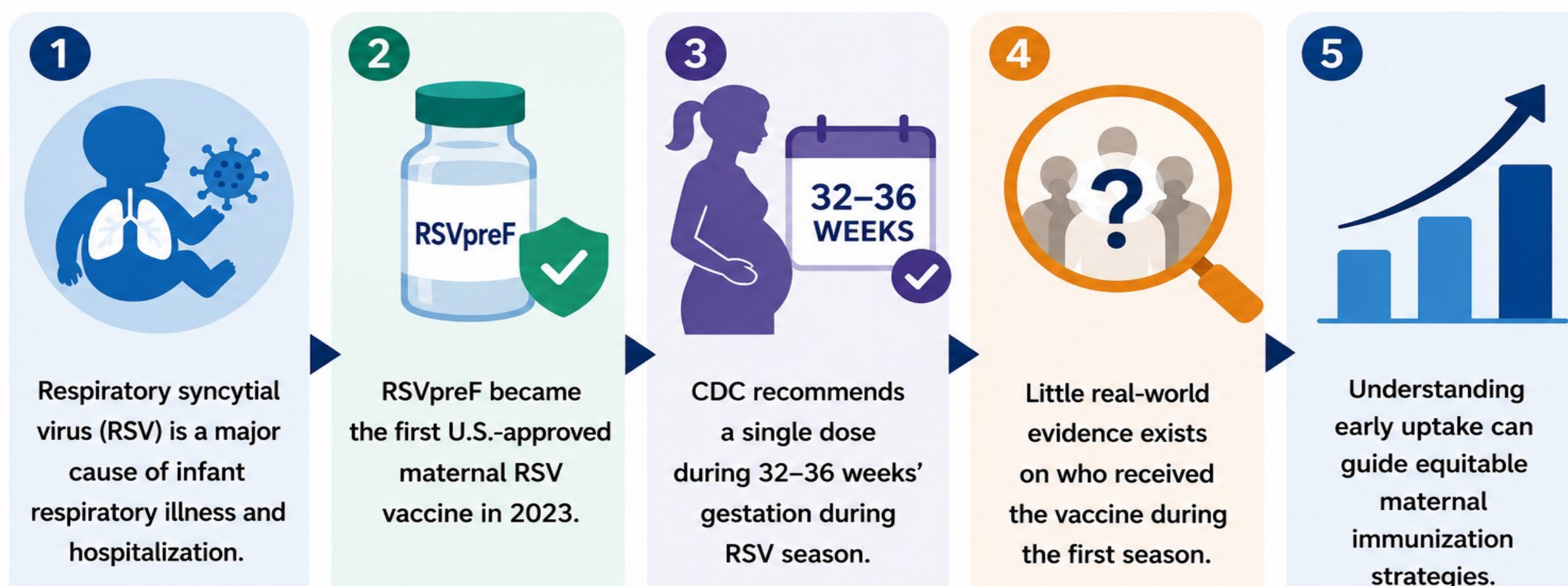


Background

Why Study Maternal RSVpreF Vaccine Uptake?



Generating real-world evidence on maternal RSVpreF vaccine uptake during the first RSV season (2023-2024) is essential to improve protection for mothers and infants in the United States.

