



Public Health
England

Protecting and improving the nation's health

Cover of Vaccination Evaluated Rapidly (COVER) Requirements Specification v2.2

DCB0089 Amd 60/2019

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, research, 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.

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Data Coordination Board

This information standard (DCB0089) has been approved for publication by the Department of Health and Social Care under [section 250 of the Health and Social Care Act 2012](#).

Assurance that this information standard meets the requirements of the Act and is appropriate for the use specified in the specification document has been provided by the Data Coordination Board (DCB), a sub-group of the Digital Delivery Board.

This information standard comprises the following documents:

- Requirements Specification
- Implementation Guidance

An Information Standards Notice (DCB0089 Amd 60/2019) has been issued as a notification of use and implementation timescales. Please read this alongside the documents for the standard.

The controlled versions of these documents can be found on the [NHS Digital website](#). Any copies held outside of that area, in whatever format (for example, paper, email attachment), are considered to have passed out of control and should be checked for currency and validity.

Date of publication: 6th February 2020

Glossary of terms

Term	Acronym	Definition
Bacillus Calmette–Guérin vaccine	BCG	Bacillus Calmette–Guérin vaccine against tuberculosis
Child Health Information Systems Service	CHISS	This service comprises of 3 components. The CHISs, the CHRD and the PCHR (Personal Child Health Record)
Child Health Information Systems	CHISs	The systems while they vary generally provide some sort of cohort analysis function for children services as well as a call and recall function
Child Health Record Department	CHRD	The people who manage and maintain the details on the child health record system
Clinical Commissioning Group	CCG	NHS organisations set up by the Health and Social Care Act 2012 to organise the delivery of NHS Services in England
Cover of Vaccination Evaluated Rapidly	COVER	UK quarterly data and commentary on coverage achieved by the UK childhood immunisation programme
European Centre for Disease Prevention and Control	ECDC	An independent agency of the European Union (EU) aiming to strengthen Europe’s defences against infectious disease
Hepatitis B virus	HBV	Hepatitis B virus, abbreviated HBV, is a species of the genus Orthohepadnavirus, which is likewise a part of the Hepadnaviridae family of viruses. This virus causes the disease Hepatitis B.
Hepatitis B vaccine	HepB	Hepatitis B vaccine against hepatitis B virus infection; can be either monovalent hepatitis B vaccine or part of the combined DTaP/IPV/Hib/HepB vaccine
Information Standards Notice	ISN	A notice of an Information Standard approved by the Data Coordination Board (DCB). When a health and social care organisation in England receives an ISN, they ensure that they and their contractors comply with the standard in a reasonable time (such time defined within the ISN).
NHS Digital	NHS D	The Health and Social Care Information Centre (HSCIC) was set up by the Department of Health in April 2013 and is an executive non-departmental public body. Since August 2016, it has been operating as NHS Digital

Pneumococcal conjugate vaccine	PCV	A conjugate vaccine offered in the routine childhood immunisation programme that protects against 13 strains of the pneumococcal bacterium
Public Health Outcomes Framework	PHOF Team	Public Health Outcomes Framework Team responsible for delivery of the PHOF which sets out a vision for public health, with desired outcomes and the indicators that will help us to understand how well public health is being improved and protected
Strategic Data Collection Service	SDCS	The Strategic Data Collection Service (SDCS) is an NHS Digital secure data collection system used by health and social care organisations to submit data.

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1 Overview

Summary

Standard details	
DBC unique identifier	DCB0089 Amd 60/2019
Name	Cover of Vaccination Evaluated Rapidly (COVER) Return
Approval date	24 January 2020
Publication date	6 February 2020
Standard definition	
Description	<p>This standard defines how information is extracted from Child Health Information Systems (CHISs) and submitted to NHS Digital via the NHS Digital Strategic Data Collection Service (SDCS) portal using a modified data collection template in order to calculate vaccine coverage at Local Authority (LA) and General Practice (GP) level as part of the COVER (Cover of Vaccination Evaluated Rapidly) programme. COVER measures vaccine coverage for each vaccine of the routine childhood immunisation programme in England for children aged one, 2 and 5 years of age.</p> <p>Vaccine coverage data are extracted quarterly and annually from local Child Health Information Systems (CHISs), which are commissioned by NHS England and NHS Improvement. LA coverage data are published by Public Health England (PHE) quarterly as official statistics and by NHS Digital and PHE jointly as national statistics annually. Quarterly and annual GP level data will be published by PHE and will primarily be intended for local performance management.</p>
Applies to	<p>All those operating CHISs</p> <p>Staff submitting returns on behalf of CHIS</p> <p>Users of this data including but not limited to:</p>

	<ul style="list-style-type: none"> • NHS England and NHS Improvement local teams • Public Health England Centres • Care Quality Commission • Health Protection Teams • Academia • World Health Organization • European Centre for Disease Prevention and Control • Local Authorities • Clinical Commissioning Groups • Department of Health and Social Care
Impacts on	<ul style="list-style-type: none"> • CHIS IT systems • Child Health Information Systems Service
Implementation Completion Date	01 July 2020

