Vaccine Administration During Pregnancy in Wisconsin

Tdap, Influenza, COVID-19, and RSV Vaccination Coverage Report, 2021–2024

Division of Public Health
Bureau of Communicable Diseases
Wisconsin Immunization Program

WISCONSIN DEPARTMENT of HEALTH SERVICES

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Abbreviations

OB-GYN: obstetrician gynecologist

CDC: Centers for Disease Control and Prevention

ACIP: Advisory Committee on Immunization Practices

ACOG: American College of Obstetricians and Gynecologists

APNCU: Adequacy of Prenatal Care Utilization

WIC: Women, Infant, and Children

Race/Ethnicity

White: Non-Hispanic white

Black: Non-Hispanic Black/African American

AI/AN: Non-Hispanic American Indian/Alaska Native

Hispanic: Hispanic or Latina (Hispanics/Latinas may be of any race)

Laotian/Hmong: Non-Hispanic Laotian or Hmong

Asian: Non-Hispanic other Asian/Pacific Islander alone (includes Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian, Native Hawaiian, Guamanian or Chamorro, Samoan, and Other Pacific Islander)

Other: Non-Hispanic Other

Multiple: Non-Hispanic two or more races

Introduction

This report outlines Tdap, influenza, and COVID-19 vaccination trends among pregnant people in Wisconsin who gave birth from 2021 through 2024. With the introduction of the RSV vaccines in fall of 2023, RSV vaccination trends are also included for those who gave birth during the RSV 2023–2024 and 2024–2025 seasons. This report is intended to help health care providers and local and Tribal health departments understand trends of vaccination uptake among pregnant people throughout Wisconsin.

OB-GYNs, midwives, and other health care professionals are a trusted source of health information and play an important role in ensuring the health of their pregnant patients and newborns. A recommendation from a health care professional is the top predictor of patients getting vaccinated[1,2]. To protect newborns and pregnant people against serious complications from diseases, health care providers should offer the Tdap, influenza, COVID-19, and RSV vaccines to their pregnant patients, as recommended by the Advisory Committee on Immunization Practices (ACIP) guidelines. Not only are these vaccines recommended by the Centers for Disease Control and Prevention (CDC), but they are also recommended by the American College of Obstetricians and Gynecologists (ACOG), American Academy of Family Physicians, and the American College of Nurse-Midwives. Such support highlights the important role vaccines play in keeping pregnant people and their newborns safe and healthy from diseases.

ACIP has provided the following recommendations for vaccinations during pregnancy[3,4]:

Tdap: One dose is recommended during each pregnancy. Tdap is recommended between the 27th and 36th week of pregnancy to protect newborns against whooping cough (pertussis). Infants less than one year old have the greatest risk of getting whooping cough and developing severe complications

Influenza: One dose is recommended during every respiratory season to protect pregnant people and their newborns from severe illness from influenza. Pregnancy can increase susceptibility to influenza illnesses and hospitalizations and may harm a pregnant person's developing baby. Influenza vaccines during pregnancy can ensure antibodies are passed to the developing baby.

COVID-19: One dose is recommended for all people who are pregnant, breastfeeding, trying to get pregnant, or who may become pregnant in the future. People who become sick with COVID-19 during pregnancy are more likely to develop complications that can affect the pregnancy and developing baby.

RSV: One dose is recommended between the 32nd and 36th week of pregnancy during September through January to prevent severe RSV disease in infants. Infants aged 8 months or younger can receive RSV monoclonal antibodies during their first RSV season if the birthing parent did not receive the RSV vaccine while pregnant. If the birthing parent becomes pregnant again after receiving the RSV vaccine, another dose of the RSV vaccine is not recommended. Instead, infants should receive RSV monoclonal antibodies.

Methods

This report contains preliminary birth data for 2024 and is subject to change. Individuals who reside in and gave birth in Wisconsin between 2021–2024 were identified from singleton birth records in the Statewide Vital Records Information System (SVRIS).

Vaccination Assessment

Tdap, influenza, and COVID-19 vaccination histories were extracted from the Wisconsin Immunization Registry (WIR) for people who gave birth from 2021 through 2024. RSV vaccination history was extracted from WIR among people who gave birth between September 1, 2023–March 31, 2024, and September 1, 2024–March 31, 2025. WIR client records were probabilistically linked to SVRIS records to assess pregnant people for vaccines administered during pregnancy.

The vaccination assessment for Tdap and influenza included any vaccine administered during the gestational period for the given year. Tdap and RSV vaccinations were also assessed for timeliness of receipt to determine whether pregnant people received the vaccines at the recommended gestational age. Pregnant people were assessed for their up-to-date status of COVID-19 vaccines. Pregnant people were considered up-to-date if they had received a COVID-19 vaccine within one year prior to giving birth.

Descriptive statistics were utilized to determine coverage stratified by race and ethnicity, age, insurance status, educational attainment level, WIC status, Adequacy Perinatal Care Utilization (APNCU) Index, urbanicity, and county. Data variables were obtained from the birth records, except for county and urbanicity. County level data was extracted from WIR to correspond with geographical location of residence at time of vaccination.

Prenatal Care

The APNCU Index (also known as the Kotelchuck score) was the scoring system selected for prenatal care. The APNCU Index considers when prenatal care began and the expected number of prenatal visits. The APNCU Index does not account for the quality of care received at prenatal care visits. The expected number of visits is adjusted for gestational age when care began and for gestational age at delivery. The expected number of visits is based on AGOC recommendations. The proportion of observed visits to expected visits is calculated and ranked on the scale below[5]:

Inadequate: received less than 50% of expected visits
Intermediate: 50%–79%
Adequate: 80%–109%
Adequate Plus: 110% or more

For this analysis, pregnant people who attended 80% or more of expected prenatal visits were defined as having adequate care. Pregnant people who attended 79% or less of expected visits were defined as[4] having inadequate care.

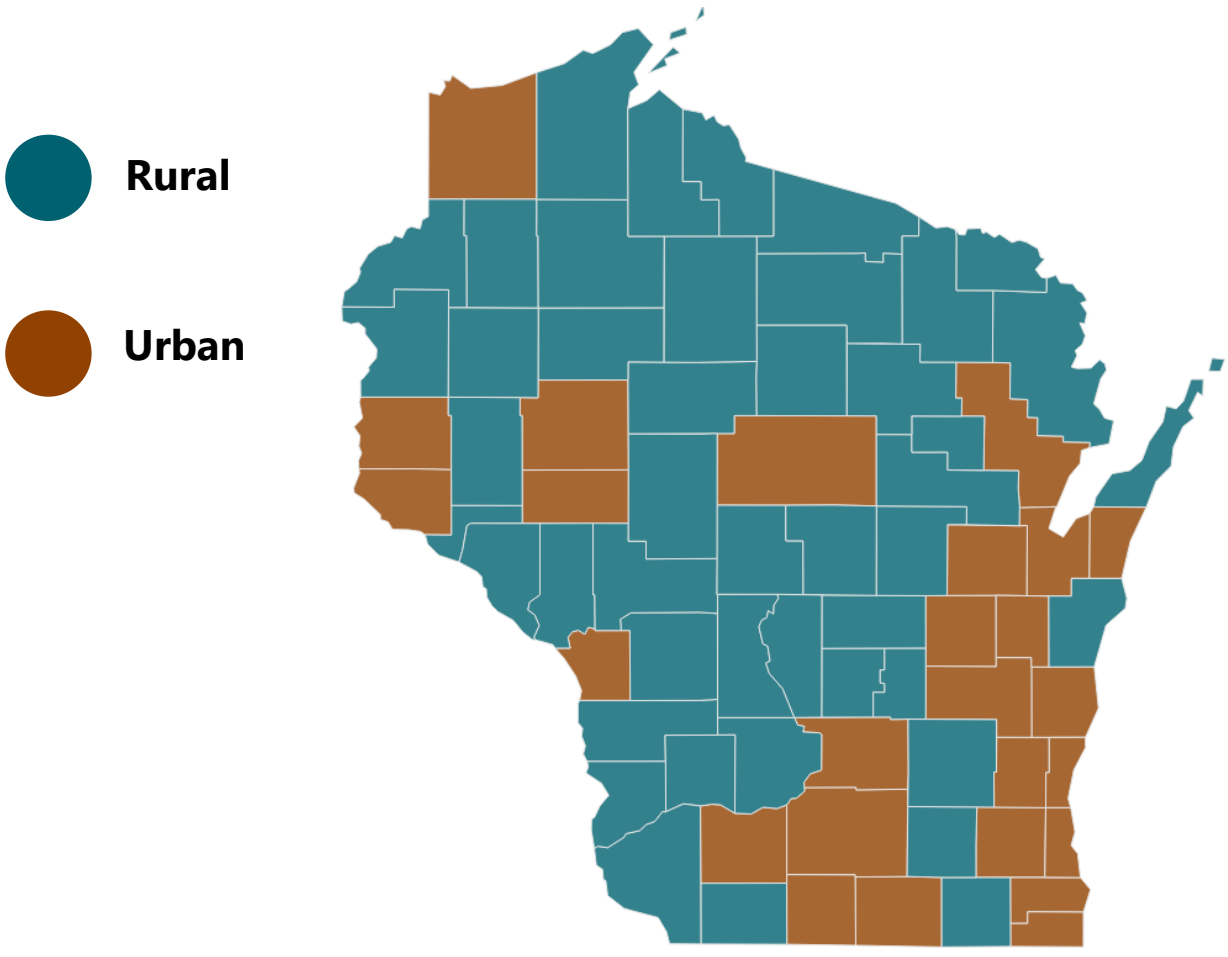
Methods

Urbanicity

Counties were divided into urban and rural based on methodology used by the Wisconsin Office of Rural Health.

Rural counties include:
Adams, Ashland, Barron, Bayfield, Buffalo, Burnett, Clark, Crawford, Dodge, Door, Dunn, Florence, Forest, Grant, Green Lake, Iron, Jackson, Jefferson, Juneau, Lafayette, Langlade, Lincoln, Manitowoc, Marinette, Marquette, Menominee, Monroe, Oneida, Pepin, Polk, Portage, Price, Richland, Rusk, Sauk, Sawyer, Shawano, Taylor, Trempealeau, Vernon, Vilas, Walworth, Washburn, Waupaca, Waushara, and Wood.

Urban counties include:
Brown, Calumet, Chippewa, Columbia, Dane, Douglas, Eau Claire, Fond du Lac, Green, Iowa, Kenosha, Kewaunee, La Crosse, Marathon, Milwaukee, Oconto, Outagamie, Ozaukee, Pierce, Racine, Rock, St. Croix, Sheboygan, Washington, Waukesha, and Winnebago.



Snapshot

Figure 1: In 2024, nearly three out of four pregnant people received the Tdap vaccine, but only one in 10 received the COVID-19 vaccine, suggesting missed opportunities. Providers may co-administer COVID-19, influenza, and RSV (when applicable) vaccines to their patients when giving the Tdap vaccine. Co-administration ensures that individuals who may have difficulty accessing care or may experience several barriers in coming to the clinic are fully protected.

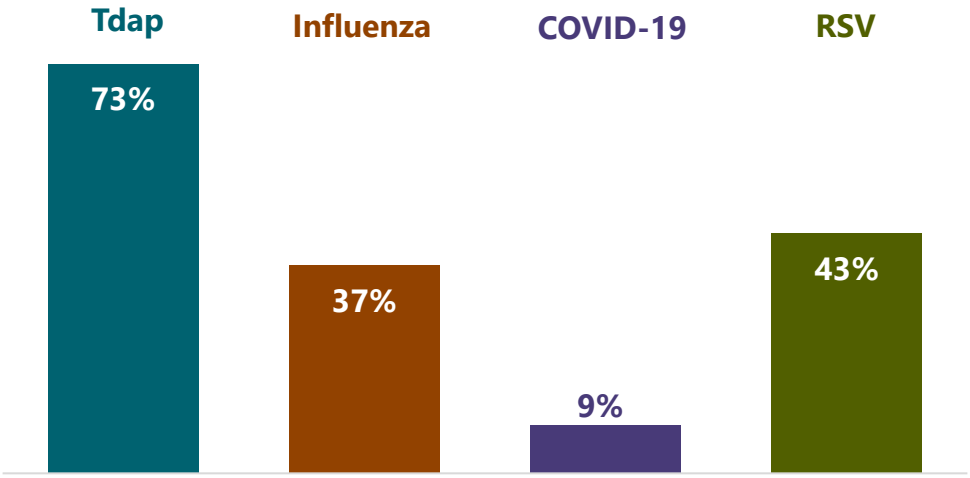
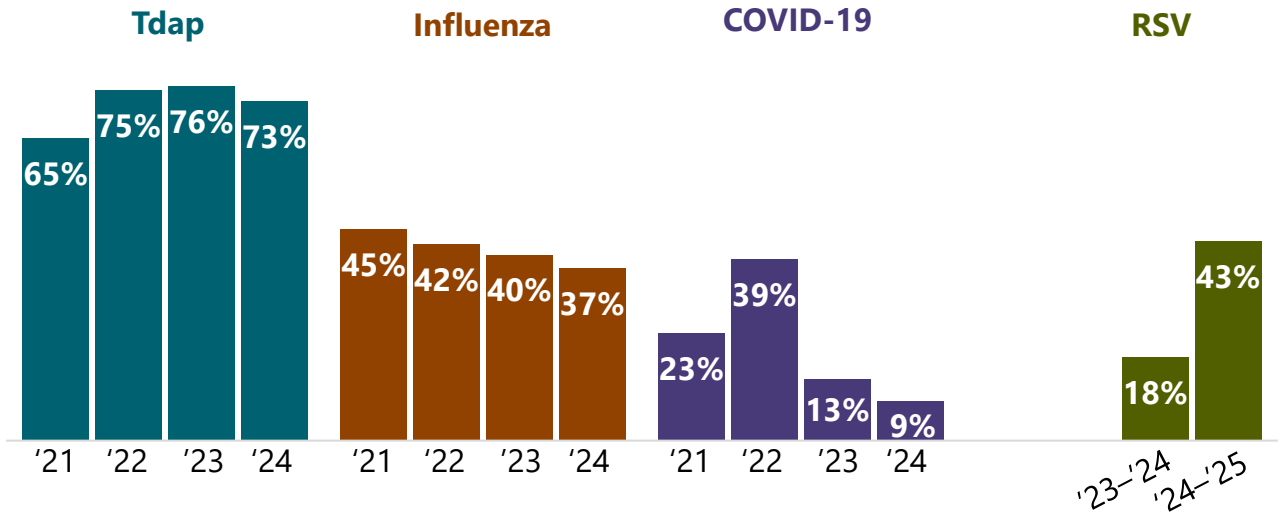


Figure 2: Vaccination coverage rates were notably lower among pregnant people during the COVID-19 pandemic. Although Tdap coverage increased in 2022 and 2023, coverage decreased again in 2024. Influenza vaccination coverage continued to decrease since 2021. For COVID-19 vaccines, coverage nearly doubled in 2022, but decreased the following years, with COVID-19 coverage falling below 2021 levels in 2024. Concerns over vaccine safety, and the development and approval of vaccines have been cited as reasons pregnant people choose not to receive the COVID-19 vaccine[6,7]. RSV vaccination coverage more than doubled among pregnant people in the second season it became available.



