

ECDC MONITORING

COVID-19 vaccination coverage in the EU/EEA during the 2023–24 season campaigns

1 September 2023 to 31 July 2024

Key facts

- In September 2023, ECDC updated its COVID-19 vaccination coverage data analysis process, in view of the evolving timing and objective of the 2023–24 season vaccination campaigns. This report presents a description of COVID-19 vaccine coverage in the European Union/European Economic Area (EU/EEA) between 1 September 2023 and 31 July 2024.
- During the reporting period, 28/30 EU/EEA countries reported data on COVID-19 vaccination coverage for at least one target group (people aged 60 years and above, people aged 80 years and above, healthcare workers, individuals with chronic conditions, or pregnant women).
- During this period, approximately 28.7 million people aged 60 years and above received one COVID-19 vaccine dose. Approximately 7.3 million people aged 80 years and above received one COVID-19 vaccine dose.
- The median COVID-19 vaccination coverage among people aged 60 years and above was 14.0% (range: 0.02–66.1%), with high variation among countries. For people aged 80 years and above, the median coverage was 21.5% (range: 0.03–93.9%), with high variation among countries.
- Among the 28 reporting countries, six countries reported a vaccination coverage $\geq 50\%$ for the age group 60 years and above, while nine countries reported a vaccination coverage $\geq 50\%$ for the age group 80 years and above.
- Most of the approximately 31.3 million COVID-19 vaccine doses administered in the EU/EEA during this period in the overall population were the Comirnaty Omicron XBB.1.5 (Pfizer BioNTech) vaccine (around 24 million doses; 76.7% of the total doses administered).

Introduction

In September 2023, ECDC updated its COVID-19 vaccination coverage data analysis process, in view of the evolving timing and objective of the vaccination campaigns in the 2023–24 season. This report presents a description of COVID-19 vaccine coverage in the EU/EEA between 1 September 2023 and 31 July 2024.

In this report, COVID-19 vaccine coverage is defined as the percentage of the target population group that has received one dose of a COVID-19 vaccine during the reporting period. It represents the number of individuals in the total target group who received one vaccine dose during the period under analysis.

Since the start of COVID-19 vaccination campaigns in December 2020, ECDC has regularly collected and presented data on COVID-19 vaccine uptake in the EU/EEA through a [dynamic dashboard](#) and [open data files](#). Since September 2023, ECDC has updated its COVID-19 vaccination coverage data analysis process and the related reports.

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Methods

From 1 September 2023 to 31 July 2024, data were collected to describe vaccination coverage in the EU/EEA during the 2023–24 season. In particular, data were collected on the vaccine doses administered in population groups targeted by national vaccination programmes, regardless of an individual's previous immunisation status.

The methodology used for calculation was the number of doses administered per target group (numerator), divided by the number of individuals in the target group (denominator) multiplied by 100. Denominators for age-specific target groups were obtained from Eurostat, as of 2022 (extracted in November 2023). Denominators used for the groups healthcare workers, individuals with chronic illness, and pregnant women were reported to ECDC (via The European Surveillance System, TESSy) by each country, when available.

Results

During the reporting period, 28/30 EU/EEA countries reported on COVID-19 vaccination coverage for at least one target group (people aged 60 years and above, people aged 80 years and above, healthcare workers, individuals with chronic conditions, pregnant women). However, data completeness for different target groups differed substantially across countries.

For the age group 60 years and above, approximately 28.7 million people received a dose of COVID-19 vaccine. The median coverage among people in this age group was 14.0% (range: 0.02–66.1%), with high variation across countries (Table 1 and Figure 1). Among the 28 countries reporting data for this target group, none reported a coverage $\geq 80\%$.

For the age group 80 years and above, approximately 7.3 million people received a dose of COVID-19 vaccine. The median coverage among people in this age group was 21.5% (range: 0.03–93.9%), with high variation across countries (Table 1 and Figure 2). Among the 27 countries reporting data for this target group, three countries reported a coverage $\geq 80\%$ (Ireland; 80.3%, Denmark; 88.6% and Sweden; 93.9%).

