This is a National Statistics Publication

National Statistics status means that the official statistics meet the highest standards of trustworthiness, quality and public value. They are identified by the quality mark shown above.

The UK Statistics Authority has designated these statistics as National Statistics signifying compliance with the Code of Practice for Statistics.

Once statistics have been designated as National Statistics, it is a statutory requirement that the Code of Practice shall continue to be observed.

The statistics last underwent a full assessment by the Office for Statistics Regulation (OSR) against the Code of Practice in May 2012. The OSR is the regulatory arm of the UK Statistics Authority.

The continued designation of these statistics as National Statistics was confirmed in May 2012 following a compliance check by the Office for Statistics Regulation. The compliance check report highlighted a number of strengths and made suggestions for improvements.

Find out more about the Code of Practice at:

Find out more about National Statistics at:
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Introduction

This publication provides an update on the annual school-based HPV immunisation programme for girls in Scotland, to include school year 2018/19. Uptake rates are presented for girls in their first, second and third year of secondary school (S1, S2 and S3) by NHS Board, local authority and deprivation. Trend data is presented for the last 10 years.

Human Papillomavirus (HPV) is a virus which is mainly transmitted through sexual contact. There are over 200 different types of HPV. Some types can cause cancers of the anus, penis, mouth and throat, vagina and vulva. Others cause genital warts, which is one of the most common sexually transmitted diseases.

The most common HPV-induced cancer is cervical cancer. The HPV vaccine is a very effective vaccine which protects against the two types of HPV that cause around 75% of cases of cervical cancer\(^1\). The vaccine does not protect against all cervical cancers, so regular cervical screening is still important.

Gardasil\(^\circledR\) is the routine vaccine used by the UK immunisation programme. Prior to September 2012, Cervarix\(^\circledR\) was the routine vaccine used. The Gardasil\(^\circledR\) vaccine also protects against two other types of HPV that cause around 90% of genital warts.

The HPV Immunisation Programme in Scotland started on 1 September 2008 following the United Kingdom (UK) Joint Committee on Vaccination and Immunisation (JCVI) recommendation that immunisation against HPV should be introduced routinely for girls. The programme aims to help protect girls against developing cervical cancer later in life by routinely immunising them in early secondary school, at around 11 to 13 years of age, through a school-based programme.

The 2008 JCVI recommendation was supported by an independent cost-benefit analysis which indicated that an uptake rate of 80% or more of the full course of recommended doses of vaccine would be cost effective for the routine cohort, providing that vaccine protection lasted for at least 10 years. While no specific target for uptake of HPV immunisation in Scotland was set, the expectation was that uptake of 80% or more should be achieved for the routine programme.

In addition to the school based vaccination programme for girls, a HPV immunisation programme for men who have sex with men (MSM) up to and including 45 years old was introduced in Scotland in July 2017. The programme was implemented based on advice from the JCVI. This is routinely delivered through sexual health clinics. Reports detailing uptake amongst this group are published separately.

In July 2018, the JCVI recommended that adolescent boys should also be offered the HPV vaccine. Following this recommendation, the Scottish Government announced the HPV immunisation programme in Scotland would be extended to adolescent boys, with the vaccine being offered to every S1 pupil, regardless of gender from 1 August 2019 (school year 2019/20). Statistics on HPV vaccine uptake for both boys and girls will be available in the next release of this annual publication in November 2020.

HPV immunisation schedule

The routine HPV immunisation schedule is two doses of vaccine to complete the full course. The second dose is given no sooner than six months and no later than two years after the first dose. The full course of vaccines was initially three doses in the UK, however additional evidence supported the change to a two dose schedule for girls under 15 years of age from September 2014. Further information on the change in the UK HPV immunisation schedule is available in Appendix 1.

Target routine cohort

Prior to school year 2014/15, under the three dose schedule, girls in every NHS Board in Scotland were first offered the HPV vaccine when they were in S2. Following the change to the two dose schedule in 2014/15, NHS Boards in Scotland implemented slightly different timetables for offering doses of the vaccine in schools. In most NHS Boards girls were routinely offered the first dose in S1 and the second dose in S2, whilst some NHS Boards routinely offered both doses in S2. From 2018/19, all NHS Boards in Scotland offer the first dose of vaccine to S1 girls. A summary of the target routine cohorts in each NHS Board in school year 2018/19 is shown in the table below.

