

Introduction to Weight-Wise

Welcome to the Weight-Wise Program. **Weight-Wise** is a behavioral weight management program that was adapted from two very effective research-tested interventions to fit the needs of lower income midlife women participating in the WISEWOMAN Program. This binder contains detailed guidance for the health practitioner planning to implement the Weight-Wise Program. Before you get started, we would like to give you a brief introduction to the program, how it was developed, and how it works. See also the summary page of Weight-Wise study results at the end of this introduction.

About Weight-Wise Program Development:

Weight-Wise was adapted from the intervention materials and strategies used in several programs that were designed for people with pre-diabetes and pre-hypertension. These programs are the **Diabetes Prevention Program (DPP)**, and the **PREMIER** and **Weight Loss Maintenance (WLM) Programs***. DPP was designed to produce modest weight loss in people who had elevated blood glucose levels. Researchers wanted to test whether or not losing about 7% of your body weight (for example, losing 13 lbs if you weigh 200 lbs) would delay the onset of diabetes in persons whose blood glucose was already higher than normal but not high enough to be classified as having diabetes (i.e., pre-diabetes). In a group of over 1,000 people with pre-diabetes, the DPP researchers found that not only were they able to get participants to lose weight, but more importantly, they were also able to delay the onset of diabetes in about 58% of those receiving the weight loss intervention.

The next two programs, PREMIER and WLM, were tested among people with pre-hypertension (with blood pressure readings higher than normal but not quite high enough to be called 'hypertensive'), and hypertension. The PREMIER researchers wanted to see if weight loss with a particular dietary pattern would reduce blood pressure and delay the onset of hypertension. The PREMIER intervention used the same weight loss strategies as DPP, but focused on a particular pattern of eating called 'Dietary Approaches to Stop Hypertension' or the **DASH eating pattern**. The DASH eating pattern emphasizes increasing fruits, vegetables and low-fat dairy foods, and lowering total and saturated fats. These researchers found that combining modest weight loss with the DASH dietary eating pattern resulted in the best blood pressure lowering results. The basic session content used in PREMIER, was repeated in the 20-week weight loss program for **WLM**, and proved to be just as effective.

Building on the success of these programs, we created Weight-Wise by adapting their program materials to fit the needs of midlife and lower income women. We kept the behavior change strategies intact, and mostly adapted the educational component so that the format would accommodate women with lower literacy levels and writing skills. We also selected activities and food items that would be culturally acceptable for southern women. More recently, we have slightly adapted our eating plan recommendations so that they reflect some of the newest weight loss and dietary research findings.

How Weight-Wise Works:

The Weight-Wise Program focuses on changing lifestyle *behaviors* to promote weight loss. As you look through the leader's guides, note that each session focuses more on changing behaviors than on providing information or advice to participants. Weight-Wise builds on theories of behavior change that emphasize setting achievable goals, building self-

efficacy or confidence, and providing opportunities for problem-solving and group social support. The session leader uses principles of motivational interviewing to foster discussions that allow participants to voice their motivations for the changes they want to make, while reducing the need to tell participants what to do (advice-giving). Please look at the “Weight-Wise Leader’s Guide Session Content” and “What’s in each leader’s guide?” for more details on the content and format of group sessions. As you look through these materials, please note the following:

- The objectives of each session are listed in the **Leader’s Guide Session Content** and a description of each section of the Leader’s Guide follows in “**What’s in Each Leader’s Guide?**”
- Note that there are both *behavioral* and *process objectives* for each session. The **behavioral objectives focus on what participants will be able to do** at the end of the session, while the **process objectives guide you, the facilitator**, in how to help participants reach these behavioral outcomes.
- Each guide outlines the session content by agenda areas: (1) Check-In; (2) Discussions (Try It); (3) Activities (nutrition ‘Taste It’ or physical activity ‘Do It’); and (4) Next Steps.
- The ‘**Supply Checklist**’ section includes a list of all the handouts, materials, and supplies you need for each group session. You may use this form as a ‘checklist’.
- A copy of the Weight-Wise Food and Fitness Diary, incentive program information, and templates for ‘wise bucks’ are included in the “**Other Materials**” section.
- We’ve included a section for “**Resources**”. As you prepare for implementing your weight management program, please use this section of the binder to keep materials that you feel provide useful information or strategies for behavior change or skill-building. This is *your* section of the manual!

