



# 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; February 23, 2023.

<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 February 27, 2023

## Administered (MIIS)\* through Monday, February 27, 2023 (Running totals by day)

	February 21, 2023	February 22, 2023	February 23, 2023	February 24, 2023	February 25, 2023	February 26, 2023	February 27, 2023
At least one dose -- number of <b>people</b> who received at least one dose of Moderna, Pfizer, Novavax, or Johnson & Johnson vaccine	6,544,145	6,544,659	6,544,999	6,545,493	6,545,827	6,545,962	6,546,308
Fully vaccinated -- number of <b>people</b> who received a primary series of Moderna, Pfizer, Novavax or Johnson & Johnson vaccine**	5,632,211	5,632,498	5,632,740	5,633,033	5,633,135	5,633,168	5,633,394
First booster doses -- number of <b>people</b> who received a booster dose of Moderna, Pfizer, or Johnson & Johnson vaccine***	3,510,323	3,510,894	3,511,378	3,511,904	3,512,168	3,512,248	3,512,667
Second booster doses -- number of <b>people</b> who have received at least 2 booster doses****	1,638,188	1,638,961	1,639,583	1,640,349	1,640,824	1,641,027	1,641,592
<b>Total Doses Administered (MIIS)</b>	17,576,825	17,579,293	17,581,288	17,583,754	17,585,122	17,585,650	17,587,419

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

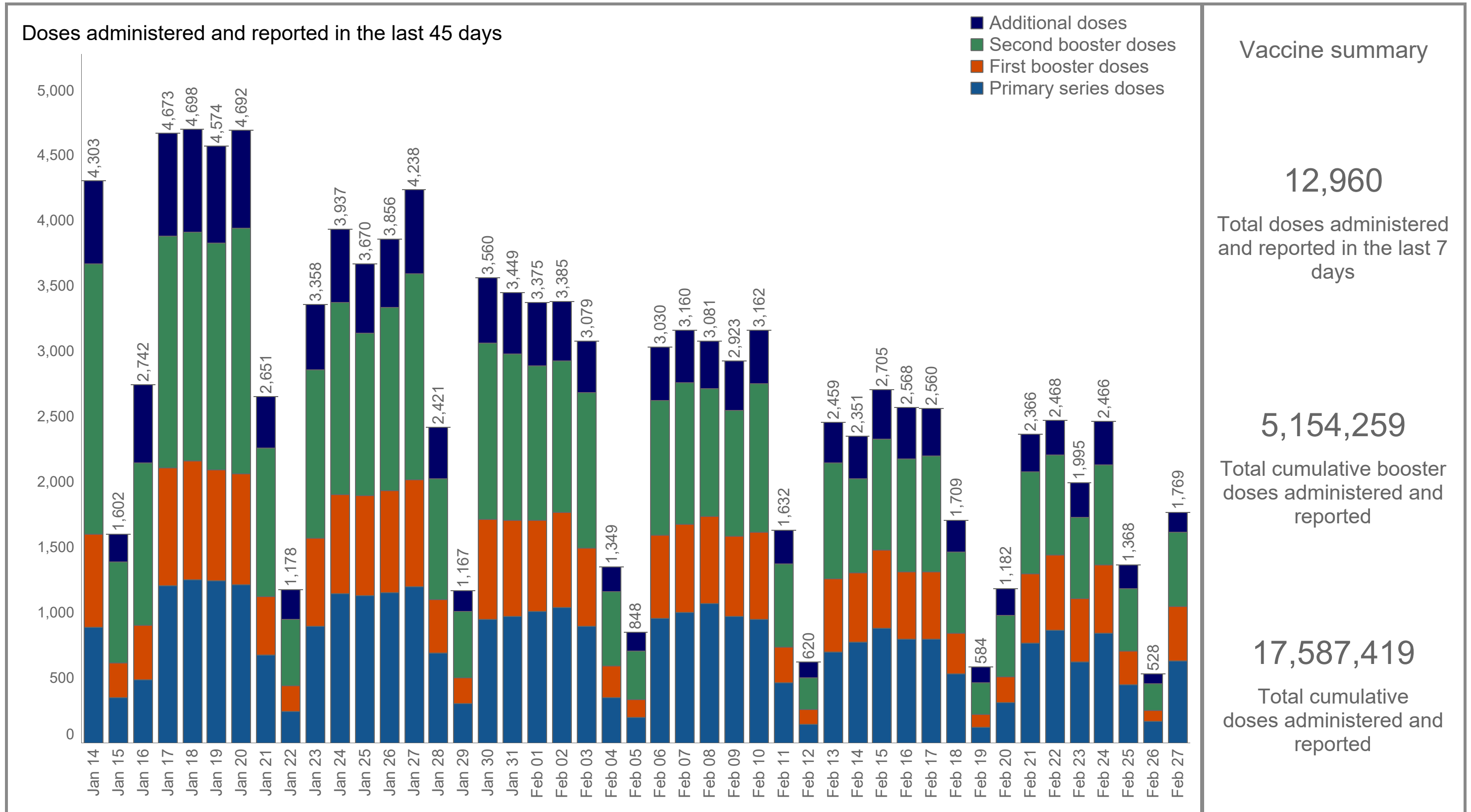
\*\*An individual is counted as fully vaccinated if they have received the number of doses required to complete the primary series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients require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

