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# Mental Health Services Data Set (MHSDS) v2.0 Technical Guidance

# Document Management

## Revision History

Version	Date	Summary of Changes
0.1	27/05/2015	First Draft
0.2	23/12/2015	Second Draft
0.3	22/03/2016	Added section 2.1 Changes in MHSDS submission process
0.5	30/09/2016	Upgraded document to v1.1 for web publication
1.0	18/10/2016	Upgraded document to v2.0 with confirmation that no change to submission process has been made

## Reviewers

This document must be reviewed by the following people:

Reviewer name	Title / Responsibility	Date	Version
Nicholas Richman	Service Development Manager, NHS Digital	18/10/2016	1.0

## Approved by

This document must be approved by the following people:

Name	Title / Responsibility	Date	Version
Netta Hollings	Programme Manager, NHS Digital	18/10/2016	1.0

## Glossary of Terms

Term / Abbreviation	What it stands for
BSP	Bureau Service Portal
CSV	Comma-Separated Values (file format)
C&P	Currencies and Payment
Data Item	A single component of a data set that holds one type of information and relates to a specific record.
Data Group	A collection of data items that describe a distinct event or episode. This can also be referred to as a table of data.
DQM	Data Quality Measure
HSCIC	Health and Social Care Information Centre - a data, information and technology resource for the health and care system which plays a fundamental role in driving better care, better services and better outcomes for patients in England. The HSCIC is also known as NHS Digital.
IDB	Intermediate Database
ISN	Information Standards Notices are issued by the Standardisation Committee for Care Information (SCCI) to give notice of changes to information requirements and information standards used by the NHS and Social Care Services.
Last Good File	The most recent collection of valid records submitted by a data provider for a reporting period.
Mental Health	The term 'mental health' includes patients of all ages (i.e. adults, adolescents and children) and is used generically to include patients with a learning disability or autism spectrum disorder as well as other mental health needs.
MHCCT	Mental Health and Community Care Team
MHLDDS	Mental Health and Learning Disabilities Data Set
MHSDS	Mental Health Services Data Set
MPI	Master Patient Index
NHS Digital	The preferred name for the HSCIC, with effect from 1 August 2016.
Null	A data item with no value (i.e. blank) and therefore, has no meaning. This is different from a value of 0, since 0 is an actual value.
PAS	Patient Administration System
Reporting Period	The period (usually a calendar month) for which a particular data upload refers.
SCCI	The Standardisation Committee for Care Information (SCCI) is a committee with membership drawn from a range of health and social care organisations with responsibility for overseeing the development, assurance and approval of information standards, data collections, and data extractions used within the health and social care system.
SSD	Systems and Services Delivery Team (NHS Digital)

XML	Extensible Markup Language
Mandatory	Where a group/table is submitted, data items within the table that are Mandatory MUST be reported. Failure to submit these items will result in the rejection of the submission.
Required	These data items SHOULD be reported where they apply. Failure to submit these items will not result in the rejection of the submission but may affect the derivation of national indicators or national analysis.
Optional	Optional data items MAY be submitted on an optional basis at the submitters discretion.as they may or may not be appropriate for all services and conditions.
Derived	A data item populated as part of post-deadline processing. The derived data item is based on the manipulation of the 'source' data items using mathematical, logical or other types of transformation process, or by using source data to derive further data from national look-up tables.

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# 1. About this Document

## 1.1 Purpose of the Document

The purpose of this document is to outline technical guidance for data providers and system suppliers in relation to the implementation of the Mental Health Services Data Set (MHSDS), and to provide additional assistance regarding file creation and submission to the central system.

## 1.2 Scope of the Document

This document is expected to be of use to the informatics departments of: NHS service providers, independent sector providers that provide mental health, learning disabilities or autism spectrum disorder services, irrespective of funding arrangements; the local bureau services that may serve those organisations; and any other organisations in scope of MHSDS.

The following areas are out of scope of this document:

- Detailed justification for the development of the Information Standard.
- Restating information already accessible from the Technical Output Specification.

A comprehensive set of documentation has been developed by the project team for the MHSDS Information Standard. This document should be read in conjunction with the following documents:

- MHSDS v2.0 Requirements Specification
- MHSDS v2.0 Change Request
- MHSDS v2.0 Technical Output Specification
- MHSDS v2.0 Implementation Guidance
- MHSDS v2.0 User Guidance
- NHS Data Model and Dictionary

An explanation of the documentation available can be found in the MHSDS v2.0 Implementation Guidance, section 2.2.

## 1.3 Schedule for Updating this Document

This document will be reviewed and updated when necessary. Changes to this document will not necessitate further approval via the Standardisation Committee for Care Information (SCCI) process; however, this is on the understanding that the changes do not affect the scope of the Information Standard.

## 2. Background Information

The MHSDS is a patient level, output based, secondary uses data set which seeks to deliver robust, comprehensive, nationally consistent and comparable person-based information for children, young people and adults who are in contact with Mental Health, Learning Disabilities or Autism Spectrum Disorder Services.

As a secondary uses data set it intends to re-use clinical and operational data for purposes other than direct patient care. It defines the data items, definitions and associated value sets extracted or derived from local information systems.

MHSDS v2.0 introduces changes in relation to new government policy initiatives; resolution of issues within the current data collection; and inclusion of other key stakeholder requirements as follows:

- Enhance collection of data related to Child and Adolescent Mental Health Services (CAMHS) such as through the collection of CAMHS ‘needs based groupings’
- Improve the identification of “Out of Area Placements” for adult acute mental health
- Improve breakdowns in access and outcomes across groups protected by the Equalities Act 2010 through inclusion of Person Marital Status
- Align Mental Health Delayed Discharge Period data items with changes to NHS England Delayed Transfers of Care (DToC) categories
- Enable early development of Access and Waiting Time Standards for Crisis Care
- Collect different types of plans relating to referrals and discharges through a genericised ‘Care Plan’ table
- Enable the collection of a Forensic Mental Health tariff and currency model
- Incorporate further elements of the Assuring Transformation (AT) and Learning Disability Census collections
- Improve understanding of Ward properties with the addition of Hospital Bed Type and Intended Age Group
- Address minor maintenance issues to ensure data set remains fit for purpose such as moving Postcode of Main Visitor to the Hospital Provider Spell table
- Address known issues highlighted during the testing and implementation of MHSDS v1.1

### 2.1 Changes in MHSDS submission process for v2.0

MHSDS v2.0 introduces changes to the data item content for collection within the data set.