Target routine cohorts offered HPV immunisation in school year 2018/19; by NHS Board of school

<table>
<thead>
<tr>
<th>NHS Board of school</th>
<th>Girls in S1 offered first dose</th>
<th>Girls in S2 offered first dose</th>
<th>Girls in S2 offered second dose</th>
<th>Girls in S3 offered second dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayrshire &amp; Arran ¹</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Borders</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Dumfries &amp; Galloway</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Fife</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Forth Valley</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Grampian</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Greater Glasgow &amp; Clyde</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Highland</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Lanarkshire</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Lothian</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Orkney</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Shetland</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Tayside</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Western Isles ²</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

1. In school year 2018/19 NHS Ayrshire & Arran was completing a transition in the timing of the offer of doses of the HPV vaccine. This transition commenced in 2017/18, when girls in S1 and S2 were both offered the first dose of vaccine. In 2018/19, girls in S1 were offered the first dose of vaccine, and girls in S2 and S3 were offered the second dose of vaccine.

2. Prior to school year 2018/19, girls in NHS Western Isles were offered both doses of the HPV vaccine in S2. In 2018/19 NHS Western Isles commenced a phase of transition to offering the first dose in S1 and the second dose in S2. In 2018/19, girls in S1 and S2 were both offered the first dose of HPV vaccine; they will be offered the second dose in 2019/20 when they are in S2 and S3 respectively.
Main Points

- HPV immunisation uptake rates for S1 to S3 girls remained high in Scotland, 85.4% of eligible girls receiving both doses of the vaccine by the end of S3 in 2018/19. This is a small decrease for the second year in a row.

- Uptake of the first dose in S1 increased this year to 85.1%; this is the first time S1 uptake has increased since 2014/15, when S1 girls were first offered the vaccine.

- Uptake of the second dose of vaccine by the end of S2 was 77.9%, similar to the previous year, but down from 82.7% in 2015/16.

- Girls who missed a dose of the vaccine will be re-offered it in the following school year. This year, an additional 7.2% of girls received their second dose in S3, bringing the percentage completing the full two dose course to 85.4%.

- Although uptake of the first dose of the HPV vaccine was over 90% by the end of S3 in all deprivation categories, girls from the most deprived areas were less likely to receive the second dose compared to those from the least deprived areas (81.6% vs. 89.6%).
Results and Commentary

The amendments in the HPV immunisation schedule from September 2014, and the associated changes in the target routine cohorts and timing of doses offered in NHS Boards, means uptake rates for the same class years are not always directly comparable across reporting years and NHS Boards.

Uptake rates for NHS Orkney, NHS Shetland and NHS Western Isles are prone to fluctuation due to the small number of girls in these cohorts.

Uptake rates for girls in first year of secondary school (S1)

In 2018/19, S1 uptake of the first dose of HPV vaccine was 85.1%, an increase on the previous year (Table 1).

Table 1: HPV immunisation uptake rates 2017/18 – 2018/19; Girls in S1

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>S1 in 2017/18</th>
<th>S1 in 2018/19</th>
<th>Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV dose 1</td>
<td>83.7</td>
<td>85.1</td>
<td>↑ ( + 1.4 )</td>
</tr>
</tbody>
</table>

The school year 2014/15 was the first year girls in S1 in Scotland were offered the first dose of HPV vaccine. Following a decrease in uptake from 89.0% in 2014/15, the uptake this year has increased for the first time in four years, though there is variation in uptake across NHS Boards (Figure 1, 2). These uptake rates are expected to increase as girls who did not start their course of HPV immunisations in 2018/19 will be offered the vaccine in 2019/20. Updated uptake rates for these pupils will be published in autumn 2020.
Figure 1: Uptake of the first dose of HPV immunisation by the end of the school years 2014/15 to 2018/19; Girls in S1

Please note that the vertical axis on this chart does not start at zero.

