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Assessing the Impact of Nutritional and Exercise Recommendations on Health Fair Participants: Follow-up Program: Partnering Up for a Healthier You

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Assessing the Impact of Nutritional and Exercise Recommendations on Health Fair Participants

Follow-up Program:
Partnering Up for a Healthier You

A PharmD project
Presented to the College of Pharmacy and Health Sciences
and
The Honors Program
of
Butler University

Project conducted by
Michelle Berg, Kristin Henrich, and Amy McManness, PharmD Candidates
and Dr. Jane Gervasio, PharmD, BCNSP, FCCP

Follow-up conducted by
Amy McManness, PharmD Candidate

March 23, 2011
BACKGROUND

Obesity is a fast-growing, prevalent problem in the United States. It leads to the development of many chronic disease states such as cardiovascular disease and diabetes. Information on the benefits of quality nutrition and routine exercise are underutilized in the general population. Pharmacists can play a vital role in educating and equipping patients with essential information to properly develop healthy habits, safely lose weight, and successfully manage or prevent chronic disease states.

Pharmacists are the most accessible health care professionals. They possess the ability to advocate, facilitate, and implement wellness activities. Flyers, educational pamphlets, patient counseling, posters, health assessment quizzes, and videos are all examples of advocacy methods. Pharmacists should cater their education material according to patient population. Liability waiver forms, physician letters, progress notes, and patient data result forms are all tools that can be utilized for service implementation. Pharmacists have a responsibility to promote wellness by educating patients in their community. ¹

A study done by APPE students was conducted concerning women's health promotion in the community setting. Fact sheets were distributed to women promoting awareness of their medications and encouraging them to complete personal medications records (PMRs). Of the 58 women who completed the PMRs, 42 women (72%) had 57 medication-related problems (MRP). All patients who completed a survey (32) said that they would recommend medicine screening to family and friends. Another arm of the health promotion was heart disease screening. "Heart Disease" and "Stroke" fact sheets were distributed. Sixty-three women completed the heart healthy screening intervention and 40 of the 41 women who filled out the follow-up survey said they would recommend the screening to family and friends. ²
The government-implemented Healthy People 2020 initiative (updated version of 2010 goals) is broadly promoting physical activity, nutritious diet, preventative screenings, and overall healthy choices in addition to specific focus areas. Concerning the focus areas on different acute and chronic diseases, the objectives are designed to prevent if possible, control when necessary, and treat when appropriate. This website and linked resources is an excellent tool to help organizations get involved with the national initiative. The provided information can be utilized by programs, such as health fair events, to promote healthy lifestyles in the community setting.

METHODS

Collaboration and Study Oversight

“Assessing the Impact of Nutritional and Exercise Recommendations on Health Fair Participants” was done under the umbrella of the Lilly Grant Healthy Initiatives Project. The health fair events assessments and distribution of information were executed in collaboration with the Healthy Horizons staff.

The institutional review board of Butler University approved the protocol for the follow-up project “Partnering Up for a Healthier You”. Participants were provided written informed consent during the health fair events and voluntarily provided contact information to be a part of the program (see Appendix A and B for a copy of the informed consent form and contact information).

Study Participants

Participants were collected during the following events: Dick Lugar Run (September 18th, 2010), Walk from Obesity (September 19th, 2010), UPS Health Fairs (October 14th and 28th, 2010), and Catholic Charities Health Fair (December 9th, 2010).
Participants were required to be 18 years of age or older and have made initial contact during one of the prior health fair events (excluding the Catholic Charities Health Fair) to be enrolled in the follow-up project.

**Study Design**

Information on chronic disease states including dyslipidemia, diabetes, hypertension, and insomnia, healthy eating habits, healthy exercise, and various healthy recipes were distributed to all participants. Participants were required to sign a waiver (see Appendix C) prior to the Body Mass Index (BMI) test and assessment. After the waiver, participants were asked to remove their socks and shoes and also were asked their age and height to set-up the BMI machine.