**No changes to the submission process have been made as part of this v2.0 release.**

### 2.2 Previous changes to submission process

#### Submission File Types

As introduced in MHSDS v1.1, the option to submit Primary and Refresh Submission as one single combined submission is no longer available. This is due to the improved approach to validating individual records against a specified reporting period. Each Primary or Refresh submission type file should be uploaded separately for the appropriate reporting period.

#### Change in Extract formats from MHLDDS

As part of the move from the spell-based structure of the MHLDDS to the referral-based structure of the MHSDS, the pre and post deadline extracts produced at the Bureau Service Portal (BSP) have

also been redeveloped. This change impacts on the pre- and post-deadline provider extracts and commissioner extracts which are currently downloaded.

The MHLDDS process normalised the 50 submitted data tables into 3 csv extract files covering records, episodes and events. These 3 processed files incorporate the derived spell index information.

For MHSDS, the extracts produced will now more closely resemble the input data format. The data is input by the providers using a single IDB made up of individual data tables. The output extracts will consist of a single XML file containing a segment for each of the tables. Each segment will include the data for that table taken forward after validations have been applied. No spell-index derivations will be applied to the MHSDS data following the move to a referral-based structure. The XML file is easily imported into programs such as Access, Excel and SQL.

## 3. Preparing MHSDS Submission Data

### 3.1 Output Data Set

The MHSDS is an output data set. An output data set is a description of the data that needs to be extracted or derived from an existing patient administration system (PAS) or clinical system and does not directly support patient care. In many cases, the output data item will be identical to the input definition. However the two may differ both in terms of the format of the data item and the range of values presented. In addition, the output data set may include items that are derived from the inputs, most commonly, this will include 'Age at' fields and patient demographics.

The data collection system may represent the data in a different manner or in more granularity; however, providing the input data items can be mapped to the output data set, the input source will not require any modification.

This can be illustrated in the following table:

Service Provider System (Input system)		National Data Set	
Data item name	Format/Values	Data item name	Format/values
Date of Birth	dd/mm/yy	Person Birth Date	ccyy-mm-dd
Leave of Absence End Reason	Patient returned on day specified  Patient returned before day specified	Mental Health Leave of Absence End Reason	Patient returned on or before day specified

### 3.2 MHSDS Intermediate Database (IDB)

Once collected, the data is to be extracted, formatted and submitted as the MHSDS Intermediate Data Base (MHSDS IDB) which is a Microsoft Access database. The data must be provided in this format.

The IDB can normally be accessed via the Bureau Service Portal (BSP). The process of gaining access to the BSP is described in Section 4.2 below. If the IDB is not available from the BSP, or the organisation does not yet have access to the BSP, the most current version of the database can be obtained from the NHS Digital Contact Centre team, using the contact details below:

Email: [enquiries@nhsdigital.nhs.uk](mailto:enquiries@nhsdigital.nhs.uk)

Telephone: 0300 303 5678

#### 3.2.1 Populating the MHSDS Intermediate Database

Only the MHSDS IDB can be used for submissions and its structure must not be altered in any way. All the tables must be present, even if some of these are not appropriate to the provider organisation (based on the services provided). All the fields listed in each table must also be present and the field types must be exactly as specified.

The data items required to populate the MHSDS IDB should be extracted directly from the appropriate service provider system such as clinical system, Patient Administration System (PAS), Care Programme Approach (CPA) system. However, where only paper based records are available, (this might apply to Mental Health Act administration systems) these can be manually entered directly into the database.

Data is submitted on a monthly basis and each submission should only cover activity within a given time frame (the reporting period). Please see the Technical Output Specification for further details on the Inclusion Rules applied to the submission.

### **3.3 Submission Windows**

Data is required to be submitted on a monthly basis, the latest timetable for which is always shown on the [How do I submit data to the Mental Health Services Data Set?](#) webpage.

Submission deadlines for each period are also highlighted on the MHSDS Home Page of the Bureau Service Portal.

Each submission period allows the submission of Primary data for a one month reporting period and Refresh data for the previous month's reporting period. E.g. the April submission window will allow the February reporting period Refresh data and the March reporting period Primary data to be submitted.

## 4. Submitting MHSDS Data

### 4.1 Overview

A diagram showing the information flow of MHSDS v2.0 data can be found within Appendix A.

Once the Intermediate Database has been populated for the chosen reporting period the file should be submitted using the Bureau Service Portal (BSP), provided by the Systems and Service Delivery Team at NHS Digital. It is the provider's responsibility to submit the data to NHS Digital within the specified submission window.

Once submitted, the BSP will process the data and perform some basic data quality checks. These checks, once complete can then be downloaded by the provider and used to improve data quality and correct errors in the database that prevent it from being processed, for example missing Service Request Identifiers.

Providers may wish to make multiple submissions to improve data quality. There is no limit to how many times a provider may submit data via the BSP system during the submission period. However, only a maximum of one primary submission and one Refresh submission can be held and processed at any one time. Every time a new submission is made, it overwrites the previous submission of that type.

Once a provider submission has passed all data quality checks and validations it will proceed to the staging section of the system. If the provider has already submitted a file of the same type for the reporting period (Primary or Refresh) the new file will overwrite the old file. It is important to note that if a file fails the validations, it will not pass to staging and so the previous submission will not be overwritten.

Once a submission window closes, no more submissions can be made until the next submission window opens. This means that there will be no more opportunities to submit data for the Refresh reporting period. Data for the Primary reporting period can be submitted the following month as a Refresh file. The latest file (of that type) to pass validation will be used as the final submission for that provider.

