

**Increasing Participation in the Comprehensive Obesity Management Program**

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**Abstract**

**Problem:** Obesity is a pandemic in the United States, and it is directly linked to a higher incidence of diabetes, heart disease, stroke, and cancer. A non-profit organization (NGO) in Montgomery County, Maryland, started a free obesity management program with four pillar services, which are: 1) medical consultations, 2) nutritional consultations, 3) laboratory services, and 4) yoga classes. The aim of the program is to provide effective obesity management with a multidisciplinary intervention approach. A streamlined team approach in healthcare is known to improve patients' overall health and contain medical costs. However, services provided at this NGO were fragmented, and providers were not working as a team. **Purpose:** To increase the enrollment of participants in the multidisciplinary comprehensive obesity management program by providing more structure, stability, and sustainability. **Methods:** The quality improvement project was implemented for 15 weeks during the fall of 2023. Patients with a body mass index (BMI) over 30 were encouraged to participate in the obesity management program. To ensure participation, each participant was given a program schedule form for dates of their service provision and a progress form to record weight, blood pressure, and lab results. **Results:** A total of 26 participants were recruited during the 15-week project improvement period. The mean age of participants was 54.65 (SD=14.92), and the mean BMI was 32.81 (SD=5.37). The majority of participants were female (69.23%). All participants were minorities (African American=15.38%, Hispanic=42.31%, Asian=42.31%). Almost half of the participants were hypertensive (46.15%), and many patients also had diabetes (diabetes=19.23%, pre-diabetes=11.54%). **Conclusion:** The number of participants in the comprehensive obesity management program steadily increased from zero to 26, and it has continued to attract more participants beyond the program improvement period. Many participants presented with co-morbidities and needed close follow-up. Therefore, it is recommended that the follow-up mechanism for the obesity program to be mainstreamed.

### **Increasing Participation in the Comprehensive Obesity Management Program**

Obesity is a pandemic in the United States. It is estimated that 41.1% of US adults over 20 years of age are obese as of 2017 (CDC 2022). Obesity is directly linked to a higher incidence of diabetes, heart disease, stroke, and cancer. Moreover, people living with obesity face significant bias and stigma, contributing to increased morbidity and mortality separate from weight or body mass index (BMI). The estimated cost of medical expenses in adults with obesity was \$1.861 more than in people with a healthy weight (CDC 2022), and national expenditure for obesity is projected to be \$260.6 billion (Cawley et al., 2021).

This non-profit organization in Montgomery County, Maryland, strives to improve access to healthcare for under-served populations in the area. Many of the people they serve have obesity along with hypertension, diabetes, or dyslipidemia. The organization recently (fall 2022) recognized that obesity is a complex condition with many different factors contributing, which needs to be managed with a multidisciplinary approach. They started a program with medical and nutritional consultation, laboratory service, provision of fresh and non-perishable groceries, and yoga classes. This program aims to reduce the number of people with obesity and related illnesses in the community by a team of specialists.

This comprehensive obesity management program was new and needed coordination among various stakeholders such as the program manager, healthcare providers (physician or nurse practitioner), registered dietitians, laboratory services, yoga instructors, and administrative personnel. Services were fragmented, and providers were not working as a team. A streamlined team approach in healthcare is known to improve patients' overall health and to contain medical costs (Doty et al., 2020), but a lack of coordination in service provision was preventing patients at this non-profit organization from receiving the whole package of services.

### **Specific Aims and Rationale**

The aim of this 15-week quality improvement (QI) project was to increase the enrollment of participants in the multidisciplinary comprehensive obesity management program by providing more structure, stability, and sustainability. Participants were not expected to observe significant weight loss or health indicator improvement during this 15-week QI project, but the goal of this project was to provide a structured approach to long-term obesity management.

### **Available Knowledge**

An evidence review was conducted to support the program approach (Appendix A). Two randomized behavior interventions of multidisciplinary approaches to obesity management were reviewed. The first one reviewed is the Look AHEAD (Action for Health in Diabetes) study” (Look AHEAD Research Group, 2014), which followed a large number of adult participants over 8 years (n=5,145) throughout the US. This program incorporated education, nutrition, exercises, and psychological support. The original study was published more than 7 years ago, but it holds importance in providing evidence that the multidisciplinary team approach in a large population is plausible, and some patients were followed up to 2020 to determine the long-term effects of the intervention on secondary outcomes, such as cardiovascular disease risks, diabetes control, quality of life, and psychological outcome. Similarly, Salahshornezhad et al. (2022) in Iran used a randomized sampling technique (n=62) to test a multidisciplinary program among school girls (age 9-12) over a 10-week intensive program. Both studies showed the effectiveness of a multidisciplinary approach compared to the simple education method.

Two quasi-experiments were also reviewed for evidence retrieval. One was conducted in England (Lean et al., 2018) in primary care setting among adults (n=306), and the other one was conducted in Korean hospital (Seo et al.2019) among pediatric patients (n=102). Those studies had a moderate emphasis on increased physical activities, monitored by wrist trackers and

showed meaningful change after a multidisciplinary team approach with sustainable physical activity improvement and continuing healthy habits.

Three cross-sectional studies of comprehensive obesity management programs with a team of specialists approach from recent years were also reviewed. These studies were prospective cross-sectional studies where they provided the same service to all participants and compared the program effect from before to after. Gasparri's group (2022) only followed patients for 8 weeks, while Vázquez-Velázquez (2022) provided in-patient treatment for 6 months, and Genitsaridi's team (2020) followed children for a year. All studies provided evidence that a multidisciplinary approach would improve BMI and other health indices.

Lastly, the United States Preventive Service Task Force's recommendation paper on behavioral intervention for weight loss (2018) was reviewed for professional opinions and systematic review results of obesity management programs. This paper was a recommendation update from the 2012 version and concludes that primary care providers should offer or refer patients with obesity to behavior-based weight loss and maintenance interventions.

Based on the evidence provided in the synthesis, obesity management should be a multifactorial team effort to reach the maximum benefit. The obesity program in the non-profit organization has just begun its coordination and has the potential to be successful if the team of specialists can come together to take care of patients' needs.

