## Milwaukee County COVID-19 vaccine data summary

### Milwaukee County COVID-19 Epidemiology Intel Team

This report was updated on December 16, 2021 and includes data through December 13, 2021. Note that data for recent weeks may be under-reported due to lags in data entry. This report includes data on primary vaccinations and booster doses (second dose following Johnson & Johnson primary vaccination or third dose following Pfizer or Moderna primary vaccination series).

	Milwaukee County	City of Milwaukee	Suburb
Total primary vaccine doses administered	1,076,634	604,968	471,66
Pfizer		,	
	667,467	397,065	270,40
Pfizer Age 5-11	25,278	9,913	15,36
Moderna	350,181	177,863	172,3
Johnson & Johnson	33,708	20,127	13,58
Total vaccine doses administered (including boosters)	1,248,221	684,943	563,27
Pfizer	771,112	449,038	322,07
Pfizer Age 5-11	25,278	9,913	15,36
Moderna	416,345	204,998	211,34
Johnson & Johnson	35,486	20,994	14,49
*Total individuals with one or more doses	577,089	326,830	250,2
Pfizer	346,309	207,468	138,84
Pfizer Age 5-11	16,268	6,801	9,46
Moderna	180,804	92,434	88,3
Johnson & Johnson	33,708	20,127	13,58
*Total individuals completely vaccinated	533,253	298,265	234,9
Pfizer	321,038	189,490	131,54
Pfizer Age 5-11	9,057	3,134	5,92
Moderna	169,450	85,514	83,93
Johnson & Johnson	33,708	20,127	13,58
*Total individuals boosted	171,587	79,975	91,6 <sup>°</sup>
Pfizer	101,823	50,316	51,50
Pfizer Age 5-11	0	0	51,0
Moderna	62,843	26,290	36,5
Johnson & Johnson	6.921	3.369	3,5

#### Percentage of Population Vaccinated December 15, 2020 - December 13, 2021

December 15, 2020 - December 13, 202	21			
	Overall	Ages 5+	Ages 12+	Ages 16+
Milwaukee County				
*Population	954,209	887,487	796,322	747,409
Received one or more doses	60.5%	65.0%	70.4%	71.5%
Completely vaccinated	55.9%	60.1%	65.8%	66.9%
City of Milwaukee				
*Population	596,886	551,401	489,445	456,809
Received one or more doses	54.8%	59.3%	65.4%	66.7%
Completely vaccinated	50.0%	54.1%	60.3%	61.7%
Milwaukee County Suburbs				
*Population	357,323	336,086	306,877	290,600
Received one or more doses	70.0%	74.5%	78.5%	78.9%
Completely vaccinated	65.8%	69.9%	74.6%	75.1%
*Population estimates from 2018 US Co	ensus American Com	munity Survey		

\*Population estimates from 2018 US Census American Community Survey

#### Percentage of Population Boosted December 15, 2020 - December 13, 2021

	Overall	**Booster eligible
Milwaukee County		
*Population	954,209	405,289
Received booster dose	18.0%	42.1%
City of Milwaukee		
*Population	596,886	218,407
Received booster dose	13.4%	36.4%
Milwaukee County Suburbs		
*Population	357,323	186,882
Received booster dose	25.6%	48.8%

\*Overall population estimates from 2018 US Census American Community Survey \*\*Booster eligible population is aged 18+ with complete primary vaccination prior to June 16, 2021 for Pfizer or Moderna series, or prior to October 14, 2021 for Johnson & Johnson

### Daily COVID-19 doses administered to Milwaukee County residents

**Figure 1** shows daily total COVID-19 vaccine doses administered to Milwaukee County residents. A total of 1,248,221 doses (including boosters) have been administered from December 15, 2020 through December 13, 2021. The dark blue color represents the first dose in a series (Pfizer or Moderna). The light blue color indicates a completion dose (first dose of Johnson & Johnson or second dose of Pfizer or Moderna). The orange color indicates a booster dose (second dose following Johnson & Johnson or third dose following Pfizer or Moderna series).

