

# Eskenazi Health's Meals at Home

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## INTRODUCTION

### Introduction

Data from Feeding America indicates that the rate of hunger among seniors aged 60 and older has increased by 53 percent since 2001. By 2030, older Americans are projected to account for one in five residents and to outnumber children for the first time in U.S. history. With seniors comprising a large proportion of the population, demand for providing meals to food insecure seniors will grow.

### Objective

The *Meals at Home (MAH)* quality improvement project set to determine the effectiveness of innovations for nutrition services for seniors: 1) a model for ordering food through an online website application, the app, and 2) preparing and delivering frozen meals ordered through the app to seniors ages 60 and over. The frozen meal approach can save delivery cost, volunteer time, and offer clients full selection and promote better intake.

## PROGRAM DESIGN

### Collaborating Partners

Eskenazi Health Food and Nutrition Service (EH FNS) and Registered Dietitian Nutritionists (RDN), Partners in Nutrition Indiana- formerly Meals on Wheels (MOW), Marion County Public Health Department (MCPHD), Regenstrief Institute (RI) data analysts and app development.

### Client Groups and Care Teams

Clients participated from four groups in the Eskenazi Health or MCPHD system. Split Cohort were enrolled from *Barton Annex*, a subsidized housing complex, and *Healthy Homes*, a MCPHD outreach program for creating safe home environments. Frozen Cohort clients enrolled from the *Senior Care* program House Call for Seniors who outreach to homebound clients, and the *Embrace Program*, which provides supportive services to clients with cancer diagnosis.

### Meals

Split Cohort received 15 weeks of traditional meals prepared primarily by EH FNS and delivered by MOW daily (Monday-Friday) and 15 weeks frozen meals delivered weekly. The MOW meals consisted of a hot meal and sack cold dinner. Frozen Cohort received 14 frozen meals prepared by EH FNS and delivered once weekly. 18 meals were available to choose from. Meals were medically tailored to meet specific nutritional needs.

### Measurement Tools and App

RI developed and tested the app specifically for seniors with lower literacy for a previous study. Enhancements allowed for easier tracking, delivery frequency and monitoring. A Program Satisfaction Survey was administered four times during the 30 week period. Client Assessments provided questions for screening, determining dietary/health habits and home environment. Both the program coordinator and a data analytics team collected data and worked directly with clients.

