### Milwaukee County COVID-19 vaccine data summary

#### Milwaukee County COVID-19 Epidemiology Intel Team

This report was updated on December 8, 2022 and includes data through December 5, 2022. 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.

Wilwaukee County COVID-19 Vaccination Totals   December 12, 2020 - December 5, 2022			
	Milwaukee County	City of Milwaukee	Subur
Fotal primary vaccine doses administered	1,190,418	678,765	511,6
Pfizer	719,619	434,924	284,6
Pfizer Age 5-11	59,661	31,408	28,2
Pfizer Age 6M-4Y	8,967	3,561	5,4
Moderna	358,310	183,784	174,5
Moderna Age 6m-5Y	5,578	2,230	3,3
Johnson & Johnson	34,832	20,825	14,0
otal vaccine doses administered (including oosters)	1,727,705	947,662	780,
Pfizer	968,451	571,012	397,4
Pfizer Age 5-11	65,308	33,703	31,
Pfizer Age 6M-4Y	8,991	3,578	5,
Pfizer Bivalent Booster	87,556	46,342	41,
Moderna	509,120	251,105	258,
Moderna Age 6M-5Y	5,606	2,239	3,
Moderna Bivalent Booster	45,098	17,412	27,
Johnson & Johnson	37,575	22,271	15,
fotal individuals with one or more doses	633,058	364,438	268,
Pfizer	372,218	226,556	145,
Pfizer Age 5-11	31,754	17,177	14,
Pfizer Age 6M-4Y	4,253	1,869	2,
Moderna	184,853	95,508	89,
Moderna Age 6M-5Y	3,200	1,318	1,
Johnson & Johnson	34,718	20,751	13,
otal individuals completely vaccinated	588,892	333,846	255,
Pfizer	348,316	208,713	139,
Pfizer Age 5-11	28,071	14,361	13,
Pfizer Age 6M-4Y	1,636	504	1,
Moderna	173,758	88,595	85,
Moderna Age 6M-5Y	2,384	916	1,
Johnson & Johnson	34,718	20,751	13,
otal individuals boosted	343,819	179,206	164,
Pfizer	204,986	112,003	92,
Pfizer Age 5-11	6,620	2,710	3,9
Pfizer Age 6M-4Y	3	0	
Moderna	115,592	54,992	60,
Moderna Age 6M-5Y	12	7	
Johnson & Johnson	16,604	9,493	7,1

product for their second dose in a series

Percentage of Population Vaccinated December 12, 2020 - December 5, 2022				
	Overall	Ages 5+	Ages 12+	Ages 16+
Milwaukee County				
*Population	954,209	887,487	796,322	747,409
Received one or more doses	66.3%	70.5%	74.6%	75.4%
Completely vaccinated	61.7%	65.9%	69.9%	70.7%
City of Milwaukee				
*Population	596,886	551,401	489,445	456,809
Received one or more doses	61.1%	65.5%	70.3%	71.3%
Completely vaccinated	55.9%	60.3%	65.0%	66.1%
Milwaukee County Suburbs				
*Population	357,323	336,086	306,877	290,600
Received one or more doses	75.2%	78.7%	81.4%	81.7%
Completely vaccinated	71.4%	75.1%	77.8%	78.0%
*Population estimates from 2018 US Con	sus Amorican Com	munity Survey		

\*Population estimates from 2018 US Census American Community Survey

Percentage of Population Boosted December 12, 2020 - December 5, 2022		
	Overall	**Booster eligible
Milwaukee County		
*Population	954,209	577,714
Received booster dose	36.0%	59.5%
City of Milwaukee		
*Population	596,886	327,398
Received booster dose	30.0%	54.7%
Milwaukee County Suburbs		
*Population	357,323	250,316
Received booster dose	46.1%	65.7%
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\*Overall population estimates from 2018 US Census American Community Survey \*\*Booster eligible population is aged 5+ with complete primary vaccination prior to July 8, 2022 for Pfizer or Moderna series, or prior to October 6, 2022 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 1,727,705 doses (including booster doses) have been administered from December 12, 2020 through December 5, 2022. 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, second dose of Pfizer or Moderna, or third dose for Pfizer age 6M-4Y). The orange color indicates a booster dose (second dose following Johnson & Johnson or third dose following Pfizer or Moderna series).

