New Mexico COVID-19 Vaccinated and Unvaccinated Case Data Report

Unless stated otherwise, all data reported here exclude cases who are from out-of-state.

COVID-19 Case Data by Vaccination Status
April 25, 2022

Vaccination is the most powerful tool available today for preventing infection and severe illness and death due to COVID-19. In this report, we display case data by vaccination status to show the impact of vaccination status on the occurrence and severity of COVID-19 cases affecting New Mexico residents.

We are monitoring case counts and rates (the number of cases per standard population size) by the following categories:

- **Unvaccinated:** this category includes cases, hospitalizations, and deaths in persons who have not received any FDA-authorized COVID-19 vaccine doses before they tested positive for SARS-CoV-2.
- **Primary Series Completed**: this category includes cases, hospitalizations, and deaths in person who have completed a primary vaccination series 14 or more days prior to testing positive for SARS-CoV-2 (2 doses of the Pfizer or Moderna vaccine or a single dose of the Johnson & Johnson vaccine) but have not had an additional or booster dose of any vaccine.
- **Primary Series Completed With Booster**: this category includes cases, hospitalizations, and deaths in person who have completed a primary vaccination series AND have completed an additional dose or a booster dose 14 or more days before they tested positive for SARS-CoV-2

Persons who have had only a single vaccination with an mRNA vaccine (Pfizer or Moderna), and persons who completed the primary series less than 14 days before they tested positive for SARS-CoV-2 have been excluded from the tables and graphs contained in this document. These persons are considered partially vaccinated.

We are monitoring the risk of infection based on the case, hospitalization, and death rate relative to the NM population in each of the categories Unvaccinated, Primary Series Completed Without Booster, and Primary Series Completed With Booster according to the follow formula:

$$sum\left(\frac{\textbf{\textit{Number with COVID}}-\textbf{\textit{19 in the category each day}}}{\textbf{\textit{Number of NM residents in the category each day}}} \times \textbf{100,000}\right)$$

Rate ratios are the comparisons between two rates. For example, if the rate for unvaccinated persons is 20 cases (per 100 unvaccinated New Mexicans) and the rate for those who have completed the primary series and booster is 4 cases (per 100 New Mexicans who have completed the primary series and booster), then the rate ratio would be 5. We would conclude that unvaccinated persons are at 5-times the risk of becoming a case of COVID-19 compared to persons who have completed a primary series with booster.

Hospitalizations include all inpatient admissions of a New Mexico resident to an acute care hospital for >24 hours, with a positive laboratory test for SARS-CoV-2 within 14 days of admission or during admission.

Deaths are certified to have COVID-19 disease or SARS-CoV-2 as a cause of death or a significant condition contributing to death. Intentional and unintentional injuries are excluded. Death reporting might be delayed up to 6 weeks. Beginning January 1, 2022, deaths due to natural causes matched to a SARS-CoV-2 positive test result within 30 days of the date of death are included as COVID-19 related deaths even when COVID is not listed on the death certificate.

Case data by vaccination status are restricted to February 1, 2021 and onward to ensure the stability of cases counts and rates following the time of vaccine introduction. Additional doses or booster doses are valid if the dose was administered on or after August 13, 2021. Hospitalization cases with Primary Series Completed With Booster are restricted to October 8, 2021 and onward.
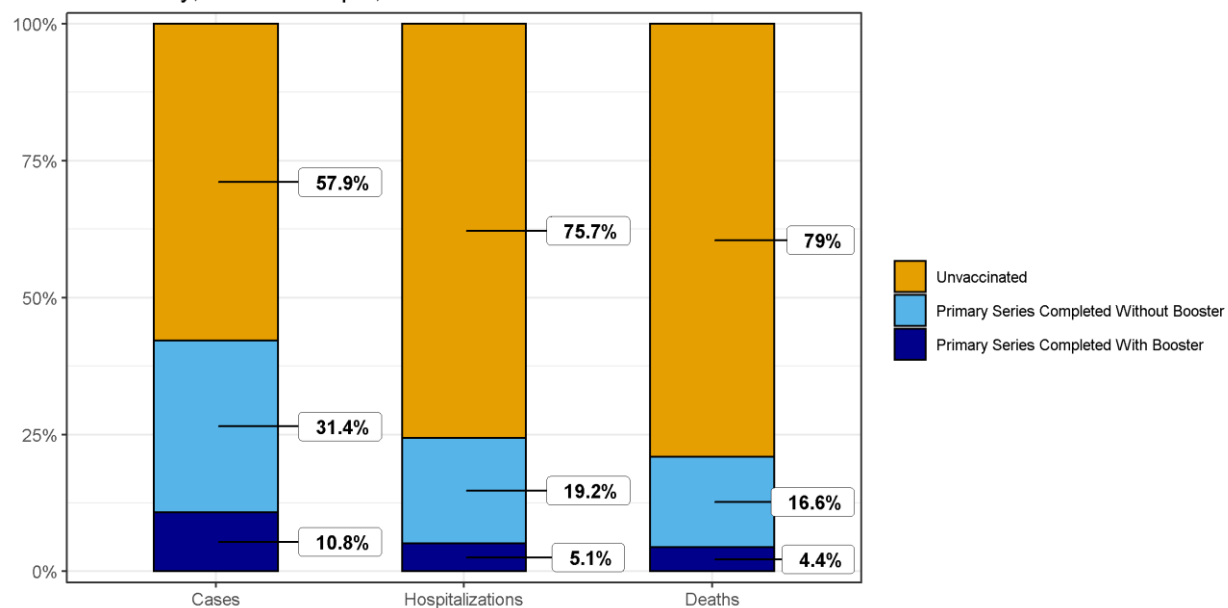
In the following graphs and charts, you will see data that demonstrate the percentage and rate of cases, hospitalizations and deaths by vaccination status so that their absolute (counts and percent) and relative (rates) occurrence can be compared by vaccination status. We present these data across the entire pandemic and within the previous 4 weeks so that recent changes, if any, can be recognized. Additionally, we show the rate differences for Primary Series Completed cases by age group, race/ethnicity, sex, and manufacturer to demonstrate the difference in risk experienced by New Mexicans with different demographic characteristics and vaccination history.

Beginning on page 6, the designation of Primary Series Completed includes cases in persons who have completed a primary vaccination series and may have completed an additional dose or a booster dose 14 or more days before they tested positive for SARS-CoV-2.

