Chlamydia Testing Activity Dataset
Dataset specification and technical guidance
About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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Contents

1. Document control 4
2. Background 5
3. Changes to the dataset 6
4. Requirement 6
5. Data extract specification 8
   5.1. Description 8
   5.2. Time period and frequency 8
   5.3. Conformance 8
   5.4. Transmission 9
   5.5. Coding and formatting 9
      5.5.1. Macro formatting tool 9
      5.5.2. Venue code 10
      5.5.3. Testing service type 10
      5.5.4. Postcode of residence 11
      5.5.5. SNOMED CT coding 11
   5.6. Inclusion criteria 11
Appendix 1: Summary of CTAD dataset 13
Appendix 2: CTAD conformance 15
Appendix 3: Example of CSV and XML formatting 16
Appendix 4: Coding specification for CTAD extract 18
Appendix 5: Submission validation 29
1. Document control

<table>
<thead>
<tr>
<th>Current version</th>
<th>To provide guidance and specifications for the recording and extraction of CTAD data from laboratories in England processing LA/NHS commissioned chlamydia tests.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current status</td>
<td>Final</td>
</tr>
<tr>
<td>Authors</td>
<td></td>
</tr>
<tr>
<td>Author name</td>
<td>Section amended/ added</td>
</tr>
<tr>
<td>Emma Hollis</td>
<td>All</td>
</tr>
<tr>
<td>Reviewers</td>
<td></td>
</tr>
<tr>
<td>Reviewer name</td>
<td>Section reviewed</td>
</tr>
<tr>
<td>Kathy Lowndes</td>
<td>All</td>
</tr>
<tr>
<td>Ana Harb</td>
<td>All</td>
</tr>
<tr>
<td>Alireza Talebi</td>
<td>All</td>
</tr>
<tr>
<td>Issued to</td>
<td>Person(s) issued to</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17 December 2014</td>
</tr>
</tbody>
</table>
2. Background

The Chlamydia Testing Activity Dataset (CTAD) became a mandatory return in April 2012, superseding the National Chlamydia Screening Programme (NCSP) and the non-NCSP non-Genitourinary Medicine (GUM) (NNNG) data sources from primary care and community service chlamydia testing.

The purpose of CTAD is to collect data on all chlamydia tests undertaken in England from local authority (LA) / National Health Service (NHS) commissioned laboratories, to measure screening activity. These data are used to provide detailed reports, at a national and local level, on screening coverage, the proportion of chlamydia tests that are positive and the chlamydia diagnosis rate in England.

Since the Information Standard (ISB 1538) was approved in 2011 by the Information Standards Board for Health and Social Care (ISB), a number of amendments to the dataset are required to reflect changes in health boundaries and service delivery and improve data quality. This Information Standard has been revised to include one new item, an additional coding option within an existing item and retirement of one item, as outlined below. In addition, there are some minor changes to the NHS Data Dictionary coding options to two existing data items. These changes have now been accepted by the Standardisation Committee for Care Information (SCCI); the standard is SCCI1538.

The purpose of this document is to give an overview of the dataset specification. The information will be useful for laboratories, providers and commissioners.

Comprehensive guidance on completing and submitting the CTAD return for laboratory staff is available on the CTAD section of the HIV/STI web portal1.

1 https://www.hpawebServices.org.uk/HIV_ STI_WebPortal/Login.aspx
3. Changes to the dataset

The aims of the minor changes to the dataset are:

- to remove and update the dependency on (now historic) Primary Care Trust (PCT) geographic boundaries
- to better understand screening practices across England
- to improve data quality and data accuracy

To fulfil these aims the following changes are proposed:

1. Retire PCT Testing Service Field

   The PCT geography is now disbanded. It is not considered appropriate to collect or request this information.

2. New coding option for testing_service_type field

   Currently tests requested via the internet are included within the “other” code. The addition of code 06 for internet tests will allow for better understanding of screening practices across England. The proportion of testing done via the internet has expanded over the past few years. The addition of a code to identify it from “other” testing settings is an important step in monitoring use of internet services at the national and local level. It will also allow the testing_service_type field to be validated against local data for accuracy.

3. New field Venue_code

   This field will be populated with national site-specific codes namely Organisation Data Service (ODS) codes for GUM clinics, GPs, prisons etc. This will allow an improvement in the quality and accuracy of data. For some sites, for example outreach or tests requested via the internet, ODS codes will not be available.

4. Requirement

CTAD must be able to:

- provide data for surveillance of all LA/NHS commissioned chlamydia testing in England from data collected by laboratories in routine test processing procedures
- support submission to the previous specification for an introductory period of 6 months
- provide patient postcode of residence data so that chlamydia tests can be attributed to local authority of patient residence.
CTAD should be able to:
- attribute tests from all services and settings provide data to the quality detailed in the commissioning specification
- provide data to the quality detailed in the commissioning specification
- support SNOMED CT coding in the fields specimen_type and ct_result.