Table 1. COVID-19 vaccine coverage in target age groups, 28 EU/EEA countries, 1 September 2023 to 31 July 2024

Age group	Median coverage in the EU/EEA ^a (range)	Number of countries with $\geq 80\%$ coverage	Number of countries with $\geq 50\%$ coverage	Number of countries with $\geq 30\%$ coverage
60+ years	14.0% (0.02–66.1%)	0/28	6/28	10/28
80+ years	21.5% (0.03–93.9%)	3/27	9/27	12/27

^a Values are the median across all the reporting countries for one dose received. The reporting period may be different for some countries, as indicated in Table 2.

Figure 1. COVID-19 vaccine coverage among people aged 60 years and above, 28 EU/EEA countries, 1 September 2023 to 31 July 2024

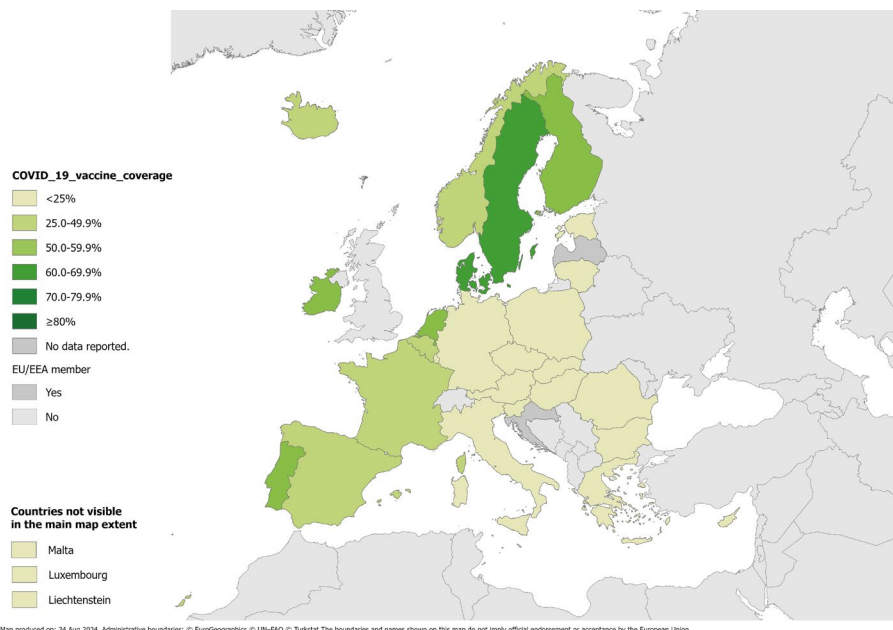
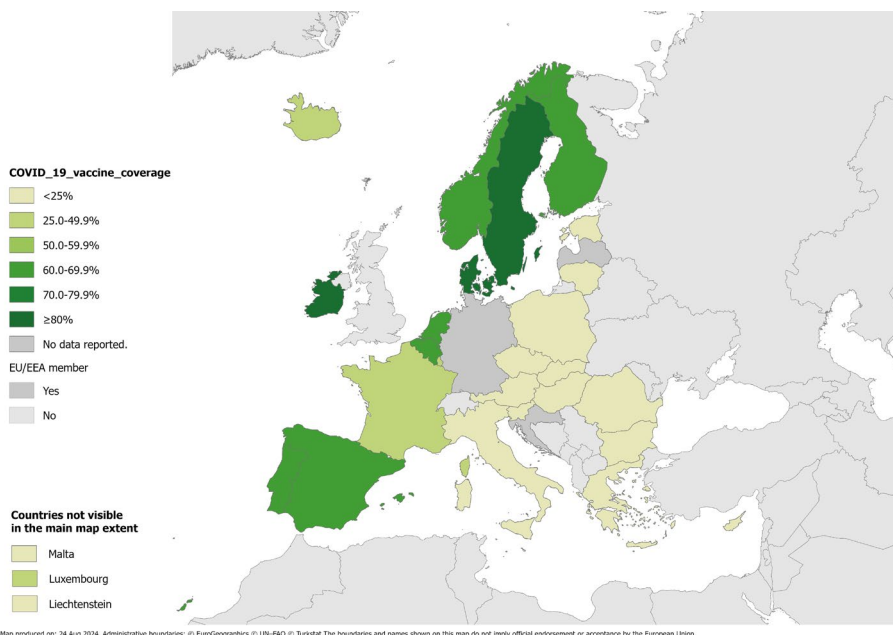