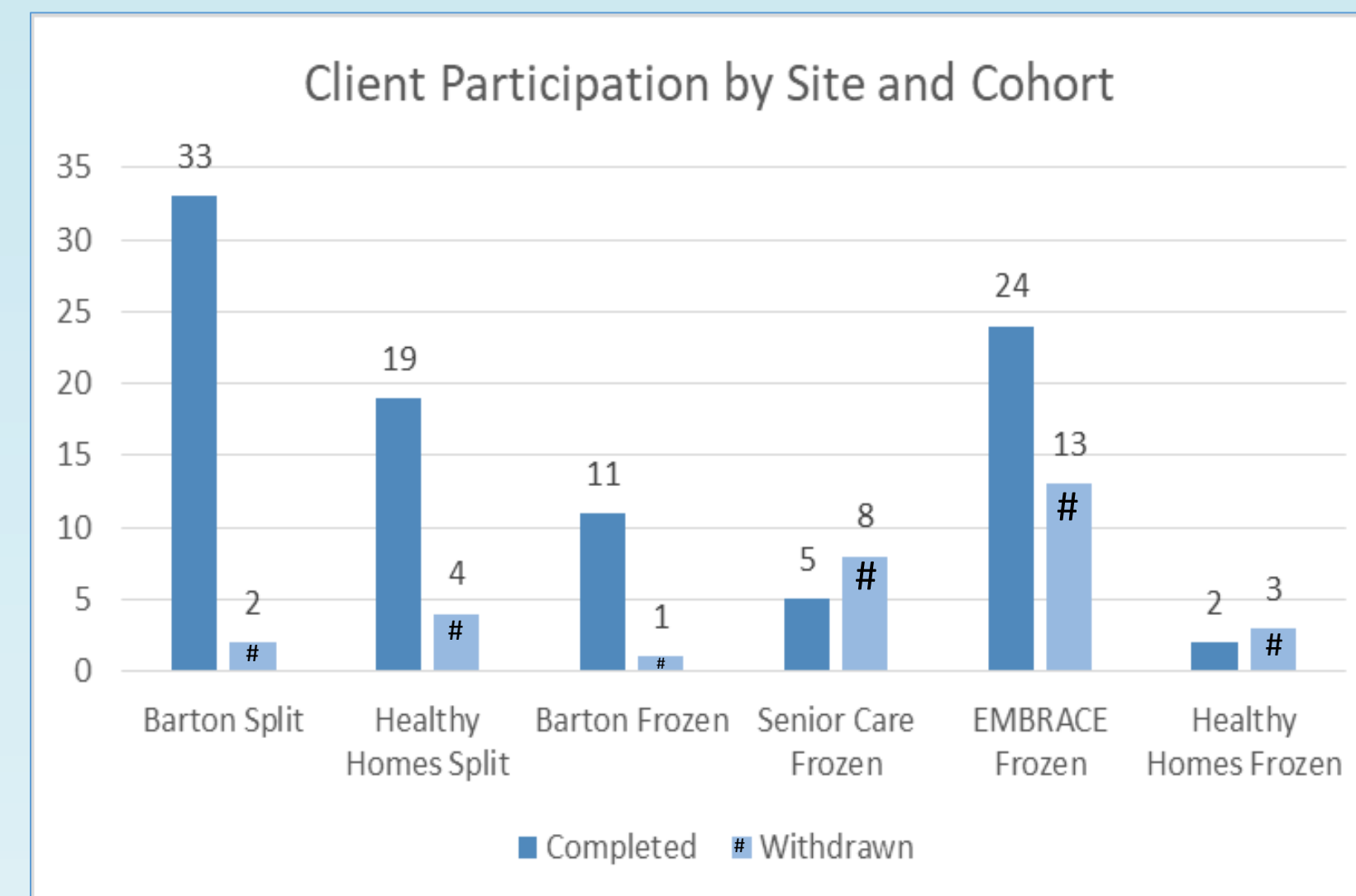


Figure 1: Sites and Cohorts

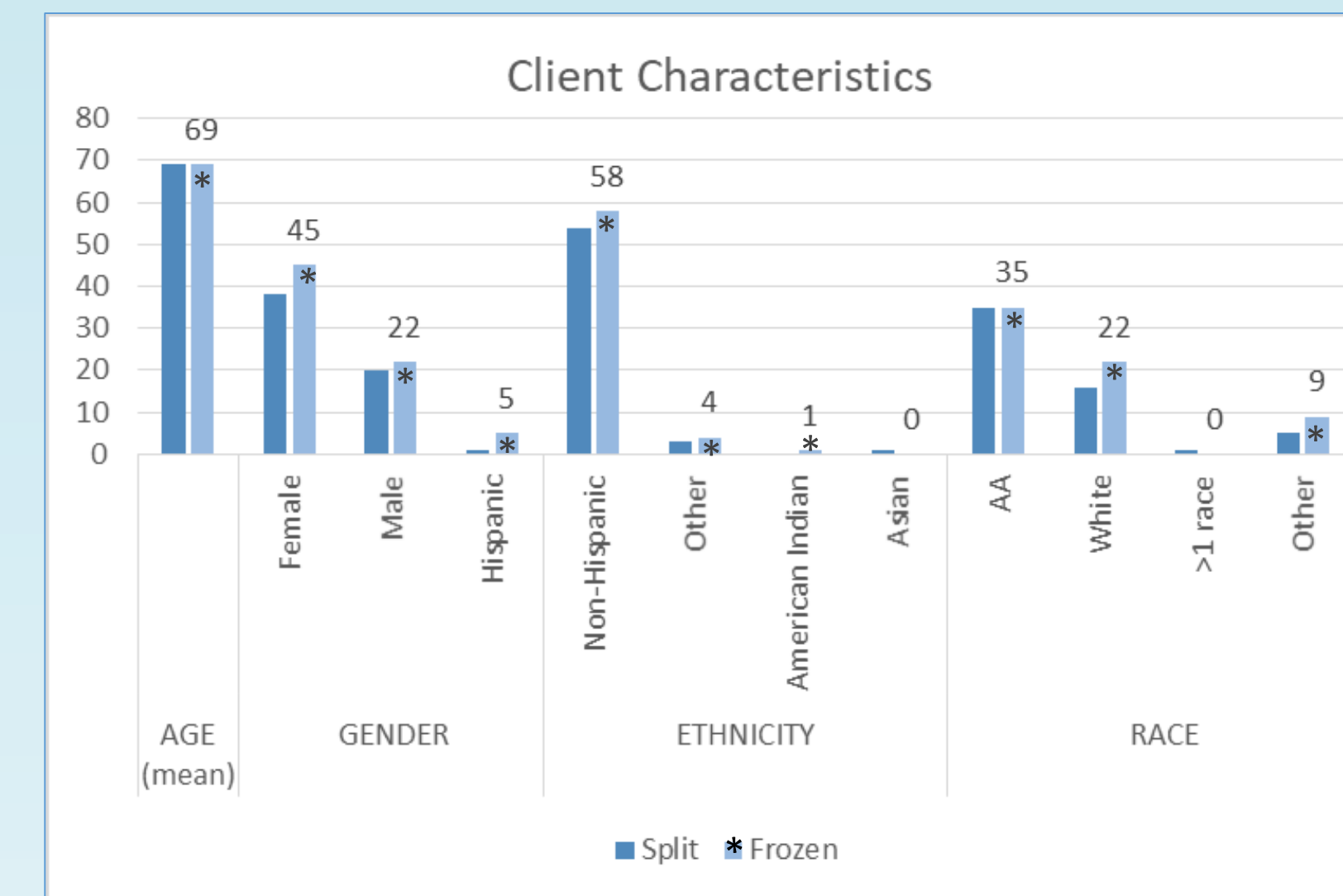


Figure 2: Client Characteristics

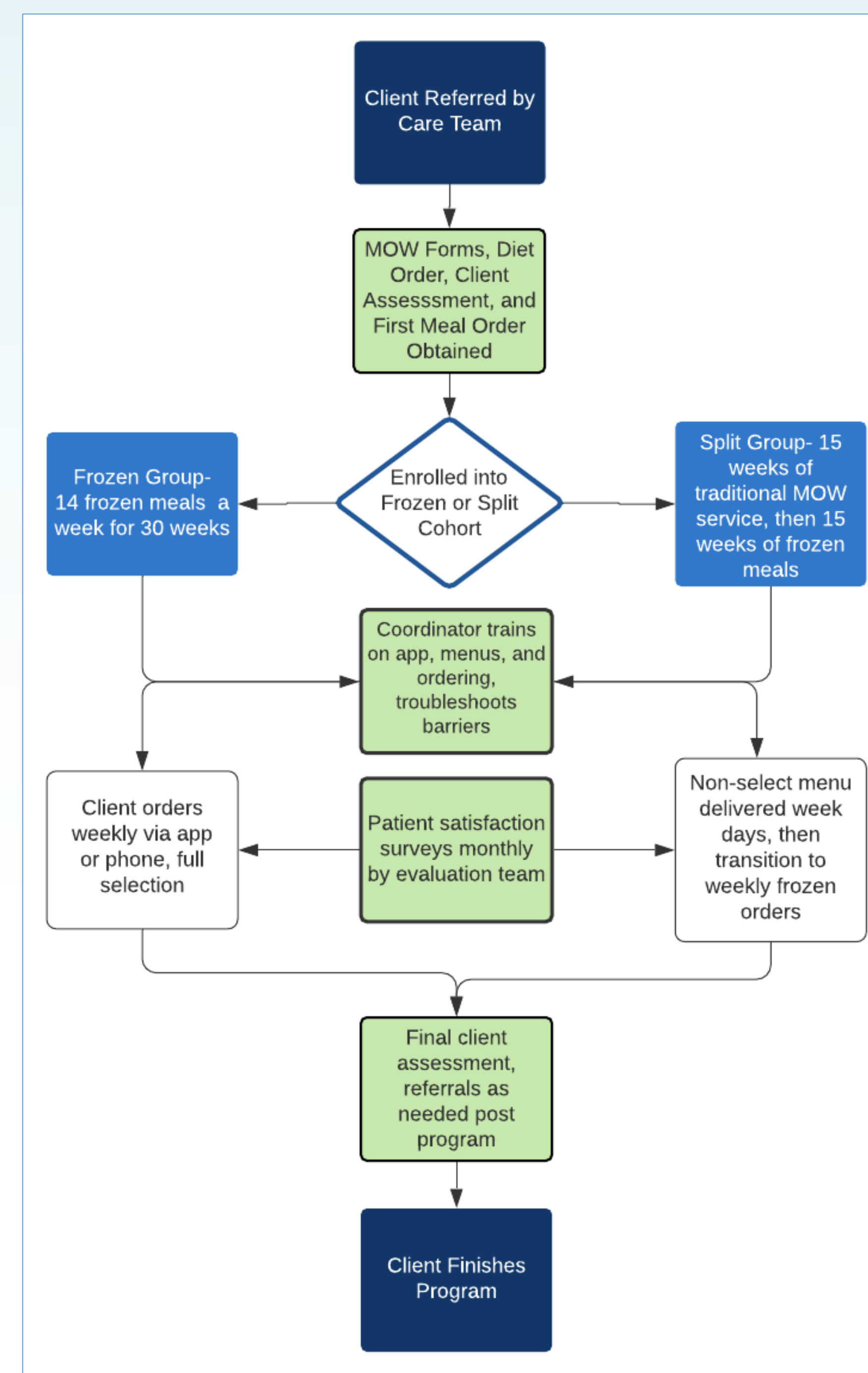


Figure 3: Program Workflow

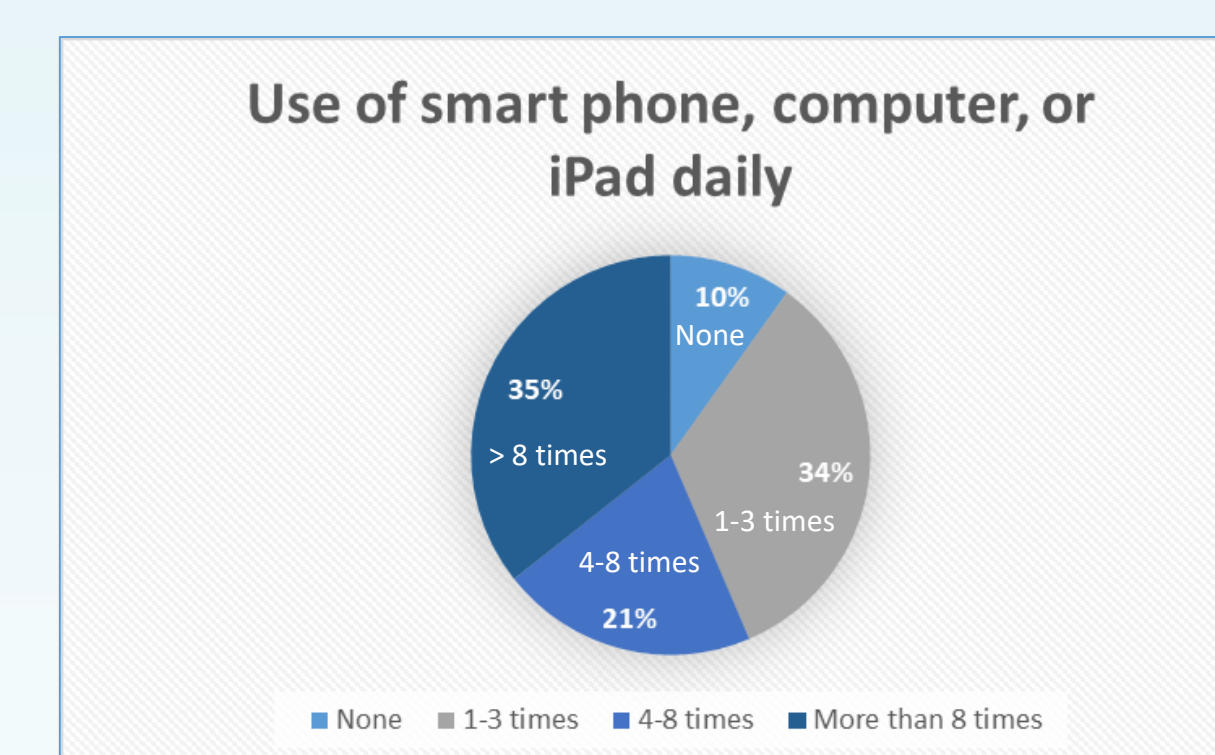


Figure 4: Use of Technology

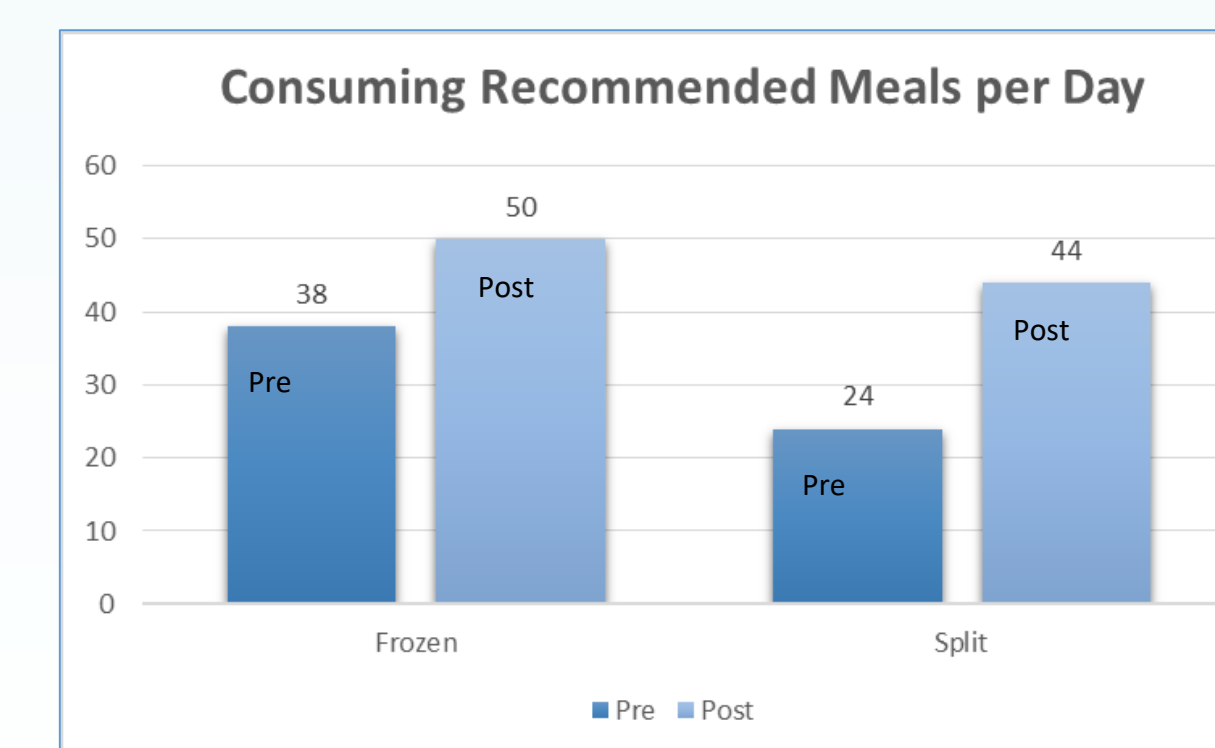


Figure 5: Meals Consumed

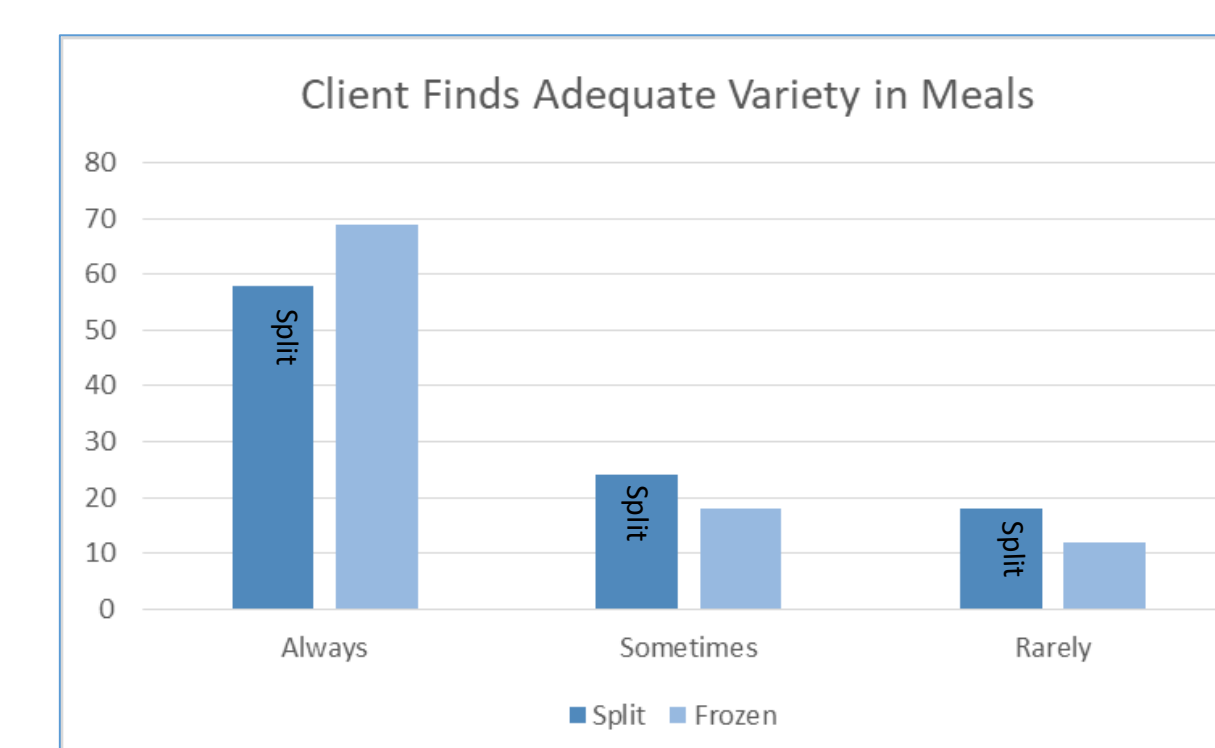


Figure 6: Meal Variety

## RESULTS

The project enrolled a total of 125 clients; 58 of whom were in the split group and 67 in the frozen. Figure 1 shows these samples sizes, the