Sexual Health commissioners must:
- read and apply the specific requirements detailed in the CTAD commissioning guidance

Providers and laboratories must be able to:
- use reporting forms that are able to record information for all CTAD variables
- provide a suitable mechanism to identify the testing_service_type for all sites
5. Data extract specification

5.1 Description

The required fields, with their formatting, specifications, descriptions and definitions are given in appendices 1–3.

Each laboratory will be required to generate a quarterly disaggregated data extract of all chlamydia tests carried out using nucleic acid amplification tests (NAATs). The extract will include 20 data items.

All data items must be reported in full using the relevant codes for ‘Not known’ where appropriate. In the case that data items are not available in the laboratory, please refer to appendix 2 for relevant codes for ‘Not known’.

5.2 Time period and frequency

The extract will cover one calendar quarter. A timetable for submission dates is published on the CTAD data webpage.

- Q1: 1 January – 31 March
- Q2: 1 April – 30 June
- Q3: 1 July – 30 September
- Q4: 1 October – 31 December

Reports will be run quarterly, 6 weeks after the end of the quarter.

5.3 Conformance

Data elements for this dataset are considered either required or mandatory (see Appendix 1).

Required: required as part of NHS business rules and should be included where available or applicable

Mandatory: must be provided. The data extract will be rejected if this data element is missing at submission.

2 http://www.chlamydiadiascreening.nhs.uk/ps/info-management.asp
5.4 Transmission

Data must be submitted electronically to the CTAD team at Public Health England (PHE) through the secure HIV & STI Web Portal (HSWP). Use of the portal requires a username and password which can be obtained from the CTAD team at PHE Colindale. The portal supports the Secure Sockets Layers (SSL) method of communication. Requests for user accounts should be sent to: ctad@phe.gov.uk. The portal can be found at:

https://www.hpawebservices.org.uk/HIV_STI_WebPortal/Login.aspx

5.5 Coding and formatting

All fields and coding are defined using the NHS data dictionary (Appendix 4).

Data extracts may be formatted into a comma delimited CSV or XML file. An example of the field content is also shown and is used to illustrate how the data should appear in the file (Appendix 3).

5.5.1 Macro formatting tool

A reformatting tool is available to improve quality of CTAD submissions (Current version is version 2.0). A user guide is available on the CTAD information management webpage on the NCSP website.

It is designed to be run prior to submission in order to reformat the data, in the following fields, into the correct format. The tool can also be used to link local codes to the codes required for CTAD. Version 3.0 of the macro is scheduled for publication in December 2014 and will function to make the following improvements to a file:

<table>
<thead>
<tr>
<th>Data field</th>
<th>Reformatting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab_ID</td>
<td>Auto-completes Lab ID in the first column (optional).</td>
</tr>
<tr>
<td>Test_ID</td>
<td>Counts empty cells and shows the result at the end of reformatting.</td>
</tr>
<tr>
<td>NHS_number</td>
<td>Removes spaces, hyphens and underscores.</td>
</tr>
<tr>
<td>Gender</td>
<td>If local codes are set up it reformats them to CTAD specification requirements.</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Input a local code lookup for auto reformatting to CTAD specification requirements. Auto-inserts “99” code (Not known) into blank cells.</td>
</tr>
<tr>
<td>Postcode_residence</td>
<td>Auto-inserts “ZZ993WZ” (Not known) into blank</td>
</tr>
</tbody>
</table>

3 http://www.chlamydiasscreening.nhs.uk/ps/data.asp
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postcode_GP</td>
<td>cells.</td>
</tr>
<tr>
<td>Postcode_testing_service</td>
<td>Auto-inserts “V81999” (Not known) into blank cells.</td>
</tr>
<tr>
<td>Registered_GP_code</td>
<td>Auto-inserts “ZZ9999999” (Not known) into blank cells.</td>
</tr>
<tr>
<td>Venue_code</td>
<td>Auto-inserts “ZZ9999999” (Not known) into blank cells.</td>
</tr>
<tr>
<td>Specimen_type</td>
<td>Input a local code lookup for auto reformatting to CTAD specification requirements. Counts empty cells and shows the result at the end of reformatting.</td>
</tr>
<tr>
<td>Testing_service_type</td>
<td>Input a local code lookup for auto reformatting to CTAD specification requirements. Auto-inserts “99” (Not known) into blank cells.</td>
</tr>
<tr>
<td>Ct_result</td>
<td>Input a local code lookup for auto reformatting to CTAD specification requirements.</td>
</tr>
<tr>
<td>DOB</td>
<td>Reformats dates to CCYY-MM-DD.</td>
</tr>
<tr>
<td>Specimen_date</td>
<td></td>
</tr>
<tr>
<td>Receipt_date</td>
<td></td>
</tr>
<tr>
<td>Date_result_authorised</td>
<td></td>
</tr>
</tbody>
</table>

### 5.5.2 Venue code

This data item will be included in the dataset from January 1 2015. The purpose is to provide information about the specific venue where the test was taken or picked up. An Organisation Data Service (ODS) Code should be entered. These are available for many sites where chlamydia testing is offered, for example GUM clinics and GP surgeries. A lookup table for venues with ODS codes is found within the CTAD site lookup file available on our [website](#) (due for publication December 2014). For venues without an ODS code please use “ZZ9999998” (not available) or where one cannot be determined from the information provided please use “ZZ9999999” for unknown. Note a choice of two fields may be entered here (see appendix 1 & 3).

