



### **WELSH INFORMATION STANDARDS BOARD**

| DSC Notice:    | DSCN 2022 / 48                |
|----------------|-------------------------------|
| Date of Issue: | 5 <sup>th</sup> December 2022 |

| Welsh Health Circular / Official Letter:   | <b>Subject:</b> Value in Health – PROMs<br>Metadata |
|--|---|
| WHC (2022)005: Value-Based Health Care<br>Programme – Data Requirements                        |   |
| <b>Sponsor</b> : Dr Sally Lewis, National Clinical Lead for Value-Based and Prudent Healthcare |   |
| Effective from: 1st November 2022  |   |

## **DATA STANDARD CHANGE NOTICE**

A Data Standard Change Notice (DSCN) is an information mandate for a new or revised information standard.

This DSCN was approved by the Welsh Information Standards Board (WISB) on 20<sup>th</sup> October 2022.

WISB Reference: ISRN 2022 / 038

#### Summary:

To standardise the metadata used for Reported Outcome Measures (PROMs) as part of the Value in Health programme.

### Applies to:

This Standard applies to all bodies that commission or provide health and care services in Wales in partnership with the NHS including their relevant system suppliers.

Please address enquiries about this Data Standard Change Notice to the Data Standards Team in Digital Health and Care Wales

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The Welsh Information Standards Board is responsible for appraising information standards. Submission documents and WISB Outcomes relating to the approval of this standard can be found at:

https://nhswales365.sharepoint.com/sites/DHC\_DST/Lists/Information%20Standards%20Ass\_urance%20Submission%20Log/AllItems.aspx

### **DATA STANDARD CHANGE NOTICE**

### Introduction

The Value in Health (or VIH) programme was commissioned by Welsh Government to "Improve the health outcomes of the people in Wales, in a financially sustainable way, through the creation of a data-driven system, which seeks to provide timely information to citizens, clinical teams and organisations to inform decision-making."

Part of this programme includes the development of digital products capable of providing outcome-based analytical information at the point of care, as well as for secondary uses analyses. In particular, these products aim to:

- Provide an analytical tool to allow clinicians to view data at population level and make informed decisions based on relationships they identify between diagnoses, treatments and outcomes/survival;
- Improve accessibility of national audit data and make this visible throughout the year rather than via the annual statutory reporting process;
- Improve data quality by making the data more visible and using measures to highlight data issues;
- Make historical data available to enable the identification of patterns and trends over time; and
- Provide drill-through functionality to allow clinicians to drill down to record level and identify corresponding patient records in operational systems.

This is to be achieved through the central collection of Patient Reported Outcome Measures (PROMs) and national clinical audit data, and data linkage to associate these records with sources of existing activity data, through data sets such as Admitted Patient Care (APC ds), Outpatient activity (OP ds) and Emergency Department Data Set (EDDS).

The mandate for the necessary patient reported and clinical outcome data was issued to NHS Wales by Welsh Government via WHC (2022)005¹. This describes the requirement in the context of national strategy for health and social care, and the necessity for services to adapt to the evolving healthcare needs of the ageing population to create a service that is flexible and more effective in dealing with these emerging challenges.

Due to the breadth and complexity of the information and associated processes, this will be achieved using an iterative approach. This DSCN sets out the specification for a standardised minimum data set of metadata to be applied to all (new and existing) PROMs data.

Standardised data is vital to effective central storage of PROMs data and, in particular, to the data linkage and analysis processes necessary to interpret the data to provide meaningful and consistent information via the aforementioned digital dashboards and data visualisation tools.

This DSCN describes the standard set of metadata items required to ensure that key commonalities are preserved and maintained across PROMs records. These standards are independent of the organisations and PROMs applications used to collect this information, and therefore support the seamless communication of PROMs information and enable comparative analysis at a population level.

The information specification set out in this DSCN describes the minimum metadata set to be applied to all new and existing PROMs records. These metadata describe the components necessary to connect the patient, their completed questionnaires and the various touchpoints along their pathway, facilitating an end-to-end view of patient reported outcomes throughout

<sup>&</sup>lt;sup>1</sup> <u>https://gov.wales/welsh-value-health-centre-data-requirements-whc2022005</u> (NHS Wales users only)

the longitudinal record. By utilising common standards, linkages to activity and clinical information is also possible to provide a complete value-based view. The use of existing standards described in the Document Metadata Standard<sup>2</sup> also allows effective storage and retrieval of PROMs records in clinical document repositories, and integration with clinical portals/workstations.

### Scope

A PROMs form can be issued to a patient at any point along their treatment pathway. Usually this occurs prior to, and at regular intervals following their treatment, as a means of measuring and monitoring the effectiveness of their treatment following an intervention, from the patient's perspective.

This data standard defines the information specification, and serves as a basis for the development of technical and interoperability standards which, in turn, define the data extraction and communication mechanisms necessary to unlock data from PROMs applications for both national and local purposes, to enable analysis at patient and population level. The detail of these technical standards is described in the associated technical specification documentation.

