Generating Rural Options for Weight
GROW
Healthy Kids & Communities

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The goal of GROW Healthy Kids and Communities is to change the context to prevent a rise in obesity risk and prevalence in populations of rural children.

**AIM ONE**
Explore and model the rural obesogenic environment in Oregon and five Western states to inform rural obesity prevention research, education, and Extension.

**AIM TWO**
Intervene in Oregon, via Extension targeting changes in community, school, and family home contexts (PSE) to promote children’s daily healthful eating and physical activity behaviors and patterns, and thus prevent a rise in BMI prevalence in elementary school student populations.
GROW Conceptual Frame and Approach

Our Rural People & Places Ecological Systems frame allows for modeling collective impact enabling activities across multiple levels, and environments.

Our Participatory Action Research (PAR) model allows for integrated research, education and extension for studying and catalyzing change.
Participatory Research Value

**People**

- Assure *right to access* – choices that are easily accessible, equitable, self-determined supports for weight-healthy habits
- Develop *agency, advocacy, and solidarity actions* for weight health – intentions, skills, and connectivity for change, including utility of information about obesogenic conditions for collective benefit

**Place**

- Amend *social and environmental inequities* – by inclusive capacity building, empowerment and local ownership
- Promote a *just rural context* - resource availability, accessibility, and affordability to reduce rural weight health disparities
Thriving, Empowered Weight Healthy Rural Communities

Rural Weight Health Equity

Shifting Paradigm
Public Health Extension
Weight Healthy Community Development
Population Health Impacts

Sustainability through Multi-Sector Partnerships with Shared Visions and Values for Weight Healthy Rural People and Health Equitable Rural Places
GROW PAR Tools for Community–Level PSE Action

Healthy Eating Active Living Mapping Attributes using Participatory Photographic Surveys (HEAL MAPPS™)

1. Sector partners and influencers scan community PA and HE/food resources using direct observation surveys and GPS cameras
2. Photographed resources are located, attributed, and categorized (as GIS data) on a community map


Rural Community Food and Physical Activity (R-CFPA) Environmental Resource Audit
Extension—Facilitated Community-Engaged PAR to Build Collective Capacity for Effective PSE Impacts

Community Stakeholders Plan for Inclusive Outreach & Audience Engagement

Training Residential Audiences to Map their Lived Experience of HEAL and Place

Mappers’ Focus Group Selects Observations that Represent the Observed HEAL Context

Data Sources

1. Demographics
2. Route Maps, Journals, Surveys, Photographs, Transcripts
3. Indicators of Available PSE Resources

Community Data and Reports used for Prioritizing, Driving and Tracking PSE Changes to Context

Collective Readiness Conversations Poll Opinions and Discuss Options for Increasing HEAL Access for ALL
## GROW positions Extension as Backbone Organization

### PAR Phases for Collective PSE Impact

<table>
<thead>
<tr>
<th>Component for Success</th>
<th>PHASE I Initiate and Assess for Action</th>
<th>PHASE II Organize and Strategize for Impact</th>
<th>PHASE III Sustain Action &amp; Impact</th>
</tr>
</thead>
</table>
| Governance & Infrastructure | • Identify champions  
• Form cross-sector groups | • Create infrastructure  
• Outline processes – roles, communications, efforts, activities | • Facilitate process  
• Refine processes and transfer/reassign roles |
| Strategic Planning and Prioritization | • Map the landscape  
• Use data to make case | • Create common agenda  
• Outline goals & strategies | • Support priority PSE strategy implementation  
• Fidelity check for alignment to goals |
| Inclusive Community Involvement | • Facilitate inclusion  
• Activate community outreach | • Engage community  
• Build agency intentions - public will | • Continuous engagement  
• Develop advocacy skills and advocates |
| Ongoing Evaluation & Improvement | • Analyze baseline data  
• Identify and report key issues and gaps | • Establish shared metrics (measurement tools, measurements, approach, & indicators) | • Collect, track, & report progress; repeat PAR  
• Study process to learn and improve |

Community Resources through a Weight Health Equity Lens

We found attributes of Rural Place, accessibility and affordability of available PSE resources, are experienced differently by Rural People depending on socially determined “group” attributes, including income, location, race and/or ethnicity, family size & type, job/work, cultural norms, beliefs, and values.

KEY
- Support (Makes EASY)
- Barrier (Makes HARD)
- Either/Both (Support & Barrier)
### Rural Families (25% Food Insecure) Further Explained
Household/Home Contexts in Focus Groups (n=9)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Nutrition</th>
<th>Physical Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Support</td>
<td>Barrier</td>
</tr>
<tr>
<td>Seasonal Variation</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Features of Home</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Distance to Resources</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Eating Habits Promotion</td>
<td></td>
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<tr>
<td>Screen Access Limits</td>
<td></td>
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<tr>
<td>Financial Constraints</td>
<td></td>
<td>X</td>
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<tr>
<td>Schedule Constraints</td>
<td></td>
<td>X</td>
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<tr>
<td>Outdoor Safety</td>
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</tbody>
</table>

