

Supplemental Table 1. Effectiveness of COVID-19 Vaccination During Pregnancy Against Infant SARS-CoV-2 Infection: Cohort Design, unadjusted for patient covariates

| Infant observation period by predominant SARS-CoV-2 variant, and mother's vaccination status | First 2 months of life | | | First 4 months of life | | | First 6 months of life | | |
|--|------------------------|-----------------------------------|--------------------------------|------------------------|-----------------------------------|--------------------------------|------------------------|-----------------------------------|--------------------------------|
| | Positive test N | Crude incidence rate ¹ | Crude ² VE (95% CI) | Positive test N | Crude incidence rate ¹ | Crude ² VE (95% CI) | Positive test N | Crude incidence rate ¹ | Crude ² VE (95% CI) |
| Delta period | | | | | | | | | |
| Unvaccinated during pregnancy | 54 | 5.47 | Reference | 118 | 5.10 | Reference | 190 | 4.78 | Reference |
| Received ≥2 doses during pregnancy | 8 | 0.75 | 86 (71, 93) | 27 | 1.43 | 72 (57, 81) | 37 | 1.56 | 66 (52, 76) |
| Received only 1 dose during pregnancy* | 0 | 0.00 | no estimate | 0 | 0.00 | no estimate | 4 | 1.33 | 72 (24, 89) |
| Omicron period | | | | | | | | | |
| Unvaccinated during pregnancy | 54 | 16.98 | Reference | 140 | 18.32 | Reference | 302 | 21.11 | Reference |
| Received ≥2 doses during pregnancy | 54 | 16.30 | 29 (-4, 51) | 175 | 17.25 | 21 (1, 37) | 320 | 16.34 | 22 (9, 33) |
| Received only 1 dose during pregnancy* | 1 | 7.87 | 51 (-72, 93) | 8 | 17.79 | 24 (-34, 63) | 23 | 22.73 | -1 (-34, 33) |

¹ Rate per 100 person-years

² Crude VE is adjusted for calendar time only.

* Most 1 dose only vaccines were received during the third trimester

VE=Vaccine effectiveness

Calendar day was used as the underlying scale to ensure that infants of vaccinated and unvaccinated mothers are compared on the same calendar days.

Supplemental Table 2. Effectiveness of COVID-19 Vaccination During Pregnancy Against Infant SARS-CoV-2 Infection by Infant Age at Testing and by Virus Variant: Test Negative Design

| Infant observation period by predominant SARS-CoV-2 variant, and mother's vaccination status | First 2 months of life | | | First 4 months of life | | | First 6 months of life | | |
|--|------------------------|-----------------|-----------------------------------|------------------------|-----------------|-----------------------------------|------------------------|-----------------|-----------------------------------|
| | Positive test N | Negative test N | Adjusted ² VE (95% CI) | Positive test N | Negative test N | Adjusted ² VE (95% CI) | Positive test N | Negative test N | Adjusted ² VE (95% CI) |
| Delta period | | | | | | | | | |
| Unvaccinated during pregnancy | 54 | 646 | Reference | 118 | 1193 | Reference | 190 | 2101 | Reference |
| Received ≥ 2 doses during pregnancy | 8 | 614 | 95 (76, 99) | 27 | 1056 | 70 (52, 82) | 37 | 1405 | 61 (42, 74) |
| Received only 1 dose during pregnancy* | 0 | 60 | no estimate | 0 | 109 | no estimate | 4 | 217 | 76 (31, 92) |
| Omicron period | | | | | | | | | |
| Unvaccinated during pregnancy | 54 | 273 | Reference | 140 | 464 | Reference | 302 | 792 | Reference |
| Received ≥ 2 doses during pregnancy | 54 | 328 | 43 (-4, 69) | 175 | 714 | 36 (11, 55) | 320 | 1250 | 41 (25, 53) |
| Received only 1 dose during pregnancy* | 1 | 10 | -27 (-91, 84) | 8 | 30 | 36 (-50, 80) | 23 | 63 | 16 (-35, 55) |

¹ Rate per 100 person-years

² Adjusted for mother's age, race/ethnicity, NDI quartile, insurance payor, KPNC facility, pre-pregnancy BMI, diabetes, hypertension, parity, and child age.