Rates and Percentages of Cases, Hospitalizations, and Deaths by Vaccination Status

Cumulative

Percent of Cases Hospitalizations and Deaths by Vaccine Status
1 February, 2021 - 25 April, 2022

Cases	57.9%	31.4%	10.8%
Hospitalizations	75.7%	19.2%	5.1%
Deaths	79%	16.6%	4.4%

Legend:
- Unvaccinated
- Primary Series Completed Without Booster
- Primary Series Completed With Booster

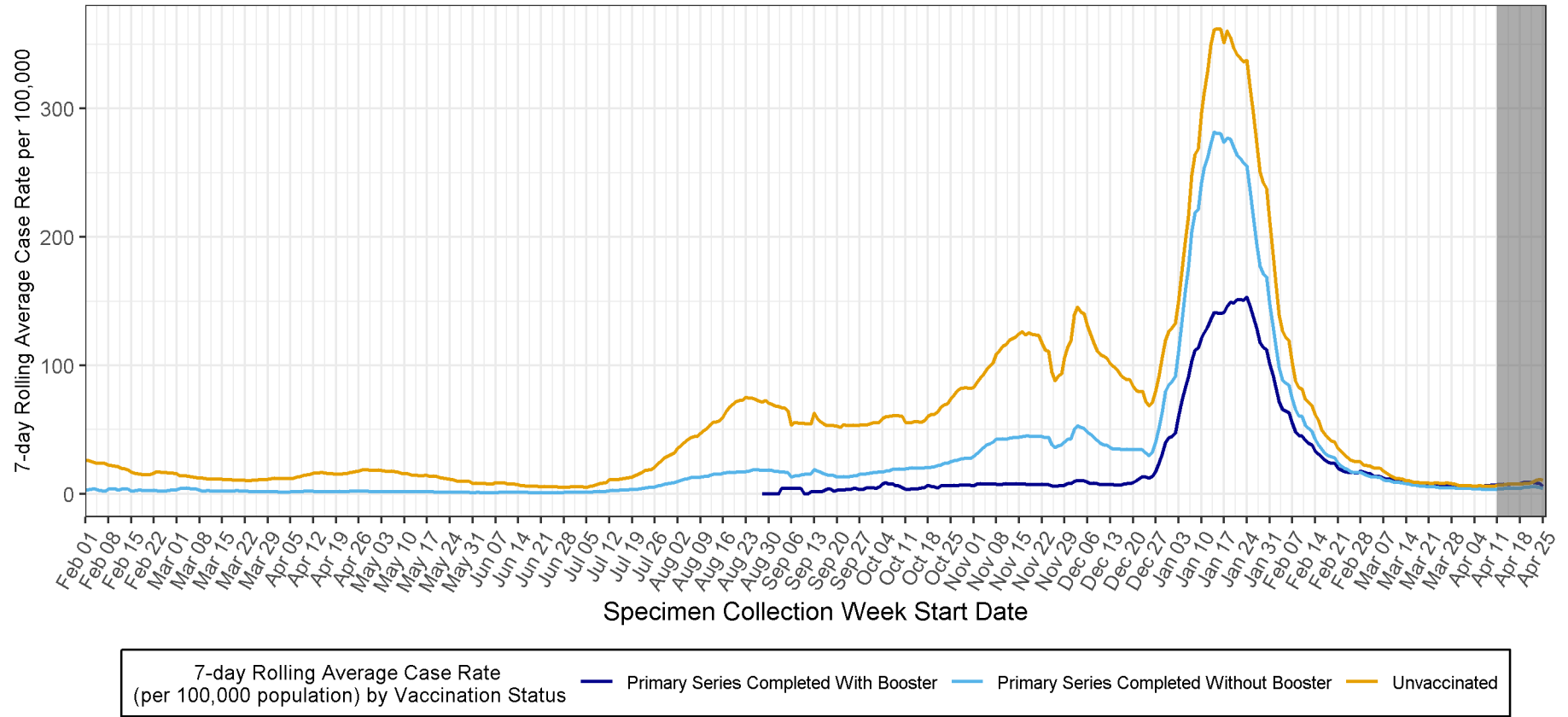| Rate Ratios		
Comparing Unvaccinated to Primary Series Completed **Without** Booster		
2x Risk of Testing Positive	**4x** Risk of Being Hospitalized	**5x** Risk of Dying
Comparing Unvaccinated to Primary Series Completed **With** Booster		
4x Risk of Testing Positive	**11x** Risk of Being Hospitalized	**12x** Risk of Dying

Totals/Rates	Primary Series Completed **With** Booster Totals	Primary Series Completed **Without** Booster Totals	Unvaccinated Totals	Primary Series Completed **With** Booster Rates	Primary Series Completed **Without** Booster Rates	Unvaccinated Rates
Cases	35451	102972	190033	6159.3	13041.2	25713.5
Hospitalizations	733	2744	10804	124.4	330.6	1397.4
Deaths	145	546	2606	27.8	66.9	343.6

7-day Rolling Average **Case Rate (per 100,000 population)** by Vaccination Status

**All Cases

7-day Rolling Average Case Rate per 100,000

Specimen Collection Week Start Date

7-day Rolling Average Case Rate (per 100,000 population) by Vaccination Status — Primary Series Completed With Booster — Primary Series Completed Without Booster — Unvaccinated

*The dark grey shaded region represents the lag period between specimen collection and vaccine breakthrough case ascertainment where reporting of cases may be incomplete.

7-day rolling average hospitalization by vaccination status

7-day Rolling Average **Hospitalization Rate (per 100,000 population)** by Vaccination Status
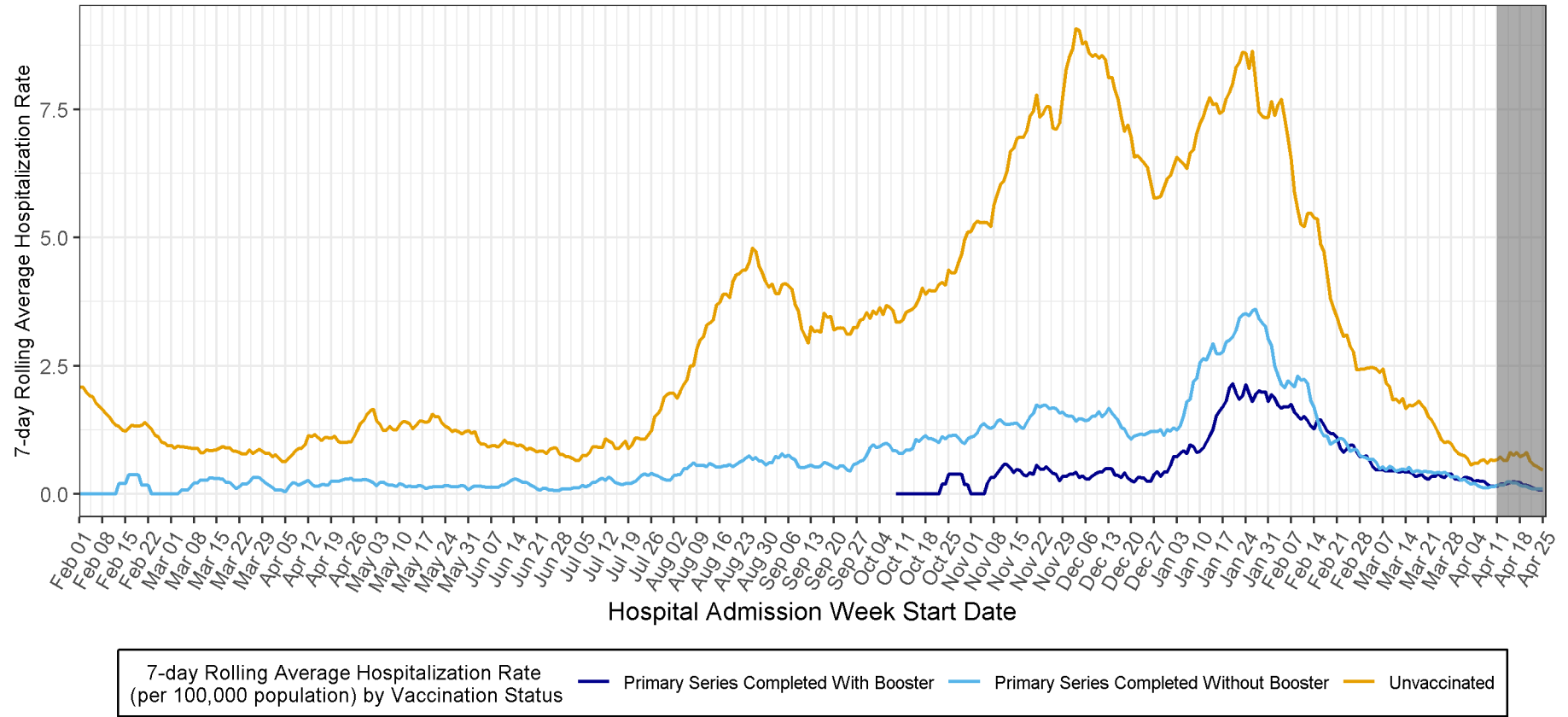
**All Cases

