



Public Health  
England

Protecting and improving the nation's health

# **Human papillomavirus (HPV) vaccination coverage in adolescent females in England: 2017/18 Report for England**

# About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

Public Health England  
Wellington House  
133-155 Waterloo Road  
London SE1 8UG Tel:  
020 7654 8000  
[www.gov.uk/phe](http://www.gov.uk/phe)  
Twitter: @PHE\_uk  
Facebook: [www.facebook.com/PublicHealthEngland](http://www.facebook.com/PublicHealthEngland)

Prepared by: Elise Tessier, Joanne White and Vanessa Saliba  
For queries relating to this document, please contact: [Adolescent@phe.gov.uk](mailto:Adolescent@phe.gov.uk)



© Crown copyright 2018

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](http://www.ogilive.com). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published December 2018

PHE publications  
number: 2018671

PHE supports the UN gateway  
Sustainable Development Goals



# Contents

About Public Health England	2
Main findings	4
Summary	5
Background	9
Methods and previous data collections	9
Factors affecting HPV vaccine coverage estimates in 2017/18	9

## Main findings

2017/18 is the third year HPV vaccine coverage for the two-dose schedule has been calculated in school Year 9 females (aged 13-14 years) in England.

83.8% of Year 9 females completed the two-dose HPV vaccination course in 2017/18, compared to 83.1% in 2016/17, 85.1% in 2015/16, and 86.7% completing a three-dose course in 2013/14.

In the 81/152 (53.3%) LAs that offered 2 doses of HPV vaccine to Year 8 females in all schools within the 2017/18 school year, completed course coverage was 79.5%.

HPV immunisation coverage for the priming dose in Year 8 in 2017/18 was 86.9%, compared with 87.2% in 2016/17, 87.0% in 2015/16 and 89.4% in 2014/15.

During the 2017/18 academic year, the continued commitment to deliver on the childhood flu vaccine programme, now extended to 5 school years from reception to year 4 may have continued to impact on the capacity of school immunisation providers to deliver the HPV vaccination programme in some areas.

# Summary

This report presents annual human papillomavirus (HPV) vaccine coverage data for the fourth year (2017/18) of the two-dose schedule and the third year of completed course data up to Year 9. 2017/18 was the second year that all Local Authorities (LA) in England ran schools-based HPV vaccination programmes. Full data tables are available by NHS England local team (LT) and by LA. UK HPV coverage data by country is also tabulated.

In England, for operational purposes, the recommendation from September 2014 was to offer the first (priming) HPV vaccine dose to females in Year 8 (aged 12 to 13 years) and the second dose 12 months later in Year 9 (aged 13 to 14 years), as this would reduce the number of immunisation sessions required in schools. However the decision on how to deliver the programme was left to LTs and in practice about half of all LAs currently offer both doses in school Year 8 (with a minimum 6 month interval).

HPV immunisation coverage for the priming dose in Year 8 in 2017/18 (born 1 September 2004 to 31 August 2005) was 86.9%, compared with 87.2% in 2016/17, 87.0% in 2015/16 and 89.4% in 2014/15. Coverage by LT ranged from 81.0% (London) to 91.5% (Yorkshire and Humber) (Figure 1). Forty-six of 152 LAs achieved over 90% coverage for the priming dose in Year 8 females. Year 8 LA coverage for the priming dose ranged from 67.8% to 95.3%.

A total of 81/152 (53.3%) local authorities offered 2 doses of HPV vaccine to all girls in the routine cohort, school Year 8, in 2017/18 (compared to 95 in 2016/17, 85 in 2015/16 and 86 in 2014/15), and coverage for the completed course in these local authorities was 79.5% (range 51.7% to 91.5%). It should be noted that these girls continue to have the opportunity to be caught up through school when they move up to Year 9 or through their GP. For the 95 LAs where data was available, completed course coverage for the 2016/17 Year 8 cohort (born 1 September 2003 – 31 August 2004) was estimated to have improved from 80.8% to 84.5% by the end of Year 9.

HPV vaccine coverage in England for females completing a two-dose HPV schedule by Year 9 was 83.8% compared to 83.1% in 2016/17, 85.1% in 2015/16, and 86.7% of Year 8 females completing a three-dose course in 2013/14 (the recommended schedule at that time). Local team completed course coverage by Year 9 ranged from 78.4% (London) to 90.2% (Hampshire, Isle of Wight, and Thames Valley) (Figure 2). Twenty-six LAs across England achieved over 90% two-dose coverage in Year 9 females. Year 9 LA two-dose coverage across England ranged from 65.3% to 94.3%.

