



# Weekly COVID-19 Vaccination Report

The Weekly COVID-19 Vaccination Report includes the most currently available information on vaccines administered, as well as more granular information by geography, demographic factors, and more.

This report will be posted each Wednesday.

## An important note regarding vaccination progress

Source: Centers for Disease Control and Prevention. COVID Data Tracker.  
Atlanta, GA: US Department of Health and Human Services, CDC; December 14, 2022.  
<https://covid.cdc.gov/covid-data-tracker>

Massachusetts currently ranks tied for first among US states for the rate of persons with one or more doses administered per capita.

Massachusetts currently ranks first for the rate of persons with one or more doses per capita among states with populations of five million people or more.



Please note: This report reflects data available in the Massachusetts Immunization Information System (MIIS) as of Monday at 11:59PM and is pulled every Tuesday. Due to provider reporting of administration data and data processing, data may be available in MIIS 24-48 hours or more after administration. Due to time needed for inputting shipment data, shipment data may be available in MIIS 24-48 hours or more after shipment. MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and may be subject to change in future publications as additional data are reported. All data are from MIIS unless otherwise noted.

# COVID-19 Vaccines Administered

Data as of December 19, 2022

## Administered (MIIS)\* through Monday, December 19, 2022 (Running totals by day)

	December 13, 2022	December 14, 2022	December 15, 2022	December 16, 2022	December 17, 2022	December 18, 2022	December 19, 2022
At least one dose -- number of <b>people</b> who received at least one dose of Moderna, Pfizer, Novavax, or Johnson & Johnson vaccine	6,529,229	6,531,070	6,533,163	6,534,999	6,536,409	6,537,229	6,538,203
Fully vaccinated -- number of <b>people</b> who received a primary series of Moderna, Pfizer, Novavax or Johnson & Johnson vaccine**	5,604,602	5,605,436	5,606,347	5,607,134	5,607,676	5,608,037	5,608,533
First booster doses -- number of <b>people</b> who received a booster dose of Moderna, Pfizer, or Johnson & Johnson vaccine***	3,438,924	3,440,515	3,442,201	3,443,709	3,444,787	3,445,383	3,446,326
Second booster doses -- number of <b>people</b> who have received at least 2 booster doses****	1,476,466	1,481,302	1,486,487	1,491,467	1,494,952	1,497,073	1,499,691
<b>Total Doses Administered (MIIS)</b>	17,235,140	17,246,522	17,258,839	17,270,060	17,277,896	17,282,633	17,288,778

\*Data from the Massachusetts Immunization Information System (MIIS) are as of midnight the night before.

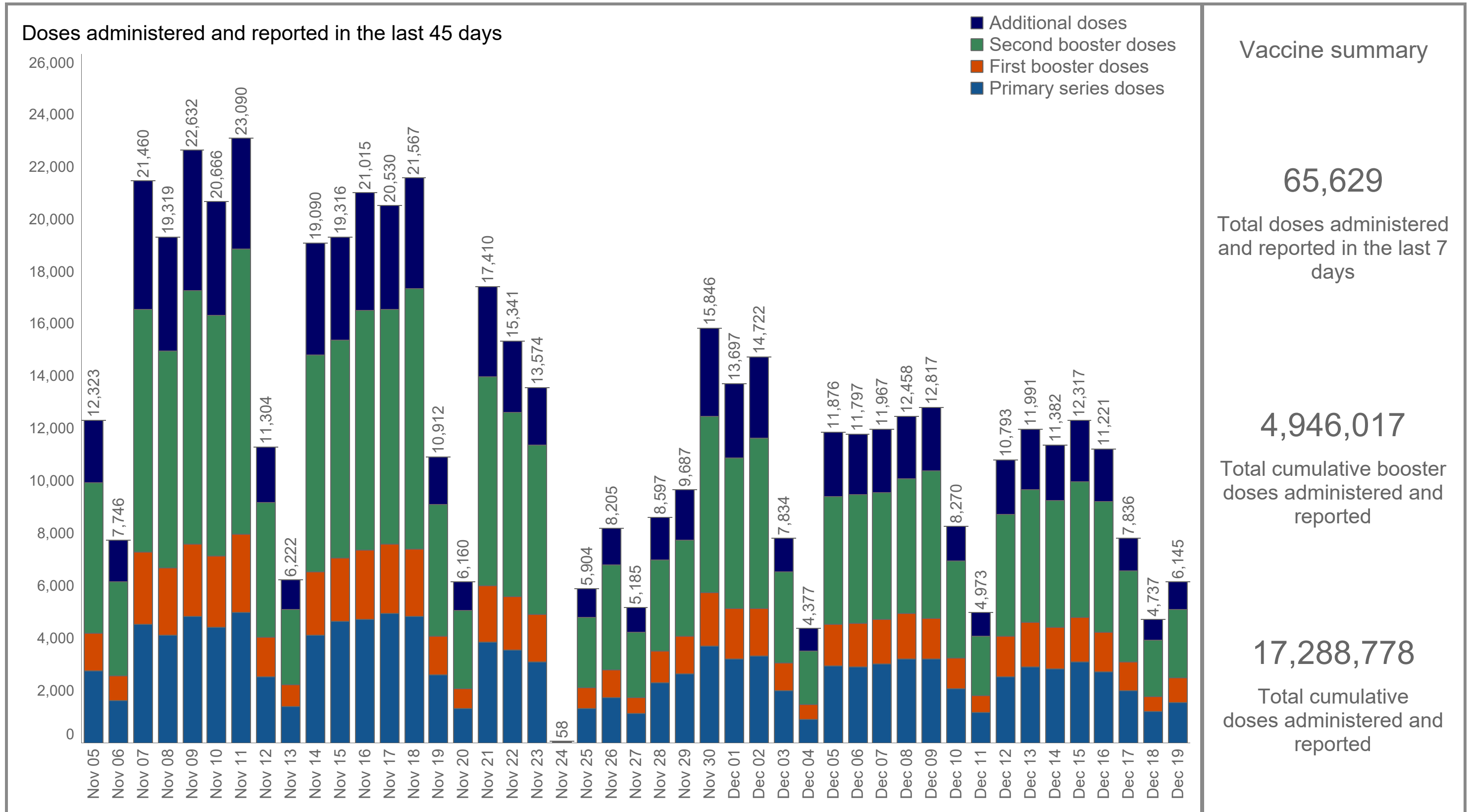
\*\*An individual is counted as fully vaccinated if they have received the number of doses required to complete the primary series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients require two doses. Moderna and Novavax recipients require two doses of vaccine. Janssen/Johnson & Johnson recipients require one dose of vaccine.