You’ve now reached the section containing each of the 16 leader’s guides. Here’s how we’ve organized each guide.

- Each session guide begins with a summary called “**At A Glance**”. *At A Glance* outlines the behavioral strategies, objectives, session content, handouts, materials, and resources, and the main agenda areas (with an estimated time for each).
- The “**Agenda**” templates follow with the details for each of the main agenda areas. On the left-hand side, the agenda area is identified (e.g. ‘Check-In’), with outlined content and estimated time. The middle section contains the words you could say and guides you through the process of leading the group. Note that suggestions for what you could say are in *italics and fuchsia font*. On the right-hand side, there is blank space for you to put “**Your Notes**”.
- After each agenda template, we’ve included a color copy of the **handouts, session materials, and recipes** for the session. Remember that you may choose to adapt the recipes to meet the needs of your intended group.

You now have the full set of materials for implementing the Weight-Wise Program. We are currently preparing manuscripts that will provide additional information on how we implemented the program among patients at a community health center in Wilmington, North Carolina, the test site of our program using a randomized trial, and information on cost effectiveness.

Implementing the Weight-Wise Program

There are probably two important points that should be mentioned here about implementing a program like Weight-Wise – the scheduling of sessions and the use of

participant incentives. Weight-Wise was implemented first in a group of 72 WISEWOMAN-eligible participants. With this number of participants we knew at least 4 groups would be needed (with no more than 20 per group). Our first step was to ask the women to identify times of the day and days of the week that they would be able to attend sessions. Then we selected 5 of the most popular days and times and asked each participant to choose her *top 3 session* times. For each of the 16 weeks in the Weight-Wise Program, we held 4 group sessions to accommodate the 72 participants (a weekday morning, afternoon, evening, and a Saturday morning). So if you start with only about 20-40 women, you would only need to offer each session 2 times during the week. Try to avoid having only one opportunity for participants to attend each weekly session. It is almost impossible to have one time fit the needs of 20 women!

In our testing of the Weight-Wise Program, we also incorporated an ***incentive program*** using 'Wise Bucks'. [Please see the "Other Materials" section for materials used in this program.] Participants were given two types of incentives. First, we provided very small incentives at each group session (these included items like insulated lunch packs, spice packets, stress balls, etc.). Second, points (as Wise Bucks) could be earned for larger incentives. Participants earned points for group session attendance, keeping food records, and recording weekly physical activity minutes – all the behaviors associated with successful weight loss. No incentives were given for weight loss itself. Wise Bucks could be redeemed on 3 occasions – at sessions #5, #11 and #16. Please refer to the 'Other Materials' section for a description of the incentive items. You may be wondering if these incentives were *necessary* for the success we observed in Weight-Wise. At this time, we cannot answer that question since we have not tested a program *without* incentives or with *fewer* incentives. Since we patterned our program from the DPP program that included a much bigger incentive program, we felt some level of incentives would be important.

Now that you have some background on how the Weight-Wise Program was developed and how it works, we encourage you to use these materials in your own implementation of the Weight-Wise Program. As you make your own adaptations to fit the groups that will enroll in your program, please remember to keep a record of the changes you've made and measure your outcomes so that others can learn from your successes and challenges. Good luck!

Sincerely,



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* A description of the DPP trial can be found in: [The Diabetes Prevention Program \(DPP\) Research Group. The Diabetes Prevention Program \(DPP\): Description of lifestyle intervention. *Diabetes Care* 2002;25:2165-2171.](#) DPP materials are archived at the George Washington University and may be accessed at this link: www.bsc.gwu.edu/dpp/lifestyle/dpp_part.html.