Controlled Documents

Supporting Documents

Reference	Title
1	DCB0089 COVER – NHS Data Model and Dictionary Change Request
2	DCB0089 COVER – Implementation Guidance
3	DCB0089 COVER - User Guide
4	CHIS Service Specification
5	CHIS Output and Information Requirements

Related Standards

Reference	Title
ISB 1523	Anonymisation Standard for Publishing Health and Social Care Data
DCB1069	Community Services Data Set (CSDS)

2 Current methods of measuring vaccine coverage

In general, vaccine coverage data for the routine childhood immunisation programme are extracted quarterly and annually at Local Authority level from local Child Health Information Systems (CHISs) by staff in Child Health Record Departments (CHRDs) and submitted to the PHE national COVER surveillance team. COVER collects information on the proportion of children aged 12 months, 24 months and 5 years who have completed courses of each routine childhood immunisation. This information is promptly fed back to the local level, creating the opportunity to improve coverage and to detect changes in vaccine coverage quickly. In addition, NHS England and NHS Improvement have been collecting GP level data for the same immunisations and for information management purposes using the COVER Information Standard. The term management information describes aggregate information collated and used in the normal course of business to inform operational delivery or the management of organisational performance. The information may be incomplete in places, is not quality assured to the same extent as official statistics and may not necessarily be fully representative. Initially the GP data were collected via the Child Immunisation Unify2 data collection. From June 2018 the collection of this data was transferred to the NHS Digital Strategic Data Collection Service (SDCS). The collection guidance and links to the SDCS general collection guidance can be found here <https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-collections/child-immunisations-gp>. From April 2019, the practice level and local authority level collections have been merged into a single COVER collection. CHIS submit both GP and LA level data via SDCS using a single template. PHE analyses and reports these data.

Prior to April 2013 data were collected for the Primary Care Trust (PCT) responsible population (that is, patients who are registered with a GP in the PCT or unregistered patients who reside in the PCT area). From April 2013, PHE was mandated to report COVER statistics for the upper tier Local Authority (LA) resident population. However the switch in reporting from responsible to resident population has been postponed in agreement with NHS Digital, as a result of limitations in the current CHIS IT infrastructure. Therefore the official statistics produced by the COVER programme will only be requesting responsible LA population for the foreseeable future.

2.1 Current process of data submission

Both GP and LA level data should be submitted via the SDCS portal using a single reporting template for GP and LA data (Appendix 1).

Since April 2016 aggregate data are sent to the appropriate NHS England and NHS Improvement local team for data quality assurance prior to publication by the national COVER team.

2.2 Current methods of collection, analysis and feedback

Automated validations are carried out at the point of entry into the SDCS template. The template has a number of automated validation checks which are then flagged as errors or warnings on the SDCS system. Further automated and manual validation checks are undertaken within the PHE database which flag anomalies in LA denominators and in individual vaccine antigen numerators by comparison with previous quarterly submissions. Anomalies are then checked with local providers and NHS England local teams which may result in amendments, exclusion of data, or publication with caveats (Figure 1). The GP level data validation processes will include a combination of automated validation by PHE and NHS Digital, as well as manual checks by PHE. It is not anticipated that data will be validated for individual practices. Unlike LA level data, GP level data will not be considered as official or national statistics.

Quarterly UK COVER reports for LA data are published in health protection reports (<https://www.gov.uk/government/collections/health-protection-report-latest-infection-reports>), on the PHE website (<https://www.gov.uk/government/collections/vaccine-uptake>) together with local level data for England, and since April 2014 have been classified as Official Statistics.