\*\*\*See the definitions page at the end of this document for the full definition. Booster doses are currently recommended for everyone aged 5 years and older. See <https://www.mass.gov/info-details/covid-19-booster-frequently-asked-questions> for details on which formulation of vaccine is recommended at which intervals.

\*\*\*\*Second booster doses: Number of individuals who have received an additional dose after their first booster dose.

# COVID-19 Vaccine Doses Administered

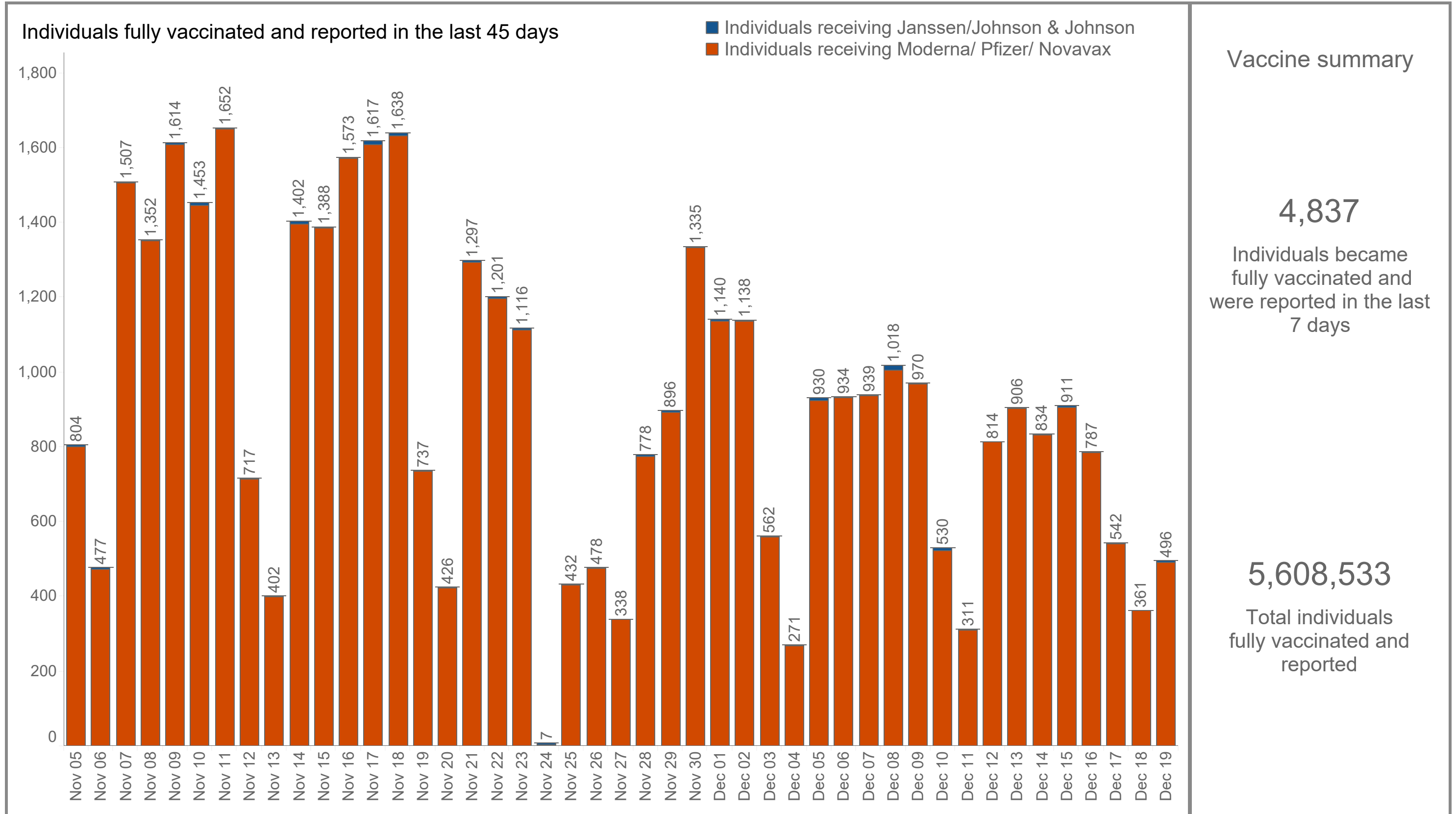
Data as of December 19, 2022



Note: Data from MIIS (see "definitions"). Data reflect doses administered (see "definitions"). Dates reflect the date doses were administered. Doses administered: All valid doses of Janssen/Johnson & Johnson, Moderna, Novavax, and Pfizer COVID-19 vaccine that have been given to people by providers and reported to MIIS are included in this measurement. Primary series doses: the number of doses required to complete the primary series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients require two doses. Moderna and Novavax recipients require two doses of vaccine. Janssen/Johnson & Johnson recipients require one dose of vaccine. See the definitions page at the end of this document.

# Individuals Fully Vaccinated

Data as of December 19, 2022



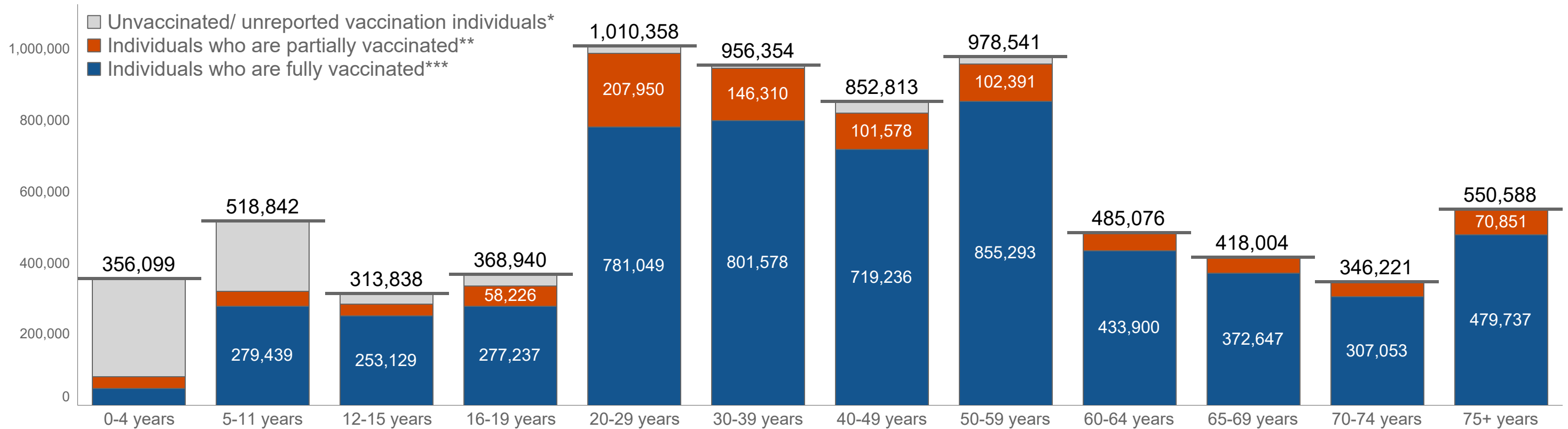
NOTE: Data from MIIS (see "definitions"). Dates reflect the date doses were administered. Individuals fully vaccinated: An individual is counted as fully vaccinated if they have received the number of doses required to complete the primary series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients require two doses. Moderna and Novavax recipients require two doses of vaccine. Janssen/Johnson & Johnson recipients require one dose of vaccine.