### 4.2 Steps required by providers to submit MHSDS data

To submit MHSDS data, service providers need to ensure they have the required system/network access, ODS registrations and Information Governance approval which allows organisations to assess themselves or be assessed against Information Governance.

The following steps are recommended to facilitate the submission:

- Check to see if your service(s) will fall within the scope of the mandated MHSDS v2.0 Data Set requirements: <http://digital.nhs.uk/isce/publication/SCCI0011>
- Visit the MHSDS webpage to access supporting guidance documents for MHSDS v2.0: <http://digital.nhs.uk/mhsds>
- Gain NHS Secure N3 Connection – see section 4.3
- Check registration for your service with ODS : <http://systems.digital.nhs.uk/data/ods>
- Check status of IG toolkit completion: <https://www.igt.hscic.gov.uk/>
- Register a Caldicott Guardian (CG) for your organisation (requires ODS code): [http://systems.digital.nhs.uk/data/ods/searchtools/caldicott/cg\\_standard.doc](http://systems.digital.nhs.uk/data/ods/searchtools/caldicott/cg_standard.doc)

- Request BSP access using OpenExeter DUC forms (requires CG and ODS code and N3 connection): <http://systems.digital.nhs.uk/ssd/prodserv/mhdsducform.pdf> (More details in Section 4.3)

## 4.3 Technical Requirements for data submission

In order to submit the data, the provider must have first contacted the SSD team to ensure that firewalls are configured and other required technical information has been supplied to SSD. The data set must be supplied over the N3 network and it is the provider's responsibility to ensure they have an N3 connection and have liaised with the relevant NHS Digital teams to obtain the connection.

Queries specifically relating to the N3 network should be raised with:

N3 Programme

N3 Service Provider (N3SP)

N3SP Website: <http://n3.nhs.uk/>

N3SP Helpdesk: 0800 085 0503

## 4.4 How to gain access to the Bureau Service Portal

Registration is required for access to the Bureau Service Portal (BSP) for MHSDS submissions via the Open Exeter System. Those providers already submitting MHLDDS will not be required to re-register to make MHSDS submissions. In order to register new providers should:

- I. Check their organisation is on the Caldicott Guardian Register by navigating to <https://www.openexeter.nhs.uk/nhsia/index.jsp> and clicking on the blue box at the bottom that says 'Caldicott Guardian Register'.
- II. If the name is incorrect or missing, download and complete the [Caldicott Guardian Registration Certificate](#) form to register the correct Caldicott Guardian and send this back to the address on the form. If the organisation's Caldicott Guardian is already present and correct there is no need to complete this stage.
- III. Complete the MHSDS Data User Certificate form which will be available from the [NHS Digital Open Exeter Webpage](#) shortly before the go-live date and return to the address on the form (Note: the addresses for the two forms are different)

Please note that once issued, accounts must be activated within a short period of time. For further help please contact [exeter.helpdesk@nhs.net](mailto:exeter.helpdesk@nhs.net)

### 4.4.1 MHSDS Submission BSP Login Page:

Once you have received login credentials from the Open Exeter team to submit MHSDS files via the BSP, please follow the link to the OpenExeter portal login page:

<https://www.openexeter.nhs.uk/nhsia/index.jsp>.

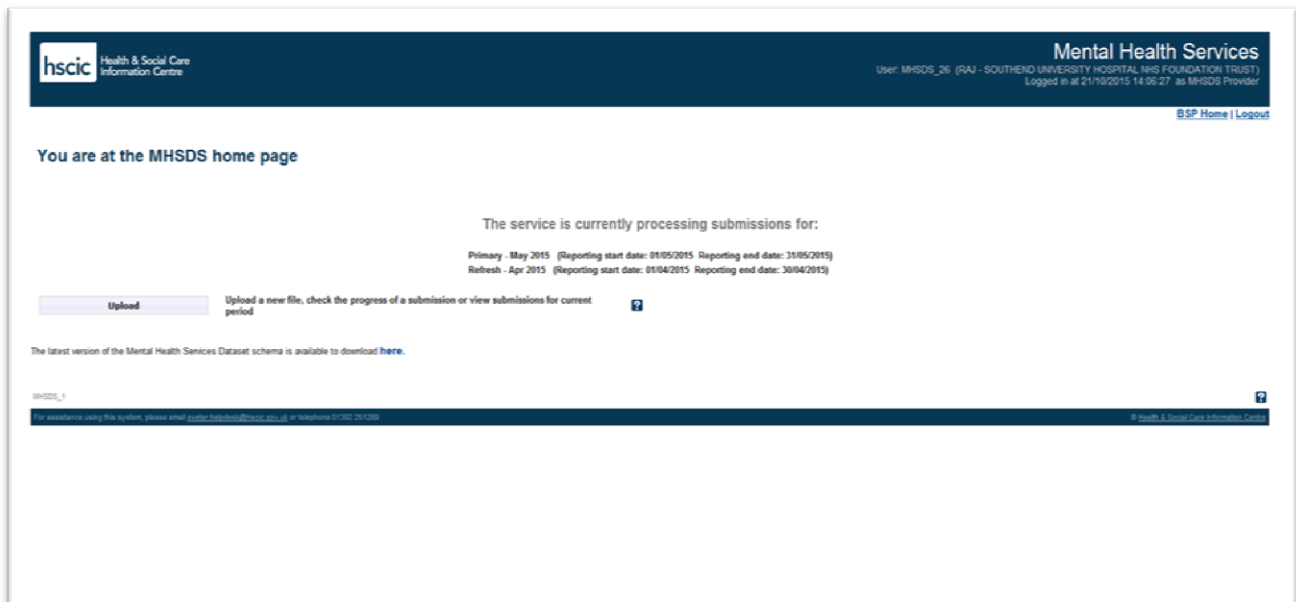
Please note that the link is only accessible via a secure N3 Connection.

## 4.5 How to make an MHSDS submission

This section provides details on how to make MHSDS submissions.

