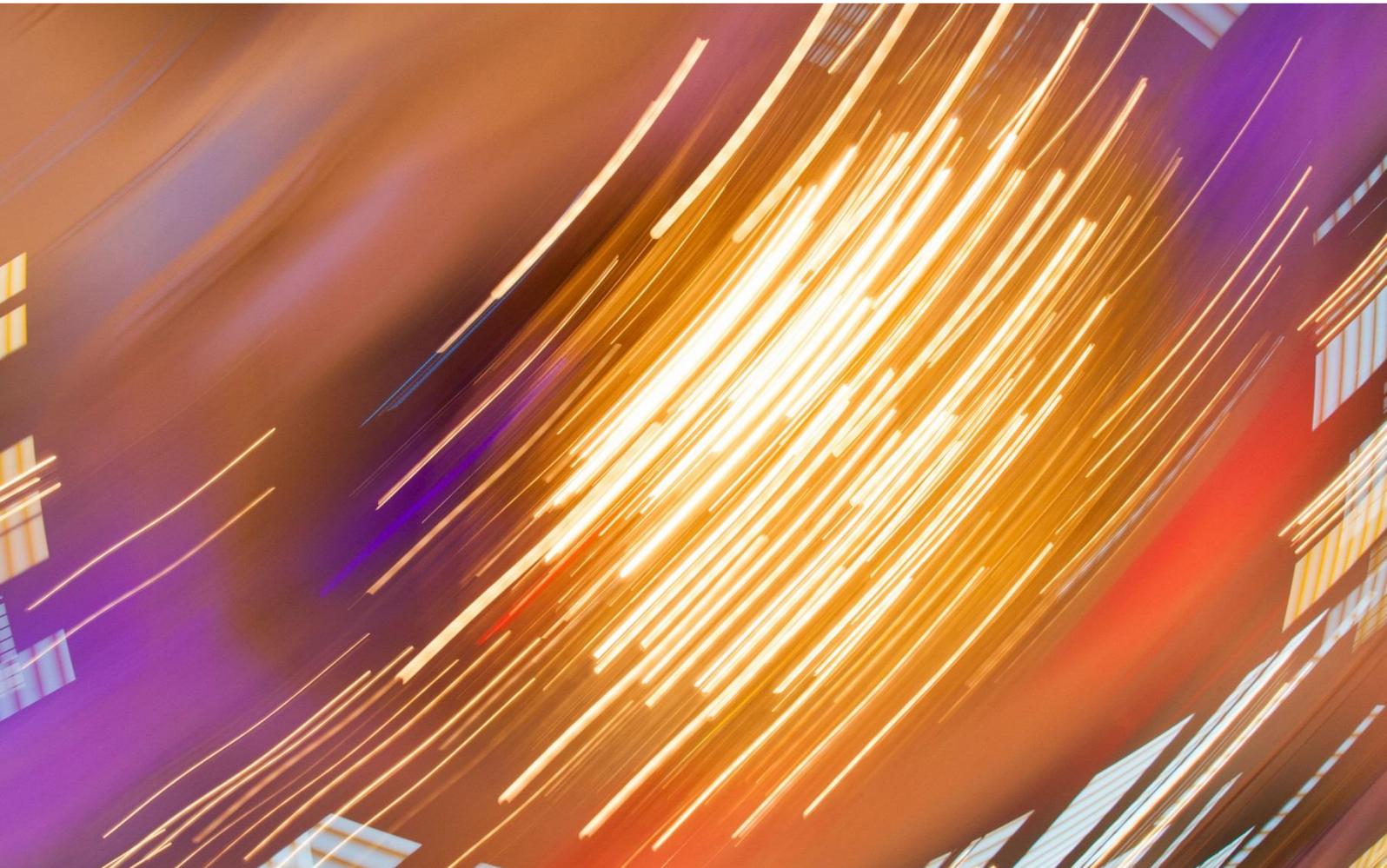


# Data Quality Maturity Index

## Introduction and Methodology

Published 15 August 2016



**Information and technology**  
**for better health and care**

# Contents

<b>Introduction</b>	<b>4</b>
Data Quality Tools	4
Data Quality Maturity Index	4
Data Quality Reporting Tool Prototype	4
Performance Evidence Framework	5
<b>Key Drivers</b>	<b>6</b>
Health and Social Care Act 2012	6
False or Misleading Information	6
<b>Changes From the Previous Publication</b>	<b>7</b>
Changes to the Time Period Covered	7
Changes to the Data	7
Default Values	7
Maternity	7
Mental Health	8
‘Proportion Valid & Complete’ Scores	8
Changes to the Validations	8
Changes to the Presentation	9
NHS Digital Rebranding	9
‘DQMI Score Distribution’ tab	9
‘Provider DQMI Values’ tab	9
‘Proportion Valid & Complete – <i>by dataset</i> ’ tabs	10
‘Default Values’ tab	10
‘Core Field Values’ tab	10
Addition of Hyperlinks	11
Machine Readable Data	11
<b>Methodology</b>	<b>12</b>
Data Collection	12
Core Field Descriptions	14
Suppression Rules	14
APC, A&E, OP and DID	14
MHSDS, IAPT, Maternity	14

---

<b>Appendix 1: Calculation of the DQMI</b>	<b>15</b>
Example	15
<b>Appendix 2: Caveats</b>	<b>16</b>
<b>Appendix 3: Additional Data Quality Information</b>	<b>18</b>
Dataset Specific Detail	18
Additional CDS (APC, A&E, OP) Detail	18
SUS XML Validation	18
SUS Business Rules	19
More Information	19

## Introduction

The Health and Social Care Act 2012 (section 266) states that the our statutory data quality role is to assess the extent to which the data it collects meets defined national standards and to publish the results of the assessments. The Data Quality Maturity Index (DQMI) is a quarterly publication intended to raise the profile and significance of data quality in the NHS.

## Data Quality Tools

### Data Quality Maturity Index

The Data Quality Maturity Index (DQMI) is a quarterly publication intended to highlight the importance of data quality in the NHS. It provides data submitters with timely and transparent information about their data quality.

The initial publication (24 May 2016) focused on the quality of a core set of data items that had been identified by a National Information Board (NIB) working group as being of importance to commissioners and regulators. Subsequent versions of the DQMI have been - and will be - refined based upon stakeholder feedback and will include additional data items and datasets submitted nationally by providers.