# Individuals with at Least One Dose

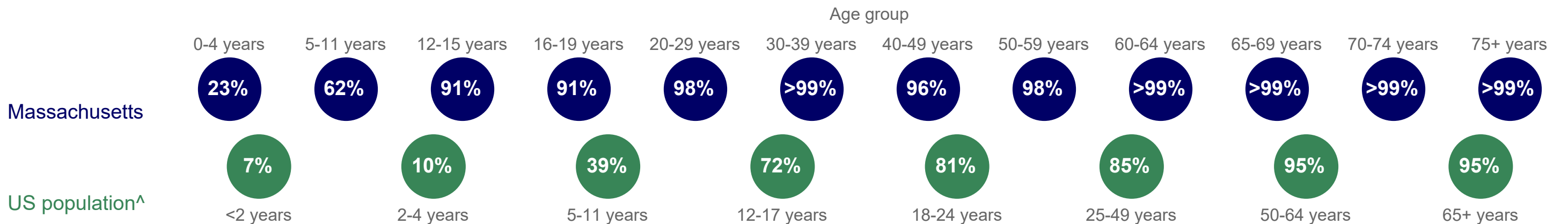
Data as of December 19, 2022

In Massachusetts, 93% of the population has received at least one dose, compared with 81% of the US population.

Vaccination status of individuals by age group (cumulative)



Percent of population with at least one dose



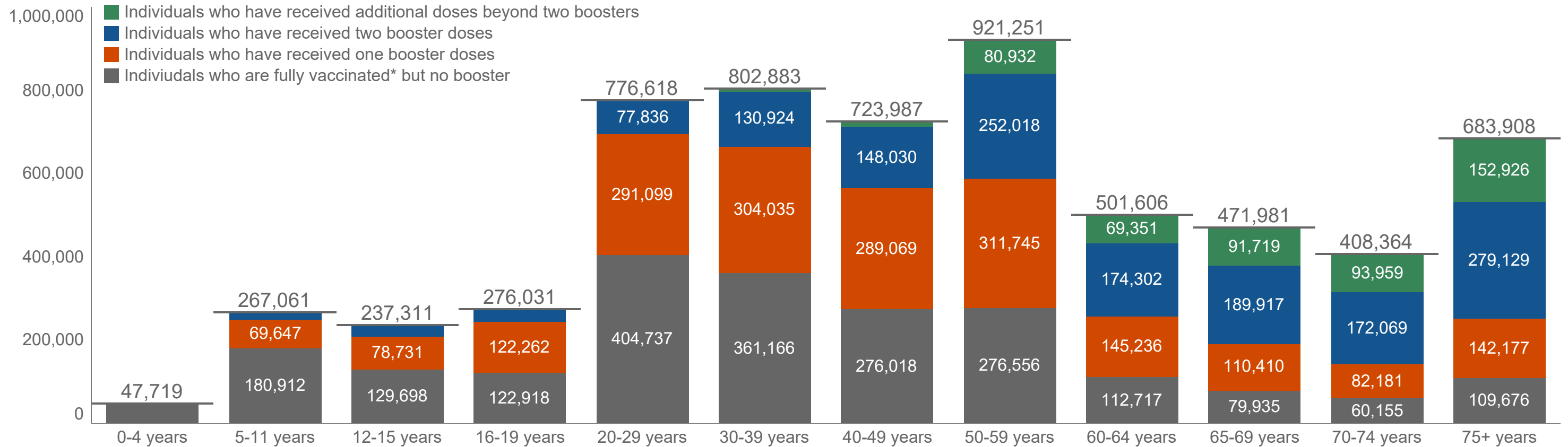
Vaccination status is reported at the age at which the vaccine was administered. Individuals transition into older age groups over time keeping aggregate totals consistent across the sum of all age categories.  
 \*Unvaccinated/unreported vaccination individuals: This is the population estimate for the subpopulation minus the number of people who received at least one dose of vaccine. It is important to recall that not being represented in MIIS does not necessarily mean someone has not received vaccine. \*\*Individuals who are partially vaccinated are those who have received at least one dose, but have not completed a primary series. \*\*\*Individuals fully vaccinated: An individual is counted as fully vaccinated if they have received the number of doses required to complete the primary series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients require two doses. Moderna and Novavax recipients require two doses of vaccine. Janssen/Johnson & Johnson recipients require one dose of vaccine. ^CDC percent of population coverage metrics are capped at 95%. For more information: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/reporting-vaccinations.html> Sources: (1) Massachusetts Immunization Information System (MIIS). MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and are subject to change in future publications as additional data are reported. (2) Centers for Disease Control and Prevention. COVID Data Tracker. Atlanta, GA: US Department of Health and Human Services, CDC;2022-12-14://[covid.cdc.gov/covid-data-tracker](https://www.cdc.gov/covid-data-tracker) (3) MDPH calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report, Oct 2016.)

# Individuals who have Received Booster Doses

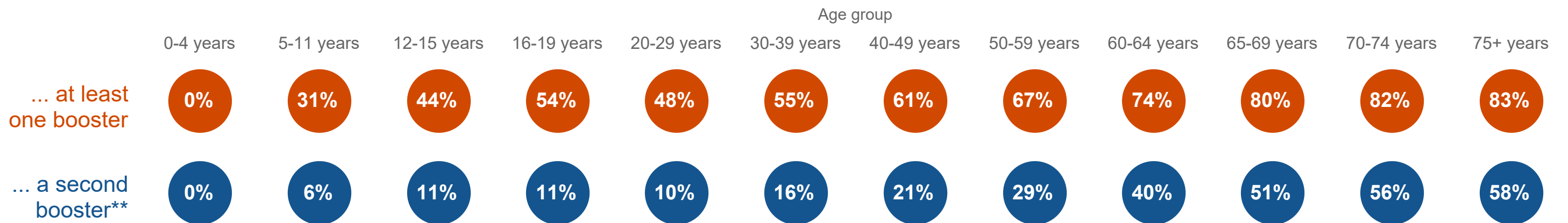
Data as of December 19, 2022

In Massachusetts, 61% of those fully vaccinated have received a booster dose.

