

A Compendium of Best and Promising Practices for  
Heart Health and the Prevention of Cardiovascular  
Disease, Stroke and Diabetes

***African American  
Channel***

# ACKNOWLEDGEMENTS

*The Compendium of Best and Promising Practices for Diabetes, Cardiovascular Disease, Stroke Prevention and Heart Health* was developed based on the work of the Health Behaviour Research Group at the University of Waterloo. The *Compendium* is an edited and condensed version of several large reports produced by an extensive team of researchers and writers on the original project. The material is not new and all credit for the content is due to the writing teams that produced the reports listed below.

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## OVERALL DIABETES REPORT

### [Best Practices in Type 2 Diabetes Prevention Report](#)

Hanning, R.M., Manske, S., Skinner, K., McGrath, H., Heipel, R. (May 2004). International Best Practices in Type 2 Diabetes Prevention, (Project Final Report and Appendices), Waterloo, Ontario, Canada: Health Behaviour Research Group, University of Waterloo for the Heart Health Resource Centre, Ontario Public Health Association (funded by Health Canada).

### [Best Practices in Type 2 Diabetes Prevention-Appendices](#)

Hanning, R.M., Manske, S., Skinner, K., McGrath, H., Heipel, R. (May 2004). International Best Practices in Type 2 Diabetes Prevention, (Project Final Report and Appendices), Waterloo, Ontario, Canada: Health Behaviour Research Group, University of Waterloo for the Heart Health Resource Centre, Ontario Public Health Association (funded by Health Canada).

### [Best Practices in Type 2 Diabetes Prevention -Dissemination Report](#)

Skinner, K., Manske, S. (May 2004). International Best Practices in Type 2 Diabetes Prevention, (Dissemination Report), Waterloo, Ontario, Canada: Health Behaviour Research Group, University of Waterloo for the Heart Health Resource Centre, Ontario Public Health Association (funded by Health Canada).

## NOMINATED PRACTICES SCAN

### [Nominated Scan Project Summaries](#)

Hanning, R.M., Manske, S., Skinner, K., McGrath, H., Heipel, R. (January 2004). International Best Practices in Type 2 Diabetes Prevention, (Nominated Scan Project Summaries), Waterloo, Ontario, Canada: Health Behaviour Research Group, University of Waterloo for the Heart Health Resource Centre, Ontario Public Health Association (funded by Health Canada).

## AFRICAN AMERICAN CHANNEL

### [African American channel summary](#)

Hanning, R.M., Manske, S., Skinner, K., McGrath, H., Heipel, R. (October 2004). International Best Practices in Type 2 Diabetes Prevention, (African American Channel Report), Waterloo, Ontario, Canada: Health Behaviour Research Group, University of Waterloo for the Heart Health Resource Centre, Ontario Public Health Association (funded by Health Canada).

### [African American project summaries](#)

Hanning, R.M., Manske, S., Skinner, K., McGrath, H., Heipel, R. (October 2004). International Best Practices in Type 2 Diabetes Prevention, (African American Channel Project Summaries), Waterloo, Ontario, Canada: Health Behaviour Research Group, University of Waterloo for the Heart Health Resource Centre, Ontario Public Health Association (funded by Health Canada).

# Best and Promising Practices – African American

## Best Practices

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**Matrix of  
African American Programs Overlapping with Other Channels**

***Best Practices***

<b>Program</b>	<b>Aboriginal</b>	<b>Community</b>	<b>School</b>	<b>Stroke</b>	<b>Women</b>	<b>Worksites</b>
<i>Community Hypertension Intervention Project (CHIP)</i>		✓		✓		
<i>PATHWAYS</i>		✓			✓	

***Promising Practices***

<b>Program</b>	<b>Aboriginal</b>	<b>Community</b>	<b>School</b>	<b>Stroke</b>	<b>Women</b>	<b>Worksites</b>
<i>Girls Health Enrichment Multi-Site Studies (GEMS)</i>		✓				
<i>Modest Lifestyle Intervention</i>		✓				
<i>Seattle Hypertension Intervention Project</i>		✓		✓		

### Source

King Drew Medical Center and UCLA Schools of Medicine, Los Angeles, California and the National Heart, Lung and Blood Institute.