Figure 2: Uptake of the first dose of HPV immunisation by the end of the school year 2018/19 by NHS Board of school¹; Girls in S1

1. NHS Orkney and NHS Western Isles uptake rates are under-reported as data on HPV vaccinations given in 2018/19 were not fully recorded for all schools.
Uptake rates for girls in second year of secondary school (S2)

Most girls in S2 in 2018/19 were born 1 March 2005 to 28 February 2006 and were first offered the vaccine in 2017/18 when they were in S1. By the end of S2 89.8% of these girls had received the first dose, representing an additional 6.1% who hadn’t received the vaccine in the previous year when they were in S1 (Table 2).

Table 2: Change in uptake of first dose of HPV immunisation between end of S1 and end of S2; Girls in S2 in 2018/19

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Uptake Rate (%) Scotland</th>
<th>Change in uptake between end of S1 and end of S2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S1 in 2017/18</td>
<td>S2 in 2018/19</td>
</tr>
<tr>
<td>HPV dose 1</td>
<td>83.7</td>
<td>89.8</td>
</tr>
</tbody>
</table>

Uptake of each dose of HPV vaccine among S2 girls in 2018/19 was similar to S2 uptake in the previous year (2017/18) (Table 3).

Table 3: HPV immunisation uptake rates 2017/18 – 2018/19; Girls in S2

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Uptake Rate (%) Scotland</th>
<th>Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S2 in 2017/18</td>
<td>S2 in 2018/19</td>
</tr>
<tr>
<td>HPV dose 1</td>
<td>89.7</td>
<td>89.8</td>
</tr>
<tr>
<td>HPV dose 2 (completed course)</td>
<td>78.2</td>
<td>77.9</td>
</tr>
</tbody>
</table>

In 2018/19, 77.9% of S2 girls had received the second dose (completed course) by the end of the school year. There has been a small downward trend in S2 uptake rates since the implementation of the two dose schedule in 2014/15 (Figure 3). There are variations in the uptake rates across NHS Boards (Figure 4, 6).

Girls who did not start or complete their course of HPV immunisations in 2018/19 will be offered the vaccine again in 2019/20, so uptake rates for these girls are expected to increase, for the second dose in particular. Updated uptake rates for these pupils will be published in autumn 2020.
Figure 3: Uptake of HPV immunisations by the end of school years 2009/10 to 2018/19; Girls in S2

Please note that the vertical axis on this chart does not start at zero.

* The HPV immunisation schedule was reduced from three to two doses from September 2014.
† Decrease in dose 2 uptake in 2014/15: the immunisation schedule change meant S2 girls in 2014/15 had fewer opportunities to receive the second dose by the end of school year than previous S2 cohorts.

Figure 4: Uptake of the first and second doses of HPV immunisation by the end of the school year 2018/19 by NHS Board of school1,2; Girls in S2

1. NHS Orkney and NHS Western Isles uptake rates are under-reported as data on HPV vaccinations given in 2018/19 were not fully recorded for all schools.
2. NHS Western Isles did not offer S2 girls the second dose of HPV vaccine in school year 2018/19. These girls will be offered the second dose of vaccine when they are in S3 in school year 2019/20.
Uptake rates for girls in third year of secondary school (S3)

In 2018/19 S3 uptake of each dose of vaccine decreased on the previous year (Table 4).

Table 4: HPV immunisation uptake rates 2017/18 – 2018/19; Girls in S3

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Uptake Rate (%) Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S3 in 2017/18</td>
</tr>
<tr>
<td>HPV dose 1</td>
<td>91.8</td>
</tr>
<tr>
<td>HPV dose 2 (completed course)</td>
<td>86.6</td>
</tr>
</tbody>
</table>

A number of girls are immunised in S3 in mop-up vaccination sessions in schools offered to girls who have not started or completed the full two dose course.

Most girls in S3 in 2018/19 were born 1 March 2004 to 28 February 2005 and were first offered the vaccine in 2016/17 when they were in S1. Data published last year (2017/18) show that by the end of S2, 89.7% of this cohort had received the first dose and 78.2% had received both doses of vaccine. In 2018/19 a further 7.2% of girls who did not receive the second dose in S2 received it in S3, which meant over 85% of girls had completed the full course by the end of S3 (Table 5; Figure 5, 7).