## Booster status of fully vaccinated individuals by age group



## Percent of the Massachusetts fully vaccinated\* population with...



Vaccination status is reported at the age at which the vaccine was administered. Individuals transition into older age groups over time keeping aggregate totals consistent across the sum of all age categories.

\*Individuals fully vaccinated: An individual is counted as fully vaccinated if they have received the number of doses required to complete the primary series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients require two doses. Moderna and Novavax recipients require two doses of vaccine. Janssen/Johnson & Johnson recipients require one dose of vaccine. This includes some individuals who may not be eligible for a booster (i.e. less than 2 months after primary series). \*\*Not mutually exclusive. The 'second booster' row includes all those counted in the first row, with at least one booster, plus those individuals who have received an additional dose. Sources: (1) Massachusetts Immunization Information System (MIIS). MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and are subject to change in future publications as additional data are reported. (2) Centers for Disease Control and Prevention. COVID Data Tracker. Atlanta, GA: US Department of Health and Human Services, CDC;2022-12-14. <https://covid.cdc.gov/covid-data-tracker> (3) MDPH calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report, Oct 2016.)

# Individuals Fully Vaccinated

Data as of December 19, 2022

## Individuals fully vaccinated by county, race, and Hispanic ethnicity (1 of 2)

Number of people in the county and race/ethnicity group who are fully vaccinated divided by the estimated population in the county and race/ethnicity group

	American Indian or Alaskan Native	Asian	Black or African American	Hispanic	Multi-race	Native Hawaiian or Pacific Islander	White	Unknown/ Other race**	Total
Barnstable	45% of 1,171 residents	70% of 3,230 residents	80% of 6,644 residents	>95% of 7,637 residents	38% of 12,144 residents	>95% of 53 residents	79% of 198,117 residents	3% of 228,996 Barnstable county residents	81% of 228,996 residents
Berkshire	55% of 153 residents	72% of 1,978 residents	64% of 4,132 residents	63% of 6,619 residents	40% of 5,666 residents	*	76% of 110,470 residents	3% of 129,026 Berkshire county residents	76% of 129,026 residents
Bristol	46% of 1,045 residents	65% of 13,752 residents	77% of 24,506 residents	62% of 53,995 residents	37% of 32,048 residents	>95% of 148 residents	66% of 453,707 residents	3% of 579,200 Bristol county residents	67% of 579,200 residents
Dukes	52% of 219 residents	>95% of 181 residents	>95% of 809 residents	>95% of 452 residents	22% of 1,899 residents	*	80% of 17,031 residents	8% of 20,600 Dukes county residents	87% of 20,600 residents
Essex	47% of 808 residents	75% of 29,651 residents	79% of 27,604 residents	59% of 181,759 residents	68% of 26,257 residents	>95% of 155 residents	80% of 543,595 residents	3% of 809,829 Essex county residents	77% of 809,829 residents
Franklin	52% of 122 residents	84% of 1,215 residents	66% of 985 residents	56% of 3,329 residents	35% of 3,207 residents	*	76% of 62,163 residents	3% of 71,029 Franklin county residents	76% of 71,029 residents
Hampden	58% of 646 residents	71% of 12,176 residents	60% of 36,442 residents	51% of 120,694 residents	55% of 15,087 residents	>95% of 165 residents	71% of 280,615 residents	4% of 465,825 Hampden county residents	69% of 465,825 residents
Hampshire	51% of 199 residents	51% of 10,709 residents	53% of 4,398 residents	49% of 11,248 residents	43% of 6,930 residents	>95% of 43 residents	75% of 128,781 residents	3% of 162,308 Hampshire county residents	73% of 162,308 residents

\* Vaccination figures with fewer than 30 people are suppressed for privacy.

\*\* "Unknown/other race" is shown as a % of the row population (county or state). "Unknown/unspecified county" is shown as a % of the column population (age or race/ethnicity group).

Individuals fully vaccinated: An individual is counted as fully vaccinated if they have received the number of doses required to complete the COVID-19 vaccine series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients require two doses. Moderna and Novavax recipients require two doses of vaccine. Janssen/Johnson & Johnson recipients require one dose of vaccine.

Source: Massachusetts Immunization Information System (MIIS). MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and are subject to change in future publications as additional data are reported. Data reflect doses administered (see "definitions"). Population estimates source: MDPH calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report, Oct 2016.) Note about totals: The difference in the Massachusetts state population total created by summing the age categories and by summing the race categories is expected due to the manner in which the estimates were created with small, compounded rounding and records with unknown demographic information.



# Individuals Fully Vaccinated

Data as of December 19, 2022

## Individuals fully vaccinated by county, race, and Hispanic ethnicity (2 of 2)

Number of people in the county and race/ethnicity group who are fully vaccinated divided by the estimated population in the county and race/ethnicity group

	American Indian or Alaskan Native	Asian	Black or African American	Hispanic	Multi-race	Native Hawaiian or Pacific Islander	White	Unknown/ Other race**	Total
Middlesex	65% of 1,511 residents	77% of 212,123 residents	73% of 84,324 residents	75% of 141,738 residents	84% of 81,692 residents	>95% of 380 residents	81% of 1,110,235 residents	4% of 1,632,002 Middlesex county residents	83% of 1,632,002 residents
Nantucket	*	77% of 274 residents	>95% of 1,025 residents	89% of 2,175 residents	28% of 615 residents	*	76% of 10,149 residents	7% of 14,255 Nantucket county residents	84% of 14,255 residents
Norfolk	51% of 736 residents	76% of 88,772 residents	76% of 50,563 residents	71% of 37,460 residents	>95% of 29,540 residents	>95% of 151 residents	79% of 518,759 residents	3% of 725,981 Norfolk county residents	82% of 725,981 residents
Plymouth	34% of 893 residents	67% of 7,962 residents	81% of 48,249 residents	68% of 23,417 residents	46% of 35,840 residents	60% of 220 residents	74% of 414,238 residents	2% of 530,819 Plymouth county residents	75% of 530,819 residents
Suffolk	51% of 1,235 residents	81% of 81,295 residents	77% of 142,086 residents	75% of 177,973 residents	63% of 37,543 residents	>95% of 357 residents	71% of 357,446 residents	4% of 797,936 Suffolk county residents	78% of 797,936 residents
Worcester	46% of 1,183 residents	72% of 46,778 residents	61% of 45,164 residents	68% of 110,448 residents	55% of 37,582 residents	>95% of 145 residents	72% of 620,810 residents	2% of 862,111 Worcester county residents	73% of 862,111 residents
Unknown/ Unspecified**	3% of 9,939 AI/AN residents	3% of 510,096 Asian residents	2% of 476,930 Black residents	1% of 878,944 Hispanic residents	1% of 326,050 Multi-race residents	7% of 1,841 NH/PI residents	3% of 4,826,116 White residents	0% of 7,029,917 MA residents	3% of 7,029,917 residents
Massachusetts	53% of 9,939 residents	78% of 510,096 residents	75% of 476,930 residents	68% of 878,944 residents	66% of 326,050 residents	>95% of 1,841 residents	79% of 4,826,116 residents	3% of 7,029,917 MA residents	80% of 7,029,917 residents

