

# Joint Strategic Needs Assessment



## Childhood Immunisations (Routine)

Last updated: June 2017

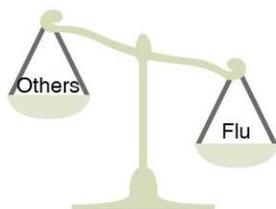
### Isle of Wight Summary



90% +

The majority of vaccines have a local uptake of more than 90% against a target of 95%

Despite flu immunisation having a much lower target than any other vaccine, the Isle of Wight is consistently below the target. However, this is roughly in line with the England average



- o Occupation (for example: health care workers)

The UK's routine childhood immunisation programme (<https://www.gov.uk/government/publications/the-complete-routine-immunisation-schedule>) aims to achieve herd immunity or, to immunise 95% of all children. However, the children's flu immunisation programme (<https://www.gov.uk/government/collections/annual-flu-programme>) aims to both protect individual children as well as reduce spread in the community to protect those who are 'at risk'. Targets recommended for the children's flu programme relate to achieving high uptake for children in risk groups and 40 to 60% uptake across all cohorts and settings.

Bryan Hurley – Public Health Principal,  
Health Protection, Isle of Wight Council



### Public Health Foreword

*“Immunisation programmes are one of the biggest public health success stories. National immunisation programmes, however, implement different strategies to protect the public from the harm of infectious disease. The purposes of immunisation programmes are typically two-fold, apart from protecting the individual immunised, they aim to:*

- maximise the total number of people who are immune (achieve herd immunity) to reduce the possibility of infection spreading in the community; and
- protect people who are 'at risk'. Either they are more likely to become infected or are more likely to suffer poorer health outcomes than others. People can be 'at risk' due to:
  - o Medical conditions
  - o Medication, especially those that affect the immune system
  - o Age (for example: the very young, very old)
  - o Life style (for example: university students, drug users, and travellers)

### What is being done locally?

*“The childhood immunisation programme is commissioned by NHS England. The role of the local authority Public Health team is to provide assurance to the Health and Wellbeing board that robust mechanisms are in place to monitor and deliver the childhood immunisation programme to the local community.*

*The Isle of Wight's childhood immunisations steering group oversees the local delivery of the national programme, members include NHS England, public health professionals, immunisations co-ordinator, health visiting manager, child health team manager, GP, practice nurse, community paediatrician, community pharmacist, and a representative from the Health Protection Unit. Links are also made with related organisations within the Wessex footprint to share best practice.*

*NICE guidelines recommend the following to increase immunisation uptake among children:*

- Use a structured, systematic method to record, maintain and transfer accurate information on a child's immunisation status.

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- *Ensure that all staff involved in immunisation services are appropriately trained.*
- *Send tailored reminders to parents when immunisations are due. When a child does not attend an appointment, send tailored recall invitations, and then follow-up by telephone or text message or consider a home visit.*
- *Improve access to immunisation services by providing longer appointment times, walk-in vaccination clinics, services with extended hours and mobile or outreach services. Ensure parents know how to access these immunisation services.*
- *Provide parents with tailored information, advice and support so they are aware of the recommended routine childhood vaccinations and the benefits and risks.*

Source: <https://www.nice.org.uk/guidance/ph21>

*These actions are the responsibility of the members of the steering group and all those who look after the health and wellbeing of children.*

*All vaccine preventable diseases are now rare, making it easy to underestimate the importance of childhood vaccinations. There were just 4 cases of diphtheria nationally last year. However whooping cough and measles are continuing to circulate in the community; if children are not vaccinated and herd immunity not achieved these diseases could return in much higher numbers. Although the number of cases is low a rate can be calculated, however this is unlikely to be relevant because populations with low uptake may not see high rates of disease until herd immunity drops.”*

*Frances Tilley, UKPHR PRO207  
Public Health registered practitioner  
Immunisation and Screening Lead  
Isle of Wight Council*

### Data and ICT issues

Data quality issues have been identified with the Isle of Wight's Child Health Information System (CHIS), which is not connected to the 'national spine'. This means that when a child moves GP practice and registers with their new GP, this move is not automatically updated and relies on a manual process of notification. This could lead to double counting (causing distorted figures) if the move is not recorded in a timely and accurate way.