Objective

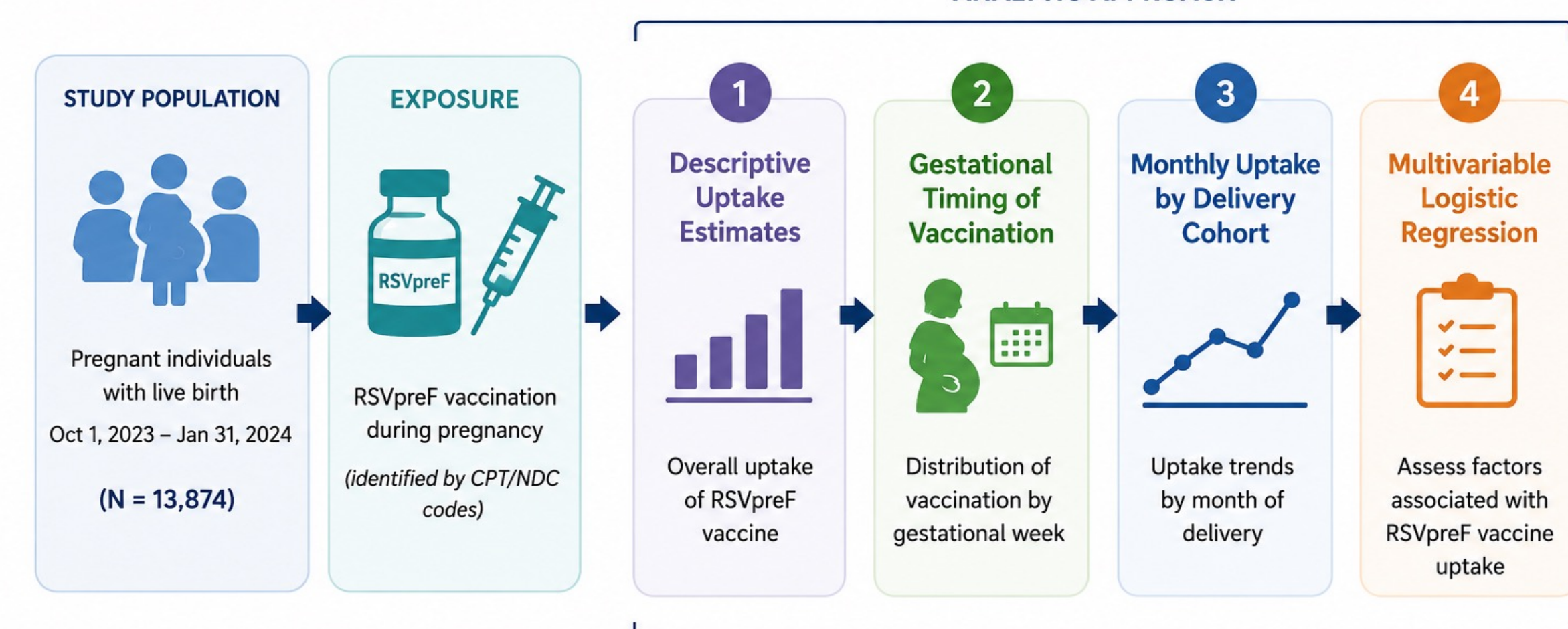
- Estimate maternal RSVpreF vaccine uptake during the first RSV season (2023-2024) on the U.S. market
- Assess adherence to the recommended gestational vaccination window
- Identify sociodemographic, prenatal care utilization, and maternal risk factors associated with uptake

Methods

- **Data:** Optum's Clinformatics® Data Mart
- Large national commercial claims database
- **Study Design:** Retrospective cohort study
- **Study Population:**
 - Pregnant individuals aged **18-50 years** with a live birth between **October 1, 2023, and January 31, 2024**
 - Required **continuous enrollment** from July 1, 2022, through delivery
- **Final Sample Size:** 13,874 pregnant individuals

