

# **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; October 12, 2022.

<a href="https://covid.cdc.gov/covid-data-tracker">https://covid.cdc.gov/covid-data-tracker</a>

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 October 17, 2022

	Administered (MI	IS)* through Monda	y, October 17, 2022	2 (Running totals by	day)		
	October 11, 2022	October 12, 2022	October 13, 2022	October 14, 2022	October 15, 2022	October 16, 2022	October 17, 2022
At least one dose number of <b>people</b> who received at least one dose of Moderna, Pfizer, or Johnson & Johnson vaccine	6,404,761	6,408,158	6,411,174	6,414,741	6,416,041	6,416,262	6,418,065
Fully vaccinated number of <b>people</b> who received a primary series of Moderna, Pfizer, or Johnson & Johnson vaccine**	5,525,128	5,527,013	5,528,928	5,530,943	5,531,701	5,531,842	5,532,574
First booster doses number of <b>people</b> who received a booster dose of Moderna, Pfizer, or Johnson & Johnson vaccine***	3,298,108	3,300,498	3,302,481	3,304,656	3,305,428	3,305,564	3,306,489
Second booster doses number of <b>people</b> who have received at least 2 booster doses****	984,895	994,980	1,004,175	1,015,436	1,019,873	1,020,457	1,023,603
Total <b>Doses</b> Administered (MIIS)	16,119,772	16,145,633	16,168,877	16,195,744	16,205,593	16,207,103	16,215,809

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

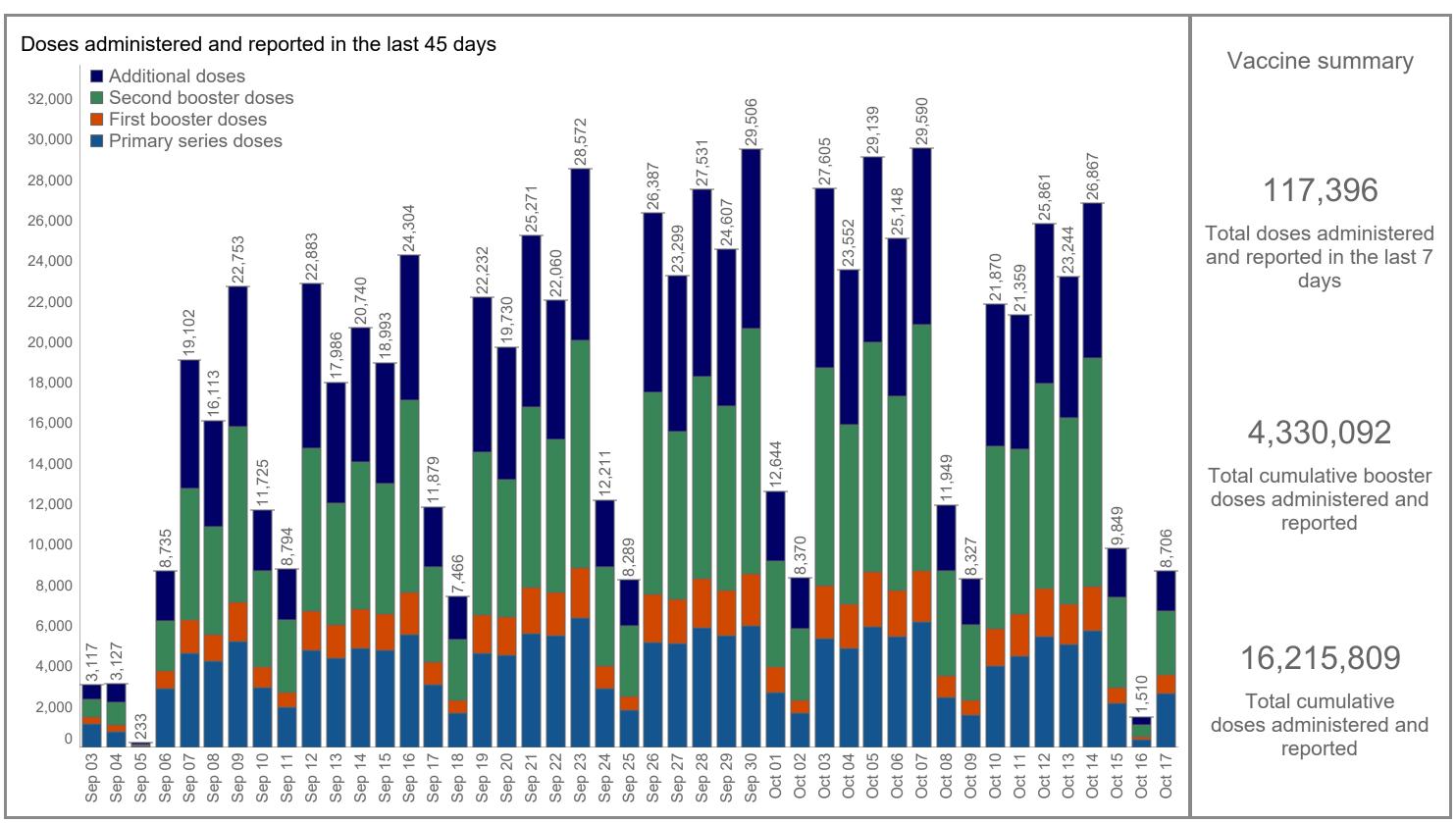
<sup>\*\*</sup>An individual is counted as fully vaccinated if they have received the number of doses required to complete the primary series for their age and all of these doses have been reported to MIIS. Pfizer recipients under 5 years of age require three doses of vaccine; all other Pfizer recipients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