### Overview

This study involves a combined clinical and community-based hypertension intervention program focused on high-risk minority populations (Blacks, Hispanics and those of lower socioeconomic status). Blacks and individuals of lower socioeconomic status are over-represented among those at risk from high blood pressure in the U.S. and reduced levels of treatment compliance are one of the major contributors to poor blood pressure control.

The purpose of the program is to study the effect of three interventions designed to:

- Improve appointment attendance
- Increase treatment adherence
- Encourage and maintain lifestyle changes to improve blood pressure outcomes for hypertensive minority populations

The program took place over a 4-year period and is considered a randomized clinical trial.

### Results/Outcomes

At the beginning of the study, about 65% of the participants' blood pressure was not under control. In addition, 85% of participants were receiving treatment for hypertension and participants had high rates of co-morbidities and health risk behaviours.

Only 6 and 12-month outcomes have been reported to date and include the following results:

- Appointment keeping was better in the Hispanic than Black participants
- There was a significantly better percentage of the group in blood pressure control with appointment tracking and individual counseling.

## Prevention of Chronic Disease and Conditions

- Cardiovascular Disease
- Stroke
- Hypertension

## Risk Factors and Other Issues

- Physical Inactivity
- Unhealthy Eating/ Nutrition

## Setting

- Community at Large
- Hospital-based
- In home

## Audiences

- Adults (19-64 years)

## Audiences Characteristics

- African American
- Individuals Living in Low Income Situation

## Approach

- Education
- Environmental Support

## Program Description

The program included 1,367 clients of whom 41% were male, with a mean age of 54 years. The group was predominantly Black (77%).

All participants completed a self-report baseline interview during which the following information was recorded:

- Demographic information
- Medical history
- Health behaviours and psychosocial factors related to treatment adherence

The Intervention group activities included:

Individual counseling – Clients met with a community health worker after each clinic visit for 5-10 minutes to reinforce treatment regimen (for example, medication/diet)

Tracking – This component focused on appointment keeping. Participants were mailed appointment reminder cards 10 days before scheduled appointments and given a telephone reminder 3 days before the appointment. They were phoned after missed appointments to reschedule.

Home Visit – This component focused on providing continuity of care between clinic and the patients' home lives. Participants received home visits from a community health worker to encourage family members to provide support for home management of lifestyle and medication compliance. The Visit was an opportunity to participate in discussion groups around addressing lifestyle cardiovascular risk factors.

The Usual Care group received no study-related adherence intervention.

With the exception of the home visits, the program took place in the Community medical centre and a private clinic.

## **Resources**

No resources were described.

## **Other Information**

This program has yet to realize its full potential since further evaluation results are expected based on years 2-4 of the project.

It is unlikely that the results will be generalizable to other population groups.

## **References**

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Morisky, D.E., Lees, N.B., Sharifi, B.A, et al. (2002). Reducing disparities in hypertension control: A community-based hypertension control project (CHIP) for an ethnically diverse population. *Health Promotion Practice*, 3, 264-275.

## Source

Chicago Diabetes Research Center

## Overview

The target group for PATHWAYS is urban African American women. The purpose of the program was to test the effectiveness of a socio-cultural weight loss program that was delivered by lay facilitators in urban churches. The main objective of the program was to motivate urban African American women to lose weight by:

- Reducing intake of dietary fat
- Increasing intake of dietary fibre, and
- Implementing an exercise regimen

## Results/Outcomes

There were two levels of evaluation in this project: process and outcome evaluation.

The process evaluation focused on the lay facilitators and measured them according to three dimensions:

1. Degree to which they delivered the program as designed and intended
2. Participant interest and satisfaction (measured by participant rates)
3. Degree of weight loss among participants

The evaluation showed that the lay facilitators were highly consistent in program delivery and maintained program fidelity throughout. Both participant attendance and completion rates were high.

To measure outcomes, data were collected at the beginning of the program and one week following completion of the program. Participants' weight and height were measured for both intervention and control groups. Two tools were administered as part of the outcome evaluation:

- The Food Behavior Checklist (to assess the degree to which common high-fat and high-fibre foods were consumed), and
- The PATHWAYS Weight Loss Behavior Index (to measure behaviour and attitudes associated with successful weight loss).

Participants lost an average of 8.3 pounds/10 pounds compared to the control groups that gained an average of 1.9 pounds. The results were statistically significant.