Following the BMI test, the results of the BMI machine were explained to participants by one of the pharmacy students and any recommended lifestyle changes (including weight loss, exercise, healthy eating, etc) were also discussed. The participants were also given a handout explaining BMI and their results to take with them (see Appendix D). Machines were sterilized between participants with bleach. Participants in the BMI assessment were asked to fill out a Healthy Action survey (see Appendix E) evaluating their current eating and exercise habits and their perceived benefit of the information provided by the pharmacy students.

Participants who wished to participate in the follow-up program were asked to sign an informed consent form and provide contact information, current BMI/weight, their overall health goal for the program, and their current view of the role of pharmacists. Follow-up contact was conducted every Tuesday evening from approximately 5pm-8:30pm starting in the College of Pharmacy and Health Sciences Building from a Butler University line in a private office.
Participants were called on a weekly basis for a duration of either 30-days, 60-days, or 90-days depending on participant preference. Some participants elected to be contacted via e-mail during the course of the study due to convenience; these participants were also contacted Tuesday evenings. Initial contact first occurred September 28th, 2010 and the last day of contact was December 14th, 2010. Participants were asked a series of questions according to written protocol (see Appendix F) concerning the steps they had taken over the past week towards reaching their health goal and any challenges they faced. Recommendations concerning how to overcome any challenges were discussed and collaboratively a set of goals for the next week were established while keeping in mind the overall health goal of each individual participant. Responses to the telephone script and discussions during the course of the call/e-mail contact were documented via a Microsoft Word document. The responses and documentation were kept confidential with each document titled a number that corresponded to a number listed on the patient contact information form to ensure confidentiality of patient information. The patient information was kept confidential following the program by the supervising faculty member.

At the end of each individual’s participation with the program, they were asked to respond to a verbal survey (see Appendix F). The survey consisted of questions regarding the benefit the participant received from participation (scale of 1-10; 1 equating to no benefit and 10 equating to maximum benefit), something they had learned during the program, anything they would like to see done differently about the program, and their view of the role of pharmacists after completion of the program. The responses were recorded in the same manner as each individual phone call session.

Each week, if a participant was unable to be reached by phone then the participant would be called later that evening (no sooner than one hour after first attempt). If the second attempt to call was unsuccessful, a message was left stating the pharmacy student’s contact information (e-mail address only) and that they would be contacted again next week. Discontinuation from the program was
voluntary at any time. Study participants who were unable to be contacted for over four weeks were discontinued from further follow-up.

**Objectives**

The primary objective of our study was to estimate the impact pharmacy students can have through the provision of educational fitness and nutrition materials and body composition assessments to increase knowledge in the general population at various health fairs throughout Indianapolis. The secondary objective was to assess the impact of follow-up phone calls on patient success towards personal health goals. It also provided an accountability and information resource to patients enrolled in the follow-up program as well as gauged the overall acceptance of pharmacists in this community role.

**Statistical Analysis**

Objectives were assessed via survey responses. The nominal and ordinal data was added up for each respective category and percentages were supplied for certain categories. Data collected for benefit analysis was assessed using mean, mode, and median.

**RESULTS**

Our study had a total of 80 participants at six different health fairs. Seventy-nine participants ranged in age from 18 to greater than 65 years of age. There was one participant that was less than 18 years of age. There were 48 female participants (60%) and 32 male participants (40%). On a scale of 1 to 10, with 10 being the best, 84% of participants ranked the helpfulness of the event an eight or higher; with a mean ranking of 8.3, mode of 8, and median 8. Figure 1 represents the distribution of perceived benefit of the health fairs by all 80 participants.
Figures 2 and 3 illustrate the breakdown of the average rating by age group and gender.