<sup>\*\*\*</sup>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 <a href="https://www.mass.gov/info-details/covid-19-booster-frequently-asked-questions">https://www.mass.gov/info-details/covid-19-booster-frequently-asked-questions</a> for details on which formulation of vaccine is recommended at which intervals.

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

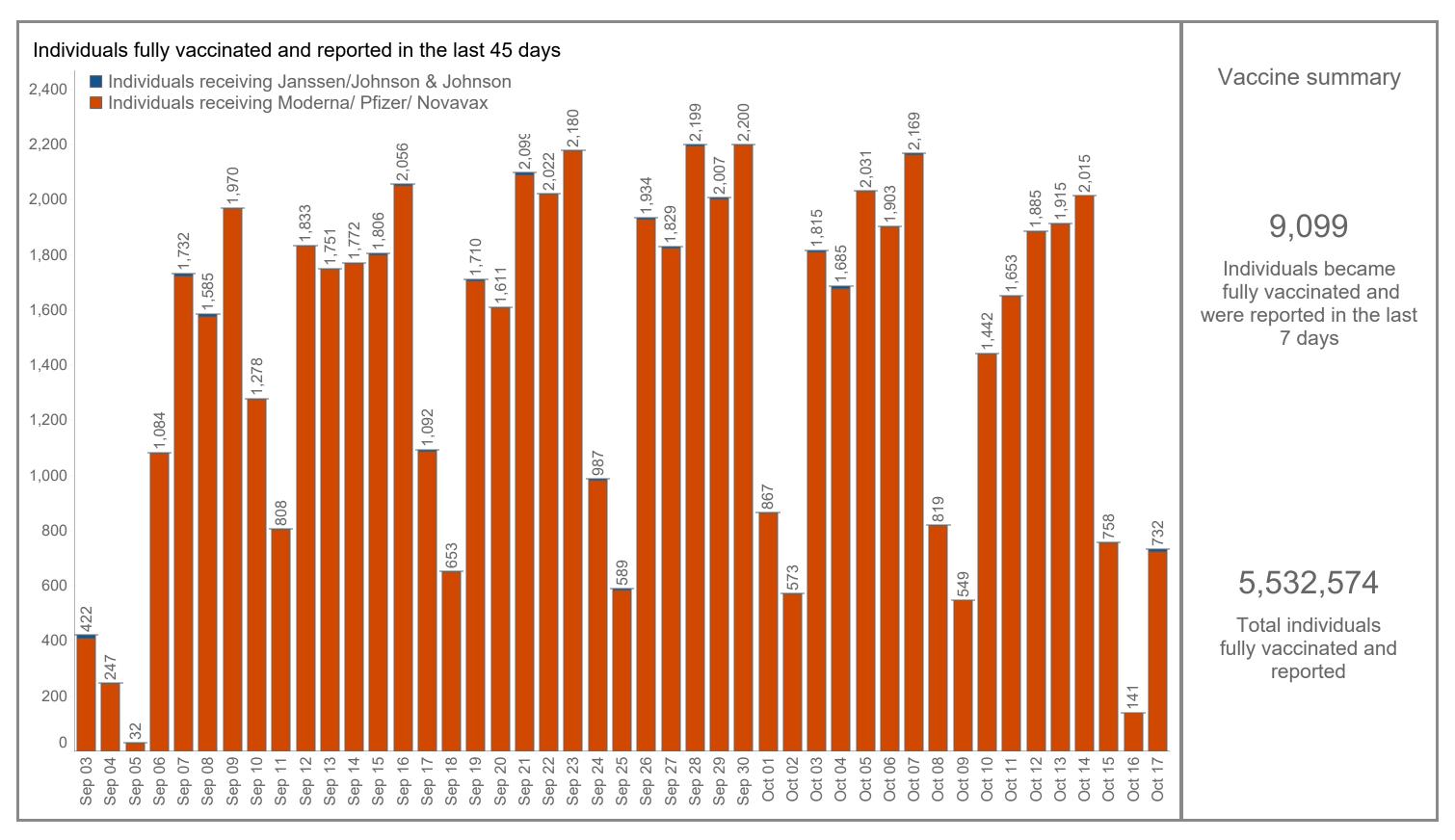
## **COVID-19 Vaccine Doses Administered**

Data as of October 17, 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.