Please note the screenshots showing the BSP have been taken from a MHSDS development environment and may not include all the tabs available for MHSDS. The MHSDS development environment uses a dummy login, therefore any data reproduced here is fictitious and does not relate to any real provider data.

### 4.5.1 Step 1: Select Upload from MHSDS home page



Navigate to the MHSDS Home Page from the BSP Home Page.

Note that the MHSDS home page describes the periods of time currently being used to process MHSDS submissions. No submissions can be made after the deadline.

Data is automatically processed for a fixed period of time. During each submission window there is a Primary reporting period and a Refresh reporting period.

A submission for the Primary reporting period is compulsory, a submission for the Refresh reporting period is optional, as data for this period will have been submitted in the previous Fixed Period as a Primary submission.

The Refresh submission is the last chance to amend data for the reporting period.

To make a submission, select Upload

## 4.4.2 Step 2: Select Upload Type

**MHSDS submission uploads**

Current periods
  Primary - May 2015 (Reporting start date: 01/05/2015 Reporting end date: 31/05/2015)
  Refresh - Apr 2015 (Reporting start date: 01/04/2015 Reporting end date: 30/04/2015)

Not for submission
 From:  To:

File to upload:

**Existing MHSDS uploads**

File name	Reporting period	BSP Unique ID	Date & time uploaded	Uploaded by	Processing status	Summary report	Download extract	Downloaded on	Last download by	Last good file
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\Sprint 2 UAT2MH5100_PSFa_P05May15_L26\MHS100_PSFa_P05May15_L26.accd	Primary - May 2015	182	21/10/2015 12:18:10	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	21/10/2015 12:22:33	MHSDS_26	Yes
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\Sprint 1 UAT2MH5100_PSFa_P05May15_L26\MHS100_PSFa_P05May15_L26.accd	Primary - May 2015	181	21/10/2015 11:03:06	MHSDS_26	Accepted with warnings	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	21/10/2015 11:14:31	MHSDS_26	No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C48a_P05May15_L26\MHS100_T0006C48a_P05May15_L26.accd	Primary - May 2015	163	13/10/2015 15:13:23	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C41a_P05May15_L26\MHS100_T0006C41a_P05May15_L26.accd	Primary - May 2015	162	13/10/2015 15:07:13	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C48a_P05May15_L26\MHS100_T0006C48a_P05May15_L26.accd	Primary - May 2015	160	13/10/2015 15:00:02	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C48a_P05May15_L26\MHS100_T0006C48a_P05May15_L26.accd	Primary - May 2015	158	13/10/2015 14:53:31	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C48a_P05May15_L26\MHS100_T0006C48a_P05May15_L26.accd	Primary - May 2015	156	13/10/2015 14:48:48	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C44a_P05May15_L26\MHS100_T0006C44a_P05May15_L26.accd	Primary - May 2015	153	13/10/2015 14:36:32	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C43a_P05May15_L26\MHS100_T0006C43a_P05May15_L26.accd	Primary - May 2015	152	13/10/2015 14:29:29	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C42a_P05May15_L26\MHS100_T0006C42a_P05May15_L26.accd	Primary - May 2015	149	13/10/2015 14:21:57	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C41a_P05May15_L26\MHS100_T0006C41a_P05May15_L26.accd	Primary - May 2015	147	13/10/2015 14:15:17	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No
G:\SUDH076SD2C\IC Mental Health Team\ Testing Assurance Team \MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\UAT2 MH5100_T0006C40a_P05May15_L26\MHS100_T0006C40a_P05May15_L26.accd	Primary - May 2015	146	13/10/2015 14:07:49	MHSDS_26	REJECTED - Failed integrity check	<a href="#">View</a>				No

To submit data please select the period for which the submission window is open for. For each period, there is an option to submit a Primary and a Refresh file type. Choose whether the Intermediate Database (IDB) to upload should be processed for the current Primary **OR** Refresh reporting period.

**Please note that in MHSDS, the option to submit Primary and Refresh Submission as one single combined submission is no longer available. Each Primary or Refresh submission type file should be uploaded separately for the appropriate reporting period. The correct reporting dates for which the file is being submitted must be in the Header record.**

The option exists to upload an IDB that is 'not for submission' and to select date parameters for processing the file. A 'not for submission' file cannot subsequently be turned into a Primary or Refresh file. Should this IDB be later required for submission, it will need to be uploaded again with a primary or refresh upload type.

Please note only a maximum of one primary submission and one Refresh submission can be held and processed at any one time.

### MHSDS Data validation and inclusion rules

The system used to validate MHSDS will process inclusion rules in a different manner to how MHLDDS is currently processed.

For MHSDS, any records that are provided which fall outside the correct range will now generate a rejection message. The validation report will contain messages that explain all of the data that has been rejected. "Counts" reports will continue to be provided as an indication of the volume of data taken forward from that submitted.

If a large amount of data is submitted, outside of the required range, then numerous rejection messages will be generated back to the provider. This may hinder the provider's ability to identify 'real' rejection messages that require corrections to be made to "included" data.

Users are advised to place greater emphasis on checking the date validation rules in the MHSDS Technical Output Specification, prior to submission, to identify and submit data that is relevant to

the reporting period only. These rules can be found under the “Additional Validation Rules” column.

### 4.5.3 Step 3: Select the IDB file to be uploaded

Providers can browse to select the file to be uploaded from their local system. If the file is large it may be compressed using a PK zip compatible programme prior to upload to make the upload quicker. Do not put more than one IDB in the zip file and do not add a password.

The screenshot displays the MHSDS submission uploads interface. At the top, the 'Current periods' section shows 'Primary - May 2015' selected, with reporting start and end dates of 01/05/2015 and 31/05/2015 respectively. Below this, the 'File to upload:' section includes a 'Browse...' button. A 'Choose File to Upload' dialog box is open, showing a file named 'MH45100\_00028C30A\_P05May15\_L26' selected. To the right, the 'Existing MHSDS uploads' table lists several uploads, with the most recent one (09/11/2015 09:47:43) highlighted in yellow and marked as 'Accepted'.