The current DQMI is a data quality value index based on the completeness and validity of the core data items agreed by the NIB working group. These include NHS number, date of birth, gender, postcode, speciality and consultant. For a full list please refer to the table on page 11.

The current publication (15 Aug 2016) includes data from the following datasets for the quarter January to March 2016:

- Admitted Patient Care
- Outpatient
- Accident and Emergency
- Mental Health Services
- Improving Access to Psychological Therapies
- Diagnostic Imaging
- Maternity Services

### Data Quality Reporting Tool Prototype

A Data Quality Reporting Tool Prototype is available for use alongside the DQMI. The aim of the Reporting Tool is to provide stakeholders with the detailed information they require to investigate any issues behind DQMI scores. Access to this level of detail also provides an opportunity for users to compare quality across the datasets they submit in one place, and to benchmark themselves against peers.

## Performance Evidence Framework

NHS Digital suggests a supportive Performance Evidence Framework designed to help data providers to improve their level of data quality by enhancing their own local processes. This framework has been used successfully in an Acute Trust environment, leading to an improved understanding of the importance of data quality alongside an improvement in the quality of data itself.

These tools can be accessed from the [NHS Digital website data quality page](#).

## Key Drivers

### Health and Social Care Act 2012

Section 266 of the Health and Social Care Act 2012 states that NHS Digital's statutory data quality role is to assess the extent to which the data it collects meets applicable published standards and to publish the results of the assessments. In addition, Section 265 of the Act states that NHS Digital may give advice or guidance on data quality relating to the collection, analysis, publication or other dissemination of data and information.

### False or Misleading Information

The Francis Inquiry found that false or misleading information, such as inaccurate statements about mortality rates, allows poor and dangerous care to continue.