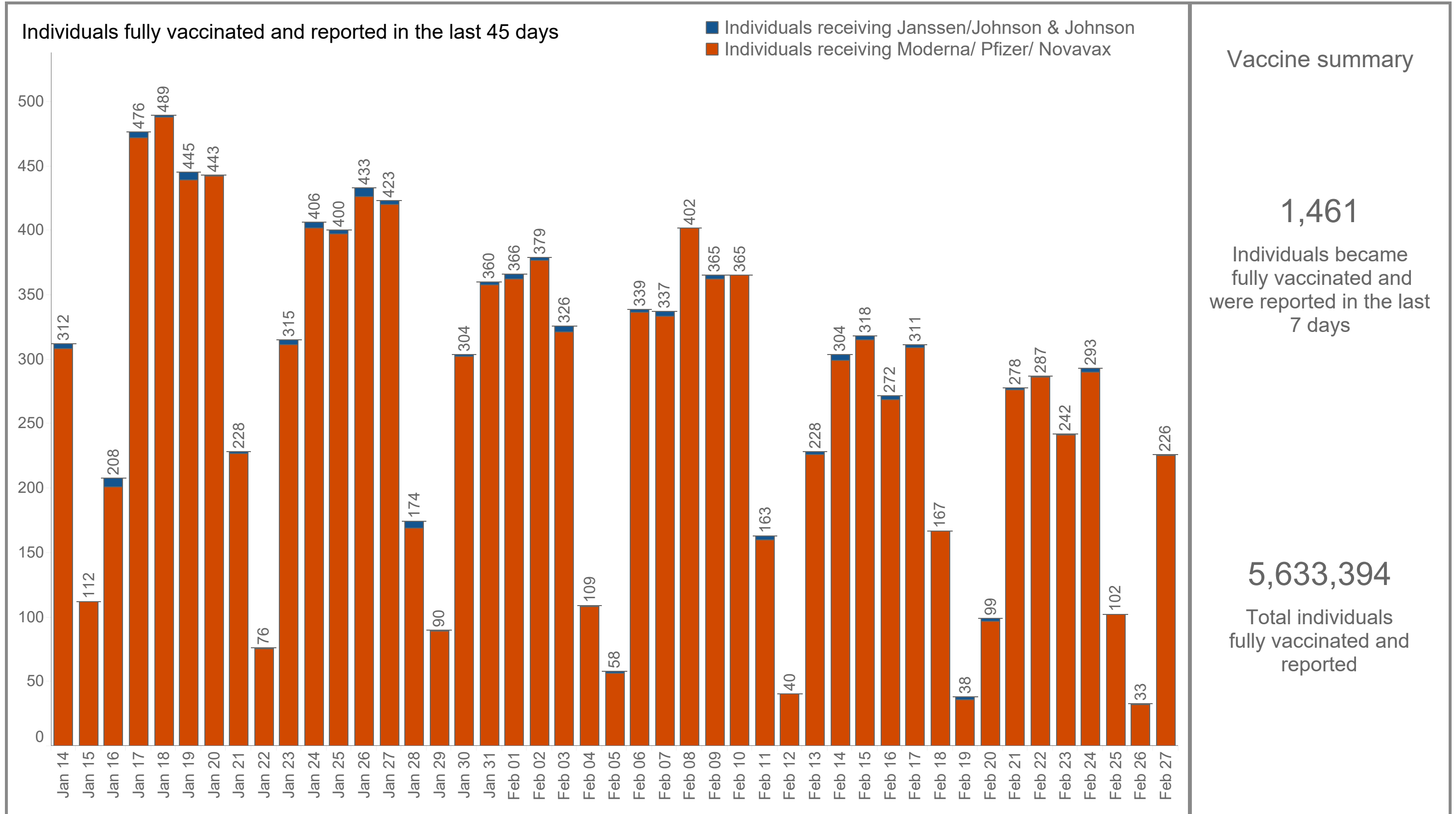
Data as of February 27, 2023



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 February 27, 2023



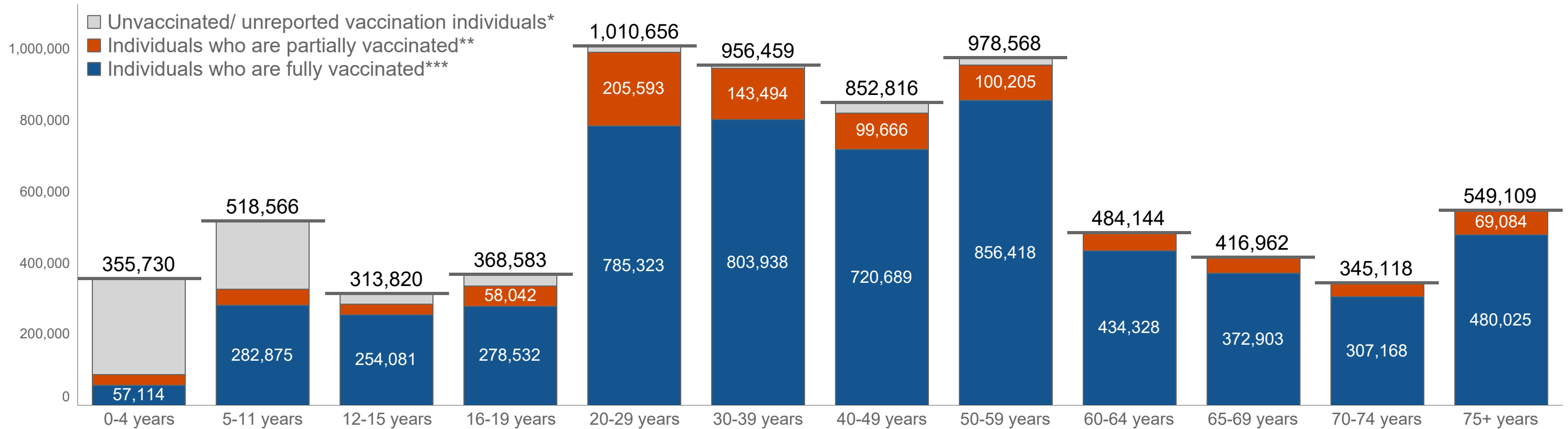
NOTE: Data from MIIS (see "definitions"). Dates reflect the date doses were administered. Individuals fully vaccinated: An individual is counted as fully vaccinated if they have received the number of doses required to complete the primary series for their age and all of these doses have been reported 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

