

Reference Number: DCB0011	DCB Post Implementation Review (PIR) report
Title: Mental Health Services Data Set (MHSDS)	
Release number(s): Amd 12/2015 (Version 1.0); Amd 68/2015 (Version 1.1); Amd 31/2016 (Version 2.0)	
DCB owning organisation: NHS England	
Portfolio: Mental Health	
Author: Nick Bridges, NHS Digital	Date standard came into force: Conformance dates for Versions: <ul style="list-style-type: none"> • 1.0: 21 February 2016 • 1.1: 20 May 2016 • 2.0: 23 June 2017
Date: 18 May 2018	DCB date: 24 May 2018

Summary of Post Implementation Review report:
The content of the standard presented to the Data Coordination Board (DCB) at each release includes amendments to match policy and stakeholder requirements. Implementation and maintenance of the standard has taken place and MHSDS data is both routinely submitted and analysed, although issues with implementation and data quality exist.
The NHS Digital Community and Mental Health team (NHS Digital) have undertaken a great deal of work to assist both implementers of the standard and data users and have demonstrated commitment to continuing this good practice and making further improvements.

1. What were the aims of the standard?

The MHSDS is a 'patient level, output based, secondary uses data set [...] which re-uses 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'¹. The data set has been operational since 2003, under various names, but this review focuses only on Versions 1.0, 1.1 and 2.0 of the MHSDS.

The MHSDS is subject to Directions, from NHS England to the Health and Social Care Information Centre, under sections 254(1), (3) and (6) of the Health and Social Care Act 2012 'to establish and operate a system for the collection of information to be known as the mental health services information system'.² The Directions came into force in August 2015.

The data set aims to provide information, about children, young people and adults who encounter mental health services, which is '**robust, comprehensive, nationally consistent and comparable person-based**'¹; this review assesses the success of the implementation of the standard against these four aims. Definitions for each term are included in the Appendix.

2. What evidence has informed the PIR?

The PIR has been informed by engagement with MHSDS Providers, System Suppliers (Suppliers), Subject Matter Experts and users of the MHSDS. It also considered data quality analysis of MHSDS submissions (Versions 1.0 – 2.0), provided by NHS Digital, engagement activities conducted during the development of each release, the Standardisation Committee for Care Information (SCCI) early PIR for Versions 1.0 and 1.1 (2016) and a literature search. The Appendix provides a full list of evidence used.

3. To what extent have the aims of the standard been achieved?

The data set aims to **provide information, about children, young people and adults who encounter mental health services, which is:**

- 1. Robust:** Not met; but improvement can be seen from Version 1.0 – Version 2.0.

MHSDS is a complex data set and the Developers recognise that implementation issues have reduced the robustness of the data; the annual release cycle has contributed to this, as the constant state of change limits Provider and Supplier ability to embed process and practice. As such, submitters and users of published MHSDS data find it does not always meet their expectations. NHS Digital are committed to improving the robustness of the data and routinely publish MHSDS data quality reports for submitters and users of the data; this transparency regarding data quality received a commendation from the UK Statistics Authority.³ Improvement of the timeliness of data quality reporting of new fields to the MHSDS is also required; when new versions of MHSDS reach conformance the data quality reports do not align to the updated data items specified in the newer versions and instead reflect previous releases, leading to user issues.

¹ [Information Standards Notice DCB0011 Amd 31/2016](#)

² [Establishment of information systems for NHS Services: mental health services Directions 2015](#)

³ [UK Statistics Authority: Code of Practice for Statistics \(2018\)](#)

The MHSDS is the 'national source of administrative data about NHS funded secondary mental health services for secondary uses'⁴ and the standard facilitates a wide range of analysis to be undertaken, including linkage to other national data sets, but it's importance and the rich resource of data does not appear to be widely recognised. Following publication of the Mental Health Annual Bulletin 2016-17 in November 2017⁴ references to the MHSDS in Government publications have increased⁵; an increasing dependency on the data by the Government will reinforce the MHSDS as a data source and improve system-wide awareness.

