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<th><strong>CTAD (Chlamydia Testing Activity Dataset): Briefing Document and Frequently Asked Questions</strong></th>
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CTAD – Overview

The Chlamydia Testing Activity Dataset (CTAD) is a new universal disaggregate dataset, for the reporting of chlamydia testing data from all NHS and NHS commissioned laboratories in England. The purpose of the dataset is to enable collection of robust data from laboratories on all chlamydia testing carried out in England, in order to effectively monitor the impact of the National Chlamydia Screening Programme (NCSP) through estimation of population screening coverage, positivity and diagnostic rates at local level.

CTAD was adopted as a national NHS Information Standard by the NHS Information Standards Board (ISB) in July 2011 (ISB 1538). CTAD is sponsored by the Department of Health, and has gained ministerial support through the Review of Central Returns (ROCR) approval process. The Health Protection Agency (HPA) is responsible for CTAD implementation and has approval from the National Information Governance Board (NIGB) to collect these data.

CTAD data will inform the recently published Public Health Outcomes Framework indicator on chlamydia diagnosis rates in 15-24 year olds; and will enable mapping of population testing coverage and diagnosis rates to current and future geographical health boundaries. The HPA will collate CTAD data for use by local programmes.

CTAD will change the way chlamydia data are reported. Laboratories will be required to submit the new CTAD dataset to the HPA and it is intended that CTAD will replace two existing chlamydia datasets – the NCSP (National Chlamydia Screening Programme) core data return and the non-GUM, non-NCSP aggregate data return – following a period of overlap of data reporting.

CTAD is being implemented within the context of the ongoing integration of the NCSP into mainstream sexual health service provision (http://www.chlamydiascreening.nhs.uk/ps/publications/qwins.html). CTAD will eliminate a significant administrative burden relating to the collation and submission of the NCSP dataset, and of the non-GUM, non-NCSP dataset, and thus contribute to increased cost-effectiveness of the programme.

CTAD – Background

In England, the control of *Chlamydia trachomatis* infection and its associated complications is an NHS priority and it has been estimated that between 26 and 43% of the 16-24 year-old sexually active population needs to be tested annually to control chlamydial infection. The National Chlamydia Screening Programme (NCSP) was established in 2003 and aims to opportunistically screen those aged under 25 years of age in a range of healthcare and non-healthcare settings. A key measure of the success of the NCSP is the proportion of the target population tested annually.

Currently the following datasets are collected by the HPA Colindale, and together form the basis for monitoring the NCSP and assessment of progress:

- **The National Chlamydia Screening Programme (NCSP) core data return** - collects disaggregated data on all tests/screens carried out in healthcare and non-healthcare settings which are registered with the Programme.

- **The non-GUM, non-NCSP data return** - collects aggregated data from all laboratories on chlamydia testing among those aged 15-24 years performed outside of GUM clinics and not reported to the NCSP.
In addition, the Genitourinary Medicine Clinic Activity Dataset (GUMCAD) collects disaggregate data on all chlamydia diagnoses made in genitourinary medicine (GUM) clinics.

The existing chlamydia testing data sources described above are not wholly adequate for accurately monitoring population coverage for assessment of the effectiveness of chlamydia control strategies. There are issues of data comparability, validity of aggregated returns, the age-specific nature of the NCSP and non-GUM, non-NCSP data and the potential for incomplete reporting and duplication. The development of a simpler, unified system for assessment of chlamydia testing coverage and positivity rates represents a substantial improvement on the current situation.

The new dataset – the Chlamydia Testing Activity Dataset (CTAD) – will flow from laboratories to the HPA. The dataset will be a quarterly disaggregated data extract of all chlamydia tests carried out using nucleic acid amplification (NAAT) testing, from all age groups and sources of test request, from all laboratories that carry out NHS-commissioned testing for chlamydia in England. The new dataset will enable unified, universal reporting of all chlamydia testing and diagnosis data, and will eliminate the need to combine data from disparate sources. This will simplify and streamline information flow and improve data completeness and quality.