Data & time uploaded	Uploaded by	Processing status	Summary report	Download extract	Downloaded on	Last download by	Last good file
09/11/2015 09:53:59	MHSDS_26	Awaiting validation					No
09/11/2015 09:47:43	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	09/11/2015 09:51:00	MHSDS_26	Yes
09/11/2015 09:42:46	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	09/11/2015 09:46:30	MHSDS_26	No
09/11/2015 09:38:59	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	09/11/2015 09:41:46	MHSDS_26	No
09/11/2015 09:30:27	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	09/11/2015 09:33:08	MHSDS_26	No
09/11/2015 09:23:52	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	09/11/2015 09:28:29	MHSDS_26	No
09/11/2015 09:00:12	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	09/11/2015 09:03:04	MHSDS_26	No
09/11/2015 08:50:09	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	09/11/2015 08:53:35	MHSDS_26	No
09/11/2015 08:42:56	MHSDS_26	Accepted	<a href="#">View</a>	<a href="#">Pre-deadline Extract</a>	09/11/2015 08:52:24	MHSDS_26	No

### Understanding the status of files uploaded in the current submission window

The upload screen shows the status of all IDB files that have been uploaded in the current submission window.

Once an IDB had been uploaded, this screen can be used to follow the progress of this submission, but all registered MHSDS users within the organisation will receive an email notification when the file has processed. Please do not close the browser window until the Processing Status indicates that the file is being processed.

The BSP Unique ID is the system’s unique identifier for the submission and is used to track the file through the system (i.e. whenever an IDB is submitted, a new, unique ID will be generated). It is recommended to save a local copy of the file uploaded and give it this ID, for audit purposes. This ID will also be attached to the returned extracts.

The Processing status column shows the status of the current file and previous files uploaded in this fixed period. The most recent successfully processed file ('the last good file') for the Primary and Refresh reporting periods is highlighted. This/these are the files that will be used in post deadline processing and from which data will be provided to commissioners and NHS Digital for analysis.

Any subsequent file for the same reporting period that is successfully processed will automatically become the 'last good file'.

It is recommended that all submitted IDBs are retained, with the relevant BSP Unique ID, in case it is decided that an earlier file was better than the most recently submitted successful file. Then this can be submitted again.

A file whose status is Error or Failed will not be processed further. The majority of files are likely to be “Accepted” but may have associated group-level rejections or warnings.

**MHSDS submission uploads**

Current periods: Primary - May 2015 (Reporting start date: 01/05/2015 Reporting end date: 31/05/2015)  
 Refresh - Apr 2015 (Reporting start date: 01/04/2015 Reporting end date: 30/04/2015)

File to upload: [Browse...] [Upload file]

**Please wait**  
 Your file is being uploaded...  
 Depending upon the size of the file, this may take a while.  
 Please do not close your browser window until the page refreshes, otherwise you will interrupt your upload.

Date & time submitted	Submitted by	Processing status	Summary	Download extract	Downloaded on	Last download by	Last good file
15/05/2015 13:18:10	MHS105_26	Accepted	View	File deadline Extract	25/05/2015 12:00:30	MHS105_26	Yes
15/05/2015 11:45:06	MHS105_26	Accepted with warnings	View	File deadline Extract	25/05/2015 11:44:34	MHS105_26	No
13/05/2015 15:13:23	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 15:07:13	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 15:00:42	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 14:53:31	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 14:48:48	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 14:36:32	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 14:29:28	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 14:21:57	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 14:15:17	MHS105_26	REJECTED - Failed integrity check	View				No
13/05/2015 14:07:49	MHS105_26	REJECTED - Failed	View				No

#### 4.5.4 Step 4: Retrieve feedback on file

When the file has processed, select View from the Summary Report column for the file that has been uploaded.

The Summary Report provides information to help assess the quality of this submission. The Summary tab shows the output status of the file, provides a total record count and, importantly, the BSP assigned unique file ID. This ID will be attached to the extracts from both pre and post deadline processing so that the file can be tracked through the system.

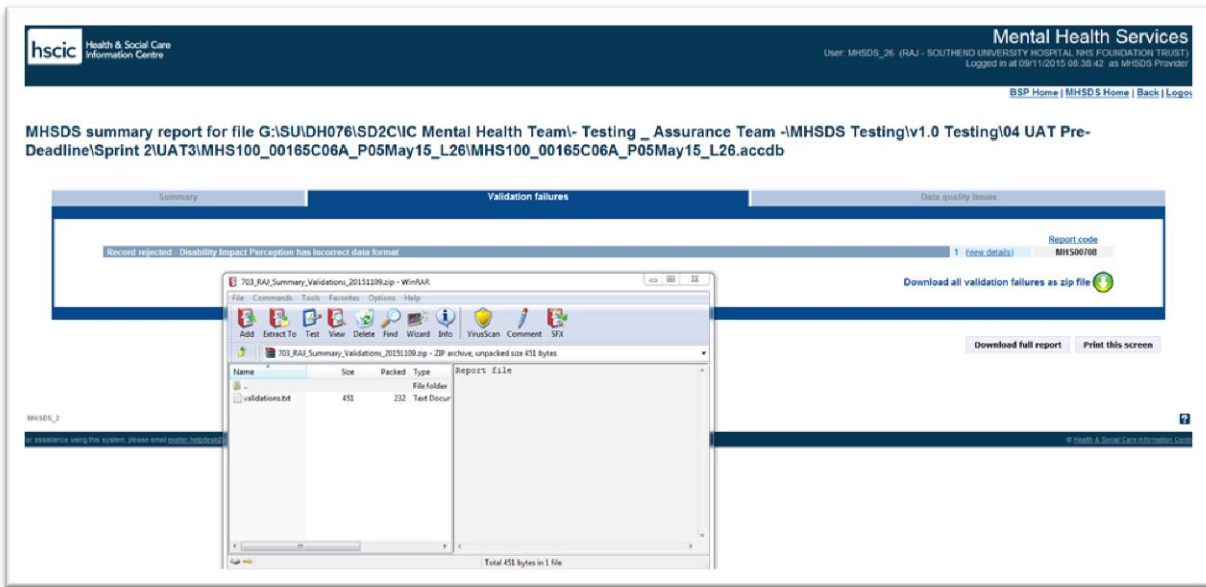
**MHSDS summary report for file G:\SU\DH076\SD2\C\IC Mental Health Team\ - Testing \_ Assurance Team -MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\Sprint 2\UAT3\MHS100\_PSFb\_P05May15\_L26\MHS100\_PSFb\_P05May15\_L26.accdB**