**Themes for Nutrition**
- Family Eating Habits
- Food Procurement

**Themes for Physical Activity**
- Family Physical Activity
- Screen/Sedentary Recreation

*Image courtesy of Oregon State University*
Oregon GPS “Ground-truthed” Environmental Scan of HE/Food Resources (R-CFPA)

Pre ($t_0$) to Post ($t_3$) Change in Change in Food Resources

- Grocery
- Local Food/Agriculture
- Food Assistance
- Fast food
- Restaurant

Community

Change

- GROW Clatskanie
- SNAP-ED Rainier
- SNAP-ED Estacada
- GROW Molalla
- GROW Bonanza
- SNAP-ED Chiloquin
Community Food (A) and Physical Activity (B) Resource Maps Visualize Availability and Support Analysis of “Easy” Access (1/2 mile or 5 minutes drive) for Estimated Proportion (x% of total population) of Rural Households with Children

Rural Obesogenic Index = % priority population with easy access x strength of resources for supporting HE or PA (1=minimal/poor to 4=high/best) x seasonal weight (# usable months/12)
GROW PAR Tool for School-Level PSE Action

*School Physical Activity and Nutrition Environmental Tool (SPAN-ET™)

School environmental scans were conducted using our School Physical Activity and Nutrition–Environment Tool (SPAN-ET)
GROW school teams used SPAN-ET scores to prioritize areas for improvement and employed SPAN-ET guided evidence-based PSE strategies.
SPAN-ET scores allowed schools to target areas for improvement and SPAN-ET resource guide linked measurements with effective PSE strategies

<table>
<thead>
<tr>
<th>Priority (H, M, L)</th>
<th>2012-13</th>
<th>2013-14</th>
<th>2014-15</th>
</tr>
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<tbody>
<tr>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td></td>
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**Before/After School and Summer Extracurricular Programs**

**SITUATIONAL ENVIRONMENT**

After school and extracurricular programs can provide a healthy environment that reinforces skills learned in school as well as opportunities for continuing nutrition education.

<table>
<thead>
<tr>
<th>Score (AOI 1-27: Percent Met) (Criteria: 1 = Met; 0 = Not Met)</th>
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</thead>
<tbody>
<tr>
<td>14% 29% 71%</td>
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</table>

**A.** Nutrition education is incorporated into extracurricular programs that serve meals or snacks.

**Suggestions for action:**

- Follow the 12 lessons supplied by the Children's Hunger Alliance's *The Food Folks Nutrition Curriculum.*
  

- Explore the USDA's *Child & Adult Care Food Program* website for resources on nutrition, including menus, etc. and nutrition education materials.
  

- Utilize the recommendations in the *Action Guide for School Nutrition and Physical Activity Policies.* See the section *Nutrition Education Strategies* (pg. 44).
  

**B.** Programs use nutrition resources that are evidence-based or aligned with credible professional groups.

**Suggestions for action:**

<table>
<thead>
<tr>
<th>GROW</th>
<th>Strategy Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Increase availability of healthier food and beverage choices in public service (school) venues</td>
</tr>
<tr>
<td>2</td>
<td>Improve availability of affordable healthier food and beverage choices in public service (school) venues (Farm-to-school)</td>
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<tr>
<td>3</td>
<td>Improve geographic availability of supermarkets/grocery stores in underserved areas</td>
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<tr>
<td>4</td>
<td>Incentivize food retailers to site and/or offer healthier food and beverage choices in underserved areas (farmer markets; locally-sourced produce coolers)</td>
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<tr>
<td>5</td>
<td>Improve availability of mechanisms for purchasing food from farms (online CSA/food share)</td>
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<tr>
<td>6</td>
<td>Provide incentives for the production, distribution, and procurement of foods from local farms</td>
</tr>
<tr>
<td>7</td>
<td>Restrict availability of less healthy food and beverages in public service (school) venues</td>
</tr>
<tr>
<td>8</td>
<td>Institute smaller portion size options in public service venues</td>
</tr>
<tr>
<td>9</td>
<td>Limit advertisements of less healthy foods and beverages (in school/athletic facilities)</td>
</tr>
<tr>
<td>10</td>
<td>Discourage consumption of sugar-sweetened beverages/increase access to drinking water</td>
</tr>
</tbody>
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COCOMO strategies:
- Most common in rural locations: #1 and #7;
- Least common #8, #9 and #3 not utilized in rural locations

*Rural adaptations included accommodating distance to food sources, tailoring to local food cultures, and building community partnerships.*
Twelve Physical Activity–Related PSE Strategies from CDC (Umstattd et al. Prev Chronic Disease, 2016)