2. Comprehensive: Not met, but work is underway to improve position

With regards to the scope outlined in the Information Standards Notices for each release, the data within the MHSDS is not fully comprehensive. Three national collections (SCCI2127, SCCI2185 and DCB2213) run concurrently to the MHSDS to collect data items which, although required in the MHSDS, are not yet collected to a standard that allows reporting, due to data quality issues⁶. Although the methodology for these additional collections is simplistic compared to the MHSDS (small aggregate collections versus a complex relational database) this duplication of activity is adding an estimated additional burden of £1.4 million per annum to the system.⁷

3. Nationally consistent: Not met, but work is underway to improve consistency

The national coverage has been difficult to fully assess, due to on-going changes (mergers and closures) of in-scope organisations and the fact that the full number of organisations who should be submitting data is unknown⁴. NHS Digital recognise coverage issues and have agreed a data quality improvement plan with NHS England, the Department of Health and Social Care and Public Health England to 'drive up organisational coverage and data quality in the MHSDS'⁴; this activity has already successfully led to an improvement in NHS Digital's understanding of in-scope organisations.

4. Comparable person-based: Not met, but work is underway to improve the data (1-3)

As referenced in points 1-3 above, issues exist with data quality in the MHSDS which means it is not yet fully robust, comprehensive or nationally consistent. As such, the data cannot be used for the purposes of comparing person-based activity.

4. Recommendations for Developer, Senior Responsible Owner and Sponsor

1. Prioritise data quality improvement for data items which are duplicated in SCCI2127, SCCI2185 and DCB2213; improved data quality will allow parallel collections to cease, enabling stakeholder efforts to be focused on MHSDS.
2. Continue current good work of identifying gaps and improving data quality and coverage in the MHSDS.
3. Align data quality reporting with updated data items as new data set releases are implemented, to improve data quality and enable the MHSDS to become the single source of in scope data for analysis.
4. Work with DSAS to improve communications about implementation requirements.
5. Monitor SNOMED CT implementation and use current and future MHSDS releases to determine Provider and Supplier confidence in implementation.

5. Recommendations for DCB

1. Revision of the annual release schedule; to allow the requirements of a complex relational data set to be implemented successfully, stakeholders must be given suitable timescales. The PIR suggests that the annual release cycle, which is associated with a 6 to 8-month implementation period, does not meet Developer, Provider or Supplier needs and does not enable successful implementation.
2. Review Developer's data quality improvement progress in six months to determine requirement for duplicate collections.
3. Improve system wide awareness of the benefits of the MHSDS and ensure references to the MHSDS are made in relevant mental health publications to strengthen the position of MHSDS data for both submitters and users.

Sign-off for Post Implementation Review: Head of Service, Data Standards Assurance Service, NHS Digital

I have read the PIR and I am satisfied that it represents a fair and proportionate assessment of the implementation of the referenced standard.

Signed: **David Riley**

Date: 18/05/2018

⁴ [Mental Health Bulletin 2016-17 Annual Report](#)

⁵ [The independent review of the Mental Health Act - Interim report \(May 2018\)](#)

⁶ [DCB2213 Out of Area Placements - DCB Assurance Certificate](#)

⁷ Estimation based NHS Digital Burden Advice and Assessment Service (BAAS) reports for each individual collection (2016).

Further information sheet

6. What were the original assumptions?

- Providers and Suppliers would be frustrated with timescales for implementing each release
- Provider and Suppliers would not be aware of all published documentation relating to the standard, leading to implementation issues
- Providers would be concerned about implementing SNOMED CT in MHSDS
- Clinician engagement in implementation of the standard would be low, due to lack of awareness of MHSDS
- Data submitted would be of poor quality, due to implementation issues.

7. Themes of review

Timescales

- Providers and Suppliers have concerns about both the timescales and resource required for implementing each release of the standard
- There are general concerns about the requirement to produce and implement new versions of the standard without time to reflect on the implementation of current and previous versions.

Communications

- Stakeholders appear to agree that the importance of MHSDS data is not as widely acknowledged as required to aid successful implementation of the standard.
- Communications issued by DSAS and NHS Digital, regarding MHSDS data submission and publication (including published implementation documents), have caused confusion for users.