In response, the Care Act 2014 put in place a new criminal offence applicable to care providers who supply, publish or otherwise make available certain types of information that is false or misleading, where that information is required to comply with a statutory or other legal obligation. The offence also applies to the 'controlling minds' of the organisation, where they have consented or connived in an offence committed by a care provider.

This [guidance](#) sets out the context for the offence and explains how the offence is applied.

## Changes From the Previous Publication

The range of data included in the DQMI has been expanded with:

- The inclusion of data on default values submitted.
- The addition of an extra dataset - Maternity.
- The presentation of the DQMI data has been improved following the receipt of user feedback.

## Changes to the Time Period Covered

The first publication of the DQMI (24 May 2016) was based on annual data for the calendar year 2015. Subsequent publications will be based upon quarterly data from 2016/17 onwards. The current publication (15 Aug 2016) includes data for quarter one, January to March 2016.

## Changes to the Data

- There have been changes to the data source for the Mental Health dataset used in the DQMI.
- A new dataset – Maternity Services – has been added to the DQMI.
- Data is now presented on the number of default values submitted per data item.

## Default Values

In addition to the previously published figures on the numbers of total records and of valid and complete records we now also publish figures for the number of default values submitted. For the current publication of the DQMI default values are being included as valid and complete. However, as the overuse of default values reduces the usefulness of data for analysis and other purposes, subsequent publications of the DQMI will likely consider default values as invalid.

## Maternity

Maternity data has now been included in the DQMI.

The following fields are included from January to March 2016 onwards:

- NHS Number (Mother)
- NHS Number Status Indicator Code (Mother)
- Person Birth Date (Mother)
- Postcode of Usual Address (Mother)
- Ethnic Category (Mother)
- General Medical Practice Code (Patient Registration (Mother))
- Estimated Date of Delivery Method (Agreed)

In addition to the DQMI the 3<sup>rd</sup> August publication of the Maternity Services Monthly Statistics Report by NHS Digital includes a special data quality feature. The feature investigates the coverage and reporting of birth episode statistics between the Maternity Services Dataset (MSDS) and Hospital Episode Statistics (HES) for 3 separate monthly reporting periods. The analysis considers the similarity and accuracy of the data being reported by the same organisations within each dataset and provides an interactive spreadsheet with which the differences between trusts can be compared.

- <http://digital.nhs.uk/catalogue/PUB21280>

## Mental Health

The previous DQMI utilised the Mental Health and Learning Disabilities Data Set (MHLDDS) for reporting on Mental Health. The MHLDDS was superseded in December 2015 by the Mental Health Services Data Set (MHSDS). Present and future publications of the DQMI will, therefore, make use of the MHSDS.

The switch to the MHSDS means that the following field is no longer available for inclusion in the DQMI:

- NHS Number Status Indicator Code.

## ‘Proportion Valid & Complete’ Scores

In addition to the overall DQMI scores for each submitting organisation a Proportion Valid & Complete score has also been calculated at the dataset level. The method of calculation is the same as for the DQMI, however, whereas the DQMI is calculated across every field in every dataset, the Proportion Valid & Complete score is restricted to the fields in each dataset. The rationale behind the inclusion of this new measure is that it will enable users to identify which specific datasets potentially require action to improve data quality.

Note that due to the use of the arithmetic mean in these calculations the DQMI is not equivalent to the arithmetic mean of the dataset specific Proportion Valid & Complete scores.

## Changes to the Validations

The May DQMI was based on the completeness and validity of submitted data. There have been some CDS (APC, A&E, OP) specific low-impact instances identified where default not known codes (which cannot be used for useful analysis), are not counted as being valid in the DQMI despite being classed as valid in the data dictionary. The combined impact of these on the May DQMI at the national level is estimated to have been 0.26 percentage points. The instances identified are listed below:

- Ethnic category default code of 99 (‘Not known’). This code is now classified as valid.
- Null discharge dates were counted as being incomplete for all episodes in the CDS. We now only look at the final episode in the spell in the numerator and denominator, using the provider submitted LAST\_EPISODE\_IN\_SPELL\_INDICATOR field.
- Site Code of Treatment default value of R9998 (‘Not a hospital site’) for outpatients in the CDS. This code is now classified as valid.
- Procedures or diagnosis data for which conditions are sensitive based on legal restrictions and had the NHS number field set to null were not counted as having a valid NHS number indicator. As the new values do not appear in the NHS Data

Dictionary they were classified as invalid. These SUS generated codes are now classified as valid.

