



Background

- Childhood obesity involves the accumulation of excess fat, creating detrimental effects on overall health such as high blood pressure, heart disease, and diabetes.¹
- Childhood obesity has increased since 1975.
 - 2016: **18%** of adolescents ages 5 to 19 now being categorized as obese compared to 4%.²
 - 2022: **16.6%** of US children ages 10-17 (n = 33,259,331) are obese, with an additional 15.2% being overweight.³
- Potential risk factor** of childhood obesity involves **family**.
 - Potential determinants of food-related family factors during meals.⁴
 - Variations in family functioning, encompassing both general interpersonal factors and **specific food-related behaviors**.
 - Parenting behaviors, particularly in feeding practices like **indulgent feeding styles or restrictions**, can influence the early onset of childhood obesity in at-risk populations.⁵
- Studies have explored various parental and familial environments that may contribute positively or negatively to childhood obesity.
 - Still a scarcity of research trying to compile different interpersonal family relationships into a comprehensive understanding of the association between an individual's family relationships and obesity.

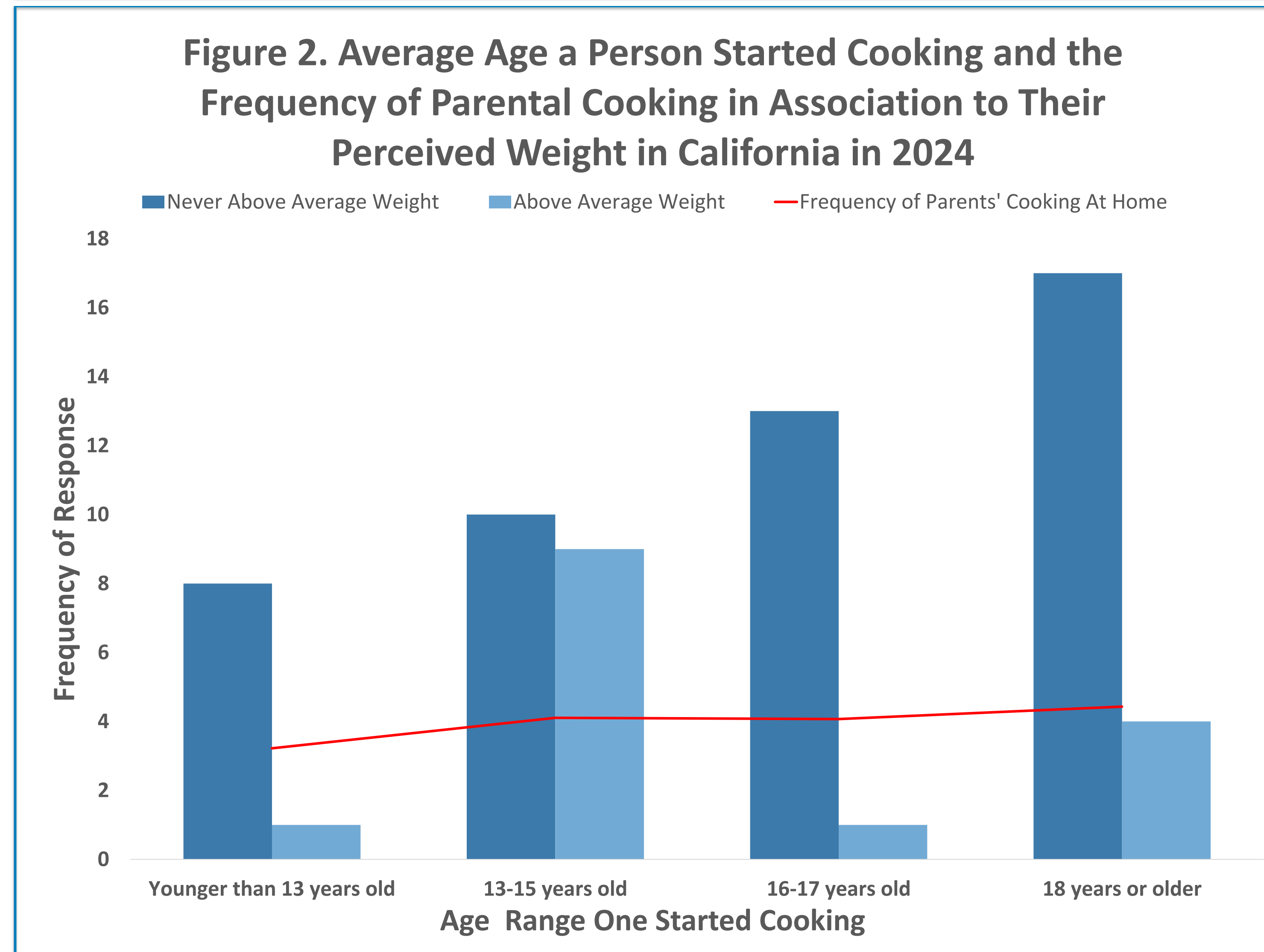
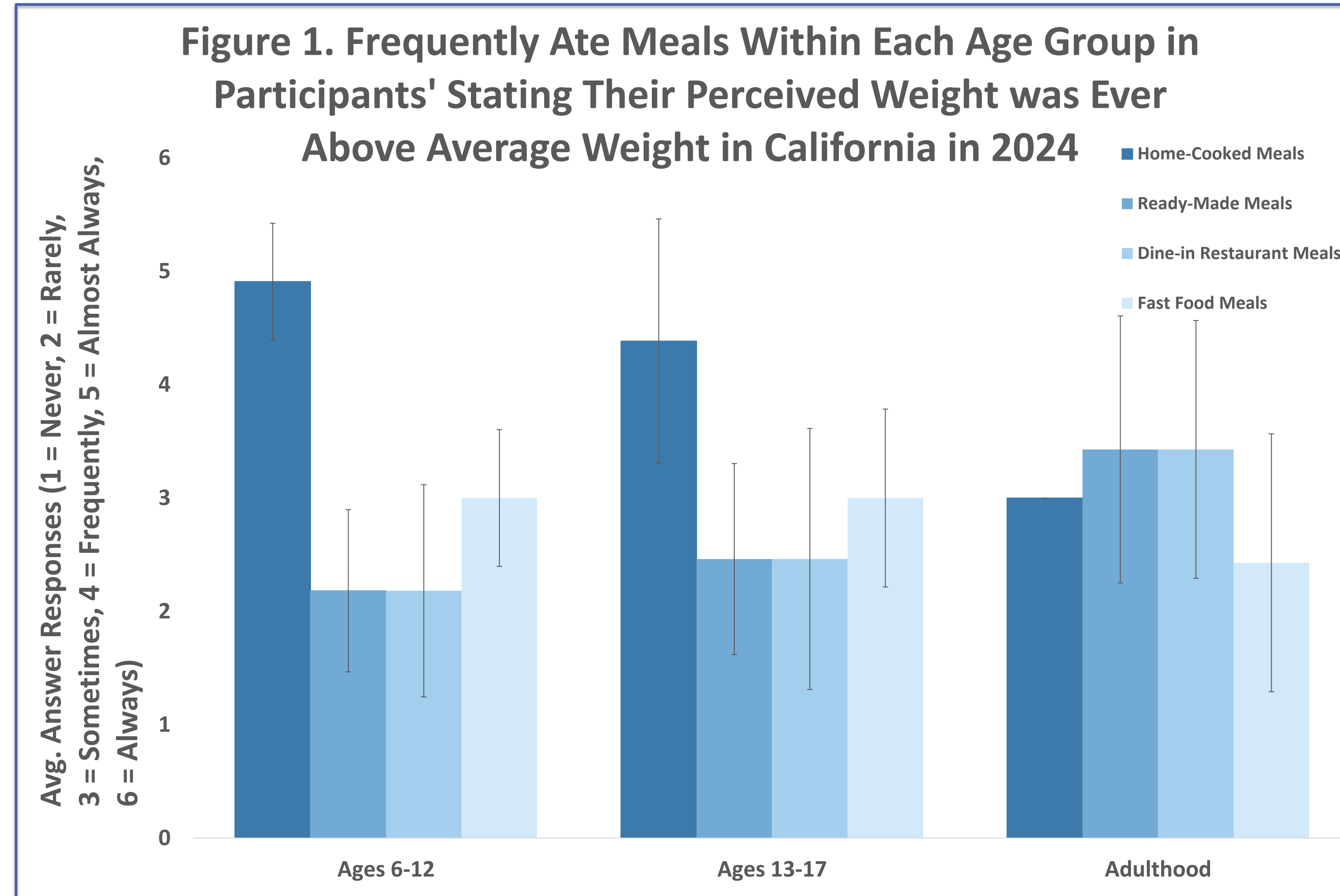
Objectives

We want to investigate childhood obesity in California and its associations with various family feeding factors.

