



# The Impact of EatWell Meal Kits on Food Security and Barriers to Healthy Diets



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## Introduction

- In 2019, approximately 35 million Americans (10.5% of households) were food insecure at least some time during the year
- Understanding barriers to shopping, cooking and eating healthfully are needed to design effective interventions to reduce food insecurity
- Participation in home-delivered meal interventions may serve as an effective strategy to reduce food insecurity and associated health care expenditures

## Objective

To evaluate satisfaction of EatWell meal kits and impact on eating behaviors among low income, food insecure households

## Methods

### PHASE 1 (Pilot complete)

- **Sample:** 11 food insecure participants
- **Study Design:** 6-week pilot study that provided participants a free meal kit weekly
- **Data Collection:** 3 phone interviews were completed at baseline, 3-week and 6-week follow up to obtain the following information:
  - 2 item USDA food security screener
  - 3, 24-hour dietary recalls
  - Questionnaire on typical cooking habits and meal kit satisfaction

### PHASE 2 (June 2021, Ongoing)

- **Sample:** 34 food insecure participants
- **Study Design:** 6-week pilot intervention. Participants receive a free meal kit each week
- 20 participants have completed 3-week follow up
- 12 participants have completed 6-week follow up
- **Data Collection:** Phone interviews are being conducted at baseline, 3-week, and 6-week follow up to obtain data using the following:
  - 6 item USDA Food Security Screener
  - Modified NIH EATS Quick Food Scan (fruit and vegetable screener)
  - Questionnaire on shopping, cooking habits and meal kit satisfaction

## Results

Table 1. Participant characteristics

PHASE 1 (n=11)	
Age, y	33.4
Female, %	100
# of children in home, mean	1.8
Married, %	60%
PHASE 2 (n=34)	
Age, y	35.5
Female, %	93.5%
# of children in home, mean	1.4
Married, %	19.4%

### PHASE 1

- At 6-week follow up, 67% of participants strongly agreed that EatWell meal kits made it easier for them to eat more healthfully
- Participants reported that the meal kits:
  - Improved ease of cooking (quick, everything already in box)
  - Food was healthy and nutritious
  - Increased the number of vegetables purchased at the grocery store
- At 6-week follow up, 100% respondents agreed that they would be likely or very likely to recommend EatWell meal kits to a friend