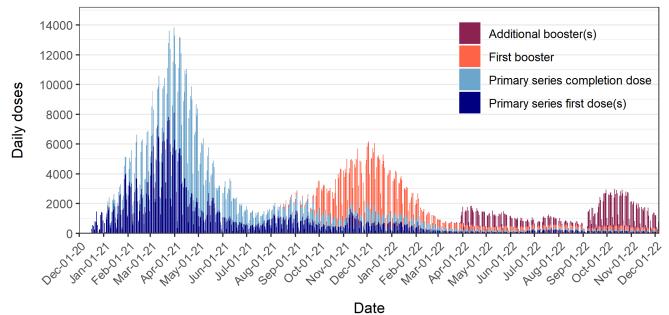
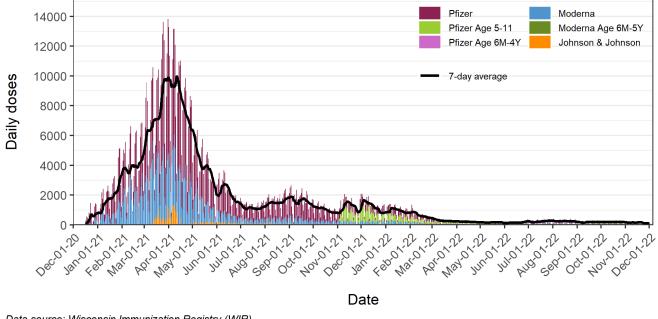
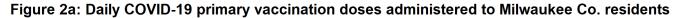


Figure 1: Daily COVID-19 vaccine doses administered to Milwaukee Co. residents

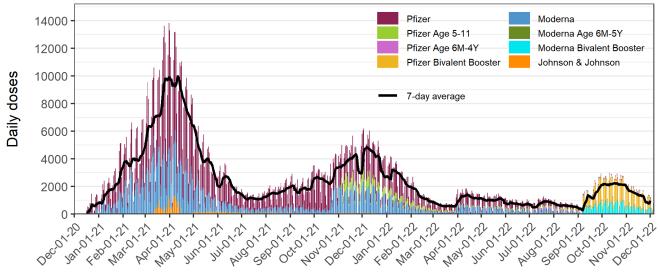
**Figures 2a and 2b** show daily COVID-19 vaccine doses administered to Milwaukee County residents; **Figure 2a** includes primary vaccination doses only, and **Figure 2b** shows all doses including boosters. The overlaid black line shows the 7-day average of daily doses and the bars are colored by vaccine: 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

## 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.

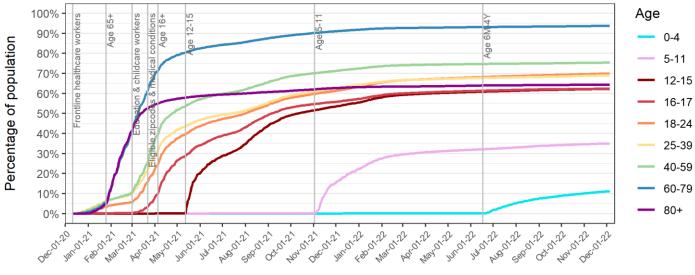


Figure 3: Percent of Milwaukee Co. residents with at least one dose of any COVID-19 vaccine

Date of first dose

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

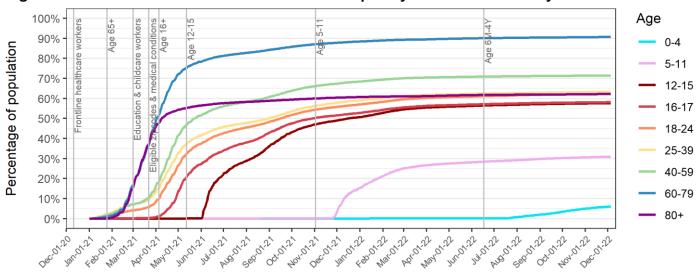


Figure 4: Percent of Milwaukee Co. residents completely vaccinated with any COVID-19 vaccine

Date of primary vaccination completion dose

# Percentages 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.

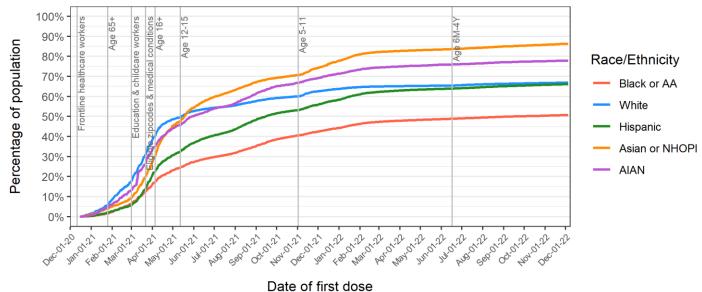


Figure 5: Percent of Milwaukee Co. residents with at least one dose of any COVID-19 vaccine

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

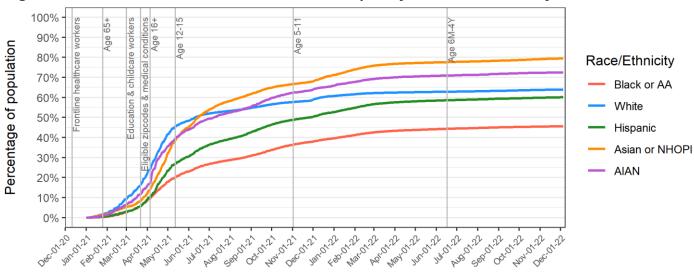


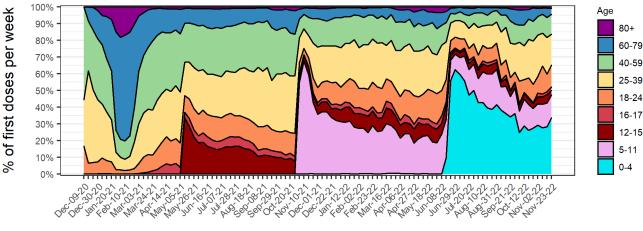
Figure 6: Percent of Milwaukee Co. residents completely vaccinated with any COVID-19 vaccine