Testing this theory using birth data as a proxy for the eligible cohort, it shows that for one-year-old

immunisations, we are better than the published figure but not significantly so. When ONS population data for two year olds and five year olds is used to recalculate the uptake of immunisations for those children, the rate is proportionately higher and in line with local authority comparators. This suggests that the issues with CHIS are likely to have a lowering effect on the published uptake figures.

To address this robust mechanisms have been put in place by the Isle of Wight's Child Health department to ensure accurate and timely recording of moves.

In addition to this issue of double counting, the timing of the vaccination will be reflected in the data, particularly if this vaccination is given late. The child health department is working in partnership with NHS England, CCG, primary care and the local authority to systematically review and correct the process of childhood vaccinations from the invitation to vaccinate through to submission of data to Public Health England. The issue concerning timely GP returns has now been resolved; issues with the data backlog are being addressed as are the CHIS IT problems.

**NB** As commissioner for childhood vaccination the work to improve CHIS is being overseen by NHS England. It is anticipated by the time 2017/18 data is published it will be a robust reflection of vaccine uptake.

## Infant immunisations (Under 1 year)

### DTaP/IPV/Hib

Also known as the 5-in-1 vaccine, three doses are given at eight, 12 and 16 weeks. It is a single injection to protect against:

- Diphtheria
- Tetanus
- Pertussis (Whooping cough)
- Polio
- Hib (Haemophilus influenzae type B)

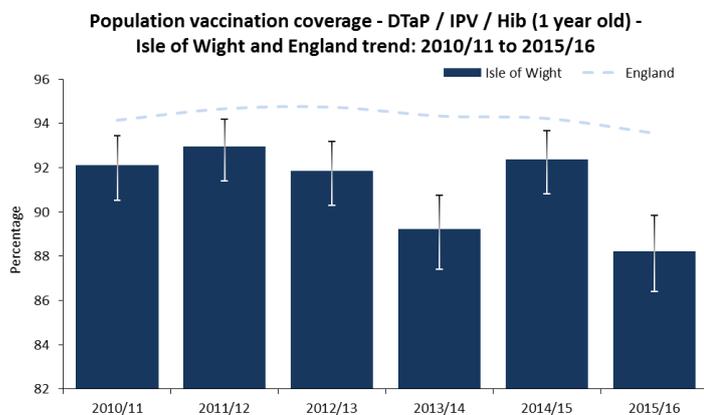
In 2015/16 the Isle of Wight had just 88.2% coverage of the vaccination by the child's first birthday, which is statistically significantly lower (worse) compared to all 15 comparator local authorities<sup>1</sup> and England (93.6%).

<sup>1</sup> North Somerset / Torbay / East Riding of Yorkshire / Northumberland / Cornwall / Sefton / Poole / Herefordshire / Shropshire / Wirral / Bournemouth / Bath & North East Somerset / Southend-on-Sea / Cheshire West & Chester / Cheshire East

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The Isle of Wight has been consistently statistically significantly lower (worse) than England for the past six years with 2015/16 being the lowest figure over those years.



Source: Public Health Outcomes Framework – <http://www.phoutcomes.info> (accessed 2 February 2017)

### MenC

The success of the Meningitis C vaccination programme means there are almost no cases of MenC disease in babies or young children in the UK any longer. Therefore, from 1 July 2016, the standalone MenC vaccine was discontinued from the NHS childhood vaccination programme. In 2015/16 92.3% of eligible children on the Isle of Wight were vaccinated, statistically significantly lower (worse) than all our comparator authorities.

### PCV

The pneumococcal conjugate vaccine is also known as the pneumonia vaccine. It is given in three doses at eight and 16 weeks and between one and two years old.