Snapshot

Figure 3: In 2024, Black pregnant people experienced the lowest vaccination rates for COVID-19, RSV, influenza, and Tdap vaccines. Asian pregnant people consistently had the highest coverage for COVID-19, RSV, influenza, and Tdap vaccines. These overall trends were also reflected in CDC analyzed data from April 2024 on a national level [8].

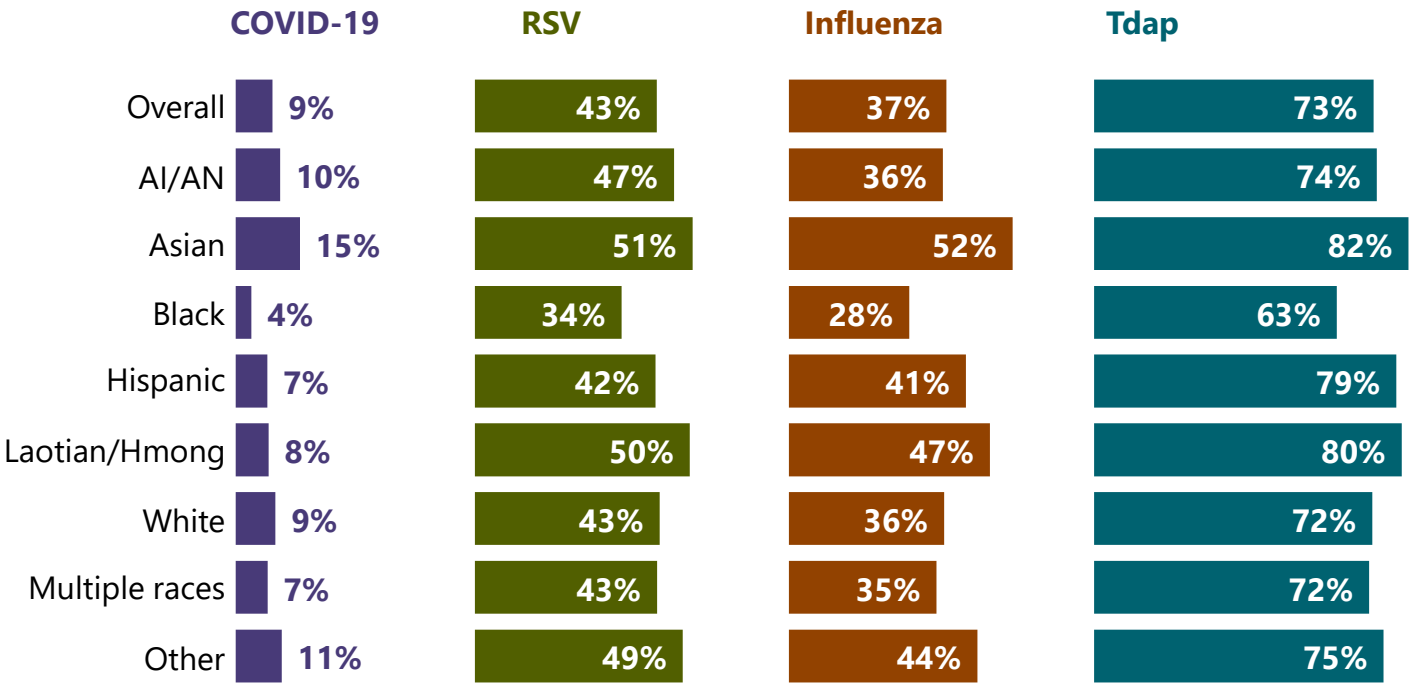
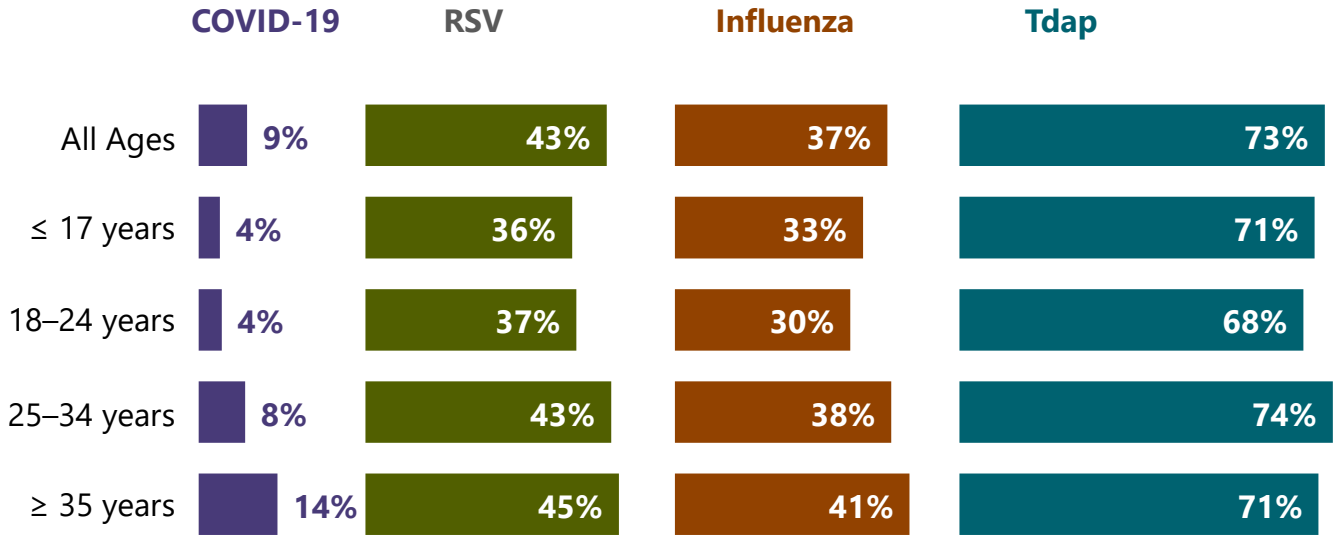


Figure 4: In 2024, younger pregnant people had lower vaccination coverage rates for COVID-19, RSV, influenza, and Tdap vaccines compared to older pregnant people. Pregnant people aged 35 years and older had higher rates of COVID-19, RSV, and influenza vaccination. Pregnant people aged 25–34 years old had the highest coverage of Tdap vaccination.



Tdap

Tdap

Figure 5: Tdap coverage among pregnant people increased across age groups from 2021 through 2023. However, in 2024, Tdap coverage declined among pregnant people who were 18 years and older and increased for those 17 years and younger.

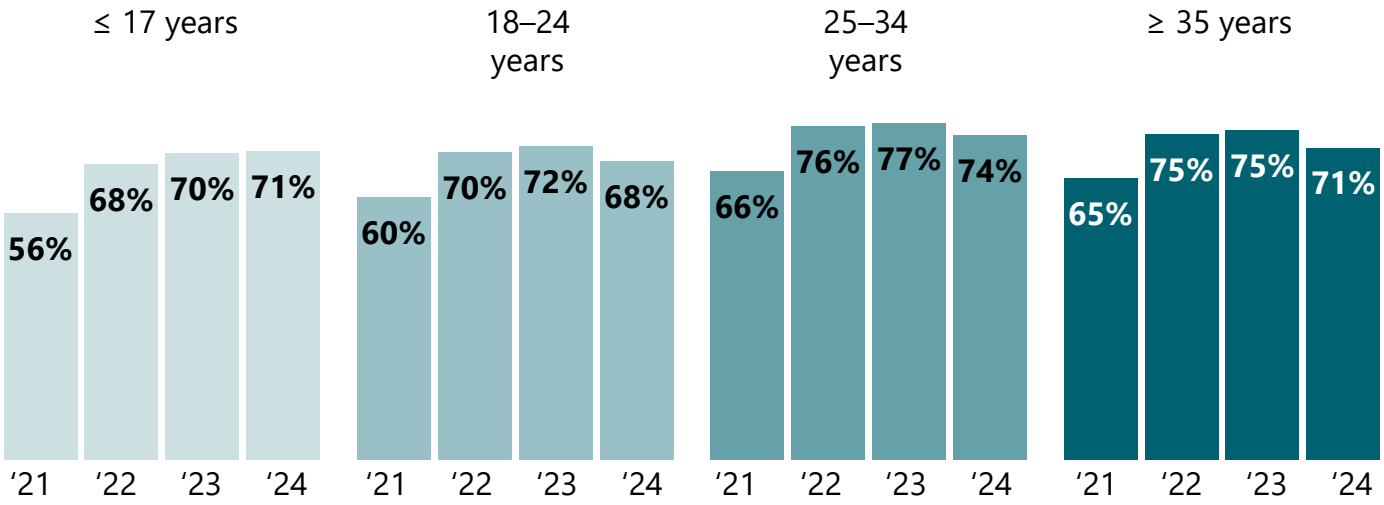
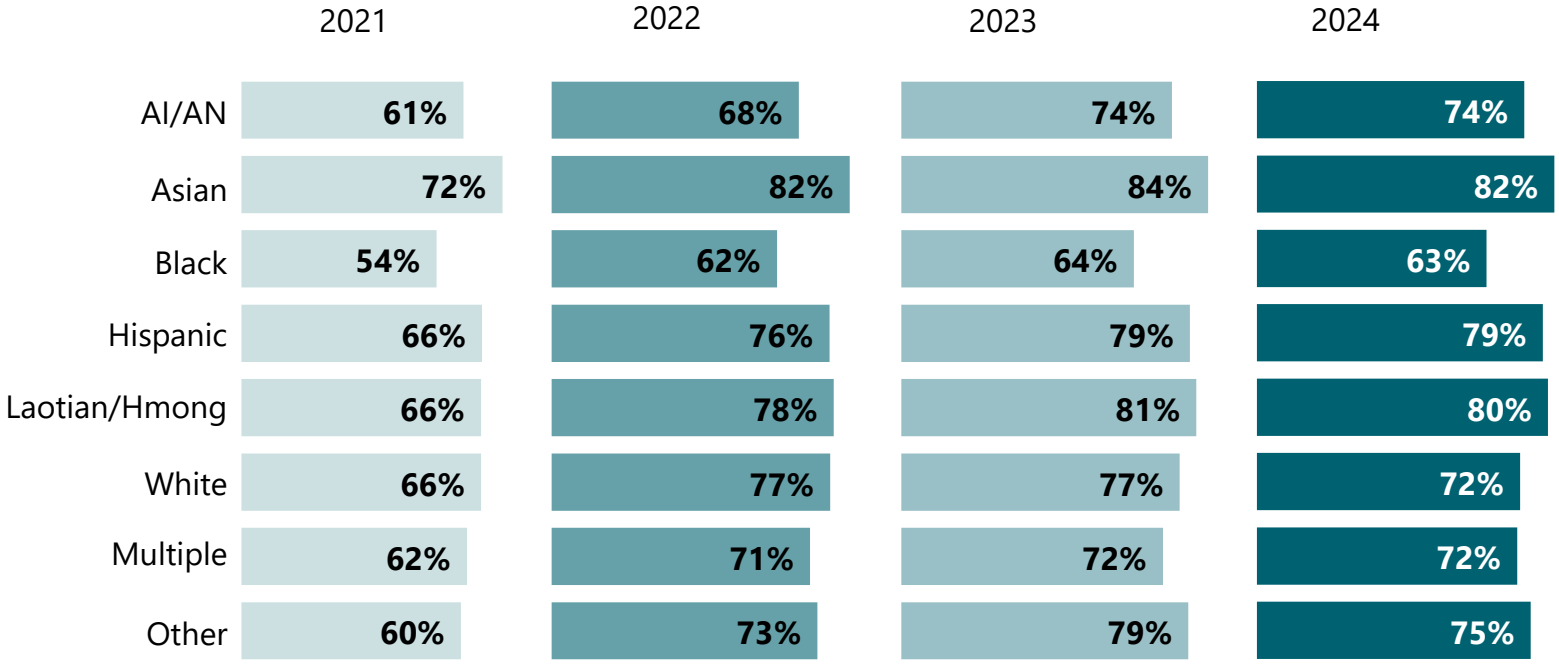


Figure 6: Tdap vaccination coverage increased from 2021 through 2023 for all race and ethnicities but declined in 2024. Tdap vaccination remains lowest among Black pregnant people. Tdap coverage was highest among Asian pregnant people from 2021 through 2024.



Tdap

Figure 7: The Tdap vaccine is recommended during the 27th through the 36th week of each pregnancy, regardless of when a person last received their Tdap vaccine. From 2021 through 2024, 95% of individuals who received their Tdap received it during the recommended timeframe!

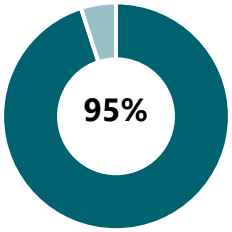


Figure 8: Pregnant people with private insurance had the highest Tdap vaccination coverage rates compared to pregnant people covered by Medicaid or BadgerCare, those who paid health care providers directly without involving an insurance company (self-pay), or other forms of insurance. Those who self-paid for vaccines had the lowest coverage rates.

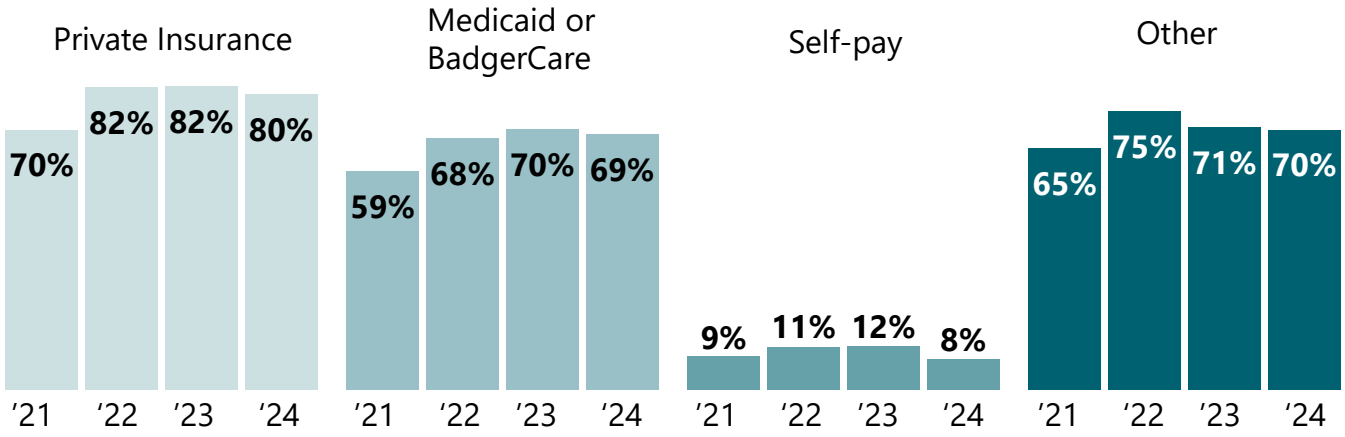


Table 1: Nearly half of pregnant people received their Tdap vaccine at multi-specialty medical practices from 2021 through 2024. Approximately two out of 10 pregnant people received their Tdap vaccine from their OB/GYN.