**Figure 1:**

![Pie Chart Illustrating Perceived Benefit of Health Fair by Participants](chart.png)

**Figure 2:**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Average Rating per age group male</th>
<th>Number of Males per Age Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=18</td>
<td>8.2</td>
<td>0</td>
</tr>
<tr>
<td>18-24</td>
<td>8.2</td>
<td>2</td>
</tr>
<tr>
<td>25-30</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>31-40</td>
<td>8.3</td>
<td>3</td>
</tr>
<tr>
<td>41-50</td>
<td>8.3</td>
<td>10</td>
</tr>
<tr>
<td>51-64</td>
<td>8.3</td>
<td>8</td>
</tr>
<tr>
<td>&gt;=65</td>
<td>9.3</td>
<td>3</td>
</tr>
<tr>
<td>unknown</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
One portion of the survey given regarded satisfaction of personal eating and exercise habits. At the health fairs, 19 participants were very satisfied with their eating habits, while 16 people said they were very satisfied with their exercise habits. Thirty participants noted that they were somewhat satisfied with their eating habits and 32 people noted being somewhat satisfied with exercise habits (see Figures 4 and 5). Eleven checked neutral satisfaction for eating habits and eight checked neutral satisfaction for exercise habits. Regarding not being satisfied with eating habits, 17 people fell into that category while 20 were not satisfied with their exercise habits. One person was very unsatisfied with both eating and exercise habits. Two participants did not respond to the question regarding satisfaction.
of personal eating habits while three people did not respond to the question about satisfaction of personal exercise habits.

Figure 4:

![Satisfaction with exercise habits](image)

Figure 5:

![Satisfaction with eating habits](image)
The survey also allowed for participants to include a short answer response indicating one thing that the participant learned from the event. Seventy-six of the eighty participants responded, and many of them reported learning what their BMI was, what a BMI means, and why it is important. A few other patrons appreciated learning their body fat percentage at the event. In addition, some cited more specific responses such as the following: eating breakfast affects metabolism, not to crash diet, how to eat sodium, the difference of sodium intake in fresh versus frozen vegetables, and how to read food labels. Many other statements demonstrated that the event was motivational, and some of those responses included the following: the personal need to exercise more and eat less, discovering personal body fat percentage serves as motivation to eat better and exercise more, the need to start dieting and eating healthier, awareness of increased need for exercise, and the need to make healthy lifestyle changes.

In addition, participants were asked to respond to an open-ended survey question that asked what things were not provided that the participants would have found beneficial. Thirty-two of the eighty participants responded, and the majority of these responses indicated gratitude for the information provided and did not offer suggestions for improvement. A few participants stated the following resources would have been beneficial: referrals based on location, handouts for tracking diet and exercise, diabetic meal coupons, stress test, healthy snack, and a massage.

For the follow-up program, thirteen people signed up to be a part of the program; only one of the participants was male. Four of the participants (30.8%) who originally signed up for the program either voluntarily discontinued or were discontinued from further follow-up due to lack of response after a four week duration. The average call duration when a patient was successfully contacted of the nine participants who completed the program was 11 minutes and 21 seconds. Seven of the nine participants who completed the study either provided a verbal or e-mail response to the final survey for
the program. Of those who completed the final survey, four participants (57.1%) met their original health goals they had established the first day of the program. Three of the four participants who successfully reached their original health goals met 66.7% or more of the contact sessions they signed up to participate in.

The final survey for the follow-up program was used to assess the patient’s perceived benefit in the program helping them reach their personalized health goals and also included an open-response section. On a scale from 1 to 10 with 1 being no benefit and 10 being maximum amount of benefit, 57% of the study participants ranked the perceived benefit a 9 or higher; with a mean scoring of 8.21, mode of 7 and 10 and a median scoring of 9.

During the open-response section concerning something the participant had gained or learned from the program, a few of the patients cited specific examples of information they had learned, such as proper way to take thyroid medication and how that would affect weight or what target heart rate indicates and how to incorporate into their exercise routine. However, the more broad responses from the majority of patients included the ideas of accountability, motivation, being more aware of their daily exercise and eating habits, and making their health goals a priority.