### **Framework**

Promoting Action on Research Implementation in Health Services (PARiHS) framework was used to conceptualize the project. This framework aids in implementing a successful healthcare program by using evidence, context, and effective facilitation (Appendix B). As mentioned above, the evidence shows that a multidisciplinary program is effective in obesity

management. For the second component of the framework, context, this non-profit organization already had the resources of the medical team, nutritional consultants, information technology, and other support staff. What was lacking from this obesity management program was the facilitation. Based on the PARIH framework, the obesity management program had the potential to be successful with proper facilitation, such as streamlining the services and coordinating the efforts of multi-disciplinary team members.

## **Method**

### **Context**

Root cause analysis was performed to identify the reasons for the fragmented obesity management services at this non-profit organization (Appendix C). Some patients just came in for nutritional advice, while others came in for laboratory tests, medical consultations, or yoga classes. The program was tracking who came in for which component of the program, but the objective of the obesity program was not clearly communicated to the participants. Therefore, people were not always weighed and were not encouraged to join the other components of obesity management. Also, most crucially, the project did not follow up with the participants to see what progress they were making in weight loss and improvement of overall health. The analysis made it clear that coordination among the services was lacking and needed to be improved.

The program also needed a streamlined approach to enrolling patients into the comprehensive program based on their BMI and diabetes status instead of blindly providing services to anyone who wanted any part of the services. Once participants agreed to enroll in the obesity program, it was necessary to track to see which component they had received, and they needed to be encouraged to enroll in other parts of the program to receive the full benefit of the

multi-factorial obesity management approach (Appendix D and E for previous practice and new process).

### **Intervention**

The obesity program in this non-profit organization started to systematically enroll patients in the program, collect data from the visits, follow up, and monitor their progress in weight loss and improvements in other health indicators. Each team member in the QI project had a defined role in the implementation of the program, which included program participation facilitation, data collection (demographic, vital signs), data management, and actual medical/nutritional/laboratory/yoga services (Appendix F). The project lead oversaw the overall project implementation together with the program director, who was also the executive director of the non-profit organization. The executive director was responsible for the provision of laboratory services, yoga classes, and medical services. The project lead communicated with the dietitians and the yoga instructor regarding their consultation and program schedule for participants to receive cultural and language-appropriate services. Medical providers (physician and nurse practitioner) discussed past medical history and present health conditions, reviewed lab results, and provided medical treatment as needed. Since many of our participants had Hispanic backgrounds and Indian heritage, one Latina and one South Asian dietitian was recruited to provide culturally sensitive dietary advice. Yoga classes were offered on the chair to accommodate those who were not able to perform yoga on the floor. The dedicated yoga instructor gave lively, easy-to-follow, and interactive yoga lessons to the participants. Bilingual Spanish-speaking medical assistants were there every week to talk to the patients about the obesity program and promptly invited anyone who met the criteria and expressed interest. The medical assistants played a vital role in program participation facilitation by explaining the aim of the program to the potential participants, signing up for the program, and giving specific dates

for when to return. They also took vital signs, helped patients record medical history, and assisted patients with medical needs. The administrator ensured all participants had their demographic information entered to the system and maintained the database.

The Comprehensive Obesity Program started streamlining the process of enrollment in September 2023. First, to identify the possible participants, they screened every patient who came for medical consultation for their height and weight to calculate their body mass index (BMI). Adults with BMI of 30 and more are defined as obese (CDC, 2022), and diabetic patients were invited to participate in the multidisciplinary obesity management program. Second, once participants were identified, a “participation form” was given, and the process required to be in the program was explained thoroughly by medical assistants (Appendix I). Participants were given the schedule of their medical and nutritional consultation dates, blood draw, and yoga class schedule (Appendix J). Third, participants were provided with a “progress form” in which they had their biometrics and laboratory results tracked over time (Appendix K). The program participation form, program scheduling form, and progress form were filed in a secure location and retrieved as needed. The database collection tool was created in May 2023 in REDCap, a secure database platform, to ensure all demographic information, as well as weight, height, blood pressure, Hemoglobin A1c, and cholesterol were captured and securely stored (Appendix H). Any participants who met the criteria, despite their income or insurance status, were invited to the program.

### **Measurement**

The project’s success was measured by the number of patients who agreed to participate in the program. All potential participants were explained how the multidisciplinary obesity management program works, and the number of people who agreed and signed the form to show



their intent to enroll in the program was entered into the database. Participants were also given available dates to return for nutritional consultation, laboratory work-up, medical consultation, and yoga classes. The proportion of participants in the entire comprehensive obesity management compared to partial participation in the program (i.e., only participating in yoga lessons) was calculated. Similarly, the proportion of participants who actually received the services was also measured. This project also attempted to ensure patients were not lost or dropped out, and follow-up rates were also calculated (Appendix G). The target percentage of program enrollment to all four components was 60%, the target for program participation to all components was 30%, and the target for following up on participants was 30% by the end of the 15-week QI program.

Starting in September of 2023, the medical assistants made sure that each patient received the consent form to participate in the comprehensive obesity management program and also collected demographic information. The medical assistants also ensured vital signs, weight, height, and blood pressure were recorded for each patient at each medical consultation visit. Medical providers reviewed HbA1c and cholesterol levels with the patient every 3 months. All patients were provided with a detailed follow-up schedule with laboratory, medical consultation, dietitian consultation, and yoga classes. The intent of this streamlined process was to make sure participants did not miss any component of the multidisciplinary service.

### **Ethical Considerations**

The program intended to reduce obesity and improve the overall health of the population served in this immigrant-dense community with underserved and underinsured patients. The data was collected to monitor the progress in enrollment and create the database to find out the characteristics of the participants we were serving. The participation form clearly stated that the

program only requires a small amount of blood for laboratory tests such as A1c, and cholesterol with minimal pain, and participants can withdraw from the program at any time. This form is collected prior to participation in the program to prove the participants' intent to join not only one component but all four components of the obesity program (Appendix G). The Board of Directors of the non-profit organization reviewed the program process in July 2023 and made the decision to approve the program to proceed. The DNP student is not an employee of the non-profit organization and has no conflict of interest.