### 5.5.3 Testing service type

Accurate coding of the testing service where the test was carried out or picked up from is essential to ensure that the data published reflect testing behaviours in different venues. Tests should be coded as either; GUM; community sexual health service (CSHS); General Practice (GP); Pharmacy; termination of pregnancy (ToP); Internet (new category) or Other. Tests requested through a texting or postal system should be included in the Internet category. If the testing service type is not clear from the test request form, please contact the provider to clarify how tests from the venue should be coded in CTAD.
Note: Tests coded as GUM in CTAD are removed and substituted with GUM tests reported via the GUMCAD reporting system to enable publication of data by local authority area of residence. Correct substitution relies on accurate coding of testing service type by laboratories reporting to CTAD.

5.5.4 Postcode of residence

Data are attributed to lower tier local authorities (LTLA) using patient postcode of residence. If this is not provided, other reported location data are used such as the postcode of the testing service. However, if the LTLA where the patient was tested differs from the LTLA where they live then attribution will be inaccurate. For this reason, please ensure that patient postcode of residence information is specified on the test request form and entered onto the computer system at the laboratory for all tests except those taken in GUM settings.

5.5.5 SNOMED CT coding

The data dictionary has been amended to allow use of SNOMED CT coding for two variables in the CTAD dataset; specimen_type (chlamydia testing) and ct_result. The coding has been added to reflect a move towards more regulated and unified coding nationally. Use of SNOMED CT coding in CTAD is currently optional and files using both types of coding will be accepted.

5.5.6 Inclusion criteria

Private Tests
All private tests for chlamydia should be excluded. However, LA/NHS commissioned tests sent to a private laboratory for testing should be included.

De-duplication of records
The laboratory should submit all tests processed and PHE will perform de-duplication of records. Any automatic de-duplication procedure that is performed by the laboratory prior to data submission should be reported with details when data is submitted.

Equivocal, inhibitory test results and insufficient samples
All equivocal, inhibitory and insufficient chlamydia test results should be included in the data submission. ‘Equivocal’ test results are defined as tests with an unconfirmed initially reactive sample or invalid tests with unconfirmed reactive or unconfirmed positive results. ‘Inhibitory’ test results are defined as tests with an indeterminate test result. ‘Insufficient’ samples are those which do not have enough sample present to test.
**Specimen types**

All *Chlamydia trachomatis* specimens should be reported. Tests for *Chlamydia suis* and *Chlamydia muridarum* should not be reported.

Submissions should include only chlamydia samples which have been transmitted sexually. This includes genital (i.e. urine samples, vulvovaginal swabs, cervical swabs, urethral swabs), rectal and pharyngeal samples. Any conjunctival chlamydial samples should be excluded.
## Appendix 1: Summary of CTAD dataset