Table 5: Change in uptake of each dose of HPV immunisation between end of S1 and end of S3; Girls in S3 in 2018/19

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>S1 pupils in 2016/17</th>
<th>S2 pupils in 2017/18</th>
<th>S3 pupils in 2018/19</th>
<th>Change in uptake between end of S2 and end of S3</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV dose 1</td>
<td>85.6</td>
<td>89.7</td>
<td>91.6</td>
<td>↑ (+ 1.9 )</td>
</tr>
<tr>
<td>HPV dose 2 (completed course)</td>
<td>..</td>
<td>78.2</td>
<td>85.4</td>
<td>↑ (+ 7.2 )</td>
</tr>
</tbody>
</table>

.. Not applicable

S3 girls who have not started or completed their course of immunisations are likely to be re-offered the HPV vaccine in school year 2019/20, when they are in their fourth year of secondary school (S4). As a result uptake of a completed course of vaccination is expected to increase slightly after S3.

Following the change from the three to two dose routine schedule in 2014/15, and the resulting change in the timing of the offer of doses and frequency of HPV vaccination sessions in schools, the number of opportunities for girls to complete their full vaccination course by S3 has reduced. It is thought, therefore that more girls than previously may complete their full vaccination course in S4. For this reason, ISD plan to include S4 uptake rates in the next publication in November 2020.
Figure 5: Uptake of the first and second doses of HPV immunisation by the end of the school year 2018/19 by NHS Board of school\textsuperscript{1,2}; Girls in S3

1. NHS Orkney and NHS Western Isles uptake rates are under-reported as data on HPV vaccinations given in 2018/19 were not fully recorded for all schools.

2. In school year 2018/19 NHS Ayrshire & Arran was completing a transition in the timing of the offer of doses of the HPV vaccine. This meant S3 girls were first offered the second dose of vaccine in 2018/19. In the rest of Scotland S3 girls were first offered the second dose of vaccine in the previous year, when they were in S2.
Figure 6: map showing uptake of the second dose of HPV immunisation by the end of S2\textsuperscript{1,2}, 2018/19

Figure 7: map showing uptake of the second dose of HPV immunisation by the end of S3\textsuperscript{1,3}, 2018/19

1. NHS Orkney and NHS Western Isles uptake rates are under-reported as data on HPV vaccinations given in 2018/19 were not fully recorded for all schools.

2. NHS Western Isles did not offer S2 girls the second dose of HPV vaccine in school year 2018/19. These girls will be offered the second dose of vaccine when they are in S3 in school year 2019/20.

3. In school year 2018/19 NHS Ayrshire & Arran was completing a transition in the timing of the offer of doses of the HPV vaccine. This meant S3 girls were first offered the second dose of vaccine in 2018/19. In the rest of Scotland S3 girls were first offered the second dose of vaccine in the previous year, when they were in S2.
Trends in uptake rates in third year of secondary school (S3)

Uptake of the first dose of HPV vaccine by the end of S3 has exceeded 90% since the programme began. Although it has fallen in recent years from over 94% in 2014/15 it remains high at 91.6% in the latest year.

Uptake of the second dose met or exceeded 92% in the years prior to 2015/16 and then decreased to 85.4% in 2018/19. The decrease in uptake of the second dose in 2015/16 is likely to be due to the change in the HPV immunisation schedule in the UK from September 2014, from three doses to two doses, and subsequent changes in the timing of the offer of doses of the vaccine in NHS Boards. This meant S3 girls in 2015/16 had fewer opportunities to receive the second dose than previous S3 cohorts. Although uptake of the second dose of HPV vaccine by the end of S3 increased to 88.8% in 2016/17, uptake has fallen over the past two years and was 85.4% in 2018/19 (Figure 8).

Figure 8: Uptake of a completed course of HPV immunisations by the end of school years 2009/10 to 2018/19; Girls in S3

Please note that the vertical axis on this chart does not start at zero.