Figure 2. COVID-19 vaccine coverage among people aged 80 years and above, 27 EU/EEA countries, 1 September 2023 to 31 July 2024



Among the 28 countries reporting data, seven countries reported data disaggregated by at least one of the following target groups: healthcare workers, individuals with chronic conditions, or pregnant women (Table 2). Healthcare workers were defined as those who work in healthcare settings who may come into contact with patients, including administrative staff and home care staff. Individuals with chronic conditions included any individual aged between 18–59 years with at least one underlying medical condition and a recommendation for COVID-19 vaccination. Pregnant women were defined as any pregnant individual during any trimester.

Among the seven countries that reported disaggregated data for healthcare workers, the highest vaccination coverage was observed in Belgium (20.7%). Two countries reported disaggregated data for individuals with chronic conditions, with the highest coverage observed in Spain (6.7%). Two countries reported disaggregated data for pregnant women, with the highest coverage observed in Ireland (19.6%).

Table 2. COVID-19 vaccine coverage by target group, 28 EU/EEA countries, 1 September 2023 to 31 July 2024

Country	Aged 60–69 years ^a	Aged 70–79 years	Aged 80 years and above	Healthcare workers	Individuals with chronic conditions	Pregnant women	Period reported
Austria ^c	14.6%	20.9%	24.9%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Belgium ^a	35.6%	55.9%	64.6%	20.7%	NDR	NDR	Sep' 23 – Jul' 24
Bulgaria	1.4%	2.9%	2.6%	0.6%	NDR	NDR	Sep' 23 – Jul' 24
Cyprus	6.0%	16.5%	21.5%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Czechia	7.0%	13.9%	16.5%	7.1%	2%	NDR	Sep' 23 – Jul' 24
Denmark ^a	43.8%	80.7%	88.6%	NDR	NDR	NDR	Sep' 23 – Jun' 24
Estonia	8.9%	15.0%	14.4%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Finland ^a	32.9%	64.2%	64.1%	NDR	NDR	NDR	Sep' 23 – Jul' 24
France ^a	15.8%	32.4%	37.5%	12.2%	NDR	NDR	Sep' 23 – Mar' 24
Germany	NDR	NDR	NDR	NDR	NDR	NDR	Sep' 23 – Jun' 24
Greece	7.1%	11.7%	8.9%	4.4%	NDR	NDR	Sep' 23 – Jul' 24
Hungary	0.5%	1.1%	1.3%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Iceland	26.6%	44.4%	46.6%	NDR	NDR	NDR	Sep' 23 – Mar' 24
Ireland	38.7%	63.7%	80.3%	15.2%	NDR	19.6%	Sep' 23 – Jul' 24
Italy	6.0%	11.7%	15.8%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Liechtenstein ^a	3.4%	6.9%	11.5%	NDR	NDR	NDR	Sep' 23 – Jun' 24
Lithuania ^a	3.4%	6.8%	7.6%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Luxembourg	14.6%	26.8%	37.1%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Malta	0.8%	0.5%	1.2%	NDR	NDR	NDR	Sep' 23 – Dec' 23
Netherlands ^b	38.8%	63.4%	67.4%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Norway ^a	30.3%	61.3%	61.9%	NDR	NDR	NDR	Sep' 23 – Jun' 24
Poland	4.0%	8.4%	5.7%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Portugal	43.5%	59.6%	63.9%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Romania	0.02%	0.02%	0.03%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Slovakia ^a	1.1%	2.0%	1.6%	NDR	NDR	NDR	Sep' 23 – Dec' 23
Slovenia	2.8%	6.4%	8.2%	NDR	NDR	NDR	Sep' 23 – Jul' 24
Spain	32.7%	52.4%	64.4%	13.9%	6.7%	7.9%	Sep' 23 – Jul' 24
Sweden ^a	39.5%	72.7%	93.9% ^c	NDR	NDR	NDR	Sep' 23 – Jul' 24

