Teenage Booster Immunisation Statistics Scotland

Uptake for School Year 2017/18

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**Introduction**

Children in Scotland are protected through immunisation against many serious infectious diseases. Vaccination programmes aim both to protect the individual and to prevent the spread of these illnesses within the population. As a public health measure, immunisations are very effective in reducing the burden of disease.

The [UK Childhood Immunisation Schedule](#) covers the recommended immunisations for children and young people aged 0 to 18 years. The schedule comprises the universal or routine immunisations which are offered to all children and young people at specified ages, as well as selective or non-routine immunisations which are targeted to children at higher risk from certain diseases.

Under the UK immunisation schedule teenagers are offered two booster immunisations at around 14 years of age as follows:

- The teenage Td/IPV booster vaccine which boosts protection against three diseases: tetanus, diphtheria and polio.
- The MenACWY vaccine which protects against meningitis and septicaemia (blood poisoning) caused by four strains of meningococcal bacteria – meningococcal (Men) group A, C, W and Y.

In Scotland the teenage booster vaccines are routinely offered to pupils in year three of secondary school (S3), predominantly through a school-based programme. Pupils who miss the routine teenage booster immunisation sessions in S3 are offered the vaccines in year four of secondary school (S4). Teenagers who are not fully immunised may also be given the vaccines in year five (S5) or year six (S6) of secondary school or in general practice.

This publication provides an update of annual teenage booster immunisation uptake for pupils in S3 and S4. Data are presented for pupils in S3 and S4 by NHS Board, local authority and deprivation category. Trend data is available from school year 2011/12.
Main Points

- In 2017/18, uptake of the teenage booster immunisations among S3 pupils in Scotland, the class year in which the vaccines are routinely offered, remained at a similar level to previous years at just below 82%. Uptake of Td/IPV vaccine was 81.4%, down slightly from 81.8% in 2016/17, and MenACWY vaccine uptake remained at 81.9%.

- For pupils in S4, uptake of the teenage booster immunisations had reached almost 86% by the end of the school year. This was similar to the uptake for pupils in S4 in 2016/17. Uptake of Td/IPV vaccine remained at 85.8% and MenACWY vaccine uptake was 85.9%, down slightly from 86.4% in 2016/17.

- Uptake of each of the teenage booster immunisations was lower for pupils living in the most deprived areas. Among S4 pupils uptake ranged from just under 80% in the most deprived areas compared to just over 92% in the least deprived areas.
Results and Commentary

Uptake rates for pupils in S3

In 2017/18, uptake of the teenage booster immunisations among S3 pupils in Scotland, the class year in which the vaccines are routinely offered, remained at a similar level to the previous year at just below 82%. Uptake of Td/IPV vaccine was 81.4%, down slightly from 81.8% in 2016/17, and MenACWY vaccine uptake remained at 81.9%.

These vaccines are offered at the same vaccination sessions in schools so uptake rates are usually very similar. Although there was variation in uptake across NHS Boards, rates exceeded 70% in all areas except NHS Fife, where uptake of Td/IPV vaccine was marginally below 70% (Figure 1, 2, 3). Pupils not immunised in S3 are offered the vaccine in S4 so uptake rates are expected to increase.

Data for this publication are derived from the Child Health Surveillance School system (CHSP School) and Scottish Immunisation and Recall System (SIRS). Uptake rates are not available for NHS Western Isles. In this NHS Board the vaccines are routinely offered to teenagers through general practice rather than through a school-based programme. Teenage booster vaccines given in general practice are not routinely recorded on CHSP School or SIRS. As this NHS Board has a small population, the absence of data has a negligible impact on the overall ‘Scotland’ uptake rate.

The number of pupils in NHS Orkney and NHS Shetland is small therefore the reported uptake rates are prone to fluctuation.
Figure 1: Td/IPV and MenACWY immunisation uptake rates by the end of the school year 2017/18 by NHS Board of school¹,²; Pupils in S3

1. NHS Highland S3 uptake rates in 2017/18 include data for pupils in schools in Highland local authority only. Data for S3 pupils in schools in Argyll & Bute are excluded as data on vaccinations given in 2017/18 was not submitted. There are over 800 pupils in S3 in Argyll & Bute schools, which is around a quarter of all S3 pupils in NHS Highland.