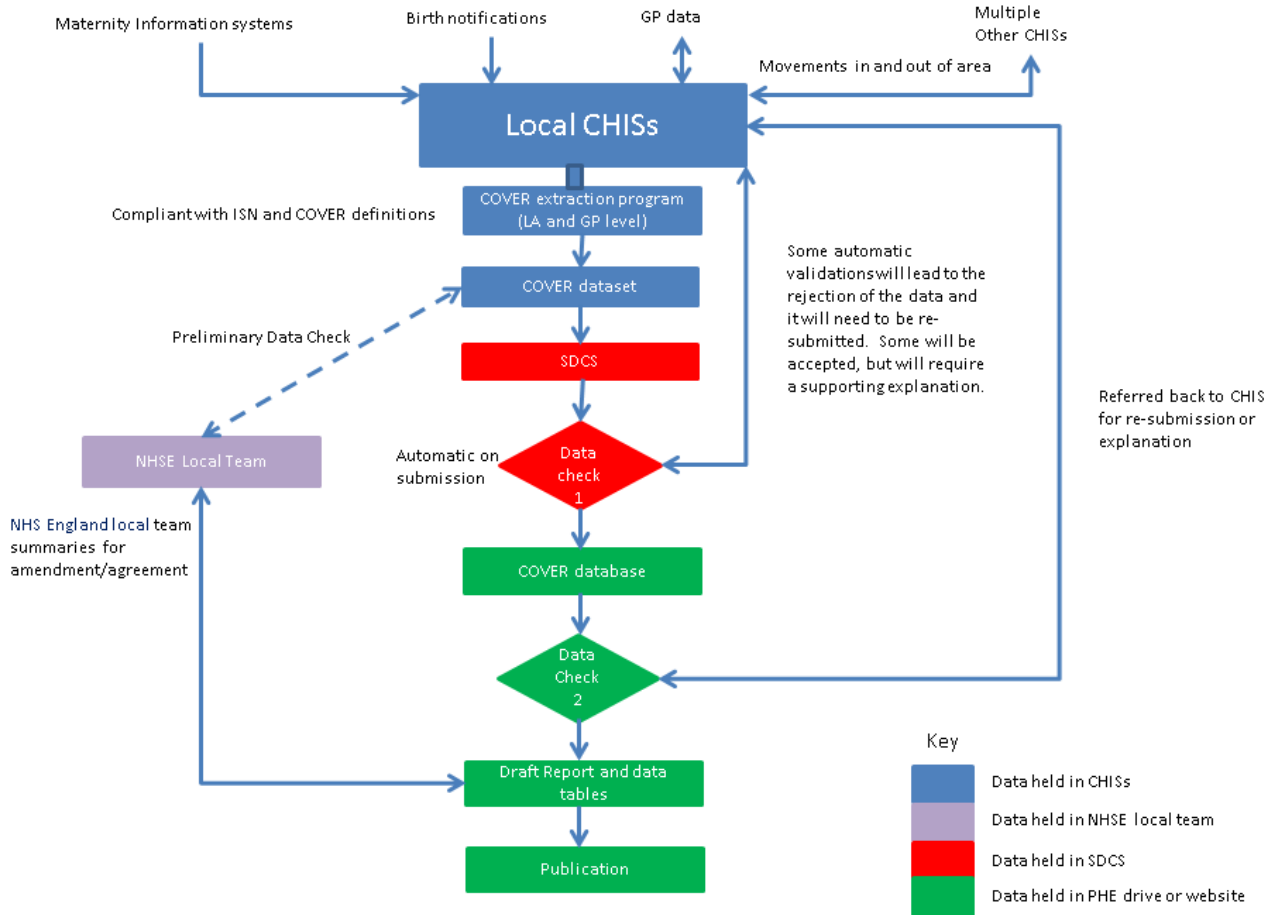
Annual COVER data are collected by PHE and published by NHS Digital as National Statistics in an annual report, following further validation by NHS Digital's Immunisations and Screening team. From 2018-19 this report is jointly published by PHE and NHS Digital. Practice level data is published alongside quarterly and annual reports. Due to time constraints, the production of the 2018-19 annual report relied on the manual submission of data from providers to PHE. From 2020, SDCS will also be used for the submission of annual data.

In addition, since 2016-17 LA and practice level data have been made available by NHS Digital via an interactive dashboard providing interactive maps at STP, CCG and GP practice level. The data files are available on the [NHS Digital website](#).

UK vaccine coverage data are also published in the quarterly official and annual national statistics reports. PHE report these data to the Joint Committee on Vaccination and Immunisation (JCVI), an independent committee which advises UK health governments on immunisation, and to international organisations such as the World Health Organization (WHO) and the European Centre for Disease Prevention and Control (ECDC).

2.3 What does the PHE COVER team do with Quarterly Data Returns?

Figure 1. COVER data flows and quality / validation checks



2.4 Child Health Information Systems (CHISs)

CHISs are computerised clinical record systems which support a range of health promotion and prevention activities including screening and immunisation for children. These systems are commissioned by NHS England and NHS Improvement and are managed by child health record departments (CHRDs) based in acute or community healthcare trusts. The CHISs, the CHRD, together with the PCHR (Personal Child Health Record), form the Child Health Information Systems Service (CHISS). CHRDs support the information systems and any associated paper records and manage queries about the health status of children in the local population. These departments are responsible for maintaining active and accurate child health records for a given local population. CHISs can vary considerably in scope and function but as a minimum will track the population within a particular Clinical Commissioning Group (CCG) or LA

geographical boundary. With regards to the COVER programme the CHIS will usually include all children in the responsible population for a LA (that is, those children registered with GPs in the LA, plus any unregistered children resident within the LA's geographical boundary).

Children are entered onto the local CHIS at birth or when they move into the local area. All new births are registered electronically and a unique NHS Number is generated within a few hours of delivery. An electronic copy of the birth notification containing core demographic information and GP registration is sent to the relevant CHRd for entry onto the local CHIS. In addition, a paper record of the complete birth notification may be faxed by the midwife to the local CHRd. Record transfer when individuals move between areas covered by different CHIS is not universally automated and will depend on CHIS interoperability. The 2016 NHS England *Healthy Children: transforming child health information* strategy aims to transform child health information services by making these systems interoperable, reducing the administrative burden of information recording and sharing.

CHISs aim to provide a complete record for current and past vaccines administered to children up to the age of 18 years, although currently data completeness is not always maintained to this age.