Methods

- We conducted a **quantitative cross-sectional study** to explore how different determinants within family relationships influence the development of childhood obesity.
- We distributed a **Qualtrics survey** to adults (age 18+) through social media (i.e., Instagram, Snapchat), email list servers, and direct messages.
 - Inclusion criteria** required that the participants had no current or prior experience with eating disorders.
 - Data collection lasted for 2 weeks in Spring 2024.
- Exposure:** Family-feeding factors and habits
 - Parental cooking, different meal types, individual cooking, prioritized balance meals, food type incorporations
- Outcome:** Perceived weight throughout three different age ranges: 6-12, 13-17, and adulthood
- Analysis using R programming.
 - Chi-square testing** was used to examine the p-value.

Results



- N = 63
- Home-cooked meals were eaten most frequently in the age groups 6-12 and 13-17.
- No statistically significant** association between the frequency of meals ate within each age group in accordance with their perceived weight being overweight (**p-value = 0.382**).
- Statistically significant** association between those who reported that they frequently ate ready-to-go meals during the ranges of 13-17 and had a perceived weight above average (**p-value = 0.044**).
- Majority of the participants started cooking in adulthood (n=21).
- Majority **did not** perceive their weight as **above average** when they started cooking
- No statistically significant** association between the perceived weight, the age started cooking, and parental cooking (**p-value = 0.131**).
- Statistically significant** association between those who reported that they started cooking at the ages of 13-15 years old and their perceived weight being above the average weight (**p-value = 0.018**).

Characteristic	N = 63 [†]
Age Groups (years)	
18-24	44 (69.8%)
25-34	14 (22.2%)
35 or over	5 (7.9%)
Gender	
Female	42 (66.7%)
Male	21 (33.3%)
Race/Ethnicity	
Asian or Pacific Islander	22 (34.9%)
Hispanic or Latinx	18 (28.6%)
Middle Eastern or North African	3 (4.8%)
White	12 (19.0%)
Mix/Other	8 (12.7%)
Parents' Education	
12th grade or less	8 (12.7%)
Graduated high school or equivalent	8 (12.7%)
Some college, no degree	9 (14.3%)
Associate degree	4 (6.3%)
Bachelor's degree	23 (36.5%)
Post-graduate degree	11 (17.5%)

Limitations

- Recall bias** – Participants may not accurately self-report past weights and eating behaviors.
- Stigmatization** - Possibility of participants misreporting data due to shame.
- Small sample size** - Difficult to detect significant associations with 63 participants, limiting statistical power.

Conclusions

- Overall, we found no significant association between different family feeding factors and childhood weight.**
- Out of the total 63 participants, average age was 24.95 with **28 reporting ever being obese (44.4%)**.
- Overall significance between each eating habit and perceived weight variable had a p-value > 0.05.
- Significant associations between obesity and cooking at ages 13-17 (**p-value = 0.018**), and between obesity and frozen ready-to-go meals (**p-value = 0.044**)
- No statistically significant** association between parental education and perceived weight (**p-value = 0.719**).
- The future direction of study should look specifically at the ages (13-17) and include factors of family engagement (e.g., the frequency parents go grocery shopping and if their child goes along with, or on average how often the child suggests what foods the family should eat).

Policy Implications

- Promote Family Meal Preparation and Cooking Education
 - Implement cooking education programs in schools and communities to encourage cooking skills at a younger age
- Encourage Balanced Meals in Schools and Homes
 - Providing education, resources, and access for parents to prepare balanced, nutritious meals
- Regulate Frozen Ready-to-Go Meals
 - Implement stricter regulations on the nutritional content of frozen ready-to-go meals

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References & Supplementary

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Check QR code for survey questions and codebook!