Location Vaccinated	2021	2022	2023	2024
Multi-Specialty Medical Practice	42%	45%	45%	45%
OB/GYN	24%	22%	22%	23%
Birthing Hospital, Birthing Center, or Hospital	12%	12%	12%	12%
Family Medicine	9%	9%	9%	9%
Other Medical Practice	7%	5%	5%	5%
Pharmacy	3%	4%	4%	1%
All Others	3%	3%	3%	4%

Tdap

Figure 9: In 2021, nearly two out of three pregnant people who participated in WIC received their Tdap vaccine during pregnancy. From 2022 through 2024, nearly three out of four pregnant people who participated in WIC received their Tdap vaccine during pregnancy. Non-WIC recipients had higher vaccination rates of Tdap than WIC recipients until 2024, when coverage rates became similar.

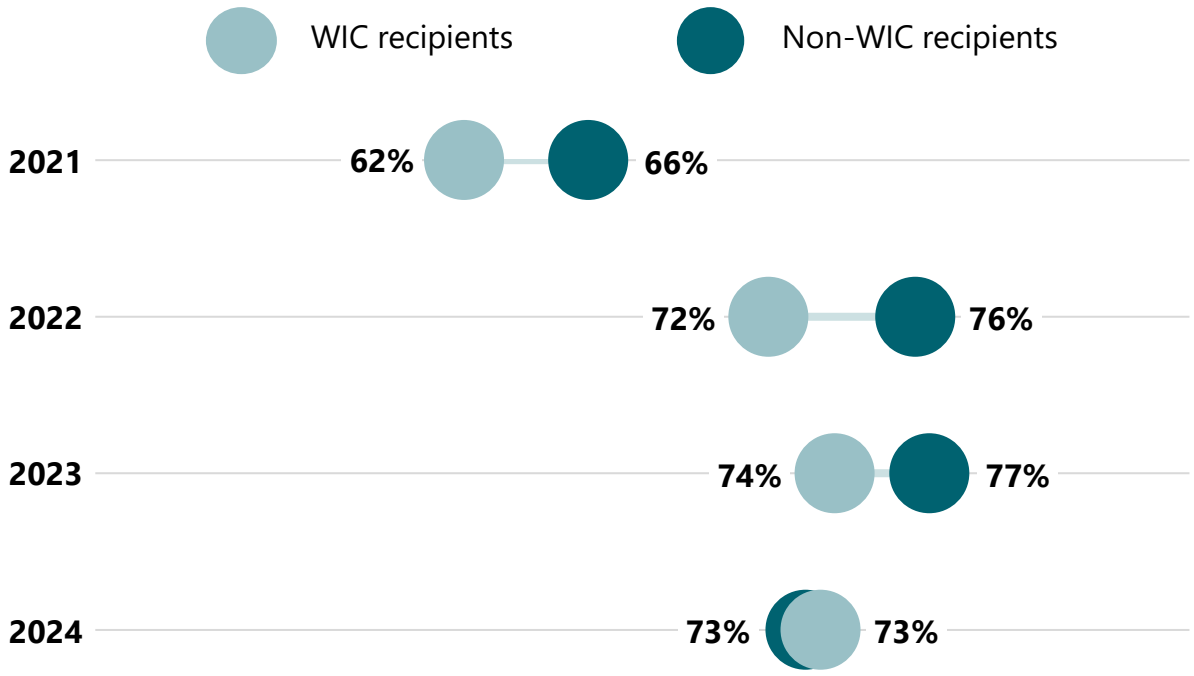
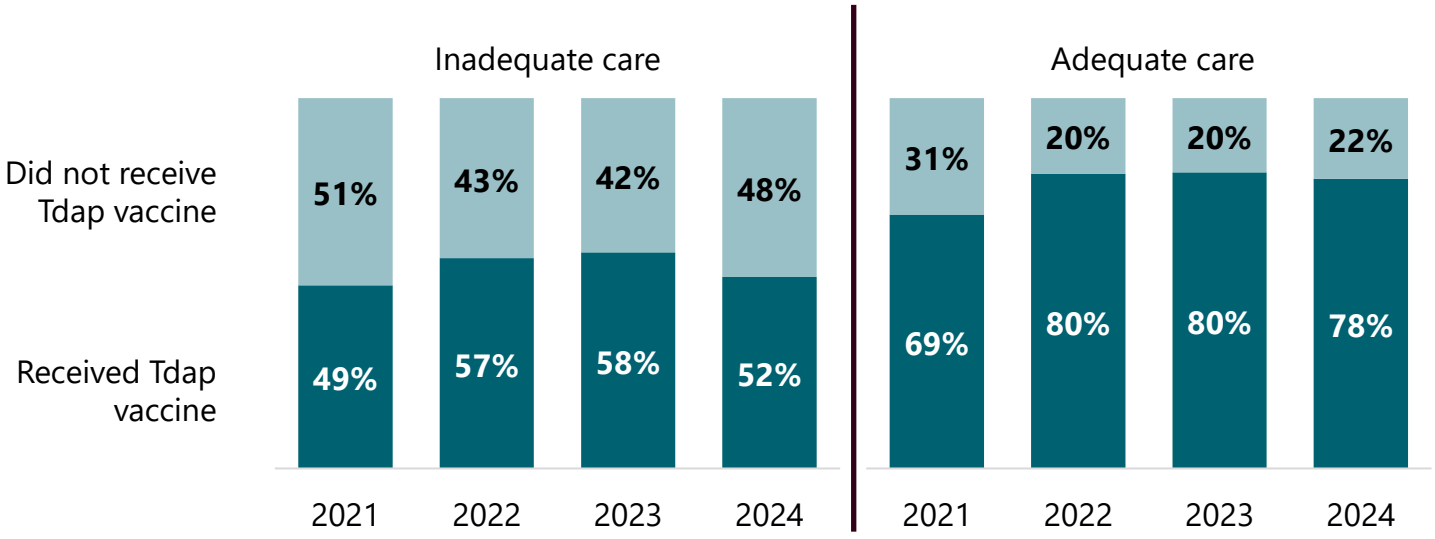


Figure 10: Pregnant people who experienced adequate prenatal care had higher Tdap vaccination rates than those who had inadequate care. Pregnant people who can attend more prenatal visits have more opportunities to discuss the importance of vaccinations with their healthcare provider.



Tdap

Figure 11: Tdap vaccination coverage was lowest among pregnant people who did not complete high school. Those with a greater than high school level of education had Tdap vaccination coverage rates nearly 20 percentage points higher than those with less than a high school education. Tdap vaccination among pregnant people increased from 2021 through 2023 across all education levels but decreased in 2024. Those with less than a high school level of education saw the largest decline from 61% in 2023 to 53% in 2024.

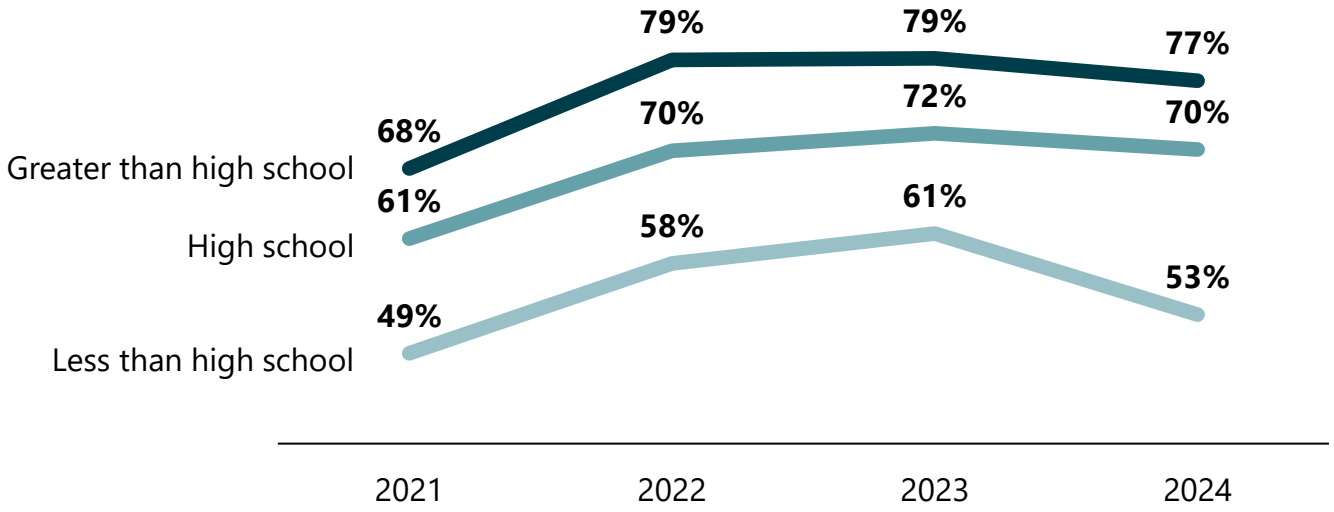
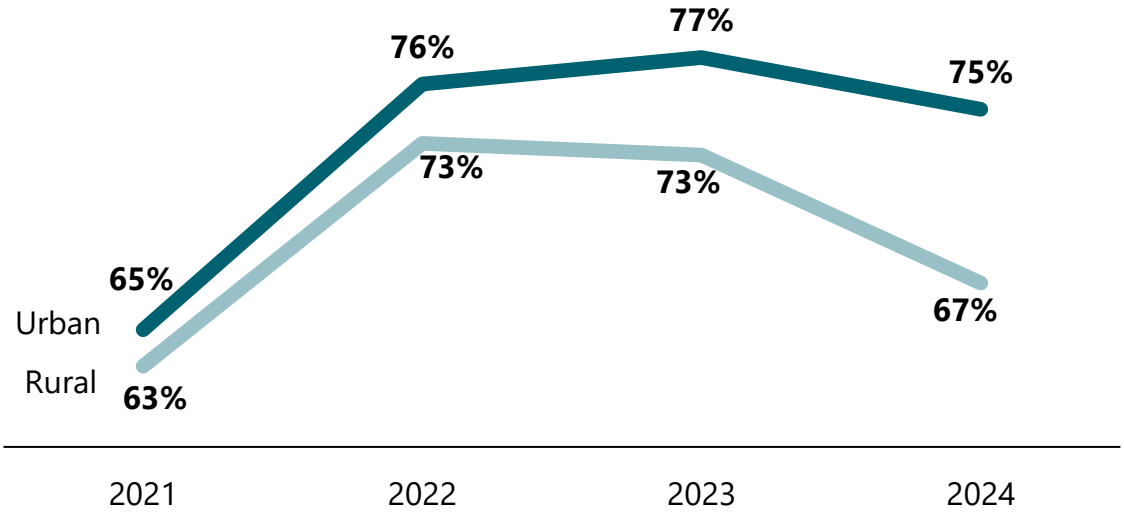


Figure 12: Pregnant people who lived in urban counties had higher Tdap vaccination coverage rates than those who lived in rural counties. Tdap vaccination increased from 2021 through 2023 among pregnant people who lived in urban counties. Among pregnant people in rural counties, Tdap vaccination peaked in 2022 at 73%, but decreased to 67% in 2024.



Tdap

Table 2: Tdap vaccination rates among pregnant people by county, 2021–2024

County	2021	2022	2023	2024	County	2021	2022	2023	2024
Adams	68.1%	76.7%	74.1%	70.7%	Marathon	58.9%	67.8%	66.3%	62.8%
Ashland	67.6%	80.0%	81.8%	75.1%	Marinette	63.4%	75.5%	75.8%	71.9%
Barron	67.7%	72.3%	71.0%	62.5%	Marquette	53.8%	68.6%	62.1%	57.0%
Bayfield	56.3%	73.1%	67.9%	78.2%	Menominee	70.4%	63.2%	78.5%	76.9%
Brown	63.7%	77.6%	77.8%	75.0%	Milwaukee	62.1%	70.9%	74.2%	73.0%
Buffalo	66.4%	74.6%	69.2%	62.6%	Monroe	57.8%	71.7%	68.7%	60.2%
Burnett	68.4%	75.0%	83.5%	74.1%	Oconto	63.4%	75.3%	75.7%	74.7%
Calumet	67.8%	80.6%	80.0%	78.7%	Oneida	67.5%	73.0%	72.2%	69.2%
Chippewa	65.6%	71.7%	71.5%	65.7%	Outagamie	67.0%	80.8%	79.1%	77.0%
Clark	33.1%	38.8%	42.7%	33.1%	Ozaukee	72.8%	79.9%	83.9%	82.1%
Columbia	64.2%	79.0%	75.2%	70.2%	Pepin	68.9%	74.6%	68.3%	62.7%
Crawford	57.0%	62.2%	66.7%	51.6%	Pierce	66.8%	73.4%	76.5%	65.8%
Dane	74.3%	87.3%	86.8%	85.8%	Polk	65.3%	73.6%	77.2%	72.1%
Dodge	65.2%	78.0%	74.0%	70.6%	Portage	64.1%	78.8%	71.7%	75.4%
Door	74.2%	83.0%	74.7%	78.9%	Price	63.3%	80.4%	73.9%	72.5%
Douglas	69.3%	79.3%	73.7%	74.6%	Racine	57.3%	64.6%	67.4%	68.9%
Dunn	66.5%	72.6%	75.0%	73.8%	Richland	61.8%	76.5%	80.7%	70.8%
Eau Claire	62.8%	74.7%	69.8%	68.7%	Rock	69.8%	76.9%	81.6%	77.8%
Florence	29.4%	50.0%	40.9%	64.0%	Rusk	54.6%	62.0%	61.1%	46.1%
Fond du Lac	57.2%	68.9%	75.4%	69.2%	St. Croix	64.5%	76.4%	73.5%	67.8%
Forest	67.0%	73.4%	67.0%	72.3%	Sauk	71.2%	74.4%	80.6%	73.4%
Grant	57.4%	65.1%	67.1%	55.5%	Sawyer	69.3%	78.4%	73.1%	75.0%
Green	66.7%	84.1%	84.3%	78.7%	Shawano	62.0%	71.9%	74.1%	66.8%
Green Lake	51.2%	62.3%	61.4%	53.2%	Sheboygan	70.2%	77.6%	76.7%	74.4%
Iowa	67.6%	74.6%	75.5%	75.5%	Taylor	61.7%	61.6%	65.6%	53.8%
Iron	57.6%	72.7%	70.6%	75.7%	Trempealeau	68.1%	81.5%	81.3%	77.6%
Jackson	71.8%	82.2%	80.0%	67.8%	Vernon	58.4%	61.4%	61.6%	37.5%
Jefferson	70.6%	81.8%	80.4%	76.2%	Vilas	67.1%	77.8%	74.0%	73.4%
Juneau	68.9%	77.4%	74.0%	79.0%	Walworth	64.7%	79.0%	77.5%	71.6%
Kenosha	41.7%	50.8%	54.8%	53.5%	Washburn	60.9%	70.3%	73.1%	66.4%
Kewaunee	65.3%	78.4%	74.0%	70.6%	Washington	69.2%	80.6%	81.0%	75.5%
La Crosse	71.6%	82.5%	83.1%	78.5%	Waukesha	70.4%	82.5%	83.0%	79.9%
Lafayette	57.3%	69.9%	73.3%	52.8%	Waupaca	63.7%	75.8%	72.6%	74.9%
Langlade	55.1%	67.1%	67.1%	68.9%	Waushara	61.0%	72.2%	72.1%	64.5%
Lincoln	52.6%	61.6%	56.4%	62.9%	Winnebago	65.4%	78.0%	77.4%	76.5%
Manitowoc	74.4%	79.6%	81.3%	81.4%	Wood	62.5%	74.3%	74.5%	70.9%