<table>
<thead>
<tr>
<th>Position</th>
<th>Field Name</th>
<th>Description</th>
<th>NHS Data Dictionary Data Element</th>
<th>Format</th>
<th>Example</th>
<th>Conformance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lab_ID</td>
<td>Laboratory ID code.</td>
<td>LABORATORY CODE</td>
<td>AN(5)</td>
<td>690F0</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>2</td>
<td>Test_ID</td>
<td>Test specific identifier number.</td>
<td>TEST IDENTIFIER (CHLAMYDIA TESTING)</td>
<td>AN(20)</td>
<td>V669157</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>3</td>
<td>Patient_ID</td>
<td>Unique patient identifier number.</td>
<td>LOCAL PATIENT IDENTIFIER (EXTENDED)</td>
<td>AN(20)</td>
<td>PAT123</td>
<td>Required Should be included</td>
</tr>
<tr>
<td>4</td>
<td>NHS_Number</td>
<td>Unique number assigned by NHS to all registered patients.</td>
<td>NHS NUMBER</td>
<td>AN(10)</td>
<td>1234567890</td>
<td>Required Should be included</td>
</tr>
<tr>
<td>5</td>
<td>NHS_Number_Status_Indicator</td>
<td>Status of the unique number assigned by NHS to all registered patients.</td>
<td>NHS NUMBER STATUS INDICATOR CODE</td>
<td>AN(2)</td>
<td>01</td>
<td>Required Should be included</td>
</tr>
<tr>
<td>6</td>
<td>Gender</td>
<td>Gender.</td>
<td>PERSON STATED GENDER CODE</td>
<td>AN(1)</td>
<td>1</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>7</td>
<td>DOB</td>
<td>Date of birth.</td>
<td>PERSON BIRTH DATE</td>
<td>AN(10)</td>
<td>1980-09-01</td>
<td>Required Should be included</td>
</tr>
<tr>
<td>8</td>
<td>Ethnicity</td>
<td>Patient’s ethnic category.</td>
<td>ETHNIC CATEGORY</td>
<td>AN(2)</td>
<td>A</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>9</td>
<td>Postcode_Residence</td>
<td>Patient postcode of residence.</td>
<td>POSTCODE OF USUAL ADDRESS</td>
<td>AN(8)</td>
<td>SW27 3WW</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>10</td>
<td>Postcode_GP</td>
<td>Postcode of general practice.</td>
<td>POSTCODE OF GENERAL MEDICAL PRACTICE (PATIENT REGISTRATION)</td>
<td>AN(8)</td>
<td>SW27 3LL</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>Position</td>
<td>Field Name</td>
<td>Description</td>
<td>NHS Data Dictionary</td>
<td>Format</td>
<td>Example</td>
<td>Conformance</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>--------</td>
<td>------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>11</td>
<td>Registered_GP_Code</td>
<td>National organisation code of registered general practice.</td>
<td>GENERAL MEDICAL PRACTICE CODE (PATIENT REGISTRATION)</td>
<td>AN(6)</td>
<td>Y00001</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>12</td>
<td>Postcode_Testing_Service</td>
<td>Postcode of testing service.</td>
<td>POSTCODE OF TESTING SERVICE (CHLAMYDIA TESTING)</td>
<td>AN(8)</td>
<td>SW27 3SS</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>13</td>
<td>Venue_code</td>
<td>The national site specific organisation code of the testing site.</td>
<td>SITE CODE (PROVIDER OF CHLAMYDIA TEST)</td>
<td>Min AN(5) Max AN(9)</td>
<td>RC367</td>
<td>Required Should be included</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OR ORGANISATION CODE (PROVIDER OF CHLAMYDIA TEST)</td>
<td>AN(3), AN(4) or AN(6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Specimen_Type</td>
<td>Specimen type.</td>
<td>SPECIMEN TYPE (CHLAMYDIA TESTING)</td>
<td>N(2)</td>
<td>01</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OR SPECIMEN TYPE (CHLAMYDIA TESTING SNOMED CT)</td>
<td>Min N(6) Max N(18)</td>
<td>390785003</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Testing_Service_Type</td>
<td>Type of testing service.</td>
<td>SERVICE TYPE (CHLAMYDIA TESTING)</td>
<td>AN(2)</td>
<td>03</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>16</td>
<td>NCSP_Clinic_Code</td>
<td>NCSP clinic code.</td>
<td>CLINIC CODE (NATIONAL CHLAMYDIA SCREENING PROGRAMME)</td>
<td>AN(10)</td>
<td>5A1FA</td>
<td>Required Should be included</td>
</tr>
<tr>
<td>17</td>
<td>Specimen_Date</td>
<td>Date specimen taken</td>
<td>SAMPLE COLLECTION DATE</td>
<td>AN(10)</td>
<td>2007-10-29</td>
<td>Required Should be included</td>
</tr>
<tr>
<td>18</td>
<td>Receipt_Date</td>
<td>Date specimen received by laboratory.</td>
<td>SAMPLE RECEIPT DATE</td>
<td>AN(10)</td>
<td>2007-10-31</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td>19</td>
<td>Date_Result_Authorised</td>
<td>Date result was authorised at the laboratory.</td>
<td>INVESTIGATION RESULT DATE</td>
<td>AN(10)</td>
<td>2007-10-31</td>
<td>Required Should be included</td>
</tr>
<tr>
<td>20</td>
<td>CT_Result</td>
<td>Result of chlamydia test.</td>
<td>CHLAMYDIA TEST RESULT</td>
<td>N(2)</td>
<td>02</td>
<td>Mandatory Must be included</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OR CHLAMYDIA TEST RESULT (SNOMED CT)</td>
<td>Min N(6) Max N(18)</td>
<td>413079006</td>
<td></td>
</tr>
</tbody>
</table>

*Refers to the horizontal position of the field within CSV format
Appendix 2: CTAD conformance

To meet the requirements of the CTAD dataset the submission must follow conformance as detailed in appendix 1.

