

Survey of barriers to fruit and vegetable access among food-insecure families with overweight or obese children

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INTRODUCTION

How prevalent is childhood obesity in Ingham county?

- 29.5% of children over 2 years old are overweight or obese¹
- 28% of preschoolers age 2-5 are overweight or obese²

How prevalent is food insecurity in Ingham county?

- 70% of children do not meet the recommended fruit and vegetable requirement²

What are the consequences of food insecurity?³⁻⁸

- Increased risk of the following:
 - Depression
 - Developmental problems
 - Obesity
 - Chronic health conditions such as heart disease and diabetes
- Childhood obesity is a gateway condition that puts children at risk of these health conditions in the future⁶

How are food insecurity and childhood obesity related?

- Children from low-income families lack access to fresh fruits and vegetables⁹
- Children who experience poverty by age 2 are 166% more likely to develop childhood obesity¹⁰
- Evidence suggests there is a negative correlation between increased intake of fruits and vegetables and childhood obesity¹¹

What are produce prescriptions and how can they help?

- Produce prescription programs provide weekly/monthly funds to purchase fruit and vegetables
- Health care professions can "prescribe" produce to individuals with chronic health conditions to improve health outcomes and improve access to healthy foods
- Several produce prescription programs have demonstrated efficacy in improving health outcomes such as lowering blood pressure and HbA1c in adult populations
- There is a gap in research regarding the benefit of produce prescription programs in improving short- and long-term health outcomes in food-insecure overweight and obese children

OBJECTIVES

- Identify barriers to fruit and vegetable consumption in food insecure families with children whose BMIs are above the 85th percentile
- Identify strategies to increase fruit and vegetable consumption among food insecure families with children whose BMIs are above the 85th percentile
- Confirm utility of produce prescription programs as a tool to increase daily fruit and vegetable consumption in food-insecure children with a BMI above the 85th percentile and combat childhood obesity

METHODS

Eligibility criteria:

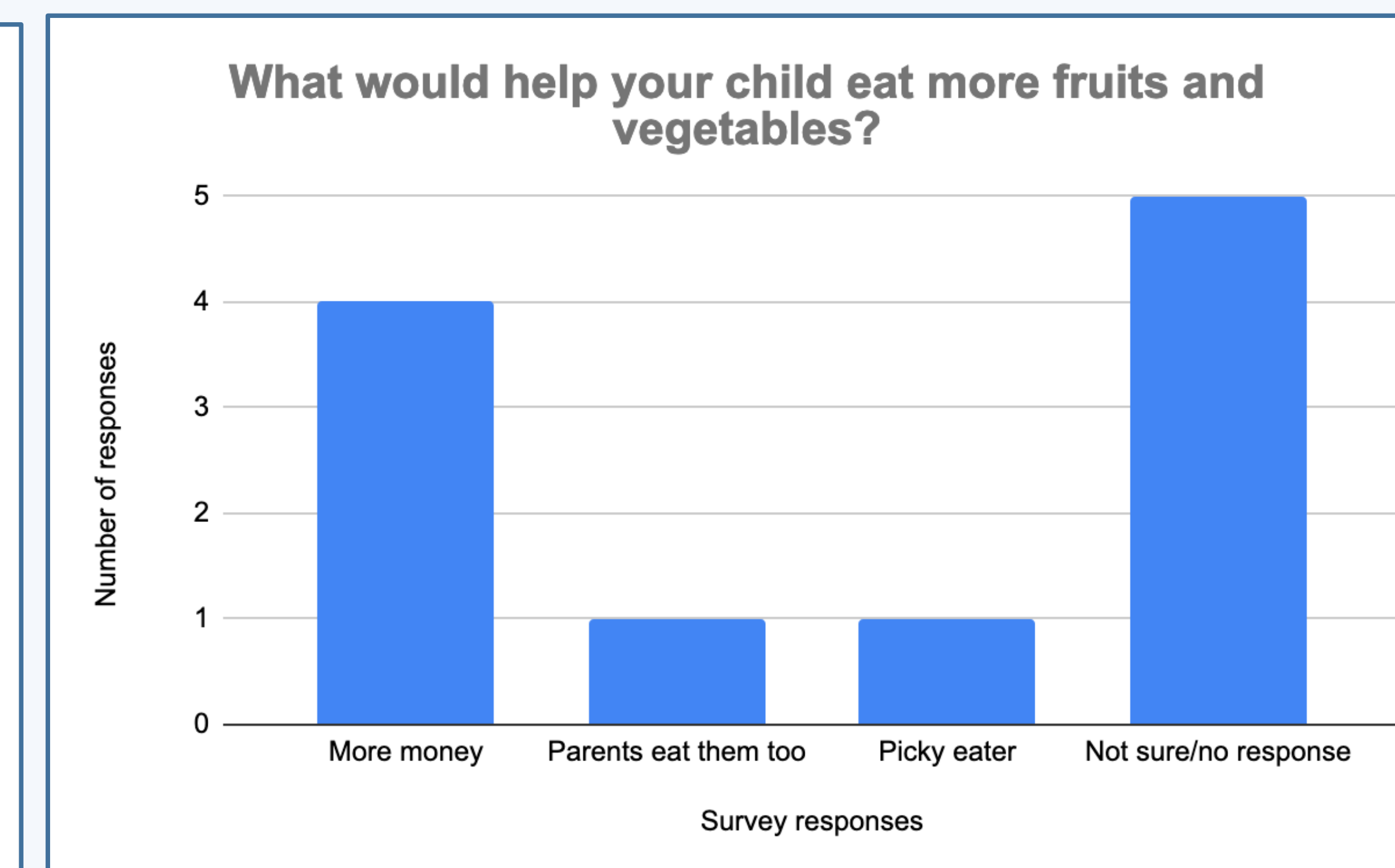
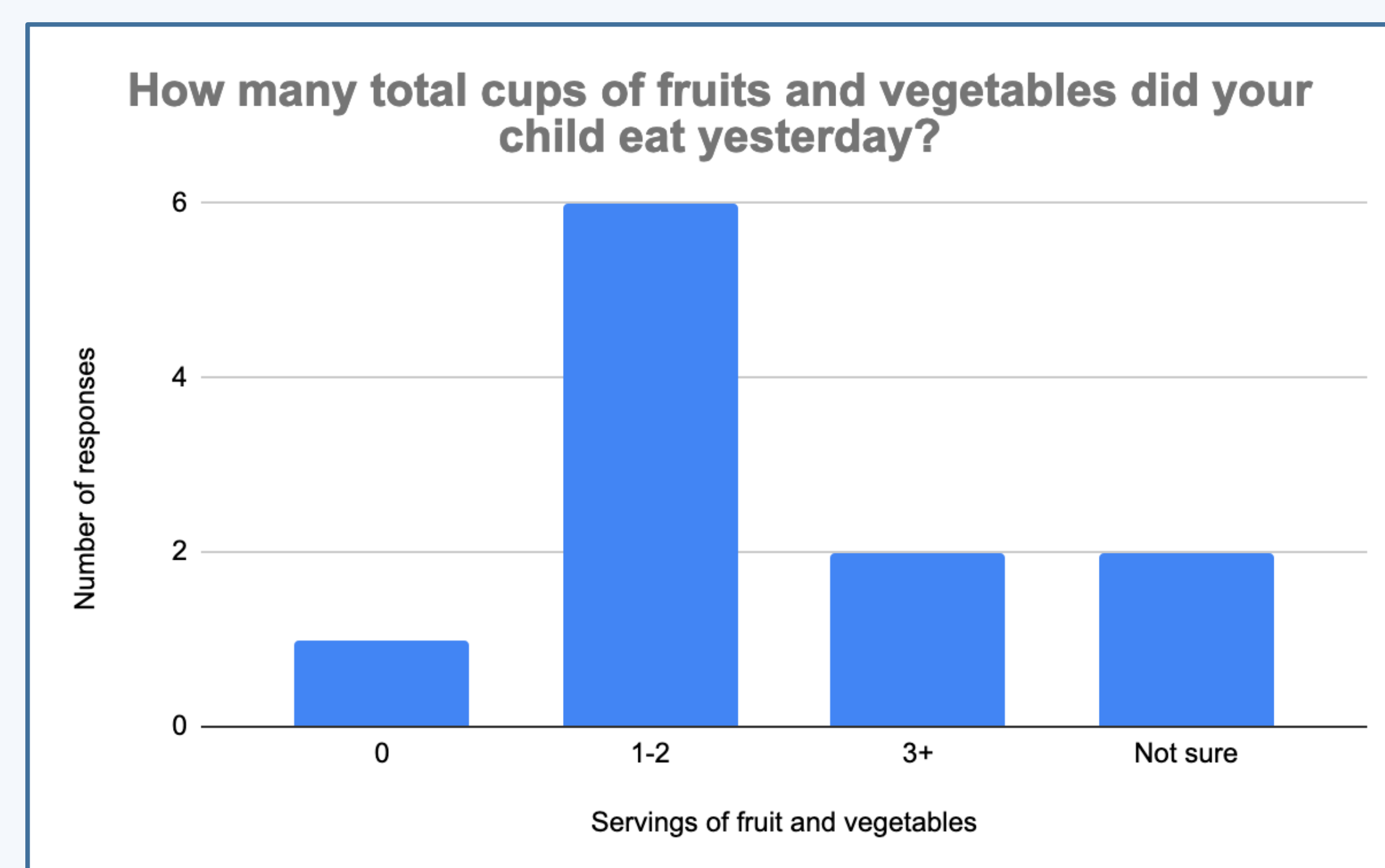
- Age 5-17 years old
- BMI above the 85th percentile
- Demonstrate food insecurity (assessed using USDA Food Security Survey)
- English speaking