For the section concerning the ways the participants would like to see the program done differently, the majority of patients did not have a suggestion. One participant stated that they liked having the option to be either contacted by phone or e-mail. Another stated that they liked how the program focused on the individual’s needs. The two critical suggestions included having a final BMI and weigh in at the end of the program via individual appointments and enforcing a greater accountability mechanism for the participants.
Overall, the participants felt their view of pharmacists had been positively changed through their participation in the program. Some of the overall themes of their responses included:

- Expanding their perception of the role of pharmacists by becoming more aware of the fitness, health, and other non-drug related knowledge that pharmacists possess
- Putting a personal touch to the profession by demonstrating the kind of relationship patients can develop with their community pharmacists beyond feeling like simply a prescription to be sold
- Beyond purely dispensing medications, how a pharmacist can help patients create healthy habits and possibly discontinue some prescriptions, reduce the dosage, or make recommendations to ensure patients are effectively taking their medications (with/without food, morning/evening doses, etc)

**DISCUSSION**

This study was conducted to assess the impact that the pharmacy profession can have on educating the general public in regards to healthy lifestyle modifications. After participating in six health fairs throughout Indianapolis, the majority of feedback concerning perceived benefit from the study participants was positive. This indicates the role that pharmacists can play in the community in advocating proper nutrition and routine exercise. Since pharmacists are the most accessible healthcare professionals, our study indicated the vital role pharmacists can play in the future regarding patient education of non-pharmacological interventions and disease state management.

Strengths of this study include multiple event locations and diverse patient populations. The Tanita scale was an objective and accurate measure of patients’ current health via measurement of body fat percentage and BMI. Information concerning a wide variety of health topics and patient specific counseling were utilized. One strength of the follow-up program was the flexibility to be
contacted by phone or e-mail. Also, the follow-up program provided a weekly reassessment of patients’ progress towards achieving individualized health goals. Weaknesses of this study include the subjective nature of the assessment tools to evaluate the perceived benefit of participation in the study. Also, the data from each event was compiled together rather than analyzed separately; therefore, any comparisons between health fairs were unobtainable. Furthermore, due to the study design, there is no way to prove statistical significance of these results. A weakness of the follow-up program was that there were no objective reassessments of BMI or body fat percentage, or of the participant’s chosen goal. Another weakness was that the phone calls were limited to one specific evening per week which hindered contact and potentially increased drop-out rate.

This study demonstrated that regardless of current personal satisfaction with routine exercise and eating habits, the majority of participants reported benefit from the educational information and accountability provided at the health fairs and through the follow-up study. Therefore, current pharmacy practice should reflect the findings of this study and emphasize the need for patient education outreach opportunities as well as patient specific counseling.

**CONCLUSION**

Pharmacists play a vital role in providing nutrition and physical activity education materials, assessing patient BMI/body fat percentage, and counseling on necessary lifestyle changes to obtain personal health care goals and improve overall quality of life. Pharmacists and pharmacy students should continue to be utilized at health fairs as a resource for nutrition and fitness education. Pharmacists and students should also promote healthy living in whatever setting he or she may practice in order to further the knowledge of the general population on the growing epidemic of obesity.
References


Appendix A

CONSENT FOR PARTICIPATION IN "PARTNERING UP FOR A HEALTHIER YOU"

Performed by: Amy McManness

I, ____________________, hereby consent as a participant in the above named program, conducted under the direction of the above named persons from Butler University. My consent is given of my own free choice without undue inducement and after the following things have been explained to me.

1. Nature and Duration of Program
The purpose of this program is to provide healthy weight-loss, fitness, and nutrition information to participants through telephone calls from the above named pharmacy students. This is to assist with each participant’s own individualized goals concerning their health. Participation in the program will include receiving weekly phone calls from the above named students for a duration of 30-days, 60-days, or 90-days. Each week, participants’ health goal(s) will be re-evaluated for how successful they have been, any challenges they have faced will be discussed, recommendations to overcome challenges will be offered, and the next week’s goal(s) will be established. Participants will be asked a verbal final questionnaire concerning their overall satisfaction with the program at the end of their chosen participation period. The overall purpose of the study is to assist participants in being successful with their health goal(s) through encouragement and accountability.