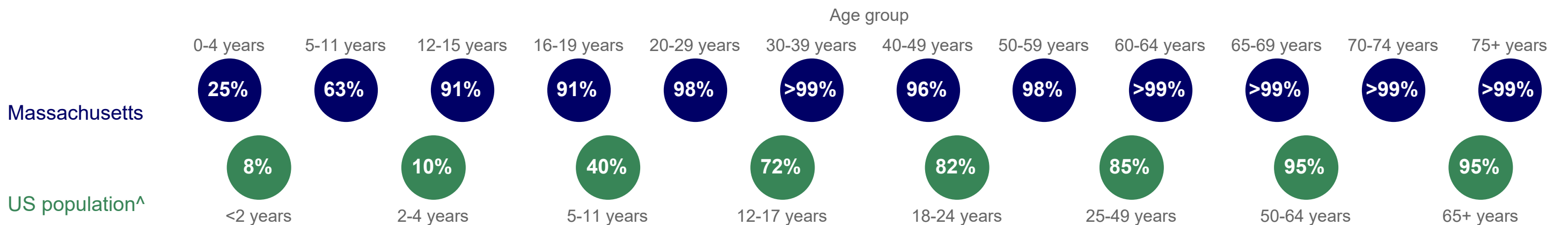
Data as of February 27, 2023

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



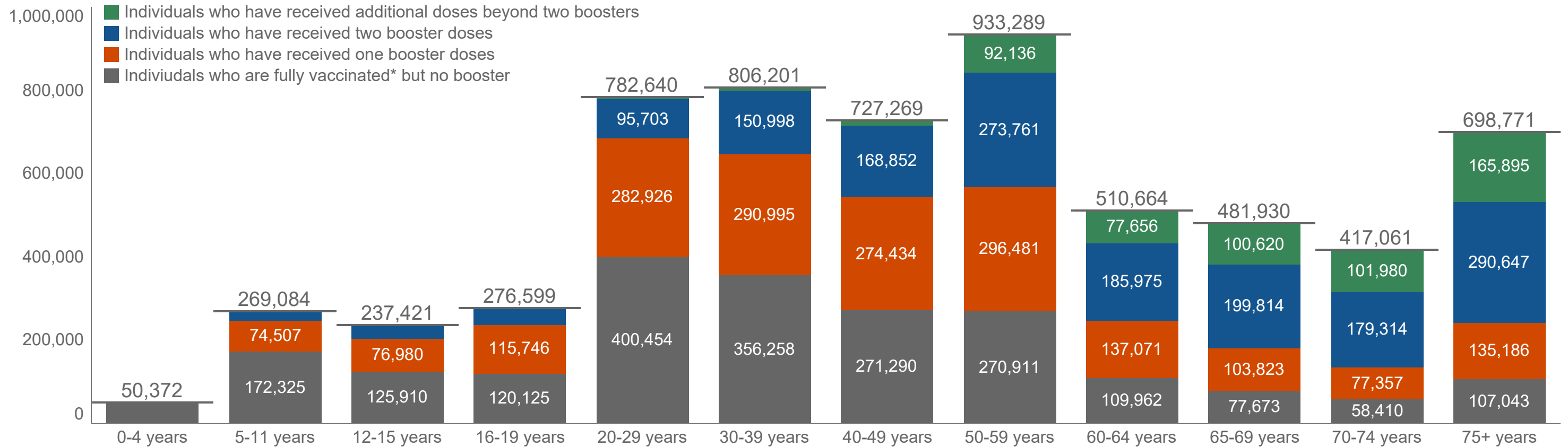
Vaccination status is reported at the age at which the vaccine was administered. Individuals transition into older age groups over time keeping aggregate totals consistent across the sum of all age categories.  
 \*Unvaccinated/unreported vaccination individuals: This is the population estimate for the 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;2023-02-23://[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