3 System requirements and national standards and guidance

The Health and Social Care Act 2012 created a new set of responsibilities for the delivery of public health services. In England, although the local leadership for improving and protecting the public's health sits with local government, the reforms provide specific roles for NHS England and PHE for the commissioning and system leadership of the national screening and immunisation programmes. NHS England's Local Teams commission these services and NHS England sets out how national, regional, and local operational and governance arrangements for national screening and immunisation programmes are coordinated in England since April 2013.

The requirements for the national COVER surveillance scheme are defined within the [public health national service specifications](#) outlining the requirements for CHIS (specification number 28) which are commissioned by NHS England. The agreement is made between the Secretary of State for Health and NHS England under section 7A of the National Health Service Act 2006 as amended by the Health and Social Care Act 2012. Public Health commissioning in the NHS 2016 to 2017 is detailed in individual [national service specifications](#).

Work has been on-going for a number of years to improve and bring greater consistency to the approach of CHIS across England. This work culminated in the publication of the [Output and information requirements specification: for the Child Health information service and systems](#) in 2015 which can be used by CHIS IT systems and commissioners to move toward the gold standard when redesigning or re-procuring CHIS, and more recently the [Healthy Children: transforming child health information strategy](#). CHIS providers should ensure that their systems implement Information Standard Notices (ISN), which announce new or changes to information standards published under section 250 of the Health and Social Care Act 2012, within the required timescale.

Guidance for immunisation and vaccination in England is produced by PHE and informed by advice and recommendations of the JCVI to the Secretary of State and Department of Health and Social Care. The [complete routine immunisation schedule](#) is subject to unscheduled changes and current guidance via the [Green Book](#) should be consulted. It is therefore important that the design of CHIS allows sufficient flexibility so that changes to the schedule of existing immunisations or the addition of new immunisations for children of any age can be made in a straightforward and timely manner.

3.1 The COVER Return

This version of the COVER standard has been revised to reflect the change in the number of doses of PCV vaccine offered in the first year of life from 2 to one.

Data is collected by NHS Digital and transferred to PHE. Access and storage of COVER data is governed by the PHE Information Governance Policy. All information is used in accordance with the Data Protection Act 2018, the Public Health (Control of Disease) Act 1984, the Public Health (Infectious Diseases) Regulations 1988, and the NHS Act 2006 (section 251), the Health and Social Care Act 2012, and the Care Act 2014. All records are kept securely in compliance with the Caldicott guidelines. Access and storage of COVER data was assessed for GDPR compliance as part of a PHE-wide compliance exercise for all information assets, and was found to be compliant.

The legal basis for NHS Digital to collect COVER data will be provided by a Direction from or on behalf of the Secretary of State of Health and Social Care (that is via PHE).

3.2 Request Parameters for COVER

The following parameters are applied at 2 distinct levels: a) Local authority level b) GP level.

Although collection by resident population is a requirement for the Public Health Outcomes Framework (since April 2013), it has been agreed that it is not feasible under the current IT infrastructure. COVER data are only requested for LA responsible population.

For any given evaluation quarter:

LA level

To be included as LA responsible population for COVER data are:

- all children registered with a GP whose practice forms part of the LA, regardless of where the child is resident
- any children not registered with a GP, who are resident within the LA's statutory geographical boundary

Note: children resident within the LA geographical area, but registered with a GP belonging to another LA, are the responsibility of that LA. Providers are expected to list all GPs whose practice forms part of each LA

GP level

All children registered with a GP in the LA are to be included in the GP level population for COVER data. Each GP is to be reported separately

Note: Individuals not registered with a GP should still be included in the GP level dataset using a “not registered” practice code.

Request 1: 12 MONTH COHORT

- Line 1 Total number of children for whom the LA/GP is responsible reaching their 1st birthday during the above evaluation quarter.
- Line 2 Total number and percentage of eligible children (to one decimal place) included in line 1 completing a primary course at any time up to their 1st birthday for each of the following:
- a) DIPHTHERIA (D3)
PERTUSSIS (aP3)
TETANUS (T3)
POLIO (Po3)
Hib (Hib3)
HepB (HepB3(routine))
- Or **DTaP/IPV/Hib/HepB3**
- b) PNEUMOCOCCAL (PCV1) NEW
 - c) PNEUMOCOCCAL (PCV2)
 - d) ROTAVIRUS (Rotavirus2)
 - e) BCG (BCG)
 - f) MenB (MenB2)

NOTES for Request 1:

- a) CHISs may output receipt of 3 doses of the combined primary vaccine as either individual variables (that is, D3, aP3, T3, Po3, Hib3, HepB3(routine)) or a combined variable (see (a) above). Children living in but immunised outside the UK may have been given different vaccine combinations; 3 doses of each of DTP or DTaP, IPV or OPV, Hib and HepB vaccine before 1st birthday will equate to a completed course. This only affects a small number of children but is more significant in areas with a higher proportion of movers in from outside the UK

- b) Pneumococcal vaccine – Primary course is one dose given before the first birthday. For children who were eligible for 2 primary doses under the previous schedule, each dose will be reported separately (PCV1 and PCV2). For children eligible for a single primary dose, only PCV1 will be reported.
- c) Rotavirus vaccine - primary course is 2 doses given before 24 weeks
- d) BCG vaccine - will provide data to calculate BCG coverage only for areas that are offering a universal neonatal BCG programme (that is, TB incidence >40/100,000 and all London boroughs) population
- e) Meningitis B vaccine – primary course is 2 doses given before the first birthday

Request 2: 24 MONTH COHORT

Line 3 Total number of children for whom the LA/GP is responsible reaching their 2nd birthday during the above evaluation quarter.