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## Prevention of Chronic Disease and Conditions

- Type 2 Diabetes
- Overweight/Obesity

## Risk Factors and Other Issues

- Physical Inactivity
- Unhealthy Eating/ Nutrition

## Setting

- Community at Large

## Audiences

- Adults Female (19 – 64 years)
- 

## Audiences Characteristics

- African American
- Peer Support/Educator

## Approach

- Education

## Program Description

PATHWAYS consists of 14 weekly sessions, each lasting 90 minutes. Lay facilitators are trained to work with small groups through guided learning activities and small group instruction. The motivation for weight loss is health benefits and general well being as opposed to physical attractiveness.

Of the 39 obese women recruited for the project, 19 were assigned to the intervention group and 20 were assigned to a waiting list (control group).

Volunteer lay facilitators received 9 hours of training that covered the structure and process of the program and training in group facilitation. They were given the opportunity to conduct three of the program sessions and were supported by research staff that provided feedback on content and style of their presentations.

A key task of the facilitators was to assist participants in setting individualized, weekly behaviour change goals relating to eating behaviour. Participants discussed progress toward their goals and worked together on problem-solving techniques for addressing obstacles. Each participant was encouraged to initiate an at-home exercise program that consisted of recreational walking.

## Resources

An Instructor's Manual is available as a resource from the PATHWAYS Project. It contains learning objectives, instructor scripts, and participant materials.

## Other Information

In addition to the success evident through the outcome evaluation, PATHWAYS was deemed successful because of several unique aspects of the project. First, facilitators within the project treated the participants as adult learners, which led to an increased sense of self-efficacy among participants.

The second key to success was involving individuals from the target community and training them to implement the program. This ensured that the staff in the program were familiar with the participants' culture and social structures and therefore were able to develop rapport with the group quickly. It is believed that using facilitators from within the community increases access to hard-to-reach populations. Using lay facilitators in this setting demonstrated that it is

not essential to create content experts. Prepared scripts are helpful in informing the facilitators. The greatest advantage to partnering with lay facilitators in program implementation is realized in their ability to understand access and provide service to hard-to-reach populations.

Another key to success is the support for PATHWAYS that came from the church communities. Their support was seen as critical to program implementation.

There is no mention of the amount of staff resources or costs required to implement the program. It is also not known how generalizable PATHWAYS would be within a Canadian context.

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### Source

### Overview

The target group for GEMS is 8-10 year old girls of African American descent. The goal of the program is to prevent obesity in African American pre-adolescent girls and in particular, to reduce the rate of weight gain in the target population. The national Heart, Lung, and Blood Institute (NHLBI) sponsored the project.

GEMS spanned a 7-year period and had two phases. Phase 1 involved four field centers:

Baylor, Texas (Baylor College of Medicine)

Memphis, Tennessee (University of Memphis)

Minneapolis, Minnesota (University of Minnesota)

Stanford, California (Stanford University)

plus a coordinating centre (located at George Washington University Biostatistics Center) to provide support and coordination for key study activities.

Phase 2 was the post-intervention evaluation period.

The goals and objectives for each site varied somewhat in relation to the overall study goal (to develop and test interventions to prevent obesity in African American pre-adolescent girls).

Baylor's behavioural goals included:

- Increase fruit and vegetable consumption
- Increase intake of water
- Increase moderate to vigorous physical activity to 60 minutes per day

The Memphis goal was to assess the feasibility, acceptability and outcomes of two versions of a culturally relevant, family-based intervention to prevent excess weight gain in pre-adolescent Africa American girls. Objectives of the *nutrition* component included:

- To encourage the choice of a nutritionally balanced eating plan, including the reduction of high-fat food intake
- To increase water consumption/reduce sweetened beverage intake
- To increase fruit and vegetable intake
- To promote nutrition-related healthy behaviours and the recognition of health-compromising behaviours

Objectives for the *physical activity* component were:

- To increase the frequency of moderate to vigorous physical activity
- To decrease the frequency of sedentary behaviours
- To promote enjoyment and self-efficacy in physical activity

Minnesota's objectives for *physical activity* were:

- To increase frequency of participation in sustained, moderate to vigorous intensity activities
- To decrease time spent in sedentary activities
- To experience feelings of enjoyment, physical competence and self-confidence in performing a range of physical activities

In terms of *dietary* objectives, Minnesota wanted:

- To decrease consumption of high-fat foods
- To increase consumption of fruits and vegetables
- To decrease consumption of sweetened beverages
- To adopt healthy, weight-related eating habits.