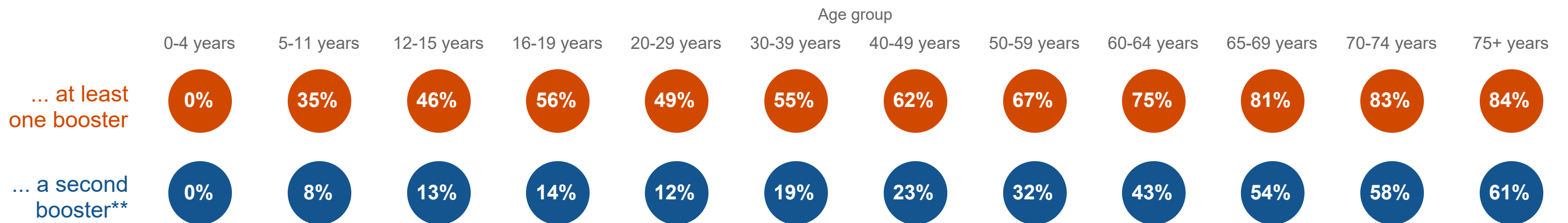
Data as of February 27, 2023

In Massachusetts, 62% 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;2023-02-23. <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 February 27, 2023

## 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	39% 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	54% of 153 residents	72% of 1,978 residents	64% of 4,132 residents	63% of 6,619 residents	41% of 5,666 residents	*	77% of 110,470 residents	3% of 129,026 Berkshire county residents	76% of 129,026 residents
Bristol	45% of 1,045 residents	65% of 13,752 residents	77% of 24,506 residents	63% of 53,995 residents	38% 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	51% of 219 residents	>95% of 181 residents	>95% of 809 residents	>95% of 452 residents	23% of 1,899 residents	*	81% of 17,031 residents	8% of 20,600 Dukes county residents	87% of 20,600 residents
Essex	47% of 808 residents	76% of 29,651 residents	79% of 27,604 residents	60% of 181,759 residents	69% of 26,257 residents	>95% of 155 residents	80% of 543,595 residents	3% of 809,829 Essex county residents	78% of 809,829 residents
Franklin	51% of 122 residents	85% of 1,215 residents	66% of 985 residents	57% of 3,329 residents	35% of 3,207 residents	*	77% of 62,163 residents	3% of 71,029 Franklin county residents	77% of 71,029 residents
Hampden	58% of 646 residents	71% of 12,176 residents	61% of 36,442 residents	51% of 120,694 residents	56% 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	49% of 199 residents	52% of 10,709 residents	53% of 4,398 residents	50% of 11,248 residents	44% of 6,930 residents	>95% of 43 residents	76% 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 February 27, 2023

## 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	66% of 1,511 residents	78% of 212,123 residents	73% of 84,324 residents	76% of 141,738 residents	85% of 81,692 residents	>95% of 380 residents	81% of 1,110,235 residents	4% of 1,632,002 Middlesex county residents	84% of 1,632,002 residents
Nantucket	*	76% of 274 residents	>95% of 1,025 residents	89% of 2,175 residents	29% of 615 residents	*	76% of 10,149 residents	7% of 14,255 Nantucket county residents	84% of 14,255 residents
Norfolk	49% of 736 residents	77% of 88,772 residents	76% of 50,563 residents	72% of 37,460 residents	>95% of 29,540 residents	>95% of 151 residents	80% 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	82% of 48,249 residents	68% of 23,417 residents	46% of 35,840 residents	61% of 220 residents	75% 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	78% of 142,086 residents	76% of 177,973 residents	64% 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	62% of 45,164 residents	69% of 110,448 residents	56% 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	79% of 510,096 residents	76% of 476,930 residents	68% of 878,944 residents	67% 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 February 27, 2023