### **Results**

During the 15 weeks of the QI project, a total of 26 participants were enrolled in the comprehensive obesity management program. All participants agreed and signed up to participate in all four components of the program. Height, weight, and blood pressure were measured at the sign-up and all following visits. Prior to the QI project, there was no data on each patient's progress, and patients picked and chose whichever program they would like to participate in. By explaining the purpose of the comprehensive obesity program, patients understood the importance of participation in all components.

A steady increase in enrollment was observed throughout the project period, but there were several weeks when no enrollment was observed because of the holidays, inclement weather, and funding restrictions (Figure 1). The average weekly enrollment was 1.73, with the lowest number being zero and the highest being five enrollments per week (Figure 2). About seventy percent of the participants were female. All participants were minorities with 15.38% African American, 41.3% each Hispanic and Asian. The average age of participants was 54.65 years old (SD=14.92). The oldest person who signed up was 77 years old, and the youngest was 27. The average BMI of participants was 32.81 (SD=5.37), with 27.1 being the lowest and 53.3

the highest. The initial participation criteria were to have a BMI of  $\geq 30$  or a known diagnosis of diabetes, but there were requests from participants who were pre-diabetic, and they were also welcomed to the program (Table 1). Forty-six percent of participants had been diagnosed with hypertension, and 30% were either pre-diabetic or diabetic patients (Table 2).

Ninety-two percent of the participants spoke with either the physician, the nurse practitioner, or the nurse practitioner student regarding past and present medical history, family history, and weight loss benefits during the program. Half of them received nutritional consultations, and half participated in the Yoga class. Laboratory services were only received by 34.62 % of the participants, as free labs were not offered consistently during the project period. Of a total of 26 people who enrolled in the program, 42.31% of them were able to sign up for all four components, whereas 19.23% actually received all of them. Follow-up care was provided to 23.08% of all participants (Table 3).

Originally, there was only one dietitian on the program team who spoke multiple South Asian languages aside from English, but it was quickly recognized that many participants enrolled in the program spoke Spanish. During week six, another dietitian who spoke Spanish joined the obesity program and took turns with the other dietitian each week to provide nutritional guidance to the participants. This allowed us to schedule more nutritional consultations in a timely manner. Yoga classes and laboratory services were not consistently provided due to funding restrictions during the first half period of the project. A total of 12 yoga classes and five laboratory sessions were provided.

### **Discussion**

The program continued to grow and attracted more participants throughout the project despite only being offered on Saturdays. All staff, including providers and volunteers, have

weekday jobs, and the obesity program was only possible to offer services on weekends.

Participants understood the limited provision of services, but many were still excited about this free program. Some were even referring their friends and family members to the program, which helped increase participation.

The main goal was achieved which was to increase the enrollment of participants in the multidisciplinary comprehensive obesity management by providing structure, stability, and sustainability. Participants were excited about the program and happily enrolled in the program, but they were not always able to sign up for all components of the program as services were not consistently provided. The project had a target of 60% of participants to be able to sign up for all four pillar services, but in reality, only 42.31% were able to do so. Similarly, the target for the provision of all four services was 30%, but only 19.23% of participants who agreed to enroll in the comprehensive obesity program actually received all four services. The follow-up goal was to have at least 50% of participants return for repeated services, but only 23.08% had returned to be weighed in.

The reason for not achieving those program goals was a lack of consistency in service provision. There were some weeks when certain services were not provided due to funding restrictions and difficulty in coordination with outside service providers. Consistent provision of free laboratory services was especially challenging. Both medical providers and dietitians could have offered more individualized weight loss plans if there had been a lipid panel, HgA1C, kidney, and liver function test results available to patients.

Another challenge was the frequent change in staffing. This obesity program was run with the help of many volunteers. Some were temporarily helping to get experience in the medical setting, and explaining the purpose and procedures to each new member of staff was

redundant and time-consuming. There were many staff and volunteers on some weekends, and clear division of tasks was difficult as the training was done at the same time as participant recruitment.

Not having an electronic medical record (eMR) system also added a challenge. Since there was no eMR at the time of the QI project implementation, each participant had to be numbered and filed in an alphabetical order in a paper folder. It was difficult to track the participants' progress while the number was rapidly growing.

Since increasing enrollment in the comprehensive obesity program was the primary purpose of the project, the effort was more focused on explaining how the program worked to the staff and participants as well as streamlining the process of enrollment. The participants expressed an understanding of the importance of receiving all four pillar services, but the importance of follow-up was not well informed. This resulted in some participants expressing satisfaction with receiving each service only once, but the intent of the obesity program is to continue monitoring and providing all four pillar services. It is very important to keep participants engaged with follow-up visits in successful weight loss management; however, creating a follow-up mechanism without an eMR was very difficult, and many participants were not returning for repeated weigh-ins or continuing consultations.

### **Conclusion**

A steady increase in participation was observed over the QI project period, with a streamlined enrollment process and enhanced coordination among service providers. Previously fragmented services became united as medical providers and dietitians were communicating about the timing of each consultation, and laboratory results were shared among the providers when available. The yoga instructor was also aware that the classes were part of a weight loss

program. It became evident that the key to the successful delivery of multidisciplinary services is coordination, and a strong engagement of the coordinator was essential. The coordination effort continues after the QI project with a new leader in place, and the program expands to hypertension and diabetes management programs based on the needs of those comorbidity of obesity.

In this phase of the project, the focus was more on increasing participants in the program with better coordination, but there is a need to strengthen the follow-up mechanism in the next phase. Participants' weight, blood pressure, and laboratory results should be continuously monitored, and participants should return for ongoing consultation with providers and the exercise program (yoga) to see the long-term impact of obesity management on their health. A weight loss program needs commitment from both participants and providers and is a long journey together to better their overall health. With the recently introduced eMR system at the organization, it is hoped that a follow-up mechanism will be incorporated into the service delivery system in the near future.

In order to solve the problem of constant change in staffing, the program may benefit from creating a volunteer manual on how to recruit new participants into the obesity management program and how to create an individualized program for them. The organization has great potential for growth, with a strong human power with many staff and volunteers from multilingual/multicultural backgrounds that match the population they serve. It is hoped that the program will receive continuing funding to support the effort and will be able to provide a comprehensive obesity management program to the underserved community long enough to see meaningful results in participants' health improvement.

