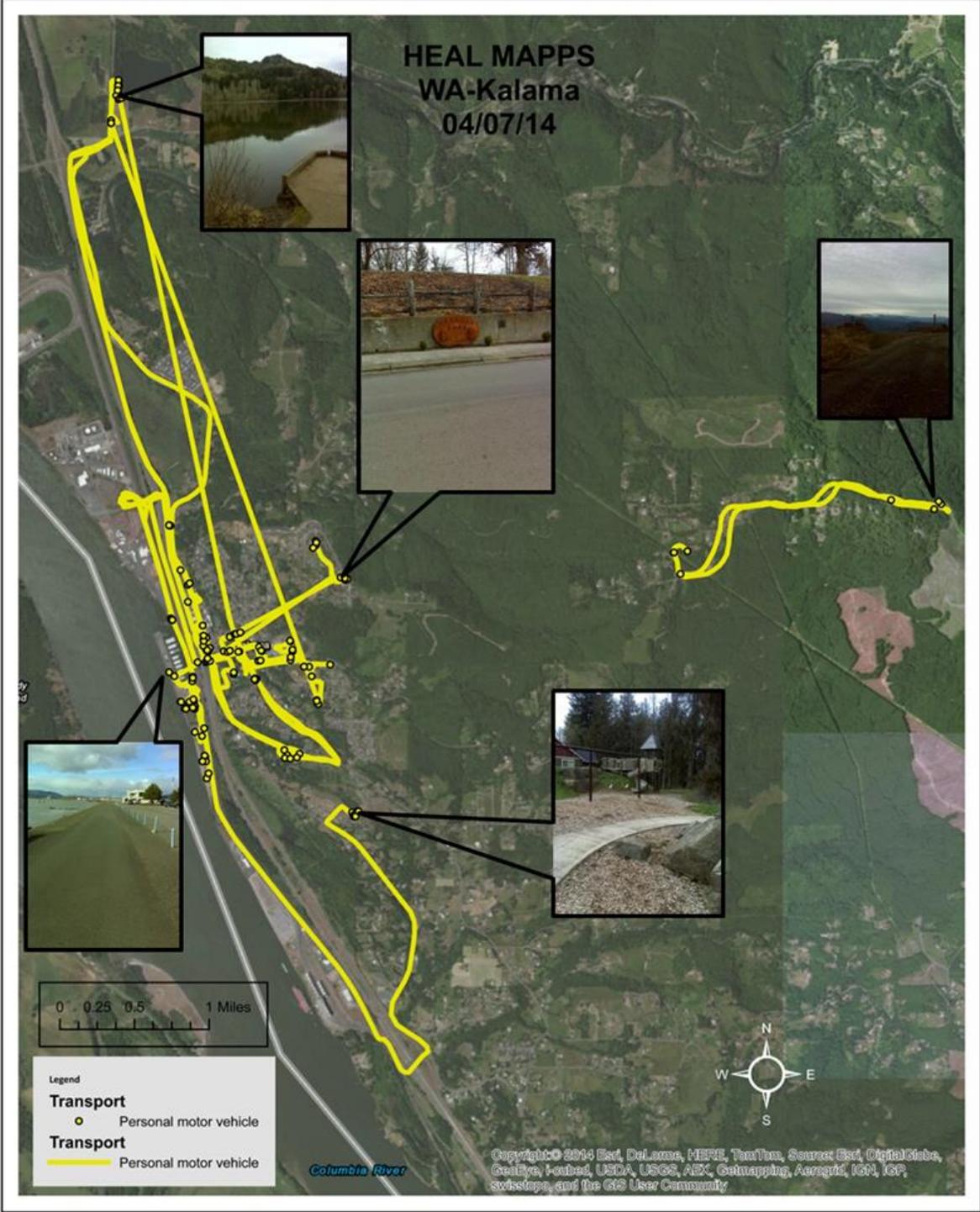No barriers were mentioned.

Community Recommended Solutions

- Create and maintain sidewalks.
- Work with food retailers to serve and offer healthier options.

Figures 1 through 3 provide a visualization of the routes navigated by local residents as they mapped the features of the **Kalama** community using photographic survey methods. Included are routes representing each different mode of transportation used by mappers.