For families in the Minnesota site, the main objective was:

- To help familiarize families with the objectives, eating behaviours and physical activity behaviours central to the intervention.

## **Results/Outcomes**

Evaluation protocols varied by site and all sites were designated as pilot studies.

### **Formative Evaluation**

Some level of formative assessment characterized each site. In Baylor, focus groups were used as well as in Memphis, which also included key informant interview and survey of the target population. Minnesota conducted formative research to help develop the intervention

and to assess the acceptability of the evaluation measures. Stanford also conducted extensive formative research including:

- Focus groups with girls and parents
- Written questionnaires
- Interviews of community youth workers and community leaders
- Testing the feasibility of the dance classes and TV reduction lessons with small groups of girls and individual families.

## Process Evaluation

Baylor did not report on any process evaluation.

In Memphis, a sample of parents of participants completed a structured interview at the end of the study. They were asked about their initial perception of GEMS and how their perceptions evolved over the study period.

Minnesota implemented several process evaluation measures, including completion of checklists after each session by staff, documentation of attendance, levels of participation and whether the activity was completed. Parents completed evaluation forms at the family events. Post-intervention surveys were administered to parents and girls and focus groups were conducted with parents in the intervention and control groups. Evaluation showed that the program was well attended and well received by girls and parents.

In Stanford a large amount of information was gathered about the usefulness and appropriateness of the intervention. Recruitment and retention goals were exceeded.

## Impact Evaluation

Only the Minnesota site reported impact evaluation measures. A variety of psychosocial variables were measured for participants and their parents. Some of the variables for the participants included:

- Healthy choice behavioural intentions
- Self-efficacy for healthy eating
- Diet knowledge
- Fruit and vegetable snack accessibility
- Parent encouragement for healthy eating
- Physical activity self-concept
- Physical activity preference
- Self-efficacy for physical activity
- Physical activity home environment
- Body satisfaction
- Weight control behaviours

The variables measured for the parents included:

- Availability of lower-fat and higher-fat foods
- Motivation for healthy eating
- Self-efficacy for healthy food preparation
- Food availability
- Parental dietary intake
- Motivation for physical activity
- Self-efficacy for physical activity with participant
- Parental support of participants' activity levels
- TV watching

Results at 12-weeks showed a difference between the intervention and control groups in the hypothesized direction of change for most variables among the girls and their parents.

### Outcome Evaluation

One of the purposes of the GEMS Coordinating Center was to conduct centralized training for data collection as well as site-specific training using the same standard protocol at each GEMS field centre.

Evaluation results for the GEMS-FFFP site in Baylor showed no lower BMI in the intervention group compared to the control group.

Memphis reported the following outcomes:

- Reduced BMI and waist circumference for girls in the two intervention groups
- An 11.7% (averaged for the two groups) increase in minutes of moderate-to-vigorous physical activity
- 34.1% decrease in serving of sweetened beverages
- 1.5% increase in servings of water
- Expectations were met for physical activity and sweetened beverages
- Expectations not met for water consumption

The variables measured in the Minnesota field centre (at baseline and 12-week follow-up) included:

- Weight
- Height
- Waist circumference
- Physical activity
- Dietary intake
- Demographic characteristics

Several variables were only measured at baseline, including percent body fat, sexual maturation and blood samples. Results indicated that follow-up BMI did not differ between the groups.

Stanford measured the following variables:

- BMI and waist circumference
- Physical activity
- Television viewing and meals with TV
- 24-hour dietary recalls
- Psychosocial measures

Given that the Stanford site was a pilot and feasibility trials, it was not designed to have sufficient statistical power to test the efficacy of the treatment intervention compared to the control intervention. Nevertheless, the results were deemed “highly promising”. Girls in the treatment group showed trends toward lower BMI and waist circumference, increase after-school physical activity, reduced TV watching, video and video game use, reduced household TV viewing and few dinners eaten while watching TV. They also had less concern about weight and a trend toward improved school grades.