*The dark grey shaded region represents the lag period between specimen collection and vaccine breakthrough case ascertainment where reporting of cases may be incomplete.

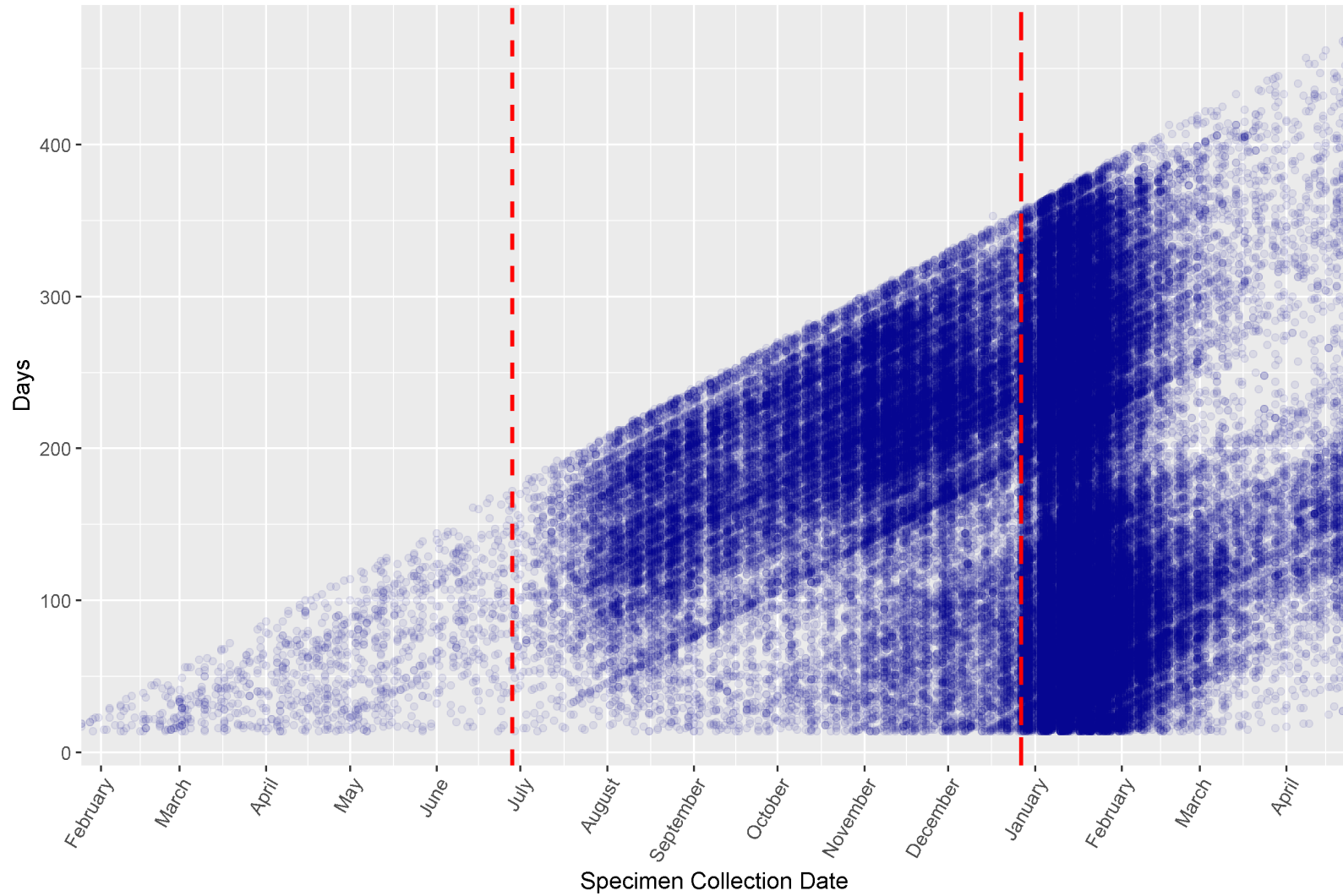### Primary Series Completed Cases by Specimen Collection Date, plus 7-Day Rolling Average
1 February, 2021 - 25 April, 2022
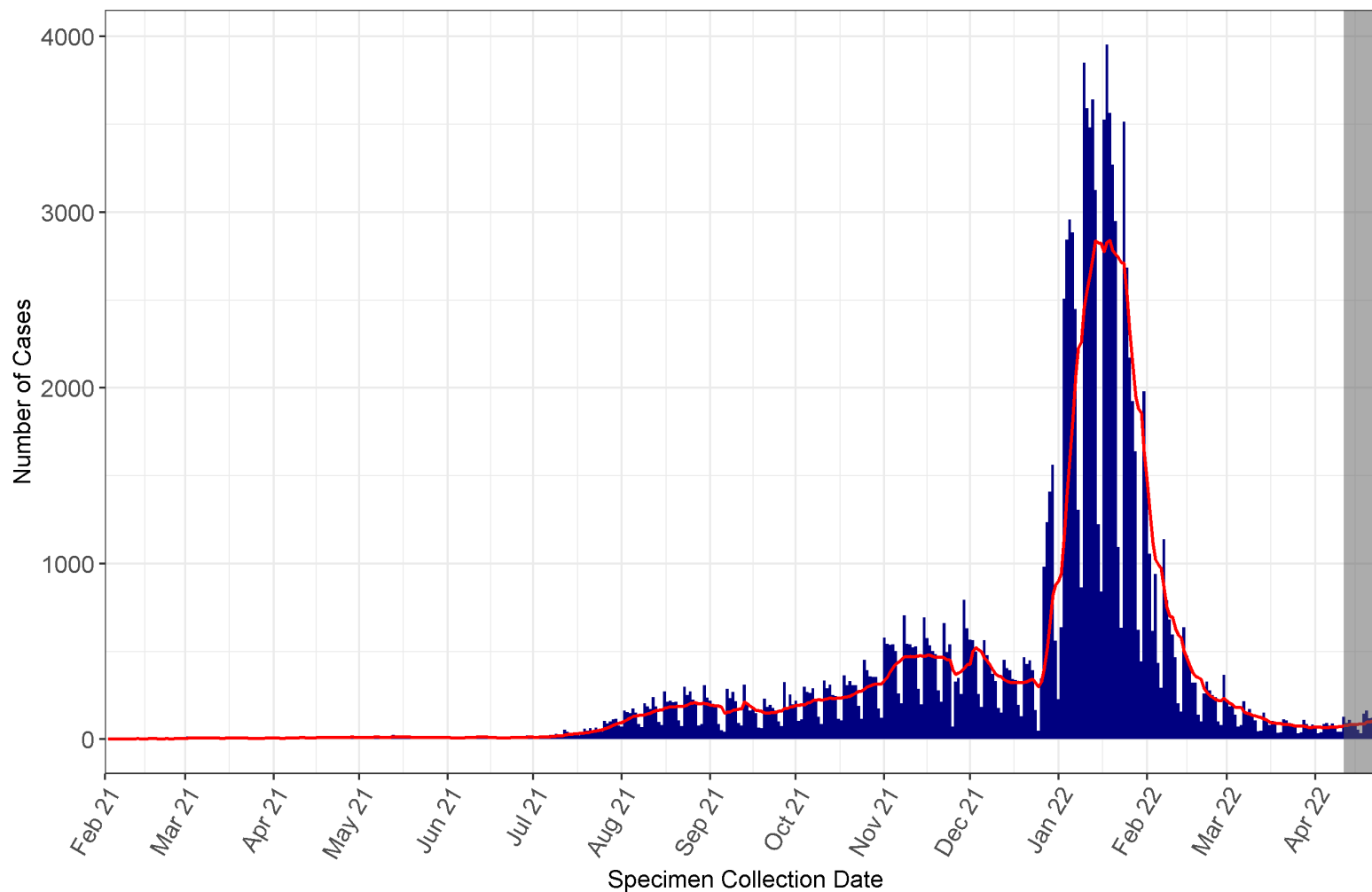
7-day rolling average