CTAD data will inform the recently published Public Health Outcomes Framework indicator on chlamydia diagnosis rates in 15-24 year olds; and will enable mapping of population testing coverage and diagnosis rates to current and future geographical health boundaries. The HPA will collate CTAD data for use by local programmes.

CTAD was adopted as a national NHS Information Standard by the NHS Information Standards Board (ISB) in July 2011 (ISB 1538). Following a period of overlap to allow for data validation and continuity of reporting, both the disaggregate reporting of core NCSP data, as well as aggregate reporting of laboratory data on non-GUM, non-NCSP tests, will be discontinued.

Collection and reporting of CTAD data items should be possible at most laboratories and implementation began in September 2011, with full implementation required by April 2012.

Please refer to the “Frequently Asked Questions” section below for answers to common queries.
CTAD - Frequently Asked Questions

**What is CTAD?**
The Chlamydia Testing Activity Dataset – a new universal disaggregate dataset for the reporting of chlamydia testing data from all NHS and NHS commissioned laboratories in England to the Health Protection Agency (HPA), Colindale.

**Who is responsible for developing and implementing CTAD?**
CTAD is being implemented by the HIV/STI Department, Health Protection Services, HPA Colindale, in collaboration with the regional HPAs. The project director is Dr Catherine Lowndes (Consultant Scientist, Epidemiology).

**What is the objective of CTAD?**
The objective of the CTAD dataset is to collect data on all NHS-commissioned chlamydia nucleic acid amplification tests (NAATs) carried out in laboratories in England. CTAD will collect information from all sources of testing and all age groups. The principle aim of the collection of this dataset is to enable improved and streamlined monitoring of the National Chlamydia Screening Programme, through assessment of population coverage of chlamydia testing, and rates of chlamydia diagnoses and positivity, at national, regional and local levels, using a single universal data source.

CTAD is being implemented within the context of the ongoing integration of the NCSP into mainstream sexual health service provision ([http://www.chlamydiascreening.nhs.uk/ps/publications/qwins.html](http://www.chlamydiascreening.nhs.uk/ps/publications/qwins.html)).

CTAD will eliminate a significant administrative burden relating to the collation and submission of the NCSP dataset, and of the non-GUM, non-NCSP dataset, and thus contribute to increased cost-effectiveness of the programme.

**What are the benefits of CTAD?**
- A universal means to monitor chlamydia testing activity.
- One unified dataset which will eliminate the need to combine data from disparate sources.
- Improved completeness and quality of testing activity data from all age groups and all test settings.
- Ceasing the NCSP core data return will eliminate a significant administrative burden relating to collation and submission of the dataset. Ceasing the non-GUM, non-NCSP data return will also result in a reduction in administrative burden. This current aggregated return requires data manipulation and collation procedures, including assigning PCT and local authority of residence and de-duplication, which can be time-consuming.
**What data items will CTAD collect?**

CTAD will collect the following data items:

**Table 1. Data items to be collected by CTAD**

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<thead>
<tr>
<th>Data Item</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>1. Laboratory identifier</td>
<td>Mandatory</td>
</tr>
<tr>
<td>2. Test identifier</td>
<td>Mandatory</td>
</tr>
<tr>
<td>3. Patient identifier</td>
<td>Required</td>
</tr>
<tr>
<td>4. NHS Number</td>
<td>Required</td>
</tr>
<tr>
<td>5. NHS Number status indicator</td>
<td>Required</td>
</tr>
<tr>
<td>6. Gender</td>
<td>Mandatory</td>
</tr>
<tr>
<td>7. Date of birth</td>
<td>Required</td>
</tr>
<tr>
<td>8. Ethnicity</td>
<td>Mandatory</td>
</tr>
<tr>
<td>9. Postcode of residence</td>
<td>Mandatory</td>
</tr>
<tr>
<td>10. Postcode of General Practice</td>
<td>Mandatory</td>
</tr>
<tr>
<td>11. National General Practice code</td>
<td>Mandatory</td>
</tr>
<tr>
<td>12. Postcode of testing service</td>
<td>Mandatory</td>
</tr>
<tr>
<td>13. PCT of testing service</td>
<td>Mandatory</td>
</tr>
<tr>
<td>14. Specimen type</td>
<td>Mandatory</td>
</tr>
<tr>
<td>15. Testing service type</td>
<td>Mandatory</td>
</tr>
<tr>
<td>16. NCSP clinic code</td>
<td>Required</td>
</tr>
<tr>
<td>17. Specimen date</td>
<td>Required</td>
</tr>
<tr>
<td>18. Sample receipt date</td>
<td>Mandatory</td>
</tr>
<tr>
<td>19. Date result authorised</td>
<td>Required</td>
</tr>
<tr>
<td>20. Chlamydia test result</td>
<td>Mandatory</td>
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**What data will not be collected by CTAD?**