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**Table 1**

*Demographic Characteristics of Participants*

Characteristics	<b>n=26</b>	<b>%</b>
<b>Gender</b>		
Male	8	30.77%
Female	18	69.23%
<b>Race</b>		
African American	4	15.38%
Hispanic	11	42.31%
Asian	11	42.31%
<b>Age</b>		
18-29	2	7.69%
30-49	8	30.77%
50-69	11	42.31%
70+	5	19.23%
Mean age	<b>54.65</b>	
<b>BMI</b>		
25-30	7	26.92%
30-35	16	61.54%
35-40	1	3.85%
40+	2	7.69%
Mean BMI	<b>32.81</b>	

**Table 2***Participants with pre-existing conditions*

	<b>n=26</b>	<b>%</b>
Diabetes	5	19.23%
Pre-diabetes	3	11.54%
Hypertension	12	46.15%

**Table 3**

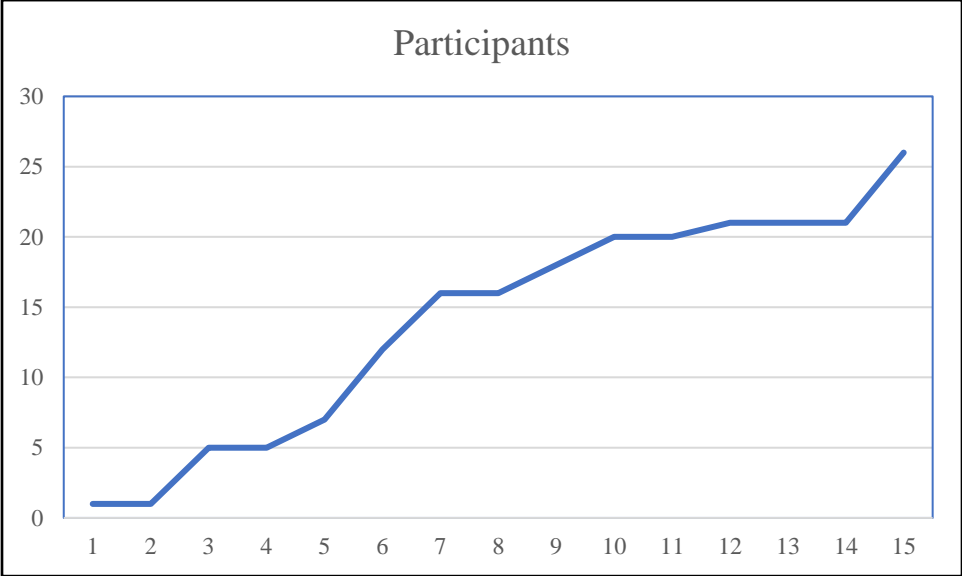
*Types of service*

Services	Sign-up		Provided	
	n=26	%	n=26	%
Medical consultation	25	96.15%	24	92.31%
Laboratory	20	76.92%	9	34.62%
Nutritional consultation	24	92.31%	13	50.00%
Yoga	13	50.00%	13	50.00%
<b>All Category</b>	11	<b>42.31%</b>	5	<b>19.23%</b>
<b>Follow-up</b>			6	<b>23.08%</b>

Services	n=26	%
Medical consultation	24	92.31%
Laboratory	9	34.62%
Nutritional consultation	13	50.00%
Yoga	13	50.00%
<b>All category</b>	<b>5</b>	<b>19.23%</b>
<b>Follow-up</b>	6	23.08%

