


Immunisation Statistics

2018

Statistics Jersey: www.gov.je/statistics

 @JsyStats



Introduction

This publication reports the annual update of:

- immunisations for children reaching their
 - first
 - second
 - fifth birthdaysbetween 1 January 2018 and 31 December 2018
- teenage immunisations for the academic year from September 2018 to August 2019
- the pertussis vaccine for pregnant women
- the shingles vaccine for adults aged 70
- protection against pneumococcal infections for adults aged 65 and over

The European Region of the World Health Organization (WHO) recommends that on a national basis at least 95% of children are immunised against diseases preventable by immunisation and targeted for elimination or control¹.

Key definitions

Uptake: the proportion of the eligible population who received the recommended dose(s) of the relevant vaccine during a specified period

Coverage: the proportion of the eligible population who have ever received the recommended dose(s) of the relevant vaccine

Headlines

In 2018:

- uptake for 1 year olds of the following were at or above the World Health Organisation (WHO) recommended national target of 95%
 - 6-in-1 vaccine (96%) which protects children against diphtheria, tetanus, pertussis, polio, *Haemophilus influenza* type B and hepatitis B (DTaP/IPV/Hib/HepB)
 - pneumococcal conjugate vaccine (PCV) (96%)
 - infant meningitis B (MenB) vaccine (95%)
- uptake for 2 year olds of the following were at or above the World Health Organisation (WHO) recommended national target of 95%
 - 5-in-1 (DTaP/IPV/Hib) vaccine (98%)
 - first dose of the measles, mumps and rubella (MMR) (96%),
 - *Haemophilus influenza* type B/Meningitis C (Hib/MenC) vaccine² (96%)
 - pneumococcal conjugate vaccine (PCV) (96%)
 - infant meningitis B (MenB) vaccine (96%); uptake of the MenB booster vaccine by 24 months is reported for the first time this year
- for 5 year olds, uptake for the first dose of MMR (97%) and the Hib/MenC (95%) were at or above the 95% WHO recommendation; the 4-in-1 diphtheria, tetanus, acellular pertussis and inactivated polio vaccine (DTaP/IPV) uptake was 94%; the uptake for the full course of MMR (two doses) by 5 years old was 93%
- 80% of eligible females (aged 12 to 13 years) received the full course of the human papillomavirus vaccine (HPV)
- over half (55%) of the birth cohort who became eligible on their 70th birthday received the shingles vaccine, a significantly higher proportion compared to England, Scotland and Wales

¹ World Health Organisation Regional Office for Europe, *Health21: the health for all policy framework for the WHO European Region, European Health for All Series No. 6, Denmark 1999, available from:*

http://www.euro.who.int/__data/assets/pdf_file/0010/98398/wa540ga199heeng.pdf

² *Haemophilus influenza* type B/Meningitis C (Hib/MenC) vaccine has previously been referred to as Hib/MenC booster.

Childhood vaccinations

In this section, the population eligible for vaccinations is based on all children who reached a specified age and registered on the Child Health Information System at the end of the reporting period (31 December 2018).

Table 1 gives a summary of the immunisations offered in Jersey, as of 2018, during the first 5 years of a child's life.

Table 1: Summary of immunisation schedule for each age group, 2018

Age to immunise	What vaccine is given
2 months	Diphtheria, tetanus, pertussis (whooping cough), polio, <i>Haemophilus influenzae</i> type b and hepatitis B (6-in-1 DTaP/IPV/Hib/HepB) ³ (introduced September 2017)
	Pneumococcal conjugate vaccine (PCV)
	Rotavirus (introduced in January 2014)
	Meningitis B (MenB) (introduced in 2015)
3 months	Diphtheria, tetanus, pertussis (whooping cough), polio, <i>Haemophilus influenzae</i> type b and hepatitis B (6-in-1 DTaP/IPV/Hib/HepB)
	Rotavirus (introduced in January 2014)
4 months	Diphtheria, tetanus, pertussis (whooping cough), polio, <i>Haemophilus influenzae</i> type b and hepatitis B (6-in-1 DTaP/IPV/Hib/HepB)
	Pneumococcal conjugate vaccine (PCV)
	Meningitis B (MenB) (introduced in September 2015)
12 months of age On or after the child's first birthday	<i>Haemophilus influenzae</i> type b and Meningitis C (booster Hib/MenC)
	Pneumococcal conjugate vaccine (booster PCV)
	Measles, mumps and rubella (1 st dose MMR1)
	Meningitis B ⁴ (booster MenB)
2 years to 4 years (annually in October / November)	Influenza (flu) annual vaccination
3 years 4 months	Diphtheria, tetanus, pertussis (whooping cough) and polio (booster DTaP/IPV)
	Measles, mumps and rubella (2 nd dose MMR2)
Non-routine immunisations	
Shortly after birth to infants with a parent or grandparent born in a country with high incidence of tuberculosis	Bacillus Calmette-Guérin vaccine (BCG) (against tuberculosis)

³ The 6-in-1 vaccine (**DTaP/IPV/Hib/HepB**) replaced the 5-in-1 vaccine (**DTaP/IPV/Hib**) for babies born on or after 1 August 2017

⁴ The MenB vaccine dose administered at 12 months of age was given for the first time from May 2016. Annual uptake of MenB booster vaccine by 2 years of age is available for the first time in the 2018 report.

Childhood scheduled vaccinations uptake by 12 months of age

Table 2 provides the uptake for 2018, and Figure 1 shows the uptake over time.