STATISTICAL ANALYSIS

ANALYTIC APPROACH



Results

Figure 1: Maternal Vaccine Uptake by Delivery Cohort

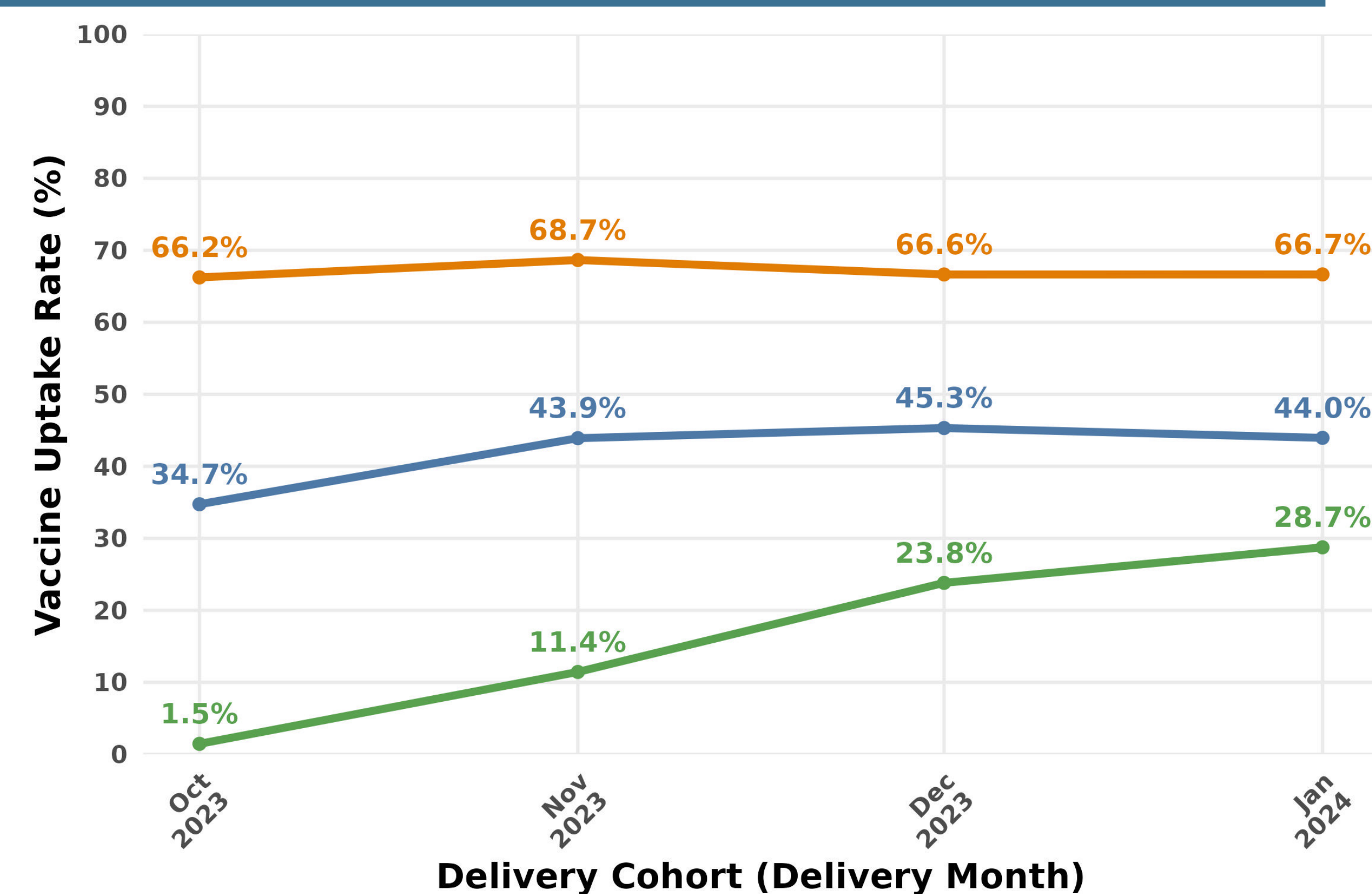