2. Potential Risks and Benefits
There are no known risks or discomforts associated with this program. This program is designed to benefit participants in reaching their own health goal(s). Your participation in the program will help us assess whether similar health outreach programs would benefit the community and whether we have changed public perception of the profession of pharmacy. Your participation in this program is entirely voluntary. You are free to decide not to participate in program or to withdraw at any time by notifying the pharmacy student either over the phone during one of the call sessions or e-mailing the student. Upon your request to withdraw, you may also request all information pertaining to be shredded. However, all information will be held in strict confidence and your name will not be disclosed to the general public and will only be used by the pharmacy students and supervisor for contacting purposes. Your responses and information pertaining to the program will be considered only in combination with those from other participants. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be kept strictly confidential.

I have had the opportunity to ask questions concerning any and all aspects of the project and my questions have been answered. I understand that participation is voluntary and that I may withdraw my consent at any time without prejudice to me. Confidentiality of records concerning my involvement in this project will be maintained in an appropriate manner. When required by law, the records of this program may be reviewed by applicable government agencies. A copy of this written consent has been given to me. I understand that if I have any questions concerning this program, I can contact the Investigators stated below or the supervising faculty member at Butler University.

Signature of Subject __________________________ Date ____________

Signature of Investigator __________________________ Date ____________

Signature of Witness __________________________ Date ____________

If you have any questions you may contact:

Amy McManness
amcmannne@butler.edu

Jane Gervasio
Butler University
4600 Sunset Avenue
Indianapolis, IN 46208
Appendix B

If you would like to be a part of our program “Partnering Up for a Healthier You” please answer the following questions and sign a copy of the consent form.

Name_____________________________________________
(First) (Middle Initial) (Last)

Contact Number (_____)__________________________

Current BMI/Weight______________________________

My Overall Health Goal(s):
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

How I currently view the role of pharmacists as health care providers:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
Appendix C

Butler University Health Education Center

Health Screening Consent and Release Form

Patient Information

<table>
<thead>
<tr>
<th>Last</th>
<th>First</th>
<th>MI</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Street</th>
<th>Apt #</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>Zip Code</th>
</tr>
</thead>
</table>

DOB: Month Day Year Age

For Office Use Only

Test(s) Requested: (Check all that apply)

- [ ] Cholesterol Screening
- [ ] Diabetes Screening
- [ ] Osteoporosis Screening
- [ ] Body Composition
- [ ] Heart Disease Screening
- [ ] Lung Volume Capacity
- [ ] Blood Pressure

- [ ] I request that my test(s) be performed by Butler faculty members only

Staff initials: __________

---

I request and hereby consent to the following test(s) to be performed by the Butler University Health Education Center: (Check all tests that you are requesting and consent to)

- [ ] Cholesterol Screening (total cholesterol, LDL, HDL and triglycerides)
  - This test involves obtaining a sample of blood from a small puncture to your finger.
  - Risks: This test may cause pain, bruising, swelling, infection, and/or bleeding at the puncture site.

- [ ] Diabetes Screening (blood glucose)
  - This test involves obtaining a sample of blood from a small puncture to your finger.
  - Risks: This test may cause pain, bruising, swelling, infection, and/or bleeding at the puncture site.

- [ ] Osteoporosis Screening (bone mineral density)
  - This test involves placing your bare foot on a special type of x-ray machine.
  - Risks: The risks associated with this test are minimal, but you will be exposed to a small dose of radiation. Please inform us of any conditions which prevent you from such exposure.

- [ ] Body Composition (measuring percentage of body fat)
  - This test uses bioelectrical impedance analysis to analyze and estimate body fat.
  - This test is performed by stepping on an instrument similar to a bathroom scale. A very small electrical current (50 kHz) is used to measure the amount of resistance to the current through the body.
  - Risks: There are no known risks to this test. However, please inform us if you believe there is a reason that you should not be exposed to a very small electrical current.

- [ ] Heart Disease Screening
  - This screening consists of a Cholesterol Screening and obtaining and analyzing your personal history related to heart disease.
  - Risks: Obtaining specimen for the Cholesterol Screen may cause pain, bruising, infection and or bleeding at the puncture site.

