

# COVID-19 Vaccination among Young Children: Associations with Fathers' and Mothers' Influenza Vaccination Status



Natalie Grafft, MSW, Cristina Gago, PhD, In Young Park, PhD, Katherine W. Bauer, PhD, Sebastien Haneuse, PhD, Jess Haines, PhD, Kirsten K. Davison, PhD



**BOSTON COLLEGE**

## Aims

1. To examine characteristics of fathers who were knowledgeable about their child's COVID-19 vaccination eligibility versus those who were unaware.
2. To examine the association between parents' influenza vaccination status (i.e., father only, mother only, both parents, or neither parent vaccinated) and their children's COVID-19 vaccination status.

## Sample

- 462 father-mother dyads from Fathers & Families (F&F).
- F&F is a cohort of fathers (N = 1,272) with young children and their co-parents.
- Data from the June 2022 - July 2023 survey were used.

**Fathers & Families**



## Vaccination Measures

### Child COVID-19 Vaccination:

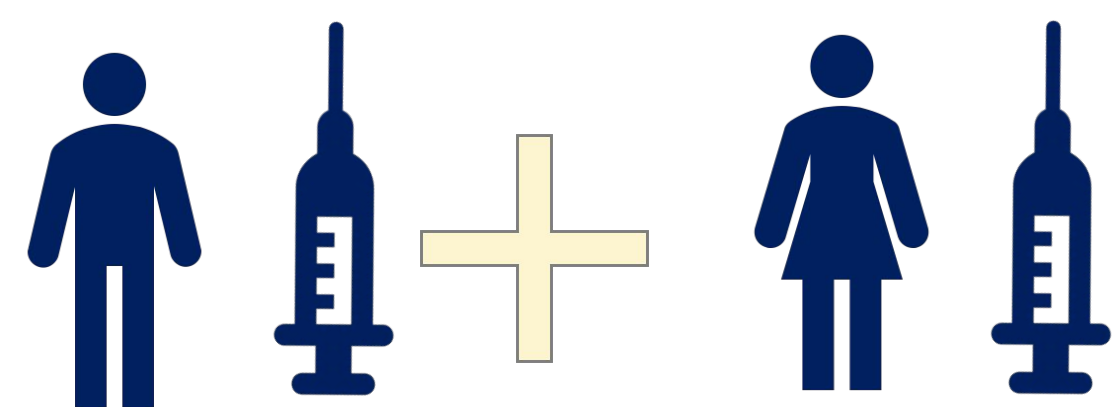
- Children < 5 years were eligible for the COVID-19 vaccine on June 18th, 2022.
- Fathers reported on 2 child vaccination questions between June 23rd, 2022 and July 5th, 2023.

### Parent Influenza Vaccination:

- Fathers and mothers independently reported on their influenza vaccination status.

#### Dyadic Variable

"Have you received the flu vaccine in the past 12 months?"

