Liana Harden and Jenny Rudolf, Columbia County Extension Family and Community Health (FCH), in partnership with Oregon State University, College of Public Health and Human Sciences’ Generating Rural Options for Weight Healthy Kids and Communities (GROW HKC) program and the Clatskanie community collective supported these impacts. Using data collected during the HEAL MAPPS™ processes, the report provides findings and recommendations to the Clatskanie community residents and decision-makers that can be leveraged to maintain community actions to change the obesogenic context, create a culture of weight health, and prevent a rise in childhood obesity prevalence. This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award John and Gunter 2011-68001-30020.
Clatskanie Community HEAL MAPPS™ Report

Clatskanie is a rural city located in northern Columbia County, Oregon. The community is situated within the coastal range about 30 miles inland. Within the city limits, the Clatskanie River meets the Columbia River.\(^1\) The city is located 33 feet above sea level, and includes 1.2 square miles of land. The total population is 1,756.\(^2\) Clatskanie receives approximately 55.5 inches of precipitation annually. The average minimum temperature is 31 °F and the average maximum temperature is 81 °F.\(^3\)

There is one public school district in Clatskanie, offering one elementary school, one middle/high school, and one Head Start program for preschoolers. There are two other private preschools and one private preschool/elementary school in Clatskanie. Clatskanie residents have access to one chain grocery store in the city, three convenience stores, five full-service restaurants, a seasonal fresh produce stand, a seasonal Farmers’ Market, and a small food bank. Local recreational opportunities include over 70 miles of water in the Clatskanie River and adjacent sloughs, as well as fishing at Scout Lake and game hunting in the vicinity. The City Park and Copes Park are frequented by residents and visitors alike, offering, a walking/fitness trail, sports fields and courts, a community pool, a covered skate park, and physical-activity equipment library. The City Park is a hub of activity throughout the year, hosting many recreational activities, such as the Clatskanie Heritage Days Celebration, the Clatskanie Bluegrass Festival, Farmers’ Market, and other events. Other city features include the Flippin Castle, the Clatskanie Museum, Lewis and Clark points of interest, a Nature, Heritage, and Fitness Trail, and the Nationally Registered Historic I. O.O. F. Hall building.\(^4\)

Generating Rural Options for Weight Healthy Kids and Communities (GROW HKC) is a USDA-funded, participatory action research and Extension program aimed at addressing higher obesity prevalence among rural children (when compared to urban). The research is conducted by Oregon State University’s College of Public Health and Human Sciences Extension researchers and FCH faculty in partnership with rural residents and communities. GROW HKC and the Clatskanie community have partnered to map the features of the local environment and describe residents’ perceptions of the supportive and obstructive conditions for developing and maintaining healthful dietary and physical activity patterns, 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 plan and implement environmental and policy actions that support healthy food and physical activity access and make easier weight healthy behavioral choices for all residents.

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\(^1\) http://www.cityofclatskanie.com
\(^2\) http://oe.oregonexplorer.info/rural/CommunitiesReporter/
\(^3\) http://www.homefacts.com/weather/Oregon/Columbia-County/Clatskanie.html
\(^4\) http://www.cityofclatskanie.com/aboutclatskanie/activitiesrecreation.html
Addressing rural health disparities is a goal of Healthy Rural People 2020. The problem of obesity in children is at the forefront of nationwide research efforts; there are documented physical, mental, and social outcomes associated with childhood obesity that contribute to chronic health conditions and economic burdens 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 overweight and obesity is higher among children living in rural areas when compared to those in urban and suburban areas.

To learn more about rural settings as obesity promoting environments, HEAL MAPPSTM programs were conducted in partnership with rural communities across several Western U.S. States (CO, ID, NM, NV, OR, WA). Findings within participating states and from all participating communities will provide evidence and insights to drive the development of a rural obesity prevention model unique to the Western U.S. The rural resident-informed model will be used as a framework for rural community actions aimed to promote healthy eating and physical activity behaviors, and create weight healthy environments, systems, and policies, to address the problem of overweight and obesity among rural children and families.