2. NHS Fife has identified data quality issues which may be affecting their teenage booster immunisation uptake rates.

Source: CHSP School/SIRS
1. Uptake rates are not available for NHS Western Isles.
2. See footnotes on Figure 1.

Source: CHSP School/SIRS
Uptake rates for pupils in S4
Pupils who miss the routine teenage booster immunisation sessions in S3 are offered the vaccines in S4. For pupils in S4 in school year 2017/18 uptake of teenage Td/IPV immunisation and MenACWY had almost reached 86% by the end of the school year. This was similar to the uptake for pupils in S4 in 2016/17. Uptake of Td/IPV vaccine remained at 85.8% and MenACWY vaccine uptake was 85.9%, down slightly from 86.4% in 2016/17.

Uptake exceeded 80% in all NHS Boards except NHS Fife where uptake of the vaccines was around 78% (Figure 4, 5, 6). Although, uptake of the Td/IPV vaccine in NHS Highland was marginally below 80% (79.8%), uptake for S4 pupils in 2017/18 is under-reported in this NHS Board due to a data submission issue for schools in Argyll & Bute.

In school year 2017/18, NHS Shetland introduced a school-based teenage booster vaccination programme to replace their previous general practice based programme. This school based programme offered the vaccines to pupils in S3. Pupils in S4 in 2017/18, who were first offered the vaccine in 2016/17, continued to be vaccinated in general practice. Data on vaccines given in general practice are not routinely recorded on CHSP School or SIRS and therefore S4 uptake rates for NHS Shetland are not available. S4 uptake rates will be available for NHS Shetland from 2018/19.

Figure 4: Td/IPV and MenACWY immunisation uptake rates by the end of the school year 2017/18 by NHS Board of school\(^1,2\); Pupils in S4

1. NHS Highland S4 uptake rates in 2017/18 are under-reported as data on vaccines given in 2017/18 was not submitted for schools in Argyll & Bute. Data for pupils in S4 in Argyll and Bute schools are included in the NHS Highland figures, but the number immunised and uptake rate include only the vaccinations given to these pupils when they were first offered the vaccine in S3 in the previous school year (2016/17).
2. NHS Fife has identified data quality issues which may be affecting their teenage booster immunisation uptake rates.
Figure 5: Map showing Td/IPV immunisation uptake rates by the end of the school year 2017/18 by NHS Board of school\(^1\); Pupils in S4

Figure 6: Map showing MenACWY immunisation uptake rates by the end of the school year 2017/18 by NHS Board of school\(^1\); Pupils in S4

Source: CHSP School/SIRS

1. Uptake rates are not available for NHS Western Isles and NHS Shetland
2. See footnotes on Figure 4.
Uptake rates from S3 to S4

In most NHS Boards pupils not immunised in S3 are re-offered the vaccine(s) in S4, so uptake rates increase over time. In Scotland, uptake of the Td/IPV vaccine for S3 pupils in 2016/17 was 81.8%. One year later when these pupils were in S4 in 2017/18, uptake had reached 85.8%, an increase of 4.0 percentage points (Figure 7).

Figure 7: Td/IPV immunisation uptake rates by the end of the school years 2016/17 and 2017/18 in Scotland\(^1\); Pupils in S3 in 2016/17 and these pupils one year later in S4

1. NHS Highland S4 uptake rates in 2017/18 are under-reported as data on vaccines given in 2017/18 was not submitted for schools in Argyll & Bute. Data for pupils in S4 in Argyll and Bute schools are included in the NHS Highland figures, but the number immunised and uptake rate include only the vaccinations given to these pupils when they were first offered the vaccine in S3 in the previous school year (2016/17).
2. NHS Fife has identified data quality issues which may be affecting their teenage booster immunisation uptake rates.
Trends in uptake rates
The teenage Td/IPV booster vaccine has been part of the UK immunisation programme for many years, although uptake rates in Scotland are only available from school year 2011/12. After a slight decrease from 83.7% in 2011/12 to 82.0% in 2014/15, uptake of Td/IPV vaccine in S3 has since remained slightly below 82%. Uptake by the end of S4 increased from 85.8% in 2011/12 to a peak of 88.1% in 2014/15, however it has since decreased back to 85.8% (Figure 8).