Days Between Most Recent Vaccination Dose and Specimen Collection Date

Median: 173 days

- - - Delta variant becomes predominant

― ― ― Omicron variant becomes predominant
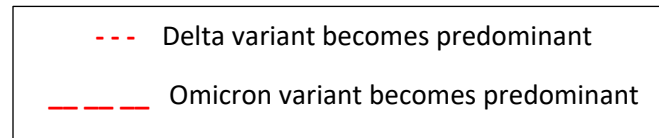
Cumulative Vaccine Breakthrough Rates by Age and Vaccination Status per 100,000 People Who Have Completed a Primary Vaccination Series
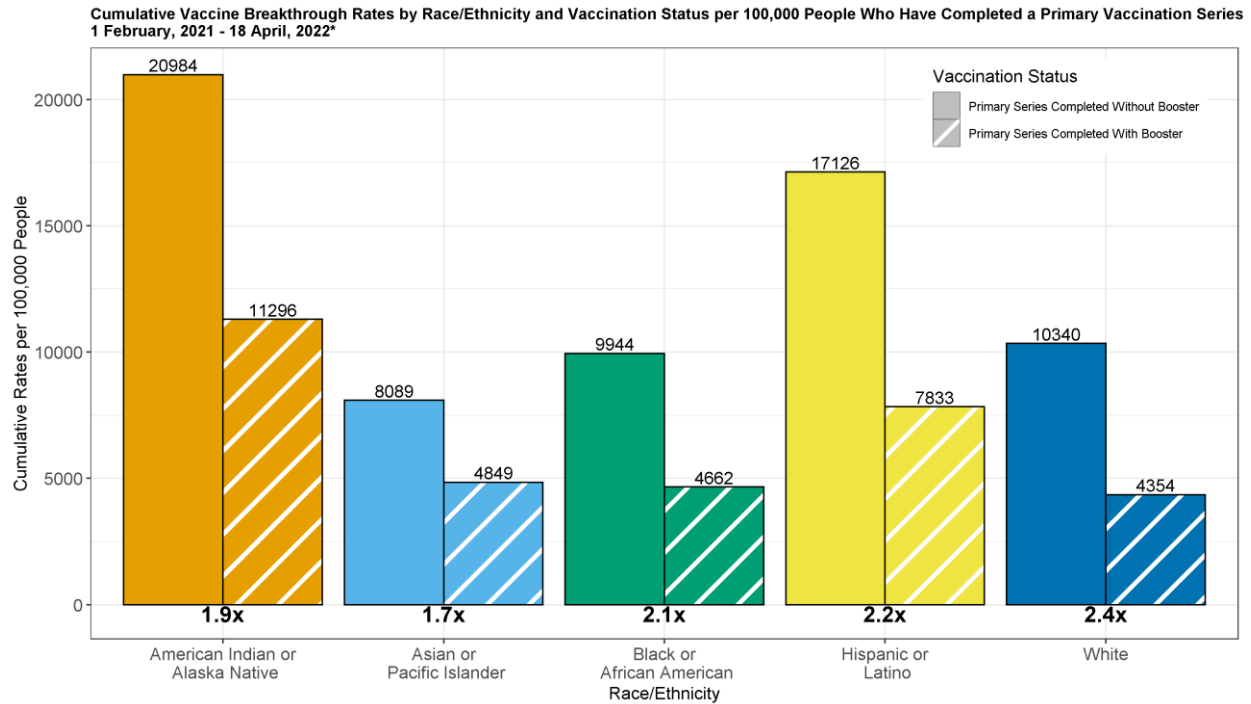**1 February, 2021 - 25 April, 2022***
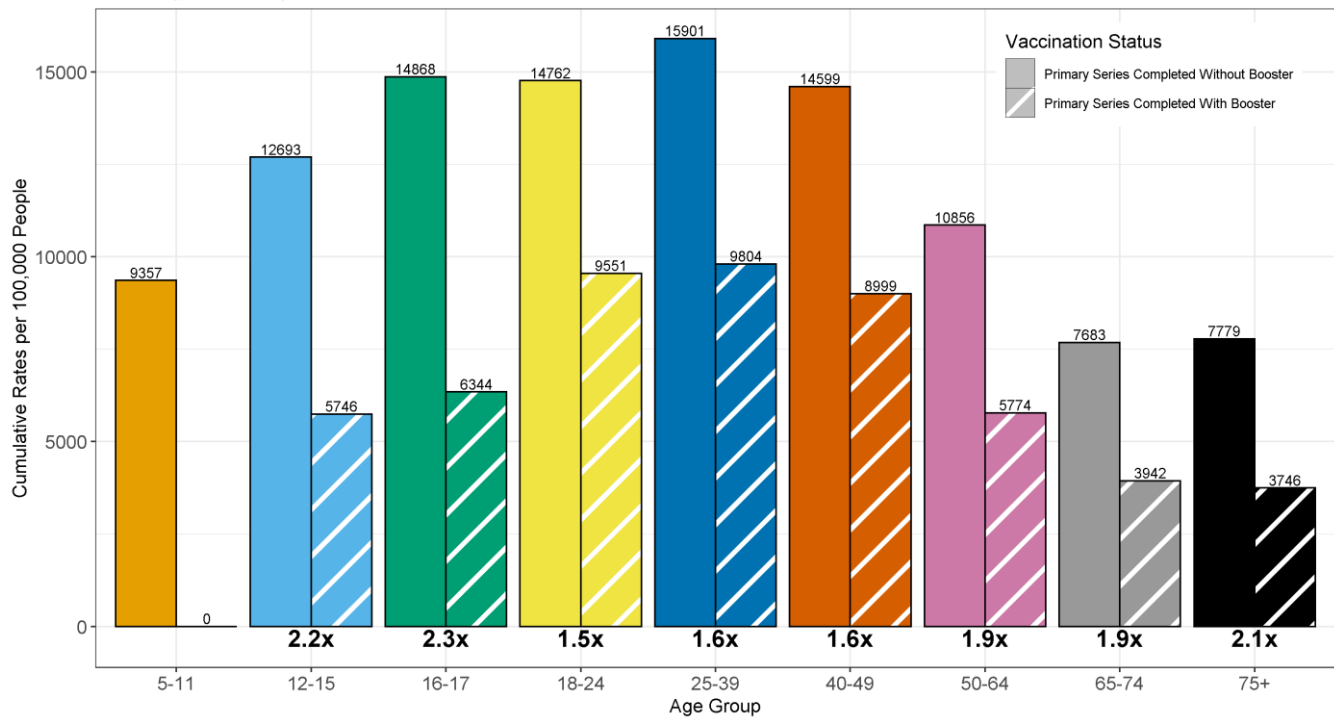
*The numbers under the bars are the rate ratios, which represent the increased risk of testing positive for those who have completed the primary series without a booster relative to those who have received a booster.