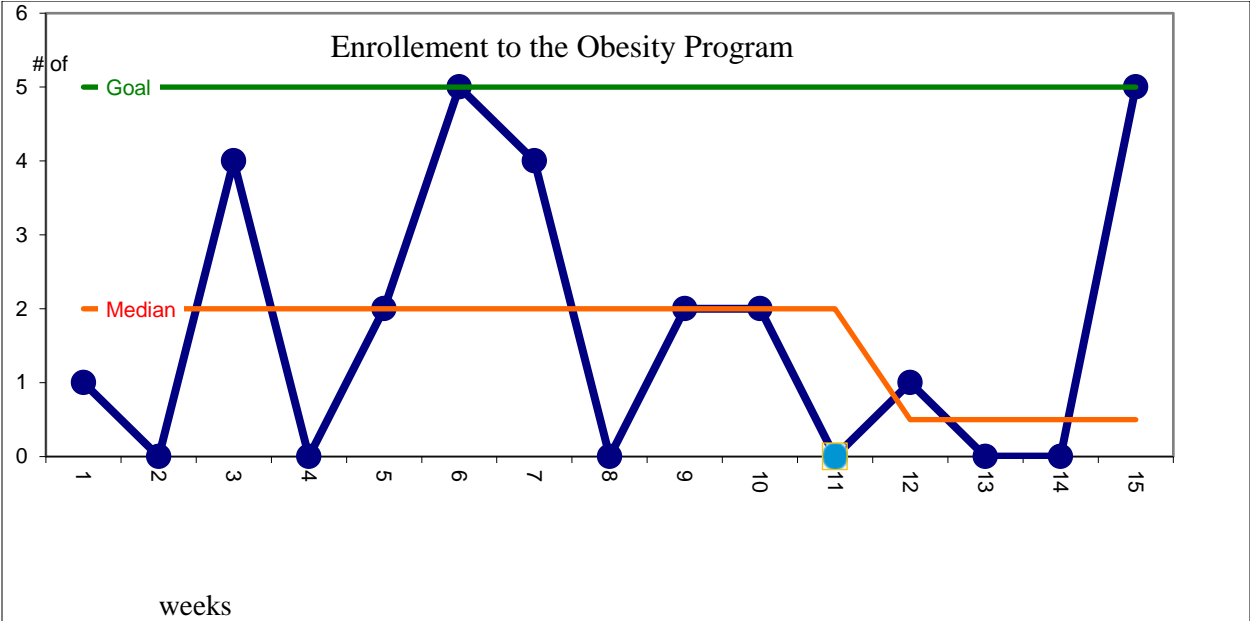
**Figure 1**

*Cumulative growth of participants in the program*



**Figure 2**

*Trend of enrollment in the obesity program per week*



**Appendix A**

*Evidence Synthesis*

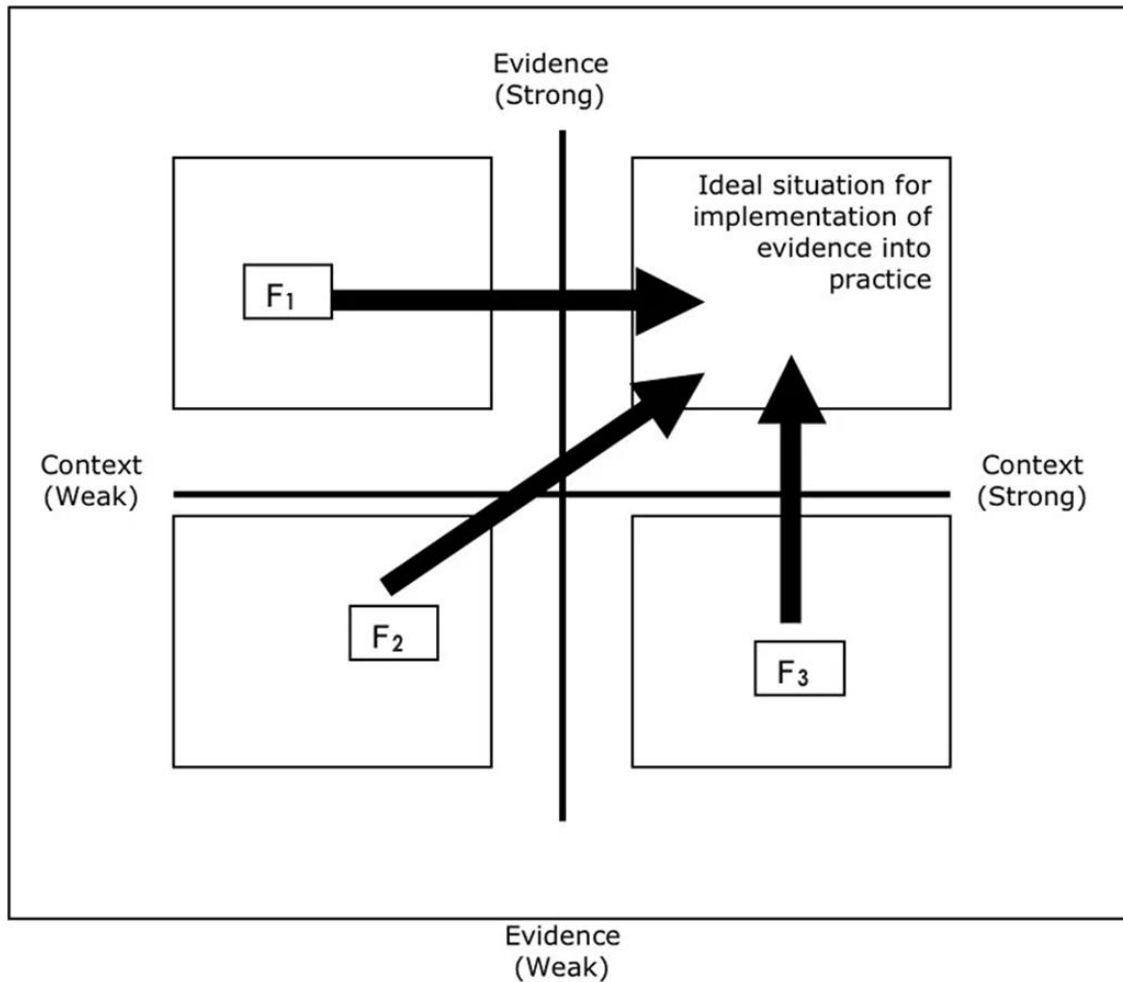
Project Title: Increased enrollment in comprehensive obesity management program among adult with obesity at a non-profit organization.			
JHNEBP Model Level	Total Number of Sources	Author and Quality Rating of each study	Synthesis of Findings
<p><b>Level I</b> Experimental study · Randomized Controlled Trial (RCT) · Systematic review of RCTs with or without meta-analysis</p>	2 randomized behavior intervention studies	Look AHEAD Research Group- <b>B</b>  Salahshoornezhad et al. - <b>B</b>	Both Look AHED study (2014) with adults and Salahshoornezhad’s study (2022) with children were able to randomize intervention and control groups to demonstrate that multidisciplinary approach was more effective in obesity management than a simple education method.
<p><b>Level II</b> Quasi-experimental studies · Systematic review of a combination of RCTs and quasi-experimental studies, or quasi-experimental studies only, with or without meta-analysis</p>	2 quasi-experimental studies	Lean et al. - <b>B</b>  Seo el al. - <b>B</b>	Lean’s study (2018) took place at primary care provider’s offices with adults, whereas Soe’s study (2019) was implemented in a hospital with pediatric patients. Both study were able to provide comprehensive obesity care with team of specialist and improved quality of life and physical strength along with weight loss and good glucose control.
<p><b>Level III</b> Non-experimental study · Systematic review of a combination of RCTs, quasi-experimental, and non-experimental studies, or non-experimental studies only, with or without meta-analysis · Qualitative study or systematic review of qualitative studies with or without meta-synthesis</p>	3 Cross-sectional studies.	Genitsaridi et al. - <b>C</b>  Vázquez-Velázquez et al. - <b>C</b>  Gasparri et al.- <b>C</b>	All these studies were prospective cross-section studies where they provided the same service to all participants and compared the program effect from before to after. Gasparri’s group (2022) only followed patients for 8 weeks , while Vázquez-Velázquez (2022) provided in-patients treatment for 6 months, and Genitsaridi’s team (2020) followed children for a year. All studies provided evidence that multidisciplinary approach would improve BMI and other health indices.
<p><b>Level IV</b> Opinion of respected authorities and/or reports of nationally recognized expert committees/consensus panels based on scientific evidence</p>	1 systematic review	US Preventive Services Task Force- <b>A</b>	USPSTF recommends that primary care providers offer or refer to multicomponent behavioral interventions for patients with BMI≥30 (Grade Recommendation B)