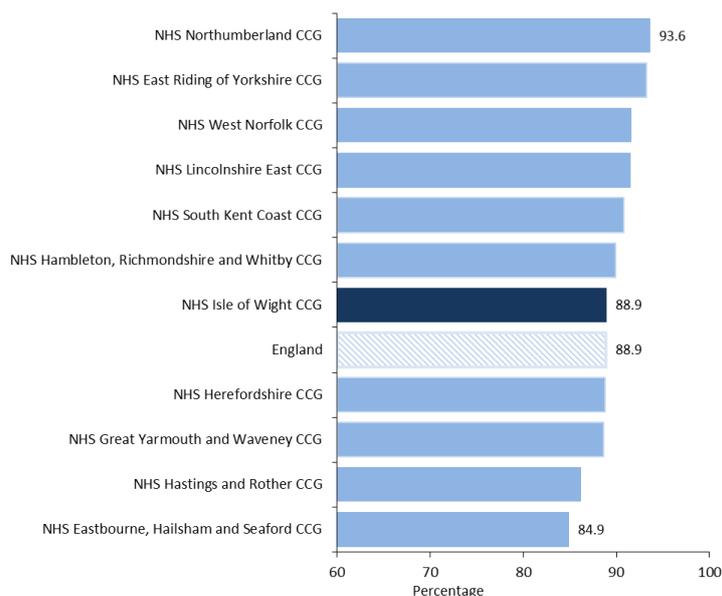
In 2015/16, coverage of children on the Isle of Wight having had two doses before their first birthday was 89.4% and is statistically significantly lower (worse) than all 15 of our comparator authorities and England.

### Rotavirus

This vaccine against the rotavirus infection, a common cause of diarrhoea and sickness, is usually given as two doses at eight and 12 weeks.

In 2015/16, at 88.9% coverage, the NHS Isle of Wight CCG is higher than four of its ten comparator CCGs and the same as England (88.9%).

### Rotavirus: 2015/16



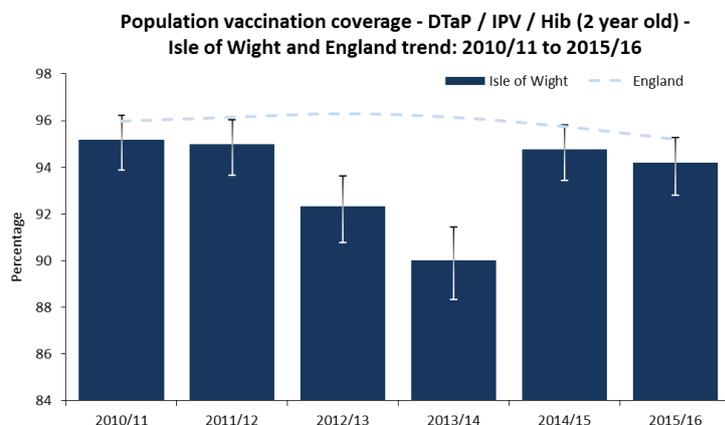
Source: Rotavirus Vaccine Coverage Monitoring Programme, PHE - <https://www.gov.uk/government/publications/rotavirus-immunisation-programme-vaccine-coverage-estimates> (accessed 23 September 2016)

## Child immunisations (1 to 11 years)

### DTaP/IPV/Hib

As a second performance measure, the 5-in-1 vaccine is also measured by the percentage of children having their three doses before their second birthday.

The Isle of Wight coverage in 2015/16 decreased to 94.2% from 94.8% in 2014/15. The Isle of Wight was significantly lower (worse) than 11 out of 16 comparator local authorities but is not statistically different to England (94.2%).



Source: Public Health Outcomes Framework – <http://www.phoutcomes.info> (accessed 2 February 2017)

### Hib/MenC booster (age 2)

With the discontinuation of the standalone MenC vaccine at 12 weeks, this jab will provide the first dose of vaccine against meningitis C and the

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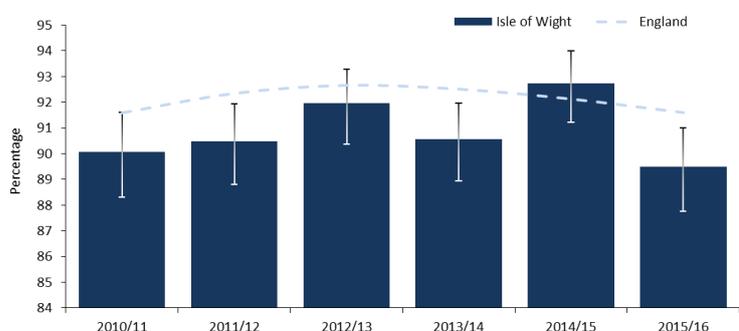
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fourth dose against Hib, the previous three doses being in the 5-in-1 jab.

In 2015/16, the Isle of Wight coverage was 89.5%, the second lowest coverage rate out of all 16 local authority comparators. The coverage for the Isle of Wight was significantly lower (worse) than 13 comparator local authorities and England (91.6%).