### **Prevention of Chronic Disease and Conditions**

- Cardiovascular Disease
- Overweight/Obesity

### **Risk Factors and Other Issues**

- Physical Inactivity
- Unhealthy Eating/ Nutrition

### **Setting**

- Day Camps
- Community at large
- In home
- Media
- Recreation Facilities

### **Audiences**

- Children (< 13 years)
- Families/Parents/Couples

### **Audiences Characteristics**

- African American

### **Approach**

- Awareness
- Education
- Environment Support

## **Program Description**

Each of the four sites developed their own intervention for the purposes of this project.

The Baylor site was called **The Food, Fun, and Fitness Project** (GEMS-FFFP) and took place at a 4-week summer day camp. It was followed by an 8-week Internet-based program plus one Saturday meeting.

In Minnesota the intervention included an after-school program twice a week, which was run in neighbourhood community centers and schools. The program centred on activities that were designed to model behaviour and develop skills to prevent obesity and associated health problems through regular physical activity and healthy eating.

The Memphis site designed a 3-group study (child-targeted family intervention, family-targeted child intervention, and comparison intervention group).

Stanford's program tested the efficacy of using a dance program to increase participants' physical activity along with a family-based intervention to reduce television watching, video, and video game use.

### Program Activities

The Baylor study took place at a summer camp and while the control campers experienced the regular camp activities, the treatment group participated in additional activities including:

- Buddy groups
- Camp cheers used as mnemonics for decision making, problem solving and asking behaviours
- Training in dance
- Educational games targeted at increasing fruit and vegetable intake and physical activity
- Snack recipe preparation
- Challenges/goal setting and review.

There were four separate Internet groups – control girls, control parents, treatment girls and treatment parents. Control girls logged-on once a month for links to other general health and homework sites that 8-year old girls would find interesting. Control parents were offered access to the same websites as well as links to other websites with information on general health issues interesting to parents of 8-year old girls. The treatment groups also logged on once a week and received supportive messages about engaging in a fun physical activity at home, choosing fruit and/or vegetables for snacks, increasing home fruit and vegetable availability and accessibility, engaging in physical activity with a parent in the evening, drinking water instead of soft drinks, engaging in physical activity after camp had ended, eating fruit and/or vegetables after school and maintaining consumption of at least 5 fruits/vegetables per day.

Memphis implemented a 12-week, 3-arm controlled trial contrasting two active, culturally tailored and family-based interventions with a control group. The two intervention groups focused on nutrition and physical activity while the control group focused on self-esteem. Activities for the child-targeted intervention included:

- Hip-hop aerobics
- Using interactive strategies to experience fruit, vegetables, low-sugar beverages and low-fat food and provide knowledge and develop skills necessary to enable girls to make healthy lifestyle modifications

Activities for the parent-targeted intervention included:

- 25-minutes of popular dance (70s and 80s style) and encouragement for parents to share dances of their youth with their daughters
- Encouragement to learn their daughters' current dances and music
- 25-minutes of interactive and didactic sessions on links between nutrition and parental concerns including suggestions and strategies to increase healthy family lifestyles
- Cooking activities interspersed with games

The Minnesota intervention targeted key constructs from 3 domains:

<sup>1</sup> A Compendium of Best and Promising Practices for Heart Health and the Prevention of Cardiovascular Disease,  
<sup>2</sup> Stroke and Diabetes – *African American Channel*

1. Environmental factors (peer support, opportunities and role models)
2. Personal factors (knowledge, values and self-efficacy)
3. Behavioural factors (practice, goal setting, and social reinforcement)

Nutrition messages included information about the benefits of drinking water more often than pop, increasing the consumption of fruits and vegetables, drinking low-fat milk, selecting low-fat foods for snacks, choosing smaller-sized and lower-fat entrees in fast food restaurants, increasing physical activity, watching less television and enhancing self esteem.

The major goal for the physical activity component was to increase levels of activity. This was done through the variety and choice of activities (dancing, double-dutch jump rope, relay races, active African American games, tag, and step aerobics).

The program included incentives for attendance, setting short-term goals and completing activities. Some of the incentives included attendance beads that could make a bracelet by the end of the intervention, water bottles, pedometers, jump ropes and t-shirts. Families received “take home packs” and also participated in family night. They performed tasks such as measuring the sugar in pop; determining the amount of fat in whole milk compared to low-fat milk, label reading and lower-fat cooking techniques. They also participated in active games, danced and had jump rope contests. A tasty, low-fat meal was served and family goal-setting finished each evening.