### PHASE 2

Fig 1. Percent of dinners cooked at home

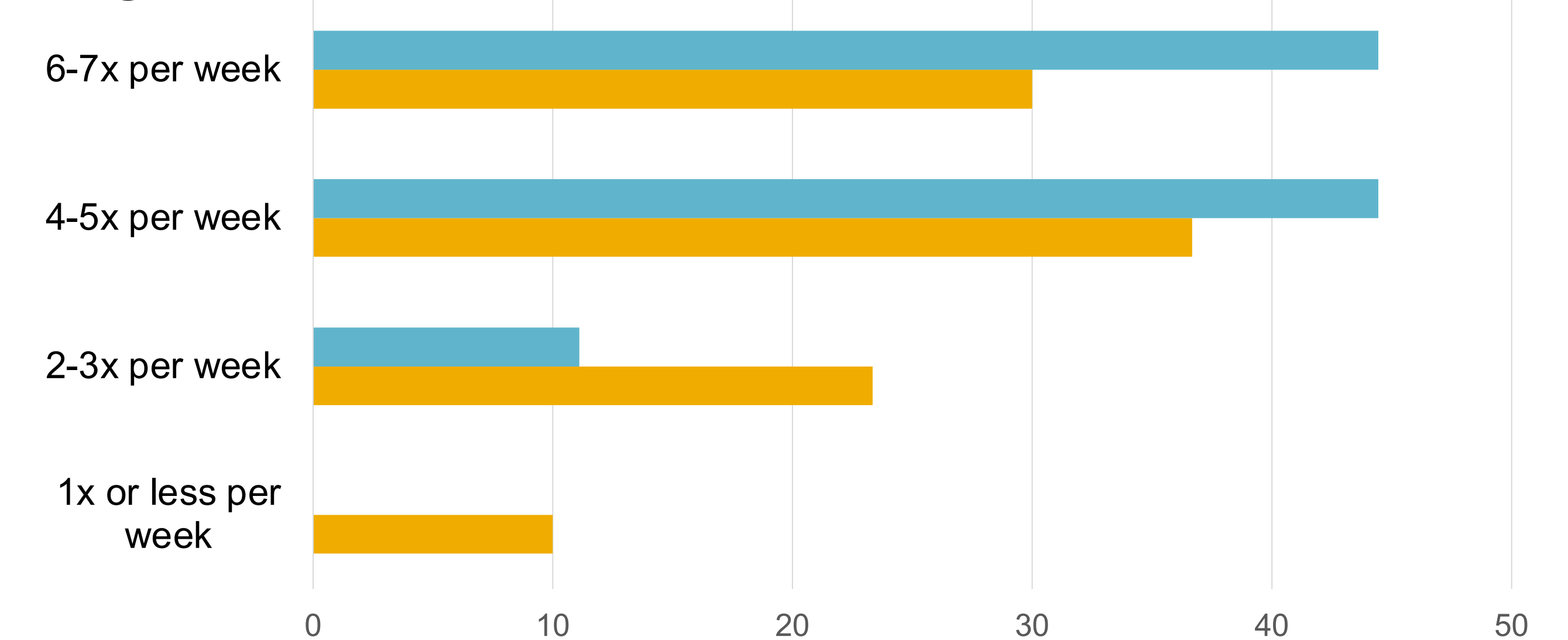


Fig 2. Frequency of fruit intake, %

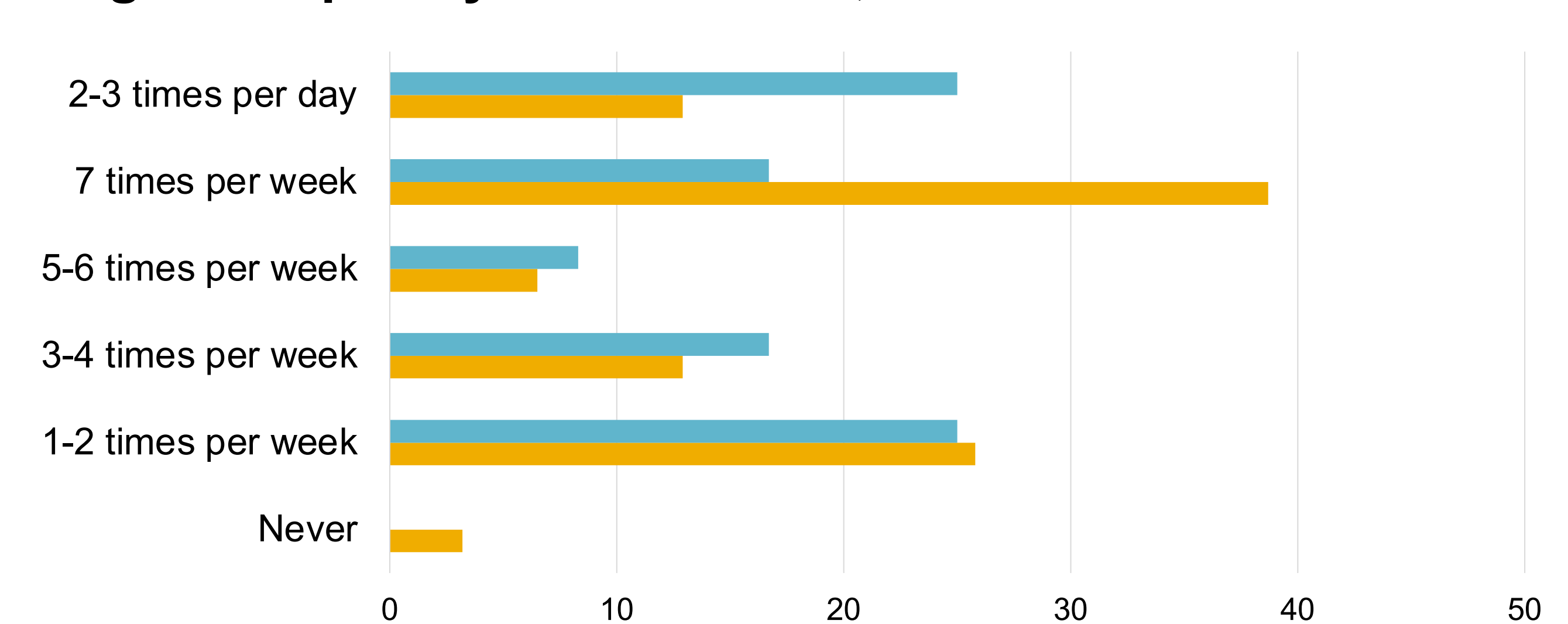
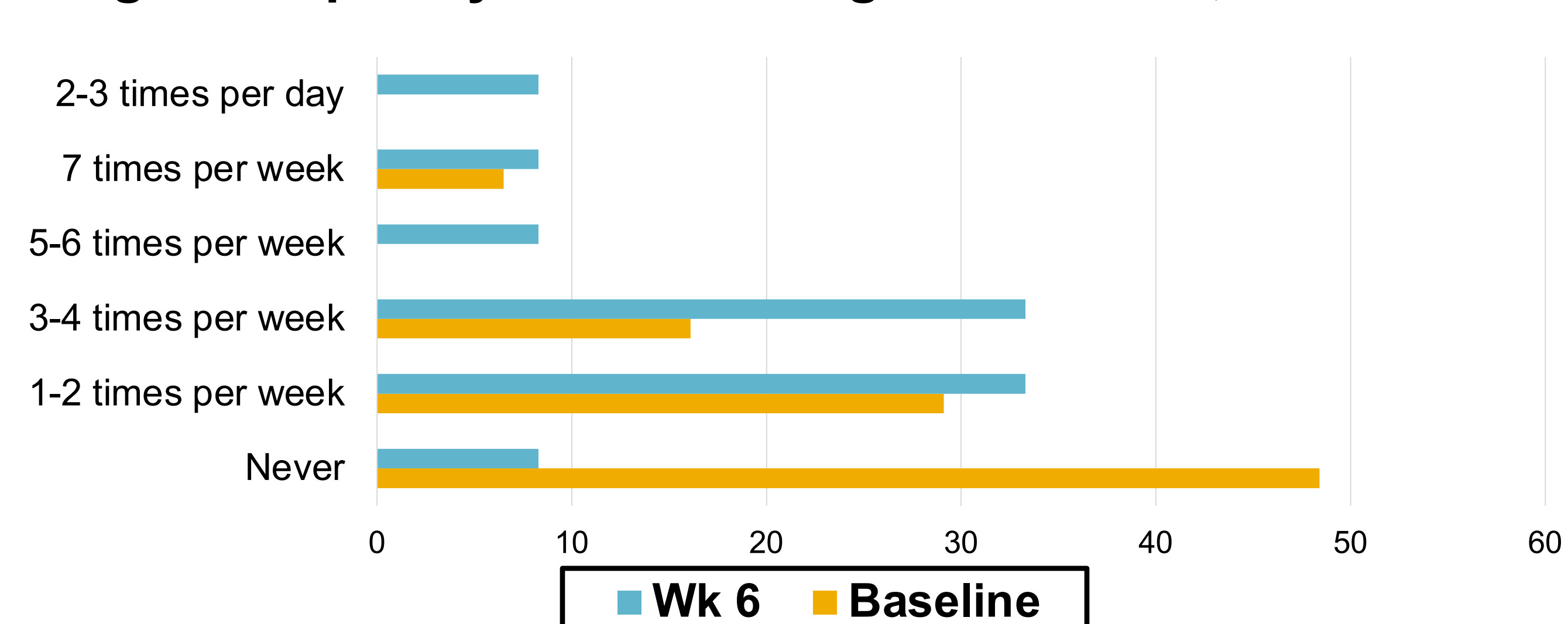


Fig 3. Frequency of cooked vegetable intake, %



## Strengths and Limitations

### Strengths

- Accessible and culturally tailored meal kits
- Used validated dietary assessment tools to observe changes in fruit and vegetable intake

### Limitations

- Participant retention (call response rates dropped from 100% to 27% in phase 1, 82% of participants have been retained in phase 2)
- Health outcomes were not obtained in the pilot studies

## Conclusions

- EatWell meal kits positively impacted self-reported cooking and shopping experiences resulting in increased satisfaction
- Fruit and vegetable consumption increased in frequency over the course of 6 weeks
- Additional studies are needed with larger sample sizes and longer follow up to obtain data on the impact of meal kits on changes in health outcomes, such as cardiometabolic and physiological stress