Burden

- Mental health collections are causing undue burden to the system, due to duplication in national collections, re-submission of data required due to implementation issues, annual cycles of releases and ad-hoc data requests from Commissioners above and beyond the MHSDS

Data quality

- There is a strong commitment, from both NHS Digital and data submitters, to improve the data quality in the MHSDS.

8. Were any unexpected benefits or issues found?

Unexpected benefits

- Providers and Suppliers have good knowledge, understanding and a willingness to share information with colleagues and NHS Digital regarding data submission and use. This must be utilised effectively.
- When compared to the feedback received during previous engagement activities, concerns regarding SNOMED CT implementation appear to be low.

Unexpected issues

- The timeliness of data analysis has proven to be an issue for data users, this issue has arisen from data reports which do not reflect the recently implemented version of the standard.
- MHSDS appears to be not widely publicised as a useful information resource for policy makers; where data within MHSDS is complete this should be publicised and use of the data should be encouraged to reduce additional Commissioner requirements on Providers.

9. Has the evidence identified any opportunities for reducing the burden on the health and care system?

- Known duplication of collected MHSDS data items in SCCI2127, SCCI2185 and DCB2213 was reconfirmed; the PIR should provide the opportunity for both the Developers and DCB to work on removing the need for the duplicate collections, via the recommendations in this report.
- Engagement with Providers revealed that Commissioners regularly ask Providers for mental health data and analysis above and beyond the MHSDS; this additional activity could be investigated during future development of the MHSDS to identify both additional burden on the system and any additional data requirements Commissioners may have of the MHSDS (although it is recognised that on-going improvement in data quality and recommended improvement in the timeliness of reports may reduce the additional Commissioner requirements).

Appendix – Evidence which has informed the PIR

1. Definitions of terminology

Term	Oxford Dictionaries definition	DSAS interpretation
Robust	<i>Strong and healthy</i>	Is the data, which has been submitted, of good quality?
Comprehensive	<i>Including or dealing with all or nearly all elements or aspects of something</i>	Does the data match the mandatory requirements in the published specification(s)?
Nationally consistent	<i>Consistent: Acting or done in the same way over time, especially so as to be fair or accurate.</i>	Has the data been submitted by in-scope organisations to the same standard, or specifications, as required?
Comparable person-based	<i>Comparable: Able to be likened to another; similar.</i>	Can the data be used to confidently compare one person's activity to another's? Only considered fully met when the data is robust, comprehensive and nationally consistent.

2. Stakeholder engagement conducted during review; DSAS recognise that the Supplier engagement level is not representative of the entire Supplier community.

Name	Audience	Format	Dates	Responses
MHSDS Providers and System Suppliers event	<ul style="list-style-type: none"> Providers System Suppliers 	Face to face; Paper feedback form Online feedback form	Events: 22 and 30 November 2017. Online form: 22 November – 8 December 2017.	14
Interviews with Providers and System Supplier	Providers: Birmingham and Solihull Mental Health Foundation Trust; Salford; Hertfordshire Partnership University Foundation Trust; Berkshire Healthcare NHS Foundation Trust Supplier: Mayden	Telephone interviews	19 December – 11 January 2018.	5
MHSDS PIR: Subject Matter Expert (SME) and data user feedback	<ul style="list-style-type: none"> Subject Matter Experts with an interest in the development of the information standard users of the data collected in MHSDS. 	Online survey	4 December – 31 December 2017.	5
MHSDS Versions 1.0 - 2.0: Implementation review	<ul style="list-style-type: none"> Providers System Suppliers 	Online survey	8 March – 6 April 2018.	14
Conversations with NHS Digital Community and Mental Health team				

Appendix – Evidence which has informed the PIR

3. Other sources of information used:

- MHSDS Versions 1.0 -2.0 conformance data quality document; provided by NHS Digital; January 2018
- MHSDS analysis process mapping; provided by NHS Digital; March 2018
- Consultation reports produced by the Developers in relation to engagement activity during the development of Versions 1, 1.1, 2.0 and 3.0 of the MHSDS
- SCCI early Post Implementation review report; NHS Digital; July 2016 ([available online](#))
- Additional sources of information, including publications, news pieces and social media comments, were captured in the literature search; January - May 2018.

Final

If you have any queries about this report, please contact standards.assurance@nhs.net