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 has been 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 Clatskanie Community

According to the US Census Bureau, the percentage of families in Clatskanie with children under the age of 18 is 38%. The median household income is $31,046 and the poverty rate is 20.96%5. Approximately 17% of children across Columbia County live in poverty6. During the 2014-2015 school year, 61% of Clatskanie elementary-aged children qualified for free or reduced lunch.7 In Columbia County, 4% of the population has limited access to healthy foods, meaning they are both low income and do not live more than 10 miles from a grocery store; in fact, 14% of county residents experienced food insecurity in the last year8. Oregon’s adult obesity rate increased 121% from 1990 to 2009.9 Since 2010 the adult obesity rate in Clatskanie has remained steady at 30%, compared to the Oregon state average at 27%.10 Obesity is a contributing factor to about 1,400 Oregonian deaths a year.9 There is a need to decrease the current trend of obesity in our nation in people of all ages.

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

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5 Community data is available from OSU’s Rural Communities EXPLORER and accessed on December 22, 2015 from http://oe.oregonexplorer.info/rural/CommunitiesReporter/
6 http://www.countyhealthrankings.org/#app/oregon/2012/columbia/county/1/overall
7 http://www.ode.state.or.us/sfda/reports/r0061Select2.asp
9 http://www.theoma.org/media/public-health-fact-sheets-3
10 Community data is available from OSU’s Rural Communities EXPLORER and accessed on December 22, 2015 from http://oe.oregonexplorer.info/rural/CommunitiesReporter/
and among rural communities, we are pleased to provide this report of resources and readiness to prevent childhood obesity for the community of Clatskanie.

**Methods and Preliminary Results**

**Community Resources**

The 2015\(^{11}\) HEAL MAPPS™ team composed of Clatskanie residents (n=7) with an interest in creating a healthier community volunteered to individually photograph and map the community features that they experienced as either supporting or hindering their family’s ability to eating healthfully and be physically active most every day. Collectively among all ‘MAPPers,’ 87 photographs of local features were taken and mapped along 12 routes that represented the community’s active (i.e. walking, bicycling, skateboarding, etc.) and motor vehicle transportation system. The ‘MAPPers’ covered 33 linear road miles encompassing approximately 60% of the land area within the 1.20 square miles of the city of Clatskanie, and including routes located in the surrounding unincorporated areas (see Figure 6).\(^{12}\) The HEAL MAPPS™ team reconvened for a focus group meeting to discuss the photographs and maps. The most representative photographs (n=66) of the community’s locally available food and physical activity resources, based on group consensus, were included in a presentation that was used to provoke a larger community conversation. Over twenty Clatskanie residents and stakeholders attended and participated in a community dinner and discussion held at the at Clatskanie Elementary School on November 5\(^{th}\)-2015. Following the community dinner, a community conversation was facilitated by the GROW HKC team trained to conduct HEAL MAPPS™ processes. Photographs of community resources were displayed, participants were polled as to whether the displayed 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 changes in programs and policies. The level of community readiness is a major factor in determining whether a particular environmental or policy action can be effectively implemented and supported by the community. Assessing the level of readiness for changing the community context to one that promotes a culture of weight health, and supports healthy eating and physically active lifestyle patterns for all residents and visitors is thereby a critical component of childhood obesity prevention program planning and evaluation.

The Community Readiness Model\(^{13}\) (CRM) is an assessment tool we used to gain an understanding of the community’s readiness and capacity for changing the rural obesogenic environment. The model includes six dimensions that are known to influence a community’s readiness to take action on a community health issue. The six dimensions are: community knowledge about the issue; current community efforts; community knowledge of the efforts; local leadership; community climate; and local resources related to the issue. Open-ended questions representing each dimension were posed during the Clatskanie Community Conversation, and prompted by the questions, engaged audiences shared their perception of Clatskanie’s resources, readiness and capacity for change. Transcriptions of the conversation were coded into two categories: food and physical activity, as well as six dimensions. The indicators coded into each dimension were scored using the CRM scale by two independent evaluators. Scores from all dimensions were averaged

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\(^{11}\) The initial HEAL MAPPS™ was in 2012.

\(^{12}\) The ‘mappers’ individually determined the community boundaries as within the city and unincorporated land approximately served by the Clatskanie School District.

\(^{13}\) 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.
to calculate the overall stage of readiness score.

**Findings**

Clatskanie has a number of environmental supports for **physical activity**, including supports for walking and biking in the downtown core; Leadership from the Farmer’s market and local groups like the Kiwanis club, who are engaged in increasing the number, access to, and sustainability of resources via grants and outreach, and a variety of low or no cost physical activity resources: public parks and playgrounds (some have been recently updated or had significant improvements), a community pool, a skate park, the new toddler track, community and school sports, and trails and walking paths to name just a few.

