



## Rainier Community HEAL MAPPS™ Report

Rainier is a rural city located between the western shore of the Columbia River and the Pacific Coast mountain range in Columbia County, Oregon. The city is surrounded by agricultural lands, tree farms, and miles of private forest timber lands. Rainier experiences a pacific coastal climate, including mild temperatures throughout the year, moderately dry summers, and plentiful rains during the winter. The average rainfall in the region often exceeds 100 inches a year.<sup>1</sup> The town of Rainier supports its surrounding rural community located in the valleys and mountains beyond its city limits. These communities include Lindbergh, Goble, and Mayger. For its surrounding area residents, Rainier offers Head Start preschool, an elementary school, a junior-senior high school, and numerous other small businesses, such as restaurants, coffee carts, and convenience stores/gas stations.<sup>2</sup> Rainier does not have a full range/service grocery store. Rainier can access further resources at the nearest urban center in Longview, Washington, located just across the Columbia River and accessible in town via the Lewis & Clark Bridge.

Within Rainier's city limits resides a population of approximately 1,889. This population is made up of roughly 91.8% Caucasian residents, 4% Hispanic/Latino residents, 1.1% American Indian/Indigenous residents, and 0.5% African American, Asian, Native Hawaiian, Pacific Islander, and non-specified residents.<sup>3</sup> Approximately 91.16% of residents hold a high school degree or higher and 16.29% of residents hold a Bachelors or higher degree.<sup>4</sup> Although most of the region's back mountain lands are agricultural lands or owned by private logging companies, only an approximate 1.2% of total jobs are supported through agriculture and logging timber industries. A majority of Rainier residents work in the following industries: education/healthcare/social assistance, manufacturing, and retail/trade.<sup>5</sup> The city's estimated median family household income is \$54,940<sup>6</sup> and a total of about 5.7% families in the Clatskanie area fall below the poverty level.<sup>7</sup>

Rainier provides travelers and residents with a few small recreational attractions including a multi-feature city park (playing fields, a walking track, and a skate park), Dibblee Beach (Columbia River beach access), the Fox Creek Trail (hiking and wildlife), Hudson Parcher Park (boating, camping, fishing, sports, and more), and Camp Wilkerson (camping, horse-back riding, and hiking).<sup>8</sup> Rainier is also home to the Independence Day celebration of Rainier Days, an annual Canoe Journey of Native American Tribes, and Country Stock musical festival.<sup>9</sup>

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<sup>1</sup> <http://cses.washington.edu/cig/pnwc/pnwc.shtml>

<sup>2</sup> <http://www.rainier.k12.or.us/>

<sup>3</sup> <http://www.city-data.com/city/Rainier-Oregon.html>

<sup>4</sup> <http://www.zoomprospector.com/CommunityDetail.aspx?id=21805>

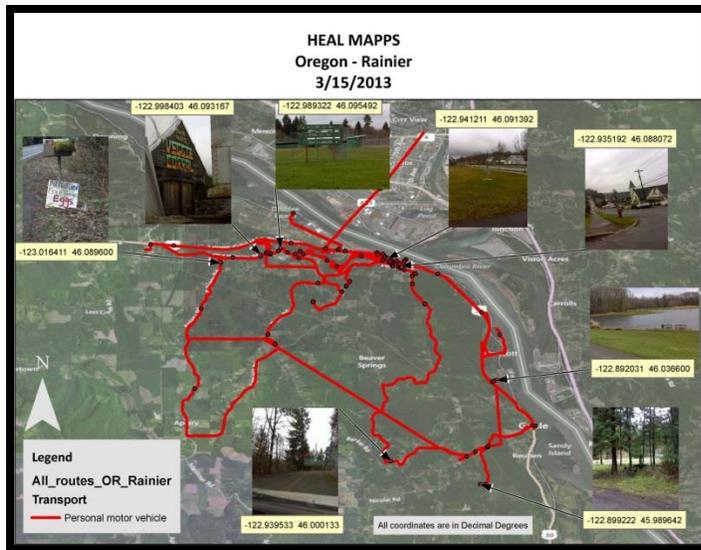
<sup>5</sup> <http://acs-economic-city.findthedata.org/l/21350/Rainier-Oregon>