Influenza

Influenza

Figure 13: Influenza coverage decreased among pregnant people 18 years and older from 2021 through 2024. Pregnant people 25–34 years old experienced the largest decrease from 47% in 2021 to 38% in 2024. Influenza coverage among pregnant people 17 years and younger peaked in 2022 at 35%, decreased in 2023 to 31%, and increased again in 2024 to 33%.

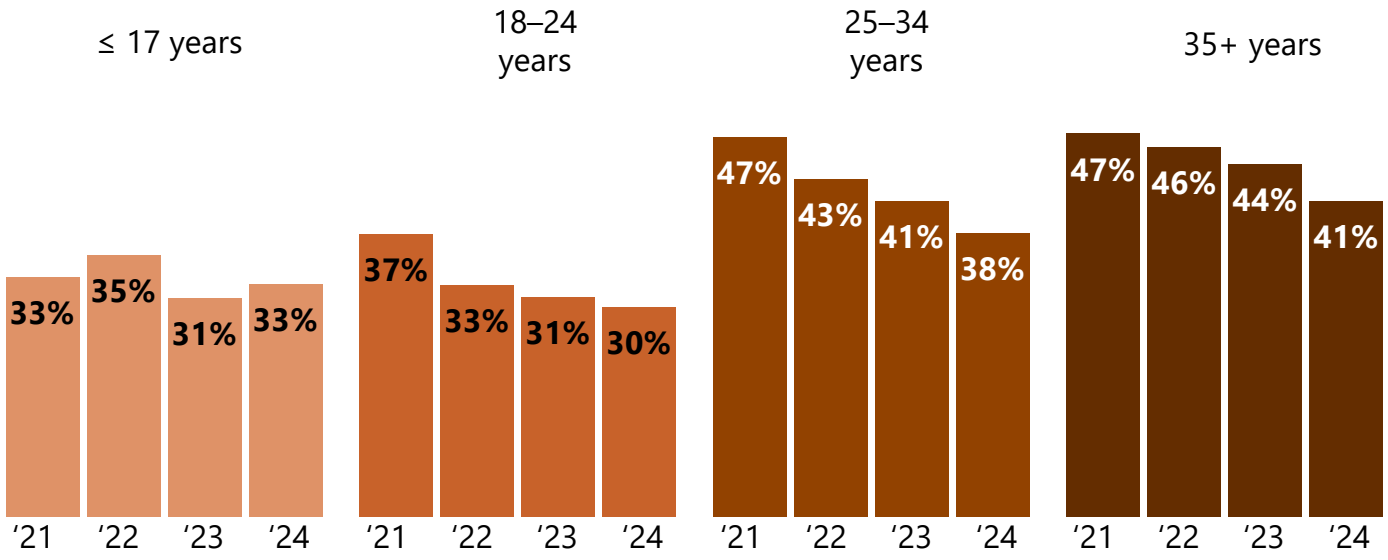
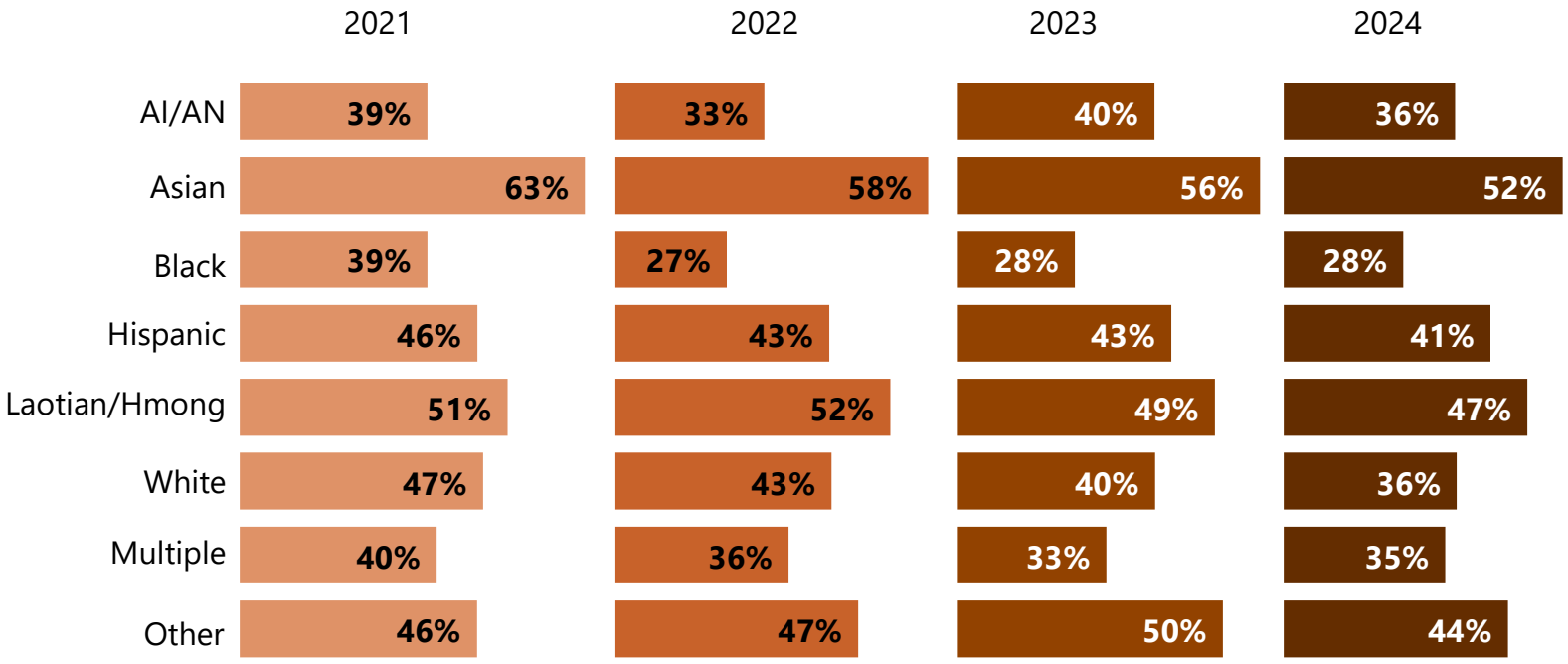


Figure 14: Overall influenza vaccination rates were highest among pregnant people for most race and ethnicities in 2021. From 2021 through 2024, Black pregnant people experienced the lowest influenza coverage rates while Asian pregnant people had the highest coverage rates.



Influenza

Figure 15: Pregnant people who had private insurance had the highest influenza vaccination coverage rates compared to pregnant people covered by Medicaid or BadgerCare, those who paid health care providers directly without involving an insurance company (self-pay), or other forms of insurance. Those who self-paid for vaccines had the lowest coverage rates. Pregnant people with Medicaid or BadgerCare experienced the smallest decrease in coverage from 36% in 2021 to 31% in 2024. Pregnant people with private or other forms of insurance saw larger decreases in influenza vaccination coverage from 2021 through 2024.

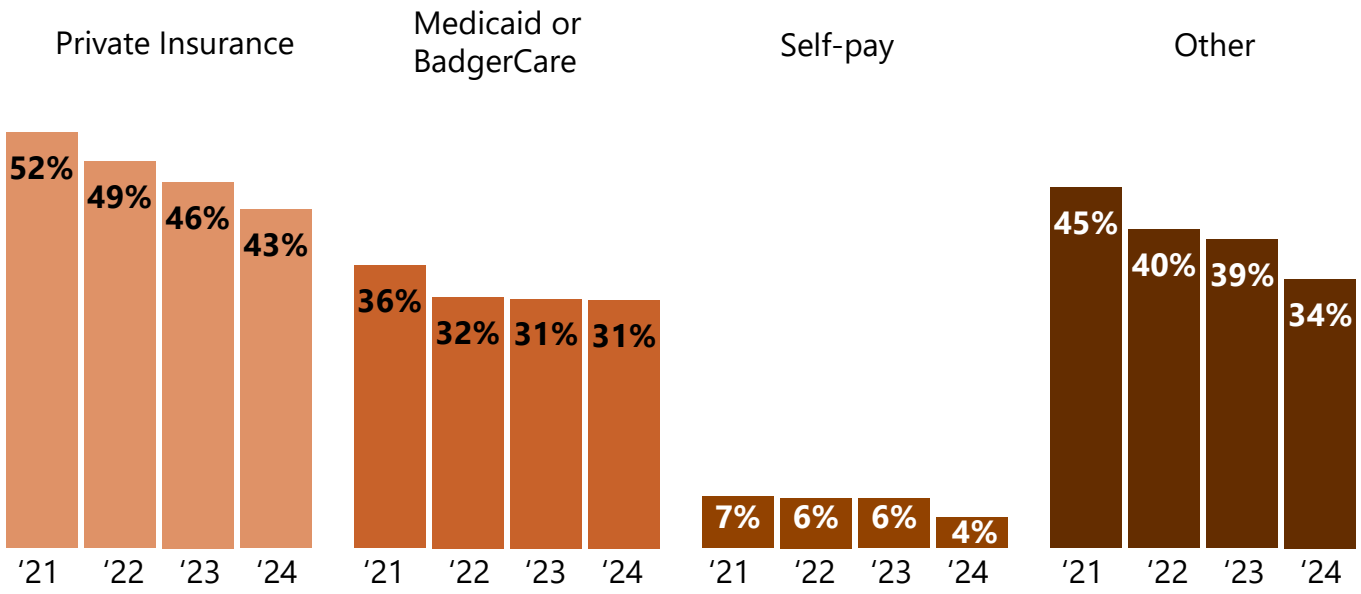


Table 3: Nearly four out of 10 pregnant people received their influenza vaccine from a multi-specialty medical practice from 2021 through 2024. Influenza vaccines are available in various medical and non-medical settings, yet pregnant people overwhelmingly received the influenza vaccine in medical settings.

Provider Group	2021	2022	2023	2024
Multi-specialty medical practice	34%	35%	36%	36%
OB/GYN	11%	10%	13%	13%
Birthing hospital, birthing center, or hospital	11%	11%	12%	11%
Family medicine	12%	11%	10%	10%
Other medical practice	6%	5%	5%	6%
Pharmacy	11%	11%	9%	9%
All others	16%	16%	15%	15%

Influenza

Figure 16: Non-WIC recipients experienced higher influenza vaccination coverage rates than WIC recipients from 2021 through 2024. Influenza vaccination coverage among pregnant non-WIC recipients decreased from 47% in 2021 to 38% in 2024. Pregnant WIC recipients had the highest influenza coverage rates in 2021 at 39% but remained at 34% from 2022 through 2024.