Summary	Validation failures	Data quality issues
Reporting period	Primary - May 2015	
Status	Accepted	
BSP Unique ID	182	
Total records submitted	1911	
Total records accepted	1911	
Submitted filename	G:\SU\DH076\SD2\C\IC Mental Health Team\ - Testing _ Assurance Team -MHSDS Testing\1.0 Testing\04 UAT Pre-Deadline\Sprint 2\UAT3\MHS100_PSFb_P05May15_L26\MHS100_PSFb_P05May15_L26.accdB	

[Download full report] [Print this screen]

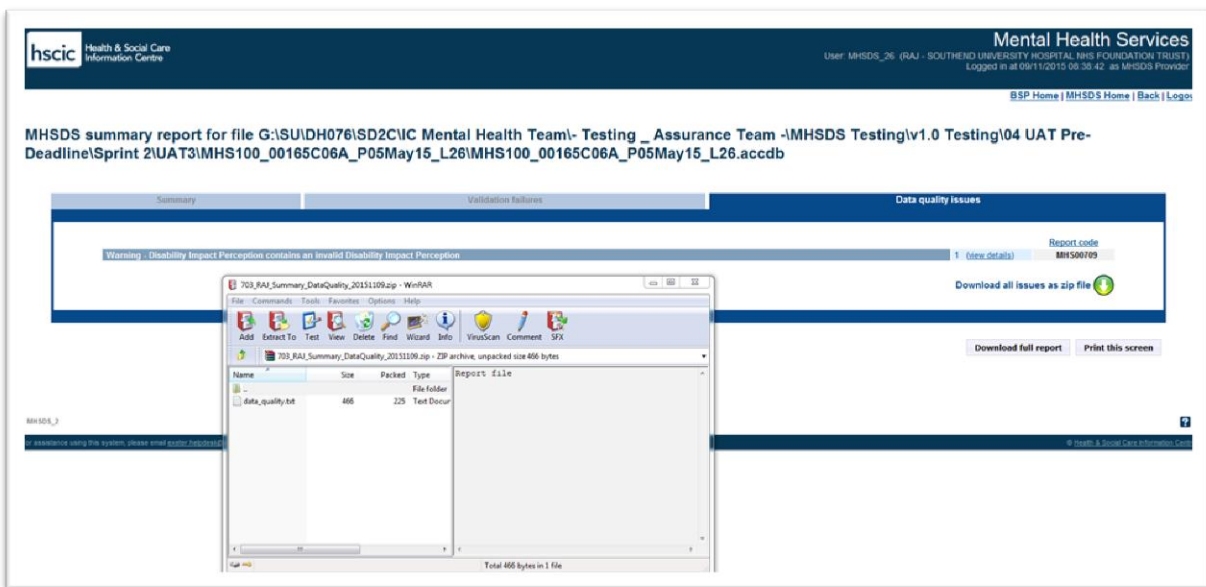
The Summary tab details the reporting period and file type along with status of the submitted file and record counts.

If the output status of the file is 'Failed', then the [Validation Failures](#) tab gives details of the errors that meant the file could not be processed. Another file must be submitted for the reporting period.



Further details of the validations carried out on submission that would cause a file to be rejected are included in the *Technical Output Specification* “File-Level Rejects” tab.

Each screen within the Summary Report can be printed, or downloaded as a text file. It is recommended that this file is first saved and then opened using WordPad – which will format the text in an accessible way.



If the output status of the file is 'Accepted with warnings', then the Data Quality Issues tab gives details of the warnings associated with the individual records. These warnings may prompt users to check data quality and make another submission, but this is still a successful file and will be treated as the 'last good file' if another subsequent file is not sent before the submission deadline.


Further details of the validations carried out on submission that would cause an individual record to be rejected are included in the *Technical Output Specification*'s 48 output table tabs.

Further details of the Warnings carried out on submission are included in the *Technical Output Specification's* 48 output table tabs.

The Diagnostics tab provides basic reports in line with some existing information requirements and data quality measures. Based on the provider pre-deadline extract that is produced during pre-deadline processing, diagnostics have been designed to provide an early indication of the validity of some routine data items, data quality measures and elements of national indicators. These diagnostics will assist the provider in checking the accuracy of the overall submission and assessing whether data quality issues exist and a re-submission is required.

MHSDS summary report for file Q:\COMMON\BSP\Datasets\MHSDS\02 - Testing\Post deadline\Test Data\Primary - Feb 2016  
MHSDS Clean Full Happy Days 3 patients.mdb

Summary	Validation failures	Data quality issues	Diagnostics	Aggregate counts
				<a href="#">Report code</a>
Completed Person Birth Date	3/3 (100.00%)			MHSDAG001
Valid Person Stated Gender Code	3/3 (100.00%)			MHSDAG002
Valid General Medical Practice Code (Patient Registration)	3/3 (100.00%)			MHSDAG004
Valid Postcode of Usual Address	3/3 (100.00%)			MHSDAG005
Valid Organisation Code (Code of Commissioner) in MHS10Referral	3/3 (100.00%)			MHSDAG006
Valid Ethnic Category	3/3 (100.00%)			MHSDAG007
Completed NHS Number	3/3 (100.00%)			MHSDAG008
Valid Mental Health Act Legal Status/Classification Code	1/1 (100.00%)			MHSDAG017
Valid Service Or Team Type Referred To (Mental Health)	3/3 (100.00%)			MHSDAG018
Completed Accommodation Status aged 18-69 at end RP	0			MHSDAG019
Completed Employment Status aged 18-69 at end RP	0			MHSDAG020
Count of CPA Care Episodes open at end of RP with associated CPA Review recorded	0			MHSDAG021
Count of Ward Stays open at end of RP with valid Site Code recorded	0			MHSDAG022
Count of referrals started in the RP with Primary Reason for Referral of Suspected First Episode Psychosis	0			MHSDAG023
Count of open referrals at end of RP with a Primary Diagnosis recorded	0			MHSDAG024
Hospital Provider Spells with no associated Ward Stays	1			MHSDAG025
Local Patient Identifier has more than one Hospital Provider Spell open at end of RP	0			MHSDAG026
Local Patient Identifier has more than one Care Cluster episode open at end of RP	0			MHSDAG027

