



Factors influencing COVID-19 vaccine uptake among reproductive-aged women in Jamaica

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BACKGROUND

Little is known about COVID-19 vaccine uptake, vaccine confidence, and medical mistrust among pregnant women and other women of reproductive age in middle-income Caribbean countries such as Jamaica.

OBJECTIVES

- To determine if factors such as pregnancy status, vaccine confidence, and medical mistrust are associated with COVID-19 vaccine uptake in a group of reproductive-aged Jamaican women.

METHODS

- Study design:** A cross-sectional, web-based survey.
Population: A convenience sample of 192 Jamaican women (patients, providers, and staff) aged 18-44y
Location: A tertiary care hospital in Kingston, Jamaica.
Time Period: February 1- 8, 2022.
Exposure:
- Self-reported pregnancy status
- Outcome:**
- Self-reported COVID-19 vaccination status
- Confounders:**
- Socio-demographics
- Statistical Analysis:**
- We examined the **bivariate associations** between vaccine uptake and a set of socio-demographic variables using Chi-square or Fisher exact tests.
 - We conducted **exploratory factor analysis** and **extracted 3 factors** which conceptually aligned with 3 subscales:
 - Vaccine confidence**
 - Government-related medical mistrust**
 - Race-based medical mistrust**
 - We used multivariable modified Poisson regression to calculate adjusted prevalence ratios (aPR) and 95% confidence intervals (CI) for the association between vaccine uptake and pregnancy status adjusting for education and factors scores.

RESULTS

1 Of the 192 respondents, 72 (38%) were pregnant. The vast majority (92.7%) were Black

Figure 1: Self-reported vaccination status by pregnancy status

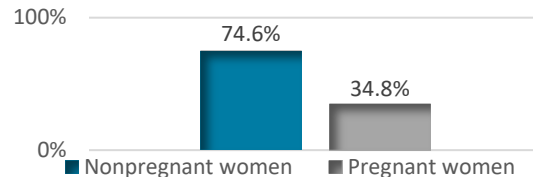
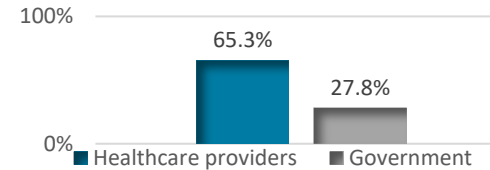


Figure 2: Self-reported trusted sources of COVID-19 vaccine information among pregnant women



KEY FINDINGS

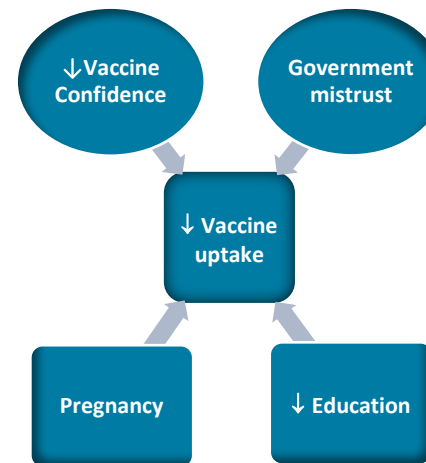
Pregnancy, low vaccine confidence, and government mistrust were factors associated with lower vaccine uptake among reproductive-aged women in Jamaica in February 2022.

3 **Table 1:** Multivariable modified Poisson regression of the association of pregnancy, with COVID-19 vaccine uptake

Variable	Vaccine Uptake	
	Adjusted PR (95% CI)	P value
Pregnancy		0.014
Nonpregnant	ref	
Pregnant	0.68 (0.49, 0.95)	
Education		0.075*
Some college, or more	ref	
Less than college	0.71 (0.48, 1.07)	
Vaccine confidence subscale		0.069*
High confidence	ref	
Moderate confidence	0.92 (0.75, 1.12)	
Low confidence	0.61 (0.40, 0.95)	
Government-related COVID-19 medical mistrust subscale		
Low mistrust	ref	0.005
Moderate mistrust	0.96 (0.64, 1.43)	
High mistrust	0.68 (0.52, 0.89)	

*Variables with a p value <0.1 were retained in the final regression model

Figure 3: Factors influencing vaccine uptake



■ Observed variables
 ● Factors extracted from exploratory analysis

RESULTS

2 Notable bivariate associations with self-reported vaccination status

Health Insurance: Insured vs. Uninsured
 Health insurance → ↑ Vaccine uptake
 (66.4% vs 38.1% respectively, p=0.001)

Occupation: Healthcare vs. Non-healthcare
 Healthcare occupation → ↑ Vaccine uptake
 (85.7% vs 54.1% respectively, p<0.0001)

CONCLUSION

Pregnancy, ↓ vaccine confidence, and ↑ government mistrust were associated with lower COVID-19 vaccine uptake among reproductive-aged women in Jamaica in February 2022.

NEXT STEPS

- Jamaica and other middle-income countries:
- Mixed-methods studies exploring the factors which influence vaccination in:
 - Pregnant women
 - Breastfeeding women
 - Women trying to conceive
 - Implementation studies evaluating the impact of practice, provider and patient level interventions:
 - “opt-out” vaccination orders
 - culturally tailored education videos

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