The community barriers to physically active lifestyle patterns were identified and emerged as community knowledge of the issue, a lack of resources, and lack of community involvement. Some community members lack understanding of how the built environment might affect one’s ability to be physically active. For example, a nearby park may be seen as a place to have a cookout, but not as a place for physical activity. Also, community members are not entirely sure what types of health behaviors promote or deter healthier lifestyles. There is a general lack of close-in resources in Clatskanie, especially of low or no cost indoor resources. Finally, barriers to involvement in physical activity resources or efforts emerged and were attributed to a lack of time, funds or personal inclination to be involved in these activities.

Interestingly, Active transportation emerged as both a support and barrier for living an active healthy lifestyle. This is likely reflective of how different areas of Clatskanie (e.g. downtown vs. more rural locations) have differing levels of supports for active transportation and walkability.

Clatskanie’s supports for **healthy eating** included a farmer’s market, community and school gardens, the salad bar at school, and a number of food assistance supports. Leadership at the Farmer’s Market, Schools, and local clubs (e.g. Kiwanis) are engaged in increasing the number of, and access to, supports for healthy eating (HE) and are also working to make these resources sustainable by participating in outreach and acquiring grant funds. The Clatskanie community is interested in learning more about healthy eating and cooking healthy meals, and to that end they have a number of community spaces that could be used for such classes – the Local Grange and American Legion halls. Finally, the School Based Health center emerged as an important support for living a healthy lifestyle; especially important as there are few physical health resources in Clatskanie.

Barriers to developing and maintaining healthful eating habits for children and families were found in community involvement in healthy eating activities, Spatial and Socioeconomic barriers to access, and a lack of healthy food options. Community members stated that they may not be involved in healthy eating activities because they lack the time, funds, or personal inclination to do so. Furthermore, access to some resources (e.g. fresh produce) maybe difficult due to cost or because outlets for those options are not spatially proximate for community members. This is especially true for those who live in the most rural areas of Clatskanie. Finally, community members stated that, although they have a major grocery store in their community, they feel that it does not offer a variety of quality options.

The **overall community readiness** score reflects both the community supports and barriers to healthy dietary and physically active lifestyle patterns across all six dimensions. Clatskanie’s current stage of readiness to implement environmental and policy strategies to prevent obesity falls between the **Vague Awareness** and **Pre-Planning** stages (3.98), as indicated by the arrow on the Stages of Readiness graph (Figure 1). Clatskanie’s readiness scores ranged from 3.3 for the “Community Knowledge about the Issue” dimension to 4.5 for the “Community Knowledge of Efforts” dimension (Figure 2).
**Recommended Strategies and Next Steps**

Based on stage-match strategies suggested by the Community Readiness Model, local efforts should include:

1) Continue to raise awareness of the issues of Obesity, and community-driven solutions, in order to publicize that collectively the community can reduce environmental factors related to obesity risk and positively impact rural weight health.

2) Use local data, based on resident input and barrier identification, to drive decisions and make suggestions on where and how environmental, behavioral, and educational efforts should be focused and evaluated.

For example, community coalitions can present information at local events and to groups unrelated to health efforts; using current social media sites and/or launching new sites – initiate meetups and post events, informational flyers, and networks. Present information, blog on the issue, publish print and e-media articles and editorials that highlight the general problem and successful local solutions.

3) Continue to work with your local Oregon State Extension agents and your County Public Health officials to gather information, and add to local data about childhood obesity risks, prevalence, and modifiable risk factors at every level: behavior, social supports and cultural norms, community, school, and family food systems and contexts, and available, easily accessible, physical activity supports, in order to collectively plan
and implement effective strategies that reach broadly across the community and deeply into underserved groups.

4) Continue to work with OSU and others to raise awareness of the actions and impacts to address childhood obesity that are happening at every level, collectively and cohesively in the Clatskanie community. Sponsor a community picnic or fun-run to launch new actions and kick start networking efforts.