CTAD submitters **must:**
- submit all data items identified in appendix 1 as mandatory
- make sure a suitable system is in place at the lab to identify the testing sites/settings where the tests processed come from and a method of recording this information
- ensure microbiology forms or other reporting forms used by the lab or provider for chlamydia samples collect the mandatory CTAD information.
- Provide data in either a .csv or .xml format

CTAD submitters **should:**
- use the CTAD reformatting tool (macro) to ensure consistency in the data submitted and improve data quality
- liaise with providers and CTAD national team where problems arise in the quality of data sent to the lab or if there are problems in coding or extracting the data
- use coding for “unknown” for data items where the information has not been provided to the lab

Sexual health commissioners **must:**
- clearly specify all 20 CTAD variables with targets for completion and quality in contracts with providers and/or labs

Sexual health commissioners **should:**
- ensure that providers and laboratories are supplied with the necessary guidance to fulfil dataset requirements
- check that current contract arrangements are sufficient to meet CTAD requirements and take steps to amend those which are not wherever possible

Providers **must:**
- inform the laboratory if the site service type or setting changes in terms of the category to be assigned for the CTAD testing service type
- ensure if they are using their own test request forms that they are suitable for collection of all mandatory CTAD information
Appendix 3: Example of CSV and XML formatting

An example of the field content for one row of data is shown below and is used to illustrate how the data should appear in the CSV and XML file formats. Files that do not comply with one of the required formats will be rejected when submitted to PHE.

**CSV Example**

One record:

```
Lab_ID,Test_ID,Patient_ID,NHS_number,NHS_Number_Status_Indicator,Gender,DOB,Ethnicity,Postcode_Residence,Postcode_GP,Registered_GP_Code,Postcode_Testing_Service,Venue_code,Specimen_Type,Testing_Service_Type,NCSP_Clinic_Code,Specimen_Date,Receipt_Date,Date_Result_Authorised,CT_Result
```

```
69F20,GH10,ZML11384552,1234567890,03,2,1922-10-01,C,NW9 5EQ,NW9 5EQ,V81999,NW9 5EQ,3ENUHBDET,3,03,5HG42,2011-01-01,2011-04-01,2011-05-01,02
```

**XML Example**

XML data files submitted to CTAD should adhere to the following file naming convention:

```
CTAD_LLLLL_QN_YYYY.xml
```

Where:

- **CTAD** is fixed
- **LLLLL** is the 5 character laboratory code
- **QN** is the reporting quarter Q1, Q2, Q3, Q4
- **YYYY** is the reporting year (e.g. 2012)

One record:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CTAD >
  <CTest>
    <lab>69F20</lab>
    <testid>GH10</testid>
    <patid>ZML11384552</patid>
    <NHS>1234567890</NHS>
    <NHSi>3</NHSi>
    <gen>2</gen>
    <DOB>1922-10-01</DOB>
    <eth>c</eth>
    <pc>NW9 5EQ</pc>
    <pct>NW9 5EQ</pct>
    <gp>V81999</gp>
    <pcts>NW9 5EQ</pcts>
    <tsvenue>3ENUHBDET</tsvenue>
</CTest>
</CTAD>
```
Please note that the format of a file containing multiple records should be as below:

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CTAD >
  <CTest>
    Record 1 data as described above
  </CTest>
  <CTest>
    Record 2 data as described above
  </CTest>
  <CTest>
    Record 3 data as described above
  </CTest>
  .
  .
  .
</CTAD>
```
# Appendix 4: Coding specification for CTAD extract

<table>
<thead>
<tr>
<th>Data item</th>
<th>NHS data dictionary name and description</th>
<th>CTAD specific requirements</th>
</tr>
</thead>
</table>
| Lab_ID      | **LABORATORY CODE**  
Format: an5 e.g. 69999  
A unique identifier for a LABORATORY. Pathology Laboratory Codes are maintained and issued by the Organisation Data Service. |                                                                                              |
| Test_ID     | **TEST IDENTIFIER (CHLAMYDIA TESTING)**  
Format: an20 e.g. V669157  
A unique identifier of the chlamydia test performed.                                          | This must be unique per test within each quarterly submission to allow for accurate de-duplication of records. |
| Patient_ID  | **LOCAL PATIENT IDENTIFIER (EXTENDED)**  
Format: an20 e.g. PAT123  
This is a number used to identify a PATIENT uniquely within a Health Care Provider. It may be different from the PATIENT's casenote number and may be assigned automatically by the computer system.  
Where care for NHS patients is sub-commissioned in the independent sector or overseas, the NHS commissioner PAS Number should be used. If no NHS PAS Number has been assigned the independent sector or overseas PAS Number should be used. | Where available this should be the patient identification number assigned by the provider, for example, the patient ID from the GUM clinic. If the provider patient identifier is not available then the lab assigned patient identification number should be used. |
### NHS_Number

**NHS NUMBER**  
*Format: an10 e.g. 1234567890*

The **NHS NUMBER**, the primary identifier of a **PERSON**, is a unique identifier for a **PATIENT** within the NHS in England and Wales. This will not vary by any **ORGANISATION** of which a **PERSON** is a **PATIENT**.

It is mandatory to record the **NHS NUMBER**. There are exceptions, such as Accident and Emergency care, sexual health and major incidents, as defined in existing national policies.