1. The HPV immunisation schedule was reduced from three to two doses from September 2014. Girls in S3 in 2014/15 started their course of HPV immunisations when they were in S2 in the previous year (2013/14), and would have been on the three dose schedule. Most of these girls continued on the three dose schedule to complete the full course. The revised schedule meant a small number of girls in this cohort did not require a third dose of vaccine as they had already received two doses of vaccine between six months and two years apart.
Uptake rates by deprivation

Uptake of the first dose of HPV immunisation was high for girls in all deprivation categories, with over 90% of girls receiving the vaccine by the end of S3. However, girls from the most deprived areas were less likely to have the second dose compared to those in the least deprived areas (81.6% vs 89.6%), (Figure 9).

**Figure 9: Uptake of the first and second doses of HPV immunisation by the end of the school year 2018/19 by deprivation**; Girls in S3

1. Scottish Index of Multiple Deprivation (SIMD) 2016 Scotland level population weighted quintile.

The full data in this release are available in the [List of Tables](#).

Previously published HPV immunisation uptake rates, including information for the catch-up programme which ran over the three-year period from September 2008, are available from the [Publications](#) page of the Child health topic area on the ISD website.
Uptake rates in the UK

Across the UK there is variation in when girls are offered the vaccine in schools. This means uptake rates for similar class years across countries are not fully comparable.

In England the recommendation from September 2014 was to offer the first dose of vaccine to girls in School Year 8 (around 12-13 years of age) and the second dose 12 months later in School Year 9 (around 13-14 years of age). However local teams can decide how to deliver the programme and in practice in 2017/18 around half of local authorities offered both doses of vaccine in School Year 8, six months apart.

In Wales, girls are routinely offered the first dose of vaccine in School Year 8 (around 12-13 years of age) and the second dose in School Year 9 (around 13-14 years of age).

In Northern Ireland, the programme is delivered routinely in schools with vaccines given in School Year 9 (around 12-13 years of age) and then opportunities provided in schools to catch-up on missing doses in School Year 10 (around 13-14 years of age).

In age terms, School Years S2 and S3 in Scotland are broadly equivalent to School Years 8 and 9 in England and Wales, and Years 9 and 10 in Northern Ireland.

The latest available data for each country in the UK is shown in Table 6. The last reporting stage of HPV vaccine uptake rates is S3 in Scotland, Year 9 in England and Northern Ireland and Year 10 in Wales. Uptake of the full two dose course for these cohorts ranges from 83.8% in England (2017/18 data) to 85.4% in Scotland (2018/19 data).

Table 6: Annual percentage uptake of the first and second dose of HPV immunisations in the UK

<table>
<thead>
<tr>
<th>Scotland2</th>
<th>England3</th>
<th>Wales4,5</th>
<th>Northern Ireland6</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018/19</td>
<td>2017/18</td>
<td>2018/19</td>
<td>2017/18</td>
</tr>
<tr>
<td>S1</td>
<td>S2</td>
<td>S3</td>
<td>Year 8</td>
</tr>
<tr>
<td>First Dose</td>
<td>85.1</td>
<td>89.8</td>
<td>91.6</td>
</tr>
<tr>
<td>Second Dose</td>
<td>..</td>
<td>77.9</td>
<td>85.4</td>
</tr>
</tbody>
</table>

.. Not Applicable

1. Data sources:

2. Scotland 2018/19 Cohort:
   a. S1 - majority of pupils born 1 March 2006 to 28 February 2007
b. S2 - majority of pupils born 1 March 2005 to 28 February 2006
c. S3 - majority of pupils born 1 March 2004 to 28 February 2005

3. England 2017/18 Cohort:
   d. Year 8 - born 1 September 2004 to 31 August 2005
e. Year 9 - born 1 September 2003 to 31 August 2004

4. Wales 2018/19 Cohort:
   a. Year 8 - born 1 September 2005 to 31 August 2006
   b. Year 9 - born 1 September 2004 to 31 August 2005
c. Year 10 - born 1 September 2003 to 31 August 2004

5. Wales data for 2018/19: Although the vaccination sessions for 2018/19 were completed by the time the data was published, data entry may not have been fully completed.

