

Subject: Vaccination coverage by priority groups

Date: 23 November 2022

Background

The roll-out of the coronavirus vaccine in Jersey began in December 2020 and is aligned to the vaccination programme roll-out in the UK following the advice of the Joint Committee on Vaccination and Immunisation (JCVI). The local vaccine programme has followed the JCVI advised priority groups or tiers to prioritise when individuals in our population are able to access a vaccination. Reporting on the coverage of vaccinations by priority groups has been a challenge, and this document sets out the context and challenges of reporting by priority group in Jersey. Total number of vaccines delivered, and coverage by age groups are detailed in Table 1 and Table 2. The vaccine types administered are detailed in Table 3. Table 4 and Table 5 provides estimates of coverage of priority groups, supported by contextual information about the data quality (Table 6).

Note that as of 24th April 2022, new population denominator figures from the 2021 census¹ have been used to calculate vaccine coverage, and we have brought reporting in line with NHS England reporting by removing deceased individuals from coverage estimates. Details can be found here²

Key findings

As at 20 November 2022:

- 23,120 Autumn 2022 boosters have been administered, with 51% of those aged over 50 years having received an autumn booster dose.
- 8,730 Spring 2022 booster have been administered, with 85% of those aged over 75 years having received a fourth dose
- 64,779 third doses have been administered^a, with 91% of those aged over 50 having received a third dose
- 93% of the population aged 18 years and over have received a first dose, 91% have been double vaccinated, and 75% have had a booster dose (third dose)
- 69% of 16-17 year olds have received a first dose, 55% of 12-15 year olds have received a first dose, and 7% of 5-11 year olds have received a first dose

Context

A total of 262,624 doses had been administered by 20 November 2022 (Table 1).

Table 1. Total number of vaccinations administered

Total number of doses	262,624
Total number of first dose vaccinations	84,268
Total number of second dose vaccinations	81,727
Total number of third dose vaccinations	64,779
Total number of fourth dose vaccinations	8,730
Total number of Autumn 2022 booster dose	23,120

Please note that these totals include all doses given regardless of whether individual is now deceased and doses given to Jersey-based individuals who may have received one or more doses elsewhere

¹ <https://www.gov.je/Government/Pages/StatesReports.aspx?ReportID=5545>

² Briefing note on changes to coverage estimates

https://www.gov.je/Health/Coronavirus/pages/coronaviruscases.aspx#tab_vaccinationReporting

Table 2. First, Second, Third, Fourth and Autumn 2022 booster dose vaccinations administered by age groups*.

Age group (years)	Cohort Size*	First Dose		Second Dose		Third Dose		Fourth Dose		Autumn 2022 Booster Dose	
		Number	%	Number	%	Number	%	Number	%	Number	%
80+	5,319	5,405	~100%	5,383	~100%	5,201	98%	4,461	84%	3,869	73%
75-79	3,333	3,779	~100%	3,755	~100%	3,628	~100%	2,861	86%	2,783	83%
70-74	4,790	4,626	97%	4,608	96%	4,416	92%	223	5%	3,367	70%
65-69	5,294	5,426	~100%	5,408	~100%	5,085	96%	164	3%	3,268	62%
60-64	6,707	6,911	~100%	6,859	~100%	6,309	94%	186	3%	3,269	49%
55-59	8,192	8,050	98%	7,996	98%	7,106	87%	162	2%	2,931	36%
50-54	8,445	7,763	92%	7,686	91%	6,587	78%	136	2%	2,140	25%
40-49	15,124	13,569	90%	13,436	89%	10,595	70%	154	1%	757	5%
30-39	13,934	11,786	85%	11,516	83%	8,006	57%	74	1%	387	3%
18-29	13,535	11,289	83%	10,760	79%	6,858	51%	32	<1%	284	2%
16-17	2,118	1,453	69%	1,146	54%	233	11%	2	<1%	19	1%
12-15	4,240	2,335	55%	1,705	40%	33	1%	-	<1%	3	<1%
5-11	7,574	557	7%	259	3%	2	<1%	-	-	-	-
0-4	4,662	-	-	-	<1%	-	-	-	-	-	-
Total	103,267	82,949	80%	80,518	78%	64,059	62%	8,456	8%	23,077	22%