Download all Diagnostics as zip file 

Download full report    Print this screen

The Aggregate Counts tab provides counts of basic elements of the data which can help to assess the completeness of the data submitted. Based on the provider pre-deadline extract that is produced during pre-deadline processing, the Aggregate Counts report has been designed to provide an early indication of the volume of data for each table that has passed BSP validations and will be included in post-deadline extracts.

Pre and Post deadline processing will result in identical data passing through the validation stages as there is no difference in processing aside from the inclusion of derivations in post-deadline extracts.

Please note: These counts are also provided post-deadline, in the MHS000Header table within the post-deadline extract. See Extract Reference column.

The above reports can be accessed by selecting View from the Summary Report column for a file once it has been uploaded to the BSP.

Select the '?' symbol for a description of the issue. Select list details to see the local patient IDs to which this warning applies. These IDs are included in the report that can be downloaded for local investigation.

**Please note that other Summary Reports and Tabs are being developed and the guidance document will be updated when they are available.**

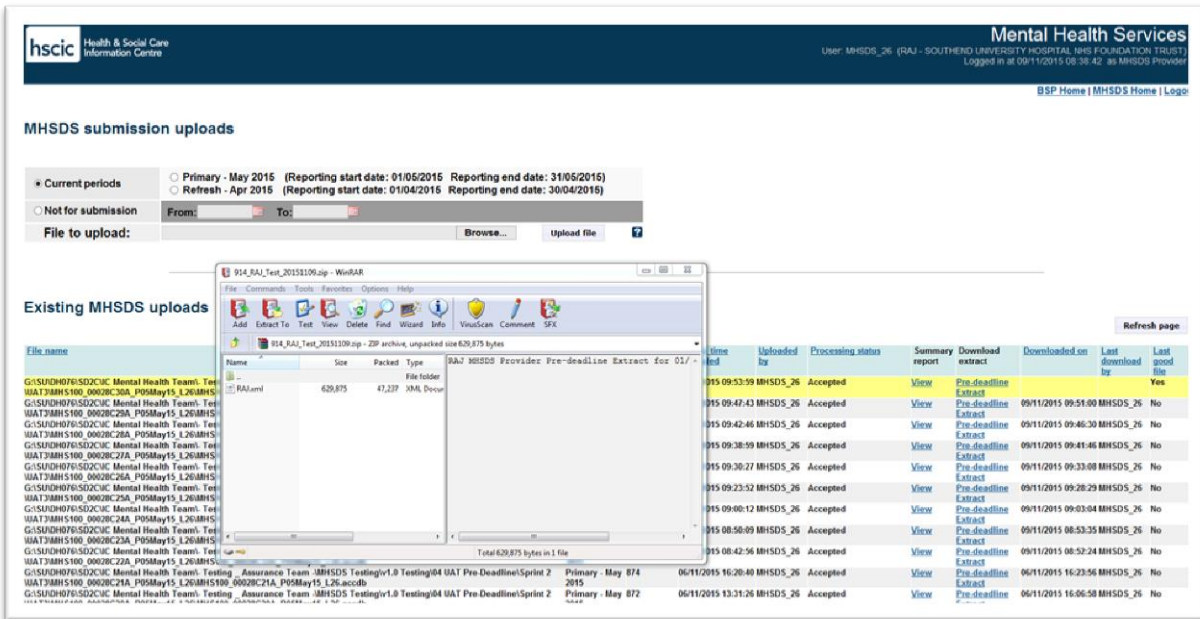
#### 4.5.5 Step 5: Download Pre Deadline extract

Please note while any uploaded files are being processed, users will be unable to load any further files of the same type until the current file of that type has been processed.

Once a submitted file has been processed, a pre deadline extract can be downloaded. The download extract function is only available from the Upload Screen, used to upload the file.

**NOTE:** that pre-deadline extracts are only available for the most recent successful Primary and/or Refresh files as shown in the screenshot below, where the last good file is highlighted in yellow. Where a Primary and Refresh file submission is successful, both the last good file pre deadline extract will be highlighted and available for download.

It is recommended to download the extract as soon as possible and store it with the relevant BSP file ID. If more than one person has access to the system and can upload submissions, the provider must coordinate to ensure that one file has been reviewed and the available outputs collected, before another is uploaded.



Extracts are packed in a zip file. A specification for the extract can be found in the *Technical Output Specification*.