HPV vaccine coverage in England remains stable and consistent with levels reported in 2016/17. Accurately recording cohort denominators and numerators across multiple school years is challenging and requires local teams and providers to combine multiple data sources. Many areas have improved the quality of their data this year thus providing more accurate

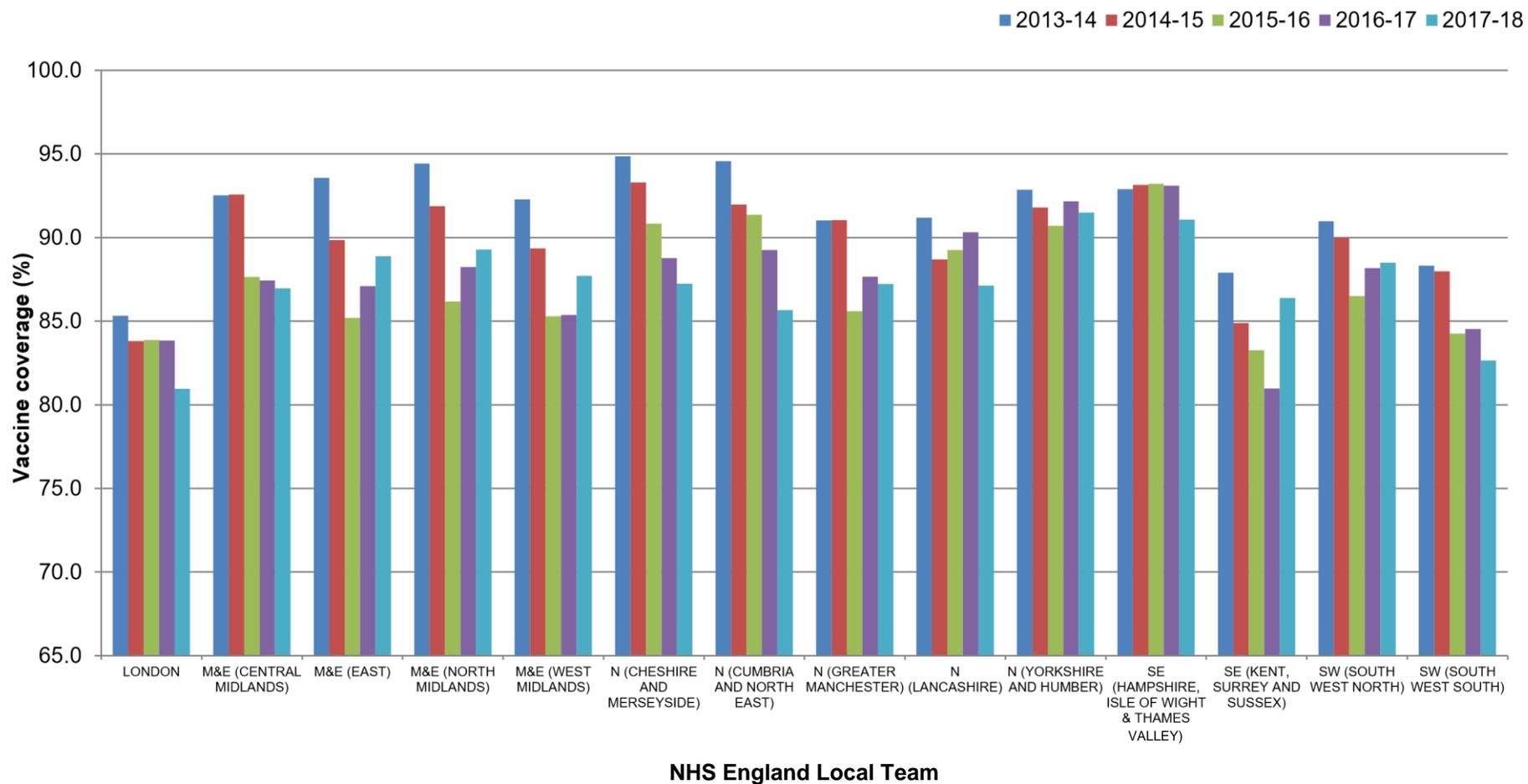
coverage estimates. It is important to continue to build on this year's achievements going forward.