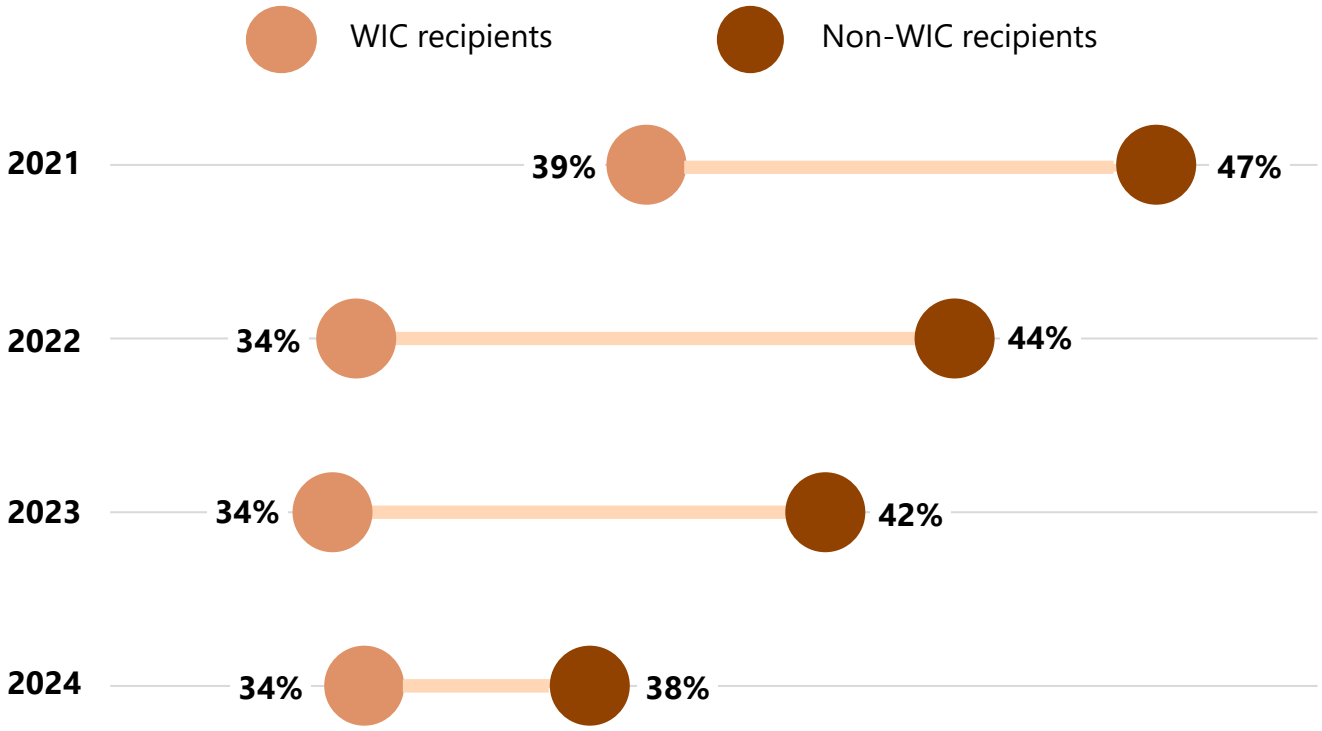
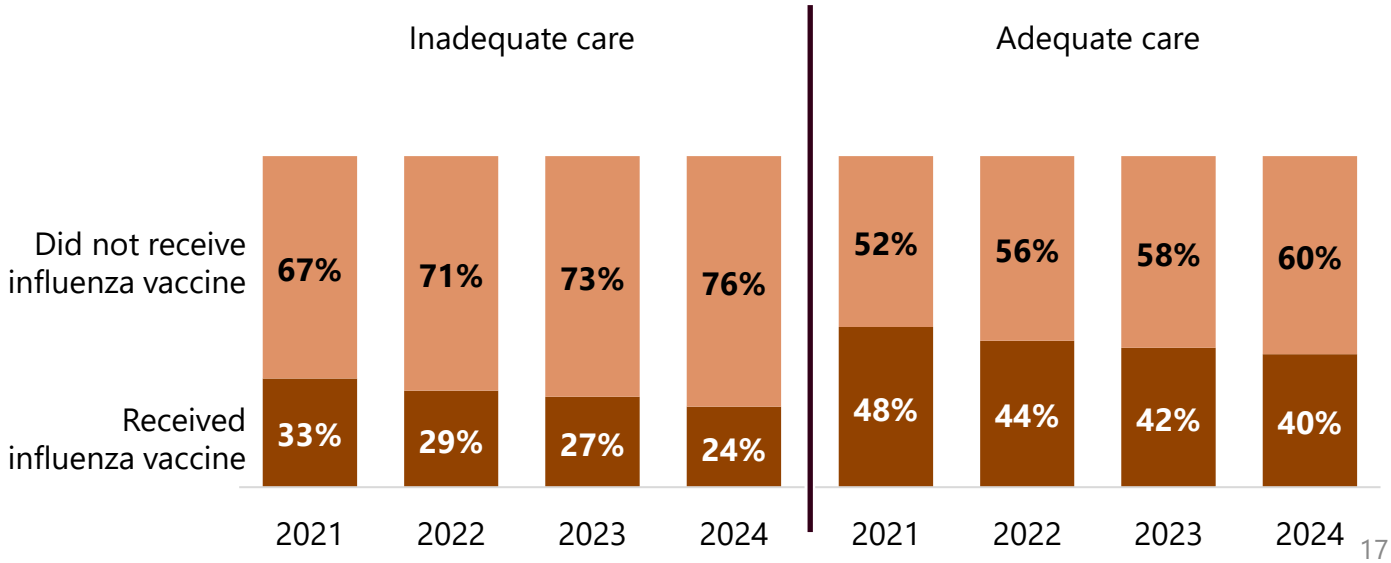


Figure 17: Pregnant people who experienced adequate prenatal care had higher influenza vaccination rates than those who had inadequate prenatal care. Influenza vaccination decreased among both groups from 2021 through 2024.



Influenza

Figure 18: Influenza vaccination coverage decreased for all educational attainment levels from 2021 through 2024 but remained highest among those with greater than a high school level of education. In 2021, influenza vaccination coverage among pregnant people ranged from 31% in those with less than a high school degree to 50% in those with greater than high school level of education. In 2021, influenza vaccination coverage among pregnant people ranged from 25% in those with less than a high school degree to 42% in those with greater than high school level of education.

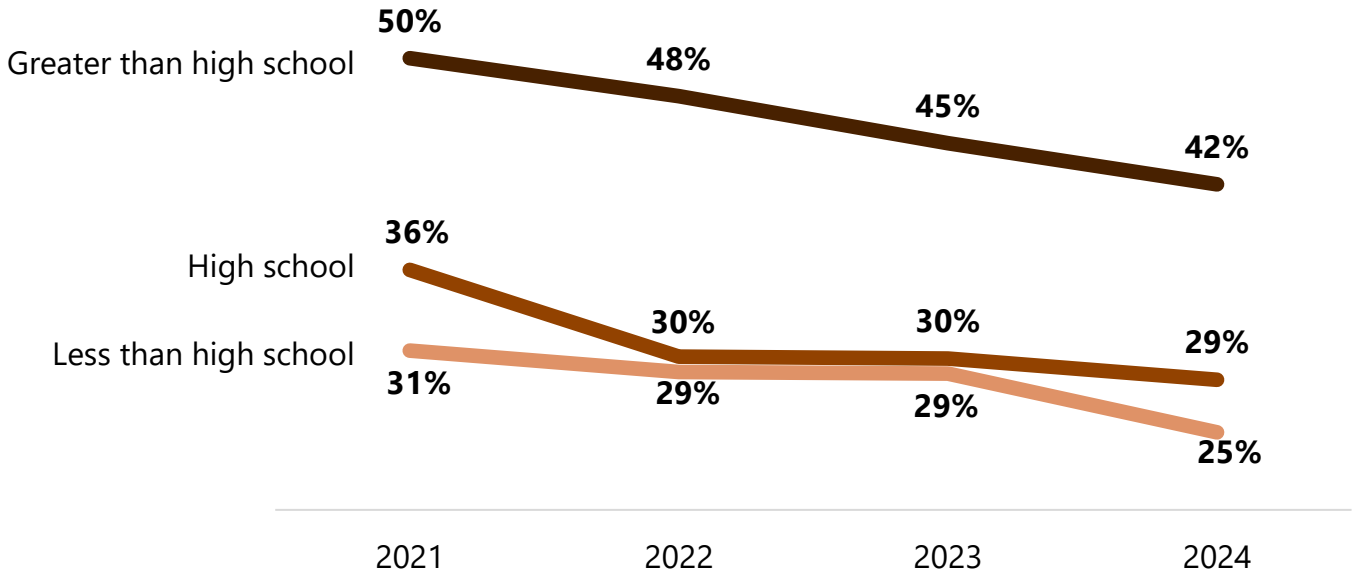
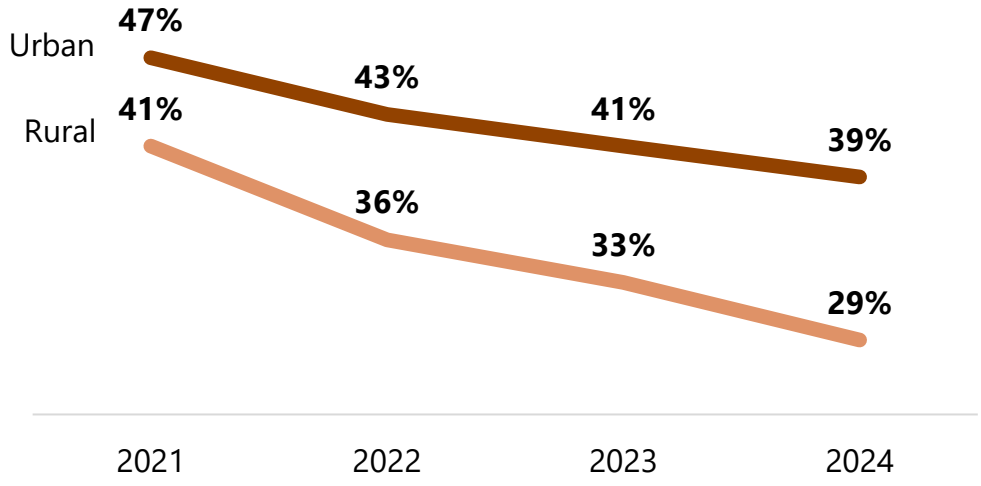


Figure 19: Pregnant people who lived in urban counties had higher influenza vaccination coverage rates than those who lived in rural counties. Influenza vaccination peaked in 2021 at 47% for pregnant people living in urban counties and 41% for pregnant people living in rural counties. Influenza vaccination coverage rates continued to decrease with 39% coverage in 2024 for pregnant people in urban counties and 29% coverage for pregnant people in rural counties.



Influenza

Table 4: Influenza vaccination rates among pregnant people by county, 2021–2024

County	2021	2022	2023	2024	County	2021	2022	2023	2024
Adams	16.3%	31.9%	25.0%	31.9%	Marathon	13.0%	37.4%	35.0%	32.5%
Ashland	14.8%	46.9%	45.9%	37.0%	Marinette	11.8%	28.4%	26.3%	21.0%
Barron	11.7%	36.2%	29.0%	25.2%	Marquette	13.8%	37.3%	31.9%	20.3%
Bayfield	11.6%	43.3%	43.1%	33.6%	Menominee	16.9%	42.6%	61.5%	43.6%
Brown	14.7%	40.8%	39.1%	36.7%	Milwaukee	16.4%	41.4%	41.7%	40.9%
Buffalo	8.8%	27.9%	27.9%	27.0%	Monroe	13.0%	35.3%	28.2%	23.2%
Burnett	12.2%	30.7%	33.0%	25.0%	Oconto	14.4%	32.0%	33.8%	27.3%
Calumet	12.8%	44.4%	35.7%	34.5%	Oneida	12.8%	30.0%	37.6%	31.2%
Chippewa	12.4%	32.0%	27.0%	22.5%	Outagamie	15.0%	44.3%	38.7%	37.2%
Clark	6.4%	19.3%	18.5%	13.8%	Ozaukee	16.2%	51.6%	53.3%	49.0%
Columbia	17.5%	44.3%	39.4%	35.2%	Pepin	14.8%	36.5%	19.0%	23.9%
Crawford	14.1%	26.7%	31.3%	18.8%	Pierce	10.0%	34.5%	32.5%	28.7%
Dane	22.2%	60.5%	58.8%	55.2%	Polk	13.9%	29.3%	32.5%	28.2%
Dodge	13.9%	36.5%	35.3%	32.3%	Portage	15.3%	39.7%	32.3%	37.0%
Door	16.4%	42.3%	43.1%	36.2%	Price	17.8%	45.7%	39.8%	33.9%
Douglas	8.2%	34.2%	38.5%	38.2%	Racine	10.6%	28.4%	29.0%	30.9%
Dunn	12.7%	36.2%	32.2%	26.4%	Richland	15.3%	40.0%	31.0%	34.4%
Eau Claire	13.4%	34.4%	29.0%	29.0%	Rock	15.8%	38.3%	38.0%	37.3%
Florence	2.9%	25.0%	4.5%	12.0%	Rusk	13.9%	24.8%	20.4%	20.3%
Fond du Lac	13.2%	41.7%	36.1%	30.2%	St. Croix	11.3%	34.4%	29.2%	26.9%
Forest	6.6%	28.7%	27.8%	20.2%	Sauk	18.5%	39.5%	38.3%	39.8%
Grant	10.8%	30.2%	31.4%	22.2%	Sawyer	17.3%	41.4%	37.7%	34.4%
Green	12.7%	35.3%	39.2%	28.7%	Shawano	11.8%	32.6%	26.8%	32.7%
Green Lake	12.2%	33.3%	26.3%	21.3%	Sheboygan	17.7%	44.9%	38.6%	35.0%
Iowa	18.0%	46.4%	43.7%	33.9%	Taylor	10.3%	23.8%	26.0%	18.1%
Iron	12.1%	29.5%	23.5%	29.7%	Trempealeau	14.7%	39.9%	37.2%	33.6%
Jackson	17.7%	38.7%	37.6%	29.4%	Vernon	10.5%	32.6%	27.4%	16.5%
Jefferson	14.7%	47.7%	41.5%	40.3%	Vilas	15.8%	28.8%	40.9%	40.6%
Juneau	9.6%	35.3%	32.4%	33.6%	Walworth	15.7%	40.6%	34.1%	35.6%
Kenosha	9.0%	26.2%	24.9%	21.6%	Washburn	9.6%	24.8%	25.0%	30.3%
Kewaunee	14.5%	40.2%	31.8%	28.9%	Washington	18.3%	47.1%	42.6%	37.3%
La Crosse	17.0%	47.8%	48.5%	40.7%	Waukesha	18.8%	54.3%	51.7%	47.4%
Lafayette	8.6%	32.3%	30.9%	21.7%	Waupaca	12.3%	34.8%	33.0%	29.3%
Langlade	12.6%	29.3%	25.8%	25.2%	Waushara	15.6%	33.3%	29.7%	24.0%
Lincoln	12.0%	27.6%	28.0%	28.8%	Winnebago	15.2%	39.1%	36.0%	39.3%
Manitowoc	17.9%	45.1%	44.9%	38.3%	Wood	14.7%	37.2%	34.4%	26.8%

COVID-19

Figure 20: When the COVID-19 vaccines became widely available in 2021, approximately 30% of pregnant people 25 years and older received a vaccine within the year prior to giving birth. COVID-19 vaccination among pregnant people peaked in 2022 for all age groups but declined 2023 through 2024. In 2024, COVID-19 coverage ranged from 4% among pregnant people 24 years old and younger to 14% among pregnant people 45 years and older.