<p><b>Level V</b>                  Evidence obtained from literature reviews, quality improvement, program evaluation, financial evaluation, or case reports · Opinion of nationally recognized expert(s) based on experiential evidence</p>			
<p>Overall Quality Rating w/rational and Recommendation: Overall Quality Rating B. Evidence confirms comprehensive, multidisciplinary approach to obesity management with primary care involvement is the key to reducing weight and improving overall health.</p>			
<p>Recommendations Based on Evidence Synthesis</p> <ul style="list-style-type: none"> <li>• Good and consistent evidence–practice change</li> </ul>			

**Appendix B**

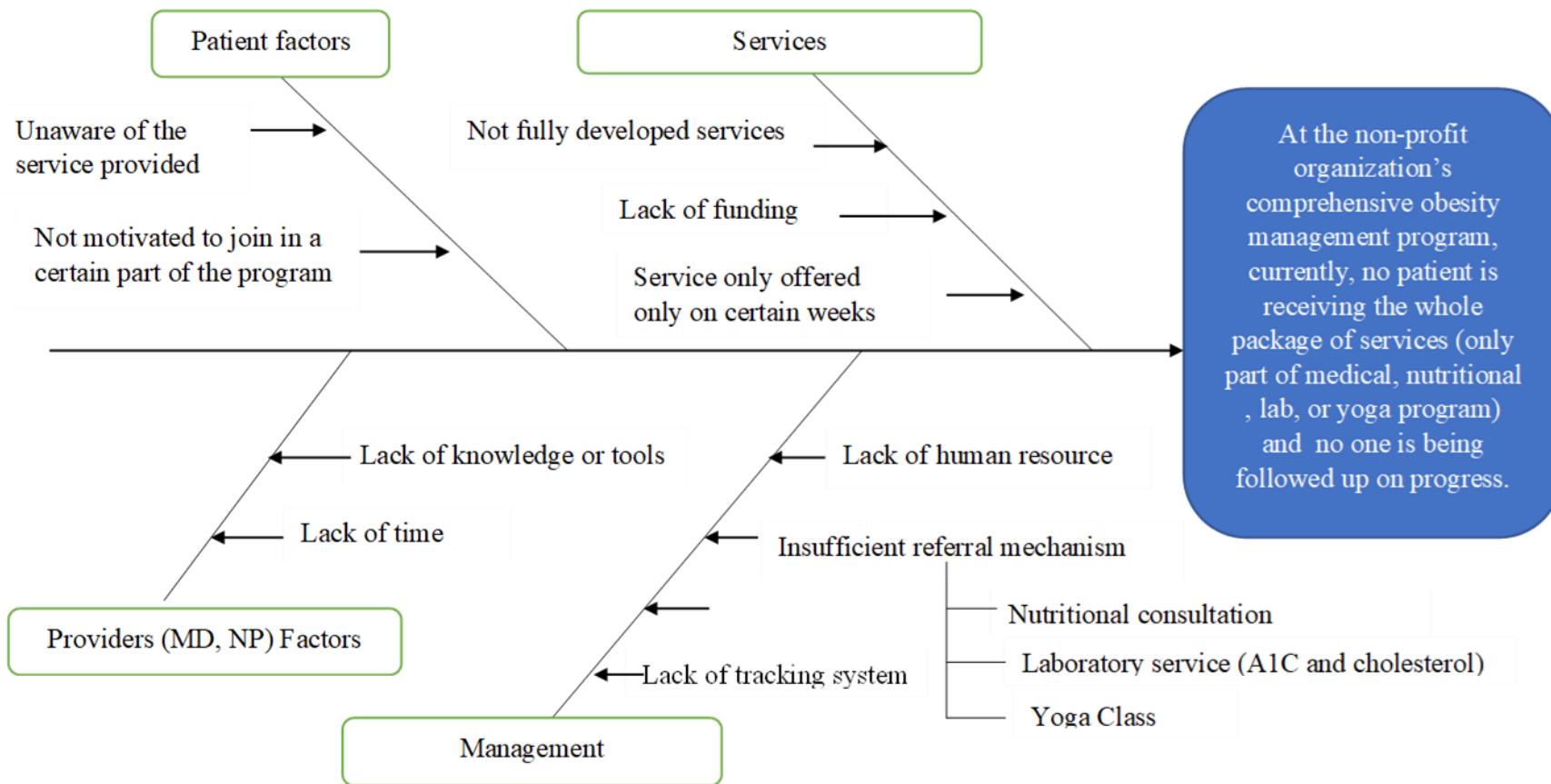
*PARiHS Framework*



Note: This flow diagram was originally from Kitson, A. L., Rycroft-Malone, J., Harvey, G., McCormack, B., Seers, K., & Titchen, A. (2008). Evaluating the successful implementation of evidence into practice using the PARiHS framework: theoretical and practical challenges. *Implementation Science*, 3, 1-12. <https://doi.org/10.1186/1748-5908-3-1>