5) Plan for sustainability, including how to secure resources and how to evaluate the successes of your efforts. For example, continue to partner with public health agencies and public value organizations to maintain height-weight (healthy growth) surveillance among K-12 students; participate in or host 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. Get local health leaders to champion the issue; engage across sectors and with all community groups to develop effective strategies that can reach all segments of the community. **Strengthen and communicate Clatskanie’s culture of, context for and commitment to weight health – “Clatskanie Moves to GROW Healthy Kids!”**
Summarizing Community Change in Clatskanie: Examining Resources and Readiness from Start (2012) to Now (2015)

Clatskanie is more ready to take action! Overall, the community readiness score increased from 3.4 (Vague Awareness) emerging from the first HEAL MAPPS™ in 2012 to 4.0 (Pre-Planning) as revealed in the second HEAL MAPPS™ (2015). Scores in all dimensions of community readiness improved or stayed the same (see Figure 3). The greatest increases in readiness were in the dimensions of: Existing Community Efforts (+1.00) Leadership (+1.00) and Community Knowledge of the Efforts (+0.80). Even more importantly, since progress is dependent on similar levels of readiness across all dimensions, Clatskanie is primed for action. Not only does the community have knowledge of what is happening in their community to improve the context for developing and sustaining weight healthy eating and physical activity patterns to reduce childhood obesity risk and prevalence, the culture has shifted – community leaders are as engaged and ready to take action as the citizens.

![Clatskanie Community Readiness Scores from HEAL MAPPS™ Events](image)

**Figure 3.** Community Readiness scores for each dimension of readiness and overall, calculated from data collected during HEAL MAPPS™ processes.

**Existing Community Efforts**

HEAL MAPPS™ polls provided additional evidence of community change. In comparing poll results, initially (2012) almost 80% of those polled said they felt “not at all” or “mildly” confidant (See Figure 4) that the people in Clatskanie who provide programs, services, or establish policies have expertise or training in healthy eating or physical activity. Whereas in 2015, that value was reduced to 40% and more than 55% of those polled responded that they were “moderately” to “very” confidant (Figure 4).

Positive changes are happening in Clatskanie: there is a new salad bar at school and there are a number of new or improved supports for physical activity that include Books for Bikes, a new toddler park, and the Check It Out program, where community members can freely check out physical activity equipment. In addition, community members are active in local community gardens and more involved in acquiring grant funding to ensure the sustainability and ongoing support for physical activity and healthy eating resources. Finally, the new school based health center is recognized as an especially important support for community health, as there are few medical personnel or facilities in Clatskanie.

**Leadership**
HEAL MAPPS™ polls also provided evidence of an increase in leadership engagement in Clatskanie. In 2012, more than 90% of those polled said that they felt that leadership was “not at all” or “mildly” engaged in health building efforts in the community (Figure 4). In 2016, while many of those polled still feel that leadership could be more engaged (e.g. 13% responded “not at all”), 17% feel that leadership is now moderately or very engaged (Figure 5).

Leadership is supportive and involved in efforts to promote and enhance healthy eating and physical activity resources. The schools are especially seen as positive leaders because of the addition of the salad bar at Clatskanie Elementary school, the garden and greenhouse space and new walking trails. Leadership is also engaged in increasing supports and making sure these resources are sustainable by pursuing grant funds. For example, the Kiwanis club helped the community turn an old tennis court into a play area for toddlers (toddler track) and the Farmer’s Market has applied for and received grant funding.

Community Knowledge of the Efforts

HEAL MAPPS™ polls also provide evidence that increasing number of community members have knowledge of local efforts and are trying to increase the knowledge of the general community about these efforts in Clatskanie. During the first HEAL MAPPS™ event in 2012, 38% of those polled felt that members of their community were “moderately” supportive of efforts that promoted a healthy lifestyle and helped to prevent obesity. In 2016, that number has increased to 48%, and more importantly, 19% now feel that the Clatskanie community is “very” supportive (Figure 6).

Community members are not only more aware of current efforts and programs towards healthy eating and physical activity, but also understand their purpose (e.g. how having access to a community garden can help you eat healthier). Finally, many community members recognize how some of their neighbors and fellow community members may not have equal access to all resources, due to economics, age, or the rural nature of the community.

Figure 4. HEAL MAPPS™ Community Conversation poll responses for Existing Community Efforts.

<table>
<thead>
<tr>
<th>“How Confident are you that the people in your community who provide programs, services, activities, and establish policies have expertise and training in healthy eating and physical activity”?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before</strong></td>
</tr>
<tr>
<td>Not at all Confident</td>
</tr>
<tr>
<td>Mildly Confident</td>
</tr>
<tr>
<td>Moderately Confident</td>
</tr>
<tr>
<td>Very Confident</td>
</tr>
<tr>
<td><strong>After</strong></td>
</tr>
<tr>
<td>Not at all Confident</td>
</tr>
<tr>
<td>Mildly Confident</td>
</tr>
<tr>
<td>Moderately Confident</td>
</tr>
<tr>
<td>Very Confident</td>
</tr>
</tbody>
</table>
Figure 5. HEAL MAPPS™ Community Conversation poll responses for Leadership

“How Engaged do you feel that your community leaders are in efforts to promote weight healthy kids and families“?