Line 4 Total number and percentage of eligible children (to one decimal place) included in line 3 completing a primary course or booster course at any time up to their 2nd birthday for each of the following:

- a) DIPHTHERIA (D3)
- PERTUSSIS (aP3)
- TETANUS (T3)
- POLIO (Po3)
- Hib (Hib3)
- HepB (HepB3(routine)) from 2019

Or **DTaP/IPV/Hib3** (births before August 2017) or **DTaP/IPV/Hib/HepB3** (births from August 2017) – see notes

- b) MMR (MMR1)
- c) Hib/MenC booster (Hib/MenC)
- d) PNEUMO booster (PCVbooster)
- e) MenB booster (MenBbooster)

NOTES for Request 2:

- a) **DTaP/IPV/Hib/HepB** replaced **DTaP/IPV/Hib** from October 2017 (that is, offered to children born from August 2017) for primary immunisations. CHISs may output receipt of 3 doses of the combined vaccine as either individual variables (that is D3, aP3, T3, Pol3, Hib3, HepB3(routine)) or a combined variable (see (a) above). Children born around the time of the change of vaccine may receive DTaP/IPV/Hib beyond October 2017, or a mixture of the 2 vaccines, depending on vaccination timing and availability. Vaccine coverage extraction for a completed primary course

(3 doses) is not dependent on which combined vaccines have been given (DTaP/IPV/Hib or DTaP/IPV/Hib/HepB). Children living in but immunised outside the UK who may have been given different vaccine combinations, 3 doses of each of DTP or DTaP, IPV or OPV, Hib and HepB vaccine before 2nd birthday will equate to a completed course. This only affects a small number of children but is more significant in areas with a higher proportion of movers in from outside the UK

- b) Excludes MMR given before 1st birthday
- c) Although most children receive a Hib/MenC booster as one dose of combined Hib/MenC vaccine on or after 1st birthday, children completing their primary course after 1st birthday can be reported as having one dose of any Hib-containing vaccine and one dose of single antigen MenC, both given on or after 1st birthday and before 2nd birthday
- d) A dose of PCV on or after the 1st first birthday irrespective of the number of doses given before that age, and before the 2nd birthday
- e) Meningitis B booster – either 3 doses of MenB before the 2nd birthday or 2 doses after the 2nd birthday

Request 3: 5 YEAR COHORT

Line 5 Total number of children for whom the LA/GP is responsible reaching their 5th birthday during the above evaluation quarter.

Line 6 Total number and percentage of eligible children (to one decimal place) included in line 5 completing a primary course or booster course at any time up to their 5th birthday for each of the following:

- a) DIPHTHERIA (D3)
- PERTUSSIS (aP3)
- TETANUS (T3)
- POLIO (Po3)
- Hib (Hib3)
- HepB (HepB3(routine)) from 2022

Or **DTaP/IPV/Hib3** (births before August 2017) or **DTaP/IPV/Hib/HepB3** (births from August 2017) – see notes

- b) MMR (MMR1)
- c) DIPHTHERIA booster (D4)
- TETANUS booster (T4)
- PERTUSSIS booster (aP4)
- POLIO booster (Po4)
- d) Hib/MenC booster (Hib/MenC)

e) MMR (2 doses) (MMR2)

NOTES for Request 3:

- a) **DTaP/IPV/Hib/HepB** replaced **DTaP/IPV/Hib** from October 2017 (that is, offered to children born from August 2017) for primary immunisations. CHISs may output receipt of 3 doses of the combined primary vaccine as either individual variables (that is, D3, aP3, T3, Pol3, Hib3, HepB3(routine)) or a combined variable (see (a) above). Children born around the time of the change of vaccine may receive DTaP/IPV/Hib beyond October 2017, or a mixture of the 2 vaccines, depending on vaccination timing and availability. Vaccine coverage extraction for a completed primary course (3 doses) is not dependent on which combined vaccines have been given (DTaP/IPV/Hib or DTaP/IPV/Hib/HepB). Children living in but immunised outside the UK who may have been given different vaccine combinations, 3 doses of each of DTP or DTaP, IPV or OPV, Hib and HepB vaccine before 2nd birthday will equate to a completed course. This only affects a small number of children but is more significant in areas with a higher proportion of movers in from outside the UK
- b) Excludes MMR given before 1st birthday
- c) 4th dose of Diphtheria/Tetanus/Pertussis/Polio containing vaccine - given from 3 years 4 months and before 5th birthday
- d) Although most children receive a Hib/MenC booster as one dose of combined Hib/MenC vaccine on or after 1st birthday, children completing their primary course after 1st birthday can be reported as having one dose of DTaP/IPV/Hib (or any other Hib-containing vaccine) and one dose of MenC, both given on or after 1st birthday and before 3rd birthday
- e) Excludes MMR given before 1st birthday