Table 2: Primary immunisation uptake by 12 months of age, by jurisdiction; percentage

	DTaP/IPV/Hib/HepB	PCV	Rotavirus	MenB
Jersey (2018)	96	96	94	95
England (2017/18)*	93	93	90	92
Scotland (2018)*	96	96	93	95
Wales (2018/19)*	95	96	94	95
N/Ireland (2017/18)*	96	96	94	96

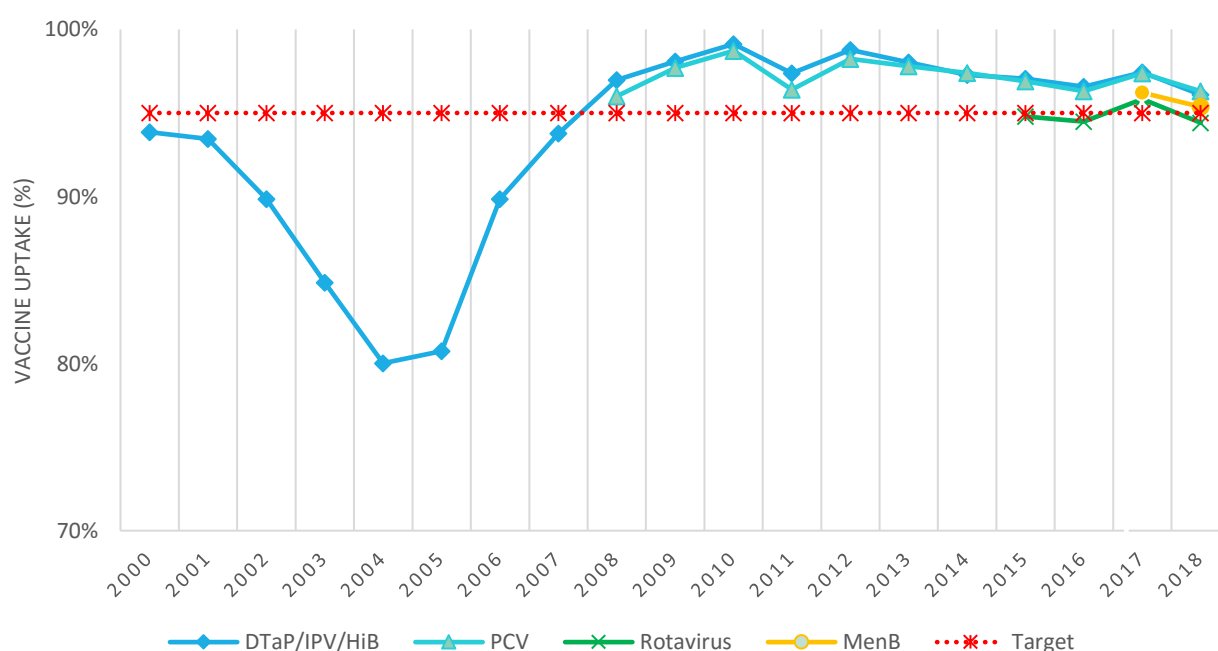
*Source: Public Health England (PHE), Public Health Wales, ISD Scotland

NB: Jersey, Scotland and Wales data for the 6-in-1 vaccine (DTaP/IPV/Hib/HepB) is compared to the 5-in-1 (DTaP/IPV/Hib) in England and Northern Ireland due to a difference in the reporting dates

In 2018:

- uptake by 12 months of age for complete primary courses of immunisations against diphtheria, tetanus, pertussis, polio, *Haemophilus influenzae* type b (Hib) and hepatitis B (the '6-in-1', DTaP/IPV/Hib/HepB vaccine) was 96%; in Jersey the annual uptake of the 5-in-1 (DTaP/IPV/Hib) has exceeded the WHO target of over 95% for the past decade (see Figure 1). In contrast, in England, the 5-in-1 (DTaP/IPV/Hib) uptake at 12 months (93%) declined for the fifth year in a row and was at its lowest since 2008-09 (92%)
- 96% of children in Jersey had completed a primary immunisation course of pneumococcal conjugate vaccine (PCV) by 12 months; uptake has exceeded 95% since the vaccine was introduced to the schedule in 2008
- uptake of the completed course of rotavirus vaccine in Jersey was 94%⁵; in England 90% of children received two doses of rotavirus vaccine by 12 months
- uptake of the two-dose primary course of meningococcal B vaccination (MenB) by 12 months of age was 95%

Figure 1: Primary immunisation uptake by 12 months of age, by calendar year



⁵ Rotavirus vaccination is unique in the routine childhood immunisation schedule in that administration of the vaccine is bound by strict age limits. Children require two doses of vaccine, given at four weeks apart. Opportunities for children to catch-up missed doses are therefore limited as the first and second doses of rotavirus vaccine must be completed before 15 weeks of age and 24 weeks of age, respectively. Uptake measured by 12 months may likely be lower than other vaccines offered at the same time as these can be caught up after six months.

Childhood scheduled vaccinations uptake by 24 months of age

Uptake for the three doses of the combined diphtheria, tetanus, pertussis, polio, *Haemophilus influenzae* type b and Hepatitis B vaccine ('6-in-1' DTaP/IPV/Hib/HepB) vaccine is reported again at 24 months to monitor any improvement in the proportion of children completing their primary course after their first birthday. In addition, children are scheduled to receive their first dose of MMR vaccine (MMR1) and a MenB booster after their first birthday.

Table 3: Primary immunisation uptake by 24 months of age, by jurisdiction; percentage

	<i>DTaP/IPV/Hib</i>	<i>MMR1</i>	<i>Hib/MenC</i>	<i>PCV</i>	<i>MenB+</i>
Jersey (2018)	98	96	96	96	96
England (2017/18)*	95	91	91	91	-
Scotland (2018)*	97	94	95	95	94
Wales (2018/19)*	97	95	94	95	94
N/Ireland (2017)*	98	94	95	95	-