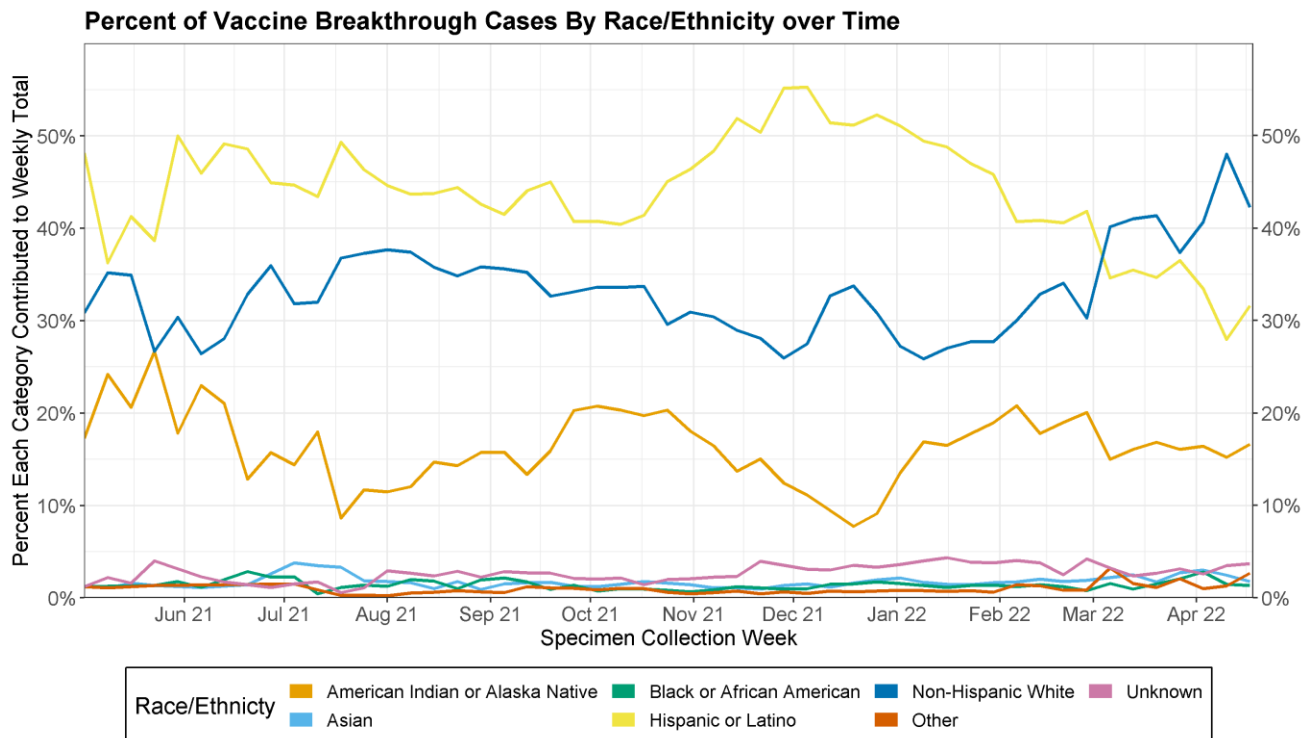Percent of Vaccine Breakthrough Cases By Age Group Over Time
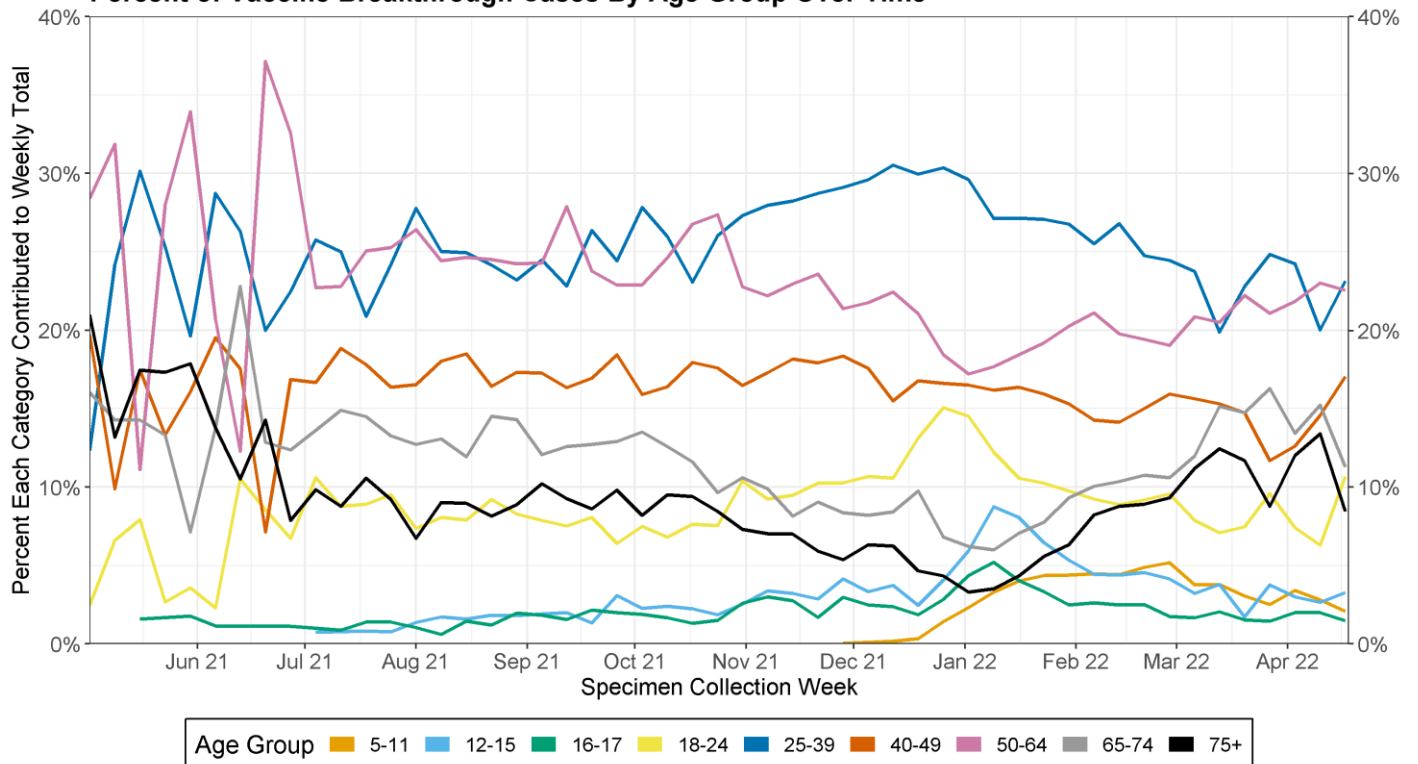
$$* \quad sum\left(\frac{Number\ with\ COVID-19\ among\ those\ who\ have\ completed\ a\ primary\ vaccination\ series\ each\ day}{Number\ of\ NM\ residents\ who\ have\ completed\ a\ primary\ vaccination\ series\ each\ day} \times 100,000\right)$$