*Most 1 dose only vaccines were received during the third trimester

VE= Vaccine effectiveness.

Supplemental Table 3. Effectiveness of COVID-19 Vaccination During Pregnancy Against Infant SARS-CoV-2 Infection by Infant Age at Testing and by Virus Variant: Test Negative Design, unadjusted for any patient covariates

| Infant observation period by predominant SARS-CoV-2 variant, and mother's vaccination status | First 2 months of life | | | First 4 months of life | | | First 6 months of life | | |
|--|------------------------|-----------------|--------------------------------|------------------------|-----------------|--------------------------------|------------------------|-----------------|--------------------------------|
| | Positive test N | Negative test N | Crude ² VE (95% CI) | Positive test N | Negative test N | Crude ² VE (95% CI) | Positive test N | Negative test N | Crude ² VE (95% CI) |
| Delta period | | | | | | | | | |
| Unvaccinated during pregnancy | 54 | 646 | Reference | 118 | 1193 | Reference | 190 | 2101 | Reference |
| Received ≥ 2 doses during pregnancy | 8 | 614 | 86 (70, 93) | 27 | 1056 | 73 (59, 83) | 37 | 1405 | 68 (54, 78) |
| Received only 1 dose during pregnancy* | 0 | 60 | no estimate | 0 | 109 | no estimate | 4 | 217 | 80 (46, 93) |
| Omicron period | | | | | | | | | |
| Unvaccinated during pregnancy | 54 | 273 | Reference | 140 | 464 | Reference | 302 | 792 | Reference |
| Received ≥ 2 doses during pregnancy | 54 | 328 | 24 (-16, 51) | 175 | 714 | 24 (-1, 42) | 320 | 1250 | 33 (25, 40) |
| Received only 1 dose during pregnancy* | 1 | 10 | -12 (-94, 92) | 8 | 30 | 7 (-55, 61) | 23 | 63 | 22 (-1, 41) |

¹ Rate per 100 person-years

² Unadjusted for patient covariates.

* Most 1 dose only vaccines were received during the third trimester

VE=Vaccine effectiveness

Supplemental Table 4. Effectiveness of COVID-19 Vaccination Before and During Pregnancy Against Infant SARS-CoV-2 Infection. Analysis Includes Only Infants Whose Mothers had Some Vaccine Doses Prior to Pregnancy onset and Some During Pregnancy: Cohort Design

| Infant observation period by predominant SARS-CoV-2 variant, and mother's vaccination status | First 2 months of life | | | First 4 months of life | | | First 6 months of life | | |
|--|------------------------|-----------------------------------|-----------------------------------|------------------------|-----------------------------------|-----------------------------------|------------------------|-----------------------------------|-----------------------------------|
| | Positive test N | Crude incidence rate ¹ | Adjusted ² VE (95% CI) | Positive test N | Crude incidence rate ¹ | Adjusted ² VE (95% CI) | Positive test N | Crude incidence rate ¹ | Adjusted ² VE (95% CI) |
| Omicron period | | | | | | | | | |
| Unvaccinated before and during pregnancy | 54 | 16.98 | Reference | 140 | 18.32 | Reference | 302 | 21.11 | Reference |
| 1 dose before, 1 dose during pregnancy | 6 | 9.86 | 46 (-23, 77) | 18 | 12.59 | 16 (-28, 50) | 26 | 12.95 | 3 (-32, 36) |
| 1 dose before, 2+ doses during pregnancy | 1 | 1.59 | 89 (25, 98) | 4 | 3.14 | 73 (29, 90) | 9 | 5.74 | 48 (-1, 74) |
| 2 doses before, 1 dose during pregnancy | 29 | 5.34 | 45 (1, 69) | 54 | 6.45 | 30 (-4, 53) | 62 | 6.79 | 23 (-8, 45) |

¹ Rate per 100 person-years

² Adjusted for mother's age, race/ethnicity, NDI quartile, insurance payor, KPNC facility, pre-pregnancy BMI, diabetes, hypertension, parity, and child age.
VE= Vaccine effectiveness.

Calendar day was used as the underlying scale to ensure that infants of vaccinated and unvaccinated mothers are compared on the same calendar days.