Figure 2: Maternal Vaccine Uptake by Gestational Week

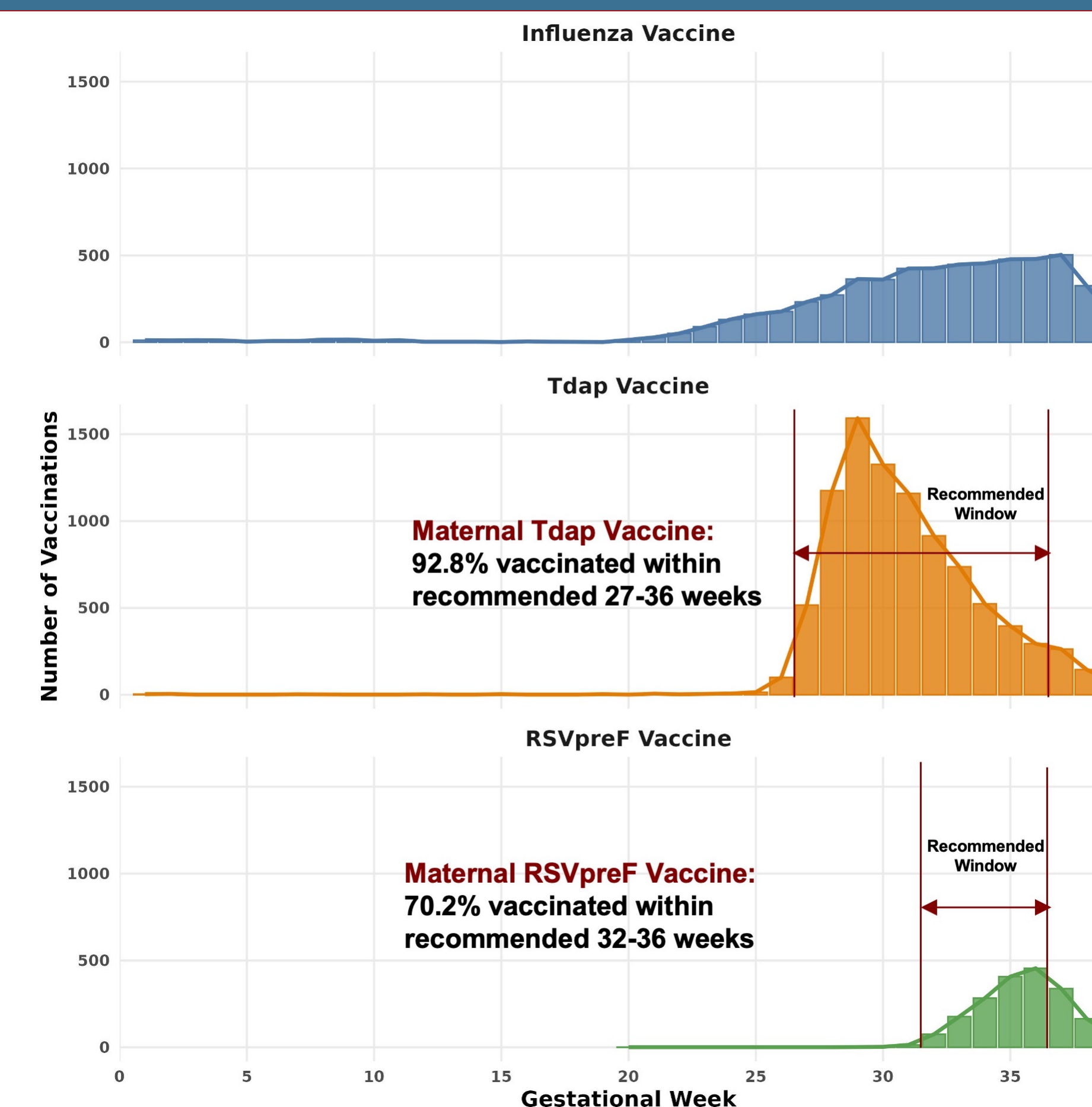


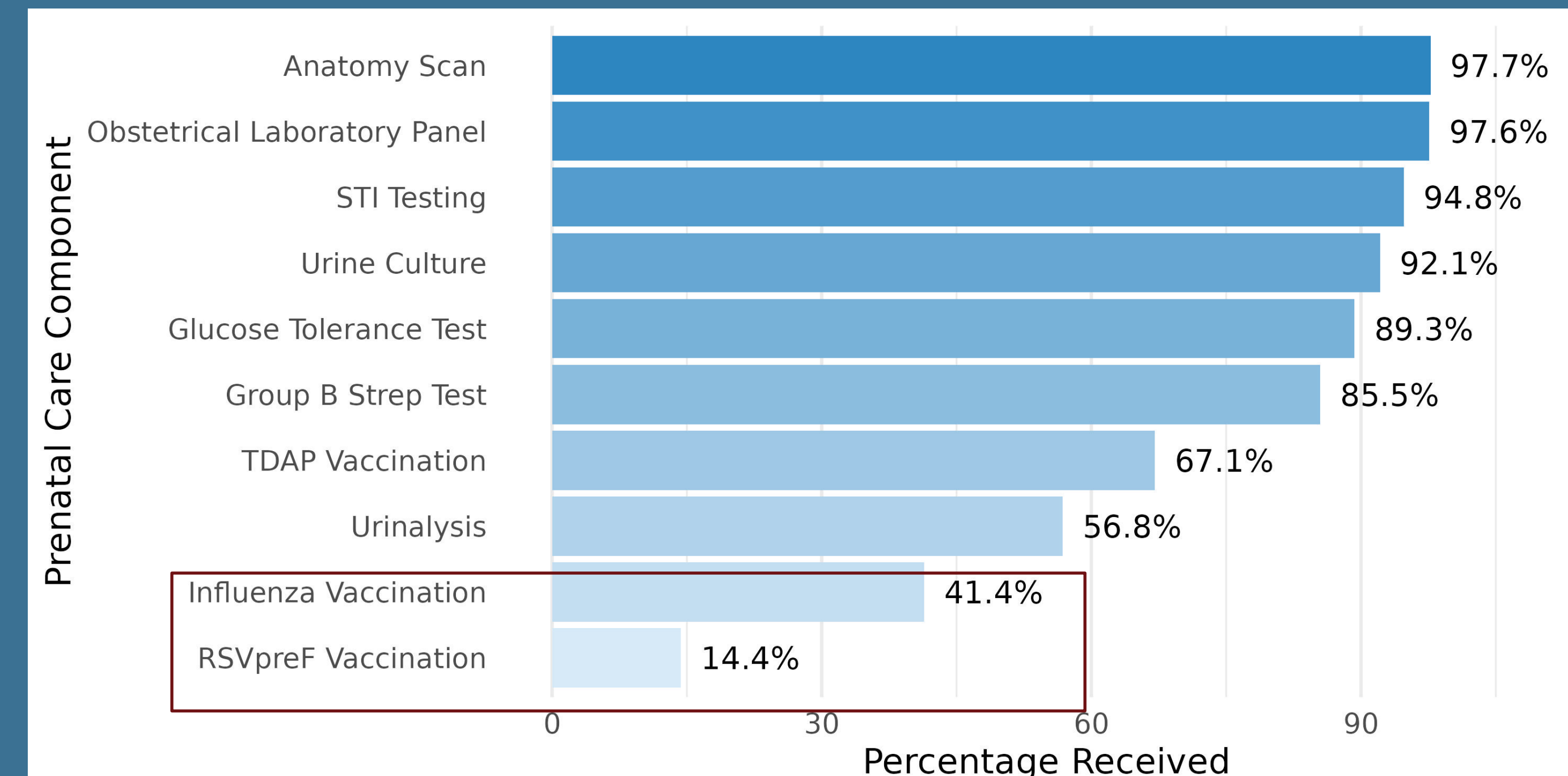
Table 1: Factors Associated with RSVpreF Uptake