Stanford developed its intervention around a social cognitive model that identifies four processes seen as important in adopting and learning new behaviours. These processes are: attention, retention, production, and motivation.

Some of the specific activities included:

- Dance classes 5 days/week at three community centers over the 3-month study period
- START (Sisters Taking Action to Reduce Television) which included 5 in-home lessons on ways to reduce television viewing
- Incorporating the African American surface culture (models, music and language) and deep culture structure (values and social and historical influences).

## Overview of Implementation Steps

The Baylor site held day camp over a four-week period in partnership with Kid Venture Camps of Houston. Following camp, girls and their parents accessed websites that reinforced lessons learned during day camp.

The Memphis *child-targeted* intervention took place weekly over 12 weeks for 90 minutes each week. The session began with a welcome and introduction of basic concepts for the session, a physical activity component and a nutrition component. The sessions concluded with a review, incentives (small gifts) and motivation for healthy eating/physical activity.

The Memphis *parent-targeted* intervention occurred on a weekly basis as well. The session format included a physical activity component, a nutrition lecture and a food-preparation or nutrition-related game component. The session ended with a reinforcement of key points and the distribution of take-home materials. Childcare was provided.

In Minnesota, the intervention was split into two components: an After-School Program and a Family Intervention component. The After-School Program included:

- Intervention meetings (or clubs) twice a week for one hour at three elementary schools
- Led by trained African America GEMS staff
- Club meetings consisted of fun, culturally appropriate, interactive, hands-on activities that emphasized skill building and practice of the weekly health behaviour message
- Distribution of healthy snack and bottled water

The Family Intervention component included:

- Distribution of packets for parents through the girls
- Family nights during the 2<sup>nd</sup> and 9<sup>th</sup> weeks of the intervention
- A motivational phone call within 2 weeks of the first family night
- A personal letter during week 7
- Option to join a Saturday walk in their neighbourhood led by a GEMS staff member

In Stanford, girls were recruited through community centers and after-school programs by community youth leaders. Most of the recruitment was accomplished through presentations at schools, community events and churches and through distribution of posters.

The *treatment* group participants in dance classes and START (Sisters Taking Action to Reduce Television) while the *control* group was exposed to a state-of-the-art information-based health education program to promote healthful diet and activity. Each session was up to 2.5 hours and followed a similar pattern – healthful snack, hour-long homework period, 45-60 minutes of moderate to vigorous dance and a 30-minute GEMS talk exploring the importance of dance in the African American community and culture. Female African American college students and student dance graduates from nearby dance organizations led classes. They taught three styles of dance – traditional African dance, Hip-Hop and Step. Participants also created costumes, videotaped themselves and performed for families and friends.

START was delivered by a female African American intervention specialist in the girls' homes. Using prior television reduction research, goals were established. Activities included self-monitoring, a 2-week TV turnoff, budgeting viewing hours and "intelligent viewing". Families were given electronic TV time managers to help with budgeting TV viewing time. Five newsletters were mailed to parents to reinforce the lessons and to communicate updates on dance class activities.

## Resources

Resources for the Baylor site are not identified. In Memphis, participants took home health recipes and small thematic incentives related to weekly concepts. No other materials are described. The Minnesota site distributed weekly family packets containing practical suggestions for the upcoming week's healthful eating and exercise. The suggestions were printed on fridge magnets. In addition, a Fridge Facts card was produced along with colourful tip sheets. Every second week the packets included a family sized packet of ingredients for the low0fat snack prepared by the participants during the club meeting. The Stanford site produced recruitment flyers and newsletters.

## Other Information

No information on staff or volunteer time was provided. In terms of expertise required, the Memphis site used female pediatric phlebotomists and nurses to collect blood samples. Stanford recruited female college students and graduates from dance studios/organizations to lead their dance classes. Neither Baylor nor Minnesota described any particular expertise that was required.

There were no costs described for two sites – Baylor and Minnesota. In Memphis there was mention of \$25 incentives for girls who completed assessments and \$25 for blood samples. The complete cost of the Stanford program was not described, however families were paid \$25 after completing the baseline survey and \$75 after completing the follow-up tasks.

Each of the sites relied on the input of the target group through formative assessment to establish and shape the interventions and develop the activities.

All of the sites conducted activities that could be seen to fit with other similar interventions.