Between 2010/11 and 2014/15 the coverage rates saw a general upward trend on the Isle of Wight and England. However in 2015/16 England saw a significant reduction in coverage and the Isle of Wight saw a reduction but no statistical significant change from 2014/15.

Population vaccination coverage - Hib / MenC booster (2 year old) - Isle of Wight and England trend: 2010/11 to 2015/16



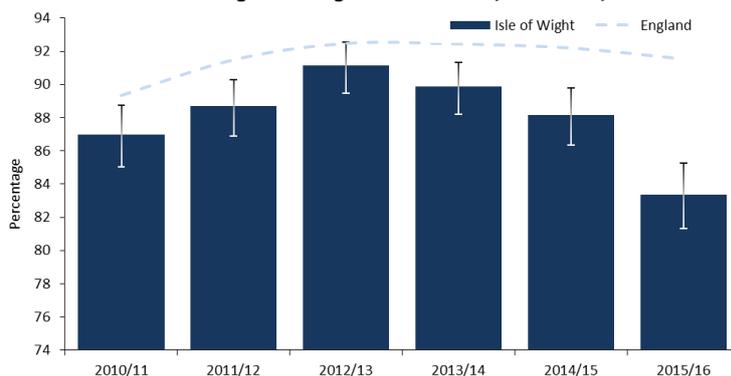
Source: Public Health Outcomes Framework – <http://www.phoutcomes.info> (accessed 12 February 2017)

### PCV Booster

This vaccine would be the child's third dose of PCV and is recorded as being successfully administered if the dose is given between the child's first and second birthdays.

Between 2014/15 and 2015/16 the Isle of Wight saw a significant reduction in coverage and continues to be well below (worse) than the England average (Isle of Wight 83.4%, England average 91.5%). A local investigation into this drop has revealed the decrease can be partially attributed to incorrect recording; for data to be picked up correctly it needed to be recorded as 'booster'. This error has now been rectified and forms part of the ongoing system review.

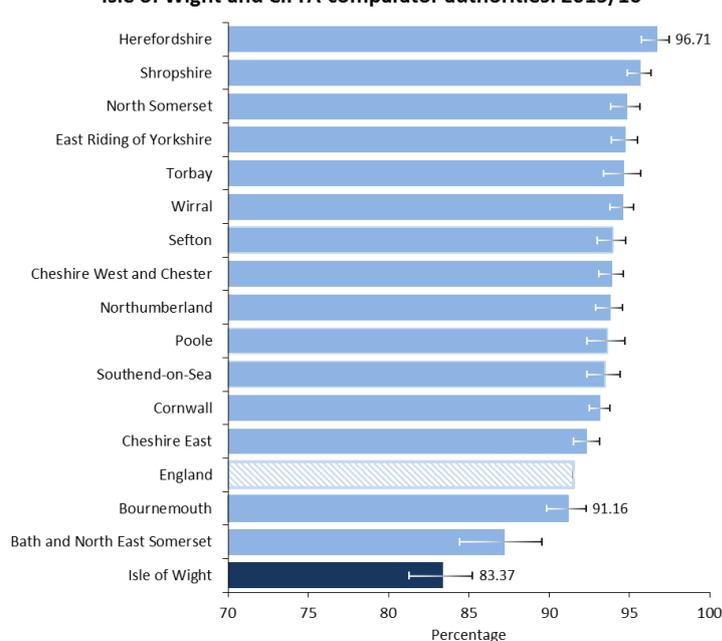
Population vaccination coverage - PCV booster (2 year old) - Isle of Wight and England trend: 2010/11 to 2015/16



Source: Public Health Outcomes Framework – <http://www.phoutcomes.info> (accessed 2 February 2017)

When compared to 16 local authority comparators the Isle of Wight is statistically significantly lower than all but one of its comparators.