The pre-deadline Extracts are in XML format.

```

<?xml version="1.0" encoding="UTF-8"?>
- <MHSDS_PPreE xsi:noNamespaceSchemaLocation="Q:/COMMON/BSP/Datasets/MHSDS/XSD/MHSDS_ProvPreDExtract_1_0_1.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:MSDS="http://www.datadictionary.nhs.uk/messages/MSDS-v1-0">
  - <MHS000Header>
    <DataSetVer>1</DataSetVer>
    <OrgCodeProvider>RAJ</OrgCodeProvider>
    <OrgCodeSubmit>RAJ</OrgCodeSubmit>
    <PrimSystemInUse>MHS Testing Tool</PrimSystemInUse>
    <ReportingPeriodStartDate>2015-05-01</ReportingPeriodStartDate>
    <ReportingPeriodEndDate>2015-05-31</ReportingPeriodEndDate>
    <DateTimeDatSetCreate>2015-10-09T14:11:46</DateTimeDatSetCreate>
  </MHS000Header>
  - <MHS001MPI>
    <LocalPatientId>LP10001min</LocalPatientId>
    <OrgCodeLocalPatientId>RAJ</OrgCodeLocalPatientId>
    <OrgCodeResidenceResp>RVW</OrgCodeResidenceResp>
    <OrgCodeEduEstab>EE119842</OrgCodeEduEstab>
    <NHSNumber>8768287321</NHSNumber>
    <NHSNumberStatus>01</NHSNumberStatus>
    <PersonBirthDate>1963-08-05</PersonBirthDate>
    <Postcode>SE4 1TH</Postcode>
    <PostcodeMainVisitor>LS19 6AA</PostcodeMainVisitor>
    <Gender>1</Gender>
    <EthnicCategory>A</EthnicCategory>
    <Religion>A</Religion>
    <LanguageCodePreferred>ha</LanguageCodePreferred>
    <PersDeathDate>2015-05-10</PersDeathDate>
  </MHS001MPI>
  - <MHS002MPI>
    <LocalPatientId>LP10002min</LocalPatientId>
    <OrgCodeLocalPatientId>RAJ</OrgCodeLocalPatientId>
    <OrgCodeResidenceResp>RWR</OrgCodeResidenceResp>
    <OrgCodeEduEstab>EE100573</OrgCodeEduEstab>
    <NHSNumber>8768287348</NHSNumber>
    <NHSNumberStatus>02</NHSNumberStatus>
    <PersonBirthDate>1984-08-06</PersonBirthDate>
    <Postcode>SE4 1TJ</Postcode>
    <PostcodeMainVisitor>LS19 6AB</PostcodeMainVisitor>
    <Gender>2</Gender>
    <EthnicCategory>B</EthnicCategory>
    <Religion>B</Religion>
    <LanguageCodePreferred>su</LanguageCodePreferred>
    <PersDeathDate>2015-05-22</PersDeathDate>
  </MHS002MPI>
  - <MHS003MPI>
    <LocalPatientId>LP10003min</LocalPatientId>
    <OrgCodeLocalPatientId>RAJ</OrgCodeLocalPatientId>
    <OrgCodeResidenceResp>RA3</OrgCodeResidenceResp>
    <OrgCodeEduEstab>EE115642</OrgCodeEduEstab>
    <NHSNumber>8768287364</NHSNumber>
    <NHSNumberStatus>03</NHSNumberStatus>
    <PersonBirthDate>1996-05-29</PersonBirthDate>
    <Postcode>SE4 1TL</Postcode>
    <PostcodeMainVisitor>LS19 6AD</PostcodeMainVisitor>
    <Gender>9</Gender>
    <EthnicCategory>C</EthnicCategory>
    <Religion>C</Religion>
    <LanguageCodePreferred>so</LanguageCodePreferred>
    <PersDeathDate>2015-05-12</PersDeathDate>
  </MHS003MPI>
  
```

The XML header section file provides details of when the file was uploaded and its unique BSP ID.

## 4.5.6 Step 6: Decide whether to make a further submission

As many submissions as required can be made up until the submission deadline. Then no further submissions can be made and the 'last good' primary and refresh submissions will be used to produce the post deadline extract.

Some further processing is required to produce the post deadline extracts and this takes place AFTER the submission deadline. An email notification will be sent when post deadline extracts are ready to be collected. This will normally be about 6 working days after the submission deadline.

## 4.5.7 Step 7: Retrieve Post Deadline extracts

When the final extracts are ready, log in to the BSP and select Post Deadline Extract from the MHSDS Home Page.

Each extract is packed in a zip file. Specifications for the extracts can be found on the *Technical Output Specification*. Please note the differences between Pre deadline and Post deadline extracts, which are explained in the section below.

The BSP is designed to retain Post deadline extracts from the six previous submission windows. This means a maximum of 12 Post deadline extracts (6 Refresh, 6 Primary) are available to download.

## 5. How is the data processed?

MHSDS submissions are processed in two stages:

- Pre deadline processing
- Post deadline processing

### 5.1 Pre deadline processing

Pre deadline processing is applied to every file uploaded to the BSP. It produces pre deadline extracts and Data Summary reports as described above.

Pre deadline processing consists of:

- On submission validation
- Extracting the data for the chosen upload type (primary or refresh) in accordance with the submission requirements and data inclusion rules
- Producing data summary reports to assist providers in assessing the quality of the submission
- Producing pre deadline extracts

### 5.2 Post deadline processing

Post deadline processing is only applied to the 'last good' primary (and refresh, if submitted) files that have passed validation by the submission deadline.

This is because files need to flow in sequence through the post deadline processing, with all refresh files processed before primary files and only one of each type for each provider.

Post deadline processing consists of:

- The allocation of a pseudo ID (the MHSDS Person ID) to each record from the MHSDS Person ID Index.
- The allocation of a unique, sequential MHSDS record number.
- Deriving some additional data items
- Producing post deadline extracts

#### 5.2.1 The MHSDS record

The MHSDS Record includes all of a patient's Mental Health, Learning disability or Autism Spectrum Disorder care that takes place within a single Reporting Period and relates to a single referral. Each MHSDS record has its own unique MHSDS Record Number which is derived during post deadline processing. In post deadline extracts the rows in the csv files that make up a single MHSDS record are linked via the MHSDS Record Number. The MHSDS Record Number is allocated sequentially.

In most cases a person will have one MHSDS record per reporting period.

A person with more than one referral during the Reporting Period will have more than one MHSDS record in the post deadline extract.

A person receiving services from more than one provider in the same Reporting Period will have more than one record, nationally, but they will both contain the same MHSDS Person ID.

**NOTE:** For guidance about the BSP submission process please contact the Exeter Helpdesk at:

Telephone: 0300 303 4034

Email: [exeter.helpdesk@nhs.net](mailto:exeter.helpdesk@nhs.net) (please include 'FAO MHSDS' in subject line)

# APPENDIX A – MHSDS Data Flow