Eligible patients at Care Free Medical were identified using an electronic medical record search and were enrolled via phone interview. Of the 45 eligible patients, 11 participants were available/ interested in the program.

Caregivers of participants were given a series of questionnaires as part of the Capital Area Prescription for Health Program. This study focuses on care givers' answer to the following questions:

1. How many total cups of fruits and vegetables did your child eat yesterday?
2. Was the amount of fruits and vegetables that they ate yesterday typical for them?
3. What would help your child eat more fruits and vegetables?

Results were analyzed using Microsoft Excel.



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RESULTS

- 7 out of the 11 participants did not eat the recommended 3-5 daily servings of fruit and vegetables
- 7 of the 11 participants' caregivers reported consumption of 0-2 cups of fruit and vegetables yesterday
- All caregivers reported fruit and vegetable intake was typical for their child
- 4 out of the 11 participant caregivers cited having "more money" as the keyway to increasing their child's fruit and vegetable intake
- 1 out of 11 participant caregivers cited "child being less picky"
- 1 out of 11 participants cited caregivers cited "parent eating them too"
- 5 out of 11 caregivers said not sure/no answer.

CONCLUSIONS

The initial survey results revealed most participants enrolled in the study **do not meet the recommended daily amount of fruit and vegetable consumption.**

Also, most participant caregivers who provided responses cited **having more money would help increase their child's daily fruit and vegetable intake.**

The **results suggest** the possible utility of produce prescriptions to increase daily fruit and vegetable consumption in food-insecure children with BMIs above the 85th percentile.

Further research is needed to address the efficacy of produce prescription programs as a tool to increase daily fruit and vegetable consumption in food-insecure children with a BMI above the 85th percentile and combat childhood obesity

Limitations:

- Need greater sample size to demonstrate a larger effect
- Only surveyed English speaking individuals
- Care giver reporting could be different than participant's true fruit and vegetable consumption
- Only one clinic used for participant sampling
- Over half of caregivers did not provide input to question 3

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