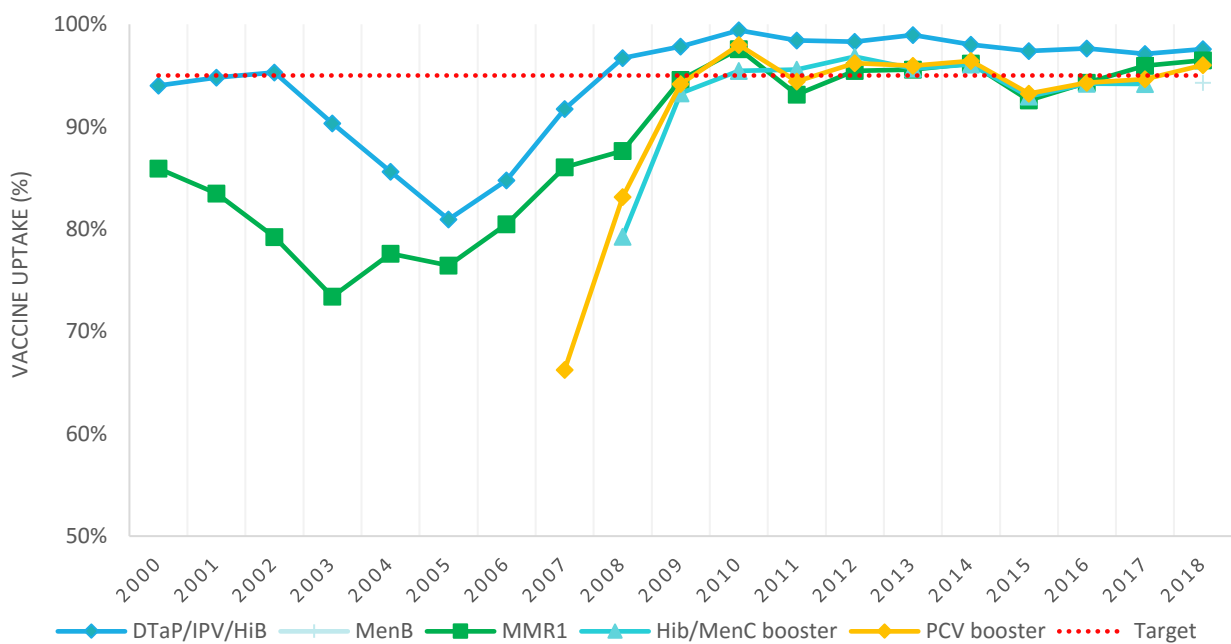
*Source: Public Health England, Public Health Wales, ISD Scotland

+ uptake of the MenB booster vaccine by 24 months is reported for the first time this year

In 2018:

- uptake of the DTaP/IPV/Hib (5-in-1) vaccine was 98%, and has remained at a similar level since 2008
- uptake for MMR1 was 96% and has remained at a similar level for the third year in a row; uptake has exceeded 90% in every year since 2009; in England uptake of MMR decreased in 2017-18 for the fourth year in a row to 91%, the lowest it has been since 2011/2012
- 96% of children in Jersey were reported to have received the combined *Haemophilus influenzae* type b and meningitis C vaccine (Hib/MenC) as measured at 2 years; the Hib/MenC uptake has remained at a similar level for the past decade
- uptake for the pneumococcal conjugate vaccine (PCV) booster at 24 months was 96%
- uptake of MenB at 24 months is recorded for the first time and was 96%

Figure 2: Primary and booster immunisation uptake by 24 months of age, by calendar year



Childhood scheduled vaccinations uptake (up to 5 years)

Uptake of the first dose of Measles, mumps and rubella (MMR1) and Hib/MenC currently given to children around their first birthday is reported again at 5 years to monitor any improvement in coverage amongst children since their second birthday. The 4-in-1 pre-school booster vaccine is offered to children aged three years and four months to boost their protection against four diseases: diphtheria, tetanus, whooping cough, polio (DTaP/IPV). The second MMR dose (MMR2) is given at 3 years 4 months and uptake is evaluated at 5 years of age.

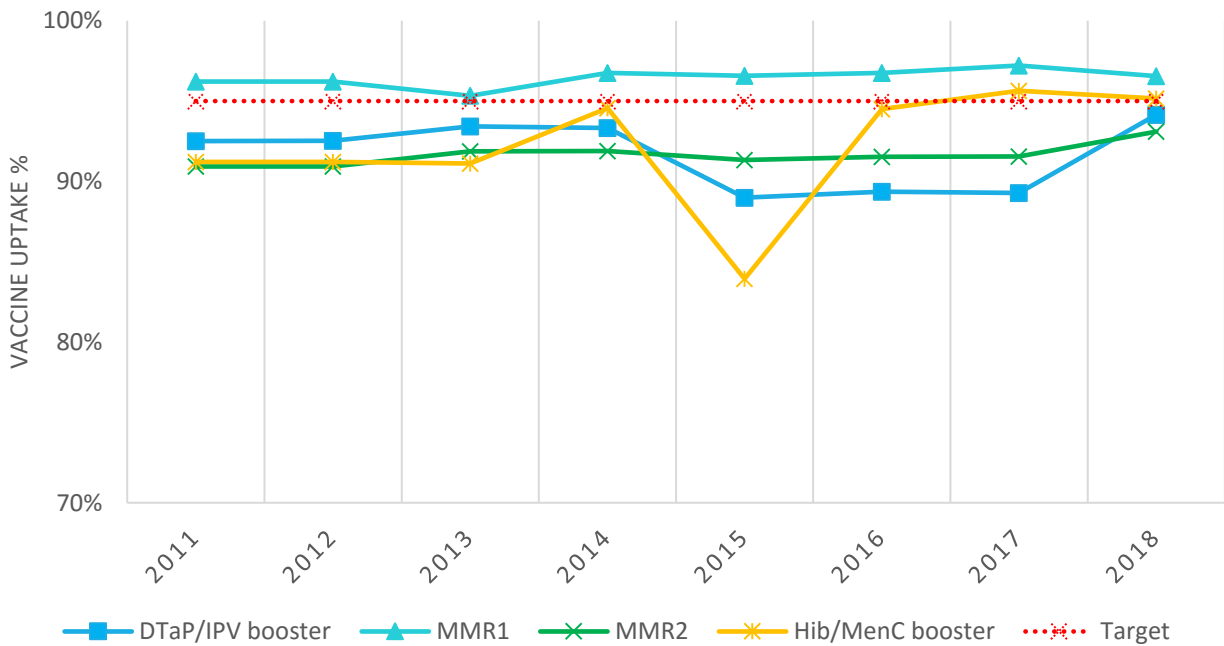
Table 4: MMR and booster immunisation uptake by five years of age; percentage