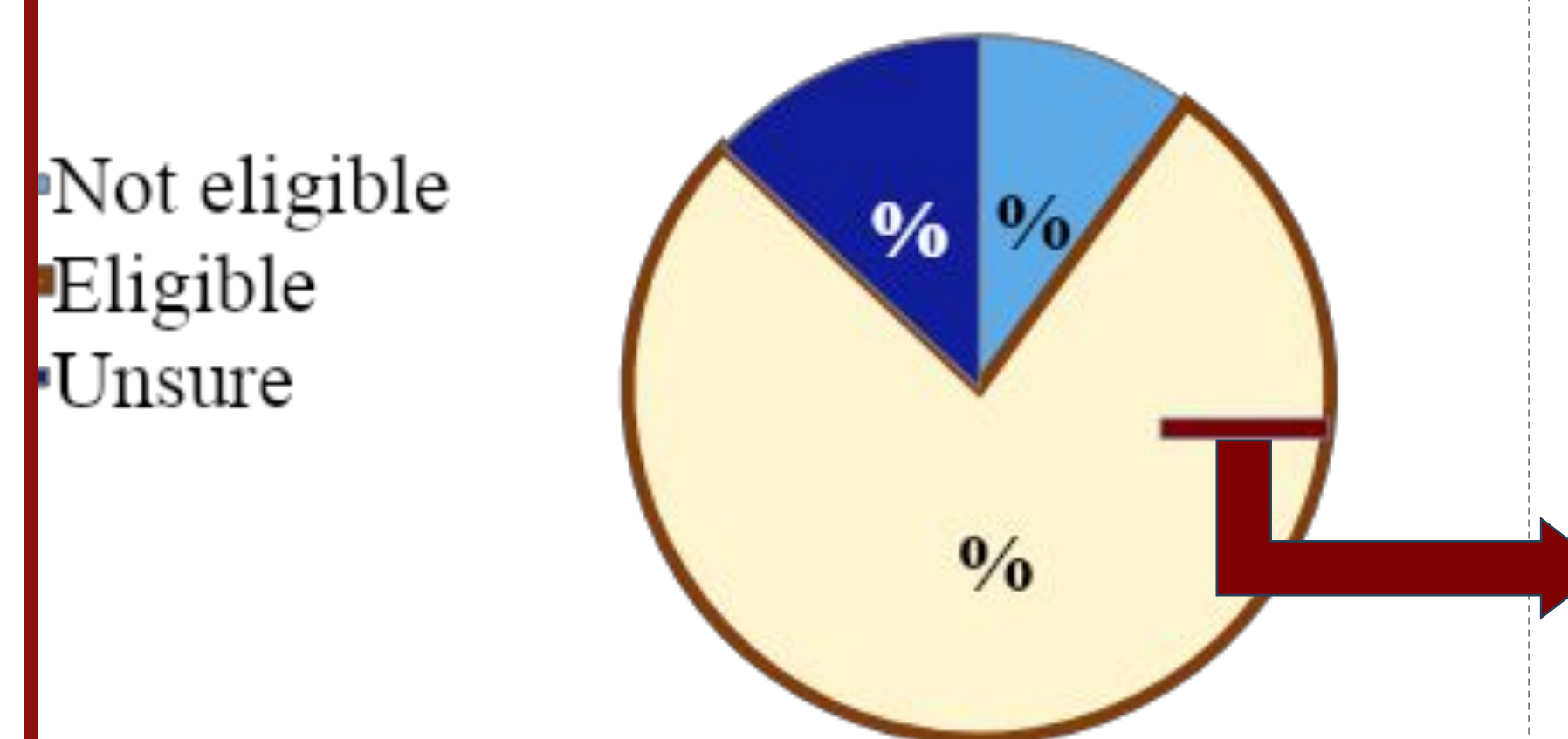


- Father only vaccinated
- Mother only vaccinated
- Both parents vaccinated
- Neither parent vaccinated

## Results

### Aim 1:

1. "Is [child-name] eligible to receive the COVID-19 vaccine?"
2. If yes, "Has [child-name] received at least one dose of a COVID-19 vaccine?"