Uptake of MenACWY in S3 has remained at around 82% since it was introduced in 2015/16, which is also similar to the previously offered MenC vaccine. For pupils in S4, uptake of MenACWY is similar to last year at around 86%.

Figure 8: Trend in Td/IPV and MenACWY immunisation uptake rates by the end of the school years 2011/12 to 2017/18 in Scotland\(^1,2\); Pupils in S3 and S4

Please note that the vertical axis on this chart does not start at the origin (zero)

1. Data on vaccinations given in general practice: The Scotland uptake rates do not include data for NHS Western Isles as teenage booster immunisations are given in general practice in this NHS Board and therefore data on immunisations given are not routinely recorded on CHSP School/SIRS. Data for NHS Orkney is included in the S3 and S4 uptake rates from 2015/16 and data for NHS Shetland is included for S3 pupils in 2017/18 only.

2. Uptake of MenACWY vaccine among S4 pupils in 2015/16 is not included in the graph as this uptake rate is not directly comparable with uptake among S4 pupils in 2016/17. S4 pupils in 2015/16 were offered the MenACWY vaccine for the first time when they were in S4, as part of the catch-up programme. S4 pupils in 2016/17 were first offered the vaccine when they were in S3 as part of the routine programme. S4 pupils in 2016/17 therefore had more opportunities to receive the vaccine by the end of S4 compared to pupils in 2015/16.
Uptake rates by deprivation

Uptake of the teenage booster immunisations was lower for pupils living in the most deprived areas, based on the Scottish Index of Multiple Deprivation (SIMD) of the pupil’s home postcode (Figure 9, 10). For example, uptake of the Td/IPV vaccine for pupils in S4 in 2017/18 ranged from 79.8% among pupils in the most deprived quintile (SIMD quintile 1) compared to 92.2% among pupils in the least deprived quintile (SIMD quintile 5).

Figure 9: Td/IPV immunisation uptake rates by the end of the school year 2017/18 by deprivation quintile\(^1\) in Scotland; Pupils in S3 and S4

Source: CHSP School/SIRS

1. Scottish Index of Multiple Deprivation (SIMD) 2016 Scotland level population weighted quintile.
Figure 10: MenACWY immunisation uptake rates by the end of the school year 2017/18 by deprivation quintile\(^1\) in Scotland; Pupils in S3 and S4

![Graph showing vaccine uptake rates by deprivation quintile](image)

Source: CHSP School/SIRS

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

For further information on teenage booster immunisation uptake rates in Scotland from 2011/12 see the [previous publications](#).
Uptake rates in the UK
Across the UK there is variation in the delivery of the teenage booster immunisations, including differences in when particular school year cohorts were first offered these immunisations. As a result, uptake rates for similar class years across the UK are not fully comparable. Nevertheless, uptake of the teenage booster immunisations in Scotland was broadly in line with the latest available rates reported in England, Wales and Northern Ireland.

The vaccines are routinely offered in Year 9 in Wales, and Year 11 in Northern Ireland. Pupils who have missed vaccination are offered them again the following year. In England there is variation in when the teenage booster vaccines are offered across local areas.

School Years S3 and S4 in Scotland are broadly equivalent to School Years 9 and 10 in England and Wales. Pupils in Northern Ireland in Years 10 and 11 are equivalent in terms of age to these cohorts. However, as the teenage booster vaccines are routinely offered in Year 11 in Northern Ireland, Years 11 and 12 are the comparable years for uptake of these vaccines.

The latest available data for each country in the UK is shown in Table 1.

Table 1: Annual percentage uptake of Td/IPV and MenACWY vaccines in the UK¹

<table>
<thead>
<tr>
<th></th>
<th>Scotland²</th>
<th>England³</th>
<th>Wales⁴,⁵</th>
<th>Northern Ireland⁶</th>
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<tr>
<td></td>
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<td>2017/18</td>
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<td>S3</td>
<td>S4</td>
<td>Year 9</td>
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<tr>
<td>Td/IPV</td>
<td>81.4</td>
<td>85.8</td>
<td>83.0</td>
<td>81.7</td>
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<td>MenACWY</td>
<td>81.9</td>
<td>85.9</td>
<td>83.6</td>
<td>82.5</td>
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</table>