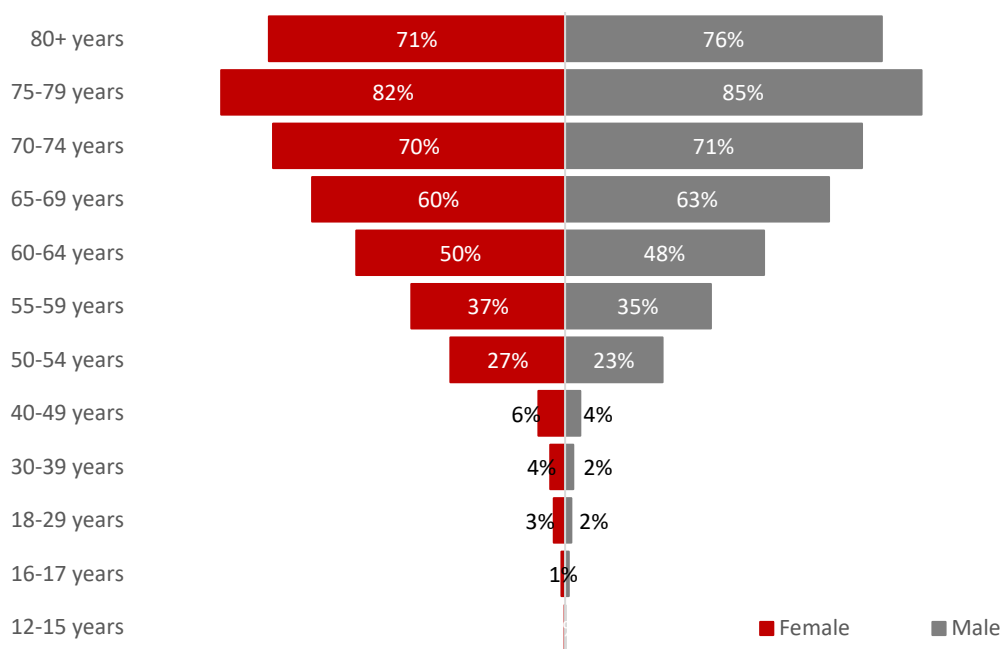
* based on 2021 population figures. Please note that deceased individuals are now removed from coverage estimates to ensure coverage estimates are as accurate as possible for our current population

The vaccine delivery programme has been inviting Islanders based on the JCVI priority groups. There are slight differences in these priority groups in Jersey compared to the JCVI groups (see appendix) and changes to the definitions have occurred since the start of the vaccine programme which need to be considered when considering the Jersey estimates of coverage for each group.

Figure 1 provides further information about the uptake of vaccination by gender in each age group. Coverage in age groups 30-39 and 40-49 currently slightly higher for females than males, perhaps because priority group 1 and 2 included health and social care workers; workforces which have a higher representation of females³. For other age groups, no significant difference in coverage of first dose is found between genders.

³ In the 2011 Jersey Census 7,924 females (65%) worked in the 'Education, Health and other services' industry compared to 4,345 males (35%), source: Statistics Jersey, 2011 Census Data Tables <https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20CensusDataTables%2020120808%20SU.pdf>

Figure 1. Uptake of Autumn Booster 2022 by gender and age



The number of COVID-19 vaccine doses administered in Jersey, by vaccine brand, is displayed in Table 3.

Table 3. First, Second and Third dose vaccinations administered by Manufacturer

Manufacturer	First dose	Second dose	Third dose	Fourth dose	Autumn 2022 booster	Total
Oxford - Astra Zeneca	34,180	34,036	298	71	0	68,595
Pfizer BioNTech	46,769	44,538	61,462	1,731	1	154,606
Moderna	3,203	3,081	3,007	6,873	3	16,224
Spikevax Bivalent	0	0	0	0	15,724	15,724
Comirnaty Bivalent	0	0	0	0	7,390	7,390

** Does not include a small number of doses where the manufacturer records require additional review, or manufacturer for doses received elsewhere where manufacturer was not one of the five manufacturers used in the Jersey programme*

Vaccine delivery

The local vaccination programme to date has been delivered in three ways:

- Through appointments or walk ins at the Vaccination centre at Fort Regent
- Through mobile unit which has visited care homes or individuals who are not able to access the vaccination centre
- Through outreach clinics. These pop-ups are run at specific times in popular and easily accessible locations around the island

For those booking appointments either at the vaccine centre or for a visit from the mobile unit, an online booking system has been used to generate appointments. When an individual attends their appointment, they are marked as present in the booking system and this system will be used to generate their follow up appointment for their second dose when they become eligible.