Cumulative Vaccine Breakthrough Rates by Race/Ethnicity and Vaccination Status per 100,000 People Who Have Completed a Primary Vaccination Series 1 February, 2021 - 18 April, 2022*

*The numbers under the bars are the rate ratios, which represent the increased risk of testing positive for those who have completed the primary series without a booster relative to those who have received a booster.

**Due to incomplete data, the graph above could not be updated this week. It will be updated when the issue with the data has been resolved.

Percent of Vaccine Breakthrough Cases By Race/Ethnicity over Time

$$* \quad sum\left(\frac{Number\ with\ COVID-19\ among\ those\ who\ have\ completed\ a\ primary\ vaccination\ series\ each\ day}{Number\ of\ NM\ residents\ who\ have\ completed\ a\ primary\ vaccination\ series\ each\ day} \times 100,000\right)$$
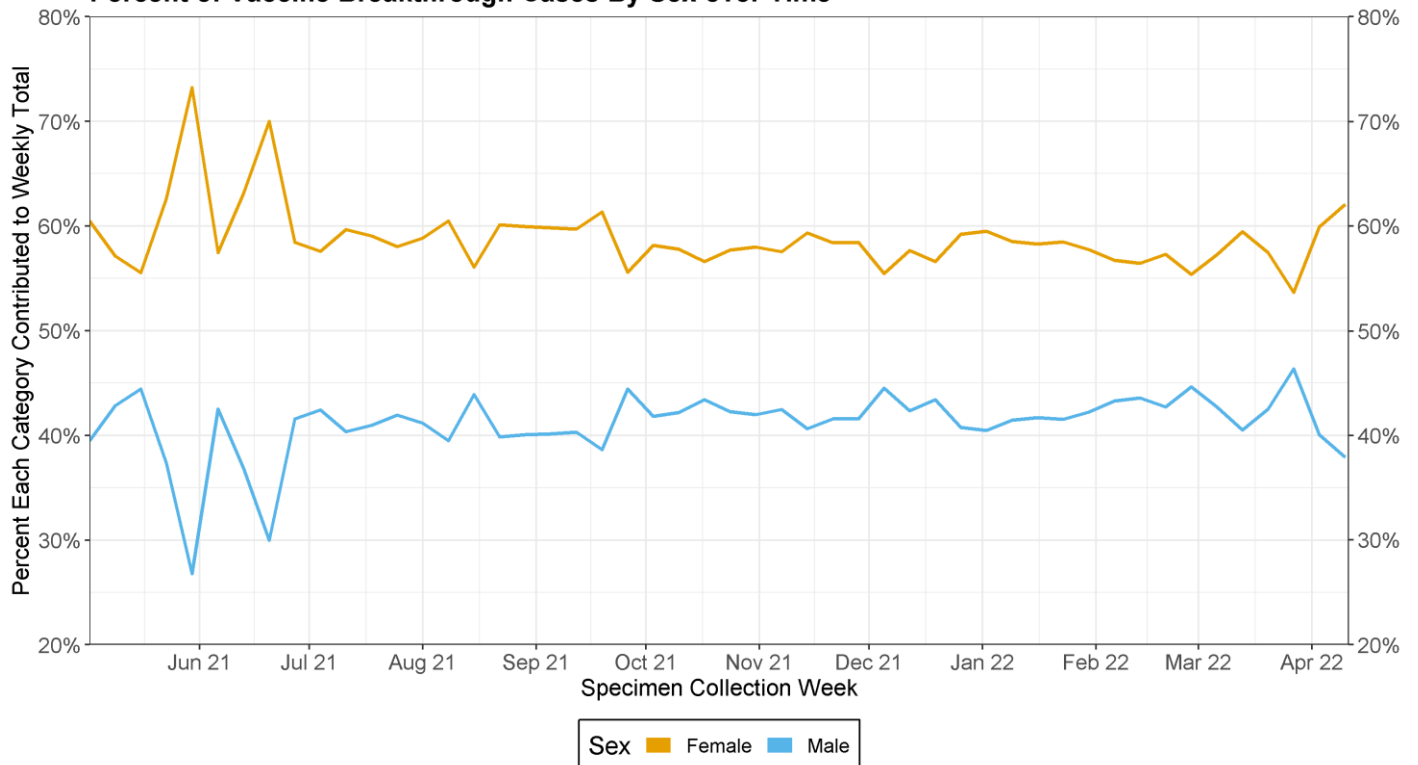
Cumulative Vaccine Breakthrough Rates by Sex and Vaccination Status per 100,000 People Who Have Completed a Primary Vaccination Series
1 February, 2021 - 25 April, 2022*
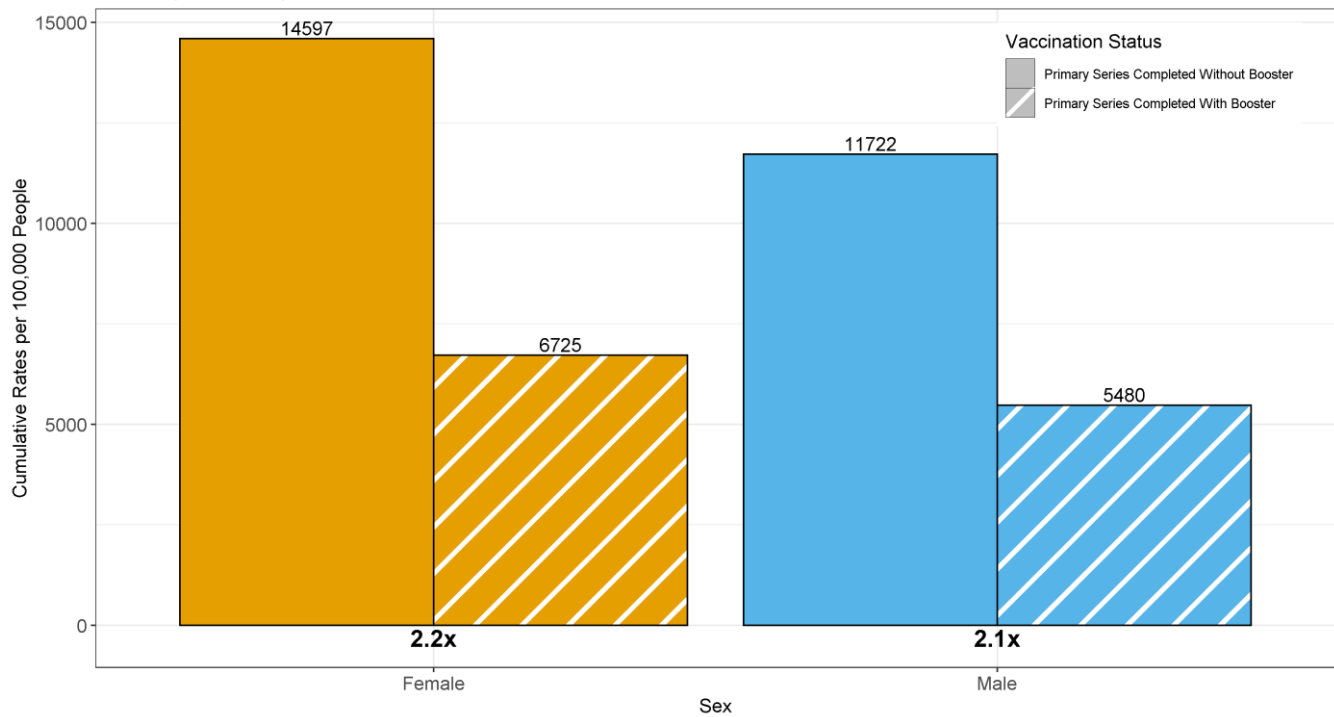
*The numbers under the bars are the rate ratios, which represent the increased risk of testing positive for those who have completed the primary series without a booster relative to those who have received a booster.
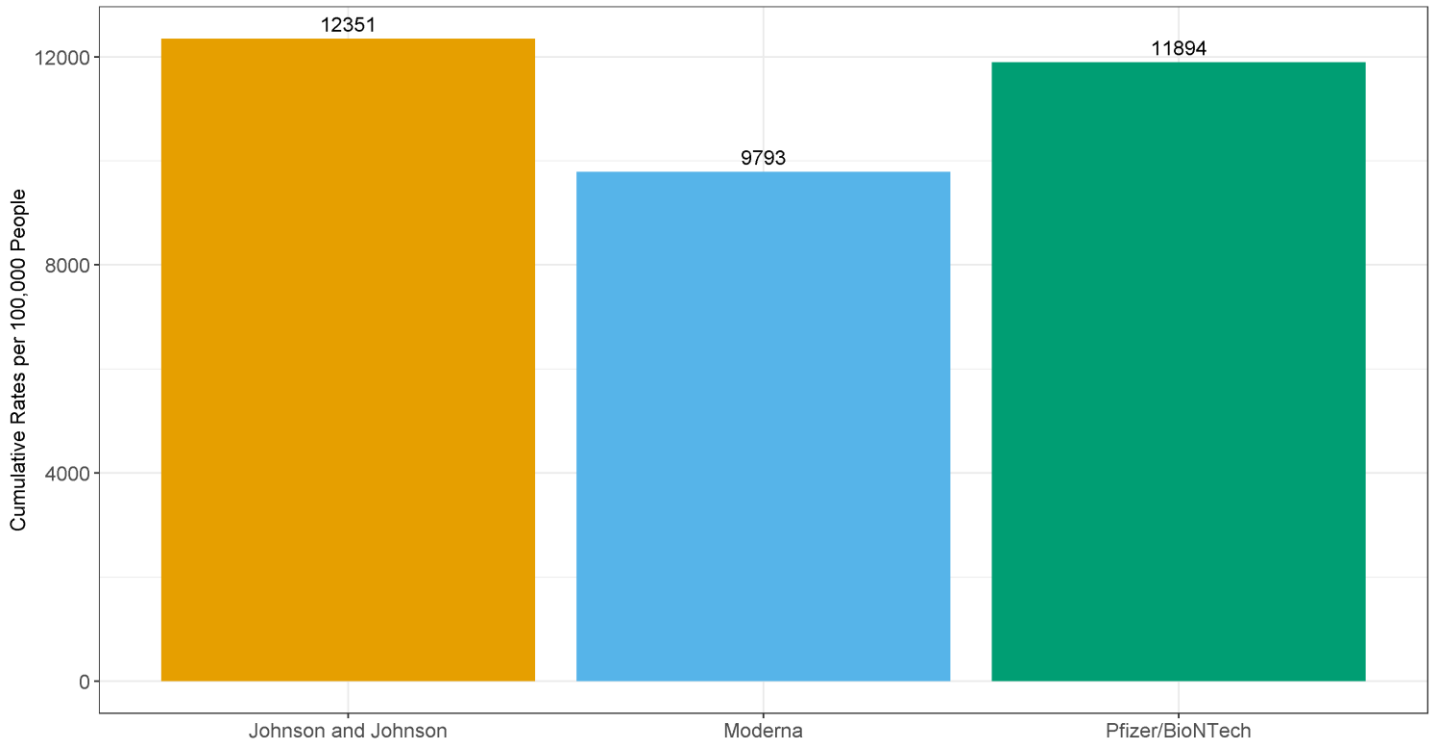
Percent of Vaccine Breakthrough Cases By Sex over Time