6. Northern Ireland 2017/18 Cohort:
   a. Year 9 - born 1 September 2004 to 31 August 2005
   b. Year 10 - born 1 September 2003 to 31 August 2004

In subsequent publications by the other countries in the UK, the uptake rates for the cohorts reported above may increase due to ‘mop up’ immunisations i.e. where girls are given HPV immunisation in the school year after the year in which they were first offered the vaccine as part of the routine cohort.
**Glossary**

**CHSP School**  
Child Health Surveillance Programme School

**Deprivation**  
The Scottish Index of Multiple Deprivation (SIMD) is the main source for measuring relative deprivation in Scotland.  
ISD use population weighting when using SIMD. More information on SIMD can be found at the following web address:  

**HPV**  
The Human Papillomavirus (HPV) vaccine is designed to protect against the two types of HPV that cause around 75% of cases of cervical cancer. The HPV Immunisation Programme in Scotland started on 1 September 2008.  
Gardasil® is the routine vaccine used by the UK immunisation programme. Prior to September 2012, Cervarix® was the routine vaccine used. The Gardasil® vaccine also protects against two other types of HPV that cause around 90% of genital warts.

**Immunisation**  
The process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the immune system to protect a person against subsequent infection or disease.

**Immunised**  
To be fully immunised against a particular disease an individual must have received all required doses of the relevant vaccine. Detailed information about the current immunisation programmes in Scotland, the vaccines available, and the diseases they protect against, can be found via the [NHS Inform](https://www.nhsinform.scot) website.

**S1 cohort**  
Girls in first year of secondary school (S1). These girls are around 12 years of age.

**S2 cohort**  
Girls in second year of secondary school (S2). These girls are around 13 years of age.

**S3 cohort**  
Girls in third year of secondary school (S3). These girls are around 14 years of age.
SIRS Scottish Immunisation and Recall System

Uptake rates Immunisation uptake rates (sometimes referred to as coverage) refer to the proportion of the eligible population who have received the recommended doses of the relevant vaccines. Monitoring the proportion of the eligible population vaccinated is a key measure of the immunisation programme performance. It is of public health concern should immunisation rates decrease, as this makes the possibility of disease transmission more likely.

HPV immunisation uptake rates for each class year cohort are calculated as follows:

\[
\frac{\text{Number of eligible girls immunised}}{\text{Number of eligible girls in the population/class year}} \times 100
\]
List of Tables

<table>
<thead>
<tr>
<th>File name</th>
<th>File and size</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV immunisation uptake rates by the end of the school year for girls in S1 to S3 in school year 2018/19</td>
<td>Excel 114 Kb</td>
</tr>
</tbody>
</table>

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Further Information

Further Information can be found on the Childhood Immunisation area of the ISD website.

The next release of this publication will be in November 2020.

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Appendices

Appendix 1 – Background information

Data sources

Data for this publication are derived from the Child Health Surveillance Programme School system (CHSP School) and Scottish Immunisation and Recall System (SIRS). These systems are used by all NHS Boards in Scotland and their primary purpose is to facilitate the invitation of children for specific child health programme contacts or immunisations as they reach the appropriate age. They also allow recording of information obtained and/or care given during the contacts, such as immunisations given.

CHSP School is used to facilitate the scheduling of HPV immunisation sessions in school and the recording of immunisation data. After an immunisation contact has taken place the immunisation details are keyed into the system by administrative staff in NHS Boards. Immunisations recorded on the school system also update the child’s immunisation record on SIRS.

All NHS Boards in Scotland use CHSP School/SIRS to record HPV immunisations. NHS Orkney started recording HPV immunisation data on CHSP School/SIRS for school year 2010/11 and therefore provided their own figures for 2008/09 and 2009/10. ISD receive quarterly data extracts from SIRS and CHSP School for the purpose of producing and publishing immunisation uptake rates.

Accuracy and reliability

The data is not a sample and it covers girls in local authority, independent and grant maintained schools in Scotland. As data are recorded on CHSP School and SIRS for the primary purpose of helping to facilitate the scheduling and invitation of children for immunisation, a high degree of accuracy of data recording on immunisations given by NHS Boards is required. A small number of additional HPV immunisations may have been given that have not been recorded on CHSP School or SIRS by the time of data extract.