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# Individuals Fully Vaccinated

Data as of December 19, 2022

## Individuals fully vaccinated by county and age group (1 of 2)

Number of people in the county and age group who are fully vaccinated divided by the estimated population in the county and age group

	0-4 years	5-11 years	12-15 years	16-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-64 years	65-69 years	70-74 years	75+ years	Total
<b>Barnstable</b>	7% of 8,117 residents	43% of 12,225 residents	74% of 7,999 residents	82% of 8,444 residents	73% of 22,109 residents	84% of 20,313 residents	81% of 21,363 residents	83% of 34,083 residents	90% of 21,351 residents	90% of 21,806 residents	93% of 19,831 residents	>95% of 31,352 residents	81% of 228,996 residents
<b>Berkshire</b>	9% of 5,429 residents	55% of 8,296 residents	74% of 5,380 residents	69% of 6,484 residents	65% of 15,369 residents	80% of 13,757 residents	79% of 13,736 residents	81% of 19,125 residents	88% of 10,525 residents	90% of 9,518 residents	>95% of 8,017 residents	91% of 13,390 residents	76% of 129,026 residents
<b>Bristol</b>	5% of 30,091 residents	31% of 45,540 residents	62% of 27,527 residents	66% of 29,121 residents	60% of 74,766 residents	67% of 73,958 residents	70% of 73,224 residents	77% of 85,414 residents	86% of 39,125 residents	92% of 31,728 residents	94% of 25,741 residents	87% of 42,964 residents	67% of 579,200 residents
<b>Dukes</b>	9% of 882 residents	58% of 1,267 residents	>95% of 785 residents	>95% of 653 residents	>95% of 2,070 residents	>95% of 2,359 residents	94% of 2,432 residents	85% of 3,147 residents	84% of 1,702 residents	81% of 1,801 residents	88% of 1,574 residents	91% of 1,929 residents	87% of 20,600 residents
<b>Essex</b>	10% of 44,345 residents	51% of 64,079 residents	80% of 38,871 residents	79% of 41,764 residents	72% of 102,396 residents	82% of 101,407 residents	82% of 99,259 residents	85% of 118,474 residents	92% of 56,226 residents	>95% of 46,143 residents	>95% of 36,776 residents	93% of 60,087 residents	77% of 809,829 residents
<b>Franklin</b>	10% of 3,011 residents	46% of 4,819 residents	73% of 2,910 residents	89% of 2,764 residents	70% of 7,572 residents	76% of 8,732 residents	75% of 8,315 residents	80% of 10,333 residents	85% of 6,159 residents	92% of 5,875 residents	>95% of 4,581 residents	92% of 5,954 residents	76% of 71,029 residents
<b>Hampden</b>	3% of 24,918 residents	35% of 38,042 residents	64% of 23,128 residents	62% of 26,022 residents	59% of 65,472 residents	70% of 59,405 residents	75% of 53,671 residents	81% of 62,992 residents	88% of 31,187 residents	94% of 25,936 residents	>95% of 20,519 residents	90% of 34,534 residents	69% of 465,825 residents
<b>Hampshire</b>	19% of 5,278 residents	65% of 8,930 residents	82% of 5,934 residents	38% of 16,019 residents	47% of 33,434 residents	83% of 16,604 residents	85% of 16,047 residents	87% of 20,206 residents	>95% of 10,664 residents	>95% of 9,895 residents	>95% of 7,914 residents	>95% of 11,383 residents	73% of 162,308 residents

\* Vaccination figures with fewer than 30 people are suppressed for privacy.

\*\* "Unknown/unspecified county" is shown as a % of the column population (age or race/ethnicity group).

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# Individuals Fully Vaccinated

Data as of December 19, 2022

## Individuals fully vaccinated by county and age group (2 of 2)

Number of people in the county and age group who are fully vaccinated divided by the estimated population in the county and age group