<sup>6</sup> <http://www.city-data.com/city/Rainier-Oregon.html>

<sup>7</sup> <http://acs-economic-city.findthedata.org/l/21350/Rainier-Oregon>

<sup>8</sup> <http://www.cityofrainier.com/?view=home>

<sup>9</sup> <http://www.cityofrainier.com/?view=home>



## 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 Rainier 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), our community resource and readiness tool, to assess community resources for and readiness to improve and implement healthy eating and physical activity supports – 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 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 Rainier Community

According to the US Census Bureau, the percentage of families in Rainier with children under the age of 18 is 25.13%. The median household income is \$52,428 and the poverty rate is 11.13%.<sup>10</sup> During the 2012-2013 school year, 56.4% of Rainier elementary-aged children qualified for free or reduced lunch<sup>11</sup>. In Columbia County, 4% of the population has limited access to healthy foods, meaning they are both living in poverty and do not live close to a grocery store.<sup>12</sup> Currently, the adult obesity rate in Rainier is 28% compared to 26% for the state of Oregon.<sup>13</sup> Columbia County's adult obesity rate increased 121% from 1990 to 2009.<sup>14</sup>

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 Rainier.

## Methods and Preliminary Results

A HEAL MAPPS™ team (n=10) comprised of Rainier community members with an interest in creating a healthier community volunteered and were first trained to individually photograph and map the Rainier community features that they perceived as either supports or barriers to eating healthy and being physically active most every day. Collectively, over 140 photographs were taken and mapped along 15 routes that represented the community's active (i.e. walking, bicycling, skateboarding, etc.) and motor vehicle transportation system. The 'mappers' covered approximately 60% of the land area included within the 2.62 square miles of the city of Rainier and included features in the surrounding unincorporated areas (see Figure 1).<sup>15</sup> The HEAL MAPPS™ team reconvened to discuss the photographs and maps during a focus group meeting. The most relevant 63 photographs, based on group consensus, were included in a presentation to provoke a larger community conversation. Eleven Rainier residents and stakeholders attended and participated in a community dinner and discussion held at the Rainier School District on April 3<sup>rd</sup>, 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, participants were polled as to whether the feature made eating healthy or

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<sup>10</sup> Community data is available from OSU's Rural Communities EXPLORER and accessed on November 15, 2013 from <http://oe.oregonexplorer.info/rural/communitiesreporter/>

<sup>11</sup> <http://www.ode.state.or.us/sfda/reports/r0061Select2.asp>

<sup>12</sup> <http://www.countyhealthrankings.org/app/oregon/2013/columbia/county/outcomes/overall/snapshot/by-rank>

<sup>13</sup> Community data is available from OSU's Rural Communities EXPLORER and accessed on November 15, 2013 from <http://oe.oregonexplorer.info/rural/communitiesreporter/>

<sup>14</sup> [http://public.health.oregon.gov/PreventionWellness/PhysicalActivity/Documents/Oregon\\_PANfactst\\_2012.pdf](http://public.health.oregon.gov/PreventionWellness/PhysicalActivity/Documents/Oregon_PANfactst_2012.pdf)

<sup>15</sup> The 'mappers' individually determined the community boundaries as within the city and unincorporated land approximately served by the Rainier school district.

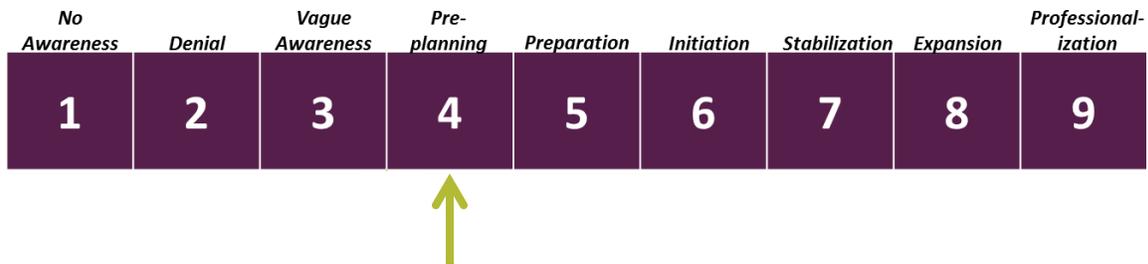
being physically active easier or harder for themselves or others in the community, and discussed their thoughts and feelings that led to their ratings.

