

## Intervention IP-091: Healthy Homes/Healthy Families

### Summary

The Healthy Home/Healthy Families intervention is a 16-week health coach-delivered intervention to reduce energy intake for the prevention of weight gain among predominantly rural African American women who are overweight or obese. The intervention uses tailored home environment profiles showing areas in need of improvement and positive aspects of the home environment, behavioral contracts for healthy actions, and mailed support materials. The intervention resulted in significant decreases in energy intake and self-reported weight gain compared to women in the control condition.

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### Overview

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#### **Purpose of Intervention:**

To reduce energy intake to prevent weight gain through improved home environments for rural residents

#### **Intervention Type:**

Research-Tested — *Interventions with strong methodological rigor that have demonstrated short-term or long-term positive effects on one or more targeted health outcomes to improve minority health and/or health disparities through quantitative measures; Studies have a control or comparison group and are published in a peer-review journal; No pilot, demonstration or feasibility studies.*

### Intervention Details

#### **Intervention was Primarily Driven, Led, or Managed by:**

Both Community and Academic/Clinical Researchers

#### **Citations:**

- Kegler MC, Haardörfer R, Alcantara IC, Gazmararian JA, Veluswamy JK, Hodge TL, Addison AR, Hotz JA. Impact of Improving Home Environments on Energy Intake and Physical Activity: A Randomized Controlled Trial. *American journal of public health*. 2016 Jan;106(1):143-52.  
Relevance: Main Intervention
- Woodruff RC, Haardörfer R, Gazmararian JA, Ballard D, Addison AR, Hotz JA, Tucker RB, Kegler MC. Home Environment-Focused Intervention Improves Dietary Quality: A Secondary Analysis From the Healthy Homes/Healthy Families Randomized Trial. *Journal of nutrition education and behavior*. 2019 Jan;51(1):96-100. Epub 2018 Sep 18.  
Relevance: Post-Intervention Outcomes

## **Adaptation of Another Research-based Intervention:**

No

## **Contact Information**

### **Primary Contact Affiliation:**

Emory Prevention Research Center

### **Intervention URL:**

<https://web1.sph.emory.edu/eprc/dissemination/healthy-homes.html>

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## **Results**

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### **Intention**

**Improve minority health or the health of other populations with health disparities (e.g. rural populations, populations with low SES)**

### **Intervention Primary Outcome:**

Energy intake

### **Intervention Secondary Outcome:**

Energy expenditure, moderate/vigorous physical activity, healthy eating index, and home environment

### **Key Findings:**

Significant decrease in energy intake: -274 intervention vs -69 control ( $p=.03$ ) at six months; -195 versus -76 at 12 months ( $p=.09$ ). Intent to treat was statistically significant through growth modeling using both six and 12 month data ( $p=.03$ ). No change in moderate/vigorous physical activity. Self-reported weight loss: -9.1 pounds intervention vs -5 pounds control ( $p=.03$ ) at six months and in intent to treat analysis. Healthy eating index: 3.4 intervention versus 2.0 control ( $p=.009$ ) at six months. There were multiple significant changes in the home environment for both food and physical activity at six months, 12 months, and in intent to treat.

### **Statistical Method Used:**

Growth modeling in the intent to treat analyses at 12 months. Methods varied for six and 12 month analyses, where independent t-tests or Wilcoxon-Mann-Whitney tests were used depending on each variable.

## **Evaluations and Assessments**

### **Were Any of the Following Assessments Conducted (Economic Evaluation, Needs Assessment, Process Evaluation)?:**

Yes

- **Process Evaluation:** Surveyed participants on the helpfulness of coaching sessions, the use of the materials, and analysis of coaching logs for selected healthy actions. Identified barriers and facilitators to implementation of these intervention components.

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## Demographic and Implementation Description

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### Diseases, Disorders, or Conditions:

Obesity, Nutrition, Physical Activity, Weight Management

### Race/Ethnicity:

African American or Black, White

### Populations with Health Disparities:

People with Lower Socioeconomic Status (SES), Racial and Ethnic Minority Populations, Underserved Rural Communities

### Age:

Young Adults (18 - 39 years), Middle-Aged Adults (40 - 64 years)

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## Socio-demographics / Population Characteristics

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### Community Type:

Rural

### Other Populations with Health Disparities:

Unspecified

### Geographic Location:

Georgia

### Socio-Economic Status:

Low SES

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## Minority Health and Health Disparities Research Framework

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		Levels of Influence			
		Individual	Interpersonal	Community	Societal
<b>Determinant Types</b>	<b>Biological</b>				
	<b>Behavioral</b>	✓	✓		
	<b>Physical / Built Environment</b>	✓	✓		
	<b>Sociocultural Environment</b>		✓		
	<b>Health Care System</b>				

## Community Involvement

The community's role in different areas of the Intervention (Choices are "No Role", "Participation", and "Leadership"):

**Design:**

Participation

**Dissemination:**

Participation

**Evaluation:**

Participation

**Implementation:**

Leadership

**Outreach:**

Participation

**Planning :**

Participation

**Recruitment:**

Leadership

**Sustainability:**

Leadership

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## Characteristics and Implementation

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**Intervention Focus Area:**