	0-4 years	5-11 years	12-15 years	16-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-64 years	65-69 years	70-74 years	75+ years	Total
Middlesex	23% of 83,667 residents	69% of 121,734 residents	91% of 73,083 residents	80% of 82,715 residents	78% of 242,436 residents	86% of 242,118 residents	89% of 206,995 residents	89% of 222,367 residents	95% of 100,804 residents	>95% of 81,083 residents	>95% of 64,640 residents	95% of 110,359 residents	83% of 1,632,002 residents
Nantucket	*	46% of 1,012 residents	87% of 562 residents	>95% of 507 residents	>95% of 1,722 residents	94% of 2,214 residents	92% of 2,184 residents	92% of 2,082 residents	88% of 945 residents	93% of 764 residents	>95% of 562 residents	82% of 847 residents	84% of 14,255 residents
Norfolk	21% of 37,515 residents	65% of 56,630 residents	86% of 35,180 residents	85% of 36,428 residents	79% of 90,767 residents	85% of 95,497 residents	83% of 93,243 residents	88% of 105,961 residents	94% of 48,444 residents	>95% of 39,164 residents	>95% of 31,323 residents	90% of 55,829 residents	82% of 725,981 residents
Plymouth	8% of 27,514 residents	43% of 42,518 residents	71% of 26,597 residents	79% of 27,177 residents	70% of 61,517 residents	77% of 61,280 residents	77% of 65,393 residents	83% of 81,528 residents	90% of 38,334 residents	>95% of 31,886 residents	>95% of 26,374 residents	>95% of 40,701 residents	75% of 530,819 residents
Suffolk	13% of 40,171 residents	54% of 47,420 residents	86% of 26,325 residents	58% of 46,527 residents	79% of 176,345 residents	82% of 145,860 residents	87% of 88,768 residents	88% of 87,549 residents	88% of 40,123 residents	92% of 32,272 residents	>95% of 24,580 residents	86% of 41,995 residents	78% of 797,936 residents
Worcester	8% of 45,082 residents	45% of 68,600 residents	73% of 42,016 residents	72% of 46,659 residents	67% of 114,476 residents	75% of 111,763 residents	77% of 108,360 residents	81% of 126,900 residents	88% of 58,820 residents	93% of 46,033 residents	>95% of 35,450 residents	89% of 57,952 residents	73% of 862,111 residents
Unknown/ Unspecified**	0% of 356,875 MA residents 0-4 Years	1% of 521,112 MA residents 5-11 Years	1% of 316,296 MA residents 12-15 Years	2% of 371,285 MA residents 16-19 Years	5% of 1,010,451 MA residents 20-29 Years	4% of 955,267 MA residents 30-39 Years	3% of 852,990 MA residents 40-49 Years	2% of 980,162 MA residents 50-59 Years	3% of 464,409 MA residents 60-64 Years	2% of 383,903 MA residents 65-69 Years	2% of 307,883 MA residents 70-74 Years	2% of 509,277 MA residents 75+ Years	3% of 7,029,917 residents
Massachusetts	14% of 356,875 residents	54% of 521,112 residents	80% of 316,296 residents	75% of 371,285 residents	77% of 1,010,451 residents	84% of 955,267 residents	84% of 852,990 residents	87% of 980,162 residents	93% of 464,409 residents	>95% of 383,903 residents	>95% of 307,883 residents	94% of 509,277 residents	80% of 7,029,917 residents

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# Individuals who have Received Booster Doses

Data as of December 19, 2022

Individuals with at least one booster dose administered by county, race, and Hispanic ethnicity (1 of 2)

Number of people in the county and race/ethnicity group with at least one booster dose divided by the fully vaccinated population in the county and race/ethnicity group

	American Indian or Alaskan Native	Asian	Black or African American	Hispanic	Multi-race	Native Hawaiian or Pacific Islander	White	Unknown/ Other race**	Total
Barnstable	57% of 530 residents	60% of 2,270 residents	39% of 5,308 residents	49% of 8,157 residents	72% of 4,556 residents	41% of 96 residents	69% of 156,840 residents	1% of 184,865 Barnstable county residents	65% of 184,865 residents
Berkshire	40% of 84 residents	55% of 1,430 residents	47% of 2,640 residents	47% of 4,162 residents	66% of 2,271 residents	*	66% of 84,487 residents	1% of 98,484 Berkshire county residents	63% of 98,484 residents
Bristol	32% of 483 residents	54% of 8,887 residents	45% of 18,763 residents	42% of 33,631 residents	65% of 11,829 residents	36% of 177 residents	59% of 299,273 residents	1% of 388,234 Bristol county residents	55% of 388,234 residents
Dukes	58% of 114 residents	66% of 174 residents	45% of 868 residents	45% of 953 residents	68% of 423 residents	*	69% of 13,691 residents	2% of 17,916 Dukes county residents	62% of 17,916 residents
Essex	35% of 376 residents	63% of 22,302 residents	49% of 21,858 residents	44% of 106,496 residents	70% of 17,818 residents	47% of 211 residents	66% of 433,725 residents	1% of 627,613 Essex county residents	60% of 627,613 residents
Franklin	*	58% of 1,017 residents	51% of 649 residents	51% of 1,876 residents	74% of 1,110 residents	*	69% of 47,463 residents	1% of 54,132 Franklin county residents	66% of 54,132 residents
Hampden	38% of 377 residents	55% of 8,634 residents	50% of 21,891 residents	43% of 61,219 residents	66% of 8,278 residents	45% of 191 residents	63% of 199,597 residents	2% of 319,092 Hampden county residents	56% of 319,092 residents
Hampshire	55% of 101 residents	61% of 5,482 residents	57% of 2,316 residents	57% of 5,519 residents	77% of 2,986 residents	*	73% of 96,929 residents	1% of 118,317 Hampshire county residents	70% of 118,317 residents

\* Vaccination figures with fewer than 30 people are suppressed for privacy.

\*\* "Unknown/other race" is shown as a % of the row population (county or state). "Unknown/unspecified county" is shown as a % of the column population (age or race/ethnicity group).

Booster doses administered: See the definitions page at the end of this document.

Source: Massachusetts Immunization Information System (MIIS). MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and are subject to change in future publications as additional data are reported. Data reflect doses administered (see "definitions"). Population estimates source: MDPH calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report, Oct 2016.)

Note about totals: The difference in the Massachusetts state population total created by summing the age categories and by summing the race categories is expected due to the manner in which the estimates were created with small, compounded rounding and records with unknown demographic information.

# Individuals who have Received Booster Doses

Data as of December 19, 2022

## Individuals with at least one booster dose administered by county, race, and Hispanic ethnicity (2 of 2)

Number of people in the county and race/ethnicity group with at least one booster dose divided by the fully vaccinated population in the county and race/ethnicity group

	American Indian or Alaskan Native	Asian	Black or African American	Hispanic	Multi-race	Native Hawaiian or Pacific Islander	White	Unknown/ Other race**	Total
Middlesex	41% of 989 residents	66% of 163,327 residents	55% of 61,511 residents	48% of 106,722 residents	76% of 68,488 residents	49% of 494 residents	71% of 900,854 residents	1% of 1,361,414 Middlesex county residents	66% of 1,361,414 residents
Nantucket	*	61% of 210 residents	36% of 987 residents	28% of 1,934 residents	68% of 171 residents	*	63% of 7,669 residents	1% of 11,916 Nantucket county residents	51% of 11,916 residents
Norfolk	40% of 375 residents	68% of 67,697 residents	55% of 38,244 residents	54% of 26,601 residents	75% of 31,747 residents	50% of 229 residents	70% of 411,671 residents	1% of 595,066 Norfolk county residents	67% of 595,066 residents
Plymouth	37% of 306 residents	63% of 5,353 residents	45% of 39,045 residents	47% of 15,832 residents	66% of 16,352 residents	43% of 132 residents	64% of 308,298 residents	1% of 398,386 Plymouth county residents	61% of 398,386 residents
Suffolk	43% of 632 residents	63% of 65,788 residents	55% of 109,589 residents	49% of 133,627 residents	73% of 23,713 residents	49% of 607 residents	67% of 253,645 residents	1% of 619,252 Suffolk county residents	59% of 619,252 residents
Worcester	36% of 549 residents	62% of 33,569 residents	48% of 27,548 residents	44% of 75,006 residents	70% of 20,758 residents	47% of 218 residents	65% of 446,602 residents	1% of 625,525 Worcester county residents	60% of 625,525 residents
Unknown/ Unspecified**	2% of 5,267 AI/AN residents	2% of 400,102 Asian residents	1% of 358,604 Black residents	1% of 593,728 Hispanic residents	1% of 214,195 Multi-race residents	1% of 2,585 NH/PI residents	1% of 3,789,084 White residents	0% of 5,608,533 MA residents	1% of 5,608,533 residents
Massachusetts	41% of 5,267 residents	64% of 400,102 residents	51% of 358,604 residents	46% of 593,728 residents	72% of 214,195 residents	46% of 2,585 residents	66% of 3,789,084 residents	1% of 5,608,533 MA residents	61% of 5,608,533 residents