### 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 is a tool we used to gain an understanding of the community’s resources and readiness for obesity prevention efforts. The assessment is divided into 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. Questions representing each dimension were asked during the Rainier Community Conversation and the participants shared their perception of Rainier readiness and preparedness for change. Each dimension was then scored by two independent evaluators and combined to identify the overall stage of readiness.

### Stages of Community Readiness



Several Rainier community organizations, the school district and the city council emerged as supports for healthy eating and physical activity. These organizations contributed positively to the readiness score of the community, which indicates that the leaders of Rainier are supportive of obesity prevention efforts. Efforts by the school district include applying for multiple grants to improve PE equipment and train staff, schools gardens, and plans for after-school nutrition/cooking program for K-12.

Barriers to physical activity were identified in the areas of transportation, specifically regarding long bus rides for kids before and after school, a lack of transportation options for kids to access recreation opportunities during the summer, and no late bus option for kids who stay after school for sports or other activities. The most frequently cited barrier to physical activity was a lack of communication regarding the accessibility and availability of resources.

Barriers to healthy eating include limited access and availability of healthy, fresh fruits and vegetables due to a lack of a farmer’s market, grocery stores, and community gardens in Rainier. Overall, there are very few food resources in Rainier. However, the school food environment was frequently cited as a

support to healthy eating for children in Rainier. Rainier's stage of readiness to implement environmental and policy strategies to prevent obesity falls approximately at the "Preplanning" stage as indicated by the arrow on the Stages of Readiness graph. Based on the Community Readiness Assessment Model, community efforts should focus on:

- 1) Gathering existing information about childhood obesity, the food environment, and physical activity resources in order to plan strategies.
- 2) Raising awareness that efforts to address childhood obesity are happening in Rainier.
- 3) Start planning how to evaluate the successes of your efforts.
  - Conduct height-weight assessments among youth.
  - Sponsor a community picnic or fun-run to kick off the effort.
  - Conduct public forums to develop strategies from the grassroots level.
  - Utilize key leaders and influential people to speak to groups and participate in local radio and television regarding the local childhood obesity problem and potential strategies and solutions to address the issue
  - **Begin to plan for evaluation of your efforts. Build and communicate Rainier'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://www.colostate.edu/Dept/TEC/article3.htm>.

## **Summary of Results based on Rainier Community Conversation**

### ***Physical Activity***

#### Supports

- School recreation programs/initiatives include PE, grants to support PE equipment, sports fields and swim lessons.
- Schools allow facilities (e.g. gym and track) to be used by community members.
- Outdoor trails and parks are well resourced.
- Efforts by Rainier leaders to improve and develop parks and extend walkways.
- Some recreational programs exist in Rainier, including classes taught at the Senior Center and swimming pool.
- Rainier has some active transportation supports such as bike lanes and sidewalks.

#### Barriers

- No transportation options for children to access recreation opportunities during the summer.
- Lack of sidewalks and existing sidewalks are unmaintained.
- Lack of communication and information regarding physical activity resources in the community, for example no information about deadlines for sign-ups for community sports.
- Some parks are not well maintained or accessible without a vehicle.
- Participants perceived that there are few places to exercise or be physically active in Rainier. This sentiment was expressed in comments such as, “It would be nice to have a place to be active closer to home...You either have to drive someplace or exercise on your own property...to join a health club you have to go to Longview, which is not adequate for a variety of community members.”
- No late bus option for children who stay after school for sports or other activities. In addition, the transportation that is provided before and after school means kids spend up to two hours per day on the bus.

### ***Healthy Eating Supports***

#### Supports

- School food environment, including schools meals, school gardens and nutrition program support healthy eating.
- Some healthy food/beverage options at convenience stores.
- Food assistance programs include the backpack program, HOPE food pantry, Susannah’s Supper and meals offered at the Senior Center.
- Restaurants in Rainier support healthy eating by providing healthy food options.

## Barriers

- Limited access and availability of healthy, fresh fruits and vegetables due to a lack of grocery stores, farmer's market and community gardens in Rainier.

