# **Stoplight Healthy Living: Translating Research into Practice** Kim Bruns, MS Ed Dot Nary, PhD Kansas Disability and Health Program, University of Kansas

# Introduction

People with disabilities have higher rates of obesity and poor nutrition, and lower rates of physical activity then their peers without disabilities (Havercamp & Scott, 2015). For those with ID, these disparities result in higher rates of diabetes and other diseases, more days of illness, and poorer quality of life (Krahn, Walker, & Correa-De-Araujo, 2015). Yet, people with ID CAN be healthy! The Kansas Disability & Health Program, funded by the Centers for Disease Control and Prevention, has developed a research-based intervention titled Stoplight Healthy Living to assist people with ID in making healthy choices.

# Development

The program is based on the Stoplight Diet for Children (Epstein & Squires, 1988). It is a simple, visual method of teaching adolescents to choose healthier foods, which are classified into three groups based on their caloric content, nutritional value, and volume. These groups are color-coded to correspond with the color scheme of a stoplight:

	RED	Whoa, eat rarely or never e.g., cookies and French fries.
	YELLOW	Slow, use caution e.g., low fat yogurt and sweet potatoes
	GREEN	Go, eat all you want e.g., apples and broccoli

Development parameters included:

- 1. Promote choice and self-determination for participants
- 2. Focus on behavior change by reinforcing the importance of good nutrition *and* increased physical activity
- 3. Involve disability service providers, including direct support professionals (DSPs), who can provide ongoing support for healthy lifestyle choices after the formal program ends
- 4. Disseminate the program through disability service providers across the state via a train-the-trainer model.



Description

Stoplight Healthy Living is delivered in 1 to 1.5-hour sessions over six consecutive weeks. Five overall goals are presented to participants at the start of each session:

- be healthy
- have fun
- value self-determination in making healthy choices
- support each other
- make small changes every day