	MMR1	Hib/MenC	DTaP/IPV	MMR2
Jersey (2018)	97	95	94	93
England (2017/18)	95	92	86	87
Scotland (2018)	98	96	92	91
Wales (2018/19)	97	95	93	92
N/Ireland (2017)	97	96	93	92

In 2018:

- the uptake for the first dose of MMR by 5 years of age was 97%; the proportion has been at or above the WHO national target of 95% since 2011
- the uptake of the Hib/MenC by 5 years of age was 95%, meeting the WHO national target of 95% for the second consecutive year
- the uptake for the DTaP/IPV booster (sometimes referred to as the 4-in-1 booster) increased from 89% in 2017 to 94% in 2018; the uptake returned to levels similar to those prior to 2015
- the uptake for the second dose of MMR vaccine was 93%, and has remained at a similar level since 2011; the proportion of children vaccinated was higher than in England: 87% of children in England received their first and second dose of MMR vaccine by their fifth birthday

Figure 3: MMR1 and booster immunisation uptake by 5 years of age, by calendar year

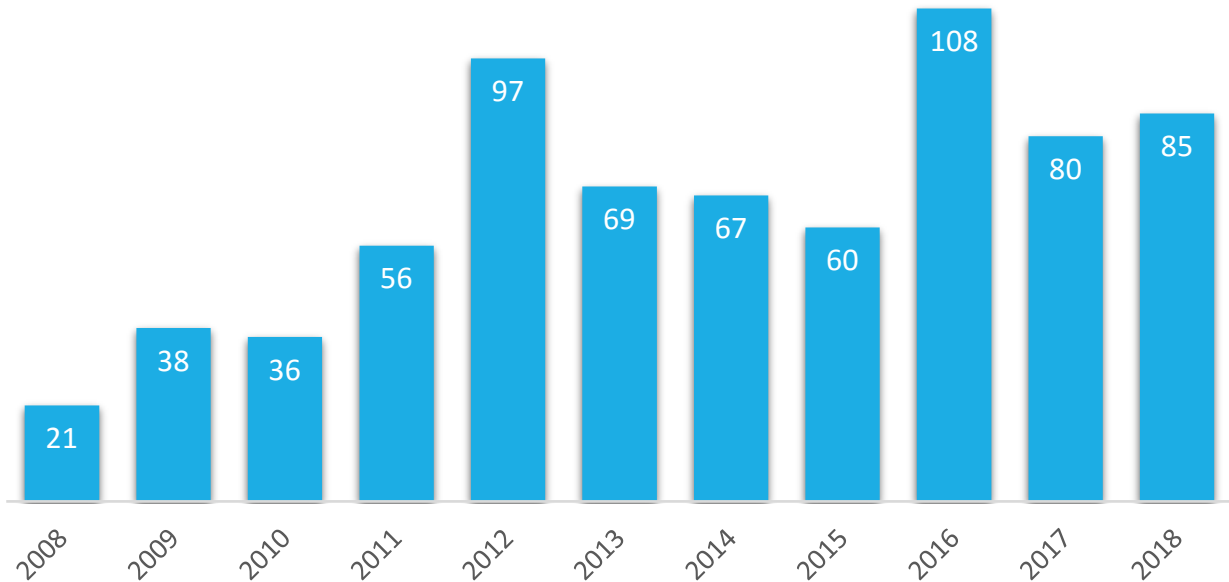


(NB: the 2015 data point for Hib/MenC is not directly comparable due to changes in recording parameters in the child health information system)

Non-scheduled childhood immunisations

In addition to the routine vaccinations, the neonatal Bacillus Calmette-Guerin (BCG) vaccination is offered to babies and children under 5 years of age who are deemed most at risk of exposure to tuberculosis (TB) and aims to prevent the more serious childhood forms of the disease. Figure 4 shows the number of BCG vaccinations administered to at-risk babies from 2008 to 2018.

Figure 4: Annual number of BCG vaccinations administered to at-risk babies, 2008-2018



Teenage scheduled vaccinations uptake

Immunisations to teenagers are delivered in schools by the Preventative Programmes Team. Data is presented for the academic school year from 1 September 2018 to 31 August 2019.

Table 5: Summary of immunisation schedule for this age group

Age to immunise	What vaccine is given
Girls 12 to 13 years⁶	Human papillomavirus vaccine (HPV) - to protect against cervical cancer caused by HPV types 16 and 18 (two separate injections are given six months apart) ⁷
13 to 14 years	Tetanus, diphtheria, and polio booster (Td/IPV)
	Meningitis ACWY ⁸ (MenACWY)

⁶ The programme will be extended to also offer the HPV vaccine for boys aged 12 to 13 in 2019-2020

⁷ The Jersey human papillomavirus (HPV) immunisation programme introduced in September 2008 initially used a three-dose schedule. In March 2014, the Joint Committee on Vaccinations and Immunisations (JCVI) advised changing the routine programme to a two-dose schedule; this was implemented in September 2014. In Jersey, Year 8 girls receive both doses in the same academic year.

⁸ The MenACWY vaccine replaced the MenC vaccine in the routine immunisation programme for Year 9s in the 2015/16 academic year.

Human papillomavirus vaccine (HPV) uptake

The HPV vaccination programme is a school-delivered programme targeting females (Year 8) aged 12 to 13 years using a two-dose schedule.