PHE have also developed an optional school level standardised data [collection tool](#) for local providers to use. The school level data for all the adolescent programmes are reviewed and analysed separately and will be reported on elsewhere. School-level data allow PHE to better monitor inequalities in vaccine uptake at a more granular level. Similar analyses have been conducted for [seasonal influenza vaccine uptake in children of primary school age](#).

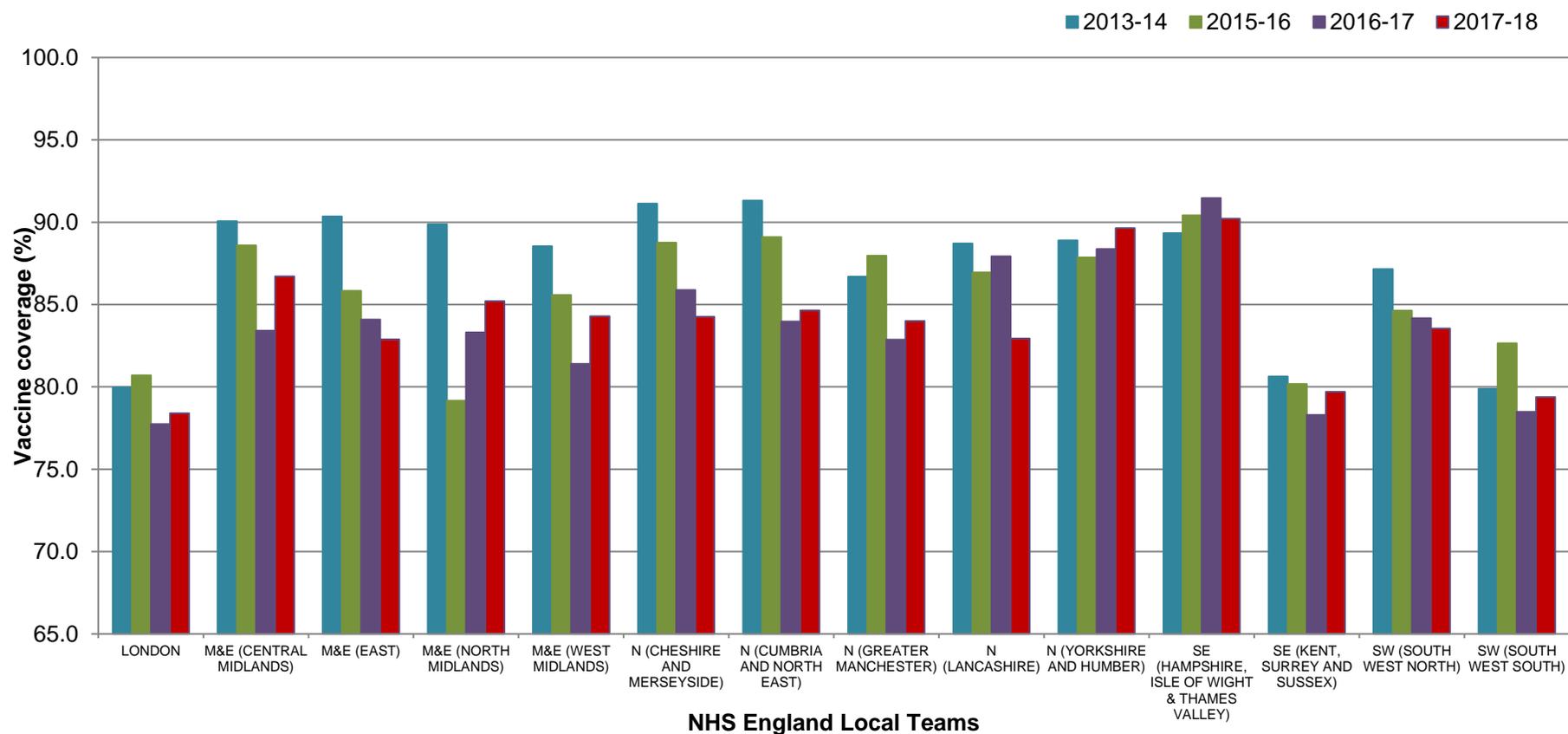
In July 2018, it was announced that the HPV immunisation programme will be extended to boys aged 12-13 years in England, based on advice from the Joint Committee on Vaccination and Immunisation (JCVI). Currently only girls and men who have sex with men are eligible to receive the HPV vaccine. However, it is expected that from the 2019/20 academic school year, 12 to 13 year old boys will also become eligible. This extension will help prevent more cases of HPV-related cancers such as head and neck and ano-genital cancers in girls and boys.