- ZZ99 postcodes relating to patients from overseas or of no fixed abode. This code is now classified as valid.

## Changes to the Presentation

The presentation of the DQMI data has been changed in response to user feedback and revised corporate branding following the Health and Social Care Information Centre's (HSCIC) change of trading name to NHS Digital.

### NHS Digital Rebranding

Since the 1<sup>st</sup> August 2016 the trading name of the HSCIC has been NHS Digital. Along with the change in name there has been a corporate rebranding. The layout of the both the DQMI Excel workbook and of the supporting documentation - such as this document – has been revised to reflect that new branding. The most noticeable changes to end users will be the new logo, title pages and colour palette.

### 'DQMI Score Distribution' tab

This tab has been dropped from the DQMI publication. Instead, an interactive view of scores is available to users via the website:

- <http://digital.nhs.uk/dq>

### 'Provider DQMI Values' tab

The 'Provider DQMI Values' tab in the original DQMI publication had an excessive number of columns that were difficult for users to navigate when looking for data to contrast and compare. In response to user feedback on this issue the content of this tab has been significantly redesigned:

- The 'Provider DQMI Values' tab has been simplified and now contains the following information for each organisation that submitted data:
- The DQMI score for the current quarter.
- The DQMI score for the previous period (note that the previous publication was for the period Jan. to Dec. 2015, the two periods are not, therefore, directly comparable).
- An indicator of the period-to-period trend in the DQMI:
  - A green, upward pointing arrow to represent an increase in the DQMI score from the previous period.
  - A red, downward pointing arrow to represent a decrease in the DQMI score from the previous period.
  - An amber, double-headed, horizontal arrow to represent an unchanged DQMI score.
  - A hyphen to indicate that a provider had not submitted data for the previous period.

- The Proportion Valid & Complete for the current quarter for each dataset. This information is presented over several columns.

### **‘Proportion Valid & Complete – by dataset’ tabs**

The bulk of the columns that were previously presented in the ‘Provider DQMI Values’ tab have now been reorganised in individual tabs for each dataset. This has been done to aid navigation of the data by reducing the number of columns through which a user needs to scroll. Data is presented with one row per provider, the columns being grouped together by DQMI data item:

- Similarly to the ‘Provider DQMI Values’ tab the first column gives the provider’s ‘Proportion Valid and Complete’ for the given dataset, for the current quarter. This value is calculated as the arithmetic mean of the ‘Proportion Valid, Complete’ values for the dataset.
- For each data item in the dataset the following columns are given:
  - ‘Proportion Valid, Complete’ – a percentage (the ‘Number Valid, Complete’ as a proportion of the ‘Number of Records’).
  - ‘Number of Records’ – a count.
  - ‘Number Valid, Complete’ – a count.

### **‘Default Values’ tab**

Following the inclusion of default values in the DQMI a dedicated tab has been included to display those values.

The data is presented with one row per provider. The columns are grouped together first by dataset then by data item.

For each provider the following data is presented:

- ‘Overall Proportion Default’ – Similarly to the calculation of the DQMI and the dataset-level ‘Proportion Valid and Complete’ this value is calculated as the arithmetic mean of the ‘Proportion Default’ values for each data item.

Then, for each data item the following columns are given:

- ‘Number Valid & Complete’ – a count.
- ‘Number Default’ – a count.
- ‘Proportion Default’ – a percentage (the ‘Number Default’ as a proportion of the ‘Number Valid & Complete’).

### **‘Core Field Values’ tab**

The data in this tab is an aggregation of the provider-level data in the ‘Proportion Valid & Complete - by provider’ tabs. The following fields are presented per dataset and data item:

- ‘Number of Records’ – a count.
- ‘Number Valid & Complete’ – a count.
- ‘Number Default’ – a count.