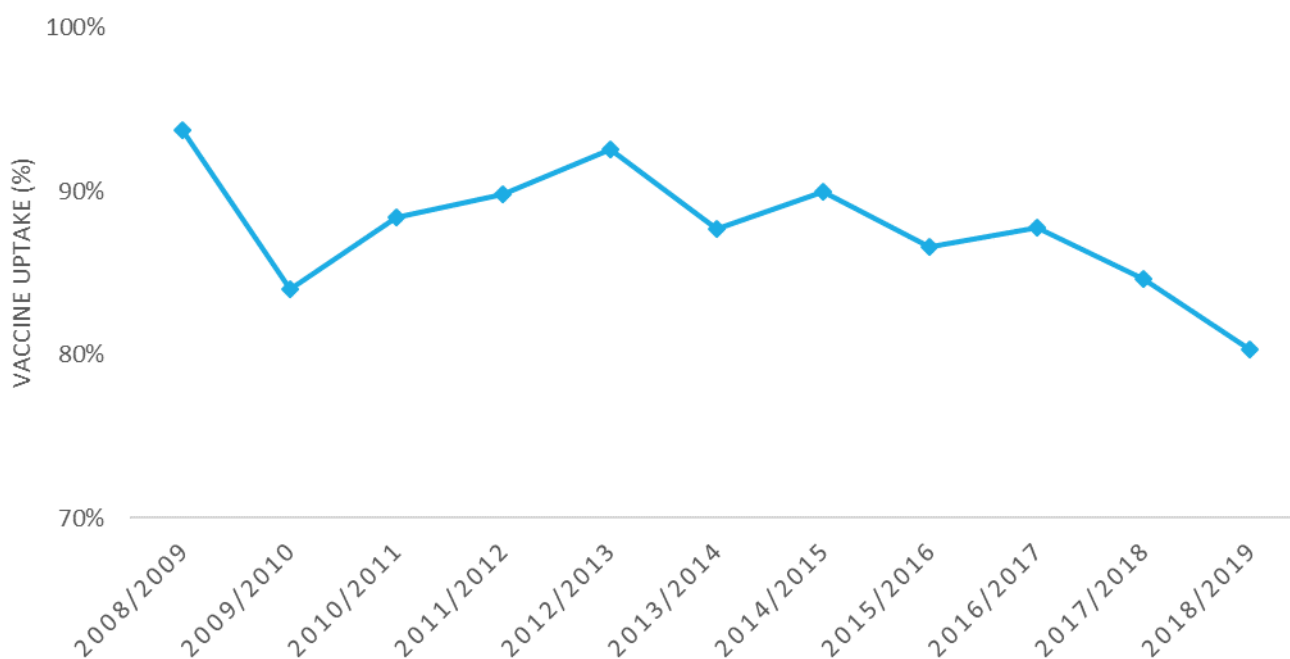
- in the academic year 2018/2019, 85% of females (12 to 13 years) received the priming dose (HPV1)
- 80% of females in Year 8 received the complete course of two doses of HPV vaccine, a similar proportion to the previous year and similar to England, Scotland, Wales and Northern Ireland

Table 6: Annual HPV vaccine uptake for latest year published by jurisdiction, percentage completed

	HPV1	HPV2
Jersey (2018/19)	85	80
England (2017/18)*	87	84
Scotland (2017/18)*	90	78
Wales (2017/18)*	87	80
N/Ireland (2017/18)*	81	85

*Source: PHE, Public Health Wales, ISD Scotland. Jersey rates are for Year 8. England, Wales and Northern Ireland rates are for Year 9. Scotland rates are for those delivered in S2 (12 to 13 years of age); however, since some areas administer vaccines in S1 or S3, this rate does not cover all areas of Scotland.

Figure 5: Annual HPV vaccine uptake, percentage completing two-dose course by academic year



Teenage booster (Td/IPV) and meningococcal (MenACWY) vaccine uptake

The Td/IPV vaccine, also known as the teenage booster or 3-in-1 vaccine is the fifth dose in the routine immunisation schedule for tetanus, diphtheria and polio; for the majority of students the 3-in-1 vaccine completes the course⁹.

The teenage MenACWY vaccine provides protection against meningitis and septicaemia (blood poisoning) caused by four strains of meningococcal bacteria – meningococcal (Men) groups A, C, W and Y.

- uptake of the Td/IPV vaccination programme for Year 9 students in 2018/2019 was 91% and has remained similar for the past six years; the uptake for Td/IPV was higher than the latest figures published for England, Scotland and Wales (see Table 7)
- for children in Year 9 in 2018/2019, uptake of the MenACWY vaccine (93%) has remained at a similar level since 2013/2014 as shown in Figure 6; the uptake for MenACWY was higher in Jersey than the latest figures published for England, Scotland and Wales (see Table 7)

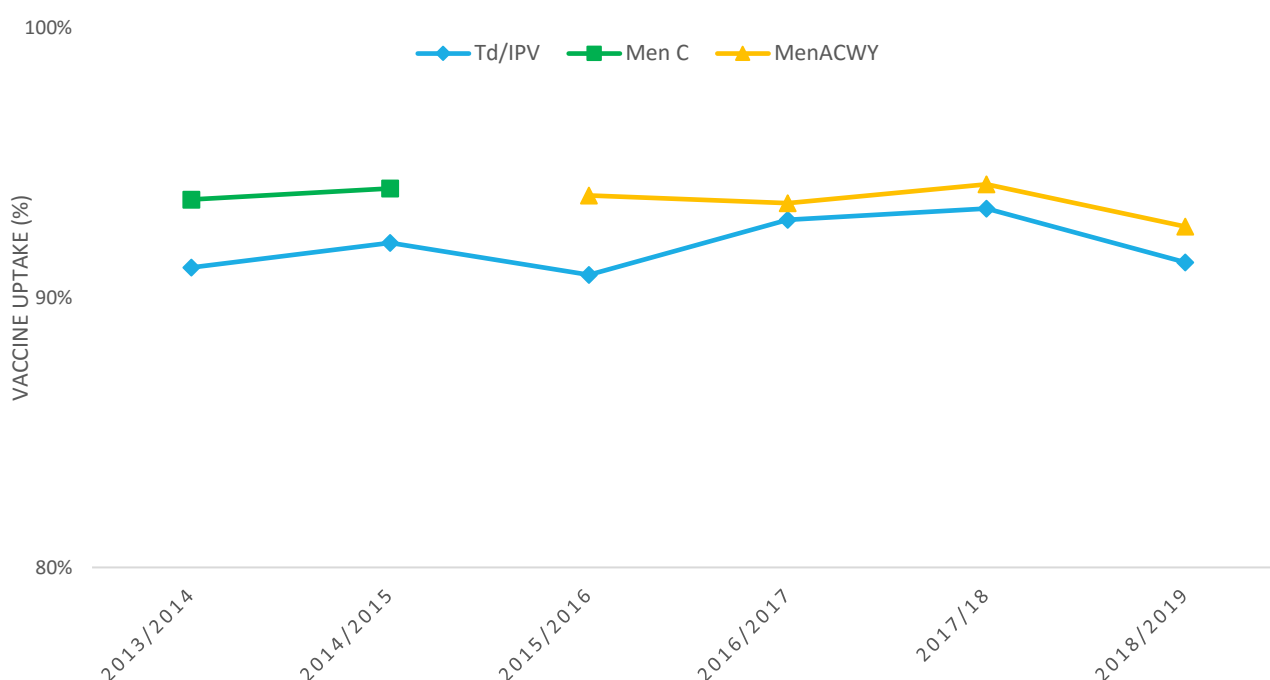
Table 7: Most recent Td/IPV and MenACWY vaccine uptake by the end of the school year, by jurisdiction; percentage