The **NHS NUMBER** is 10 numeric digits in length. The tenth digit is a check digit used to confirm its validity. The check digit is validated using the Modulus 11 algorithm and the use of this algorithm is mandatory. There are 5 steps in the validation of the check digit:

### NHS_Number_Status_Indicator

**NHS NUMBER STATUS INDICATOR CODE**  
*Format: an2 e.g. 01*

*Permitted National Codes:*

1. Number present and verified  
2. Number present but not traced  
3. Trace required  
4. Trace attempted - No match or multiple match found  
5. Trace needs to be resolved - (NHS Number or **PATIENT** detail conflict)  
6. Trace in progress  
7. Number not present and trace not required  
8. Trace postponed (baby under six weeks old)

### Gender

**PERSON STATED GENDER CODE**  
*Format: an1 e.g.1*

- 1 Male  
- 2 Female  
- 9 Intermediate (unable to be classified as either male or female)
## DOB

**PERSON BIRTH DATE**

**Format:** an10 CCYY-MM-DD  e.g. 1980-09-01

The date on which a PERSON was born or is officially deemed to have been born.

## Ethnicity

**ETHNIC CATEGORY**

**Format:** an2  e.g. A

The ethnicity of a PERSON, as specified by the PERSON. Note: ETHNIC CATEGORY is the classification used for the 2001 census. The Office for National Statistics has developed a further breakdown of the group from that given, which may be used locally.

<table>
<thead>
<tr>
<th>White</th>
<th>Asian or Asian British</th>
</tr>
</thead>
<tbody>
<tr>
<td>A   British</td>
<td>H   Indian</td>
</tr>
<tr>
<td>B   Irish</td>
<td>J   Pakistani</td>
</tr>
<tr>
<td>C   Any other White background</td>
<td>K   Bangladeshi</td>
</tr>
<tr>
<td></td>
<td>L   Any other Asian background</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mixed</th>
<th>Black or Black British</th>
</tr>
</thead>
<tbody>
<tr>
<td>D   White and Black Caribbean</td>
<td>M   Caribbean</td>
</tr>
<tr>
<td>E   White and Black African</td>
<td>N   African</td>
</tr>
<tr>
<td>F   White and Asian</td>
<td>P   Any other Black background</td>
</tr>
<tr>
<td>G   Any other mixed background</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Ethnic Groups</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R   Chinese</td>
<td></td>
</tr>
<tr>
<td>S   Any other ethnic group</td>
<td></td>
</tr>
<tr>
<td>Z   Not stated</td>
<td></td>
</tr>
</tbody>
</table>

National code Z - Not Stated should be used where the PERSON has been given the opportunity to state their ETHNIC CATEGORY but chose not to.
| **Postcode_Residence** | **POSTCODE OF USUAL ADDRESS**  
**Format:** an8 e.g. SW27 3WW  
**POSTCODE OF USUAL ADDRESS** is the **POSTCODE** of the **ADDRESS** nominated by the **PATIENT**  
If a **POSTCODE** is not known (for example, the **PATIENT** has no fixed abode, the **PATIENT** is an Overseas Visitor etc.) the appropriate **Organisation Data Service** pseudo **POSTCODE** should be used. The pseudo **POSTCODES** can be found on the **Organisation Data Service** website at: **Look Ups**.  
**Default codes:**  
ZZ99 3WZ  
The postcode of usual address is not known or not stated  
ZZ99 3VZ  
The patient has no fixed abode  
ZZ99 naZ  
For overseas visitors use the relevant country pseudo postcode commencing ZZ99 followed by a numeric then an alpha character, then a Z. For example ZZ99 6CZ is the pseudo-postcode for India. Pseudo-Country postcodes can be found in the **NHS Postcode Directory**. |
| **Postcode_GP** | **POSTCODE OF GENERAL MEDICAL PRACTICE (PATIENT REGISTRATION)**  
**Format:** an8 e.g. SW27 3LL  
The **POSTCODE** of the address of the primary **General Medical Practitioner Practice** where the **PERSON** is registered. |
| Registered_GP_Code | **GENERAL MEDICAL PRACTICE CODE (PATIENT REGISTRATION)**  
**Format:** an6 e.g. Y00001  
The ORGANISATION CODE of the GP Practice that the PATIENT is registered with.  
**Use of Organisation Data Service Default Codes**  
V81997 should be used when a PATIENT presents, who is not currently registered at a GP Practice, *but is eligible to be registered should they wish to.*  
V81998 should be used where a PATIENT should not have a registered GP Practice, due for instance to them having only recently entered the country.  
V81999 should be used where it is not possible to determine a PATIENT’s registered GP Practice code, but it is known that they should have one, or where it is impossible to determine whether they should or shouldn't have a registered practice (for instance the PATIENT cannot communicate and is unidentified).  
| The general medical practice that the patient is registered with |
| Postcode_Testing_Service | **POSTCODE OF TESTING SERVICE (CHLAMYDIA TESTING)**  
**Format:** an8 e.g. SW27 3SS  
This is the POSTCODE of the ORGANISATION where the chlamydia test SAMPLE was taken.  
| This should be the postcode of where the test was taken or picked up. For internet test kits, please use the postcode of the lab as default.  
If the test was in a GP setting then the postcode of the GP surgery should be in this field as well as in the Postcode_GP field. |
<table>
<thead>
<tr>
<th>Venue_code</th>
<th>SITE CODE (PROVIDER OF CHLAMYDIA TEST)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Format: Min an5 max an9 e.g. RC367</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>ORGANISATION CODE (PROVIDER OF CHLAMYDIA TEST)</td>
</tr>
<tr>
<td></td>
<td>Format: an3, an4, an6 e.g. ZZ9999</td>
</tr>
</tbody>
</table>