## 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>	9% of 8,117 residents	43% of 12,225 residents	74% of 7,999 residents	82% of 8,444 residents	73% of 22,109 residents	85% 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>	11% of 5,429 residents	56% 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	90% of 13,390 residents	76% of 129,026 residents
<b>Bristol</b>	6% of 30,091 residents	31% of 45,540 residents	62% of 27,527 residents	67% of 29,121 residents	60% of 74,766 residents	67% of 73,958 residents	71% of 73,224 residents	78% of 85,414 residents	87% 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>	10% of 882 residents	59% 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>	12% of 44,345 residents	52% 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	86% of 118,474 residents	93% of 56,226 residents	>95% of 46,143 residents	>95% of 36,776 residents	93% of 60,087 residents	78% of 809,829 residents
<b>Franklin</b>	12% of 3,011 residents	47% 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	77% of 71,029 residents
<b>Hampden</b>	4% of 24,918 residents	36% of 38,042 residents	64% of 23,128 residents	62% of 26,022 residents	59% of 65,472 residents	70% of 59,405 residents	76% 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>	23% of 5,278 residents	66% of 8,930 residents	82% of 5,934 residents	38% of 16,019 residents	47% of 33,434 residents	84% 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

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\*\* "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 February 27, 2023

## 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	26% of 83,667 residents	70% of 121,734 residents	92% of 73,083 residents	80% of 82,715 residents	79% 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	84% of 1,632,002 residents
Nantucket	4% of 857 residents	47% 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	24% of 37,515 residents	66% of 56,630 residents	86% of 35,180 residents	85% of 36,428 residents	80% 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	10% of 27,514 residents	44% 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	17% of 40,171 residents	55% of 47,420 residents	86% of 26,325 residents	59% of 46,527 residents	79% of 176,345 residents	82% of 145,860 residents	87% of 88,768 residents	88% of 87,549 residents	89% of 40,123 residents	92% of 32,272 residents	>95% of 24,580 residents	87% of 41,995 residents	78% of 797,936 residents
Worcester	10% 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	94% 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	16% of 356,875 residents	54% of 521,112 residents	80% of 316,296 residents	75% of 371,285 residents	78% of 1,010,451 residents	84% of 955,267 residents	84% of 852,990 residents	87% of 980,162 residents	94% 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 February 27, 2023

## 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	61% of 2,274 residents	40% of 5,324 residents	50% of 8,222 residents	73% of 4,691 residents	41% of 95 residents	70% of 157,367 residents	1% of 185,529 Barnstable county residents	66% of 185,529 residents
Berkshire	43% of 83 residents	55% of 1,431 residents	48% of 2,661 residents	49% of 4,146 residents	67% of 2,330 residents	*	66% of 84,674 residents	1% of 98,667 Berkshire county residents	64% of 98,667 residents
Bristol	34% of 474 residents	55% of 8,913 residents	46% of 18,955 residents	43% of 34,084 residents	66% of 12,151 residents	35% of 178 residents	60% of 300,238 residents	1% of 389,916 Bristol county residents	56% of 389,916 residents
Dukes	61% of 113 residents	66% of 174 residents	46% of 874 residents	45% of 962 residents	70% of 430 residents	*	70% of 13,724 residents	2% of 17,961 Dukes county residents	63% of 17,961 residents
Essex	36% of 377 residents	64% of 22,449 residents	50% of 21,827 residents	45% of 108,197 residents	72% of 18,109 residents	47% of 209 residents	67% of 434,595 residents	1% of 630,144 Essex county residents	61% of 630,144 residents
Franklin	48% of 63 residents	59% of 1,028 residents	52% of 653 residents	53% of 1,907 residents	75% of 1,136 residents	*	70% of 47,661 residents	1% of 54,354 Franklin county residents	68% of 54,354 residents
Hampden	39% of 373 residents	56% of 8,675 residents	51% of 22,136 residents	45% of 62,100 residents	67% of 8,477 residents	45% of 186 residents	63% of 200,109 residents	2% of 320,591 Hampden county residents	57% of 320,591 residents
Hampshire	60% of 97 residents	62% of 5,533 residents	58% of 2,326 residents	58% of 5,591 residents	78% of 3,045 residents	*	74% of 97,263 residents	1% of 118,777 Hampshire county residents	70% of 118,777 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 February 27, 2023