Data as of October 17, 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.

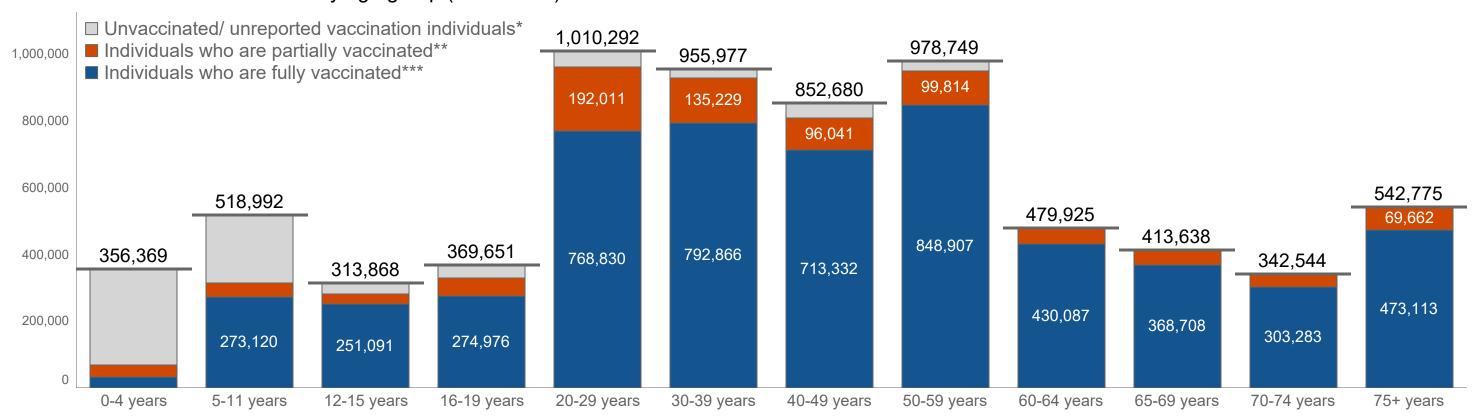
Janssen/Johnson & Johnson recipients require one dose of vaccine.

## Individuals with at Least One Dose

Data as of October 17, 2022

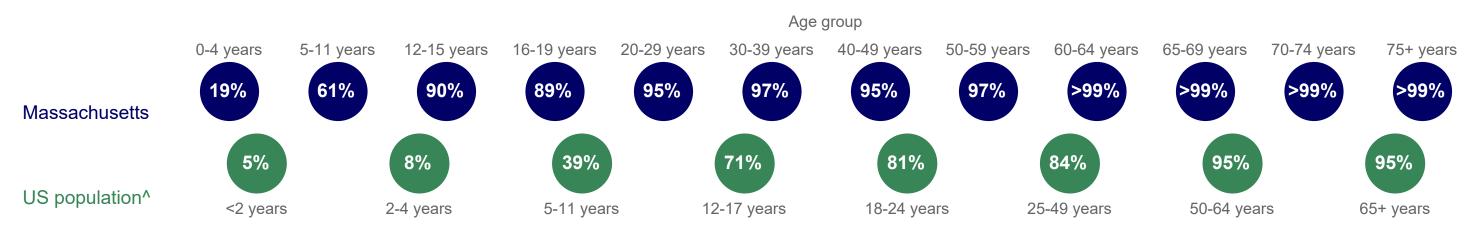
In Massachusetts, 91% of the population has received at least one dose, compared with 80% of the US population.

#### Vaccination status of individuals by age group (cumulative)



#### Percent of population with at least one dose

Area Population Estimates for 2011 through 2020, report, Oct 2016.)



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.