Figure 1. Represents all routes generated by the **Kalama** community mappers.
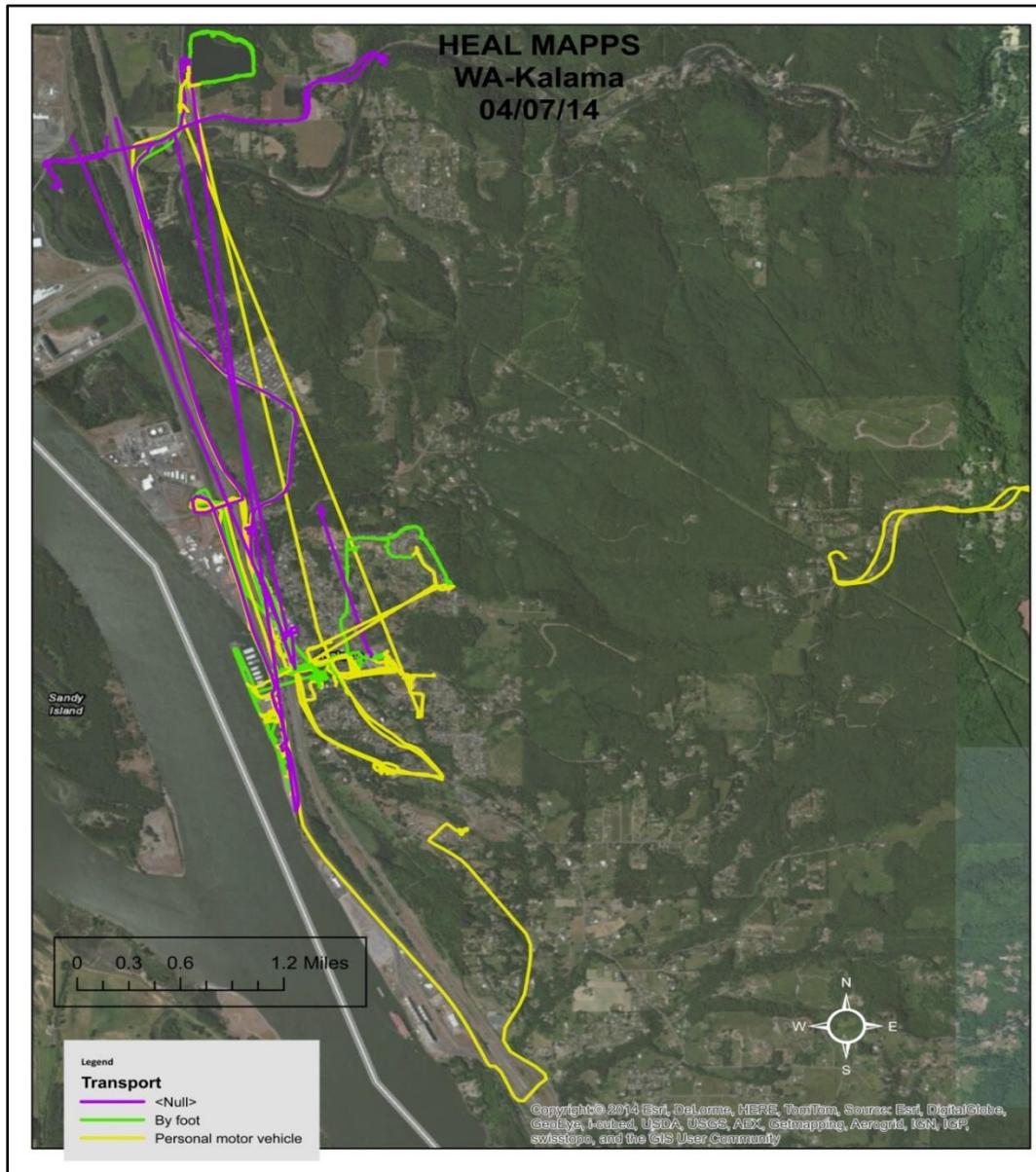
Figure 2. Represents an example of a route generated while using a personal motorized vehice. All photograph location coordinates are in decimal degrees.

HEAL MAPPS
WA-Kalama
04/07/14

Legend

Transport
  ○   Personal motor vehicle
Transport
  ⸺   Personal motor vehicle

Columbia River

0   0.25   0.5   1 Miles

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