- 'Proportion Valid & Complete' – a percentage (the 'Number Valid & Complete' as a proportion of the 'Number of Records')

## Addition of Hyperlinks

Links have been added to the individual tabs in the DQMI publication to facilitate navigation around the workbook. Both the 'Title Sheet' and 'Provider DQMI Values' tabs contain links to navigate to the 'Proportion Valid and Complete - *by dataset*', 'Default Values' and 'Core Field Values' tabs. Those tabs, in turn, contain links to return to the Title Sheet' and 'Provider DQMI Values' tabs.

## Machine Readable Data

A CSV file of the raw data on which the DQMI is based has been made available in machine readable format. It may be accessed via the Data Quality page on the NHS Digital website:

- <http://digital.nhs.uk/dq>

The CSV consists of the following fields:

FIELD	DESCRIPTION
DATASET	The dataset to which the row of data relates.
ORG. CODE	The organisation provider code to which the row of data relates. Codes starting with an '8' are displayed at five character level and all other codes are displayed at three character level.
ORG. NAME	The full organisation name
DATA ITEM	The specific data item to which the row of data relates.
TOTAL RECORDS	The total number of records submitted.
VALID RECORDS	The number of records submitted that contained a value that was valid. NHS Data Dictionary default codes are currently considered valid and are therefore included within this count.
DEFAULT RECORDS	The number of records submitted that contained an NHS Data Dictionary default code.

## Methodology

### Data Collection

Only core fields for each of the seven datasets are measured within the DQMI. The core fields are outlined in the table below.

Core field name	APC	Outpatients	Accident and Emergency	Diagnostic Imaging Dataset	Mental Health (MHSDS)	Improving Access to Psychological Therapies (IAPT)	Maternity
ACTIVITY TREATMENT FUNCTION CODE	X	X					
ADMINISTRATIVE CATEGORY CODE (ON ADMISSION)	X	X					
ADMISSION DATE (HOSPITAL PROVIDER SPELL)	X						
ADMISSION METHOD (HOSPITAL PROVIDER SPELL)	X						
CARE PROFESSIONAL MAIN SPECIALTY CODE	X	X					
CONSULTANT CODE	X	X					
DISCHARGE DESTINATION CODE (HOSPITAL PROVIDER SPELL)	X						
DISCHARGE METHOD CODE (HOSPITAL PROVIDER SPELL)	X						
ESTIMATED DATE OF DELIVERY METHOD (AGREED)							X
ETHNIC CATEGORY	X	X	X	X	X	X	X <sup>1</sup>
GENERAL MEDICAL PRACTICE CODE (PATIENT REGISTRATION)	X	X	X	X	X	X	X <sup>1</sup>
NHS NUMBER	X	X	X	X	X	X	X <sup>1</sup>

Core field name	APC	Outpatients	Accident and Emergency	Diagnostic Imaging Dataset	Mental Health (MHSDS)	Improving Access to Psychological Therapies (IAPT)	Maternity
NHS NUMBER STATUS INDICATOR CODE	X	X	X	X		X	X <sup>1</sup>
ORGANISATION CODE (CODE OF COMMISSIONER)	X	X	X		X	X	
ORGANISATION CODE (CODE OF PROVIDER)	X						
PATIENT CLASSIFICATION CODE	X						
PERSON BIRTH DATE	X	X	X	X			X <sup>1</sup>
PERSON GENDER CODE CURRENT	X	X	X	X	X	X	
POSTCODE OF USUAL ADDRESS	X	X	X	X	X	X	X <sup>1</sup>
PRIMARY DIAGNOSIS (ICD)	X						
SITE CODE (OF TREATMENT)	X	X					
SOURCE OF REFERRAL FOR A and E			X				
SOURCE OF REFERRAL FOR OUT-PATIENTS		X					

**Notes:**

<sup>1</sup> - In the case of Maternity these fields are completed in respect of the mother.