The PREMIER program is described in this document: [Svetkey LP, Harsh DW, Vollmer WM, et.al. Premier: A clinical trial of comprehensive lifestyle modifications for blood pressure control:](#)

Rationale, design and baseline characteristics. *Ann Epidemiol* 2003;13:462-471. Information on the DASH Eating pattern can be found at the NHLBI website: <http://www.nhlbi.nih.gov>

The WLM (weight loss phase) description and results are published in: Hollis JF, Gullion CM, Stevens VJ, et al. Weight loss during the intensive intervention phase of the weight-loss maintenance trial. *Am J Prev Med.* 2008 Aug;35(2):118-26.

Effective Weight Management in Low Income Women

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Abstract

Low income women in the US have the highest rates of overweight/obesity, putting them at increased risk for diabetes, heart disease, and other chronic diseases. Health care systems serving lower income communities need effective weight loss programs that meet the needs of this high risk group. This study tests the effectiveness of a 16-week behavioral weight loss program among low income women at a community health center.

Women with a BMI of 25-45, and no contraindications to weight loss or moderate intensity physical activity (PA), were recruited and enrolled in a randomized controlled trial comparing the intervention to a wait-listed control group. The intervention, adapted from the Diabetes Prevention Program approach, consisted of weekly (daytime, evening, and weekend) group sessions held at a community church, and emphasized 9+ daily fruit and vegetable servings, moderate caloric restrictions, 150 minutes/week of PA, and lifestyle behavior change through self-monitoring, feedback, problem-solving, and goal-setting. Weight loss was evaluated using intention-to-treat analysis and a general linear model procedure.

The study sample included 143 women (71 in the intervention and 72 controls) who were on average 53 years of age, with a BMI of 35. Half had diagnosed hypertension, 13% diabetes, and 36% hyperlipidemia. Average session attendance was 65% (median of 14 sessions attended); 88% (126/143) completed follow-up weight measurement. The between group difference in weight loss was 9.5 lb (4.3 kg) ($p < .0001$).

These findings suggest that programs appropriately designed for low income women and implemented through community partnerships can effectively promote weight loss.

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Study Goals and Design

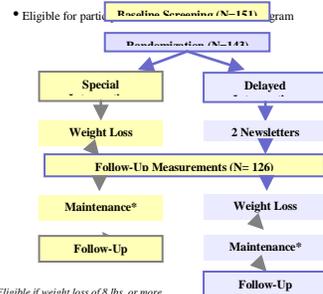
Study goal:
To promote weight loss of 8 lbs. or more among low income women during a 16-week behavioral weight loss program

Study Eligibility:

- Age 40-64 years
- BMI 25-45



Weight-Wise Study Design



* Eligible if weight loss of 8 lbs. or more.

Weight Loss Program Components: Weekly sessions

- 150 minutes/week of PA
- DASH eating pattern
- Weekly monitoring of weight; daily food intake, and PA
- Motivational interviewing and problem-solving strategies
- Self-monitoring and feedback
- Incentives for attendance and self-monitoring
- Cultural and literacy-appropriate educational materials
(*A New Leaf* / *Choices for Healthy Living*)

Study Measurements:

- Weight, BIA, blood pressure, blood cholesterol
- Dietary risk, physical activity, depression (CES-D), family functioning (APGAR), social support, quality of life (SF-8)

Results

Baseline Characteristics: (N= 143)

	Total	Intervention	Control	P-value
Age, y	53.2	52.3	54.2	0.13
Non-Hispanic Black	38.5	37.5	39.4	0.86
Education, yrs	13.1	13.0	13.2	0.51
Employed, %	57.3	55.6	59.2	0.74
Annual income				
< \$10,000, %	43.4	45.8	40.9	0.49
On BP Medications, %	50.4	45.8	54.9	0.32
Diabetes diagnosis, %	15.3	12.5	14.1	0.81