An identifier for a CLINIC OR FACILITY. An Organisation Data Service (ODS) Code should be entered. This code can be ascertained direct from ODS: [http://systems.hscic.gov.uk/data/ods](http://systems.hscic.gov.uk/data/ods)

This is a unique code assigned by ODS and includes sites such as GUM clinics, GP surgeries, healthcare venues, pharmacies and prisons.

An ODS site code lookup is available on the CTAD information management [webpage](http://systems.hscic.gov.uk/data/ods).

ODS codes are not available for all sites and testing types, for example internet tests. In these circumstances use ZZ9999998 - Not applicable

Where an ODS code is not provided and cannot be determined from other information available use ZZ9999999 - Not known
**Specimen Type**

**SPECIMEN TYPE (CHLAMYDIA TESTING)**

**Format:** `an2` e.g. 01

The type of specimen used for Chlamydia testing. Any conjunctiva chlamydia SAMPLES should be excluded.

**National Codes:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urine</td>
</tr>
<tr>
<td>2</td>
<td>Genital</td>
</tr>
<tr>
<td>3</td>
<td>Rectal</td>
</tr>
<tr>
<td>4</td>
<td>Pharyngeal</td>
</tr>
</tbody>
</table>

**OR**

**SPECIMEN TYPE (CHLAMYDIA TESTING SNOMED CT)**

**Format:** `min n6 max n18` e.g. 390785003

**SNOMED CT codes:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>390785003</td>
<td>urethral chlamydia swab (procedure)</td>
</tr>
<tr>
<td>285589007</td>
<td>endocervical swab (procedure)</td>
</tr>
<tr>
<td>77659100000105</td>
<td>throat swab for chlamydia (procedure)</td>
</tr>
<tr>
<td>472859009</td>
<td>taking anal swab for chlamydia (procedure)</td>
</tr>
<tr>
<td>412761009</td>
<td>urine screen for chlamydia (procedure)</td>
</tr>
</tbody>
</table>

Either type of coding will be accepted into the dataset.
<table>
<thead>
<tr>
<th>Testing_Service_Type</th>
<th>SERVICE TYPE (CHLAMYDIA TESTING)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format: an2 e.g. 03</td>
<td>The type of SERVICE providing chlamydia testing.</td>
</tr>
<tr>
<td>01 Genitourinary Medicine Services</td>
<td>Includes testing done in Genitourinary Medicine clinics reported to Genitourinary Medicine Clinic Activity Data Set (GUMCAD).</td>
</tr>
<tr>
<td>02 Community Sexual Health Services</td>
<td>Includes testing carried out in Sexual and Reproductive Health Services/Contraception and Sexual Health (CASH) services/Community Contraceptive Services excludes Contraceptive Services within GP Practices. Includes young PERSON's sexual health services e.g. Brook clinics and SexSense. It also includes pre-instrumentation screening e.g. Intrauterine Devices where undertaken at CASH services and postal kits handed out at community sexual health services.</td>
</tr>
<tr>
<td>03 General Medical Practitioner Practice</td>
<td>Includes post kits handed out at the GP Practice.</td>
</tr>
<tr>
<td>04 Pharmacy Premises</td>
<td>Includes testing carried out in community pharmacies, including post kits handed out at the pharmacy.</td>
</tr>
<tr>
<td>05 Termination of Pregnancy (TOP) Services</td>
<td>Includes testing undertaken in TOP services at all stages including medical and surgical. Includes all NHS and private providers including British Pregnancy Advice Service (BPAS), Marie Stopes and Pregnancy Crisis Centre. It also includes post kits handed out in TOP Services.</td>
</tr>
<tr>
<td>06 Internet</td>
<td>Includes all tests sourced via the internet.</td>
</tr>
<tr>
<td>XX Other</td>
<td>Any other testing service type which does not fit into categories 01 - 05 e.g. chlamydia screening offices, antenatal and obstetric services, military, education, occupational health, prison, youth services, outreach, accident and emergency, minor injuries, NHS walk-in centres and Hospitals.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| NCSP_Clinic_Code   | **CLINIC CODE (NATIONAL CHLAMYDIA SCREENING PROGRAMME)**  
                      Format: an10 e.g. 5A1FA  
                      The CLINIC OR FACILITY CODE (allocated by Public Health England) of the clinic performing the chlamydia test.  
                      A unique identifier previously used by venues participating in the NCSP. Codes assigned by PHE via a web based facility. All NCSP clinic codes are categorised into 16 different venue types.  
                      This coding system is no longer maintained or verified. Testing service type should not be assigned from these codes alone. |
| Specimen_Date      | **SAMPLE COLLECTION DATE**  
                      Format: an10 CCYY-MM-DD e.g. 2007-10-29  
                      The date that a SAMPLE collection takes place or the start of a period for SAMPLE collection.                                                                                                                                                                                                                                                                                                                                                               |
| Receipt_Date       | **SAMPLE RECEIPT DATE**  
                      Format: an10 CCYY-MM-DD e.g. 2007-10-31  
                      The date of receipt of a SAMPLE by a LABORATORY.                                                                                                                                                                                                                                                                                                                                                   |
| Date Result Authorised | **INVESTIGATION RESULT DATE**  
*Format: an10 CCYY-MM-DD e.g. 2007-10-31*  
The date on which an investigation was concluded e.g. the date the result was authorised. |
| Date_Result_Authorised | **INVESTIGATION RESULT DATE**  
| Format: an10 CCYY-MM-DD e.g. 2007-10-31 | The date on which an investigation was concluded e.g. the date the result was authorised. |
### CTAD Dataset Specification and Technical Guidance