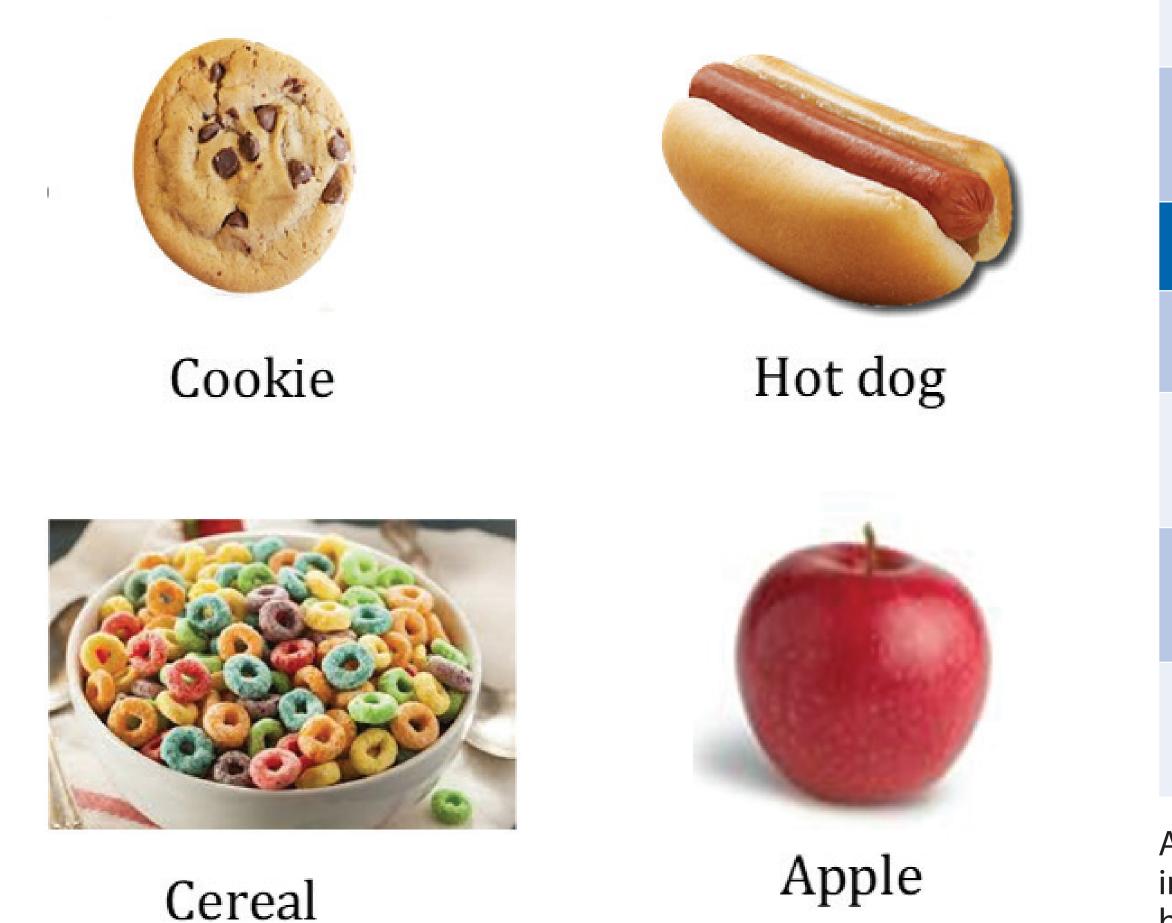
# Evaluation

Two trials have been conducted in supported living settings. The first trial tested program materials and activities. The second evaluated program results, using pre-, mid-point-, and post-tests administered on paper with responses featuring pictures to evaluate change in knowledge and behavior. Across the two trials, attendance was high and consistent with 85 and 90% of participants in groups one and two, respectively, attending all six sessions.

Evaluation of the second trial showed some positive results as well as some that were equivocal, as noted in the adjoining table. Of the 17 participants, 14 completed the survey of health knowledge and behaviors before, during, and after the program.

## Example of an evaluation item

4. Circle the <u>one food</u> below that is the most healthy and good for you.



- Stoplight engages small groups of community-living adults with ID in information-sharing and hands-on activities to learn about healthy foods, physical activity and social support. Activities include:
- putting **GREEN**, <u>YELLOW</u>, and **RED** stickers on foods to learn the Stoplight system
- exercising with videos and games
- using My Plate placemats and laminated food cards to assemble a healthy meal
- judging healthy portion sizes using one's hand
- tracking movement with a pedometer
- guessing the amount of sugar in typical beverages
- role-playing how to order a healthier meal in a restaurant
- preparing and eating healthy snacks
- using a color-coded grocery shopping list to encourage purchase of **GREEN** foods
- self-monitoring to track changes in diet, movement, and seeking social support

## Trial 2 Evaluation Results (n=14) Percent of respondents answering yes or correctly Mid Post Pre **Behaviors** Ate fruit and/or vegetables in last day 64.3% 64.3% 42.9% Did physical activity in the last week 100% 100% 100% Did physical activity in addition to 28.6% 28.6% 35.7% walking in last week Drank soda in the last day 57.1% 35.7% 28.6% Identified 2 healthy food purchases 50.0% 71.4% 100% from last grocery store visit Knowledge Correctly identified foods high in fat/ 42.9% 71.4% 35.7% sugar Correctly identified a healthy, balanced 70.9% 80.0% 78.6% meal plate Correctly identified the most healthy, 57.1% 64.3% 78.6% fast food meal choice Correctly identified the most healthy, 100% 100% 92.9% "green" food

Anecdotal results included reports of participants drinking water instead of soda with meals, ordering water when eating out, and buying wheat bread instead of white bread.

The success of the program in creating long-term change relies on the support of program administrators, direct support professonals, and family members to reinforce the healthy habits that participants learn in the sessions. Thus, supporters are encouraged to join in the sessions. Stoplight Healthy Living has implications for promoting health and research, practice, and policy on health supports.

Krahn, G. L., Walker, D. K., & Correa-De-Araujo, R. (2015). Persons with disabilities as an unrecognized health disparity population. American *Journal of Public Health*, 105, S198-S206. doi:10.2105/AJPH.2014.302182 Nary, D.E., Bruns, K., & Shogren, K. (2019). Development and evaluation of the Stoplight Healthy Living program. Inclusion.

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The National Center on Health, Physical Activity and Disability (<u>www.nchpad.org</u>) for several videos featured in the NCHPAD website.





## **Next Steps**

For continued development of *Stoplight Healthy Living*, plans are underway to:

• enhance the self-monitoring component

revise evaluations for increased sensitivity

test administration of evaluations on tablets

• train facilitators across the state by webinar

## References

Epstein, L., & Squires, S. (1988). The Stoplight Diet for children: An eight-week program for parents and children. Boston: Little Brown & Company. Havercamp, S. M., & Scott, H. M. (2015). National health surveillance of adults with disabilities, adults with intellectual and developmental disabilities, and adults with no disabilities. Disability and Health Journal, 8, 165-172. doi:10.1016/j.dhjo.2014.11.002