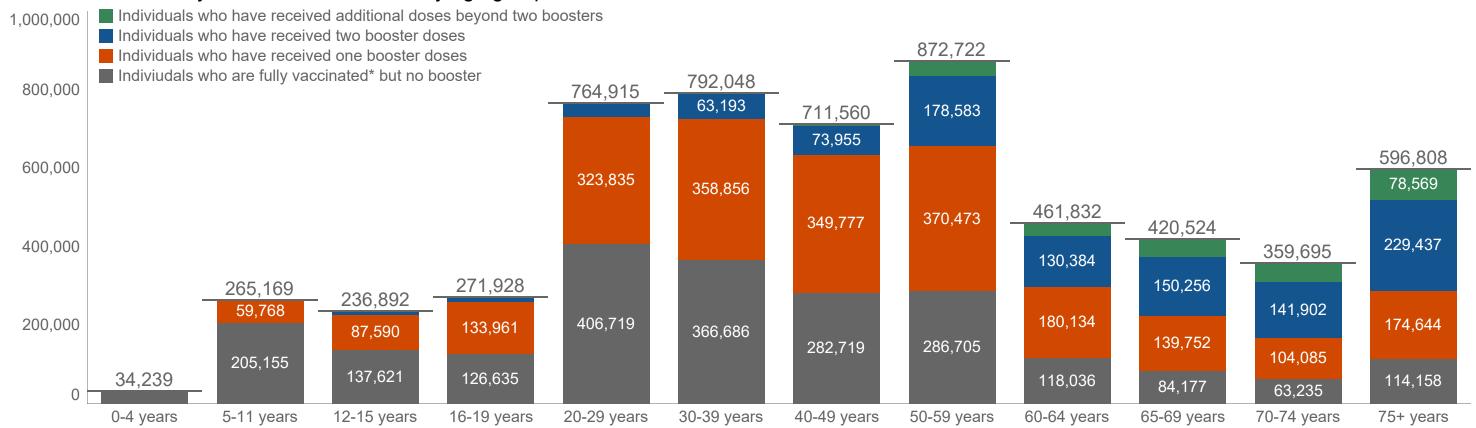
\*Unvaccinated/unreported vaccination individuals: This is the population estimate for the subpopulation minus the number of people who received at least one dose of vaccine. It is important to recall that not being represented in MIIS does not necessarily mean someone has not received vaccine. \*\*Individuals 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;2022-10-12://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

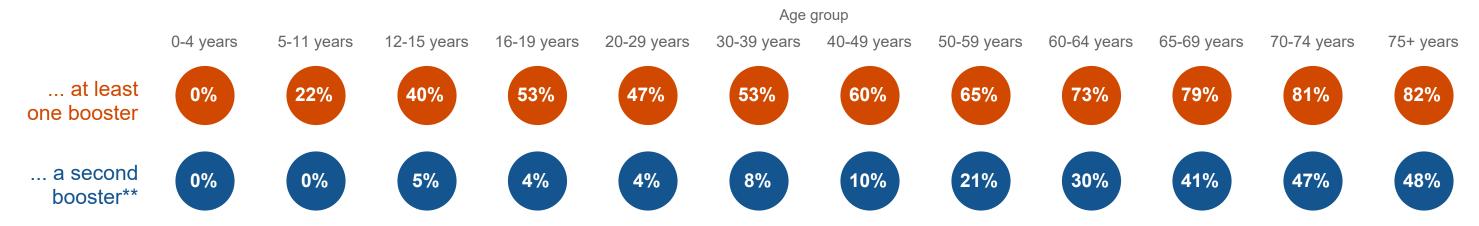
Data as of October 17, 2022

In Massachusetts, 60% of those fully vaccinated have received a booster dose, compared with 49% of the national population that is fully vaccinated.

#### 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;2022-10-12. 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.)

Data as of October 17, 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	79% of 6,644 residents	>95% of 7,637 residents	35% of 12,144 residents	>95% of 53 residents	78% of 198,117 residents	3% of 228,996 Barnstable county residents	80% of 228,996 residents
Berkshire	55% of 153 residents	71% of 1,978 residents	63% of 4,132 residents	62% of 6,619 residents	38% of 5,666 residents	*	75% of 110,470 residents	3% of 129,026 Berkshire county residents	75% of 129,026 residents
Bristol	46% of 1,045 residents	64% of 13,752 residents	76% of 24,506 residents	61% of 53,995 residents	34% of 32,048 residents	>95% of 148 residents	65% of 453,707 residents	3% of 579,200 Bristol county residents	66% of 579,200 residents
Dukes	50% of 219 residents	95% of 181 residents	>95% of 809 residents	>95% of 452 residents	21% of 1,899 residents	*	80% of 17,031 residents	8% of 20,600 Dukes county residents	86% of 20,600 residents
Essex	47% of 808 residents	75% of 29,651 residents	79% of 27,604 residents	58% of 181,759 residents	64% of 26,257 residents	>95% of 155 residents	<b>79%</b> of 543,595 residents	3% of 809,829 Essex county residents	77% of 809,829 residents
Franklin	55% of 122 residents	81% of 1,215 residents	66% of 985 residents	55% of 3,329 residents	33% of 3,207 residents	*	75% of 62,163 residents	3% of 71,029 Franklin county residents	75% of 71,029 residents
Hampden	59% of 646 residents	70% of 12,176 residents	59% of 36,442 residents	50% of 120,694 residents	51% of 15,087 residents	>95% of 165 residents	70% of 280,615 residents	4% of 465,825 Hampden county residents	68% of 465,825 residents
Hampshire	52% of 199 residents	50% of 10,709 residents	52% of 4,398 residents	48% of 11,248 residents	40% of 6,930 residents	>95% of 43 residents	<b>74%</b> of 128,781 residents	3% of 162,308 Hampshire county residents	<b>72%</b> of 162,308 residents

<sup>\*</sup> Vaccination figures with fewer than 30 people are suppressed for privacy.