Some strengths of the Baylor site included a strong theoretical framework, randomization and participatory controls. Its limitations include a very small sample size, the self-report nature of the dietary intake variables and the large, statistically significant difference in BMI between treatment and control groups at baseline.

Some strengths of the Memphis site included implementation as designed, positive reception by participants and behaviour change in the expected directions for both intervention groups.

Minnesota discovered that their after-school program was well received and is a promising model for health behaviour interventions. Several aspects were highly rate by parents, including family events, goal setting and follow-up encouragement telephone calls. Family events were well attended. The activities show promise and should be explored in future studies.

The results of the Stanford project are described as highly promising.

Overall, GEMS was seen to be a resounding success and a model for what can be done when measures are taken to reach populations that are sometimes seen as “hard-to-reach”. Only Memphis and Stanford went on to a Phase 2 – full-scale intervention.

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### Source

Department of Internal Medicine, Washington University School of Medicine, St. Louis, Missouri

### Overview

The target population for this intervention was obese African-Americans between the ages of 30 and 70 with impaired glucose tolerance or Type 2 Diabetes mellitus.

The goal of the intervention was to evaluate the effectiveness of modest lifestyle changes in maintaining improvements in glucose tolerance induced by short-term energy restriction in the target population.

There were two aspects to this intervention: dietary and physical activity. The objective of the former was to reduce fat intake approximately 14 g/day and produce an energy deficit of 123kcal/day. The objective of the physical activity aspect was to increase daily energy expenditures of approximately 125 kcal.

The program duration was one year.

### Results/Outcomes

No process or impact evaluation was described. However, four outcome measures were analyzed, including:

1. Anthropometrics (at baseline and every 4 months) – BMI was obtained by measuring height to the nearest .1cm and body weight was obtained on a scale in the morning after a 12-hour fast. Waist and hip circumference were measured in triplicate using a Gullick 11measuring tape while the subject was deprived of food
2. Body composition – Total body fat and fat-free mass were assessed at baseline and after 1 year by hydrodensitometry. Percentage of body fat was calculated from body density.
3. Oral glucose tolerance test – This test was performed in the morning after a 12-hour fast at baseline, 1 week (intervention group only), 4 months, 8 months and 1 year.
4. Serum lipid concentrations – These were drawn in the fasted state and measured at baseline and after 1 year.

The intervention group had significant improvements in glucose tolerance and weight loss. No significant changes in weight or glucose tolerance were observed in the control group.

One concern of the program was the high rate of attrition, even though the program was deemed “mild” in nature.

## Prevention of Chronic Disease and Conditions

- Type 2 Diabetes
- Overweight/Obesity

## Risk Factors and Other Issues

- Physical Inactivity
- Unhealthy Eating/ Nutrition

## Setting

- Community at Large
- Hospital-based

## Audiences

- Adults (19-64 years)

## Audiences Characteristics

- African American

## Approach

- Education

## Program Description

There have been few studies involving African Americans with impaired glucose tolerance that have evaluated the effects of lifestyle interventions on body weight and plasma glucose concentrations. Because long-term adherence to restrictive diets and vigorous exercise programs are poor among obese individuals, this program sought to examine whether *modest* changes in dietary fat and physical activity would maintain improvements.

Participants were encouraged to reduce their energy (consume less calories) with help from a dietitian. They were also expected to modestly increase daily physical activity through either activities of daily living or aerobic activity. Participants received educational materials and instructions for both aspects.

The intervention program began with a 1-week energy- and fat-restricted diet to put the subjects in a negative energy balance and initiate weight loss. This was then followed by the modest lifestyle intervention.

For the **diet** component, subjects received educational materials, measuring utensils and individual recommendations from the study dietitian regarding ways to meet the goal of 14g/day reduction in fat intake. They had frequent contact with the research team through monthly telephone calls, bimonthly newsletters, optional bimonthly group meetings and individual meetings as frequently as request. These ranged from weekly to quarterly. Subjects were also given seven-day food diaries with detailed instructions at baseline and at every four months. The dietitian reviewed the diaries with the individuals.

For the **physical** activity component, subjects were given instructions and handouts on safe and effective ways to increase their daily physical activity. This would assist them in achieving an increase in daily energy expenditure of approximately 125kcal/day through either daily activities or aerobic exercise. Subjects were encouraged to use the exercise machines in the

medical facility, offered exercise prescriptions, given individual exercise orientation sessions, and received logbooks into which they could record the type, duration and intensity of each exercise session.