Request 4: Neonatal Hepatitis B 12 MONTH COHORT

Line 7 Total number of children for whom the LA/GP is responsible with maternal HB status positive (HBsAg+ve) and reaching their 1st birthday during the above evaluation quarter

Line 8 Total number included in line 7 and receiving a 3rd dose of monovalent HepB vaccine (HepB(selective)) before their 1st birthday for babies born <1st August 2017

Line 9 Total number included in line 7 and receiving a 5th dose of a Hep B-containing vaccine* before their 1st birthday for babies born ≥1st August 2017

* monovalent (HepB(selective)) or DTaP/IPV/Hib/HepB (HepB3(routine))

Request 5: Neonatal Hepatitis B 24 MONTH COHORT

- Line 10 Total number of children for whom the LA/GP is responsible with maternal HB status positive (HBsAg+ve) and reaching their 2nd birthday during the above evaluation quarter
- Line 11 Total number included in line 10 and receiving a 4th dose of monovalent HepB vaccine (HepB(selective)) before their 2nd birthday for babies born <1st August 2017
- Line 12 Total number included in line 10 and receiving a 6th dose of Hep B-containing vaccine* before their 2nd birthday for babies born ≥1st August 2017

* monovalent (HepB(selective)) or DTaP/IPV/Hib/HepB (HepB3(routine))

NOTES for Requests 4 and 5:

Although some CHISs do not have the capacity to produce statistics or even hold information on hepatitis B vaccines, this information is requested in the same format as the current COVER outputs. This is designed to ensure that collection of hepatitis B data is integrated into the routine collection and coverage data can be compared. Where not available from the CHIS it is hoped that these data will be generated from manual systems or from standalone databases.

- (i) The format is based on the 0, 1, 2, 12 month schedules recommended in the Health Service Circular (HSC) 1998 for births before 1st August 2017.
- (ii) For births ≥1st August 2017 these babies will receive additional HepB vaccine as part of their routine primary immunisation (DTaP/IPV/Hib/HepB)

The HSC recommended universal screening of pregnant women from April 2000. Data on antenatal prevalence will be collected via regions and can be used to validate the completeness of identification of children at risk in future cohorts.

Further information on the COVER collection

For SDCS enquiries please contact:

Data.collection@nhs.net

enquiries@nhsdigital.nhs.uk

Tel: 0300 303 5678

SDCS guidance page is available [here](#)

For general enquiries please contact:

Cover@phe.gov.uk

Tel: 020 8327 6522

<https://www.gov.uk/government/collections/vaccine-uptake>

4 Health Care Organisations

4.1 Requirements

	Requirement
1	Providers MUST collect information on the proportion of children aged 12 months, 24 months and 5 years in each GP/LA who have completed courses of each routine childhood immunisations on a quarterly and annual basis through the extraction of vaccine coverage data for the routine childhood immunisation programme as per COVER Request Parameters.
2	Providers MUST collect information on the uptake of universal neonatal BCG vaccination programmes in each LA at 12 months
3	Providers MUST collect information on the uptake of hepatitis B vaccine at 12 months and 24 months of age for children born of hepatitis B positive mothers in each LA. This includes a combination doses delivered through the routine programme (hexavalent vaccine) and additional monovalent doses delivered selectively.
4	Providers MUST undertake local validation of data before submission to PHE following instructions in User Guidance and Request Parameters documents.
5	Providers MUST submit 4 quarterly and one annual return to the PHE national COVER surveillance scheme for the geographies specified. GP level and LA responsible population returns are required.
6	Providers MUST provide the list of all GPs whose practice forms part of each LA with each submission
7	PHE will use a range of national systems to validate, collate, analyse and feedback data. Anomalies MUST be checked with local providers and screening and immunisation teams. This may result in amendments, exclusion of data or publication with caveats.
8	PHE MUST publish Official Statistics on childhood vaccine coverage (COVER reports) on a quarterly basis on the PHE website so that this information is promptly fed back to the local level, creating the opportunity to improve coverage and to detect changes in vaccine coverage quickly.
9	NHS Digital and PHE MUST publish annual National Statistics on immunisation in the form of a report that includes analysis and presentation of COVER data for local needs.
10	PHE MUST publish GP level data quarterly and annually in the form of data tables although these are not official or national statistics.

4.2 Conformance Criteria

This section describes the tests that can be measured to indicate that the information standard is being used correctly by an organisation in a specified time period (conformance criteria). These may be different depending upon the type of organisation, for example, supplier, Trust, GP practice.