Separately, details about the vaccination delivery, including the brand and batch number and which arm the recipient has received the vaccine in, are entered into the general practice computer system (EMIS) alongside details of the individual and the reason they are eligible. This is inputted from the paper forms that recipients carry with them between booking in when they arrive at the vaccine centre and seeing the vaccinator. The mobile unit and outreach clinics also use paper forms to record vaccinations that are administered outside of the vaccination centre. Administrators at the centre then enter the information from the paper forms into EMIS; this can sometimes cause a delay in the data being entered in the system, especially if the centre is busy.

Data quality issues

The analysis of the data from EMIS has found a number of data quality issues, which are laid out in Table 4 alongside the actions being taken to address these issues.

Table 4. Issues that have been found within the data being entered into EMIS when an individual has their vaccine:

Issue	Actions being taken to address issue
Missing employment information	Cross-matching to staff lists (where available) to fill in missing information. When staff return for a second dose, missing information will be collected
Missing social security number	Only an issue when matching to other data sources if names plus date of birth are not a direct match
Missing care home information	Cross-matching to lists provided by care homes (if available)
Data accidentally entered for second dose instead of first dose	Lists are fed back to the administration team to correct
Wrong priority group/tier is allocated	If possible, this is corrected based on dates and other available information
Imperfect matching from deaths register	Where possible registered deaths are recorded against vaccine records to ensure deceased individuals are not included in coverage estimates for a given group, but due to data quality issues in either the EMIS vaccine data set or the deaths register a match is not guaranteed in every case.

In order to provide metrics on the proportions of each priority group that have received a vaccine, an understanding of the data quality issues surrounding the population data being used to generate estimates and the actions being taken to remediate these is required. Table 5 sets out these issues which mean that robust information on population coverage for all priority groups is not yet possible to provide.

Table 5. Issues with the underlying population data that is used for measures of coverage and data quality assurance

Issue	Actions being taken to address issue
Information about residents in care homes not provided by all homes	Requests have been made with care homes to provide further information
Information about all staff working in care homes or care agencies not provided by all employers	Requests have been made with care homes and care agencies to provide further information
Care home populations and staff groups are not stable due to movements in and out of these groups	Population denominators will be reviewed and updated when appropriate
Information about all frontline staff working in health sector not provided	Requests to those employers have been made to provide further information
Staff working for more than one agency	Where details about staff have been provided, duplicates have been removed. However, not all information is available to do this so duplicates in the denominator for staff groups remain
Staff who have back-office substantive roles but work as bank staff in frontline roles appear twice	HR systems are not set up with front line roles clearly defined. Regular communication with employers is ongoing to identify eligible staff
2021 Census population figures used for numbers by age groups	Population figures for March 2021 are used, and as such provides overall number estimated to be in population. Other data sources have been used to estimate the size of each individual priority group (i.e. people who are eligible under more than one priority group)
Reciprocal health agreements mean all those on-Island who fall into eligible populations can access a vaccine, even if they don't appear in our population data	As individuals who meet the eligibility criteria are able to receive a vaccine, this may impact on results. This is assumed to be a small number for each priority group.
Data from different sources give contradictory information about staff due to accuracy of data	Due to redeployments and COVID-19 mitigations, staff have been moved but administrative systems have not been updated to reflect this. More recent data is being requested from employers to try and improve accuracy of population data for staff
Information about moderate risk Islanders not held in one information system. Those people who are in receipt of home carers benefit contacted directly by Customer and Local Services (CLS) and information about these	Around 150 Islanders are in receipt of this benefit so the impact of double counting within this group is likely to be small but significant.

individuals not passed to the vaccine team so duplicates may be present	
Data on age of household members of immune suppressed individuals is not held by government, and as such it is difficult to estimate the cohort size of 12-15 year olds living with immune-suppressed (in PG14)	In addition to general government communications to the whole population, communications were targeted to parents/guardians of young people who may be eligible for vaccination. In this way, the cohort of 12-15 year olds who may be living with immune suppressed individuals were encouraged to come forward for vaccination.
Information on immunosuppressed individuals eligible for a Third Primary dose (in distinction to a general third booster dose) is not held in one information system centrally	Teams are working to identify individuals in this cohort, and provide targeted communications. Individuals identifying as being eligible for "Third Primary" are coded as such when arriving for their third dose, to allow the number of third primary doses administered to be tracked.

Weekly vaccination coverage estimates by priority groups

Table 6 shows the estimated coverage of each different priority group for first, second and third doses along with an assessment of the data quality. Each group contains all individuals who are eligible under that population group, therefore the cumulative number of doses is higher than the total number of doses administered, as individuals may be eligible under more than one priority group or tier.