Variable	Odds Ratio (95% CI)	P-value
(Intercept)	0.01 (0.01, 0.01)	<0.001
Sociodemographic		
Age Group		
18-29	Reference	
30-39	1.49 (1.27, 1.75)	<0.001
40-50	1.82 (1.43, 2.33)	<0.001
Race and Ethnicity		
White	Reference	
Asian	0.95 (0.76, 1.17)	0.59
Black	0.83 (0.65, 1.06)	0.134
Hispanic	0.83 (0.68, 1.01)	0.069
Household Income		
<\$40K	Reference	
\$40K-\$49K	0.91 (0.66, 1.24)	0.534
\$50K-\$59K	1.14 (0.86, 1.52)	0.33
\$60K-\$74K	1.33 (1.03, 1.72)	0.021
\$75K-\$99K	1.33 (1.05, 1.69)	0.012
\$100K+	1.19 (0.96, 1.48)	0.1
Region		
Northeast	Reference	
West	0.95 (0.78, 1.15)	0.593
Midwest	0.95 (0.78, 1.14)	0.577
South	0.83 (0.69, 0.99)	0.04
Educational Attainment		
Less than a Bachelor's degree	Reference	
Bachelor's degree or higher	1.49 (1.32, 1.70)	<0.001
Home Ownership		
Probable Homeowner	Reference	
Probable Renter	1.04 (0.88, 1.23)	0.583
Insurance Product		
POS	Reference	
EPO	1.03 (0.85, 1.25)	0.904
HMO	0.83 (0.66, 1.06)	0.122
PPO	2.59 (1.61, 4.16)	<0.001
Other	1.45 (1.00, 2.11)	0.054
Maternal Health Risk Factors		
Severe Maternal Morbidity Index	1.00 (1.00, 1.01)	0.473
Uptake of Other Vaccines		
Influenza Vaccine Uptake Before Pregnancy		
No	Reference	
Yes	1.6 (1.42, 1.81)	<0.001
Influenza Vaccine Uptake During Pregnancy		
No	Reference	
Yes	3.90 (3.38, 4.49)	<0.001
Tdap Vaccine Uptake During Pregnancy		
No	Reference	
Yes	3.55 (2.86, 4.39)	<0.001
Prenatal Care Utilization		
Received 5+ of 7 Non-Vaccine Prenatal Care Services		
No	Reference	
Yes	1.65 (1.15, 2.38)	0.009

KEY TAKEAWAYS

- RSVpreF uptake was 14.4% during its first RSV season in the U.S., **increasing from 1.5% to 28.7%**
- **70.2% of vaccinated individuals** received RSVpreF within the recommended 32-36 weeks
- Influenza and Tdap vaccination and **greater prenatal care engagement** were strongly associated with RSVpreF vaccine uptake
- **Maternal comorbidity burden was not associated** with RSVpreF vaccine uptake

Figure 3: Guideline-Recommended Prenatal Care Utilization



Conclusion



- RSVpreF uptake was low during its first U.S. RSV season but increased over time
- Uptake was strongly associated with influenza and Tdap vaccination behavior
- Greater prenatal care engagement was associated with higher RSVpreF uptake
- Socioeconomic and geographic differences suggest disparities in early adoption
- Maternal comorbidity burden was not associated with uptake

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