	Td/IPV [†]	MenACWY
Jersey (2018/19)	91	93
England (2017/18)*	86	86
Scotland (2017/18)*	81	82
Wales (2018/19)*	84	84

[†]Jersey, England (provisional estimate) and Wales Year 9, Scotland S3

*Source: Public Health England, Public Health Wales, ISD Scotland

Figure 6: Td/IPV, MenC and MenACWY uptake for Year 9 pupils, by academic year



⁹ Vaccine uptake for Td/IPV may be overestimated as some students may have missed one of the initial four doses.

Adult vaccination uptake

The uptake and coverage for adults are given as a proportion of the actively registered population¹⁰ at GP surgeries in Jersey.

Table 8 gives the routine immunisation schedule for adults in 2018.

Table 8: Routine adult immunisation schedule

When to immunise	What vaccine is given
Pregnant women, 20 weeks gestation or more	Pertussis containing vaccine ¹¹
65 years and over	Pneumococcal polysaccharide vaccine (PPV)
70 years	Shingles

Pertussis vaccinations for pregnant women

A pertussis containing vaccination (DTaP/IPV) offered in pregnancy aims to protect young infants against pertussis (whooping cough) in the weeks and months before they have completed their own vaccinations.

In 2018:

- annual coverage in pregnant women of DTaP/IPV was 77% (see Table 9); in England 72% of pregnant women were estimated to have received a dose of DTaP/IPV vaccine in 2017/2018
- vaccine coverage remained above 70% for the second consecutive year and has increased from 56% in 2016¹²

Table 9: Quarterly pertussis containing vaccination coverage in pregnant women 2018, based on monthly average data; percentage

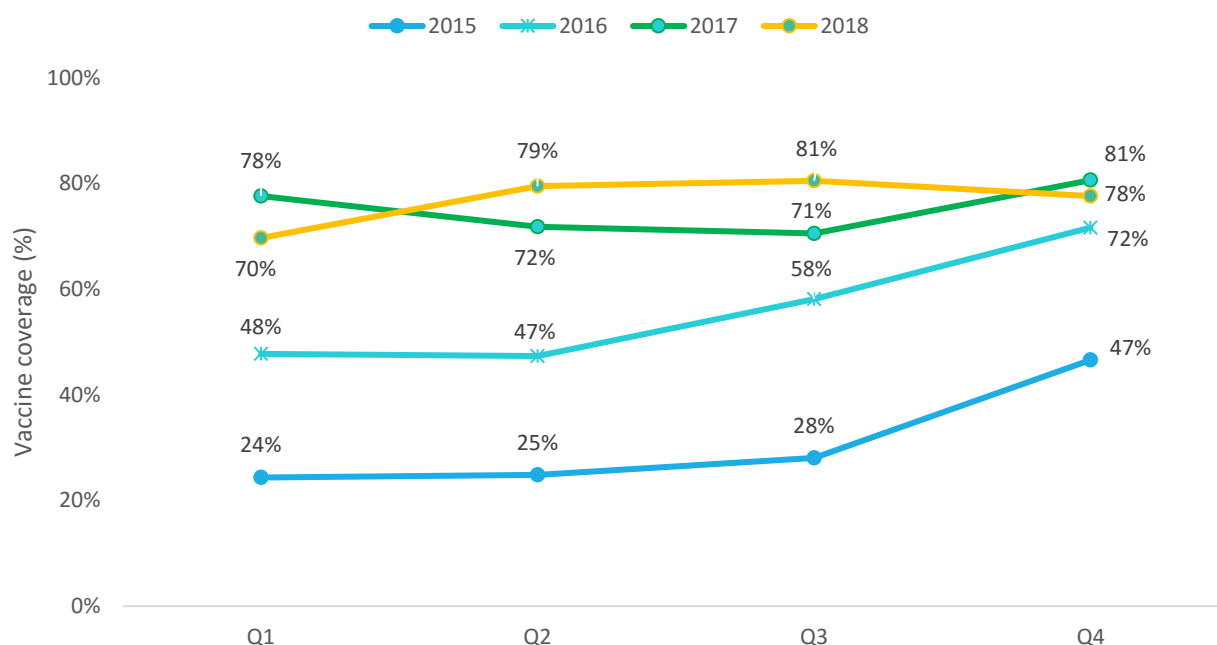
	Pertussis
Jersey Q1 2018	70
Jersey Q2 2018	79
Jersey Q3 2018	81
Jersey Q4 2018	78
Jersey 2018 Annual coverage estimate	77

¹⁰ Actively registered population - those who are registered with a Jersey GP surgery and have had a consultation with their GP within the last 4 years, or have changed active registration status within the last 6 months

¹¹ Pertussis containing vaccine was introduced in Jersey in 2015 and offered to all pregnant women from 28 weeks of gestation in GP surgeries and in the Maternity Unit of the Hospital. From April 2016, the vaccination was offered from around 20 weeks, usually at or after the foetal anomaly scan.