For more information please visit [nhs.uk/hpv](https://nhs.uk/hpv)

**Figure 1. Dose one (priming) HPV vaccine coverage by former NHS England Area Team for the routine cohort (Year 8) in academic years 2013/14 to 2017/18: England**



**Figure 2. HPV vaccine coverage in females: completed courses by NHS England Local Team in 2013/14 (3 doses in year 8) and 2015/16, 2016/17 and 2017/18(2 doses administered across 2 years): England**



# Background

## Methods and previous data collections

Full details of the cohort definitions and methodology can be found in the [user guide](#) for data providers on submitting HPV vaccine coverage data for the 2017/18 academic year. Data providers must use updated data sources (ie school rolls for all types of schools/units plus schooled at home or Child Health Information Systems) to identify all eligible females in the locality at the end of August 2018. The 2017/18 HPV vaccine coverage was calculated based on the total number of eligible females in the target population who reported having received dose 1 and/or dose 2 of the HPV vaccine at any time up to the end of August 2018. Historical annual HPV vaccine coverage reports from 2008/09 to 2016/17 and associated data tables can be found on the [PHE website](#).

## Factors affecting HPV vaccine coverage estimates in 2017/18

Some of these factors were previously reported in relation to data collected for 2015/16 and 2016/17. All apply to the 2017/18 data:

- 'catch-up' vaccinations (ie missed vaccinations given either in schools or in GP surgeries) may not be included in the returns for a significant number of LAs. This may lead to coverage of the completed course being under-estimated
- coverage (of 1 and/or 2 doses) may be over- or under-estimated in some LAs due to movements of students in and out of schools during the academic year not being accurately reflected in the denominators and/or numerators for some LA returns □ some areas have changed providers during the 2 academic years (2016/17 and 2017/18) which are covered by this survey and this may have temporarily impacted on the delivery of the HPV programme
- 2017/18 was the second year that all LAs in England ran schools-based HPV vaccination programmes (as opposed to GP-delivered)
- LAs that changed delivery model (n=10) in 2017/18 to 2 doses within Year 8 may also have lower coverage than expected until the new delivery model beds in
- some LAs had reported offering catch-up sessions for Year 9 in 2017/18 but were unable to provide updated data for this cohort. It is therefore likely that these LAs reported under-estimated coverage, reflecting the difficulty in combining data from multiple sources (routine sessions, catch-up clinics, GP practices) for cohorts year on year
- other areas reported offering catch-up sessions for Year 9 students in 2017/18 which were added to the numerator but were unable to provide an updated denominator reflecting the change in students eligible for the vaccination. It is

therefore likely that this figure over-estimates coverage, again reflecting the difficulty of estimating cohort figures over time and combining multiple data sources □ improvements in coverage reflected particular efforts locally to:

- a) establish good relationships between nursing teams and schools
  - b) focus on follow-up and reminders for girls who missed immunisation sessions
  - c) provide additional opportunities for HPV vaccination
  - d) increase confidence in nurses using self-consent
  - e) audit and update coverage data
- an increased denominator (>10%) was observed in 15 LAs for Year 8 estimates and 5 LAs for Year 9 estimates compared to 2016/17. These increases are a result of more accurate and comprehensive school lists being available. Consequently, local coverage in some of these areas appears lower than previous years and the overall denominator for England has increased since 2016/17
  - decreases in coverage in some LAs related to specific programme issues reported to PHE:
    - a) reductions in school nursing service capacity (1 LA reporting)
    - b) fewer catch-up opportunities, and/or difficulties finding space within schools to conduct sessions (1 LA reporting)
    - c) reported concerns about vaccination (2 LAs reporting)
    - d) higher rates of non-return of consent forms and/or refusals (3 LAs reporting)
  - 1 LA offered the option of receiving both doses in year 8 or 1 dose in year 8 and 1 dose in year 9. This change in the programme resulted in a lower coverage among year 8 students who will be offered the vaccine again in Year 9
  - the commitment to other school-delivered immunisation programmes, such as the childhood flu immunisation programme (extended to school years reception to year 4 in 2017/18), may have continued to impact on the capacity of providers to deliver the HPV programme