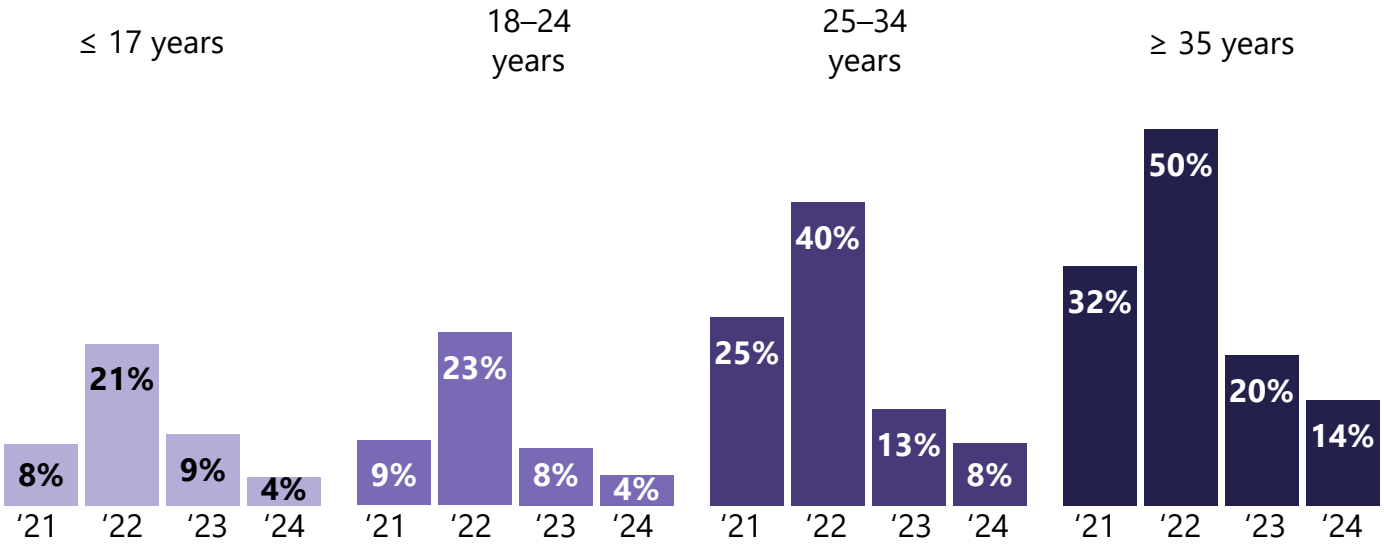


Figure 21: The COVID-19 pandemic highlighted racial disparities in disease burden and vaccine coverage. Black pregnant people experienced the lowest vaccination coverage rates for COVID-19 ranging from 26% in 2022 to 4% in 2024. 2024 saw the lowest vaccination rates among all race and ethnicities with the highest coverage at 15% among Asian pregnant people.

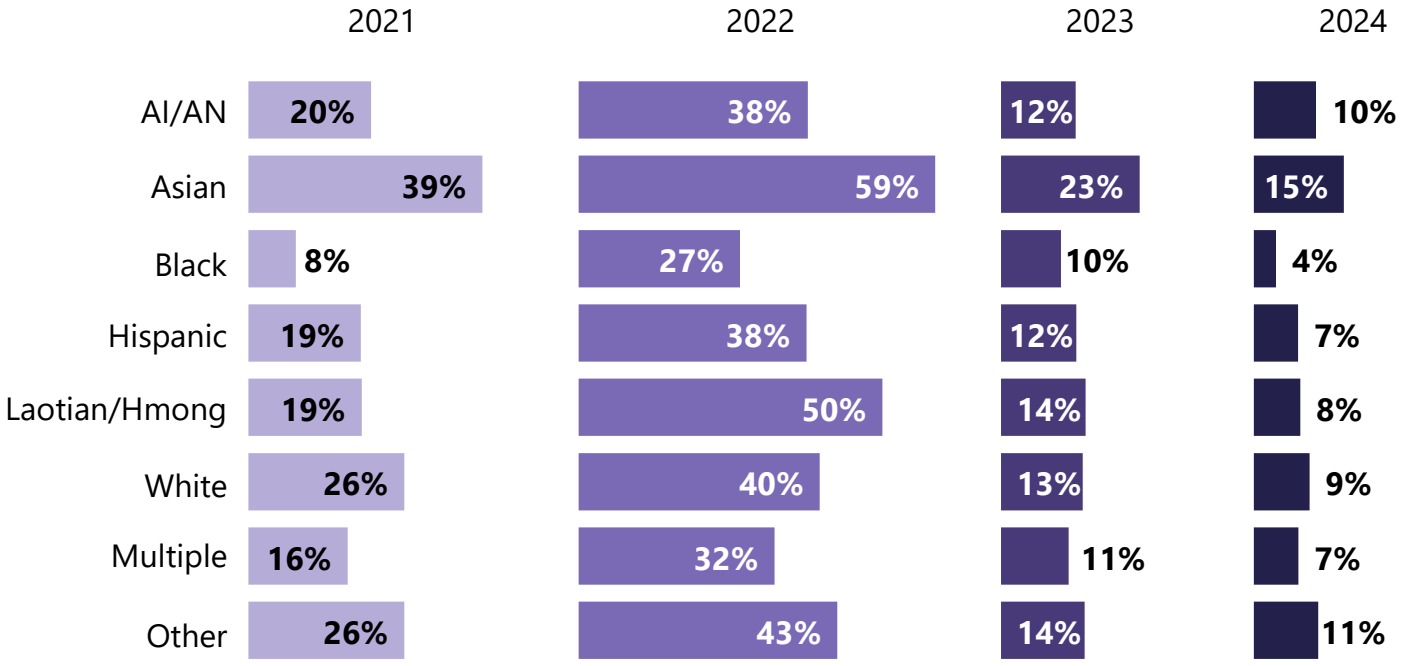


Figure 22: Pregnant people who had private insurance had the highest COVID-19 vaccination coverage rates compared to pregnant people covered by Medicaid or BadgerCare, those who paid health care providers directly without involving an insurance company (self-pay), or other forms of insurance. Those who self-paid for vaccines had the lowest coverage rates. In 2024, COVID-19 vaccination coverage rates were lowest among all insurance types and ranged from 1% coverage for pregnant people who self-paid to 11% among those with private insurance.

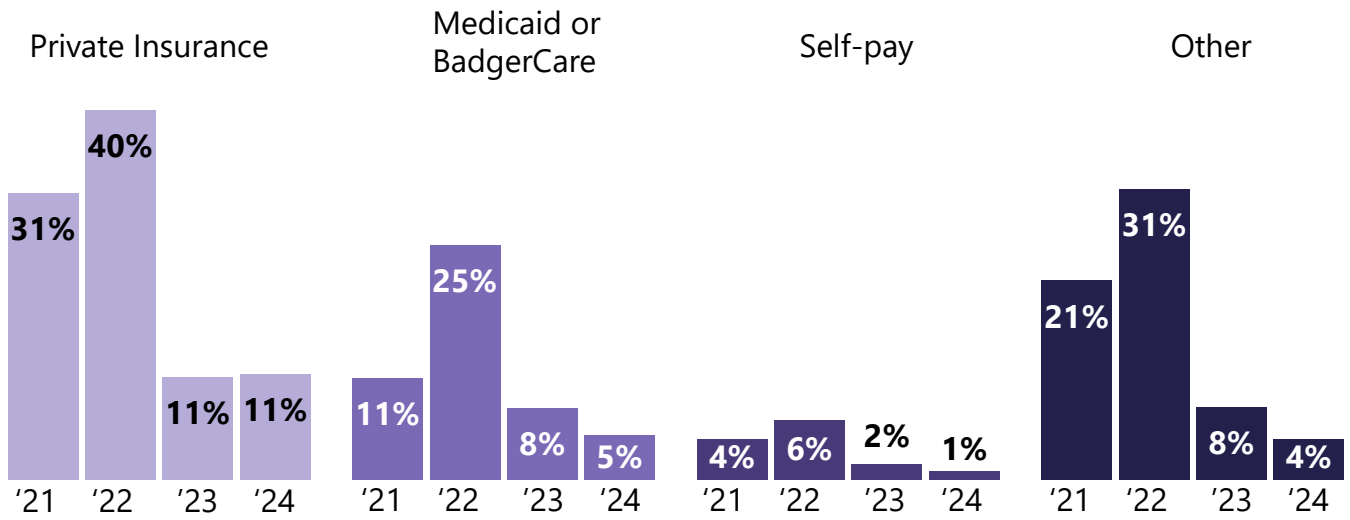


Table 5: When it comes to COVID-19 vaccination, nearly half of pregnant people received their vaccine at a pharmacy from 2021 through 2024. 19% of pregnant people received their COVID-19 vaccine at a multi-specialty medical practice from 2021 through 2023 with an increase to 25% in 2024.

Location Vaccinated	2021	2022	2023	2024
Pharmacy	45%	47%	50%	39%
Multi-specialty medical practice	19%	19%	19%	25%
Birthing hospital, birthing center, or hospital	12%	10%	7%	6%
Family medicine	7%	7%	9%	11%
Public health	6%	5%	3%	2%
Other medical practice	3%	3%	5%	7%
All others	8%	7%	7%	10%

Figure 23: COVID-19 vaccination coverage remained higher from 2021 through 2024 for non-WIC recipients. Vaccination coverage among pregnant people was highest in 2022, with 42% of non-WIC recipients vaccinated with COVID-19 and 29% coverage among WIC recipients.

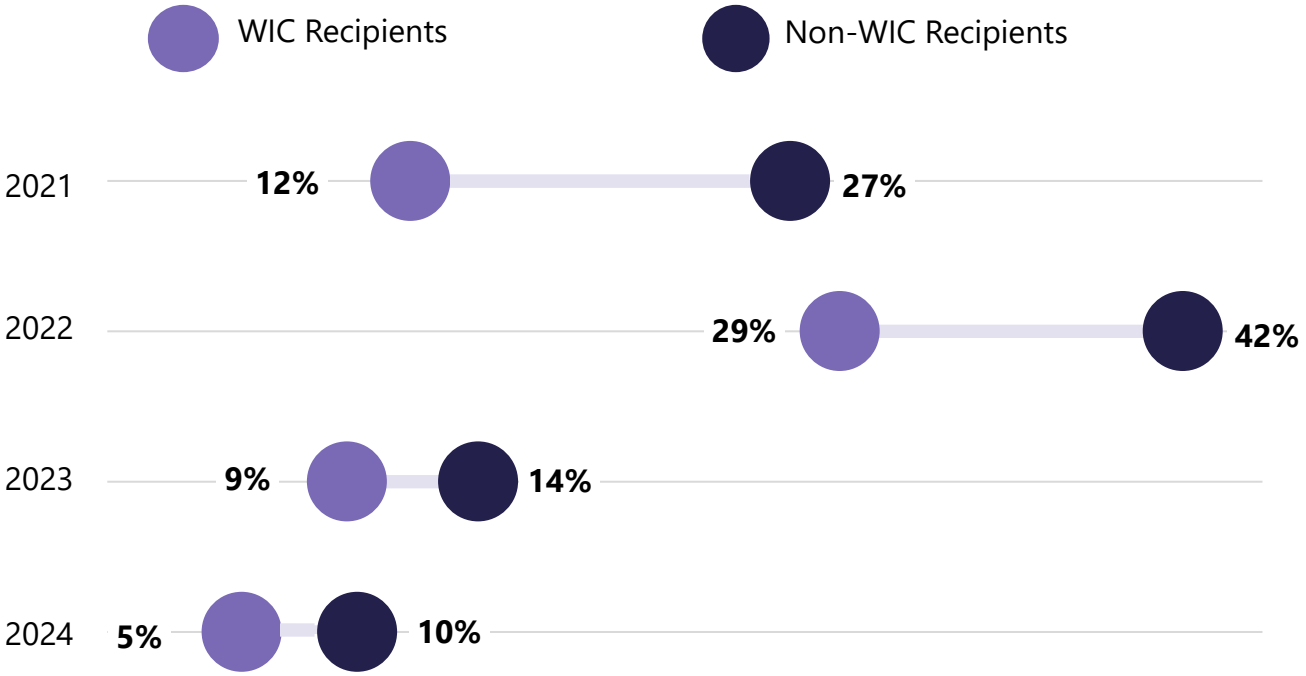


Figure 24: In 2021 and 2022, Pregnant people who experienced adequate prenatal care had higher COVID-19 vaccination rates than those who experienced inadequate prenatal care. Both groups decreased to less than 15% coverage in 2023 and decreased below 10% in 2024.

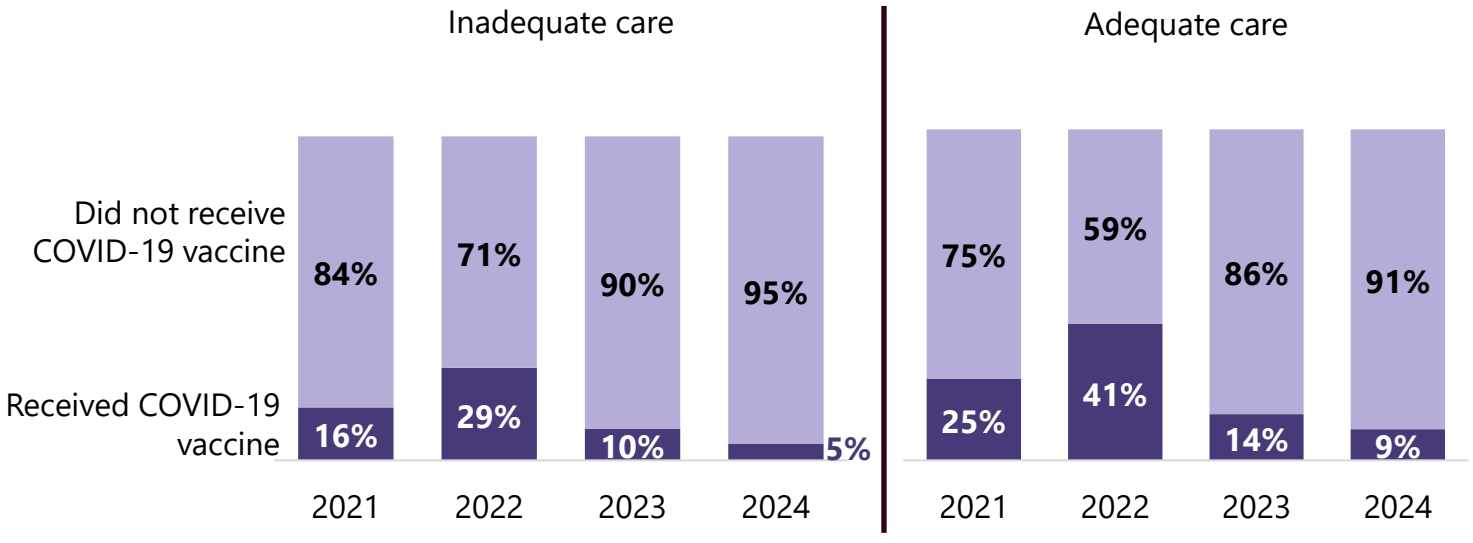


Figure 25: COVID-19 vaccination coverage is highest among those with greater than a high school level of education. COVID-19 vaccination coverage peaked for all education levels in 2022 and decreased in 2023 and 2024. In 2023 and 2024, COVID-19 vaccination coverage decreased below levels reported in 2021, regardless of education status. In 2024, coverage ranged from 3% to pregnant people with a high school education attainment level to 11% of pregnant people with greater than high school level of education.