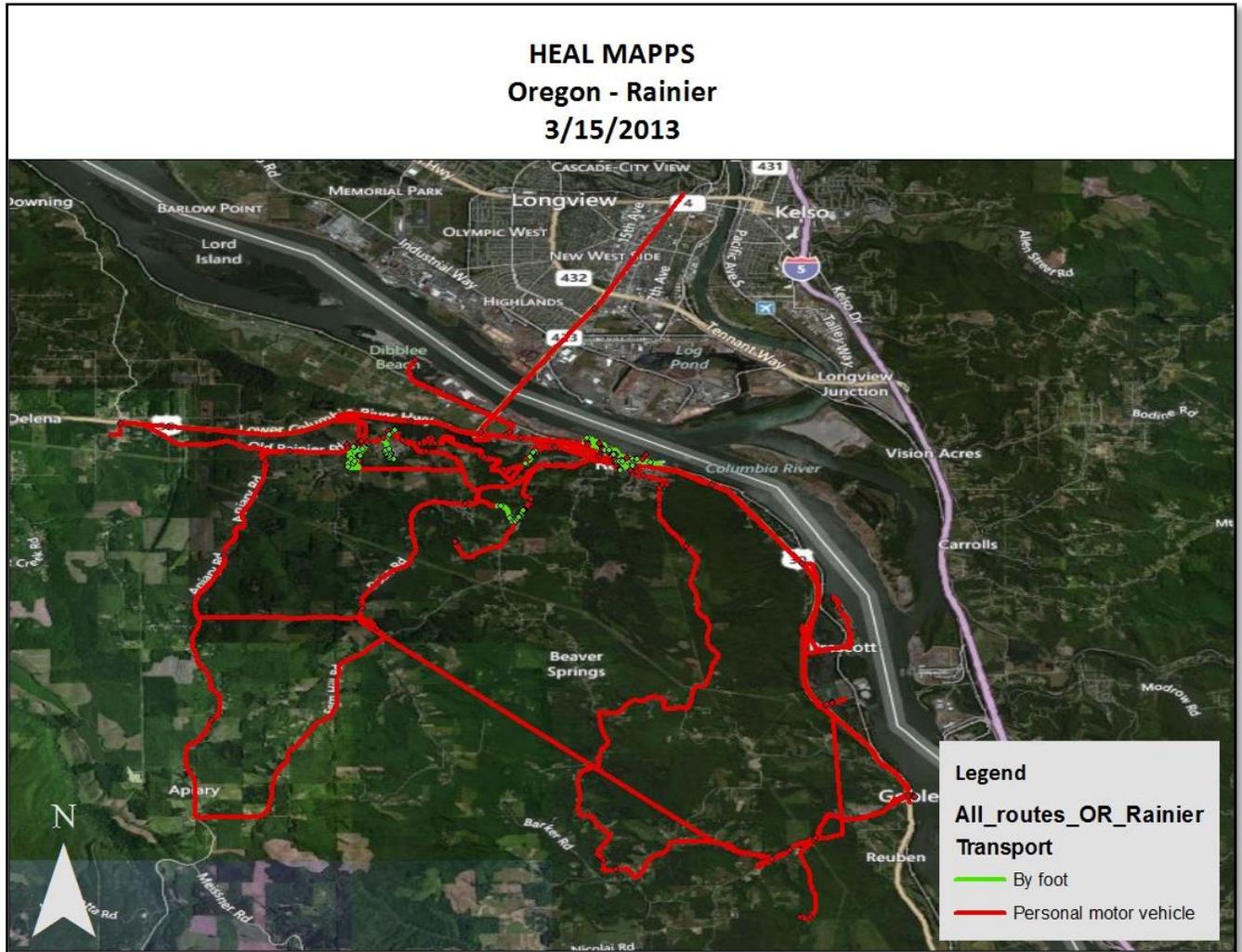
## **Resident-Informed Recommendations for Community Change**