1. Data Sources:
   a. England: (Health Protection Report, Volume 12, Number 3, Public Health England). Published: January 2018

2. Scotland 2017/18 Cohort:
   a. S3 - majority of pupils born 1 March 2003 to the end of February 2004
   b. S4 - majority of pupils born 1 March 2002 to the end of February 2003

3. England 2016/17 Cohort:
   a. Year 9 - born 1 September 2002 to 31 August 2003
   b. Year 10 - born 1 September 2001 to 31 August 2002

4. Wales 2017/18 Cohort:
   a. Year 9 - born 1 September 2003 to 31 August 2004
   b. Year 10 - born 1 September 2002 to 31 August 2003
5. Wales data for 2017/18: Although the vaccination sessions for 2017/18 were completed by the time the data was published, data entry may not have been fully completed.
6. Northern Ireland 2016/17 Cohort:
   a. Year 11 - born 1 September 2001 to 31 August 2002
   b. Year 12 - born 1 September 2000 to 31 August 2001
**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: [http://www.isdscotland.org/Products-and-Services/GPD-Support/Deprivation/SIMD/index.asp](http://www.isdscotland.org/Products-and-Services/GPD-Support/Deprivation/SIMD/index.asp).

**Diphtheria**  
Diphtheria is an acute infectious disease caused by the bacterium *Corynebacterium diphtheriae* affecting the upper respiratory tract and occasionally the skin. Diphtheria is spread by droplets and through contact with objects or materials contaminated by infected persons.

An effective vaccine against the disease was introduced in 1940. A combined diphtheria, tetanus and pertussis vaccine has been in use in the UK since the 1950s. Since October 2017, diphtheria is now part of the combined ‘six-in-one’ vaccine consisting of diphtheria, tetanus, pertussis, polio and Hib and Hepatitis B. Diphtheria is also part of the ‘four-in-one booster’ vaccine given at around three years four months of age and the teenage Td/IPV booster vaccine given around 14 years of age.

**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 website.

**MenACWY**  
The MenACWY vaccine protects against meningitis and septicaemia (blood poisoning) caused by four strains of meningococcal bacteria – meningococcal (Men) group A, C, W and Y.

The MenACWY vaccine replaced the MenC vaccine in the teenage booster immunisation programme from August 2015.
MenC

The MenC vaccine protects against meningitis and septicaemia (blood poisoning) caused by ‘meningococcal group C’ bacteria. The MenC vaccine does not protect against meningitis caused by other bacteria or by viruses. Since the introduction of meningococcal C conjugate (MenC) vaccine in 1999 there have been several amendments to the number and timing of required doses. From 5 September 2016, children receive a dose of MenC vaccine as part of the Hib/MenC booster given at 12 to 13 months. Adolescents receive a booster dose as part of the MenACWY vaccine given at around 14 years of age.

Polio

Polio, or poliomyelitis, is an acute illness caused by infection with any of the three types of poliovirus. Poliovirus invades the gastrointestinal tract and has an affinity for nervous tissue. Infection can lead to paralysis if the virus reaches the central nervous system. Routine immunisation was introduced in 1956. Since October 2017, polio is now part of the combined ‘six-in-one’ vaccine consisting of diphtheria, tetanus, pertussis, polio and Hib and Hepatitis B. Polio is also part of the ‘four-in-one booster’ vaccine given at around three years four months of age and the teenage Td/IPV booster vaccine given around 14 years of age.

S3 cohort

Pupils in third year of secondary school (S3). These pupils are around 14 years of age.

S4 cohort

Pupils in fourth year of secondary school (S4). These pupils are around 15 years of age.

SIRS

Scottish Immunisation and Recall System

Td/IPV booster vaccine

The Td/IPV booster vaccine completes the five-dose course that provides protection against tetanus, diphtheria, and polio (with Inactivated Polio Vaccine (IPV)). The vaccine is given around 14 years of age.
Tetanus

A toxin released from a bacterium called *Clostridium tetani* causes tetanus. Spores from these bacteria are present in soil and manure. The spores can be picked up quite easily through minor scratches, puncture wounds, burns or more serious injury.