#### CT_Result

**CHLAMYDIA TEST RESULT**

**Format:** an2  e.g. 02

The result of the chlamydia test undertaken.

- 1  Positive
- 2  Negative
- 3  Equivocal - tests with an unconfirmed initially reactive sample or invalid tests with unconfirmed reactive or unconfirmed positive results
- 4  Insufficient specimen - samples which do not have enough sample present to test
- 5  Inhibitory result - tests with an indeterminate test result

XX  Other - tests can not be categorised as options 01 - 05: Unable to process sample

#### OR

**CHLAMYDIA TEST RESULT (SNOMED CT)**

**Format:** min n6 max n18  e.g. 201431000000103

**CHLAMYDIA TEST RESULT (SNOMED CT)** is the SNOMED CT concept ID which is used to identify the result of the Chlamydia test.

- 201441000000107  chlamydia test positive (finding)
- 413079006  Chlamydia polymerase chain reaction positive (finding)
- 314527009  urine chlamydia trachomatis test positive (finding)
- 415798001  positive (finding)
- 201431000000103  chlamydia test negative (finding)
- 413080009  Chlamydia antigen enzyme-linked immunosorbent assay negative (finding)
- 314526000  negative (finding)
- 415797006  urine chlamydia trachomatis test negative (finding)
- 247371000000107  chlamydia test equivocal (finding)
- 125154007  specimen unsatisfactory for evaluation (finding)*
- 448374002  inhibition of nucleic acid amplification test for Chlamydia trachomatis (finding)

Either type of coding will be accepted into the dataset.

*AN = Alpha-numeric, N = Numeric, A = Character. Number in brackets denotes the string length. Code entries which are shorter than the string length should not include leading/trailing zeroes or spaces.
Appendix 5: Submission validation

The CTAD system has been designed in such a way that all data validation is done after a file is submitted to the CTAD portal⁴. For this reason there is no validation of data included in the .xml schema. Data must conform to the format defined appendices 1,3 and 4 to be accepted. The CTAD portal software validates submissions to check that the specification is met. If data does not conform, the following error messages are sent to the submitter:

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Error Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dataset is not in CSV/XML format</td>
</tr>
<tr>
<td>2</td>
<td>Incorrect field name</td>
</tr>
<tr>
<td>3</td>
<td>Data fields are not the correct data type or data format</td>
</tr>
<tr>
<td>4</td>
<td>Data fields have a null value</td>
</tr>
<tr>
<td>5</td>
<td>1 or more cells contain unrecognised codes (reference look-up tables)</td>
</tr>
<tr>
<td>6</td>
<td>Data from outside of specified quarter</td>
</tr>
<tr>
<td>7</td>
<td>The reported specimen date is later than the receipt date</td>
</tr>
<tr>
<td>8</td>
<td>The reported authorized date is earlier than the receipt date</td>
</tr>
<tr>
<td>9</td>
<td>Duplicate test ID in the current dataset</td>
</tr>
<tr>
<td>10</td>
<td>Duplicate data record in the current dataset</td>
</tr>
<tr>
<td>11</td>
<td>Age out of range of acceptable values i.e. Invalid age = 200</td>
</tr>
<tr>
<td>12</td>
<td>Date covers more than 1 calendar quarter</td>
</tr>
<tr>
<td>13</td>
<td>Errors account for more than 10% of the data</td>
</tr>
</tbody>
</table>

⁴ https://www.hpaweservices.org.uk/HIV_STI_WebPortal/Login.aspx