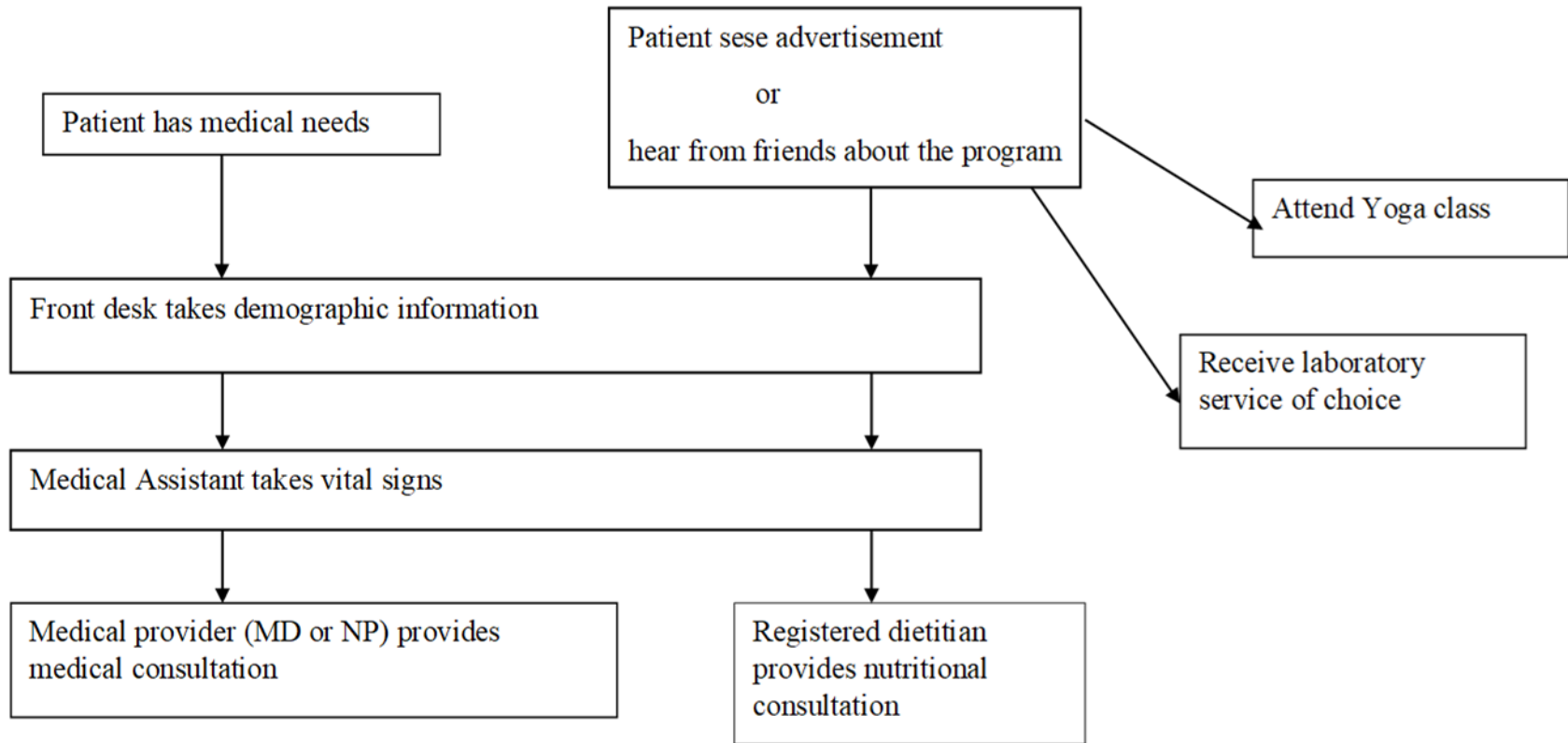
**Appendix C**

*Root Cause Analysis*



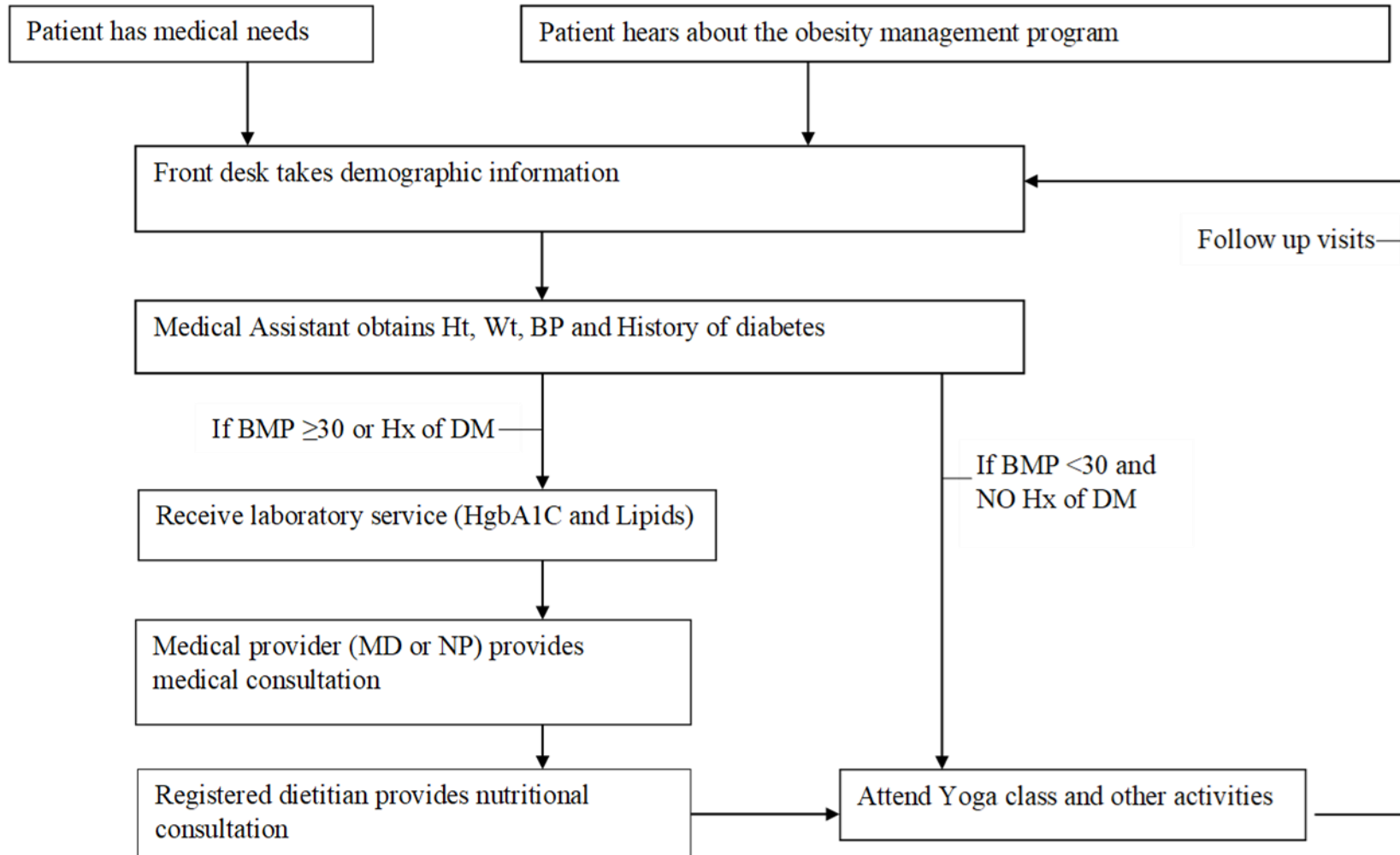
**Appendix D**

*Old Process of Practice*



**Appendix E**

*New Process of Practice*



**Appendix F**

*Project Team*

Team Member Name/Credentials/Title	Responsibilities
1. DNP student/Project Lead	Project implementation and evaluation
2. Executive Director of the non-profit organization/Program Director	Obesity program Coordination
3. Medical Doctor/Internal Medicine/Board certified in obesity medicine	Medical consultation/Obesity medicine specialist
4. Medical Doctor/ Internal Medicine	Medical consultation/Internal medicine
5. Nurse Practitioner/ Family Practice	Medical consultation/ family medicine
6. Registered Dietitian/ Hindu and English	Nutritional consultation
7. Registered Dietitian/ Spanish and English	Nutritional consultation
8. Administrative Director	Administrator, IT specialist
9. Medical Assistant (#1)	Program participation facilitation, Data collection, Spanish Translator
10. Medical Assistant (#2)	Program participation facilitation, Data collection, Spanish Translator
10. Community Health Worker	Program participation facilitation, Data collection/Spanish Translator

**Appendix G**

*Measurement Plan*

<b>Measurement Plan</b>		
Submit Project Survey(s) and Project Audit Tool from REDCap (Appendix F)		
Project Goals	Data Collection Procedures (who, how, when)	Name of Data Collection Tool
1. 60% of participants sign up for all components of the multidisciplinary comprehensive obesity management program (medical, nutritional, labs, and yoga component) by December 2023	<ol style="list-style-type: none"> <li>1. Project lead and medical assistants ensure that each participant understands and agrees to enroll in the program starting September 2023.</li> <li>2. Project lead and medical assistants collect demographic information, vital signs, and provide participants with schedule of available programs, starting September 2023.</li> <li>3. Project lead and medical assistants ensure that each participant receives a schedule with each component of the program, starting September 2023</li> </ol>	<ol style="list-style-type: none"> <li>1. Participation form</li> <li>2. Program schedule form</li> <li>3. Data collection tool</li> </ol>
2. 30% of participants receive all components of the multidisciplinary comprehensive obesity management program by 2023	<ol style="list-style-type: none"> <li>2. Project lead records each visit of every participant</li> </ol>	<ol style="list-style-type: none"> <li>1. Data collection tool</li> </ol>
3. 50% of patients are followed up by December 2023	<ol style="list-style-type: none"> <li>1. Project lead track and count the follow-up visits</li> </ol>	<ol style="list-style-type: none"> <li>1. Patient information database</li> </ol>

**Appendix H**

*Project Survey Tool*

**Data Collection Tool**

---

Record ID \_\_\_\_\_

---