- Chlamydia testing performed in laboratories outside England.
- Private testing for chlamydia (tests commissioned by the NHS and sent to a private laboratory will be included).
- Detailed behavioural risk factor data
- Patient and partner management data

**What if data items specified are not collected?**

Laboratories are not expected to collect new data: we only expect laboratories to submit data that is currently in their systems. However, the data must be submitted in the standardised format set out in the Information Standards Notice (ISN).

**What is the difference between mandatory and required data items?**

The data items in CTAD are classed as **mandatory** or **required**.

**Mandatory** data items must be completed for every record, i.e. there must be no blank cells in the data submission. If the data item is missing in the lab database, the appropriate code for missing/unknown data must be used.

**Required** data items must be completed if the data item is available. However they can be left blank if the data item is missing in the lab database.

**Can the central CTAD team interpret and reformat raw data sent by labs?**

There are over 200 laboratories that do chlamydia testing in England and each record their data differently. Raw data sent to the HPA for recoding and reformatting would introduce too many errors in the dataset.
**What format should the data extract be in?**

Every record submitted needs to be in csv or xml format with 20 fields. If the data item is mandatory the appropriate code must be submitted in the appropriate space. If the data item is required, the space for the data item can be left blank; however, there must be a space between data items.

CTAD data files can be submitted in csv or in xml format. Results from the CTAD implementation laboratory survey found that all laboratories that completed the survey could submit the data in csv format, while many could also submit the extract in xml format. Please note that the NHS Information Standards Notice (ISB 1538) issued to all NHS providers in July 2011 states that all CTAD data should be submitted in xml format by 2013.

**Why do the variables need to be recoded in the way specified in the CTAD standard specification?**

When the NHS Information Standards Board (ISB) defines a mandatory information standard, the data items must follow the same coding and format as specified in the NHS data dictionary. This supports the sharing, exchange and comparison of information across the NHS. The CTAD team understands that laboratories are busy and concerned with the changes that need to be made to chlamydia test reporting. We will endeavour to facilitate and support laboratories to produce an accurate CTAD extract appropriately coded.

**What are the data items Postcode Testing Service, PCT Testing Service and NHS Number Status Indicator?**

Postcode testing service is the postcode of the organisation where the sample was taken. This is needed for epidemiological analysis of the locations where testing is taking place and positive samples are being identified.

PCT testing service is the Organisation Code of the PCT in which the testing service is geographically located. This may be derived from the postcode of testing service to determine the appropriate PCT.

NHS number status indicator identifies whether the patient’s NHS number is present, verified or traced. The NHS ISB has decided this must be a required field collected in CTAD.

**How is surveillance of chlamydia and monitoring of chlamydia screening currently carried out?**

Currently, there are three data returns managed by the HPA that collect data on chlamydia testing and diagnoses in England:

1. **The National Chlamydia Screening Programme (NCSP) core data return** - collects disaggregated data on all chlamydia testing in under 25 year olds carried out in healthcare and non-healthcare sites which are registered with the programme. Data submitted by local chlamydia coordination office staff.
2. **The non-GUM, non-NCSP data return** - reports aggregated laboratory chlamydia testing data for 15 to 24 year olds from outside of GUM and not reported to the NCSP. Data submitted by local chlamydia coordination office, PCT or laboratory staff.
3. **The Genitourinary Medicine Clinic Activity Dataset (GUMCAD) return** - collects disaggregate data on all chlamydia testing in genitourinary medicine (GUM) clinics. Data submitted by GUM clinic staff.
Will CTAD replace existing chlamydia surveillance systems?
CTAD will not replace GUMCAD, but will run in addition since they are two different datasets. CTAD will collect information on all chlamydia testing from laboratories whereas GUMCAD collects information on all STI testing activity from GUM clinics.