Before
- Not at all Engaged: 4%
- Mildly Engaged: 38%
- Moderately Engaged: 58%

After
- Not at all Engaged: 4%
- Mildly Engaged: 13%
- Moderately Engaged: 70%

Figure 6. HEAL MAPPS™ Community Conversation poll responses for Community Knowledge of the Efforts

“How Supportive are members of the community in efforts to promote healthy eating and physical activity to prevent obesity among children and families“?

Before
- Not at all Supportive: 8%
- Mildly Supportive: 38%
- Moderately Supportive: 54%

After
- Not at all Supportive: 19%
- Mildly Supportive: 33%
- Moderately Supportive: 48%
Results Summary: Themes and Indicators Emerging from Clatskanie Community Conversation (2015)

Themes relating to Active Living and Healthy Eating that emerged from HEAL MAPPS™ 2015, were related to the Community Context (the setting or circumstances of a community, e.g. physical features), Community Capacity (the ability or power to do, experience, or understand something), Community Engagement – Climate and Culture, and Efforts or Resources related to the Issues (Tables 1 & 2).

Active living supportive elements that emerged included: The community members themselves, who donate time, efforts, and resources to increase the number of supports and access to them; Active transportation and walkability, especially in the downtown areas of Clatskanie; Leadership from the Schools and local groups (e.g. Kiwanis club), who are working not only to increase supports but also engaged in making those efforts sustainable by procuring further funding; finally, Clatskanie has a number of low or no cost physical activity resources like public parks and playgrounds, A community pool, trails and walking paths, and community gardens to name a few (Table 1).

Healthy Eating supportive elements included: access to local food sources, like community gardens, farmer’s markets and farms stands; food assistance, including summer lunch programs, community meals and food banks; and school leaderships engagement in increasing healthy eating in their schools (Table 1).

The new school based health center emerged as a significant support, especially in light of the lack of physical health resources in Clatskanie. Clatskanie also has a number of community spaces that could be used for future efforts (e.g. cooking or other health based classes) towards healthy eating (Table 1).

Elements that are obstructive to active living emerged as a lack of time, funds, or personal inclination to be actively involved in physical activity; a lack of maintenance or investment in resources, especially as it concerns the unevenness of some sidewalks; and a lack of active transportation or walkability supports in some areas, especially for the most rural areas of Clatskanie (Table 2). “Active Transportation and Walkability” emerged as both supportive and obstructive (Tables 1 & 2) to living an active lifestyle. For those individuals who live downtown, walking or biking does not emerge as a major barrier, because much of that area has sidewalks. However, biking or walking from place to place is much more difficult for those living outside of city limits. The lack of available and affordable indoor physical activity resources also emerged as obstructive to living a healthy lifestyle, as did the general lack of health services (mental and physical) in Clatskanie (Table 2).

Obstructive elements that emerged for healthy eating included limited time, funds, or involvement: school lunch periods may be too short and some community members have limited funds or time to enable them to eat healthy; Lack of Healthy options: Grocery store lacks variety and food assistance programs may not always have the healthiest options; Socioeconomic disparities and cost: access to some resources may be too costly for some community members (Table 2). Access to and lack of healthy food options emerged as supportive and obstructive as did access to general health services. This likely speaks to how differing groups in the community (i.e., demographic or spatially) may have dissimilar access to resources.
Table 1. Themes and Indicators of Resources supportive of weight healthy lifestyles emerging from 2015 Clatskanie Community Conversation. *Items in Red emerged as both supportive and obstructive.*