Behavior Change, Physical Environmental Change

**Disease Continuum:**

Primary Prevention, Secondary Prevention

**Delivery Setting:**

Home

**Mode of Delivery:**

In-person, Telephone and mailed environmental supports

**Who delivered the Intervention?:**

Community Health Worker/Promoters, Trained community members (but not formal community health workers)

**Conceptual Framework****Intervention Theory:**

Social Cognitive / Social Learning Theory

**Intervention Framework:**

Social Ecological Model

**Implementation****Intervention Study Design:**

Individual Randomized Controlled Trial/Comparative (requires random assignment, a control/comparison group, and pre and post intervention outcome assessments)

**Targeted Intervention Sample Size:**

349

**Actual Intervention Sample Size:**

349

**Start Year:**

2011

**End Year:**

2013

**Intervention Exposures****Duration of Intervention/How Long it Lasted:**

4-6 months

**Frequency of Intervention Delivery:**

Monthly

**Number of Sessions/Meetings/Visits/Interactions:**

7-8 Sessions

**Average Length of Each Session/Meeting/Visit/Interaction:**

Less than 1 Hour

**Format of Delivery:**

Individual

**Highest Reading Level of Intervention Materials Provided to Participants:**

Unspecified

**Impact, Lessons, Components****Produced an impact or change beyond the primary or secondary outcome:**

No

**Essential Aspects for Success:**

There are four core components of this intervention: tailored home environment profile (this involves using our web-based platform which we provide access to for free); healthy actions; six coaching sessions; and behavioral contract.

**Lessons Learned****Key Lessons Learned and/or Things That Could be Changed or Done Differently:**

Since the main trial, we streamlined the intervention to focus on the nutrition component and deliver the intervention by telephone with broader eligibility criteria. We partnered with 2-1-1 to recruit participants and saw changes similar to those from the original trial in a pilot study.

**Insights Gained During Implementation**

Insight Category	Insight Description
Cost of Implementing or Sustaining	The main implementation cost is staff time to deliver the intervention. We estimate it takes about 10-15 hours of staff effort for each participant, including prep time for coaching sessions.
Logistics	The home visits added additional costs to the intervention. We are now testing this via telephone delivery. We are also conducting a small grants program to see how community-based organizations can adapt the intervention.
Equipment / Technologies	The program begins with a survey that is used to tailor a home food environment profile for participants. We provide access and training on the use of a web-based platform that automates this process to facilitate dissemination.
Training / Technical Assistance	We offer a training on the program for interested organizations, and the implementation manual is available on our website.
Transportation	The current model utilizes phone delivery, so no transportation is required. The original model involved three home visits by the health coach.
Staffing	The intervention requires a health coach. For the original trial, health coaches were trained community residents.
Recruitment	Some organizations were interested in weight loss interventions specifically (e.g., employers); however, this is not a weight loss intervention, but a healthy eating and weight gain prevention program.

## Intervention Components

**Intervention Has Multiple Components:**

Yes

**Assessed Each Unique Contribution:**

Yes

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## **Products, Materials, and Funding**

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**Expertise, Partnerships, and Funding Sources**

	<b>Used for Implementation</b>	<b>Needed for Sustainability</b>
<b>Expertise</b>		
<b>Health Education / Health Literacy</b>	Yes	Yes
<b>Partnerships</b>		
<b>Health care facilities (local clinics)</b>	Yes	No
<b>Community groups (e.g. faith-based organizations, barbershops, beauty-salons, laundromats, food markets, community centers, cultural associations, tribal groups)</b>	Yes	Yes
<b>Funding Sources</b>		
<b>Public funding (e.g., federal, state or local government)</b>	Yes	Unknown

## Product/Material/Tools

	Tailored For Language	Language(s) if other than English	Material
<b>Outreach/Recruitment Tools</b>			
Publicity Materials (e.g. Posters, Flyers, Press Releases)	No		Attachment available for request at the bottom of the page.
<b>Participant Educational Tools</b>			
Healthy Actions (core component)	No		<a href="https://web1.sph.emory.edu/eprc/dissemination/healthy-homes.html">https://web1.sph.emory.edu/eprc/dissemination/healthy-homes.html</a>
<b>Measurement Tools</b>			
Non-Standardized Instruments/Surveys/Questionnaires	No		Attachment available for request at the bottom of the page.

## Implementation Materials and Products

	Material
<b>Implementation/Delivery Materials</b>	
Training/Operations manual	Attachment available for request at the bottom of the page.
<b>Implementation/Output Materials</b>	
Infographic summarizing study findings	Attachment available for request at the bottom of the page.

## Articles Related to Submitted Intervention

	Article
<b>Reports/Monographs</b>	
No Reports/Monographs provided.	
<b>Additional Articles</b>	
Evaluation	<a href="https://pubmed.ncbi.nlm.nih.gov/30241706/">https://pubmed.ncbi.nlm.nih.gov/30241706/</a>
Adaptations	<a href="https://pubmed.ncbi.nlm.nih.gov/32658029/">https://pubmed.ncbi.nlm.nih.gov/32658029/</a>
Evaluation	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4695922/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4695922/</a>

## Materials Available for Request

- HHHF flyer 2.pdf

- Home Environment Survey.pdf
- HHHF Implem Guide 2.1.23\_Final.pdf
- HH-HF-Infographic 2020.pdf