CTAD will replace the NCSP core data-set and the non-NCSP, non-GUM chlamydia data-set collections for monitoring purposes. These systems will run in parallel from April to September 2012 to confirm that CTAD has been successfully established. The NCSP core dataset and non-GUM, non-NCSP data collections will cease at the end of September 2012. The last submission for July – September data will be 15th October 2012. (Programmes have the option to continue to collect the full NCSP core data-set locally).

How will CTAD impact on laboratories?
We appreciate that the implementation of this new data return may initially be an additional burden on laboratories. However following successful implementation CTAD will replace the non-GUM, non-NCSP data return which laboratories already provide to the NCSP, so reducing workload. Ten laboratories across England were involved in the pilot studies, the results of which were reviewed by the Information Standards Board (ISB). These laboratories used a range of IT systems, and all were able to produce the CTAD extract without changes to their IT systems. Laboratories are only expected to provide the data that are stored on their systems: no additional data collection by laboratories is necessary. It should take a maximum of one person-day per quarter to prepare and upload quarterly data extracts in each laboratory. If you find upon submission of your data return that it has taken longer than this please let us know.

How will CTAD differ from the existing information collected by Lablink & CoSurv laboratory reporting system?
CoSurv is an existing data reporting system flowing from laboratories to the HPA. However, CoSurv only collects information on positive diagnoses and would therefore not capture all chlamydia testing activity (i.e. positive and negative tests) necessary for monitoring population coverage of chlamydia testing. In addition Lablink and CoSurv do not encompass all the data fields required by the NHS ISB in the CTAD specification.
**How does the NHS Information Standards Board approval process work?**
CTAD has passed through a three stage application to the NHS Information Standards Board (ISB):

1. **Requirement Stage Application** - In May 2010 a Requirement Stage (preliminary) application was submitted to the ISB. As part of the application process a small Phase 1 Pilot was carried out in five laboratories to help inform the application. CTAD received approval at Requirement Stage.

2. **Draft Stage Application / Full Stage Application** – In May 2011, a combined Draft and Full Stage application was submitted to the ISB. The application involved conducting a larger Phase 2 Pilot involving 10 laboratories to further assess the feasibility of collecting and processing the CTAD dataset. CTAD has now received approval.

**Is CTAD a mandatory data return?**
The ISN (Information Standards Notice) issued by the ISB means that the dataset is a mandatory quarterly data return from all NHS and NHS-commissioned laboratories in England to the HPA, Colindale.

**When will CTAD be implemented?**
Implementation of CTAD began in September 2011 and becomes mandatory in April 2012. The systems will run in parallel for six months to confirm that CTAD has been successfully established. Collection of the NCSP core dataset and the non-GUM, non-NCSP dataset will cease at the end of September 2012. The last submission for July – September data will be 15th October 2012. (Programmes have the option to continue to collect this data locally).

There is a team dedicated to CTAD within the HPA that will support labs with CTAD implementation.

**Communication with laboratories**
The CTAD team would like to reassure laboratories that their concerns are being listened to and we take time to investigate all issues raised. The HPA has formed communication networks between laboratories, software suppliers and other key players that will aid the transition to reporting through the CTAD system. Any questions can be sent to your HPA regional information manager as well as directly to the CTAD team. Contact details can be found on the HPA CTAD webpage.

In addition to this support, we are developing a ‘buddy’ system between laboratories used in the pilots and laboratories new to this reporting system. We aim to connect labs that use the same software providers. If you are interested in taking part in this network, please let the CTAD team know who your software provider is.

**Any further questions?**
For further information on CTAD please contact: Dr Catherine Lowndes (Consultant Scientist, Epidemiology: 0208 327 7413) or Katy Town (CTAD Scientist; 0208 327 7493). Alternatively, any CTAD queries can be emailed to ctad@hpa.org.uk.