ISD undertake further data quality assurance checks prior to publication. In addition, NHS Board Immunisation Co-ordinators and child health/screening departments who administer the data have the opportunity to review figures for their area prior to publication, so that any issues affecting the reported rates can be highlighted to users as appropriate.

For a small proportion of girls there will be some inaccuracies in the recording of the class year or associated information used to collate the cohort data from CHSP School. For example, there are a small number of records on CHSP School where girls are allocated to ‘default’ school codes which indicate, for example, the school is unknown. The majority of these ‘default’ codes are likely to be data errors and therefore these data have been excluded from the calculations. The effect on these inaccuracies on the reported uptake rates is thought to be minor.

Where girls move into Scotland during the school year their HPV immunisation status is obtained and recorded on SIRS/CHSP School so that immunisation(s) can be offered if
appropriate. A small number of immunisations may be given out-with the schools programme by GPs or in private clinics for example. SIRS/CHSP School would normally be updated to reflect these girls' HPV immunisation status. However there may be a few instances where details of immunisation given out-with the school programme are not provided to administrative staff in NHS Boards who update CHSP School and SIRS.

Data quality and completeness

Uptake rates for NHS Orkney and NHS Western Isles are under-reported as data on HPV vaccinations given in 2018/19 were not fully recorded for all schools.

Methods

The cohorts eligible for immunisation (the denominators) are defined as girls recorded on CHSP School in the relevant class year as at May (i.e. near the end of the school year).

The latest available data recorded on CHSP School/SIRS on HPV immunisations given (as at August) are then mapped to the cohorts to derive the number of girls in the cohort immunised with each of the doses (the numerators).

Data are presented by:

- NHS Board of the school the pupil attends. NHS Board data are based on the boundaries as at 1 April 2019. NHS Board on CHSP School is recorded in the pre-April 2006 configuration of NHS Board boundaries. Data have been mapped to reflect the boundaries as at 1 April 2019.

- Local authority of residence. This is derived from pupils’ home postcode. Some pupils attend school in a local authority outside the NHS Board they are resident in. This means the figures for local authorities with a congruent NHS Board (e.g. NHS Dumfries & Galloway) are likely to differ from the NHS Board figures reported. There are a small number of records that do not have a valid postcode recorded and so the local authority of residence is unknown.

- Deprivation. Deprivation data are presented by Scottish Index of Multiple Deprivation (SIMD) quintile: SIMD is the main source for measuring relative deprivation in Scotland. This publication uses the SIMD (2016) Scotland level population weighted quintile, which is derived from pupils’ home postcode. There are a small number of records where it is not possible to derive a SIMD quintile from the postcode recorded and so the SIMD quintile is unknown.

HPV immunisation schedule

Following the recommendation of the Joint Committee on Vaccination and Immunisation (JCVI) in March 2014, the HPV immunisation schedule changed from a three dose to two dose schedule from September 2014. This change of advice from the JCVI is based on the latest immunological evidence which shows that the antibody response to two doses of the vaccine in adolescent girls is as good as a three dose course. The two dose schedule is only recommended if the first vaccination is given at less than 15 years of age. Girls who have not had their first dose of HPV vaccine by the time they are 15 years old should be offered the three dose schedule. This is because the antibody response in older girls may be less good than that of younger girls.
<table>
<thead>
<tr>
<th>Routine HPV immunisation schedule:</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2008 to August 2014</td>
</tr>
<tr>
<td>From September 2014</td>
</tr>
</tbody>
</table>

At September 2014 there were some girls who had started, but not completed, the three dose schedule. Girls who had received two doses of vaccine less than six months apart, continued on the three dose schedule as originally planned to complete the full course. Girls who had commenced the three dose schedule before the age of 15 years, and had received the first two doses of vaccine at least six months apart did not require a third dose to complete the full course.