#	Organisation Type	Criteria
1	CHIS	Vaccine coverage data for the routine childhood immunisation programme were extracted quarterly and annually from local CHISs by staff in CHRDs
2	CHIS	Organisations submitted data to PHE national COVER surveillance scheme quarterly and annually.
3	CHIS	Data submission contained the proportion of children aged 12 months, 24 months and 5 years who have completed courses of each of the routine childhood immunisations for the geography specified.
4	CHIS	The data were sent to NHS Digital via the SDCS portal using a standard reporting template.
5	Public Health England	Collection validation took place using the national PHE COVER database including automated validation checks which flag anomalies in denominator and numerators at the LA level.
6	Public Health England	Quarterly UK COVER reports were published on the PHE website.
7	NHS Digital	Annual COVER data were validated by NHS Digital and published as National Statistics.
8	NHS Digital	COVER data were made available to PHE in a timely manner via the SDCS portal

5 IT Systems

Please note that the 2012 **Information requirements for child health information systems**, setting out what a gold standard CHIS looks like and the **Output-Based Specification for Child Health Information Systems** have been replaced by the Output and information requirements specification: for the Child Health information service and systems (2015) which can be used by IT systems and commissioners when redesigning or re-procuring CHIS to move toward the gold standard. The **Healthy Children: transforming child health information** strategy is reviewing these mechanisms with an aim to review the IT infrastructure. In certain parts of the country, in anticipation of the Healthy children strategy, CHIS have merged into larger hubs which are receiving an automated monthly feed from primary care data.

5.1 Requirements

#	Requirement
1	The IT system enables the user to set up extraction specifications compliant with the COVER specification
2	The IT system enables the user to modify extraction specifications compliant with the COVER specification

5.2 Conformance Criteria

This section describes the tests that can be conducted to check that the information standard is being used correctly by an IT system.

#	Criteria
1	The IT system enables the extraction of a complete record for current and past vaccines administered to children up to the age of 18 years.
2	The IT system is accompanied by technical guidance to the CHIS to enable its data returns to be compliant with the COVER specification

Table summarising the COVER return.

Data will be collected by: (a) LA responsible population and (b) by GP practice

**See request parameters for population definitions* n/a = not applicable

Antigen	Antigen Abbreviation	Cohorts									New or revised data for the Quarterly and Annual COVER returns
		12 months			24 months			5 years			
		Number of children in cohort	Number vaccinated	% Uptake	Number of children in cohort	Number vaccinated	% Uptake	Number of children in cohort	Number vaccinated	% Uptake	
DIPHTHERIA	D3										No change
PERTUSSIS	aP3										No change
TETANUS	T3										No change
POLIO	Po3										No change
Hib (primary)	Hib3										No change.
HepB (Routine) (national code 131)	HepB3(Routine)										No change
PNEUMOCOCCAL (primary first dose)	PCV1				n/a	n/a	n/a	n/a	n/a	n/a	NEW FIELD
PNEUMOCOCCAL (primary second dose)	PCV2				n/a	n/a	n/a	n/a	n/a	n/a	No change
ROTAVIRUS	Rotavirus				n/a	n/a	n/a	n/a	n/a	n/a	No change
BCG (selective)	BCG				n/a	n/a	n/a	n/a	n/a	n/a	No change
MMR1	MMR1	n/a	n/a	n/a							No change
Hib/MenC booster	HibMenC	n/a	n/a	n/a							No change
Pneumococccal booster	PCV booster	n/a	n/a	n/a				n/a	n/a	n/a	No change
DIPHTHERIA booster	D4	n/a	n/a	n/a	n/a	n/a	n/a				No change
PERTUSSIS booster	aP4	n/a	n/a	n/a	n/a	n/a	n/a				No change
TETANUS booster	T4	n/a	n/a	n/a	n/a	n/a	n/a				No change
POLIO booster	Po4	n/a	n/a	n/a	n/a	n/a	n/a				No change
MMR2	MMR2	n/a	n/a	n/a	n/a	n/a	n/a				No change

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Hepatitis B (routine and selective, national codes 131 and 132)	HepB3(routine) and HepB(selective))							n/a	n/a	n/a	No change
MenB	MenB2				n/a	n/a	n/a	n/a	n/a	n/a	LIVE REPORTING SINCE 2016, NO CHANGE
MenB booster	MenB booster	n/a	n/a	n/a				n/a	n/a	n/a	LIVE REPORTING SINCE 2016, NO CHANGE

Appendix: COVER Programme template

SDCS guidance page is available [here](#)

LA Sheet : Request 1 (12 month cohort)

COVER Programme

Please fill in all yellow fields

Organisation			CHIS IT Supplier:			
Submitter Email:			Data Source			
Date (dd/mm/yyyy):						
Data caveats/ comments:						
Evaluation Dates						
REQUEST 1:	12 Month Cohort					
DATE 1:						
LINE 1:	DENOMINATOR					
	Number					
LINE 2:	(a) DTaP/IPV/Hib(HepB)	(b) PCV1	(c) PCV2	(d) Rota	(e) BCG	(f) MenB
Numerator						
	%	%	%	%	%	%

LA Sheet : Requests 2 and 3 (24 month and 5 year cohorts)