## 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	42% of 993 residents	67% of 164,836 residents	56% of 61,925 residents	49% of 107,962 residents	77% of 69,662 residents	49% of 494 residents	72% of 904,095 residents	1% of 1,368,437 Middlesex county residents	67% of 1,368,437 residents
Nantucket	*	62% of 207 residents	36% of 991 residents	29% of 1,944 residents	69% of 179 residents	*	64% of 7,685 residents	1% of 11,943 Nantucket county residents	52% of 11,943 residents
Norfolk	39% of 361 residents	69% of 68,263 residents	56% of 38,443 residents	55% of 26,842 residents	77% of 32,223 residents	52% of 229 residents	70% of 413,002 residents	1% of 597,684 Norfolk county residents	68% of 597,684 residents
Plymouth	37% of 301 residents	64% of 5,372 residents	46% of 39,325 residents	48% of 15,962 residents	67% of 16,631 residents	47% of 135 residents	65% of 309,167 residents	1% of 399,866 Plymouth county residents	61% of 399,866 residents
Suffolk	43% of 630 residents	64% of 66,201 residents	57% of 110,208 residents	51% of 134,772 residents	74% of 24,067 residents	49% of 601 residents	68% of 254,712 residents	1% of 622,552 Suffolk county residents	60% of 622,552 residents
Worcester	36% of 540 residents	64% of 33,856 residents	50% of 27,815 residents	46% of 75,746 residents	72% of 21,176 residents	46% of 214 residents	65% of 448,090 residents	1% of 628,341 Worcester county residents	61% of 628,341 residents
Unknown/ Unspecified**	2% of 5,220 AI/AN residents	2% of 403,290 Asian residents	1% of 360,902 Black residents	1% of 600,519 Hispanic residents	1% of 218,079 Multi-race residents	1% of 2,569 NH/PI residents	1% of 3,800,935 White residents	0% of 5,633,394 MA residents	1% of 5,633,394 residents
Massachusetts	41% of 5,220 residents	65% of 403,290 residents	53% of 360,902 residents	48% of 600,519 residents	73% of 218,079 residents	47% of 2,569 residents	67% of 3,800,935 residents	1% of 5,633,394 MA residents	62% of 5,633,394 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 February 27, 2023

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>	29% of 5,316 residents	39% of 5,908 residents	53% of 6,904 residents	44% of 16,183 residents	47% of 17,192 residents	56% of 17,370 residents	64% of 28,231 residents	74% of 19,195 residents	81% of 19,650 residents	85% of 18,402 residents	87% of 30,461 residents	66% of 185,529 residents
<b>Berkshire</b>	28% of 4,606 residents	43% of 3,992 residents	55% of 4,483 residents	45% of 10,046 residents	51% of 10,998 residents	60% of 10,815 residents	66% of 15,448 residents	76% of 9,300 residents	82% of 8,581 residents	83% of 7,697 residents	85% of 12,107 residents	64% of 98,667 residents
<b>Bristol</b>	24% of 14,165 residents	32% of 17,054 residents	48% of 19,446 residents	42% of 45,067 residents	43% of 49,612 residents	51% of 51,704 residents	60% of 66,279 residents	70% of 33,867 residents	77% of 29,206 residents	79% of 24,109 residents	80% of 37,463 residents	56% of 389,916 residents
<b>Dukes</b>	30% of 750 residents	49% of 771 residents	58% of 721 residents	37% of 1,978 residents	46% of 2,658 residents	57% of 2,290 residents	68% of 2,672 residents	79% of 1,433 residents	82% of 1,461 residents	85% of 1,390 residents	94% of 1,752 residents	63% of 17,961 residents
<b>Essex</b>	30% of 33,356 residents	43% of 31,137 residents	56% of 32,991 residents	47% of 73,810 residents	52% of 82,951 residents	59% of 81,534 residents	66% of 101,455 residents	75% of 52,020 residents	81% of 44,080 residents	82% of 35,555 residents	84% of 55,902 residents	61% of 630,144 residents
<b>Franklin</b>	34% of 2,269 residents	50% of 2,129 residents	54% of 2,465 residents	49% of 5,330 residents	57% of 6,659 residents	65% of 6,239 residents	69% of 8,245 residents	77% of 5,226 residents	83% of 5,393 residents	90% of 4,571 residents	87% of 5,454 residents	68% of 54,354 residents
<b>Hampden</b>	22% of 13,646 residents	34% of 14,841 residents	45% of 16,263 residents	40% of 38,684 residents	44% of 41,503 residents	53% of 40,561 residents	61% of 50,937 residents	71% of 27,580 residents	78% of 24,419 residents	81% of 19,977 residents	81% of 31,132 residents	57% of 320,591 residents
<b>Hampshire</b>	49% of 5,864 residents	63% of 4,876 residents	60% of 6,065 residents	55% of 15,711 residents	62% of 13,927 residents	70% of 13,580 residents	73% of 17,521 residents	80% of 10,186 residents	85% of 9,905 residents	89% of 8,585 residents	90% of 11,364 residents	70% of 118,777 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 February 27, 2023