Control group subjects were given only one instructional session about diet and exercise guidelines and were not invited to use the exercise facility.

## Resources

A few resources were used within the intervention, although it is not apparent if any or all of them were developed specifically for the intervention or if existing materials were used:

- Educational materials regarding diet
- Measuring utensils
- Bimonthly newsletters
- Seven-day food diaries with detailed instructions

## Other Information

It is not apparent whether additional community supports are necessary for impact, or whether they will enhance impact. No specific training requirements were mentioned. Costs, staff time, or volunteer time were not addressed. The only expertise required was that of a dietitian who provided guidance to subjects on modifying diet. No other groups or organizations participated as collaborators.

The study was successful in that it demonstrated that a modest lifestyle program facilitates weight loss and helps to improve glucose tolerance. However, the attrition rate was high even though the program was described as “mild”. Therefore, further research is recommended to find ways to improve attrition with this population.

## References

Racette, S.B., Weiss, E.P., Obert, K.A., Kohrt, W.M. & Holloszy, J.O. (2001). Modest lifestyle intervention and glucose tolerance in obese African Americans. *Obesity Research*, 9(6), 348-355.

## Promising Practice

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### Source

King Department of Public Health and University of Washington, Seattle

### Overview

This study evaluates the effectiveness of a tracking program to obtain improved medical follow-up for persons identified with high blood pressure at community monitoring sites. It is a randomized controlled trial that demonstrates that outreach and tracking services can improve use of follow-up medical care among a predominantly low-income, minority group of clients with hypertension.

The target group for this program was comprised primarily of young, black, poor males.

### Results/Outcomes

The primary expected outcome for this study was completion of a follow-up appointment with a medical care provider within 90 days of referral.

Through the outreach and tracking of the Intervention group, the rate of follow-up with medical care increased by 39.4% compared to that in the Usual Care group: 65% of the Intervention group completed a medical appointment versus 47% of the Usual Care group. Of those in the Intervention group who complete a follow-up appointment, 90% kept their first appointment.

## Prevention of Chronic Disease and Conditions

- Cardiovascular Disease
- Stroke
- Hypertension

## Setting

- Community at Large
- Hospital-based

## Audiences

- Adults Male (19-64 years)

## Audiences Characteristics

- African American
- Individuals Living in Low Income Situation

## Approach

- Screening

## Program Description

Participants for the randomized control trial were accessed by community health workers in a variety of settings: social service agencies, food banks, shelters and missions, public libraries, grocery and other retail stores, shopping malls, community centers, motor vehicle licensing sites, employment security offices, post offices, the local jail and work-related sites. Blood pressure measurements were taken on 4,761 individuals at each of the venues and 759 of them (16%) were eligible for enrollment in the trial. Of those eligible, 421 (56%) enrolled and 209 were assigned to the Intervention group while 212 became the Usual Care group. The blood pressure (BP) entry criteria was  $\geq 140/90$  mmHg. 33% of the subjects have moderately or severely elevated BP.

In addition to the BP measurement, all groups completed an enrollment questionnaire and completed a 3 -month exit interview.

The Intervention group received enhanced tracking and outreach by the same community health worker who performed the BP measurements. This included:

- Referral for medical care
- Booking an appointment
- Sending an appointment reminder letter
- Following up after the appointment
- Rebooking the appointment as necessary, and
- Assisting in reducing barriers to care through referral to community services.

The Usual Care group was advised to see a health care provider for follow-up but had no further study-related tracking.

The trial took place in a community setting over a 3 -month period.

## Resources

No specific resources were described.

## Other Information

Community health workers delivered the intervention, however no information was offered relating to the number of workers, time spent on the intervention, nor training required.

The project demonstrated that community health workers who offer outreach and tracking services can improve use of follow-up medical care among clients with hypertension. The program reached predominantly male, low-income and Black people who had limited access to Blood Pressure (BP) measurement and have a relatively high prevalence of hypertension.

The generalizability of the results and the application to the Canadian context is limited since a large proportion of the participants were young, uninsured Black men. The size of the intervention effect may be overestimated because of loss of participants to follow-up. No attempt was made to evaluate long-term control of BP or determine whether the program resulted in improved control of hypertension.

## References

No references available