<sup>\*\* &</sup>quot;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. 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.

Data as of October 17, 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	66% of 1,511 residents	76% of 212,123 residents	72% of 84,324 residents	75% of 141,738 residents	80% of 81,692 residents	>95% of 380 residents	80% of 1,110,235 residents	4% of 1,632,002 Middlesex county residents	82% of 1,632,002 residents
Nantucket	*	77% of 274 residents	>95% of 1,025 residents	89% of 2,175 residents	26% of 615 residents	*	74% of 10,149 residents	7% of 14,255 Nantucket county residents	83% of 14,255 residents
Norfolk	51% of 736 residents	75% of 88,772 residents	75% of 50,563 residents	70% of 37,460 residents	>95% of 29,540 residents	>95% of 151 residents	78% of 518,759 residents	3% of 725,981 Norfolk county residents	81% of 725,981 residents
Plymouth	35% of 893 residents	67% of 7,962 residents	80% of 48,249 residents	67% of 23,417 residents	44% of 35,840 residents	60% of 220 residents	74% of 414,238 residents	2% of 530,819 Plymouth county residents	<b>74%</b> of 530,819 residents
Suffolk	51% of 1,235 residents	79% of 81,295 residents	76% of 142,086 residents	<b>74%</b> of 177,973 residents	60% of 37,543 residents	>95% of 357 residents	70% of 357,446 residents	4% of 797,936 Suffolk county residents	77% of 797,936 residents
Worcester	46% of 1,183 residents	71% of 46,778 residents	60% of 45,164 residents	67% of 110,448 residents	52% of 37,582 residents	>95% of 145 residents	71% of 620,810 residents	3% of 862,111 Worcester county residents	<b>72%</b> of 862,111 residents
Unknown/ Unspecified**	3% of 9,939 AI/AN residents	3% of 510,096 Asian residents	1% 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	77% of 510,096 residents	74% of 476,930 residents	67% of 878,944 residents	62% of 326,050 residents	>95% of 1,841 residents	77% of 4,826,116 residents	<b>4%</b> of 7,029,917 MA residents	<b>79%</b> of 7,029,917 residents

<sup>\*</sup> Vaccination figures with fewer than 30 people are suppressed for privacy.

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Data as of October 17, 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
Barnstable	4%	42%	73%	81%	72%	84%	80%	82%	88%	88%	91%	>95%	80%
	of 8,117	of 12,225	of 7,999	of 8,444	of 22,109	of 20,313	of 21,363	of 34,083	of 21,351	of 21,806	of 19,831	of 31,352	of 228,996
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Berkshire	5%	54%	73%	68%	65%	79%	78%	80%	87%	89%	95%	89%	75%
	of 5,429	of 8,296	of 5,380	of 6,484	of 15,369	of 13,757	of 13,736	of 19,125	of 10,525	of 9,518	of 8,017	of 13,390	of 129,026
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Bristol	4%	30%	61%	66%	59%	66%	70%	77%	86%	91%	93%	86%	66%
	of 30,091	of 45,540	of 27,527	of 29,121	of 74,766	of 73,958	of 73,224	of 85,414	of 39,125	of 31,728	of 25,741	of 42,964	of 579,200
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Dukes	7%	57%	>95%	>95%	95%	>95%	94%	84%	84%	80%	87%	90%	86%
	of 882	of 1,267	of 785	of 653	of 2,070	of 2,359	of 2,432	of 3,147	of 1,702	of 1,801	of 1,574	of 1,929	of 20,600
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Essex	7%	50%	79%	78%	71%	81%	81%	85%	92%	95%	>95%	92%	77%
	of 44,345	of 64,079	of 38,871	of 41,764	of 102,396	of 101,407	of 99,259	of 118,474	of 56,226	of 46,143	of 36,776	of 60,087	of 809,829
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Franklin	7%	45%	71%	88%	69%	76%	74%	79%	84%	91%	>95%	91%	75%
	of 3,011	of 4,819	of 2,910	of 2,764	of 7,572	of 8,732	of 8,315	of 10,333	of 6,159	of 5,875	of 4,581	of 5,954	of 71,029
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Hampden	2%	34%	63%	62%	58%	69%	75%	80%	87%	93%	>95%	89%	68%
	of 24,918	of 38,042	of 23,128	of 26,022	of 65,472	of 59,405	of 53,671	of 62,992	of 31,187	of 25,936	of 20,519	of 34,534	of 465,825
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Hampshire	14%	64%	81%	37%	46%	82%	84%	86%	94%	>95%	>95%	>95%	72%
	of 5,278	of 8,930	of 5,934	of 16,019	of 33,434	of 16,604	of 16,047	of 20,206	of 10,664	of 9,895	of 7,914	of 11,383	of 162,308
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents

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Data as of October 17, 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	17% of 83,667 residents	68% of 121,734 residents	91% of 73,083 residents	79% of 82,715 residents	77% of 242,436 residents	85% of 242,118 residents	88% of 206,995 residents	89% of 222,367 residents	94% of 100,804 residents	>95% of 81,083 residents	>95% of 64,640 residents	94% of 110,359 residents	82% of 1,632,002 residents
Nantucket	*	46% of 1,012 residents	87% of 562 residents	>95% of 507 residents	>95% of 1,722 residents	93% of 2,214 residents	92% of 2,184 residents	92% of 2,082 residents	87% of 945 residents	91% of 764 residents	>95% of 562 residents	79% of 847 residents	83% of 14,255 residents
Norfolk	15% of 37,515 residents	64% of 56,630 residents	85% of 35,180 residents	84% of 36,428 residents	78% of 90,767 residents	84% of 95,497 residents	82% of 93,243 residents	88% of 105,961 residents	93% of 48,444 residents	>95% of 39,164 residents	>95% of 31,323 residents	89% of 55,829 residents	81% of 725,981 residents
Plymouth	6% of 27,514 residents	42% of 42,518 residents	71% of 26,597 residents	78% of 27,177 residents	69% of 61,517 residents	76% of 61,280 residents	77% of 65,393 residents	83% of 81,528 residents	89% of 38,334 residents	94% of 31,886 residents	>95% of 26,374 residents	94% of 40,701 residents	<b>74%</b> of 530,819 residents
Suffolk	9% of 40,171 residents	52% of 47,420 residents	86% of 26,325 residents	58% of 46,527 residents	78% of 176,345 residents	81% of 145,860 residents	87% of 88,768 residents	<b>87%</b> of 87,549 residents	88% of 40,123 residents	91% of 32,272 residents	94% of 24,580 residents	86% of 41,995 residents	77% of 797,936 residents
Worcester	6% of 45,082 residents	44% of 68,600 residents	72% of 42,016 residents	71% of 46,659 residents	66% of 114,476 residents	74% of 111,763 residents	76% of 108,360 residents	81% of 126,900 residents	88% of 58,820 residents	93% of 46,033 residents	>95% of 35,450 residents	88% of 57,952 residents	72% 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	2% of 852,990 MA residents 40-49 Years	2% of 980,162 MA residents 50-59 Years	2% 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	10% of 356,875 residents	<b>52%</b> of 521,112 residents	79% of 316,296 residents	74% of 371,285 residents	76% of 1,010,451 residents	83% 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	93% of 509,277 residents	79% of 7,029,917 residents

<sup>\*</sup> Vaccination figures with fewer than 30 people are suppressed for privacy.

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Data as of October 17, 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	54% of 526 residents	58% of 2,261 residents	37% of 5,268 residents	47% of 8,005 residents	70% of 4,249 residents	39% of 99 residents	67% of 154,518 residents	1% of 182,248 Barnstable county residents	64% of 182,248 residents
Berkshire	36% of 84 residents	53% of 1,403 residents	45% of 2,599 residents	45% of 4,120 residents	63% of 2,134 residents	*	64% of 83,344 residents	1% of 97,169 Berkshire county residents	61% of 97,169 residents
Bristol	31% of 484 residents	53% of 8,818 residents	43% of 18,555 residents	40% of 33,179 residents	62% of 10,961 residents	35% of 175 residents	<b>57%</b> of 296,340 residents	1% of 384,177 Bristol county residents	<b>54%</b> of 384,177 residents
Dukes	56% of 110 residents	65% of 171 residents	44% of 864 residents	41% of 928 residents	65% of 397 residents	*	67% of 13,543 residents	2% of 17,746 Dukes county residents	60% of 17,746 residents
Essex	36% of 376 residents	61% of 22,141 residents	46% of 21,696 residents	<b>42%</b> of 105,194 residents	67% of 16,784 residents	46% of 205 residents	65% of 429,350 residents	1% of 621,149 Essex county residents	58% of 621,149 residents
Franklin	*	57% of 980 residents	48% of 645 residents	50% of 1,836 residents	72% of 1,048 residents	*	67% of 46,874 residents	1% of 53,480 Franklin county residents	65% of 53,480 residents
Hampden	36% of 380 residents	54% of 8,583 residents	48% of 21,605 residents	41% of 60,677 residents	62% of 7,708 residents	41% of 191 residents	61% of 197,037 residents	2% of 315,599 Hampden county residents	54% of 315,599 residents
Hampshire	56% of 103 residents	60% of 5,338 residents	55% of 2,283 residents	55% of 5,441 residents	75% of 2,758 residents	*	71% of 95,639 residents	1% of 116,598 Hampshire county residents	68% of 116,598 residents