## 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	44% of 84,935 residents	56% of 66,990 residents	64% of 66,282 residents	54% of 191,464 residents	63% of 209,167 residents	70% of 183,664 residents	74% of 198,684 residents	80% of 95,473 residents	85% of 79,719 residents	86% of 65,455 residents	87% of 104,751 residents	67% of 1,368,437 residents
Nantucket	20% of 474 residents	36% of 491 residents	46% of 494 residents	28% of 1,654 residents	38% of 2,077 residents	52% of 2,011 residents	61% of 1,924 residents	73% of 827 residents	80% of 714 residents	84% of 546 residents	83% of 696 residents	52% of 11,943 residents
Norfolk	40% of 37,472 residents	54% of 30,374 residents	66% of 30,988 residents	56% of 72,486 residents	62% of 81,455 residents	70% of 77,707 residents	73% of 93,538 residents	80% of 45,415 residents	85% of 38,004 residents	86% of 30,699 residents	87% of 50,419 residents	68% of 597,684 residents
Plymouth	25% of 18,650 residents	38% of 18,994 residents	54% of 21,469 residents	48% of 43,127 residents	50% of 47,208 residents	58% of 50,497 residents	65% of 67,790 residents	74% of 34,574 residents	81% of 30,291 residents	83% of 25,807 residents	85% of 38,715 residents	61% of 399,866 residents
Suffolk	36% of 25,952 residents	43% of 22,764 residents	48% of 27,284 residents	47% of 140,111 residents	59% of 120,052 residents	63% of 77,610 residents	68% of 77,105 residents	76% of 35,522 residents	81% of 29,708 residents	83% of 23,441 residents	85% of 36,348 residents	60% of 622,552 residents
Worcester	28% of 31,208 residents	42% of 30,733 residents	55% of 33,493 residents	47% of 76,991 residents	51% of 83,937 residents	59% of 83,419 residents	66% of 102,996 residents	75% of 52,019 residents	82% of 43,056 residents	83% of 34,314 residents	85% of 51,636 residents	61% of 628,341 residents
Unknown/ Unspecified**	0% of 282,875 MA residents 5-11 Years	0% of 254,081 MA residents 12-15 Years	1% of 278,532 MA residents 16-19 Years	3% of 785,323 MA residents 20-29 Years	2% of 803,938 MA residents 30-39 Years	1% of 720,689 MA residents 40-49 Years	1% of 856,418 MA residents 50-59 Years	1% of 434,328 MA residents 60-64 Years	1% of 372,903 MA residents 65-69 Years	1% of 307,168 MA residents 70-74 Years	1% of 480,025 MA residents 75+ Years	1% of 5,633,394 residents
Massachusetts	35% of 282,875 residents	46% of 254,081 residents	56% of 278,532 residents	49% of 785,323 residents	55% of 803,938 residents	62% of 720,689 residents	67% of 856,418 residents	75% of 434,328 residents	81% of 372,903 residents	83% of 307,168 residents	84% of 480,025 residents	62% of 5,633,394 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.