

POPULATION HEALTH RESEARCH BRIEF

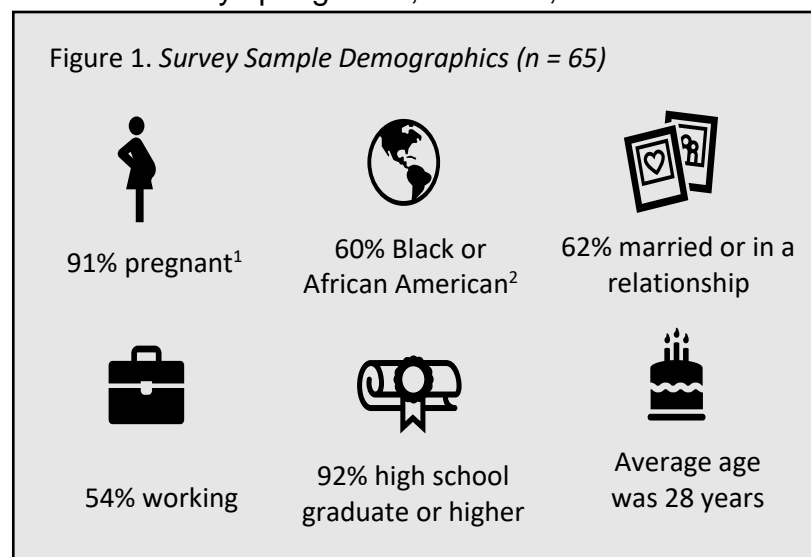
Almost 2 years after introducing a vaccine for COVID, around half of surveyed pregnant women remain unvaccinated

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On March 11, 2019, the World Health Organization declared the coronavirus disease (COVID) a global pandemic. Vaccines against the initial COVID variant were distributed in the US beginning December 2020.¹ As pregnant women were not included in the initial vaccine testing (a common practice), its safety for pregnant women was at first unknown. By spring 2021, however, research emerged suggesting that the COVID vaccine was not only safe for such populations but might also help protect the unborn child from COVID.² In August 2021, the Centers for Disease Control and Prevention (CDC) came out encouraging pregnant and breastfeeding women to get the COVID vaccine.¹

Using data from pregnant or recently postpartum women surveyed from May to September 2022 (see sample demographics

Figure 1. Survey Sample Demographics ($n = 65$)



Note. Except for age and pregnancy status (missing data on 1-2 people), the other variables showcased were missing data on 10 respondents. As income had 42 people with missing data, we did not include it in the above figure (Income: $M = 31347.83$; $SD = 33495.7$).

¹ The rest ($n=5$) of the women surveyed gave birth less than 1 month back (recently postpartum).

² Other racial group percentages are as follows: 12% White, 3% Asian, and 9% “prefer not to say”. A few (15%) were missing race information. In addition, 9% of those surveyed identified as Hispanic or Latina.

in Figure 1) as part of a pilot study, we find that around half (41.07%) of women who provide vaccination details ($n = 56$) said they did not receive the COVID vaccine. The vaccination rate (59%) for our sample is much lower than Pennsylvania's percentage of residents with a single (88%) or full vaccine dose (72%)³ even though the vaccine has been recommended for expectant or new mothers since 2021.

Surveyed vaccinated women consistently reported greater social/emotional support from friends, family, neighbors, and health care team members but also were more likely to report mild to severe depression and anxiety in the past 2 weeks, as well as higher levels of perceived stress in the last month, compared to not vaccinated women. No statistically significant group differences were reported across these key variables (see Table 1), although this may be due to a modest sample size. More research is needed to understand why pregnant and postpartum women are still not getting the COVID vaccine and how researchers and clinicians can encourage vaccination among this vulnerable population.

COVID Vaccination Status, Support, and Mental Health		
	Not Vaccinated ($n=23$)	Vaccinated ($n = 33$)
Social/Emotional Support From:		
Friend	83%	94%
Family	91%	94%
Neighbors	48%	58%
Healthcare team	87%	97%
Mental Health:		
Mild-severe depression	30%	39%
Mild-severe anxiety	26%	36%
Perceived stress	4.96 (2.82)	5.73 (3.15)
<p><i>Note.</i> Column values indicate the percentage (%) of people with support or mental health problems by vaccination status (i.e., the percent of those not vaccinated or vaccinated with supports or psychological issues). Percentages were thus computed using “23” (for not vaccinated) or “33” (for vaccinated) as the denominator. Average perceived stress scores were likewise calculated by vaccination status (score response range: 0-16). Reported values indicate the perceived stress score average (mean or “<i>M</i>”) and spread (standard deviation or “<i>SD</i>”), presented in the above table as follows: <i>M (SD)</i>.</p>		

References

- ¹ Center for Disease Control and Prevention (2022, August 16). *CDC Museum COVID-19 Timeline*. [https://www.cdc.gov/museum/timeline/covid19.html#:~:text=January%2010%2C%202020,Corona virus%20\(2019%2DnCoV\)](https://www.cdc.gov/museum/timeline/covid19.html#:~:text=January%2010%2C%202020,Corona virus%20(2019%2DnCoV).).

² Gray, K. J., Bordt, E. A., Atyeo, C., Deriso, E., Akinwunmi, B., Young, N., ... & Edlow, A. G. (2021). Coronavirus disease 2019 vaccine response in pregnant and lactating women: A cohort study. *American Journal of Obstetrics and Gynecology*, 225(3), 303-e1.

³ *New York Times* (2022, October 20). *See how vaccinations are going in your country and state.* <https://www.nytimes.com/interactive/2020/us/covid-19-vaccine-doses.html>