\* Vaccination figures with fewer than 30 people are suppressed for privacy.

\*\* "Unknown/other race" is shown as a % of the row population (county or state). "Unknown/unspecified county" is shown as a % of the column population (age or race/ethnicity group).

Booster doses administered: See the definitions page at the end of this document.

Source: Massachusetts Immunization Information System (MIIS). MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and are subject to change in future publications as additional data are reported. Data reflect doses administered (see "definitions"). Population estimates source: MDPH calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report, Oct 2016.)

Note about totals: The difference in the Massachusetts state population total created by summing the age categories and by summing the race categories is expected due to the manner in which the estimates were created with small, compounded rounding and records with unknown demographic information.

# Individuals who have Received Booster Doses

Data as of December 19, 2022

Individuals with at least one booster dose administered by county and age group (1 of 2)

Number of people in the county and age group with at least one booster dose divided by the fully vaccinated population in the county and age group

	5-11 years	12-15 years	16-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-64 years	65-69 years	70-74 years	75+ years	Total
<b>Barnstable</b>	25% of 5,264 residents	37% of 5,899 residents	51% of 6,887 residents	44% of 16,113 residents	46% of 17,151 residents	55% of 17,301 residents	63% of 28,133 residents	74% of 19,128 residents	81% of 19,622 residents	84% of 18,379 residents	86% of 30,412 residents	65% of 184,865 residents
<b>Berkshire</b>	25% of 4,568 residents	42% of 3,976 residents	54% of 4,459 residents	44% of 10,029 residents	50% of 10,976 residents	59% of 10,809 residents	66% of 15,434 residents	75% of 9,308 residents	81% of 8,591 residents	82% of 7,708 residents	85% of 12,132 residents	63% of 98,484 residents
<b>Bristol</b>	21% of 13,955 residents	31% of 16,977 residents	46% of 19,328 residents	41% of 44,824 residents	43% of 49,421 residents	50% of 51,534 residents	59% of 66,142 residents	69% of 33,819 residents	76% of 29,167 residents	78% of 24,097 residents	79% of 37,411 residents	55% of 388,234 residents
<b>Dukes</b>	26% of 741 residents	47% of 768 residents	56% of 717 residents	36% of 1,970 residents	45% of 2,654 residents	56% of 2,289 residents	68% of 2,669 residents	79% of 1,432 residents	82% of 1,459 residents	85% of 1,391 residents	94% of 1,748 residents	62% of 17,916 residents
<b>Essex</b>	27% of 32,961 residents	41% of 31,036 residents	54% of 32,865 residents	46% of 73,481 residents	51% of 82,723 residents	59% of 81,389 residents	66% of 101,292 residents	74% of 51,976 residents	80% of 44,042 residents	82% of 35,534 residents	83% of 55,787 residents	60% of 627,613 residents
<b>Franklin</b>	30% of 2,234 residents	48% of 2,114 residents	52% of 2,458 residents	48% of 5,294 residents	56% of 6,639 residents	64% of 6,220 residents	68% of 8,220 residents	76% of 5,223 residents	82% of 5,396 residents	89% of 4,566 residents	86% of 5,457 residents	66% of 54,132 residents
<b>Hampden</b>	19% of 13,392 residents	32% of 14,747 residents	44% of 16,151 residents	39% of 38,424 residents	44% of 41,311 residents	52% of 40,413 residents	61% of 50,841 residents	70% of 27,543 residents	78% of 24,392 residents	80% of 19,957 residents	81% of 31,094 residents	56% of 319,092 residents
<b>Hampshire</b>	44% of 5,810 residents	60% of 4,860 residents	59% of 6,027 residents	54% of 15,644 residents	62% of 13,846 residents	69% of 13,564 residents	73% of 17,512 residents	79% of 10,178 residents	85% of 9,909 residents	88% of 8,591 residents	89% of 11,382 residents	70% of 118,317 residents

\* Vaccination figures with less than 30 people are suppressed for privacy.

\*\* "Unknown/unspecified county" is shown as a % of the column population (age or race/ethnicity group).

Booster doses administered: See the definitions page at the end of this document.

Source: Massachusetts Immunization Information System (MIIS). MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and are subject to change in future publications as additional data are reported. Data reflect doses administered (see "definitions"). Booster doses administered: Data on booster doses administered reflect the additional dose of vaccine after completion of the primary series.

Population estimates source: MDPH calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report, Oct 2016.) Note about totals: The difference in the Massachusetts state population total created by summing the age categories and by summing the race categories is expected due to the manner in which the estimates were created with small, compounded rounding and records with unknown demographic information.

# Individuals who have Received Booster Doses

Data as of December 19, 2022

## Individuals with at least one booster dose administered by county and age group (2 of 2)

Number of people in the county and age group with at least one booster dose divided by the fully vaccinated population in the county and age group