NDR: no data reported. Croatia and Latvia are not listed in the table as no data were reported to ECDC during the analysis period.

^a In some of the reporting countries, the COVID-19 vaccine was only recommended in people aged 65 years and above (Belgium, Denmark, Finland, France, Latvia, Lithuania, Liechtenstein, Norway, Slovakia, Slovenia, Sweden, and possibly others). Therefore, the vaccination coverage in this age group (60–69 years) needs to be interpreted with caution.

^b In the Netherlands, each individual receiving a COVID-19 dose must provide informed consent to the healthcare provider in order for their non-anonymous vaccination data to be shared with the national authorities. Therefore, data for this country need to be interpreted with caution, as they could underestimate the actual number of doses administered nationwide.

^c Data reported to ECDC through tools other than TESSy.

Across the 28 reporting countries, approximately 31.3 million COVID-19 vaccine doses have been administered during the reporting period among the total population (Table 3). Around 24 million doses (76.7% of the total doses administered) were the Comirnaty Omicron XBB.1.5 (Pfizer BioNTech) vaccine. Around 687 529 doses (2.2% of the total doses administered) were the Nuvaxovid XBB.1.5 (Novavax) vaccine. Approximately 1 254 576 doses (4.0% of the total doses administered) were the Spikevax XBB.1.5 (Moderna) vaccine and around 589 doses (<0.1% of the total doses administered) were the Bimervax (Hipra) vaccine. Approximately 270 002 doses (0.9% of the total doses administered) were reported as 'other vaccine product'. The remaining administered doses (approximately 5.1 million doses, representing the 16.2% of the total doses administered) were reported as 'unknown vaccine product'.

Table 3. COVID-19 doses administered to people aged 18 years and above, by vaccine product, 28 EU/EEA countries, 1 September 2023 to 31 July 2024

Vaccine product (manufacturer – product name)	Number of doses administered	% of the total number of doses administered
Hipra – Bimervax	589	<0.1%
Pfizer BioNTech – Comirnaty Omicron XBB.1.5	24 012 373	76.7%
Moderna – Spikevax XBB.1.5	1 254 576	4.0%
Novavax – Nuvaxovid XBB.1.5	687 529	2.2%
Other vaccine products ^a	270 002	0.9%
Unknown vaccine product	5 061 961	16.2%
All doses	31 287 030	NA

NA: not applicable.

^a Includes any other vaccine products targeting COVID-19 that were administered in the EU/EEA during the period under analysis.

Limitations

These results must be interpreted with caution, including making comparisons across countries or analysis of any indicator aiming to describe the coverage in the EU/EEA as a whole. All possible factors should be considered, including data completeness, quality, data sources, and point in time in which the data is collected.

Resources

ECDC has also created the following resources on this topic:

- [European Respiratory Virus Surveillance Summary dashboard](#): Overview of respiratory virus epidemiology in the EU/EEA through an interactive dashboard of selected indicators.
- [ECDC vaccine tracker](#): Historic data of selected indicators through an interactive dashboard covering week 50, 2020 to week 39, 2023.
- [ECDC open data files on COVID-19 vaccination in the EU/EEA](#): Downloadable files with all historic row data available, covering week 50, 2020 to week 39, 2023. These files are intended for external users that are competent in data analysis.