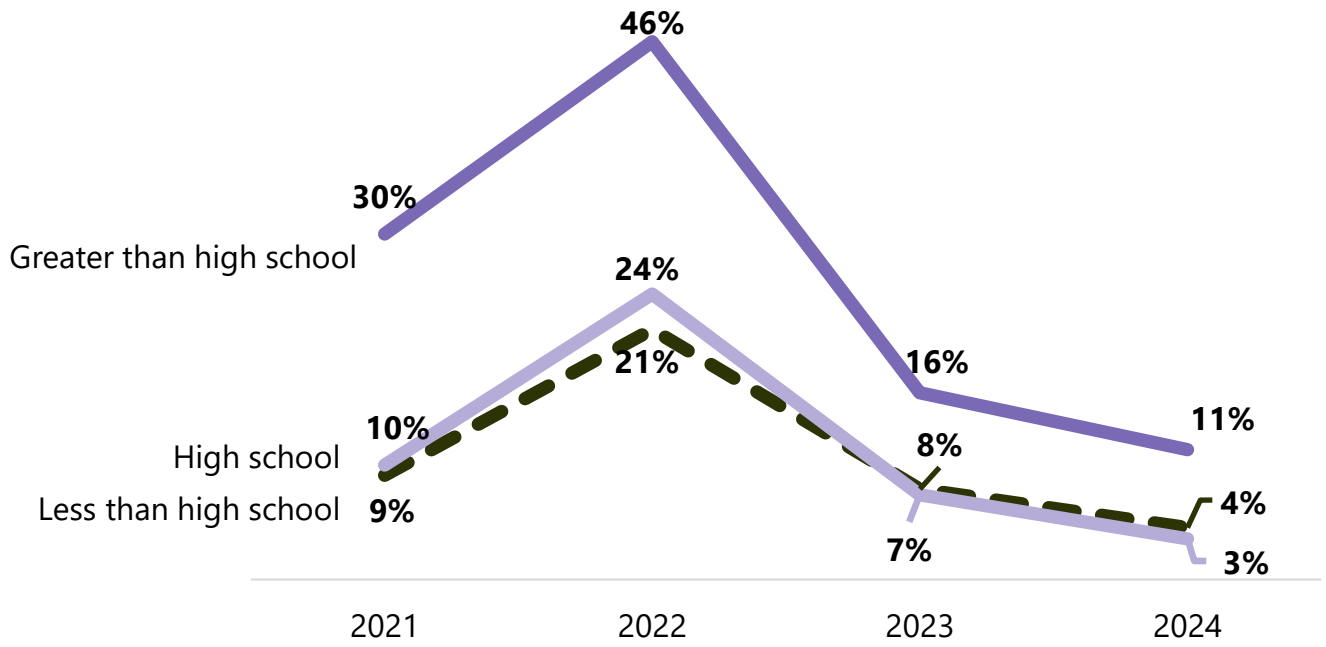


Figure 26: Pregnant people who lived in urban counties had higher COVID-19 vaccination coverage rates than those who lived in rural counties. COVID-19 vaccination peaked in 2022 at 42% for pregnant people living in urban counties and 28% for pregnant people living in rural counties. Coverage for COVID-19 dropped below 2021 rates starting in 2023 and continued in 2024 with 10% among pregnant people in urban counties and 4% coverage among pregnant people in rural counties.

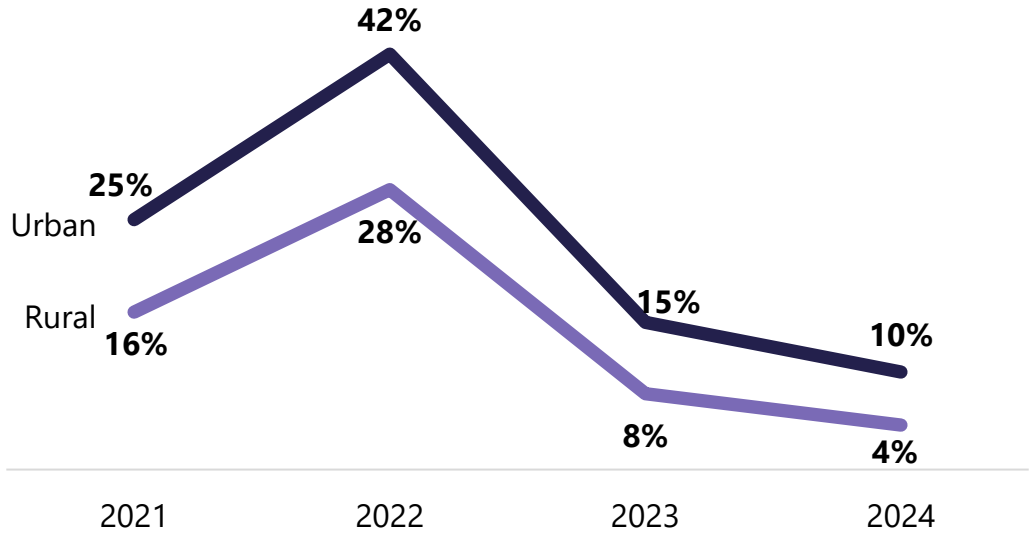


Table 6: COVID-19 vaccination rates among pregnant people by county, 2021–2024

County	2021	2022	2023	County	2021	2022	2023
Adams	12.7%	20.7%	6.1%	Marathon	13.2%	32.0%	6.3%
Ashland	23.9%	44.3%	21.6%	Marinette	6.5%	22.1%	6.3%
Barron	12.0%	22.8%	6.4%	Marquette	11.8%	26.7%	7.0%
Bayfield	17.9%	31.1%	17.9%	Menominee	33.3%	61.2%	32.8%
Brown	21.2%	38.9%	10.7%	Milwaukee	21.8%	40.2%	14.9%
Buffalo	13.6%	26.7%	5.8%	Monroe	17.9%	26.5%	9.3%
Burnett	17.4%	26.4%	7.0%	Oconto	13.2%	21.8%	4.5%
Calumet	23.3%	34.7%	8.6%	Oneida	16.2%	25.0%	9.3%
Chippewa	18.4%	26.2%	7.3%	Outagamie	23.9%	40.7%	10.1%
Clark	3.3%	12.9%	3.2%	Ozaukee	31.7%	47.3%	18.1%
Columbia	27.5%	42.3%	13.4%	Pepin	8.2%	25.8%	3.2%
Crawford	11.2%	23.5%	6.3%	Pierce	23.8%	36.3%	14.8%
Dane	46.3%	64.9%	35.2%	Polk	16.8%	26.8%	7.0%
Dodge	14.6%	26.7%	6.0%	Portage	19.6%	37.5%	7.8%
Door	26.0%	44.2%	12.1%	Price	13.3%	23.1%	2.3%
Douglas	25.9%	39.7%	12.8%	Racine	15.6%	31.7%	7.9%
Dunn	20.6%	33.4%	11.5%	Richland	16.0%	28.0%	6.9%
Eau Claire	27.3%	41.9%	10.8%	Rock	20.7%	36.5%	10.5%
Florence	3.1%	22.7%	4.8%	Rusk	6.5%	16.5%	2.7%
Fond du Lac	15.0%	32.7%	6.6%	St. Croix	26.7%	42.3%	11.3%
Forest	7.7%	16.1%	2.1%	Sauk	24.0%	35.4%	13.4%
Grant	16.7%	29.2%	7.5%	Sawyer	22.2%	25.4%	2.3%
Green	24.1%	36.9%	15.2%	Shawano	11.3%	25.5%	4.9%
Green Lake	13.4%	24.0%	7.0%	Sheboygan	18.0%	34.0%	7.6%
Iowa	34.0%	47.3%	11.5%	Taylor	6.4%	14.3%	2.0%
Iron	15.6%	27.9%	5.9%	Trempealeau	20.4%	35.8%	14.9%
Jackson	20.0%	28.8%	5.5%	Vernon	23.1%	28.2%	11.5%
Jefferson	21.9%	36.8%	10.1%	Vilas	18.8%	25.7%	1.6%
Juneau	14.8%	21.4%	6.4%	Walworth	17.5%	29.5%	6.8%
Kenosha	13.1%	30.1%	6.4%	Washburn	14.2%	21.0%	5.6%
Kewaunee	16.1%	29.7%	7.3%	Washington	20.9%	35.2%	8.6%
La Crosse	31.8%	48.2%	17.8%	Waukesha	32.5%	46.9%	14.4%
Lafayette	11.0%	28.3%	8.0%	Waupaca	13.5%	26.1%	7.7%
Langlade	13.9%	20.2%	5.8%	Waushara	7.9%	24.2%	6.1%
Lincoln	9.5%	21.2%	2.9%	Winnebago	20.8%	37.6%	12.0%
Manitowoc	12.5%	30.4%	5.4%	Wood	16.3%	30.8%	5.7%

RSV

RSV

RSV vaccines were FDA approved for pregnant people in May 2023 and are recommended by ACIP to be administered between September and January.

Figure 27: Among age groups, RSV vaccination coverage more than doubled from the 2023–2024 season to the 2024–2025 season. Vaccination coverage differed by approximately 10 percentage points between those 17 years and younger and those 35 years and older for both seasons.

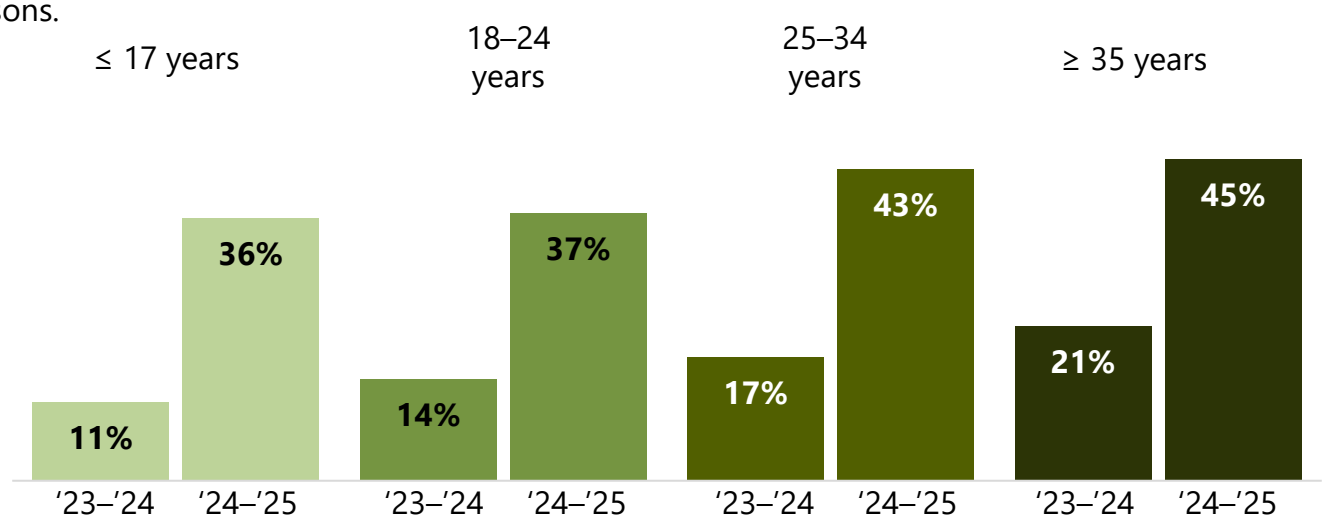


Figure 28: Approximately half of Asian, Laotian/Hmong, AI/AN, and pregnant people who identify as Other received the RSV vaccine during pregnancy during the 2024–2025 season. Black pregnant people had the lowest vaccination coverage in both seasons but increased from 11% in 2023–2024 to 34% in 2024–2025.

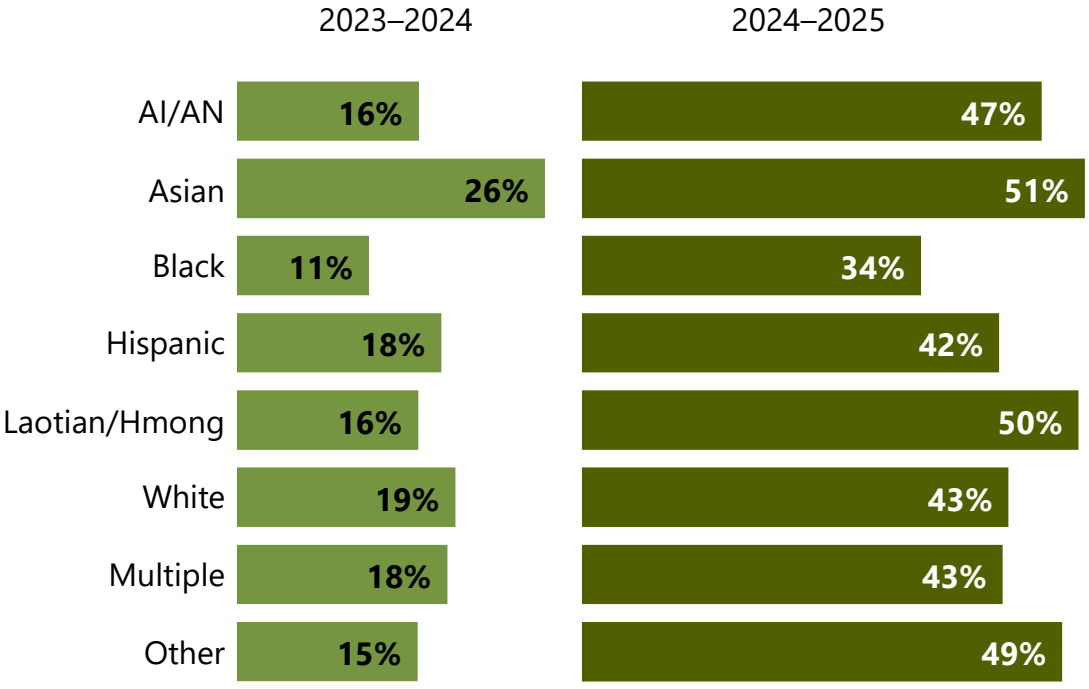


Figure 29: Pregnant people who had private or other insurance types had the highest RSV vaccination coverage rates compared to pregnant people covered by Medicaid or BadgerCare. Those who self-paid for vaccines had the lowest coverage rates.