number of clients in each program within the split and frozen groups. Additionally, it shows that 52 of the 58 (90%) participants enrolled in the split group completed the project and that 42 of 67 (63%) in the frozen group completed the project.

Characteristics for each cohort are as summarized in Figure 2. Mean age of both groups was 69 years. Two out of three participants were women in both the split and frozen groups. Just over one-half in each group were African-American with most of the rest non-Hispanic white.

Overall, only 10% of clients reported not using a device daily that would be able to accommodate ordering (Figure 4). Once data enabled tablets were initiated in a trial group, 75% used them to place orders.

Clients reported more success with meeting daily meal needs (Figure 5) both groups increased their daily meal intake (3 or greater) 38% to 50% in split and 24% to 44%. The frozen meals were equally accepted by the groups. Split cohort and the frozen cohort did not see more waste (both consuming about 89% of meals), consumed equal amounts of the meals, and noted similar rates of satisfaction with meal variety and quality (Figure 6).

A final data review and evaluation is underway by RI. Formal results and conclusions will be available at that time.

## LESSONS LEARNED

Barriers were related mostly to technical devices, limited access to Wi-Fi, limited data/usage plans on phones. Frozen cohort clients often changed meals via phone vs. the app. Once data enabled tablets were issued, more frequent use of the app was noted.

Cohort groups were not matched for health status, making comparisons more challenging. Retention in Senior Care and Embrace programs was lowest due to transitions to hospice care or changing appetites as clients medical conditions changed.

Effective communication among partners is critical when changing processes, particularly within the MOW structure. Adding the frozen meals and different scheduling necessitates additional staff training.

Pandemic guidelines affected frozen meal production and delivery service for frozen participants. The frozen meal clients received meals delivered by an overnight commercial carrier. The participants were contacted monthly for a month's meal preferences.

## ACKNOWLEDGEMENTS

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