Data Quality in the table has been colour coded using the following criteria:

- Red** when the estimate is based on data that is deemed to be of poor or questionable data quality, either due to the data quality of the vaccine data or due to data quality of the population data
- Amber** for data of moderate quality, with only a small amount of the data being of questionable quality
- Green** when the data quality of the estimate is good

Table 6. Weekly estimate of coverage for priority group, with data quality assessment, as at 20 November 2022⁴

Priority group/tier	Cohort Size	First dose		Second dose		Third dose		Fourth dose		Autumn 2022 booster dose		Data Quality Assessment
		Doses	%	Doses	%	Doses	%	Doses	%	Doses	%	
PG1. Care home residents	1,047 [◇]	1,139 [♣]	~100%	1,131 [♣]	~100%	1,081 [♣]	~100%	888 [♣]	85%	912	87%	
PG1. Carers working in care homes	1,400 [◇]	1,395 [♣]	~100%	1,392 [♣]	99%	1,170 [♣]	84%	23 [♣]	2%	369	26%	
PG2. Front line health & social workers	1,475 ^{◇n}	1,489	~100%	1,472	~100%	1,265	86%	30	2%	441	30%	
PG2. Aged 80 years or over	5,319*	5,405	~100%	5,383	~100%	5,201	98%	4,461	84%	3869	73%	
PG2. Other health and social workers	3,404 ^{◇n}	3,620	~100%	3,576	~100%	3,024	89%	77	2%	953	28%	
PG3. Aged 75 to 79 years	3,333*	3,779	~100%	3,755	~100%	3,628	~100%	2,861	86%	2783	83%	
PG4. Aged 70 to 74 years	4,790*	4,626	97%	4,608	96%	4,416	92%	223	5%	3,367	70%	
PG4. Clinically extremely vulnerable (high risk) 16 to 69 years	2,184 ⁺	2,165	99%	2,105	96%	1,834	84%	427	20%	759	35%	
PG5. Aged 65 to 69 years	5,294*	5,426	~100%	5,408	~100%	5,085	96%	164	3%	3,268	62%	
PG6. Clinically at risk (moderate risk)	9,146 ^{+#}	7,952	87%	7,869	86%	6,826	75%	306	3%	2,582	28%	
PG7. Aged 60 to 64 years	6,707*	6,911	~100%	6,859	~100%	6,309	94%	186	3%	3,269	49%	
PG8. Aged 55 to 59 years	8,192*	8,050	98%	7,996	98%	7,106	87%	162	2%	2,931	36%	
PG9. Aged 50 to 54 years	8,445*	7,763	92%	7,686	91%	6,587	78%	136	2%	2,140	25%	
Phase 2. Aged 40 to 49	15,124*	13,569	90%	13,436	89%	10,595	70%	154	1%	757	5%	
Phase 2. Aged 30 to 39	13,934*	11,786	85%	11,516	83%	8,006	57%	74	1%	387	3%	
Phase 2. Aged 18 to 29	13,535*	11,289	83%	10,760	79%	6,858	51%	32	<1%	284	2%	
Phase 2. Aged 16-17	2,118*	1,453	69%	1,146	54%	233	11%	2	<1%	19	1%	
Phase 2. Aged 12-15	4,240*	2,335	55%	1,705	40%	33	1%	-	<1%	3	<1%	
Phase 2. Aged 5-11	7,574*	557	7%	259	3%	2	<1%	-	-	-	-	

[♣] Missing or incorrect information entered for a small number of vaccine recipients. Cross-matching against other sources to fill in gaps where possible.

[◇] Unstable population (movements in and out of homes or staff movements)

*Based on 2021 Population Census Figures

ⁿ Inconsistent population data as reliant on numerous data sources. Extra data sources have been requested

⁺ Number based on GP system (EMIS) report

[#] Information related to carers held separately to the EMIS data so potential for double counting

⁴ Not included in Table 6 is the breakdown for PG1: Domestic and Home care staff. The population size for this group is estimated to be 1,250, with 471 confirmed first doses and 459 second doses. However, this is likely to be **significantly underestimated** due to a number (around 200) of records with 'Employed in other workplace' not currently assigned to a priority group in the dataset. Work is ongoing to improve the data quality for this group. Data for these individuals will appear in the appropriate age group in the table.

Appendix

Table A1 below sets out the differences between the Jersey and JCVI priority groups, alongside the time periods when Islanders were able to access vaccines for each priority group.