## Core Field Descriptions

Information on the core fields included in the DQMI is available in the 'Core Field Descriptions' tab of the DQMI publication. The publication is accessible via the following link:

- <http://digital.nhs.uk/dq>

The information provided includes the following:

- 'Data Item' – the name of the core field.
- 'Plain English Description' – a description of the core field in layman's terms.
- 'Notes' – a pseudo-code description of the validation rules applied to the core fields in the DQMI.

Further information on the validity definitions used in the DQMI can be obtained by contacting the relevant dataset teams through [enquiries@nhsdigital.nhs.uk](mailto:enquiries@nhsdigital.nhs.uk).

## Suppression Rules

In order to address the data disclosure risk inherent in the presentation of small numbers, suppression has been applied to the data used in the DQMI.

Note, however, that the DQMI, dataset-level Proportion Valid and Complete, and the 'Overall Proportion Default' figures quoted in the DQMI workbook were calculated prior to suppression. Only the data item specific proportions of Valid and Complete Records and of Default Values have been suppressed when one of their constituent figures have also been suppressed.

The first stage of suppression is that all individual data items with a total number of records less than 25 at the organisation level have been excluded from the data. The following suppression has then been applied to the 'Number Valid, Complete' and 'Number Default' fields:

### APC, A&E, OP and DID

- Values between one and five replaced with an asterisk.
- The corresponding proportion of Valid and Complete Records or of Default Values replaced with an asterisk.

### MHSDS, IAPT, Maternity

- Values between zero and five replaced with an asterisk.
- The corresponding proportion of Valid and Complete Records, or of Default Values replaced with an asterisk.
- All remaining integer values rounded to the nearest five.

## Appendix 1: Calculation of the DQMI

The DQMI is calculated per provider; it is defined as the average proportion (percentage) of valid and complete entries in each field of each data set.

- For each provider the number of data items that are both complete and valid is calculated as a proportion of the number of data items submitted by that provider.
- The DQMI is then calculated as the arithmetic mean of those proportions. Where no data items have been submitted for a field the proportion is treated as a null value and is not included in the calculation of the mean.
  - The DQMI may be formally expressed as:

$$DQMI = \frac{1}{n} \sum_{i=1}^n \left( \frac{\text{Number of complete and valid data items}}{\text{Number of data items submitted}} \right)_i$$

Where  $n$  is the number of fields for which data was submitted and  $i$  is the index number of each of those fields.  $\Sigma$  is the summation symbol.

### Example

Data set 1	Number of data items	Number of valid complete records	Proportion of records valid and complete
Field 1	2,500	2,400	96.0%
Field 2	2,500	2,500	100.0%
Field 3	2,500	2,000	80.0%

Data set 2	Number of data items	Number of valid complete records	Proportion of records valid and complete
Field 1	1,000	900	90.0%
Field 2	1,000	800	80.0%
Field 3	1,000	900	90.0%
Field 4	1,000	1,000	100.0%

Data set 3	Number of data items	Number of valid complete records	Proportion of records valid and complete
Field 1	10,000	10,000	100.0%
Field 2	10,000	10,000	100.0%

Data set 4	Number of data items	Number of valid complete records	Proportion of records valid and complete
Field 1	-	-	-

Data set 5	Number of data items	Number of valid complete records	Proportion of records valid and complete
Field 1	-	-	-

Data set 6	Number of data items	Number of valid complete records	Proportion of records valid and complete
Field 1	50,000	49,000	98.0%
Field 2	50,000	49,000	98.0%
Field 3	50,000	45,000	90.0%

$$DQMI = \left( \frac{1}{12} \right) * (96\% + 100\% + 80\% + 90\% + 80\% + 90\% + 100\% + 100\% + 100\% + 100\% + 98\% + 98\% + 90\%)$$