An effective vaccine against the disease was introduced, nationally in 1961 and a fall in the incidence of tetanus followed. Since October 2017, tetanus is now part of the combined ‘six-in-one’ vaccine consisting of diphtheria, tetanus, pertussis, polio and Hib and Hepatitis B. Tetanus is also part of the ‘four-in-one booster’ vaccine given at around three years four months of age and the teenage Td/IPV booster vaccine given around 14 years of age.

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.

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

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

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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 November 2019.

Rate this publication

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Appendices

Appendix 1 – Background information

UK childhood immunisation schedule: teenage booster immunisations

Td/IPV vaccine

The teenage Td/IPV booster immunisation has been part of the routine immunisation schedule for many years. A total of five doses of tetanus, diphtheria and polio vaccine are recommended for long term immunity. These doses are offered according to the following schedule:

- The first three doses are offered to babies (at two, three and four months of age)
- The fourth dose at 3 years 4 months of age or soon after
- The fifth dose around 14 years of age

MenACWY vaccine

Between September 2013 and August 2015, the teenage immunisation programme offered a booster dose of MenC vaccine. The MenACWY vaccine replaced the MenC vaccine in the routine teenage booster immunisation programme from 1 August 2015. This change was in response to the increase in cases of meningococcal group W (Men W) in the UK since 2009.

From September 2016, a total of two doses of MenC vaccine are recommended under the routine immunisation schedule. These doses are offered according to the following schedule:

- The first dose at 12 to 13 months of age (Hib/MenC vaccine)
- The second dose around 14 years of age (MenACWY vaccine)

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 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.

ISD receive data extracts from SIRS and CHSP School for the purpose of producing and publishing immunisation uptake rates.

Methods

The S3 and S4 cohorts (the denominators) are identified as pupils recorded in these class years on CHSP School as at May of the relevant school year.
The latest available data recorded on CHSP School/SIRS on teenage booster immunisations given are then mapped to the cohorts of pupils to derive the number of pupils immunised by the end of the school year (the numerators). For statistical purposes the end of school year has been defined as 31 July.

Data are presented by:

- **NHS Board of the school the pupil attends.** NHS Board data are based on the boundaries as at 1 April 2014. 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 2014.

- **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 category.** The Scottish Index of Multiple Deprivation (SIMD) is the main source for measuring relative deprivation in Scotland. The deprivation category used in this publication is the SIMD (2016) Scotland level population weighted quintile. This 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.

### Accuracy and reliability

The data is not a sample and it covers pupils in local authority, independent and grant maintained schools in Scotland. There are a few data quality and completeness issues affecting the accuracy of the cohort (denominators) which are explained in the data quality and completeness section.

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 teenage booster 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.

Where pupils move into Scotland during the school year their teenage booster 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 pupils’ immunisation status. However there may be a few instances where details of immunisations 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

There are some data quality issues affecting the accuracy of the class year cohorts identified as eligible for immunisation. This is due to some inaccuracies in the recording of the class year or associated information used to collate the cohort data from CHSP School. For all class years presented there are a small proportion of records on CHSP School where pupils 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 of this on the reported uptake rates is thought to be minor.

These teenage booster class year uptake rates for 2017/18 do not include data for:

- NHS Western Isles. In this NHS Board the vaccines are routinely offered to teenagers through general practice rather than through a school-based programme. Teenage booster vaccines given in general practice are not routinely recorded on CHSP School or SIRS.
- S4 pupils in NHS Shetland. In school year 2017/18, NHS Shetland introduced a school-based teenage booster vaccination programme to replace their previous general practice based programme. This school based programme offered the vaccines to pupils in S3. Pupils in S4 in 2017/18, who were first offered the vaccine in 2016/17, continued to be vaccinated in general practice. Data on vaccines given in general practice are not routinely recorded on CHSP School or SIRS. S4 uptake rates will be available for NHS Shetland from 2018/19.

As these NHS Boards have small population sizes, the absence of data for these areas has a negligible impact on the overall ‘Scotland’ uptake rate.