A note on third doses - From 20th September 2021, it was announced that all those in priority groups 1 -9 would be eligible for a booster dose (third dose vaccination) once at least six months had elapsed since the second dose was administered. From 10th December 2021 all over 18 year olds became eligible for a booster dose once at least three months had elapsed since second dose was administered.

A note on fourth doses - From 11th March 2022, it was announced that all those aged 75 years or older, those who are immunocompromised, or those older adults living in residential care would be eligible for a “spring booster” (fourth dose vaccination) once at least three months had elapsed since the last dose was administered.

A note on Autumn 2022 booster - From 6th September 2022, it was announced that all those resident in care homes and staff, health and social care workers, people aged 50 years or older, those who are aged between 5 and 49 years considered in clinical risk groups, who are in contact of people with immunosuppression and carers aged between 16 and 49 would be eligible for an “Autumn 2022 booster” once at least three months had elapsed since the last dose was administered.

Table A1. Jersey and JCVI priority groups

Jersey Priority Group	JCVI Priority group	Comments	Vaccination Start Date
PG1. Care home residents	Residents in a care home for older adults	Jersey priority group 1 includes all people in care homes, not just older adults	13 December 2020
PG1. Carers working in care home	Staff working in care homes for older adults	Jersey priority group 1 considers staff in all care homes, not just those for older adults	13 December 2020
PG1. Domestic and home care staff	Not explicitly in JCVI groups	Home care staff are also considered in this priority group in Jersey, but not by JCVI	19 December 2020
PG2. Frontline health & social workers	Frontline health and social care workers	Before the most recent update 28 January 2021, this was split with frontline health and social workers, including those in FNHC and Hospice, and other health and social workers. The latter now appear in appropriate age groups	27 December 2020
PG2. Aged 80 years and over	All those 80 years of age and over	Identical	13 January 2021
PG2. Other health and social workers	Previously included as a group in JCVI but no longer explicitly mentioned	Included all patient-facing health staff. These now appear in appropriate age groups as per JCVI reporting	As per applicable age or risk Priority Group
PG3. Aged 75-79 years	All those 75 years of age and over	Identical, as Jersey programme includes preceding Priority Groups	30 January 2021
PG4. Aged 70-74 years	All those 70 years of age and over	Identical, as Jersey programme includes preceding Priority Groups	2 February 2021
PG4. Clinically Extremely Vulnerable (high risk) aged 16-69 years	Clinically extremely vulnerable individuals	Identical criteria. Wording of Jersey PG4 mentions the ages specified in more detail by JCVI	2 February 2021
PG5. Aged 65-69 years	All those 65 years of age and over	Identical, as Jersey programme includes preceding Priority Groups.	10 February 2021
PG6. Clinically at Risk (Moderate Risk) aged 16-64	All individuals aged 16 years to 64 years with underlying health conditions which put them at higher risk of serious disease and mortality	Identical criteria. Jersey programme has split this group into sub-groups based on age to manage demand at the vaccination centre	15 February 2021
PG7. Aged 60-64 years	All those 60 years of age and over	Identical, as Jersey programme includes preceding Priority Groups	25 February 2021
PG8. Aged 55-59 years	All those 55 years of age and over	Identical, as Jersey programme includes preceding Priority Groups	3 March 2021

PG9. Aged 50-54 years	All those 50 years of age and over	Identical, as Jersey programme includes preceding Priority Groups	8 March 2021
Phase 2. Aged 40-49 years	All those aged 40 years of age and over	Identical criteria. Jersey programme has split this group into two sub-groups based on age to manage demand at the vaccination centre	11 April 2021
Phase 2. Aged 30-39 years	All those aged 30 years of age and over	Identical criteria. Jersey programme has split this group into two sub-groups based on age to manage demand at the vaccination centre	8 May 2021
Phase 2. Aged 18-29 years	All those aged 18 years of age and over	Identical criteria. Jersey programme has split this group into two sub-groups based on age to manage demand at the vaccination centre	4 June 2021
Phase 2. Aged 16-17 years	All those aged 16 years of age and over	Identical criteria.	5 August 2021 first dose, 24 th November 2021 second dose
Phase 2. Aged 12-15	12-15 year olds at increased risk, or share household with immune suppressed	Identical criteria	16 August 2021 first dose, 3 rd December 2021 second dose
	All 12-15 year olds	Identical criteria	27 th Sept 2021
Phase 2. Aged 5-11 at risk	5-11 year olds at increased risk, or share household with immune suppressed	Identical criteria	5 th February 2022
Phase 2. Aged 5-11	All 5-11 year olds	Identical criteria	5 th April 2022