Population vaccination coverage - PCV booster (2 year old): Isle of Wight and CIPFA comparator authorities: 2015/16



Source: Public Health Outcomes Framework – <http://www.phoutcomes.info> (accessed 2 February 2017)

### MMR for one dose (age 2)

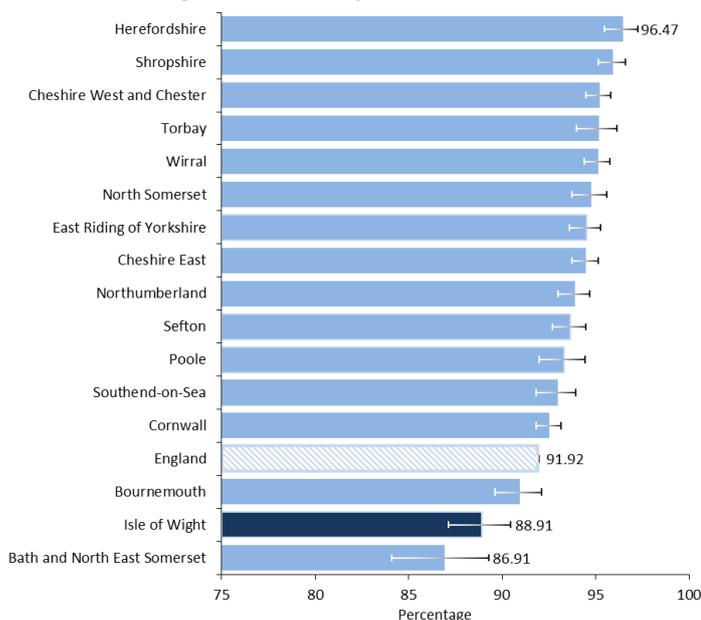
MMR is a combined vaccine that protects against three separate illnesses – measles, mumps and rubella (German measles) – in a single injection. The full course of MMR vaccination requires two doses – the first usually within a month from their first birthday, the second usually at three years and four months.

In 2015/16, the Isle of Wight coverage was 88.9% for children who received their first dose of MMR between their first and second birthdays. This was statistically lower (worse) than England (91.9%) and 13 local authority comparators.

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## Population vaccination coverage - MMR one dose (2 year old): Isle of Wight and CIPFA comparator authorities: 2015/16



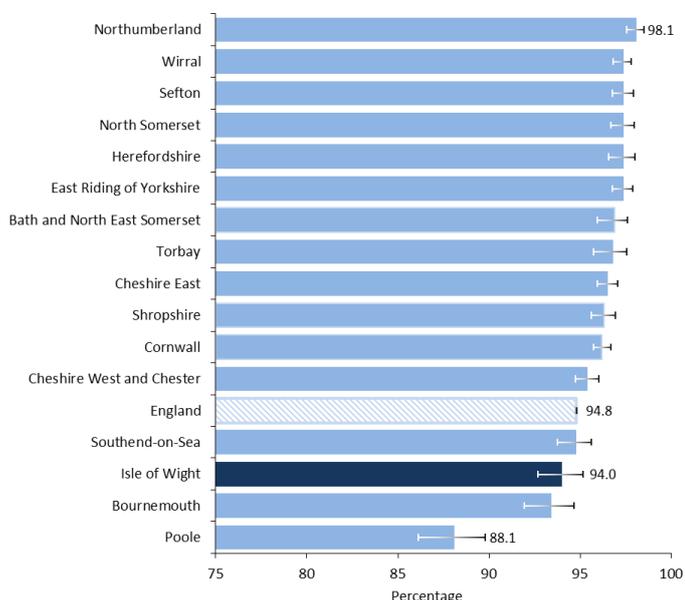
Source: Public Health Outcomes Framework – <http://www.phoutcomes.info> (accessed 2 February 2017)

## MMR for one dose (age 5)

Another measure for one dose of MMR is if the child has received it before their fifth birthday.

The Isle of Wight coverage was 94.0% in 2015/16 in line with the England average (94.8%). The Isle of Wight had the 14<sup>th</sup> lowest coverage rate out of 16 local authority comparators and was significantly lower (worse) than 11 of these. From 2014/15 to 2015/16 England saw an increase in coverage from 94.5% to 94.8% whilst the Isle of Wight saw a significant reduction from 96.6% to 94.0%.