<table>
<thead>
<tr>
<th>Active Living</th>
<th>Healthy Eating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resource</strong></td>
<td><strong>Theme</strong></td>
</tr>
<tr>
<td><strong>Community Members</strong></td>
<td><strong>Volunteer time, efforts and money. Community members are engaged in actions to increase resources and access to those resources.</strong></td>
</tr>
<tr>
<td><strong>Active Transportation and Walkability</strong></td>
<td><strong>Sidewalks throughout most of downtown, Crosswalks, ramps, curb cuts, walking paths</strong></td>
</tr>
<tr>
<td><strong>Information Access</strong></td>
<td><strong>PUD and Chamber of Commerce, Local Newspaper, Community Boards and Social Media</strong></td>
</tr>
<tr>
<td><strong>Fee-Based Resources</strong></td>
<td><strong>Gym, Golf Course</strong></td>
</tr>
<tr>
<td><strong>Low or No Cost Resources</strong></td>
<td><strong>Public Parks, playgrounds and Spaces (Pool, Skate park, Trails, Toddler Track), Community Events (CES fun run). School facilities (Fitness trail, track, gardens). Community and School Sports (Soccer, Baseball, Basketball). Community Gardens, Books for Bikes, Check it Out!, Natural Areas (Hiking, fishing, foraging). Dance lessons at VFW</strong></td>
</tr>
</tbody>
</table>
Table 2. Themes and Indicators of Resources Obstructive to weight healthy lifestyles emerging from the 2015 Clatskanie Community Conversation. Items in Red emerged as both Supportive and Obstructive.
<table>
<thead>
<tr>
<th><strong>Active Living</strong></th>
<th><strong>Healthy Eating</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resource</strong></td>
<td><strong>Theme</strong></td>
</tr>
<tr>
<td><strong>Obstructive</strong></td>
<td>Community Engagement-Culture and Climate</td>
</tr>
<tr>
<td>Limited Time, Funds, Involvement</td>
<td>Due to time constraints, economics, personal inclination, education, or otherwise.</td>
</tr>
<tr>
<td>Knowledge of Resources/Efforts</td>
<td>Community members may not know what resources are available because access to information is lacking.</td>
</tr>
<tr>
<td>Knowledge of the Issue</td>
<td>Lack of understanding of the connection between physical activity (e.g. walking) and health and of the behaviors that promote or deter from healthier lifestyles</td>
</tr>
<tr>
<td>Maintenance or Investment In Resources</td>
<td>Sidewalks need improvement, uneven and difficult for some community members to use (e.g. seniors)</td>
</tr>
<tr>
<td>Safety and Civility</td>
<td>Perception of danger in some areas due to illegal activities, vandalism, vagrancy and wildlife</td>
</tr>
<tr>
<td>Active Transportation and Walkability</td>
<td>Lack of crosswalks, sidewalks, and traffic calming features in some areas. More rural and senior community members without transportation lack access</td>
</tr>
<tr>
<td>Weather</td>
<td>Winter weather an impediment to PA</td>
</tr>
<tr>
<td>Socioeconomic Disparities and Costs</td>
<td>Cost is a barrier for some.</td>
</tr>
<tr>
<td>Low or No Cost Resources</td>
<td>Lack of indoor low cost PA facilities, School facilities may be inaccessible outside of school year (e.g. summer)</td>
</tr>
<tr>
<td>General Health Supports</td>
<td>Lack of physical Health services (e.g. mental health, PCPs, clinics etc.)</td>
</tr>
</tbody>
</table>

**Resident-Informed Recommendations for Community Change**
The following list of recommendations emerged from the data generated during the Clatskanie HEAL MAPPS™ conversation. The list represents those of the Clatskanie community members who shared their ideas during the facilitated discussion of the photographed community features. We have organized the recommendations by similarity in action. These recommendations do not represent those of the GROW Healthy Kids and Communities project members or Oregon State University.

**Healthy Food and Physical Activity Policies and Programs**

1. Increase availability and variety of affordable healthy food and fresh produce
2. Community is interested in classes on cooking – how to use difference types of produce

**Multisector Partnerships and Shared Goals for Healthy Community Development**

3. Utilize current spaces, like the Grange Hall or American Legion, for community events (e.g. cooking classes)
4. Engage community groups (4H) in teaching about food
5. Actively increase community participation in events

**Active Transportation, Walk/Bike/Wheel-Ability**

6. Repair needed for some sidewalks
7. Increase more rural residents walkable/bikeable access to City Park
8. Increase safety of crossing Highway 30 by adding flashing crosswalks

**Informational Campaigns**

9. Advertise and celebrate the new Farmer’s market Grant
Figures 6 through 9 represent the routes navigated by local residents as they mapped the physical features of the Clatskanie community using participatory photographic survey methods.

Figure 6. Represents all routes generated by the Clatskanie community mappers.
Figure 7. Represents an example of a route, with barriers and supports encountered, created while using a personal motorized vehicle.
Figure 8. Represents an example of a route, with barriers and supports encountered, created while using a personal motorized vehicle zoomed in for detail.
**Figure 9.** Represents a walking route and the features encountered along the route that enable or hinder healthy eating and/or physical activity.