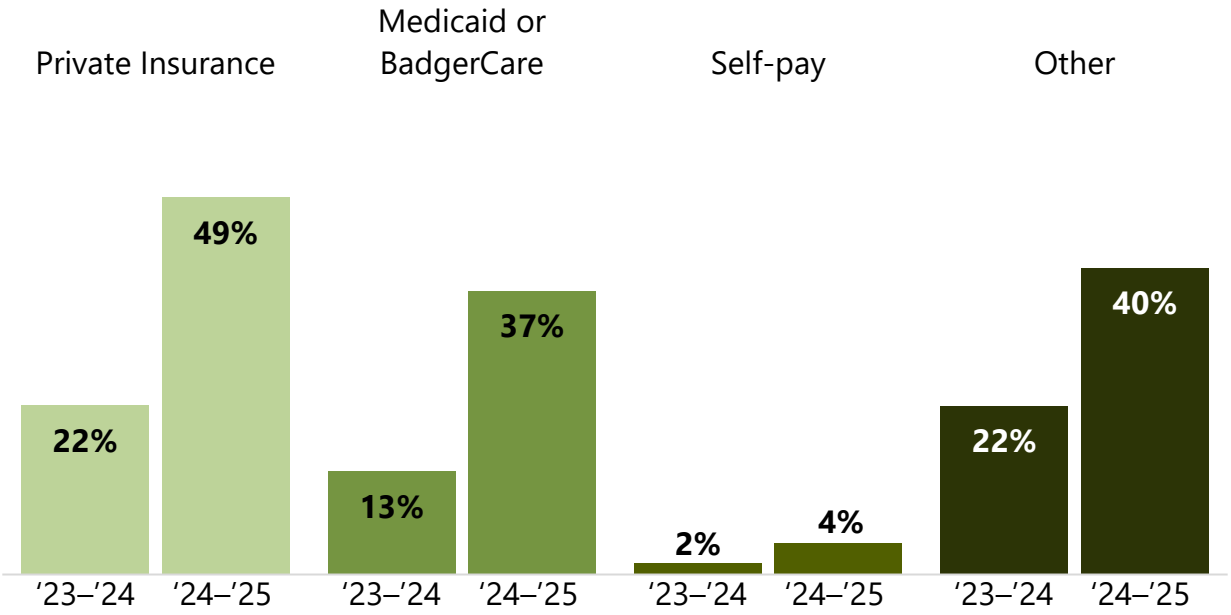


Table 7: Nearly half of pregnant people received their RSV vaccine in a multi-specialty medical practice during the 2023–2024 and 2024–2025 seasons. During the 2024–2025 season, more pregnant people received the RSV vaccine at an OB/GYN clinic compared to the previous season.

Location Vaccinated	2023–2024	2024–2025
Multi-specialty medical practice	47%	43%
Pharmacy	15%	3%
OB/GYN	13%	21%
Birthing hospital, birthing center, or hospital	11%	11%
Other medical practice	9%	17%
All others	5%	5%
Total		

RSV

Figure 30: RSV vaccination was similar between WIC and non-WIC recipients during both seasons. Vaccination coverage differed by 5 percentage points between Non-WIC and WIC recipients during the 2023–2024 and 2024–2025 seasons.

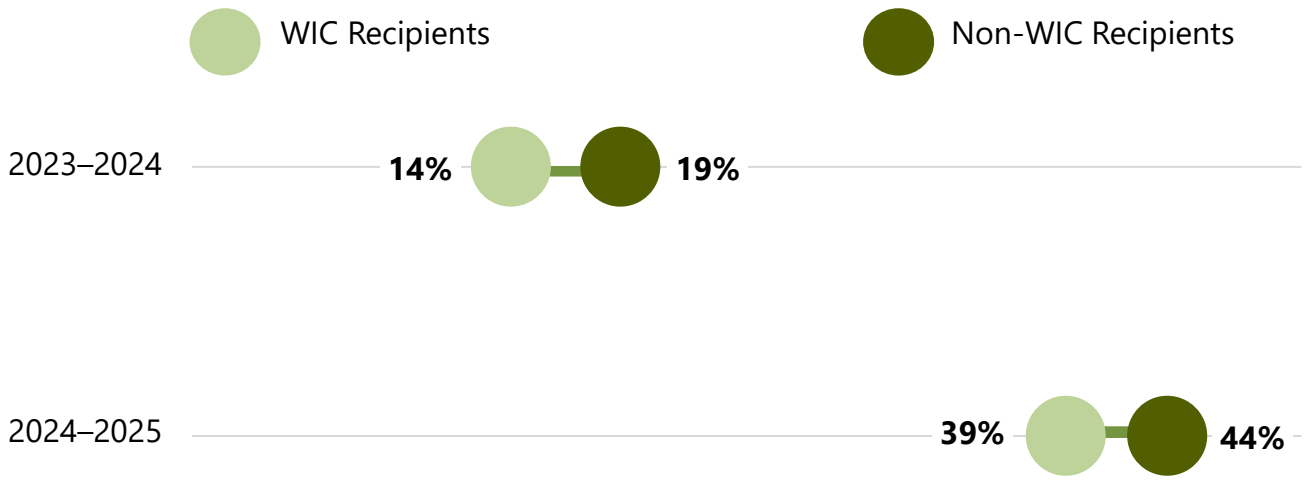
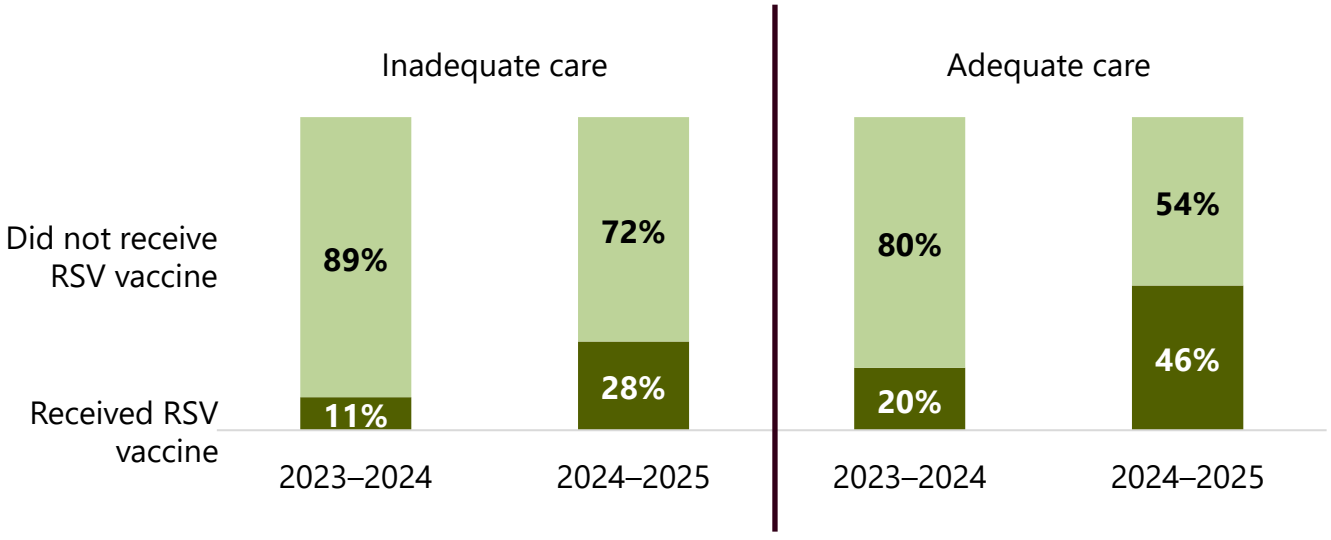


Figure 31: Pregnant people who experienced adequate prenatal care had higher RSV vaccination rates than those who had inadequate care. RSV vaccination coverage doubled in both groups during the 2024–2025 season.



RSV

Figure 32: RSV vaccination coverage is highest among those with greater than a high school level of education. At the end of the 2024–2025 season, nearly half of pregnant people with greater than a high school level of education received an RSV vaccine while less than one third of pregnant people with less than a high school level of education received the vaccine.

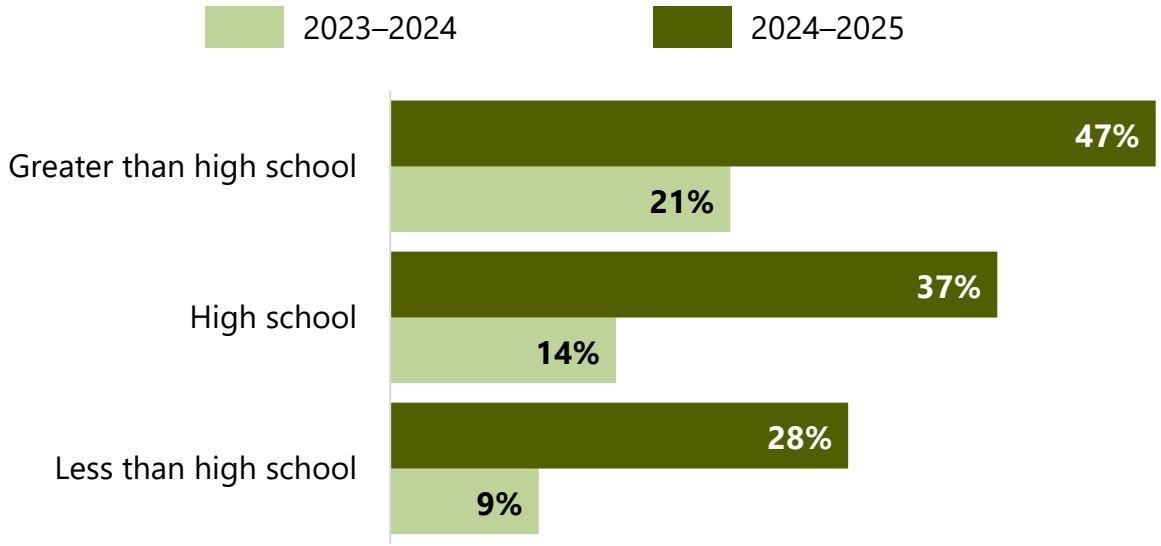


Figure 33: Following previous vaccination trends, pregnant people who live in urban counties had higher rates of RSV vaccination compared to pregnant people who live in rural counties.

Season	Rural	Urban
2023–2024	14%	19%
2024–2025	37%	44%

Table 8: RSV vaccination rates among pregnant people, by county

County	2023–2024	2024–2025	County	2023–2024	2024–2025
Adams	11.1%	53.6%	Marathon	8.1%	42.0%
Ashland	26.9%	44.7%	Marinette	5.2%	42.4%
Barron	11.5%	29.4%	Marquette	9.4%	35.8%
Bayfield	23.3%	31.9%	Menominee	14.0%	52.8%
Brown	11.9%	45.7%	Milwaukee	16.3%	45.4%
Buffalo	7.7%	21.2%	Monroe	9.9%	37.5%
Burnett	18.0%	31.4%	Oconto	7.5%	36.8%
Calumet	12.4%	43.4%	Oneida	20.8%	47.9%
Chippewa	6.0%	23.4%	Outagamie	13.6%	41.2%
Clark	5.2%	22.3%	Ozaukee	24.2%	55.3%
Columbia	18.3%	43.1%	Pepin	2.7%	17.6%
Crawford	4.2%	25.0%	Pierce	21.6%	20.3%
Dane	29.9%	60.9%	Polk	12.1%	24.9%
Dodge	15.0%	36.0%	Portage	11.9%	56.7%
Door	24.0%	49.5%	Price	24.1%	46.3%
Douglas	24.5%	47.7%	Racine	15.0%	32.7%
Dunn	8.2%	25.7%	Richland	4.8%	33.0%
Eau Claire	8.4%	28.0%	Rock	18.7%	38.8%
Florence	0.0%	40.0%	Rusk	19.4%	16.7%
Fond du Lac	22.8%	40.0%	St. Croix	21.8%	20.5%
Forest	11.9%	21.4%	Sauk	18.8%	36.4%
Grant	9.0%	23.5%	Sawyer	23.9%	41.9%
Green	13.8%	41.7%	Shawano	10.4%	38.1%
Green Lake	18.3%	33.3%	Sheboygan	19.6%	50.2%
Iowa	21.1%	42.1%	Taylor	13.1%	26.3%
Iron	22.2%	25.0%	Trempealeau	14.4%	46.2%
Jackson	6.3%	18.9%	Vernon	7.6%	24.1%
Jefferson	19.3%	49.9%	Vilas	36.6%	48.5%
Juneau	7.6%	36.8%	Walworth	14.8%	34.0%
Kenosha	12.1%	25.5%	Washburn	10.9%	50.0%
Kewaunee	8.2%	43.8%	Washington	12.0%	48.2%
La Crosse	18.3%	48.3%	Waukesha	17.1%	49.4%
Lafayette	5.3%	33.9%	Waupaca	14.5%	35.8%
Langlade	5.4%	36.1%	Waushara	16.8%	38.6%
Lincoln	9.0%	39.3%	Winnebago	17.5%	48.0%
Manitowoc	26.4%	51.0%	Wood	14.1%	40.9%

Summary

The Wisconsin Department of Health Services encourages everyone to stay up to date on all recommended vaccinations to protect themselves and their loved ones from vaccine preventable diseases. Tdap, influenza, COVID-19, and RSV vaccines have been proven safe and effective for use during pregnancy to protect pregnant people and their infants after birth.

From 2021 through 2024, Tdap, influenza, and COVID-19 vaccination coverage has decreased among pregnant people in Wisconsin. Although RSV was introduced September 2023, coverage nearly doubled during the 2024–2025 season with improved access, patient education, and increased awareness.

Multi-specialty medical practices and OB/GYN clinics were the most popular places for pregnant people to receive their Tdap, influenza, and RSV vaccines. From 2021 through 2023, approximately half of pregnant people received the COVID-19 vaccine at a pharmacy. In 2024, most COVID-19 vaccines were administered to pregnant people in pharmacies, but multi-specialty medical practices also experienced an increase in COVID-19 vaccines administered to pregnant people.

Additional disparities were noted among pregnant people who paid health care providers directly for vaccines (self-pay), participated in WIC, attended 79% or less of their prenatal care visits, or lived in rural counties. Pregnant people who self-pay for vaccines may not be aware of programs like Vaccines for Adults that ensure those who are uninsured can receive low cost or free vaccines. People who live in rural counties struggle with barriers such as limited availability of vaccination sites, longer travel distances to health care, and increasing vaccine hesitancy. While these variables are not mutually exclusive, a multifaceted approach is necessary to achieve vaccine equity and improve vaccination coverage rates among vulnerable populations.

Leveraging community partnerships, such as working with community-based organizations, pharmacies, faith leaders, and employers can help promote vaccine awareness and ensure pregnant people are familiar with programs that offer free or low-cost vaccines, such as Vaccines for Adults or the state WIC program. Vulnerable communities may also benefit from trusted messengers who share similar lived experiences to help dispel vaccination myths and encourage vaccine uptake during pregnancy.

Now, more than ever, it is critical for public health organizations and health care providers to continue to be a trusted source of evidence-based information on vaccines. Accurate information can empower people to make an informed decision to receive vaccines during their pregnancy, protecting themselves and their newborns from vaccine-preventable diseases.

Additional Resources

CDC Pregnancy and Vaccination webpage

CDC Communication Resources for Health Care Providers webpage

CDC Guidelines for Vaccinating Pregnant Women webpage

CDC Making a Strong Referral webpage

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