The figures reported for NHS Highland are affected by some data completeness issues as follows:

- S3 uptake rates include data for pupils in schools in Highland local authority only. Data for S3 pupils in schools in Argyll & Bute are excluded as data on vaccinations given in 2017/18 was not submitted. There are over 800 pupils in S3 in Argyll & Bute schools, which is around a quarter of all S3 pupils in NHS Highland.
- S4 uptake rates are under-reported as data on vaccines given in 2017/18 was not submitted for schools in Argyll & Bute. Data for pupils in S4 in Argyll and Bute schools are included in the NHS Highland figures, but the number immunised and uptake rate include only the vaccinations given to these pupils when they were first offered the vaccine in S3 in the previous school year (2016/17).

NHS Fife has identified data quality issues which may be affecting their teenage booster immunisation uptake rates.

The quality and completeness of the data on teenage booster immunisations has improved over the years. In 2011/12 data for around 94% of pupils in S3 and S4 in Scotland were included from the calculation of uptake rates. At this time, most NHS Boards had some schools where no data on teenage booster immunisations were recorded on CHSP School/SIRS, or where the recording was very incomplete. Data completeness gradually increased to around 99% of pupils in 2015/16 and 2016/17. In 2017/18 data for around 98% of S3 and S4 pupils were included in the calculation of the uptake rates.
### Appendix 2 – Publication Metadata

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<tr>
<td><strong>Description</strong></td>
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<td><strong>Date that data are acquired</strong></td>
<td>Class year cohort data acquired 14 May 2018. Data on immunisations given acquired 13 August 2018.</td>
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<td><strong>Frequency</strong></td>
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<td><strong>Continuity of data</strong></td>
<td>Data available from school year 2011/12. The MenC vaccine was replaced in August 2015 by the MenACWY vaccine.</td>
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<td><strong>Revisions statement</strong></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>
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<tr>
<td><strong>Revisions relevant to this publication</strong></td>
<td>No revisions made. A minor error in the collation of the class year cohort data for school year 2016/17 in the November 2017 publication was identified post publication. A small number of pupils clearly outwith the age expected for the class year they were registered in, were not excluded from the cohort. Data for such pupils are normally excluded from the calculation of uptake rates as it is likely that, in the majority of instances, these pupils were not in the class year eligible for immunisation. The impact on the reported statistics was very minor and it did not affect the overall interpretation or conclusions drawn from the data. The 2016/17 rates reported at Scotland level would have been 0.1 to 0.2 percentage points higher based on the corrected cohort data. Rates for some NHS Boards and council areas may have had slightly larger differences. Due to the minor impact of the error on the</td>
</tr>
</tbody>
</table>
reported rates data for school year 2016/17 have not been revised.

<table>
<thead>
<tr>
<th>Concepts and definitions</th>
<th>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.</th>
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<tr>
<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 Data quality and completeness and Accuracy and reliability sections of Appendix 1.</td>
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<tr>
<td>Completeness</td>
<td>See Data quality and completeness section of Appendix 1</td>
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<td>Comparability</td>
<td>See Uptake rates in the UK</td>
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<tr>
<td>Accessibility</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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<tr>
<td>Coherence and clarity</td>
<td>Data are available as a PDF and tables on the Childhood Immunisation area of the ISD website.</td>
</tr>
<tr>
<td>Value type and unit of measurement</td>
<td>Numbers and percentages</td>
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<tr>
<td>Disclosure</td>
<td>The ISD protocol on Statistical Disclosure Protocol is followed.</td>
</tr>
<tr>
<td>Official Statistics designation</td>
<td>Official Statistics</td>
</tr>
<tr>
<td>UK Statistics Authority Assessment</td>
<td>These are official statistics which have not been submitted for assessment by the UK Statistics Authority</td>
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<tr>
<td>Last published</td>
<td>28 November 2017</td>
</tr>
<tr>
<td>Next published</td>
<td>November 2019</td>
</tr>
<tr>
<td>Date of first publication</td>
<td>25 March 2014</td>
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<tr>
<td>Help email</td>
<td><a href="mailto:NSS.isdchildhealth@nhs.net">NSS.isdchildhealth@nhs.net</a></td>
</tr>
<tr>
<td>Date form completed</td>
<td>1 November 2018</td>
</tr>
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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 Management Information

These statistics will also have been made available to those who needed access to ‘management information’, ie as part of the delivery of health and care:

NHS Board Immunisation Co-ordinators
Health Protection Scotland
NHS Board child health/screening department administrators
Scottish Immunisation Programme Implementation Group
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](#).