¹² There may be limitations to the data presented for Pertussis vaccination coverage. Completeness of data is reliant on the recording of delivery dates in the mothers' medical records

Figure 7: Quarterly pertussis vaccination coverage in pregnant women in Jersey, 2015-2018, by quarter



Shingles vaccination

A herpes zoster (shingles) routine vaccination programme was introduced in 2016 for adults in their 70th birthday year. A catch-up programme for older cohorts was also implemented to capture individuals born up to 1 September 1938 (i.e. aged 71 to 79 years on 1 September 2016 at the programme launch).

GPs also continued to offer immunisation to anyone who was eligible for the shingles vaccine but had not yet been vaccinated, up until their 80th birthday. Since the shingles vaccine programme was launched in September 2016, approximately 6,000 older Islanders have been protected. The coverage by year of birth is given in Table 11.

In 2018:

- over half (55%) of the birth cohort who became eligible on their 70th birthday received the shingles vaccine, significantly higher compared to England, Scotland and Wales (see Table 10)
- an estimated 3% of the cohort fell into clinical risk groups in which shingles vaccine may be contraindicated for immunosuppressed individuals¹³; this is a similar proportion to 2017
- the proportion of individuals recorded as declining the shingles vaccine (4%) remained similar to 2017 (3%); this has decreased when compared with 2016 (7%)

Table 10: Shingles vaccine coverage for 70 year olds, by jurisdiction; percentage

	Coverage
Jersey (2018)	55
England (2017/18)*	44
Scotland (2018/19, provisional)*	31
Wales (2018)	35

*Source: Public Health England, Public Health Wales, Health Protection Scotland

¹³ For example patients undergoing medical treatment/taking medication which weakens their immune system to a degree that prohibits them receiving the shingles vaccination; this may be either temporary or permanent.

Table 11: Cumulative shingles vaccine coverage by year of birth, as at end 2018; percentage

Year of birth	Vaccine offered (NB patients may have received the vaccine prior to being offered if clinically indicated)	Coverage at end 2018
1937	In catch-up programme during Dec 2016 – Mar 2017	63
1938	In catch-up programme during Dec 2016 – Mar 2017	63
1939	In catch-up programme during Dec 2016 – Mar 2017	63
1940	In catch-up programme during Apr – Jul 2017	60
1941	In catch-up programme during Apr – Jul 2017	60
1942	In catch-up programme during Apr – Jul 2017	62
1943	In catch-up programme during Aug – Nov 2017	65
1944	In catch-up programme during Aug – Nov 2017	67
1945	In catch-up programme during Aug – Nov 2017	61
1946	In 2016 routine programme (for those aged 70 years)	72
1947	In 2017 routine programme (for those aged 70 years)	59
1948	In 2018 routine programme (for those aged 70 years)	55

Pneumococcal vaccination (PPV)

The pneumococcal polysaccharide vaccine (PPV) protects against serious and potentially fatal pneumococcal infections. A once-only single dose is recommended at age 65 and is offered by GP practices in Jersey. Uptake of the vaccine is reported here, as well as overall coverage (the proportion of each cohort who have ever received the vaccine).

- in 2018 PPV coverage was 61% for those aged 75 and over immunised at any time up to 31 December 2018, and was 50% in all patients aged 65 and over (see Figure 8)
- the coverage in Jersey was lower than that in England for all age groups (see Table 12)

Figure 8: PPV coverage (i.e. ever vaccinated), by age group, calendar year 2013 to 2018; percentage