26	REQUEST 2:		24 Month Cohort			
27						
28	LINE 3:	DENOMINATOR				
29		Number				
30						
31						
32						
33						
34						
35	LINE 4:	(g) DTaP/IPV/Hib(HepB)	(h) MMR	(i) Hib/MenC	(j) PCV	(k) MenB
36				Booster	Booster	Booster
37	Numerator					
38	%	%	%	%	%	
39						
40	REQUEST 3:		5 Year Cohort			
41						
42	LINE 5:	DENOMINATOR				
43		Number				
44						
45						
46	LINE 6:	(k) DTaP/IPV/Hib(HepB)	(l) MMR	(m) DTaP/IPV	(n) Hib/MenC	(o) MMR
47			1st dose	Booster	Booster	2nd dose
48	Numerator					
49	%	%	%	%	%	
50						

LA Sheet : Request 4 (Hepatitis 12 month cohort)

51	REQUEST 4:		HEPATITIS 12 Month Cohort	
52				
53				
54				
55				
56	LINE 7:	DENOMINATOR		
57		Number		
58		If BLANK - Please confirm - is data unavailable?		
59		OR If ZERO value - Please confirm this is a real zero?		
60				
61	LINE 8:	Hep B (babies born <1st August 2017)		
62		<i>Numerator</i>		
63		%	%	
64				
65	LINE 9:	Hep B (babies born ≥1st August 2017)		
66		<i>Numerator</i>		
67		%	%	

LA Sheet : Request 5 (Hepatitis 24 month cohort)

68	REQUEST 5:		HEPATITIS 24 Month Cohort	
69				
70	LINE 10:	DENOMINATOR		
71		Number		
72		If BLANK - Please confirm - is data unavailable?		
73		OR If ZERO value - Please confirm this a real zero?		
74				
75	LINE 11:	Hep B 4th dose (babies born <1st August 2017)		
76		<i>Numerator</i>		
77		%	%	
78				
79	LINE 12:	Hep B 6th dose (babies born ≥1st August 2017)		
80		<i>Numerator</i>		
81		%	%	
82				
83				
84	GP Codes:			
85				
86				
87				
88				
89				
90				
91				
92				

GP Sheet: 12 Month Cohort

Quarterly Child Immunisation Collection									
CHIS:									
Total Number	0	0	0	0	0	0	0	0	0
% for each indicator									
		Total number of children in the cohort completing a course* of vaccination at any time up to their 1st birthday for each of the following:					Hepatitis B (HBsAg)		
GP Practice Code	Number of children reaching 1st birthday during quarter	DTaP/IPV/Hib/HepB (Hexavalent vaccine from 1st August 2017) ¹	MenB	PCV1	PCV2	Rotavirus	Total number of children for whom the GP practice is responsible on the last day of a defined quarter whose 1st birthday falls within that quarter born to Hepatitis B (HBsAg) positive mothers	Total number of children for whom the GP is responsible on the last day of a defined quarter who received five doses of Hepatitis B vaccine at any time by their 1st birthday	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
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28									
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31									
32									
33									
34									
35									
36									
37									

GP Sheet : 24 month cohort

Quarterly Child Immunisation Collection										
CHIS:										
Total Number		0	0	0	0	0	0	0	0	
% for each indicator										
		Total number of children in the cohort completing a course** of vaccination and receiving boosters at any time up to their 2nd birthday for each of the following:					Hepatitis B (HBsAg)			
GP Practice Code	Number of children reaching 2nd birthday during quarter	DTaP/IPV/Hib/Hep B (Hexavalent vaccine from 1st August 2017) ¹	MMR	Hib/MenC Booster	PCV Booster	MenB Booster	Total number of children for whom the GP practice is responsible on the last day of a defined quarter whose 2nd birthday falls within that quarter born to Hepatitis B (HBsAg) positive mothers	Total number of children for whom the GP is responsible on the last day of a defined quarter who received four or six doses of Hepatitis B vaccine at any time by their 2nd birthday		
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12	1									
13	2									
14	3									
15	4									
16	5									
17	6									
18	7									
19	8									
20	9									
21	10									
22	11									
23	12									
24	13									
25	14									
26	15									
27	16									
28	17									
29	18									

GP Sheet : 5 year cohort

1	Quarterly Child Immunisation Collection						
2							
3							
4	CHIS:						
5							
6							
7							
8	Total Number	0	0	0	0	0	0
9	% for each indicator						
10		Total number of children in the cohort completing a course*** of vaccination and receiving boosters at any time up to their 5th birthday for each of the following:					
11	GP Practice Code	Number of children reaching 5th birthday during quarter	DTaP/IPV Booster	DTaP/IPV/Hib/Hep B (Hexavalent vaccine from 1st August 2017)^{1 3} doses	Hib/MenC Booster	MMR 1st dose	MMR 2nd dose
12	1						
13	2						
14	3						
15	4						
16	5						
17	6						
18	7						
19	8						
20	9						
21	10						
22	11						
23	12						
24	13						
25	14						
26	15						
27	16						
28	17						
29	18						
30	19						
31	20						
32	21						