DQMI	93.5%
------	-------

## Appendix 2: Caveats

Caveats
<b>General</b>
All percentages are displayed to one decimal place.
Percentages are calculated from the original number and presented to 1 decimal place.
Providers with a completeness denominator <25 are not reported in the DQMI because small volumes of data have high levels of volatility.
<p>Organisation codes labelled “**INVALID - SEE METHODOLOGY DOCUMENT FOR CAVEAT” in the DQMI mean that the organisation is either:</p> <ul style="list-style-type: none"> <li>a. closed before the time period the data it is reporting on</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>b. not registered or recognised by the Organisation Data Service (ODS)</li> </ul>
<p>Organisation codes have been limited to three characters. Typically a three character code will identify an organisation whilst the two trailing characters of a five character code will identify a specific site.</p> <p>For the purposes of the DQMI our intention is to present data aggregated at the organisation level. We therefore choose to make use of three character codes where possible.</p> <p>The rule applied is that five character codes commencing with an ‘8’ are retained. However, all other five character codes have been truncated to their first three characters and their data aggregated. Valid provider codes and their names have been obtained from the Org Daily corporate reference data table by selecting organisations that were open during the reporting period.</p>
<b>Admitted Patient Care (APC)</b>
The denominator for primary diagnosis only looks at episodes within finished spells as coding often occurs only after discharge. This is the same methodology used for the SUS DQ dashboards for the same field.
Postcodes submitted without a space between the outward and inward components are counted as being invalid in the DQMI, but are counted as being valid in the separate SUS Data Quality Dashboards. Going forward the SUS data quality dashboard will be amended to be consistent with this.
Only finished general episodes are counted (CDS type 130).
<b>Accident and Emergency (A&amp;E)</b>
No exclusions are applied to A&E counts.
Postcodes submitted without a space between the outward and inward components are counted as being invalid in the DQMI, but are counted as being valid in the separate SUS Data Quality Dashboards. Going forward the SUS data quality dashboard will be amended to be consistent with this.
<b>Outpatients (OP)</b>
The counts do not include administrative events (FIRST_ATTENDANCE = '5') or indication of future appointment (ATTENDED_OR_DID_NOT_ATTEND = '0').
Postcodes submitted without a space between the outward and inward components are counted as being invalid in the DQMI, but are counted as being valid in the separate SUS Data Quality Dashboards. Going forward the SUS data quality dashboard will be amended to be consistent with this.

<b>Caveats</b>
<b>Diagnostic Imaging Dataset (DID)</b>
NHS numbers have only been checked for valid formats against the Modulus 11 algorithm, they have not been checked against PDS to check that the individual have actually been issued as an NHS number.
Postcodes have only been checked for valid formats, they have not been checked against the national postcode directory in corporate reference data to ensure they are an actual postcode.
DID Data is extracted from Radiology Information Systems (RIS). Not all RIS have access to full patient information, so not all trusts are able to submit fields such as NHS Number Status Indicator within their DID extract. However, data providers are requested to include these fields where they are available. This may account for the poor coverage of that particular field.
Trusts have up to 6 months to submit data relating to a particular month. For instance, anything relating to January can be submitted up to the end of July. Therefore, it is possible that the DQMI figures pertaining to January 2016 through to March 2016 - for which the deadlines for final amendment are 31 <sup>st</sup> July 2016 and 30 <sup>th</sup> September 2016 respectively - could change.
<b>Improving Access to Psychological Therapies (IAPT)</b>
The valid numbers quoted in the DQMI compare with the sum of the Valid, Other and Default numbers in the standard IAPT DQ reporting.
GENERAL MEDICAL PRACTICE CODE (PATIENT REGISTRATION) has a different denominator to other IAPT measures as all Scottish GP codes (beginning with S) are excluded from the IAPT data quality assessment.
IAPT Person Birth Date is rejected on submission if invalid, so is always 100% valid, which is why it is not included in DQMI.
Please note that the following default codes in the IAPT methodology are not listed as a default on Data Dictionary: POSTCODE OF USUAL ADDRESS default of where POSTCODE_DISTRICT = 'ZZ99' PERSON GENDER CODE CURRENT default of '0'
<b>Mental Health Learning Disability Data Set (MHSDS)</b>
GENERAL MEDICAL PRACTICE CODE (PATIENT REGISTRATION) has a different denominator to other MHSDS measures as all Scottish GP codes (beginning with S) are excluded from the MHSDS data quality assessment.
ORGANISATION CODE (CODE OF COMMISSIONER) can have a different denominator to the demographic data items as it is taken from a different table in the dataset. The demographic information is submitted as part of the Master Patient Index table and is stored separately from the Commissioner History data which includes a record for each commissioner assignment.
<b>Maternity (MAT)</b>
The valid numbers quoted in the DQMI compare with the sum of the Valid, Other and Default numbers in the standard MSDS DQ reporting
Please note that the following default codes in the MSDS methodology are not listed as a default on Data Dictionary: POSTCODE OF USUAL ADDRESS default of where VALID POSTCODE FLAG = 'Y' and POSTCODE DISTRICT (MOTHER) starts 'ZZ99'