## Population vaccination coverage - MMR one dose (5 year old): Isle of Wight and CIPFA comparator authorities: 2015/16

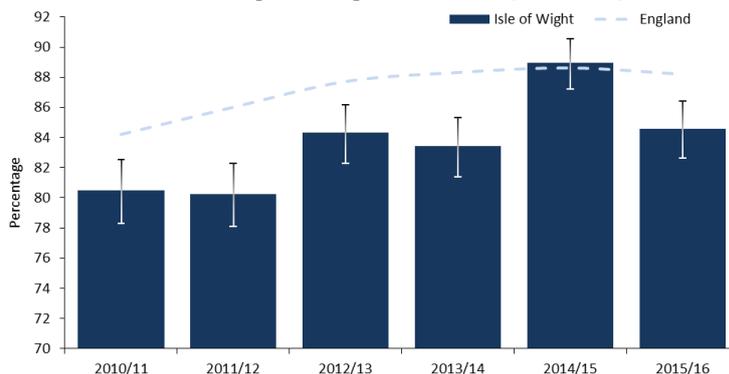


Source: Public Health Outcomes Framework – <http://www.phoutcomes.info> (accessed 2 February 2017)

## MMR for two doses

In 2015/16 the Isle of Wight coverage for the second dose of MMR was 84.6% significantly lower (worse) than England (88.2%). The Isle of Wight has seen a significant reduction in uptake of the second dose of MMR compared to 2014/15, and is now back in line with the lower levels prior to 2014. When compared to local authority comparators the Isle of Wight was significantly lower (worse) than 13 comparators.

## Population vaccination coverage - MMR two doses (5 year old) - Isle of Wight and England trend: 2010/11 to 2015/16



Source: Public Health Outcomes Framework – <http://www.phoutcomes.info> (accessed 2 February 2017)

## Hib/MenC booster (age 5)

Another chance to measure performance of this vaccine is the percentage of children who have received this vaccination before their fifth birthday.

The Isle of Wight's coverage in 2015/16 was 90.4%, lower (worse) than the England average (92.6%). The Isle of Wight is ranked the second lowest out of 16 local authority comparators and is significantly lower (worse) than 13 of the comparators and England.

## Flu

The flu vaccine is offered as a yearly nasal spray to young children to protect them from flu. In the autumn/winter of 2015/16, it was offered to children aged two, three and four through GP surgeries and those in school years 1 and 2 (six and seven year olds) through an NHS commissioned programme with a local provider. Over the next few years, the programme will be extended gradually to include older children. The England target for flu vaccination for children is 40-60%.

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## 2015-16 Flu Vaccinations

| Age         | Isle of Wight uptake | England uptake | Target |
|-------------|----------------------|----------------|--------|
| 2 year olds | 32.0%                | 35.4%          | 40-60% |
| 3 year olds | 35.4%                | 37.7%          | 40-60% |
| 4 year olds | 25.1%                | 30.0%          | 40-60% |
| Year 1      | 55.8%                | 54.4%          | 40-60% |
| Year 2      | 46.7%                | 52.9%          | 40-60% |

Source: Age 2, 3 and 4

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/503124/January\\_2016\\_Seasonal\\_flu\\_GP\\_patients\\_01Sept\\_31Jan.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/503124/January_2016_Seasonal_flu_GP_patients_01Sept_31Jan.pdf)

School Years 1 and 2

<https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-children-of-primary-school-age-winter-season-2015-to-2016>

## Adolescent immunisations

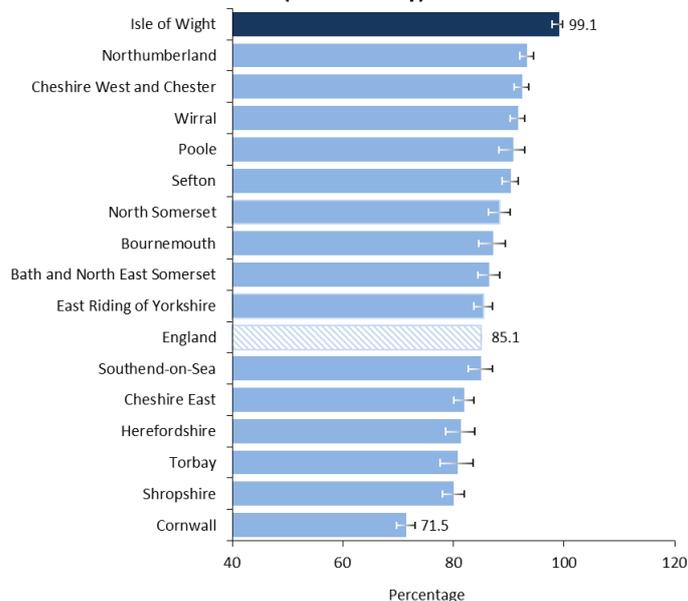
### HPV

All girls aged 12 to 13 are offered HPV (human papilloma virus) vaccination. The vaccine protects against cervical cancer. The HPV vaccine is delivered largely through secondary schools and consists of two injections spaced at least six, but no more than 24 months apart (girls who began vaccination before September 2014 receive three injections).