Data ID \_\_\_\_\_

---

Date of service \_\_\_\_\_

---

Date of Birth \_\_\_\_\_

---

Age \_\_\_\_\_

---

Ethnicity  
 Hispanic or Latino    NOT Hispanic or Latino    Unknown / Not Reported

---

Race  
 American Indian/Alaska Native  
 Asian  
 Native Hawaiian or Other Pacific Islander  
 Black or African American  
 White  
 More Than One Race  
 Unknown / Not Reported

---

Gender  
 Female  
 Male  
 None binary

---

Height (cm) \_\_\_\_\_

---

Weight (kilograms) \_\_\_\_\_

---

BMI \_\_\_\_\_

---

Systolic Blood Pressure \_\_\_\_\_

---

Diastolic Blood Pressure \_\_\_\_\_

---

Hypertensive  
 True  
 False

---

Diabetes  
 No  
 Pre-diabetic  
 Diabetes



---

Hemoglobin A1c

\_\_\_\_\_

---

Total Cholesterol

\_\_\_\_\_

---

HDL

\_\_\_\_\_

---

LDL

\_\_\_\_\_

---

Service signed-up today

- Medical consultation
- Nutritional consultation
- Laboratory service
- Yoga class
- None of above

---

Services received today

- Medical consultation
- Nutritional consultation
- Laboratory service
- Yoga class
- None of above

---

Initial/Follow up

- Initial visit
- Follow up visit

---

Comments

\_\_\_\_\_

**Appendix I**

*Participation form*

**Comprehensive obesity management program  
Participation Form**

You are being asked to participate in a comprehensive management program provided at the American Diversity Group. You may participate in this FREE weight loss program if your body mass index is over 30 or have a history of diabetes.

If you decide to participate in this program, we will ask you to do the following things:

- 1. Have your weight, height, blood pressure, and Hemoglobin A1c measured (blood test for blood sugar level) at visits.**
- 2. Have medical consultation with a medical doctor or a nurse practitioner**
- 3. Have nutritional consultation with a registered dietitian**
- 4. Participate in yoga lesson**
- 5. Return for follow-up for repeated blood test, medical/nutritional consultations and yoga lesson**

**SIGNATURE OF PROGRAM PARTICIPANT OR LEGAL REPRESENTATIVE**

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this program. I am over the age of 18 years and have been given a copy of this form.

\_\_\_\_\_  
Printed Name of Participant

\_\_\_\_\_  
Printed Name of Legal Representative (if applicable)

\_\_\_\_\_  
Signature of Participant or Legal Representative

\_\_\_\_\_  
Date

**Appendix J**

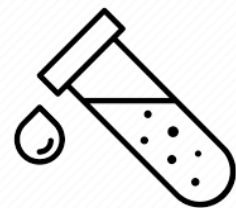
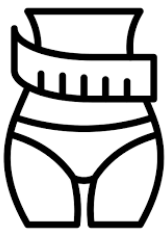
*Program schedule form*



# Your Weight Loss Program Schedule

Name \_\_\_\_\_ Date \_\_\_\_\_

	Date	Date	Date
<b>Vital signs and weight</b>			
<b>Bloodwork</b>			
<b>Medical Consultation</b>			
<b>Nutritional Consultation</b>			
<b>Yoga Class</b>			



**Appendix K**

*Weight loss progress form*

## Your Weight Loss Progress

	Date	Date	Date	Date	Date	Date	Date
<b>Weight (Lbs./kg)</b>							
<b>Blood Pressure</b>							
<b>Hemoglobin A1c</b>							
<b>Total Cholesterol</b>							