A catch-up campaign for older girls ran over a three-year period from September 2008 and applied to girls who were aged 13 to 17 on 1 September 2008.
## Appendix 2 – Publication Metadata

<table>
<thead>
<tr>
<th>Metadata Indicator</th>
<th>Description</th>
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<tbody>
<tr>
<td>Publication title</td>
<td>HPV Immunisation Statistics Scotland</td>
</tr>
<tr>
<td>Description</td>
<td>HPV immunisation uptake rates for school year 2018/19</td>
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<tr>
<td>Theme</td>
<td>Health and Social Care</td>
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<tr>
<td>Topic</td>
<td>Child Health</td>
</tr>
<tr>
<td>Format</td>
<td>Excel workbooks, PDF</td>
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<tr>
<td>Data source(s)</td>
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<tr>
<td>Date that data are acquired</td>
<td>Class year cohort data acquired 13 May 2019. Data on immunisations given acquired 12 August 2019.</td>
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<tr>
<td>Release date</td>
<td>26 November 2019</td>
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<tr>
<td>Frequency</td>
<td>Annual</td>
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<tr>
<td>Timeframe of data and timeliness</td>
<td>HPV immunisation uptake rates are collated by school year, which in Scotland ends in late June. Data for school year 2018/19 were extracted on 12 August 2018.</td>
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<td>Continuity of data</td>
<td>The amendments in the HPV immunisation schedule from September 2014, and the associated changes in the target routine cohorts and timing of doses offered in NHS Boards, means uptake rates for the same class years are not always directly comparable across reporting years and NHS Boards. Trend data is presented for the last 10 years. Data for years prior to this are available in previous annual releases of this publication accessible from the Child Health publications page of the ISD website.</td>
</tr>
<tr>
<td>Revisions statement</td>
<td>These data are not subject to planned revisions. Each release reports on uptake rates for specific cohorts by the end of the relevant school year.</td>
</tr>
<tr>
<td>Revisions relevant to this publication</td>
<td>No revisions made.</td>
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<tr>
<td>Concepts and definitions</td>
<td>Further information about the current immunisation programmes in Scotland, the vaccines available, and the diseases they protect against, can be found via the NHS Inform website.</td>
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<td>Relevance and key uses of the statistics</td>
<td>See Statistics in Use</td>
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<tr>
<td>Accuracy</td>
<td>See accuracy and reliability section of Appendix 1 Background Information</td>
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<td>Completeness</td>
<td>The data covers all girls in the relevant class years in schools in Scotland i.e. it is not a sample. It covers girls in local authority, independent and grant maintained schools. Some additional doses of HPV vaccine may have been given but have not yet been recorded on CHSP School/SIRS at the time the data was extracted.</td>
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<tr>
<td>Comparability</td>
<td>See Uptake rates in the UK.</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td>It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines.</td>
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<td><strong>Coherence and clarity</strong></td>
<td>Data are available as a PDF and tables on the Childhood Immunisation area of the ISD website.</td>
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<td><strong>Value type and unit of measurement</strong></td>
<td>Numbers and percentages.</td>
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<td><strong>Disclosure</strong></td>
<td>The ISD protocol on Statistical Disclosure Protocol is followed.</td>
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<tr>
<td><strong>Official Statistics designation</strong></td>
<td>National Statistics</td>
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<tr>
<td><strong>UK Statistics Authority Assessment</strong></td>
<td>The statistics last underwent a full assessment by the Office for Statistics Regulation (OSR) against the Code of Practice in May 2012.</td>
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<td><strong>Last published</strong></td>
<td>27 November 2018</td>
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<td><strong>Date of first publication</strong></td>
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Appendix 3 – Early access details

Pre-Release Access
Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ISD is obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access.

Standard Pre-Release Access:
Scottish Government Health Department
NHS Board Chief Executives
NHS Board Communication leads

Early Access for Quality Assurance
These statistics will also have been made available to those who needed access to help quality assure the publication:
NHS Board Immunisation Co-ordinators
Health Protection Scotland
NHS Board child health/screening department administrators
Appendix 4 – ISD and Official Statistics

About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

**Purpose:** To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

**Mission:** Better Information, Better Decisions, Better Health

**Vision:** To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

Official Statistics

Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of ‘Official Statistics’. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD’s statistical publications are currently classified as one of the following:

- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD’s statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the [ISD website](#).