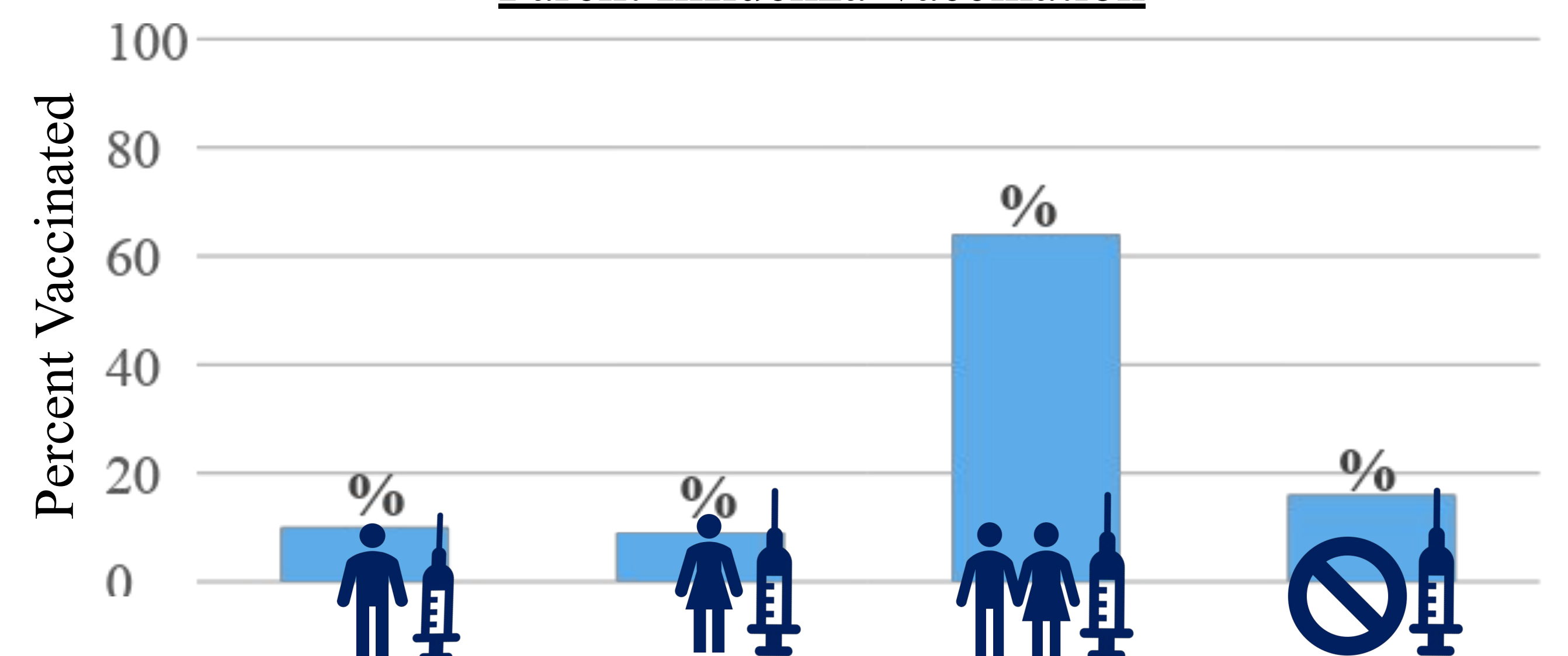
When fathers were aware their child was eligible for the COVID-19 vaccine, **68% of children** (243 out of 358) received at least 1 dose of the COVID-19 vaccine

**Conclusion:** 23% of fathers were not aware their child was eligible for the COVID-19 vaccine

- Fathers who were vaccinated against influenza and COVID-19 were more likely to be knowledgeable about their child's eligibility for the COVID-19 vaccine.

### Aim 2:

#### Parent Influenza Vaccination



#### Associations between fathers' and mothers' influenza vaccination and child COVID-19 vaccination

Parent Influenza Vaccination <sup>a</sup>	OR (95% CI)	AOR <sup>b</sup> (95% CI)
Father only vaccinated	3.21 (1.80-5.83)***	2.83 (1.52-5.36)**
Mother only vaccinated	4.47 (2.50-8.14)***	4.04 (2.16-7.68)***
Both parents vaccinated	9.65 (6.23-15.48)***	10.33 (6.29-17.53)***

<sup>a</sup>reference group: neither parent vaccinated; <sup>b</sup>adjusted for income, parent education, child race/ethnicity, child age, fulltime childcare, recruitment site

## Analysis

1. Frequencies and means of demographic and vaccination characteristics of fathers who were knowledgeable about their child's COVID-19 vaccination eligibility versus those who were unaware of their child's COVID-19 vaccination eligibility, incorporating Inverse Probability Weighting (IPW) to account for potential selection bias, were examined.
2. Logistic regression to examine the association between parent influenza vaccination and child COVID-19 vaccination, incorporating IPW to account for selection bias into the dyad sample. Fathers who lacked knowledge about their child's COVID-19 vaccination eligibility status were retained by assuming their child was unvaccinated.

## Implications

**Tailoring vaccine communication strategies for fathers is critically important, as our findings clearly demonstrate many fathers lack knowledge around, yet may have substantial influence over, child vaccination.**