

SNAP-Ed Toolkit

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StrongPeople™ Strong Hearts

StrongPeople™

Overview

StrongPeople™ Strong Hearts (SPSH) is a cardiovascular disease risk reduction program for midlife and older adults designed to improve diet and physical activity behaviors, assess local food and physical environment resources, and shift social norms about active living and healthy eating. The program consists of experiential one-hour group classes twice weekly for six months (48 classes) addressing multiple levels of the socioecological model (individual, social, and environmental levels). Class activities include aerobic exercise; strength training; instruction, discussion, and activities related to nutrition, physical activity, stress, and social support; and civic engagement activities to increase awareness and knowledge of aspects of the local food and physical environment that make healthy living easier or more difficult. **Target Behavior:** Healthy Eating, Physical Activity and Reduced Screen Time **Intervention Type:** Direct Education

Intervention Reach and Adoption

The intervention was designed for low-resource communities, particularly for midlife and older rural women at risk of cardiovascular disease. The curriculum has been updated to include all genders. Communities in the two StrongPeople™ Strong Hearts randomized controlled trials (RCT) had a median household income of at least 15% lower than the corresponding value for the state, and approximately 20% of participants in the trials had household incomes of \$25,000 per year. The program has been led by Extension agents or other community health educators and has been implemented in rural areas. **Setting:** Community **Target Audience:** Adults, Older Adults **Race/Ethnicity:** All

Intervention Components

SPSH includes experiential group one-hour classes twice-weekly for six months (48 classes) and includes progressive strength training, aerobic exercise, skills-based health education including nutrition and physical activity topics, and activities focused on creating a healthy environment. Behavioral aims for the program include increasing aerobic exercise, strength training, fruits and vegetables, and whole grains and decreasing calories, desserts, processed foods, sodium, sugar-sweetened beverages, and stress. Moreover, the program focuses on self-monitoring, goal setting and check-ins with program participants. Participants learn about social, community, and built environment factors that are related to and can help catalyze and sustain health behavior change. These intervention components provide participants with the skills necessary to continue being physically active, eating healthfully, and working to improve their local environment to make healthy living easier after the end of the program. The program includes extensive practice with goal planning/tracking, and

Intervention Materials

Materials include:

- SPSH Leader Guide – program protocols, data collection protocols, anticipated costs, and additional information about implementing the program.
- SPSH Participant Guide – handouts, recipes, homework, tips and tricks, and additional information about topics covered in class.
- StrongPeople™ Health Journal – tracking pages for goals, diet, physical activity, and physical measurements.

Intervention Costs

To provide optimal training and ensure fidelity to the program, leaders must complete an online training. (\$500, scholarships are available). After successfully completing the training, leaders receive intervention and evaluation materials. StrongPeople™ programs are offered for free or low cost by Extension professionals, clinics, and community organizations. All organizations set their own fees, but it is strongly encouraged that leaders facilitate participation by any individual who is interested in joining, regardless of income.

Evidence Summary

Focus groups were held with key informants and at-risk rural community members to gain insight into cardiovascular disease prevention knowledge, concerns, behaviors, and program preferences prior to program design for StrongPeople™ Strong Hearts (previously called Strong Hearts, Healthy Communities). There have been two RCTs of StrongPeople™ Strong Hearts. The first included 157 rural overweight women in Montana and New York, and the second included 182 rural overweight women in New York. Compared to controls, intervention participants decreased BMI/weight and improved C-reactive protein and the American Heart Association's Simple 7 composite cardiovascular risk score.

- Seguin RA, Paul L, Folta SC, et al. Strong Hearts, Healthy Communities: a community-based randomized trial for rural women. *Obesity (Silver Spring)*. 2018;26(5):845-853. doi:10.1002/oby.22158.
 - <https://onlinelibrary.wiley.com/doi/full/10.1002/oby.22158>
- Seguin-Fowler RA, Strogatz D, Graham ML, et al. The Strong Hearts, Healthy Communities program 2.0: an RCT examining effects on Simple 7. *Am J Prev Med*. 2020;59(1):32-40. doi:10.1016/j.amepre.2020.01.027.
 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7311302/>

Additionally, compared to controls, intervention participants improved their combined fruit and vegetable intake and vegetable intake alone, plus walking MET-minutes per week. In terms of functional fitness, intervention participants significantly improved strength, endurance, and physical function.

- Folta SC, Paul L, Nelson ME, et al. Changes in diet and physical activity resulting from the Strong Hearts, Healthy Communities randomized cardiovascular disease risk reduction multilevel intervention trial. *Int J Behav Nutr Phys Act.* 2019;16(1):91. doi:10.1186/s12966-019-0852-z.
 - <https://link.springer.com/article/10.1186/s12966-019-0852-z>
- Pullyblank K, Strogatz D, Folta SC, et al. Effects of the Strong Hearts, Healthy Communities intervention on functional fitness of rural women. *J Rural Health.* 2020;36(1):104-110. doi:10.1111/jrh.12361.
 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6744363/>

After the first iteration of the curriculum was tested in the RCT, post-intervention questionnaires, focus groups with participants, and interviews with leaders were used to assess acceptability. The great majority of responses was positive; 72% of participants were very satisfied with the program and participants reported noticeable improvements in fitness and eating habits.

- Sriram U, Sandreuter K, Graham M, et al. Process evaluation of strong Hearts, Healthy Communities: A rural community-based cardiovascular disease prevention program. *J Nutr Educ Behav.* 2019;51(2):138-149. doi:10.1016/j.jneb.2018.10.011
 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6422156/>

Based on participant and leader feedback, changes were made to the intervention (e.g., restructuring program content, increasing strength training exercise variety) before the second RCT was conducted. Reports of the process evaluation of the second iteration of the program, including acceptability measures, are forthcoming.

Evidence-based Approach: Research-Tested

Evaluation Indicators

Based on the SNAP-Ed Evaluation Framework, the following outcome indicators can be used to evaluate intervention progress and success.

	Readiness and Capacity – Short Term (ST)	Changes – Medium Term (MT)	Effectiveness and Maintenance – Long Term (LT)	Population Results (R)
Individual		MT1 , MT3		
Sectors of Influence				

- MT1: Vegetables in cup equivalents; Healthy Eating Index Total Score
- MT3: Walking MET-minutes per week; Average minutes of moderate to vigorous physical activity; Cardiovascular endurance; Body strength

Evaluation Materials

Instructions, data sheets, and reference values for the Senior Fitness Test (measures strength, endurance, agility, and flexibility), BMI and waist and hip circumference, the International Physical Activity Questionnaire (IPAQ), the Rapid Eating Assessment for Participants-Short Form (REAPS) dietary behaviors questionnaire, and the Short Form-36 (SF-36) Physical Functioning Questionnaire are provided as

evaluation materials upon successful completion of training. A participant evaluation survey is also included.

Additional Information

The StrongPeople™ website, www.strongpeopleprogram.org, includes links to additional resources, tools, life and health coaching, recipes, and success stories. **Contact Person(s):** Rebecca Seguin-Fowler Email: info@strongpeopleprogram.org Phone: 512-640-9131