For Cohort 12 who started the programme in 2014/15, NHS England commissioned local providers to deliver two doses to all schools. However, due to the timing of delivery of the first dose and the requirement for a six to 24 month gap between doses, delivery of the second dose will continue into the 2016/17 academic year so the following data is therefore provisional.

The provisional data for Year 9/Cohort 12 in 2015/16 shows that the Isle of Wight had the highest percentage take up in the country with 99.1% and was significantly higher (better) than the England average which was 85.1% and 15 local authority comparators. Full data won't be available until the second dose has been administered in the 2016/17 academic year.

Population vaccination coverage - HPV (Year 9/Cohort 12): Isle of Wight and CIPFA comparator authorities: 2015/16 (Females only)

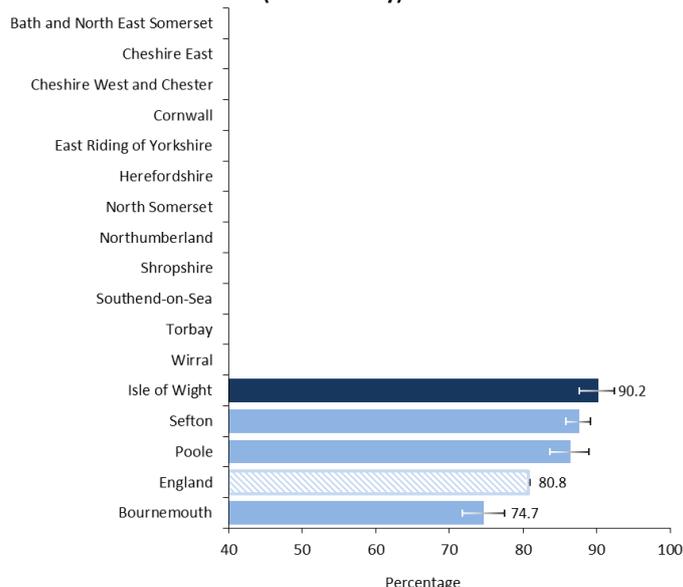


Source: Gov.uk HPV Vaccine coverage statistics – <https://www.gov.uk/government/collections/vaccine-uptake> (accessed 16 December 2016)

For Year 8/Cohort 13, only 85 local authorities in England offered the two dose programme in all schools within the 2015/16 academic year.

Of the comparators who offered this, the Isle of Wight had the highest percentage uptake with 90.2%.

Population vaccination coverage - HPV (Year 8/Cohort 13): Isle of Wight and CIPFA comparator authorities: 2015/16 (Females only)



Source: Gov.uk HPV Vaccine coverage statistics – <https://www.gov.uk/government/collections/vaccine-uptake> (accessed 16 December 2016)

Please note: the England figure is a provisional figure calculated as an average of just the authorities who offered the two dose programme within this year.

### MenACWY

The Meningitis ACWY vaccination programme is being delivered to teenagers and first-time students in a carefully planned programme over the next three years. The priority is to vaccinate all teenagers from school Year 9 onwards before they complete school Year 13. There is also a catch-up programme for first-time students up to the age of 25.

Data is not currently available for the routine programme.

### Further Information

Public Health England publish a wealth of data regarding child vaccinations on their Fingertips tool

<https://fingertips.phe.org.uk/profile-group/child-health/profile/child-health-vaccinations>

NHS Choices website for more information about childhood immunisations

<http://www.nhs.uk/Conditions/vaccinations/Pages/when-to-get-your-child-vaccinated.aspx>

<http://www.nhs.uk/Conditions/vaccinations/Pages/How-vaccines-work.aspx>

Public Health England: The Green Book has the latest information on vaccines and vaccination procedures, for vaccine preventable infectious diseases in the UK.

<https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book>

NICE guidance Immunisations: Reducing differences in uptake in under 19s

<https://www.nice.org.uk/guidance/ph21>