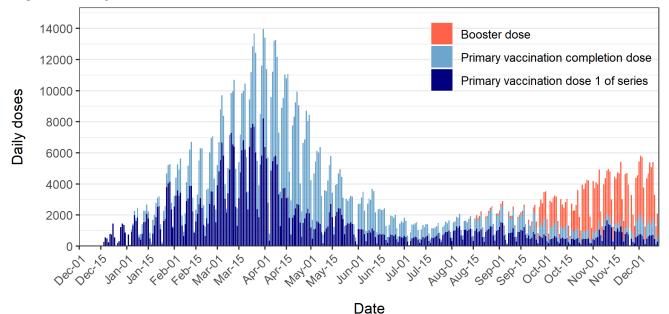
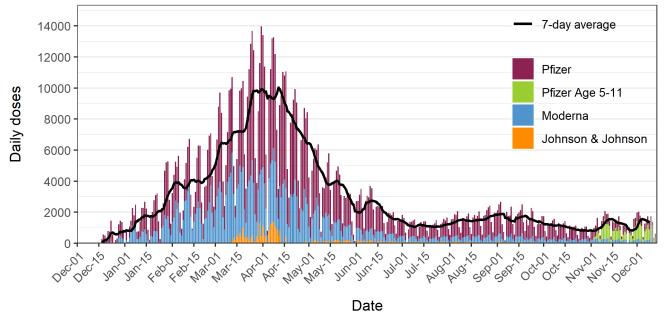
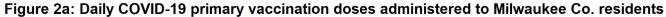


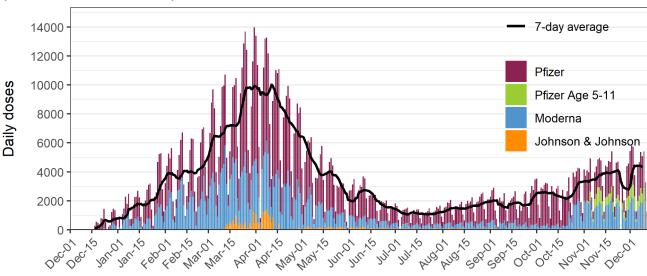
Figure 1: Daily COVID-19 vaccine doses administered to Milwaukee Co. residents

**Figures 2a and 2b** show daily COVID-19 vaccine doses administered to Milwaukee County residents; **Figure 2a** includes primary vaccination doses only, and **Figure 2b** shows all doses including boosters. The overlaid black line shows the 7-day average of daily doses and the bars are colored by vaccine: Pfizer (red), Pfizer Age 5-11 (green), Moderna (blue), and Johnson & Johnson (orange). Daily primary vaccination doses peaked in late March to early April 2021 and have since declined until mid-summer when slight increases occurred in tandem with increasing cases thought to be driven by the delta variant. An increase in primary vaccination doses is observed in the second week of November 2021, driven by new eligibility among ages 5-11.





Data source: Wisconsin Immunization Registry (WIR) Created by the Milwaukee County COVID-19 Epidemiology Intel Team



Date

Figure 2b: Daily COVID-19 vaccination doses administered to Milwaukee Co. residents (includes booster doses)

# Percentages of Milwaukee County residents partially and completely vaccinated by age group

**Figure 3** shows the percentage over time of Milwaukee County residents who received at least one dose of any COVID-19 vaccine by age group. **Figure 4** shows the percentage over time of Milwaukee County residents who are completely vaccinated with any COVID-19 vaccine by age group. The vertical lines show changes in vaccine eligibility in Milwaukee County.

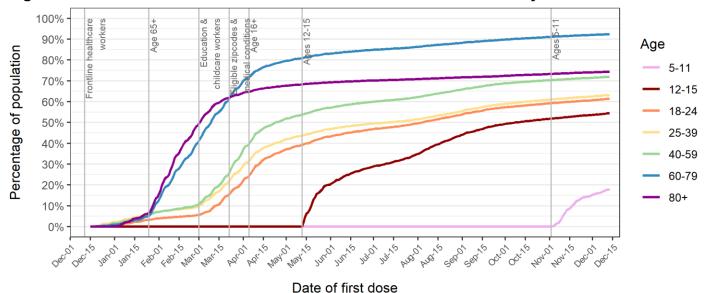


Figure 3: Percent of Milwaukee Co. residents with at least one dose of any COVID-19 vaccine

Data source: Wisconsin Immunization Registry (WIR) Created by the Milwaukee County COVID-19 Epidemiology Intel Team

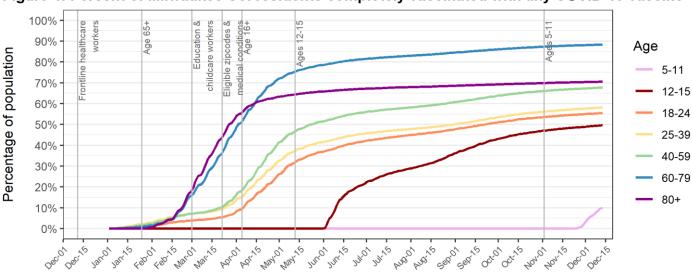


Figure 4: Percent of Milwaukee Co. residents completely vaccinated with any COVID-19 vaccine

Date of primary vaccination completion dose

# Proportions of Milwaukee County residents partially and completely vaccinated by race/ethnicity group

**Figure 5** shows the percentage over time of Milwaukee County residents who received at least one dose of any COVID-19 vaccine by race/ethnicity group. **Figure 6** shows the percentage over time of Milwaukee County residents who are completely vaccinated with any COVID-19 vaccine by race/ethnicity group. The vertical lines show changes in vaccine eligibility in Milwaukee County.