<table>
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<tr>
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<tbody>
<tr>
<td>12</td>
<td>Require physical education (PE) in schools written in district and school policy</td>
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<tr>
<td>13</td>
<td>Increase amount of PA in PE programs to at least 50% of total PE class time in schools written in district and school policy (BEPA Toolkits)</td>
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<tr>
<td>14</td>
<td>Increase opportunities for extracurricula PA (shared use of school/athletic facilities by the public during non-school hours; organized events/clubs)</td>
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<tr>
<td>15</td>
<td>Reduce screen time in public service venues</td>
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<tr>
<td>16</td>
<td>Improve access to outdoor recreational facilities (locating ≥ 1 new public recreational resources within ½ mile of residential population clusters)</td>
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<tr>
<td>17</td>
<td>Enhance infrastructure supporting bicycling (route maps)</td>
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<tr>
<td>18</td>
<td>Enhance infrastructure supporting walking (connectivity; remote school drop off)</td>
</tr>
<tr>
<td>19</td>
<td>Locate schools within easy walking distance of residential areas</td>
</tr>
<tr>
<td>20</td>
<td>Improve access to public transportation</td>
</tr>
<tr>
<td>21</td>
<td>Zone for mixed-use development</td>
</tr>
<tr>
<td>22</td>
<td>Enhance personal safety in areas where people are or could be physically active (maintenance)</td>
</tr>
<tr>
<td>23</td>
<td>Enhance traffic safety in areas where people are or could be physically active (signage)</td>
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</tbody>
</table>

COCOMO strategies #12 - #18 were effectively used in rural locations; most common rural strategies: #18 and #14
Participatory, Inclusive Approach for Catalyzing Just PSE Actions

GROW researchers, Extension, and community members undertook collective, reflective inquiry...generating local data and merging scientific evidence to build weight healthy community capacity, readiness and PSE resources.

- Collective, reflective processes were sensitive to the nature of adult learning, and linked diverse experiences with action planning and PSE adoption and implementation.
- Processes were sympathetic of history, culture, local context and embedded in social relationships.
- GROW empowered rural communities and led to greater shared capacity and readiness to change the context: adapt, adopt, and implement PSE strategies that resource weight healthy rural lifestyles and weight health equity.
Access to local foods, gardens, produce, agriculture and fresh food assistance...

In Molalla, families can visit and support the school StoryWalks® and gardens across the district.
In Molalla, families can visit the beautiful Molalla River Corridor and hike to stay active, learn, and have fun!

Access to trails, parks, public lands for active recreation and learning....
KIDS NEED 60 MINUTES OF MODERATE TO VIGOROUS PHYSICAL ACTIVITY PER DAY TO LEARN WELL AND BE HEALTHY

ON AVERAGE THEY GET JUST 20 MINUTES PER DAY AT SCHOOL

Molalla families can use the trail and fitness stations behind Molalla Elementary School to work out together.

Access to via shared use, and active play, fitness, and learning resources
Access to programs and partners that support weight healthy rural lifestyles

In Molalla, families can walk or run the Freedom 5k together!

IF YOU GET OUT & WALK 30 MINUTES PER DAY, YOU INCREASE YOUR LIFESPAN BY 2 YEARS

IMAGINE THE BENEFITS IF YOU EXERCISE MORE!
FOR THE FIRST TIME IN HISTORY, TODAY’S KIDS MAY LIVE 5 YEARS LESS THAN THEIR PARENTS...

What will Molalla do with five more years?

We’ll let you know!
**CLACKAMAS COUNTY**

Funds provided to replace bars on the playground to address safety concerns for older students and for two new fitness and garden stations.

An indoor bouldering wall was funded to support students with increased options for physical activity and the development of motor skills.

Supplied one Balanced Energy Physical Activity Toolkit to a housing site that provides programming for children who live there - many are Spanish speaking children.

Portable Play Equipment (racks with baskets to hold equipment, balls, hoops, cones)

Reinforcements for children and families’ training and participation in Annual 4th of July 5K Run

2-tier grow light system

**KLAMATH COUNTY**

Funds were provided to build garden beds, create programming around garden education at schools.

Funds for a mobile smoothie cart at school.

Portable play equipment (soccer, basketballs, jump ropes, scarves, Frisbees, beanbags, etc), and a bouldering wall were funded to improve the activity environment at school. Funds were provided to resurface a playground at school.

**COLUMBIA COUNTY**

Funds were provided to support, in part, a $200,000 playground revitalization at the school, including features such as log benches, shade structures, an imaginative play area, and crushed rock.

Funds were provided for the Check-in-Out program to offer no cost active recreation equipment and to purchase a banner to better promote the play equipment checkout program.

The Clatskanie Community Action Group in a collaborative effort to design and install a Heritage Fitness Trail system. GROW funds were combined with a $20,000 grant from Nike to create the trail.

Funds were provided for portable play equipment (basketballs, jump ropes, footballs, hula hoops, discs)

Funds were provided to support, in part, the building of a bridge to increase trail access.

Funds were provided for healthy eating equipment (vegetable corer and other cutting equipment).

Water bottle filling station

Funds provided for produce scale and signage to increase produce affordability and accessibility.

**SIGNIFICANT IMPACTS** resulting from these outcomes include leveraging GROW resources to secure $713,333 in additional funding, applications that were submitted by communities based on new knowledge and data generated through community-engaged actions.

**KEY**

- PHYSICAL ENVIRONMENT
- SITUATIONAL ENVIRONMENT
- PHYSICAL ACTIVITY RESOURCES (PA)
- LOW/NO COST OUTDOOR PA
- LOW/NO COST INDOOR PA
- FOOD RESOURCES
- FOOD ASSISTANCE
- LOCAL FOOD