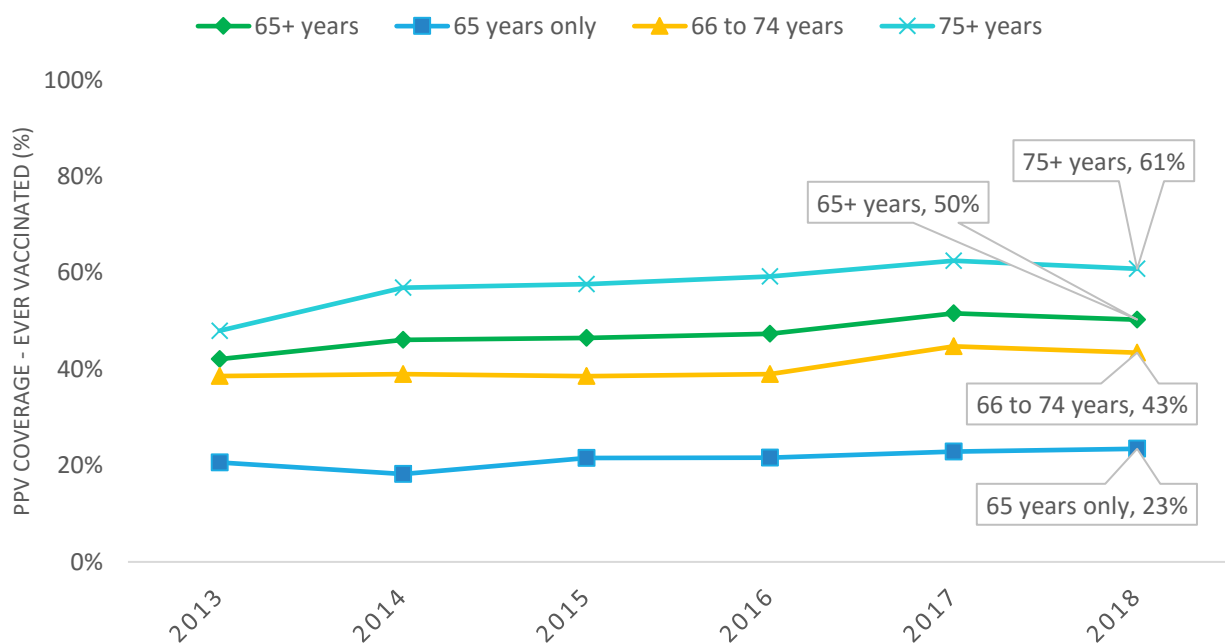
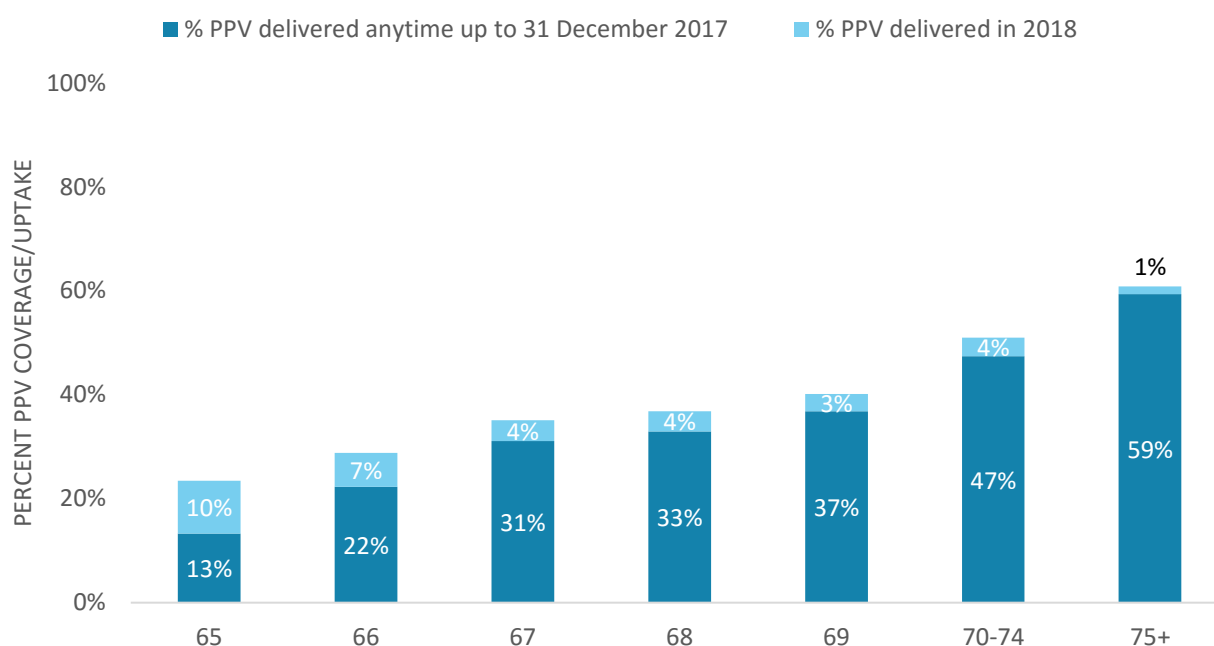


Table 12: Pneumococcal (PPV) vaccination coverage, by age group

Age	Jersey (coverage % to 31 Dec 2018)	England (coverage % to 31 Mar 2018)
65	23	31
66	29	43
67	35	50
68	37	56
69	40	60
70-74	51	70
75 and over	61	83
All 65 and over	50	70

- in those aged exactly 65 years, uptake in 2018 was 10%, a similar level to the previous year (11%); however 13% of this cohort had already had the vaccine due to being in specific clinical risk groups; the overall coverage therefore for those aged 65 years was 23% (see Figure 9)
- Figure 9 shows how people in the older age groups continue to be vaccinated, having not been vaccinated at age 65 years as recommended

Figure 9: Percentage of patients having received PPV (before, or in calendar year 2018), by age group



Notes

Data Sources

The data for this report are derived from:

- Jersey Child Health Information System (CHIS): information on childhood immunisation coverage at ages one, two and five are collected according to the Cover of Vaccination Evaluated Rapidly (COVER) standards, as used in the UK
- GP Central Server (EMIS web)
- Information supplied by the Preventive Programmes Team about any unscheduled immunisations

Changes to the Jersey Immunisation Schedule

The childhood immunisation schedule changes periodically in line with advice from the UK expert advisory group, known as the Joint Committee for Vaccination and Immunisation (JCVI). A summary of the changes are given here.

2018: Schedule for immunisations at one year of age amended. Babies are able to have four injections at their one year vaccination visit including: MenB booster, Hib/MenC, PCV booster and first MMR immunisations (or the four vaccinations may be delivered via two immunisation appointments at 12 and 13, with two injections giving at each appointment).

2017: Replacement of the pentavalent vaccine (DTaP/IPV/Hib) with a hexavalent vaccine which includes hepatitis B (DTaP/IPV/Hib/HepB) for all babies born after 1 September 2017. The introduction of influenza vaccination for children extended to include all children aged up to 11 years of age

2016: On 1 July 2016, the infant dose of the MenC vaccine given at 12 weeks was removed from the routine schedule. The *Haemophilus influenzae type b* and meningococcal group C (Hib/MenC) vaccine offered after the first birthday is the first MenC dose in the schedule followed by MenACWY vaccine in school Year 9. The MenB booster dose at 12 months of age was given to children for the first time from May 2016. The nasal flu vaccine was extended to include children in school Year 3.

2015: MenB vaccine was added to the programme in September 2015, with a catch-up programme for children born from 1 May 2015. In addition, the MenACWY vaccine replaced the MenC vaccine at around 14 years of age. Nasal flu vaccine was extended to include children in school Years 1 and 2.

2014: The HPV schedule for 12 to 13 year old girls (school Year 8) changed from three to two doses. Nasal flu vaccine was offered to children in primary school Reception classes.

2013: Rotavirus was added to the programme and the schedule for administering the MenC vaccine changed from two to one primary dose at 3 months.

2008: Programme to vaccinate all 12 to 13 year old girls (school Year 8) against HPV started at the beginning of the 2008/2009 school year

2006: PCV vaccine introduced, given at two and four months, and a booster dose given at around 13 months of age. A combined Hib/MenC booster vaccine introduced for children around 12 months of age.

Further details of the Jersey Immunisation Schedule can be found on the States of Jersey website www.gov.je