## Appendix 3: Additional Data Quality Information

### Dataset Specific Detail

Additional information about the data quality assurance and reporting processes for individual datasets included within the DQMI is available on the NHS Digital website:

Commissioning Datasets (Admitted Patient Care, Outpatients, Accident & Emergency) –

- Landing page: <http://digital.nhs.uk/sus/dataservices>

Diagnostic Imaging Dataset –

- Landing page: <http://digital.nhs.uk/did>

Improving Access to Psychological Therapies (IAPT) –

- Landing page: <http://digital.nhs.uk/iaptmonthly>
- Please see the document at the following link for more information:  
[http://digital.nhs.uk/media/19211/IAPT-DQ-Measure\\_Rules/xls/IAPT\\_DQ\\_Measure\\_Rules.xlsx](http://digital.nhs.uk/media/19211/IAPT-DQ-Measure_Rules/xls/IAPT_DQ_Measure_Rules.xlsx)
- An additional document which may be useful is:  
<http://digital.nhs.uk/media/20844/IAPT-month-metadata/xls/IAPT-month-metadata.xlsx> using the “Related DQ measures” tab.

Mental Health Services Dataset (MHSDS) –

- Landing page: <http://digital.nhs.uk/mhsds>
- (Please note: information relating to the MHLDDS can be found via the following link - <http://digital.nhs.uk/mhldsmonthly>)

Maternity Dataset –

- Landing page: <http://digital.nhs.uk/maternityandchildren>
- Data quality information is available at -  
<http://digital.nhs.uk/catalogue/PUB21280/msms-mar16-exp-meta.xlsx>

### Additional CDS (APC, A&E, OP) Detail

#### SUS XML Validation

SUS can only accept data submitted as [XML](#) (Extensible Markup Language) which is a text based language for encoding structured information. It allows consistent error checking based on [NHS Data Dictionary](#) definitions which are expressed in an XML ‘schema’.

Data senders requiring the use of an XML translation service must select one supplier from the list of accredited suppliers before they can submit data to SUS. The terms of this contract are negotiated between the sender organisation and the XML supplier.

When submitted, interchanges are validated against the XML schema. If an interchange passes validation it is transmitted to SUS where additional validations, referred to as ‘SUS business rules’, are performed to ensure that the data can be processed.

Definitions of the Commissioning Data Sets (CDS) types and validation rules can be found on the NHS Data Dictionary and ISB websites as follows:

The [NHS Data Dictionary](#) describes the structure and content of each CDS type. It includes codes that denote whether data is mandatory and the level of XML validation (such as whether format or values are validated) and the SUS business rules that are applied to each data item.

XML schemas are also available on the [NHS Data Dictionary](#) website:

Changes to the definitions are documented via Information Standard Notifications (ISNs), formerly known as Data Set Change Notices (DSCNs), which can be found on the ISB website:

[www.isb.nhs.uk/library/isn](http://www.isb.nhs.uk/library/isn)

[www.isb.nhs.uk/library/dscn](http://www.isb.nhs.uk/library/dscn)Keep space between bullets

## SUS Business Rules

Where an interchange fails validation of the business rules, a SUS Interchange Failure Notification is sent to the data submitter and gives the details of the submission and the reason for failure.

The full list of SUS Business rules (rules S1 to S14) are held at the NHS Data Dictionary at [BUSINESS RULES: S - Secondary Uses Service Business Rules](#).

## More Information

Please refer to the [SUS Guidance](#) webpage which is a resource for SUS users covering topics such as sending and extracting data, help with set-up and access to system support.