<sup>\*</sup> Vaccination figures with fewer than 30 people are suppressed for privacy.

<sup>\*\* &</sup>quot;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 were created with small, compounded rounding and records with unknown demographic information.

Data as of October 17, 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	40% of 998 residents	64% of 160,353 residents	<b>52%</b> of 60,923 residents	46% of 105,739 residents	74% of 65,291 residents	49% of 503 residents	69% of 888,545 residents	1% of 1,341,692 Middlesex county residents	65% of 1,341,692 residents
Nantucket	*	57% of 210 residents	35% of 981 residents	27% of 1,926 residents	64% of 162 residents	*	62% of 7,552 residents	1% of 11,788 Nantucket county residents	50% of 11,788 residents
Norfolk	40% of 377 residents	67% of 66,609 residents	53% of 37,908 residents	52% of 26,308 residents	73% of 30,357 residents	50% of 230 residents	68% of 406,677 residents	1% of 587,133 Norfolk county residents	65% of 587,133 residents
Plymouth	36% of 309 residents	62% of 5,333 residents	43% of 38,667 residents	46% of 15,650 residents	64% of 15,606 residents	42% of 132 residents	63% of 305,375 residents	1% of 394,302 Plymouth county residents	59% of 394,302 residents
Suffolk	42% of 629 residents	62% of 64,533 residents	53% of 108,558 residents	47% of 131,970 residents	71% of 22,712 residents	49% of 606 residents	66% of 249,720 residents	1% of 610,510 Suffolk county residents	57% of 610,510 residents
Worcester	33% of 548 residents	61% of 33,173 residents	<b>46%</b> of 27,195 residents	42% of 74,000 residents	67% of 19,606 residents	47% of 219 residents	63% of 442,385 residents	1% of 618,922 Worcester county residents	58% of 618,922 residents
Unknown/ Unspecified**	1% of 5,269 AI/AN residents	2% of 393,100 Asian residents	1% of 354,888 Black residents	1% of 586,475 Hispanic residents	1% of 203,179 Multi-race residents	1% of 2,588 NH/PI residents	1% of 3,738,833 White residents	0% of 5,532,574 MA residents	1% of 5,532,574 residents
Massachusetts	39% of 5,269 residents	62% of 393,100 residents	49% of 354,888 residents	44% of 586,475 residents	70% of 203,179 residents	45% of 2,588 residents	65% of 3,738,833 residents	1% of 5,532,574 MA residents	60% of 5,532,574 residents

<sup>\*</sup> Vaccination figures with fewer than 30 people are suppressed for privacy.

<sup>\*\* &</sup>quot;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 were created with small, compounded rounding and records with unknown demographic information.

Data as of October 17, 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
Barnstable	16%	32%	50%	42%	45%	53%	61%	72%	79%	83%	85%	64%
	of 5,150	of 5,863	of 6,835	of 16,012	of 17,003	of 17,153	of 27,867	of 18,846	of 19,282	of 18,060	of 29,825	of 182,248
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Berkshire	16%	38%	52%	43%	49%	58%	64%	73%	80%	80%	83%	61%
	of 4,472	of 3,946	of 4,409	of 9,929	of 10,858	of 10,692	of 15,293	of 9,209	of 8,492	of 7,608	of 11,971	of 97,169
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Bristol	14% of 13,480 residents	28% of 16,840 residents	44% of 19,205 residents	39% of 44,406 residents	41% of 49,008 residents	49% of 51,152 residents	<b>57%</b> of 65,661 residents	67% of 33,601 residents	74% of 28,906 residents	76% of 23,847 residents	78% of 36,981 residents	54% of 384,177 residents
Dukes	11%	42%	53%	35%	44%	55%	66%	77%	82%	86%	93%	60%
	of 727	of 764	of 712	of 1,963	of 2,645	of 2,280	of 2,641	of 1,424	of 1,432	of 1,366	of 1,730	of 17,746
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Essex	18% of 32,243 residents	37% of 30,820 residents	52% of 32,670 residents	44% of 72,861 residents	49% of 82,130 residents	<b>57%</b> of 80,879 residents	64% of 100,769 residents	73% of 51,627 residents	<b>79%</b> of 43,679 residents	80% of 35,183 residents	82% of 55,147 residents	58% of 621,149 residents
Franklin	22%	44%	51%	47%	54%	63%	67%	74%	80%	87%	84%	65%
	of 2,172	of 2,066	of 2,423	of 5,233	of 6,597	of 6,173	of 8,173	of 5,166	of 5,342	of 4,511	of 5,409	of 53,480
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Hampden	12% of 12,974 residents	28% of 14,612 residents	42% of 16,037 residents	38% of 38,099 residents	42% of 40,963 residents	50% of 40,040 residents	59% of 50,402 residents	69% of 27,283 residents	76% of 24,152 residents	79% of 19,754 residents	79% of 30,732 residents	<b>54%</b> of 315,599 residents
Hampshire	34%	55%	57%	53%	61%	68%	72%	78%	84%	87%	88%	68%
	of 5,693	of 4,832	of 5,930	of 15,354	of 13,666	of 13,411	of 17,347	of 10,063	of 9,811	of 8,501	of 11,258	of 116,598
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents

<sup>\*</sup> Vaccination figures with less than 30 people are suppressed for privacy.

<sup>\*\* &</sup>quot;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.

Data as of October 17, 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	29%	50%	61%	53%	61%	68%	72%	78%	83%	84%	85%	65%
	of 82,460	of 66,205	of 65,606	of 186,602	of 205,938	of 181,601	of 197,153	of 94,730	of 79,075	of 64,769	of 103,457	of 1,341,692
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Nantucket	11%	31%	43%	26%	37%	51%	60%	71%	79%	81%	83%	50%
	of 461	of 487	of 490	of 1,644	of 2,059	of 2,000	of 1,905	of 826	of 698	of 536	of 669	of 11,788
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Norfolk	27% of 36,353 residents	47% of 30,007 residents	63% of 30,715 residents	<b>54%</b> of 71,220 residents	60% of 80,398 residents	68% of 76,878 residents	71% of 92,895 residents	77% of 45,150 residents	83% of 37,736 residents	84% of 30,404 residents	85% of 49,835 residents	65% of 587,133 residents
Plymouth	14%	32%	51%	46%	48%	56%	63%	72%	79%	82%	83%	59%
	of 18,010	of 18,768	of 21,275	of 42,648	of 46,652	of 50,145	of 67,297	of 34,257	of 30,014	of 25,503	of 38,184	of 394,302
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Suffolk	22%	35%	44%	45%	57%	60%	66%	73%	79%	81%	83%	57%
	of 24,706	of 22,542	of 26,850	of 137,097	of 118,514	of 77,024	of 76,468	of 35,196	of 29,443	of 23,203	of 35,907	of 610,510
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents
Worcester	17% of 30,137 residents	37% of 30,394 residents	<b>52%</b> of 33,186 residents	45% of 75,799 residents	49% of 82,823 residents	57% of 82,622 residents	64% of 102,211 residents	73% of 51,600 residents	80% of 42,653 residents	81% of 33,953 residents	83% of 51,043 residents	58% of 618,922 residents
Unknown/ Unspecified**	0% of 273,120 MA residents 5-11 Years	0% of 251,091 MA residents 12-15 Years	1% of 274,976 MA residents 16-19 Years	3% of 768,830 MA residents 20-29 Years	2% of 792,866 MA residents 30-39 Years	1% of 713,332 MA residents 40-49 Years	1% of 848,907 MA residents 50-59 Years	1% of 430,087 MA residents 60-64 Years	1% of 368,708 MA residents 65-69 Years	1% of 303,283 MA residents 70-74 Years	1% of 473,113 MA residents 75+ Years	1% of 5,532,574 residents
Massachusetts	22%	40%	53%	47%	53%	60%	65%	73%	79%	81%	82%	60%
	of 273,120	of 251,091	of 274,976	of 768,830	of 792,866	of 713,332	of 848,907	of 430,087	of 368,708	of 303,283	of 473,113	of 5,532,574
	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents	residents

<sup>\*</sup> Vaccination figures with less than 30 people are suppressed for privacy.

<sup>\*\* &</sup>quot;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 severed 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 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, <a href="https://www.mass.gov/info-details/covid-19-booster-frequently-asked-questions">https://www.mass.gov/info-details/covid-19-booster-frequently-asked-questions</a> 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: <a href="https://www.mass.gov/info-details/covid-19-vaccinations-for-individuals-with-certain-medical-conditions">https://www.mass.gov/info-details/covid-19-vaccinations-for-individuals-with-certain-medical-conditions</a>

**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.