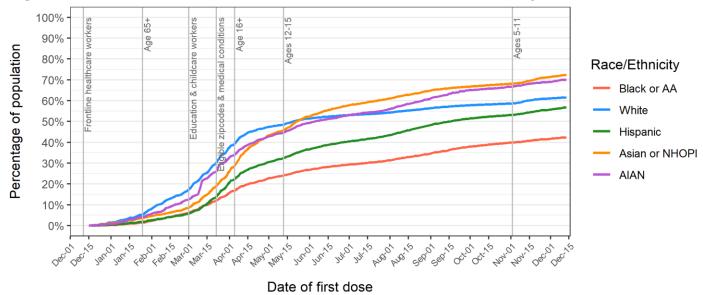


Figure 5: Percent of Milwaukee Co. residents with at least one dose of any COVID-19 vaccine

Data source: Wisconsin Immunization Registry (WIR) Created by the Milwaukee County COVID-19 Epidemiology Intel Team

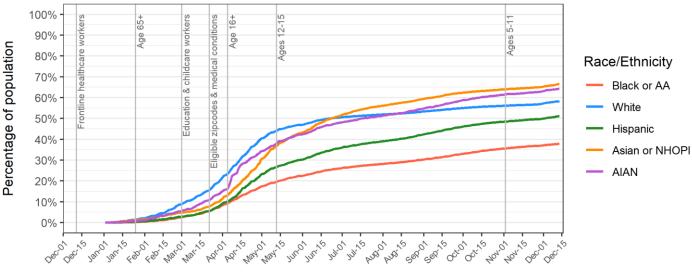


Figure 6: Percent of Milwaukee Co. residents completely vaccinated with any COVID-19 vaccine

Date of primary vaccination completion dose

# Percentages of first doses of COVID-19 vaccine administered to Milwaukee County residents by age and race/ethnicity groups

**Figure 7** shows the percentage of first doses of COVID-19 vaccine administered per week to Milwaukee County residents by age group. After vaccines first became available to healthcare personnel, middle-aged groups (25-59) were the majority of new vaccinees. After eligibility opened up to ages 65+, the oldest two age groups became the majority. The younger age groups (< 60) became the majority of people newly vaccinated since eligibility opened up to education staff on March 1st. With the eligibility of children aged 12+, we observed a sharp increase in vaccination for children. A similar increase was observed with the new eligibility of children ages 5-11.

**Figure 8** shows the percentage of first doses of COVID-19 vaccine administered per week to Milwaukee County residents by race/ethnicity. Non-Hispanic Whites were the majority of newly vaccinated individuals for many months, however Black/AA and Hispanic groups have become an increasing proportion of the newly vaccinated over time.

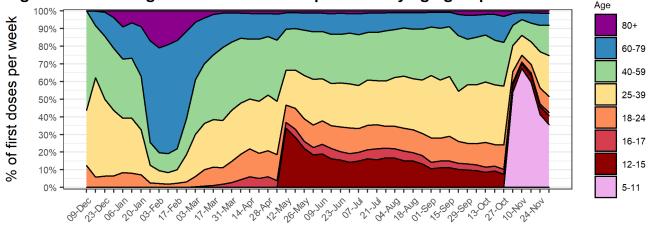
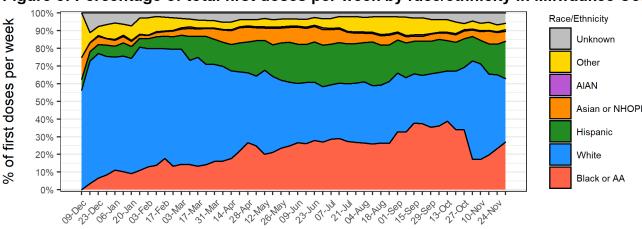


Figure 7: Percentage of total first doses per week by age group in Milwaukee Co.

Start day of week

Data source: Wisconsin Immunization Registry (WIR) Created by the Milwaukee County COVID-19 Epidemiology Intel Team



Start day of week

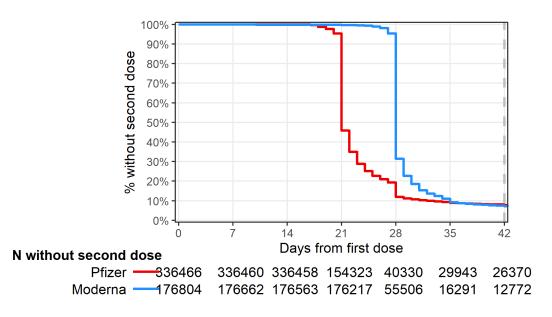
#### Figure 8: Percentage of total first doses per week by race/ethnicity in Milwaukee Co.

