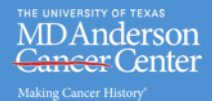




# A Quality Improvement Project to Identify and Refer Adult Obese Patients to an Integrative Health Program

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## Introduction

### Background

- Obesity is a major health concern in the U.S. and a risk factor for chronic medical problems, cancer, and early death (CDC, 2014)
- Two-thirds of the American adult population is overweight or obese (NCI, 2014)
- U.S. Preventive Service Task Force (USPSTF, 2008) recommends screening all adults for obesity and referring individuals with a body mass index (BMI)  $\geq 30$  to intensive and multicomponent behavior interventions

### Review of the Literature

Studies have shown that primary care providers (PCPs) advice on weight loss appears to have a significant impact on patients' efforts to lose weight:

- A systematic review and meta-analysis of surveys showed a positive effect of patient weight loss behavior through provider weight loss recommendation (Rose et al. 2013)
- Physicians' diagnosis of overweight increased patients' awareness of their weight, desire to weigh less, attempt to lose weight, and success on weight loss (Singh, 2010)
- Physicians' diagnosis of obesity was a predictor on a patient's attempt and success to lose weight (Singh & Lopez-Jimenez, 2010)

### Conceptual Framework

Lippitt's Theory of Change was used as the framework to guide the development of this project

### Local Problem

- The Cancer Prevention Center (CPC) at the University of Texas MD Anderson Cancer Center (UT-MDACC) developed an Integrative Health (IH) program to help individuals on weight reduction to decrease their risk of cancer
- The goal is to refer patients with a BMI  $>30$  to the IH program for a consultation with the health educator, exercise physiologist technician and registered dietician
- Currently, there is no standard process to refer patients to the IH program

### Study Question

Is the clinic staff effectively identifying and referring patients with a BMI  $>30$  to the IH program at the CPC at the UT-MDACC?

### Study Purpose

- To create a systematic process for the identification and referral of adult patients with a BMI  $> 30$  to IH program at the CPC at the UT-MDACC
- To increase the proportion of adult patient with BMI  $> 30$  referred to IH program by a minimum of 15% from baseline to 2 months post-intervention

## Methods

### Study Design

- This study used a non-experimental, pretest-post test design:
- The proportion of adult patients with a BMI  $> 30$  seen for breast, cervical and prostate cancer screening referred to the IH program was measured from 11/1/2014 to 12/31/2014 (pre-intervention)
- The proportion of adult patients with BMI  $> 30$  seen for breast, cervical and prostate cancer screening referred to the IH program was measured from 11/1/2015 to 12/31/2015 (post-intervention)
- The proportion of adult patients with a BMI  $> 30$  referred to the IH in 2014 was compared to the proportion of patients with a BMI  $> 30$  referred to the IH in 2015

### Population and Sample

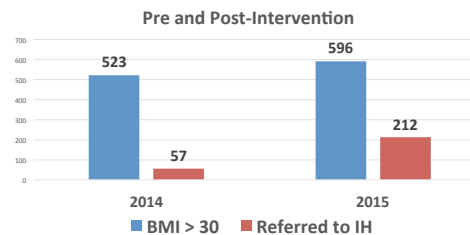
This is a convenience sample of 11 medical and nursing assistants, 13 registered nurses, 6 nurse practitioners, and 3 physicians

### Implementation

- Educational session was provided to the nursing and medical assistants, registered nurses, nurse practitioners and physicians on how to identify and flag the chart of a patient with a BMI  $> 30$  seen at the CPC at the UT-MDACC
- Educational session was provided to the nurse practitioners and physicians on how to use the 5 A's of obesity counselling
- The educational sessions were provided in a 1 hour meeting

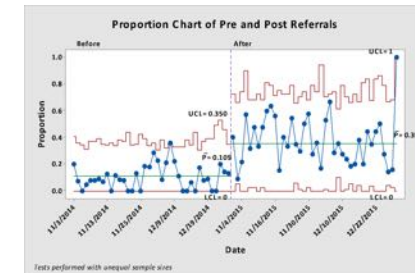
### Data Collection

- Chart review showed:
- Pre-intervention: 523 patients with BMI  $> 30$ , and 57 patients referred to IH program
- Post-intervention: 596 patient with BMI  $> 30$ , 212 patients referred to IH program (see chart below)



### Analysis

- Flow chart shows that the process was stable over time
- The proportions of referrals remained within the upper and lower control limits
- There were no special cause variations (see chart to top left)



### Analysis (cont.)

- 2 Proportion Test with two-tailed in Minitab 17 software showed:
- Pre-intervention: 466/523 patients BMI  $>30$  not referred to IH program ( $p = 0.891013$ )
- Post-intervention: 384/596 patients BMI  $> 30$  not referred to IH program ( $p = 0.644295$ )
- Difference between 2 proportions: 0.246718 with 95% CI
- **Percentage defective reduction was significant  $p < .001$ : proportion of non-referral decreased and proportion of referrals increased**

## Results

Time	Percentage of referral to IH program
Pre-intervention	10.9%
Post-intervention	35.6%
2 months post-intervention	24.9% (increase)

## Discussion

- This project showed that a standard process increased the proportion of referrals to IH program
- The potential for a 100% referral is possible if the process becomes part of patients' electronic health record to flag the chart of a patient with BMI  $> 30$  and require provider to refer patients to IH program
- Areas for further study are if patients referred to IH program were scheduled and kept their appointments and if the referrals to IH program continued at 6 and 12 months post-intervention

## Acknowledgments

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