Body Weight, Blood Cholesterol, Blood Pressure

	Intervention	Control	P-value	
Weight, lbs.	201.0	202.3	199.7	0.66
BMI	35.0	35.1	34.9	0.87
Total Cholesterol	205.8	200.5	211.2	0.17
HDL-Cholesterol	53.2	53.5	53.2	0.89
Systolic BP	126.0	124.4	127.5	0.27
Diastolic BP	82.8	82.5	83.2	0.73

Attendance and Process Measures

- Mean number of sessions attended = 10 (SD=6); median = 14
- Average attendance was 65% of the 16 weekly sessions

Changes in Weight, Blood Pressure, and Cholesterol and Using multiple measures of body composition adjusting for treatment group and baseline values, between group comparisons of changes in weight, BP, and cholesterol yielded significant differences.

	Intervention	Control	Difference	P-value
Weight Change	-8.2	1.4	9.6	<.0001
Systolic BP Change	-7.5	-0.7	-6.8	0.008
Diastolic BP Change	-4.9	-1.5	-3.4	0.031
HDL-cholesterol	1.1	-1.4	2.5	0.043

Summary & Conclusions

- Program participants lost on average 9.4 lbs (8.2 lbs. with imputation of missing weight data) or 4.8% of their body weight.
- Program participants also significantly reduced their BP and increased HDL-cholesterol.
- 54% of intervention participants succeeded in losing at least 8 lbs. and were enrolled in a 12-month maintenance program.

Conclusions: The *Weight-Wise Program* was effective in promoting clinically meaningful weight loss in low income middle women.

Acknowledgments

Content

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Weight-Wise Leader's Guide Session Content

Session	Session Content
1	<ul style="list-style-type: none"> ▪ Welcome participants to the program, discuss goals and establish expectations ▪ Encourage success by outlining reward system ▪ Explain and discuss weight loss mechanism ▪ Facilitate and encourage getting started with exercise and self-monitoring ▪ Review and discuss the use of the Calorie Counter and Food and Fitness Diary
2	<ul style="list-style-type: none"> ▪ Help participants complete the self-monitoring data summary forms and overcome challenges associated with keeping a daily record ▪ Help participants identify physical activities that are easy to do and emphasize the importance of all types of movement, the more the better ▪ Help participants distinguish between tiredness and more serious issues when exercising
3	<ul style="list-style-type: none"> ▪ Begin to focus on the fruit and vegetable components as part of a diet ▪ Help participants set reasonable short-term goals ▪ Help participants become aware of the foods that have the most impact on their total calories
4	<ul style="list-style-type: none"> ▪ Evaluate progress on action plans ▪ Provide alternatives to typical high calorie meals ▪ Discuss the importance of stretching and building muscle
5	<ul style="list-style-type: none"> ▪ Distribute and discuss personalized feedback graphs ▪ Discuss and practice designing healthy breakfast meals
6	<ul style="list-style-type: none"> ▪ Heighten awareness of making time for important things in life ▪ Develop understanding of unhealthy breakfast patterns
7	<ul style="list-style-type: none"> ▪ Increase skills at purchasing foods to help meet healthy lifestyle and weight loss goals ▪ Try new lunch ▪ Learn how to plan ahead
8	<ul style="list-style-type: none"> ▪ Discuss what stress is and how to identify stress levels ▪ Explore strategies for reducing stress ▪ Review portion control as a method of calorie reduction