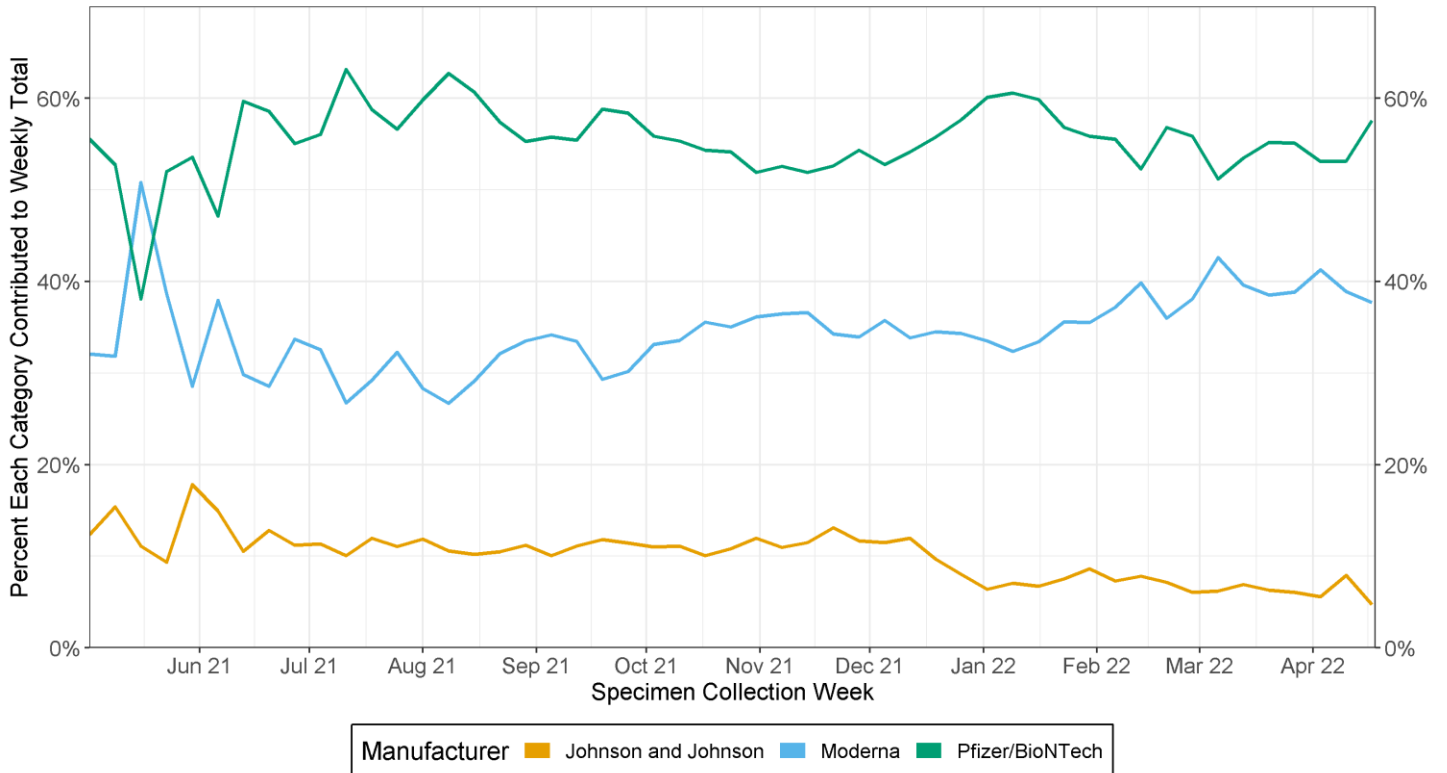$$* \quad sum\left(\frac{Number\ with\ COVID-19\ among\ those\ who\ have\ completed\ a\ primary\ vaccination\ series\ each\ day}{Number\ of\ NM\ residents\ who\ have\ completed\ a\ primary\ vaccination\ series\ each\ day} \times 100,000\right)$$

9

Primary Series Completed Cases by Vaccine Manufacturer

Cumulative Vaccine Breakthrough Rates by Manufacturer per 100,000 People Who Have Completed a Primary Vaccination Series
1 February, 2021 - 25 April, 2022*

Percent of Vaccine Breakthrough Cases By Manufacturer over Time

* $sum\left(\dfrac{Number\ with\ COVID-19\ among\ those\ who\ have\ completed\ a\ primary\ vaccination\ series\ each\ day}{Number\ of\ NM\ residents\ who\ have\ completed\ a\ primary\ vaccination\ series\ each\ day} \times 100,000\right)$

10

Data Sources

- **COVID-19 data**

    - **New Mexico Electronic Disease Surveillance System (NM-EDSS)**, Infectious Disease Epidemiology Bureau, Epidemiology and Response Division, New Mexico Department of Health.

    - **Salesforce/MTX COVID-19 Case Investigation Platform.**

- **Vaccination Data**

    - **New Mexico State Immunization Information System (NMSIIS),** NMDOH Immunization Program, Public Health Division, New Mexico Department of Health

    - **Tiberius: HHS Protect-OWS,** US Health and Human Services, Department of Defense

- **Population Estimates:** University of New Mexico, Geospatial and Population Studies (GPS) Program.

Data Notes

- **The data reported in this weekly update may not match the daily numbers that are reported in the New Mexico Department of Health (NMDOH) press releases and/or the NMDOH COVID-19 data dashboard. This may be due to variation in the date and time of data extraction from NM-EDSS, corrections after quality assurance review, and differences in the exclusion criteria.**

- **New Mexico Electronic Disease Surveillance System (NM-EDSS).** Disease incidence data are derived from reports of notifiable infectious diseases. NMDOH relies on health care providers, laboratories, hospitals, clinics, institutions and individuals to report suspected and confirmed notifiable infectious diseases in accordance with New Mexico Administrative Code 7.4.3.13. Under-reporting can occur due to of lack of awareness about reporting requirements or lack of compliance with those requirements. Not all cases of infectious diseases can be detected for various reasons including lack of access to health care services, lack of laboratory testing or concerns about confidentiality. Specific and standardized national case definitions are used to classify disease reports by case status.

- **New Mexico Population Estimates.** All population estimates apply to July 1 of 2020. Estimates include decimal fractions. The sum of population subgroup estimates may not exactly equal the overall state population estimate due to rounding error. Population estimates for previous years are occasionally revised as new information becomes available. When publishing trend data, always be sure that your rates for earlier years match current rates on NM-IBIS that have been calculated with the most up-to-date population estimates.

- **Case rate per 100,000 population**. A basic measure of disease-specific case frequency is a rate, which takes into account the number of cases and the population size. It is helpful in making public health decisions for a given population, relative to another population regardless of size.