- [ ] Lung Volume Capacity (Spirometry)
  - This test performed only on individuals 45 years old or older with a history of smoking or other known risk factors.
  - This test involves breathing into a small machine that measures how much air you are moving in and out of your lungs.
  - Risks: There are no known risks associated with this test but it is possible that you may become lightheaded after breathing into the machine.

- [ ] Blood Pressure Screening
  - Risks: This test involves minimal risk, though you may feel pressure in your arm as the blood pressure cuff is inflated.
I understand that the test(s) I have requested are for screening purposes only, and that any data derived from my test(s) is considered preliminary and does not constitute a diagnosis of dyslipidemia (abnormal cholesterol levels), diabetes mellitus, osteoporosis, abnormal body fat percentage, heart disease, lung disease or hypertension, as applicable. I agree to contact and follow up with my physician if the results of my test(s) today indicate a need for further testing, evaluation or follow-up care.

I understand that there are reasonable alternatives to my undergoing these screening tests. These include having my doctor or other health care professional perform the screening test(s), having the tests performed by alternative methods, or not undergoing the test(s) today.

I have had an opportunity to ask questions about the test(s) I have requested, and about the material risks and the reasonable alternatives to undergoing the screening test(s). My questions have been answered to my satisfaction.

I hereby release Butler University Health Education Center from all liability arising from or in any way connected to the test(s) or the test(s) results.

I understand that these tests may be performed by 4th year pharmacy students under the supervision of pharmacy faculty members.

Patient or Representative Signature

Relationship to Patient
(if not the patient)

Date

Witness/Health Education Center Staff Signature

Date
Appendix D

Body Mass Index

What is it?
Body Mass Index (BMI) is a number used to describe your weight based on your height. This chart is used to determine the weight class of adults (~18 years or older)

<table>
<thead>
<tr>
<th>BMI</th>
<th>Weight Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5 – 24.9</td>
<td>Normal</td>
</tr>
<tr>
<td>25.0 – 29.9</td>
<td>Overweight</td>
</tr>
<tr>
<td>&gt;30.0 and Above</td>
<td>Obese</td>
</tr>
</tbody>
</table>

Weight: ______
BMI: ______

What does it tell you?
BMI is one factor related to developing a chronic disease. As your BMI increases, you are at a greater risk for certain diseases.
An increased BMI may increase your risk for these conditions:
- High blood pressure
- Osteoarthritis
- Diabetes
- Certain types of cancer
- Cardiovascular disease
- Premature death

What doesn’t it tell you?
BMI does not measure the amount of fat you have. Your body is made up of various components including lean muscle mass, fat, and water. BMI does not distinguish between these. For example it doesn’t distinguish fat from muscle. Two people may have the same BMI, but different amounts of body fat.

BMI Indicates your risk of disease. It can not be used to tell you if you have a certain disease.

What should you do?
If you are either overweight or obese should consider losing weight, especially if you have other risk factors for certain diseases. Even a small weight loss may decrease your risk of disease.

Percent Body Fat

What is it?
Body fat assessment is a better way to determine your actual fat content. Some think this a better way to assess certain disease risks.

<table>
<thead>
<tr>
<th>Age</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underfat</td>
<td>&lt;21%</td>
<td>&lt;23%</td>
</tr>
<tr>
<td>Healthy</td>
<td>21%-29.9%</td>
<td>23%-33.9%</td>
</tr>
<tr>
<td>Overfat</td>
<td>30%-38.9%</td>
<td>34%-39.9%</td>
</tr>
<tr>
<td>Obese</td>
<td>&gt;39%</td>
<td>&gt;40%</td>
</tr>
</tbody>
</table>

*WHO BMI Guidelines

My % ______
Body Mass Composition Testing

How does it work?

An electric signal is passed through your body. This current passes through lean tissue and fat tissue at different rates. The flow of the electric signal determines the amounts of lean muscle mass and fat mass your body is composed of.

How easily does it change?