<p>9</p>	<ul style="list-style-type: none"> ▪ Increase skills at preparing foods to help meet healthy lifestyle and weight loss goals ▪ Try new dinner ideas ▪ Learn how to adapt or modify recipes for healthier eating
<p>10</p>	<ul style="list-style-type: none"> ▪ Increase skills at recognizing disorder eating patterns that contribute to overeating ▪ Try new snack ideas ▪ Learn how to plan ahead for healthier snacking
<p>11</p>	<ul style="list-style-type: none"> ▪ Learn how to modify or adjust meals when dining out ▪ Discuss strategies for dining out ▪ Identify strategies for lowering calories at restaurants
<p>12</p>	<ul style="list-style-type: none"> ▪ Review progress to date and discuss challenges/barriers ▪ Increase understanding of both helpful and harmful ways in which family can affect weight loss efforts ▪ Improve ability to communicate with family about weight loss needs
<p>13</p>	<ul style="list-style-type: none"> ▪ Recognize that everyone has negative thoughts and be able to identify examples of them ▪ Learn how to stop negative thoughts and replace them with positive ones ▪ Explore negative emotional states and discuss how negative emotions may disrupt efforts to maintain a healthy diet and regular physical activity ▪ Learn to identify distortions present in negative thoughts ▪ Develop affirmations to say to themselves during the difficult times
<p>14</p>	<ul style="list-style-type: none"> ▪ Participate in an exercise activity ▪ Discuss characteristics of people who successfully lost weight ▪ Review their own self management technique ▪ Determine their calorie needs for maintenance ▪ Identify high-risk situations that could lead to return of old habits and create a plan for preventing relapse ▪ Create personal rules or boundaries for eating while maintaining weight
<p>15</p>	<ul style="list-style-type: none"> ▪ Practice choosing foods wisely ▪ Discuss how to stay motivated ▪ Plan for special occasions ▪ Review ways to continue exercise
<p>16</p>	<ul style="list-style-type: none"> ▪ Celebrate accomplishments ▪ Discuss feelings associated with moving on to the next phase ▪ Discuss and plan for ongoing social support ▪ Discuss importance of self monitoring

What's in each leader's guide?

Content	Description
Session at a Glance	<ul style="list-style-type: none"> ▪ An overview of the session's content
Sub-sections of Session at a Glance:	
1. Key behavioral Strategies	<ul style="list-style-type: none"> ▪ Approaches or ways to address the behaviors you want participants to work on to achieve the program outcome <p><u>Example:</u> Self-monitoring = a behavioral strategy proven to be effective in helping participants lose weight (outcome).</p>
2. Participant Behavioral Objectives	<ul style="list-style-type: none"> ▪ What you want the participant <i>to be able to do</i> by the end of the session; the behaviors of focus for the session
3. Process Objectives and Session Content	<ul style="list-style-type: none"> ▪ What you (<i>the facilitator</i>) will do in the session to help the participants reach the behavioral objectives
4. Handouts & Other Materials	<ul style="list-style-type: none"> ▪ List of the handouts and materials you will need/use during the session
5. Topics/Agenda	<ul style="list-style-type: none"> ▪ Topics for each section of the session: <ul style="list-style-type: none"> ○ Check-in ○ Try It ○ Next Steps
Agenda Areas:	
1. Check-In	<ul style="list-style-type: none"> ▪ Opening segment of the group session; focus is on hearing from the participants and setting the agenda. ▪ Participants generally talk about what happened during the time away from the group, their successes and failures. ▪ Checking in serves as a form of accountability
2. Try It (Discussions and Activities)	<ul style="list-style-type: none"> ▪ Skill-building activities and

	<p>discussions that foster self-awareness (about what participants do (<i>behaviors</i>) and how their thinking influences what they do (<i>cognitions</i>))</p> <ul style="list-style-type: none">▪ Educational content – information on a particular topic that will help participants change their behavior(s)
3. Next Steps	<ul style="list-style-type: none">▪ Goal setting and Action planning activities▪ Setting SMART goals and organizing details about how the goal will be reached; generally involves writing down the plan of action.▪ Instructions to participants of what they will be asked to do during the week▪ Review and summary of lessons/discussions of the week