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

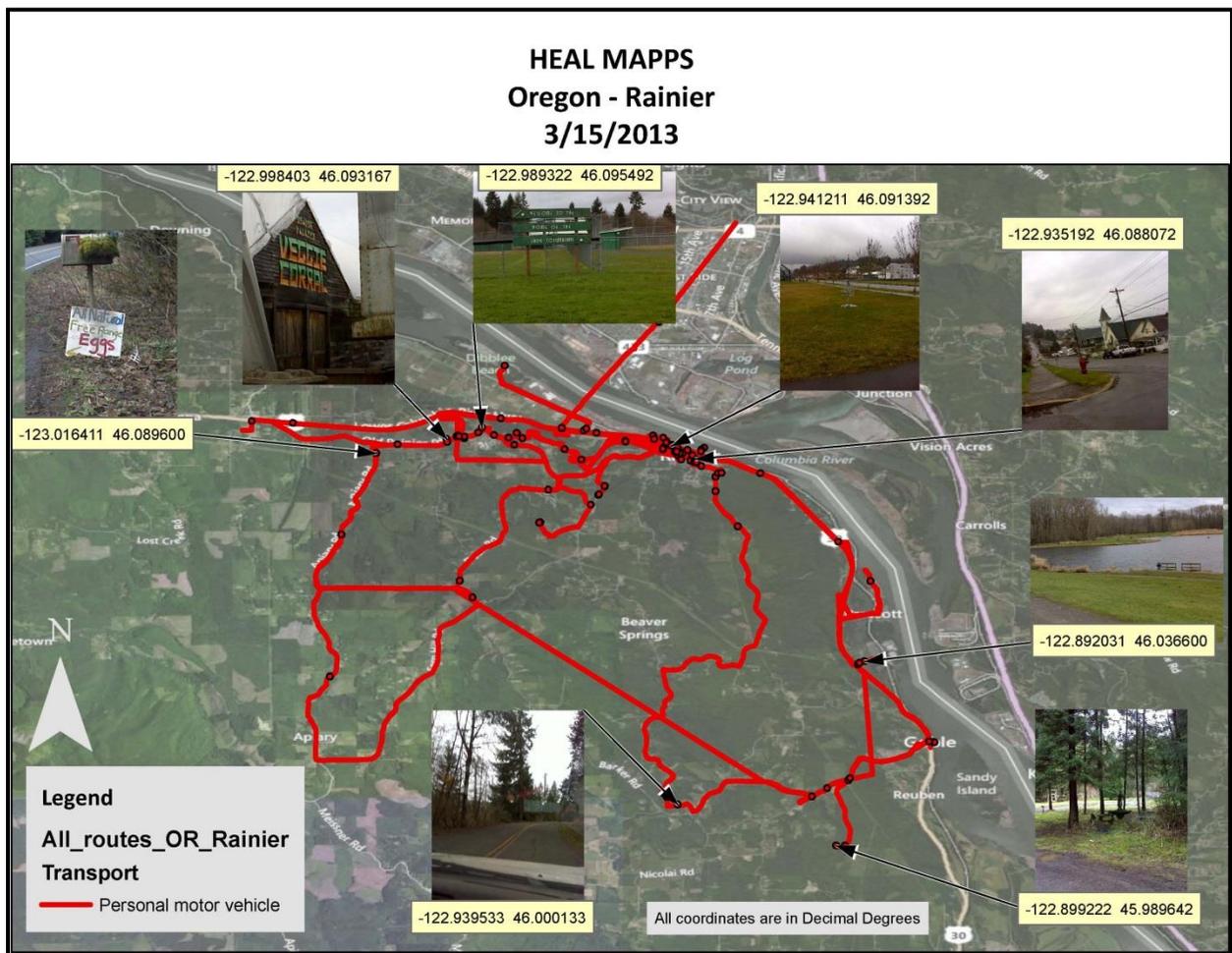
- Improve communication networks around physical activity and food resources in the community. Ideas include: using the Columbia River Reader to advertise events and resources; posting information on Chevron's reader board; advertising through the Clatskanie Chief; advertising through community bulletin boards (post office, laundry mat, senior center, picnic areas, and transient tie-up); collaborating with the Columbia River Rider to use the old gas station as an information and/or visitor's center; utilizing an electronic reader board at the school and downtown; creating a website listing various resources in Rainier; sending emails via the school email lists.
- Educate kids and families about nutrition (e.g. how to read nutrition labels) and cooking, by teaching Home Economics at the schools.
- Improve walkability by widening shoulders, building sidewalks, and placing stoplights and crossing signals at various intersections.

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