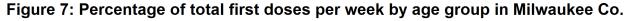
Date of primary vaccination completion dose

# 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. Similar increases were observed with the new eligibility of children ages 5-11, and later for ages 6M-4Y.

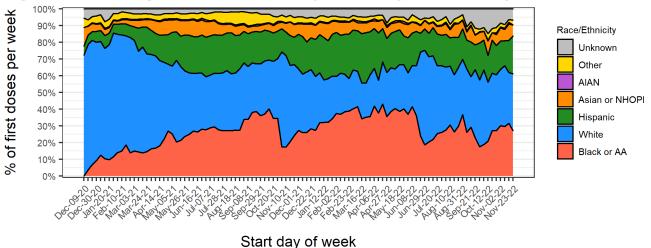
**Figure 8** shows the percentage of first doses of COVID-19 vaccine administered per week to Milwaukee County residents by race/ethnicity. Non-Hispanic Whites were the majority of newly vaccinated individuals for many months, however Black/AA and Hispanic groups have become an increasing proportion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





Start day of week

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



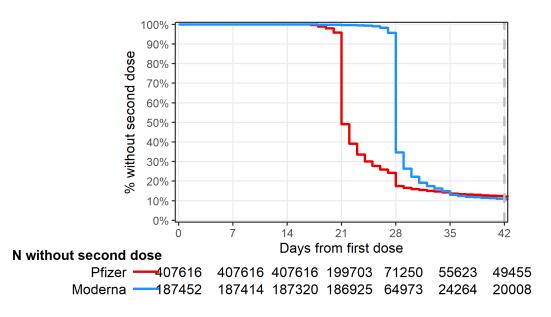
#### Figure 8: Percentage of total first doses per week by race/ethnicity in Milwaukee Co.

## 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 23, 2022). 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 88.3% of all residents who received their first dose of Pfizer prior to October 23, 2022 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 12 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 5 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 eligible1
First vaccine received		
Pfizer	358,161 / 407,616 (87.9%)	211,423 / 370,143 (57.1%)
Moderna	167,444 / 187,452 (89.3%)	115,517 / 172,875 (66.8%)
Johnson & Johnson		16,604 / 34,696 (47.9%)
Age		
0-4	4,615 / 6,485 (71.2%)	
5-11	25,138 / 31,455 (79.9%)	6,626 / 26,218 (25.3%)
12-15	26,429 / 30,325 (87.2%)	11,568 / 27,714 (41.7%)
16-17	13,227 / 15,101 (87.6%)	6,214 / 13,926 (44.6%)
18-24	48,298 / 58,318 (82.8%)	22,884 / 55,518 (41.2%)
25-39	123,886 / 143,242 (86.5%)	70,304 / 139,842 (50.3%)
40-59	144,238 / 159,942 (90.2%)	101,647 / 163,930 (62.0%)
60-79	119,189 / 127,996 (93.1%)	105,303 / 128,764 (81.8%)
80+	20,585 / 22,204 (92.7%)	18,998 / 21,802 (87.1%)
Sex		
Female	282,301 / 318,307 (88.7%)	188,044 / 306,903 (61.3%)
Male	242,197 / 275,322 (88.0%)	154,938 / 269,577 (57.5%)
Unknown	1,107 / 1,439 (76.9%)	562 / 1,234 (45.5%)
Race/Ethnicity		
Black or AA	96,952 / 117,662 (82.4%)	55,251 / 110,871 (49.8%)
White	287,708 / 311,853 (92.3%)	213,483 / 310,634 (68.7%)
Hispanic	73,450 / 86,592 (84.8%)	38,698 / 82,633 (46.8%)
Asian or NHOPI	29,660 / 33,795 (87.8%)	16,211 / 31,597 (51.3%)
AIAN	2,985 / 3,399 (87.8%)	1,881 / 3,306 (56.9%)
Other	19,957 / 22,830 (87.4%)	11,155 / 21,829 (51.1%)
Unknown	14,893 / 18,937 (78.6%)	6,865 / 16,844 (40.8%)

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

\*Booster eligible population is aged 5+ with complete primary vaccination prior to July 8, 2022 for Pfizer or Moderna series, or prior to October 6, 2022 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 Jackie Ove, Health Officer/Director, South Milwaukee/St. Francis Health Department, and Lead, Milwaukee County COVID-19 Epidemiology Intel Team: ove@smwi.org or (414) 468-8057.