Different factors can affect the results of the Body composition test. The amount of water you have in your body changes throughout the day as well as day to day. The best results come from measuring no more often than weekly, at the same time of day, and under the same conditions. Measuring body composition under the same conditions each time is important to get correct results. Long-term changes can be measured every 3 to 4 weeks.

### TANITA BODY COMPOSITION ANALYZER TBF-300A

**BODY TYPE**

<table>
<thead>
<tr>
<th>GENDER</th>
<th>MALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>25</td>
</tr>
<tr>
<td>HEIGHT</td>
<td>186 cm</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>61.3 kg</td>
</tr>
<tr>
<td>BMI</td>
<td>22.2</td>
</tr>
<tr>
<td>FAT%</td>
<td>13.9%</td>
</tr>
<tr>
<td>IMPEDANCE</td>
<td>317</td>
</tr>
<tr>
<td>FFM</td>
<td>52.8 kg</td>
</tr>
<tr>
<td>TBW</td>
<td>38.7 kg</td>
</tr>
<tr>
<td>DESIRABLE RANGE</td>
<td>8-20%</td>
</tr>
<tr>
<td>FAT MASS</td>
<td>4.6-13.2 kg</td>
</tr>
</tbody>
</table>

**TARGET BF%**

- Predicted weight: 58.7 kg
- Predicted fat mass: 5.9 kg
- FAT TO LOSE: 2.6 kg

**BMI** Body Mass Index is a height to weight ratio and is calculated by the following formula:

\[ \text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)}^2} \]

Desirable range: 18.5 - 24.9

**BMR** Basal Metabolic Rate represents the total energy expended by the body to maintain normal functions at rest such as respiration

**FAT MASS** Total weight of fat mass (in kg, lb) in the body

### Basic Tips:

- You need a 500 calorie deficit per day for approximately 1 pound of fat loss per week or
- 1 pound of fat = a deficit of 3500 calories/week
Appendix E

Healthy Action Survey

1. Gender
   a. Male __________
   b. Female __________

2. Age range:
   a. <18_________
   b. 18-24_________
   c. 25-30_________
   d. 31-40_________
   e. 41-50_________
   f. 51-64_________
   g. ≥65_________

3. How satisfied are you with your eating habits?
   a. Very satisfied__________
   b. Somewhat satisfied__________
   c. Neutral__________
   d. Not satisfied__________
   e. Very unsatisfied__________

4. How satisfied are you with your exercise habits?
   a. Very satisfied__________
   b. Somewhat satisfied__________
   c. Neutral__________
   d. Not satisfied__________
   e. Very unsatisfied__________

5. On a scale of 1 to 10 (10 being the best) how helpful was this event for you?

   1             2             3             4             5             6             7             8             9             10

6. What is one thing that you learned from this?
   a. _________________________________________________________________________________________
   _________________________________________________________________________________________
   _________________________________________________________________________________________

7. What is one thing you wished we would have offered?
   a. _________________________________________________________________________________________
   _________________________________________________________________________________________
   _________________________________________________________________________________________

Thank you for your participation!
Appendix F

Template for “Partnering Up for a Healthier You” phone-calls

- Introduce self
- Ask patient their personal health goal or remind them from sheet if they forgot
- Ask what steps they’ve taken this week to work towards meeting goal
- Ask what challenges they faced this week in meeting goal
- Suggest steps to overcome challenges
- Discuss and come up with next week’s goal and encourage patient that reaching this goal will help them achieve their overall health goal
- If possible try to state which night(s) you will try and call them the following week
- Thank them for their time

At the end of the program:

- Ask patient if they feel like they benefited from phone-calls (scale of 1-10)
- Something they learned from the program
- Anything they would like to see differently about the program
- Ask how they view the role of pharmacists differently now

If unable to reach participant:

- Try again later that evening or another day that week
- If still unable to reach participant, leave a message with e-mail address for them to contact you with questions or if they’re still interested in participating in the program

*Responses to above questions will be noted down and a summary of the phone conversation created for each participant’s session and documented without any patient identifiers in separate Microsoft Word documents*