	5-11 years	12-15 years	16-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-64 years	65-69 years	70-74 years	75+ years	Total
Middlesex	40% of 84,067 residents	54% of 66,767 residents	63% of 66,044 residents	54% of 190,061 residents	62% of 208,549 residents	69% of 183,270 residents	73% of 198,513 residents	79% of 95,384 residents	84% of 79,685 residents	85% of 65,422 residents	86% of 104,738 residents	66% of 1,361,414 residents
Nantucket	17% of 469 residents	34% of 490 residents	44% of 494 residents	27% of 1,649 residents	38% of 2,073 residents	52% of 2,009 residents	61% of 1,923 residents	73% of 829 residents	80% of 714 residents	83% of 548 residents	83% of 694 residents	51% of 11,916 residents
Norfolk	37% of 37,072 residents	52% of 30,247 residents	65% of 30,901 residents	55% of 72,084 residents	62% of 81,231 residents	69% of 77,588 residents	73% of 93,496 residents	79% of 45,445 residents	84% of 38,018 residents	86% of 30,718 residents	86% of 50,422 residents	67% of 595,066 residents
Plymouth	22% of 18,423 residents	36% of 18,932 residents	53% of 21,371 residents	47% of 42,960 residents	49% of 47,019 residents	57% of 50,423 residents	64% of 67,692 residents	73% of 34,539 residents	80% of 30,293 residents	83% of 25,793 residents	84% of 38,673 residents	61% of 398,386 residents
Suffolk	31% of 25,486 residents	40% of 22,691 residents	46% of 27,121 residents	46% of 139,428 residents	58% of 119,845 residents	62% of 77,501 residents	67% of 76,990 residents	75% of 35,471 residents	80% of 29,660 residents	82% of 23,409 residents	84% of 36,305 residents	59% of 619,252 residents
Worcester	25% of 30,823 residents	40% of 30,614 residents	54% of 33,366 residents	46% of 76,510 residents	50% of 83,554 residents	58% of 83,201 residents	65% of 102,833 residents	74% of 51,965 residents	81% of 43,022 residents	82% of 34,296 residents	85% of 51,616 residents	60% of 625,525 residents
Unknown/ Unspecified**	0% of 279,439 MA residents 5-11 Years	0% of 253,129 MA residents 12-15 Years	1% of 277,237 MA residents 16-19 Years	3% of 781,049 MA residents 20-29 Years	2% of 801,578 MA residents 30-39 Years	1% of 719,236 MA residents 40-49 Years	1% of 855,293 MA residents 50-59 Years	1% of 433,900 MA residents 60-64 Years	1% of 372,647 MA residents 65-69 Years	1% of 307,053 MA residents 70-74 Years	1% of 479,737 MA residents 75+ Years	1% of 5,608,533 residents
Massachusetts	31% of 279,439 residents	44% of 253,129 residents	54% of 277,237 residents	48% of 781,049 residents	55% of 801,578 residents	61% of 719,236 residents	67% of 855,293 residents	74% of 433,900 residents	80% of 372,647 residents	82% of 307,053 residents	83% of 479,737 residents	61% of 5,608,533 residents

\* Vaccination figures with less than 30 people are suppressed for privacy.

\*\* "Unknown/unspecified county" is shown as a % of the column population (age or race/ethnicity group).

Booster doses administered: See the definitions page at the end of this document.

Source: Massachusetts Immunization Information System (MIIS). MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and are subject to change in future publications as additional data are reported. Data reflect doses administered (see "definitions"). Booster doses administered: Data on booster doses administered reflect the additional dose of vaccine after completion of the primary series.

Population estimates source: MDPH calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report, Oct 2016.) Note about totals: The difference in the Massachusetts state population total created by summing the age categories and by summing the race categories is expected due to the manner in which the estimates were created with small, compounded rounding and records with unknown demographic information.

# Critical definitions

**Please note:** the following terms and definition apply to COVID-19 only. Updated 9/20/2022.

**Doses administered:** All valid doses of Janssen/Johnson & Johnson, Moderna, Pfizer, and Novavax COVID-19 vaccine that have been given to people by providers and reported to MIIS are included in this measurement. Duplicate patient records may be created when patient information is not entered consistently. Data include doses administered by MA providers as well as through the Federal Pharmacy Partnership for Long-term Care Program and the retail pharmacies in the jurisdictional transfer program and Community Health Centers (CHCs) receiving vaccine from the U.S. Health Resources and Services Administration (HRSA). Some doses are administered as part of a separate federal distribution system and would not be included here.

**Individuals with a least one dose:** An individual is counted as at least one dose if they have received one or more doses of vaccine. This is measured as the total number of first doses of Moderna, Pfizer, and Novavax vaccine administered and reported, plus the total number of Janssen/Johnson & Johnson doses administered and reported.

**Individuals who are fully vaccinated:** An individual is counted as fully vaccinated if they have received the number of doses required to complete the primary series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients require two doses. Moderna and Novavax recipients require two doses of vaccine. Janssen/Johnson & Johnson recipients require one dose of vaccine.

**Booster doses administered:** On 8/13/21, a third dose was recommended for severely immunocompromised individuals to complete their primary series. These doses are counted as 'booster' doses. On 9/24/21, booster doses of Pfizer vaccine were recommended for individuals aged 65 and older, for those at risk for severe disease, or for those at high risk for occupational exposure six months after completing their primary series. On 10/22/21, booster doses of Moderna vaccine were recommended for the same population. Additionally, booster doses of any vaccine, including Johnson & Johnson, were recommended for everyone 18 years and older at least two months after receiving initial Johnson & Johnson vaccine. On 12/9/21, mix and match and Johnson & Johnson boosters were added to the booster counts, which redistributed shots that had previously been counted in other rows. This also adjusted for people who have completed a primary series and had previously been double counted. On 1/4/22, the Pfizer vaccine booster dose recommendation was revised to be five months after completing primary series. On 1/7/22, the Moderna vaccine booster dose recommendation was revised to be five months after completing primary series. On 3/29/22, second monovalent booster doses were recommended for adults aged 50 years and older.

On 9/1/22, bivalent boosters were recommended for everyone aged 12 years and older whose primary series or most recent booster dose were administered at least two months ago. This recommendation replaced all previous booster recommendations for this age group.

See, <https://www.mass.gov/info-details/covid-19-booster-frequently-asked-questions> for details on which formulation of vaccine is recommended at which intervals.

**Additional doses beyond second booster:** Some individuals with certain health conditions are eligible to receive additional doses of vaccine. These doses are counted in this category. For more information, see: <https://www.mass.gov/info-details/covid-19-vaccinations-for-individuals-with-certain-medical-conditions>

**Individuals who are unvaccinated/unreported vaccination:** This is the population estimate for the subpopulation minus the number of people who received at least one dose of vaccine. It is important to recall that not being represented in MIIS does not necessarily mean someone has not received vaccine.

**MIIS:** Immunization data from most (but not all) providers in Massachusetts are reported into the Massachusetts Immunization Information System (MIIS) through direct messages from electronic health records or direct entry by users. Due to inputting and processing, it may take 24-48 hours or more for shipping or administration data to appear in MIIS. MIIS data are available for analysis one calendar day after they are reported to the MIIS. Data are current as of time of publication and may be subject to change in future publications as additional data are reported. As of 11/4/21, MIIS numbers include vaccinations reported from the Veterans Administration for MA residents. MIIS does not include data on health states or occupations of individuals.