# Completion of primary immunization series among Milwaukee County residents who received at least one dose of Pfizer or Moderna vaccines

**Figure 9** describes the timing between primary vaccination doses for Milwaukee County residents who received Pfizer or Moderna vaccines. This graph includes data for residents who received their first dose of Pfizer or Moderna at least 42 days ago (prior to October 31, 2021). The recommended interval for receiving the second dose is 21 days for the Pfizer vaccine and 28 days for the Moderna vaccine; the second dose is considered valid if administered 4 days prior to the recommended interval and up to 42 days following the first dose for each vaccine.

Fully 92.4% of all residents who received their first dose of Pfizer prior to October 31, 2021 received their second dose within 42 days, indicating very strong completion within guidelines for those receiving a first dose.

#### Figure 9: Vaccine series completion among Milwaukee Co. residents receiving Pfizer or Moderna



### Summary of vaccine series completion and booster rates among vaccinated Milwaukee County residents

**Table 1** summarizes the rates of primary vaccination series completion and booster uptake by groups based on first vaccine product received, age, sex, and race/ethnicity. The first column, rates of primary vaccination series completion, includes data for residents who received a first dose of Pfizer or Moderna at least 42 days ago; 42 days is the maximum recommended period for receiving the second dose. The second column, rates of booster uptake, includes data for booster eligible residents only; booster eligibility criteria are currently age 18 or older, with one dose of Johnson & Johnson vaccine at least 2 months ago or completion of Pfizer or Moderna primary vaccination series at least 6 months ago. While vaccine series completion rates are high and vary only slightly among groups, receipt of booster doses among booster eligible individuals varies significantly by vaccine product, age, and race/ethnicity with slight variation by sex.

Characteristic	Percent with second dose within 42 days among Pfizer and Moderna receipients <sup>1</sup>	*Percent boosted among eligible <sup>1</sup>
First vaccine received		
Pfizer	310,072 / 336,430 (92.2%)	101,004 / 227,542 (44.4%)
Moderna	164,032 / 176,804 (92.8%)	62,681 / 145,764 (43.0%)
Johnson & Johnson		6,920 / 31,983 (21.6%)
Age		
12-15	23,126 / 25,269 (91.5%)	
16-17	11,975 / 13,196 (90.7%)	
18-24	43,893 / 49,442 (88.8%)	6,110 / 37,228 (16.4%)
25-39	115,583 / 126,843 (91.1%)	32,092 / 100,973 (31.8%)
40-59	138,183 / 149,020 (92.7%)	48,748 / 127,792 (38.1%)
60-79	117,632 / 124,245 (94.7%)	69,264 / 115,692 (59.9%)
80+	23,712 / 25,219 (94.0%)	14,391 / 23,604 (61.0%)
Sex		
Female	257,755 / 277,691 (92.8%)	96,996 / 218,178 (44.5%)
Male	215,255 / 234,248 (91.9%)	73,420 / 186,002 (39.5%)
Unknown	1,094 / 1,295 (84.5%)	189 / 1,109 (17.0%)
Race/Ethnicity		
Black or AA	81,278 / 92,136 (88.2%)	20,147 / 61,483 (32.8%)
White	258,799 / 273,270 (94.7%)	118,858 / 238,914 (49.7%)
Hispanic	62,141 / 69,094 (89.9%)	11,781 / 45,742 (25.8%)
Asian or NHOPI	24,850 / 26,722 (93.0%)	5,492 / 18,615 (29.5%)
AIAN	2,641 / 2,920 (90.4%)	792 / 2,128 (37.2%)
Other	28,351 / 31,074 (91.2%)	10,475 / 22,466 (46.6%)
Unknown	16,044 / 18,018 (89.0%)	3,060 / 15,941 (19.2%)

<sup>1</sup>n / N (%)

\*Booster eligible population is aged 18+ with complete primary vaccination prior to June 16, 2021 for Pfizer or Moderna series, or prior to October 14, 2021 for Johnson & Johnson

## **Data Sources & Acknowledgments**

This report was created by faculty and staff in the Medical College of Wisconsin (MCW) Institute for Health and Equity (IHE) in partnership with representatives from local health departments and faculty from the University of Wisconsin-Milwaukee Zilber School of Public Health. Data sources include the Wisconsin Immunization Registry (WIR) and the US Census Bureau.

## **Contact Information**

For additional questions on this report, please contact Darren Rausch, Health Officer/Director, Greenfield Health Department, and Lead, Milwaukee County COVID-19 Epidemiology Intel Team: Darren.Rausch@greenfieldwi.us or (414) 329-5275.