Generating Rural Options for Weight (GROW) Healthy Kids and Communities
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The goal of the GROW Healthy Kids and Communities project is to prevent obesity in rural children.

**SPECIFIC AIMS**

**Aim One:** To explore and model the rural obesogenic environment in Oregon and five Western states (WA, NV, CO, AZ, and NM) and inform extension Communities of Practice

**Objective 1:** Create a community-informed profile of the rural environment that documents attributes that support (make easier) or hinder (make harder) healthy eating and physical activity among children and families.

**Objectives 2:** Develop an interactive, virtual learning environment to inform, educate, and support public and private sector practitioners, educators, and policy-makers.

**Aim Two:** To plan, implement, and evaluate a multi-level intervention in Oregon targeting home, school, and community behavioral settings to promote healthy eating and increase physical activity, and thus improve body mass index among rural children aged 5-8 years old.

**Objectives 2:** Evaluate the impact of a comprehensive multi-level intervention to promote healthy eating and increase physical activity on overweight and obesity (in BLM) among rural kindergarten through 3rd grade children.

**Objectives 4:** Evaluate the effects of intervention strategies on changes in home, school, and community nutrition and physical activity environments.

**TARGET AUDIENCES**

- Rural children, ages 5-8 years, enrolled in SNAP-Ed eligible public schools grades K-3 and their adult caregivers
- Family caregivers and homes
- School administrators, educators, and staff and schools
- Rural community-at-large

**METHODS AND APPROACHES**

**Aims and Objectives:**

- **Aim One:** To explore and model the rural obesogenic environment in the Western U.S.
- **Aim Two:** To plan, implement, and evaluate a multi-level intervention to promote healthy eating and increase physical activity, and thus improve body mass index among rural children aged 5-8 years old.

**Settings:**

- Rural communities in OR and partnering Western states (WA, NV, CO, AZ, NM)

**Approach:**

- **Aim One:** Train-the-trainer to us our mechanish to MAPP and rural residents and Alexa’s rural community awareness using community engaged participatory research methods.
- **Aim Two:** Train-the-trainer to use our mechanish to MAPP and rural residents and Alexa’s rural community awareness using community engaged participatory research methods.

**Technical Approaches:**

- **HEAL MAPPS Community Team Members**: Participated in a community readiness conversation, which was based on photographs and facilitated by a HEAL MAPPS trainer ("GROW HKC project director") to determine the community’s resources and readiness for obesity prevention efforts.

**Entrying the community activities mobilized the community, produced valuable partnerships and engaged diverse stakeholders.**

**HEAL MAPPS Tools, Toolkit, and Trainings**

- **HEAL MAPPS Toolkit Contents:**
  - Training and facilitation manuals (5)
  - Community or campus-based workshops (25) or community-based workshops (2)
  - Printed, digital, and online resources (50)
  - Photographic and physical activity environment and policies
  - Focus group to decide on the most relevant photographed features

- **HEAL MAPPS Pilot Activities**

  Conducted in one rural Oregon community meeting included criteria based on Coates et al. (2011) and the Oregon’s Healthy Kids and Communities project.

- **Community Characteristics:**

  - Percent families with children under the age of 18 is 52.7%
  - Median household income is $55,082
  - Poverty rate is 9.5%
  - Elementary students qualified for free/reduced lunch is 48.5%
  - County obesity rate for low income preschoolers is 16.8%
  - Median household income is $55,082
  - Less than 25% of 8th grade and 11th grade students are getting the recommended amount of fruits and vegetables per day and approximately one in four 8th and 11th grade students did not meet the daily physical activity recommendation.
  - Approximately 40% of 8th grade and 34% of 11th grade students watched two or more hours of TV per day.

- **HEAL MAPPS Pilot Participants, Activities, and Outcomes**

  - Community stakeholders (n=20) were contacted and mobilized to participate in HEAL MAPPS CFPE activities.
  - HEAL MAPPS community team members (n=8) trained to conduct community participatory photo mapping assessments (photographed) (n=117) and mapped using transportation routes (n=16) community features that support or hinder habitual healthy eating and/or physical activity for children and families.
  - HEAL MAPPS community team members (n=9) participated in a focus group to decide on the most relevant photographed features (n=49) to present for wider community discussion.
  - Community residents and stakeholders (n=36) attended and participated in a community conversation, from which was based on photographed features and facilitated by a HEAL MAPPS trainer ("GROW HKC project director") to determine the community’s resources and readiness for obesity prevention efforts.

- **Exiting the community activities provided a resident-reported information of the community’s resources and readiness for obesity prevention actions.**

**METHODS AND APPROACHES**

**Aim Two:** To plan, implement, and evaluate a multi-level, multi-sector intervention, targeting rural home, school, and community behavioral settings to promote healthy eating and increase physical activity levels, and thus improve BMI among rural elementary school-aged children in Oregon Fall 2012 – Spring 2015

**Settings:**

- Family homes, elementary schools, and rural communities in 7 counties (Clackamas, Columbia, Yamhill, Multnomah, Linn, Marion, Grant) in 5 Western states (WA, NV, CO, AZ, and NM)

**Approach:**

- **Community-based randomized trial** across multiple levels of influence:
  - **Mechanism:** Concurrent environmental (e.g., after playground features, develop school and community food gardens, reduce screen time in family home), behavioral (e.g., facilitate PA before, during, and after school, promote family food buying, reduce sedentary screen time) and informational (e.g., extension delivery of school-based Growing Healthy Kids’ experimental curriculum and messages to adult caregivers in family home, school, and community) designed to bring children’s energy equation into balance.

- **Deliverable:** Interventions and nutrition environment improvements (built, policy, situation) at the home, school, and community level.

**POTENTIAL IMPACTS**

- Childhood obesity prevention model applicable to rural Western US
- Improved BMI among rural elementary children who receive GROW HKC intervention compared to standard conditions comparison group
- Increased environmental supports for healthy eating and physical activity in the family home, elementary school, and community-at-large: GROW HKC intervention children’s energy equation into balance in each of their targeted behavioral environments
- Used, shared values (behaviorally demonstrated with more environmental supports) among families in GROW HKC intervention communities for obesity prevention – eating healthfully, being physically active, and limiting sedentary time.

**References**