The scope of this standard is independent of the platform or source application used to capture PROMs information, however it is limited to the nationally-validated PROMs tools. The composition of the associated PROMs data sets is described in separate DSCNs, one for each PROMs tool, e.g. Oxford Knee Score.

The metadata items defined in this DSCN comprise the following components or *data modules*:

- Patient Details;
- Document Details;
- Event Details;
- PROMs Details; and
- Data Entry Details.

This DSCN should be read in conjunction with the associated notices for each PROMs tool.

Furthermore, there are additional metadata items required for storage of PROMs records in a central document repository, e.g. the Welsh Care Records Service (WCRS). These are not a requirement for inclusion in the data set and central flow of data described in this DSCN, but the intention is for these to be added to that data set for consumption by the document repository, to enable access via the clinical record. For details of these items, please refer to the Document Metadata Standard.

#### Effective Date

This data standard is effective from the date of publication. Only those data flows that comply with the standard, and associated technical standards, will be processed for central storage and consumption by ViH products, and nationally-developed views managed centrally by Digital Health and Care Wales (DHCW). Details of the implementation plan and central submission process are to be described in the associated technical specification.

#### Description of Change

To standardise the metadata used for Reported Outcome Measures (PROMs) as part of the Value in Health programme.

<sup>&</sup>lt;sup>2</sup>http://www.datadictionary.wales.nhs.uk/#!WordDocuments/nhswalesdocumentmetadatastandard.htm

This update to the original Standard describes changes identified as a result of a review including:

- A change to the NHS Number item, which is now described as 'mandatory (where available)';
- A change to the PROMs Tool item, which now identifies the version of the tool using a fourth character;
- The removal of some of the Data Entry Details items, which are now described in a separate DSCN;
- Additional clarity to support the definition of the Laterality item; and
- Further minor revisions to the way the data item formats are described.

These changes are marked in the usual way.

## **Actions Required**

Local Health Boards / Trust:

- To capture PROMs metadata in accordance with the information specification described in this DSCN; and
- To work with DHCW to develop mechanisms which enable central data collection of PROMs data to include these metadata items.

Digital Health and Care Wales:

- To work with health boards and trusts to develop technical solutions to allow PROMs metadata to be collected locally; and
- To work with health boards and trusts to develop mechanisms which enable the metadata to be collected centrally and stored in a standardised way.

# Appendix A: Table reflecting areas that are impacted as a result of this DSCN

The following table shows where there are changes to the scope and/or definitions of applicable data sets, data items, terms and other associated areas that are linked with the changes documented within this DSCN.

Each data definition type is shown in the sequence in which it appears in this DSCN.

| Data Definition Type     | Name  | Status   | Page<br>Number |
|--------------------------|---|----------|----------------|
| Patient Details          | NHS Number  | Existing | 8              |
| Patient Details          | NHS Number Status Indicator                               | Existing | 8              |
| Patient Details          | Local Patient Identifier                                  | Existing | 8              |
| Patient Details          | Patient Name (Forename)                                   | Existing | 8              |
| Patient Details          | Patient Name (Surname)                                    | Existing | 8              |
| Patient Details          | Date of Birth   | Existing | 8              |
| Patient Details          | Gender Identity   | Existing | 8              |
| Patient Details          | Postcode  | Existing | 8              |
| Document Details         | Originating System  | Existing | 8              |
| Document Details         | Originating Organisation                                  | Existing | 9              |
| Event Details            | Treatment Function  | Existing | 9              |
| Event Details            | Senior Responsible Professional Name                      | Existing | 9              |
| Event Details            | Senior Responsible Professional Identifier Code<br>System | Existing | 9              |
| Event Details            | Senior Responsible Professional Identifier                | Existing | 9              |
| PROMs Details            | PROMs Site Code   | Existing | 9              |
| PROMs Details            | PROMs Issued Date   | Existing | 9              |
| PROMs Details            | PROMs Completion Date & Time                              | Changed  | 9              |
| PROMs Details            | PROMs Pathway ID  | Changed  | 10             |
| PROMs Details            | PROMs Pathway Type  | Existing | 10             |
| PROMs Details            | PROMs Tool  |          | 10             |
| PROMs Details            | PROMs Trigger Classification                              | Existing | 10             |
| PROMs Details            | PROMs Language  | Existing | 10             |
| PROMs Details            | Unique Form Identifier                                    | Removed  | 10             |
| PROMs Data Entry Details | Are you completing this questionnaire for someone else?   | Changed  | 10             |
| PROMs Data Entry Details | What is your relationship to the patient?                 | Changed  | 10             |
| PROMs Data Entry Details | Physical impairment                                       | Changed  | 11             |
| PROMs Data Entry Details | Mental impairment   | Changed  | 11             |
| PROMs Data Entry Details | Under 16  | Changed  | 11             |
| PROMs Data Entry Details | No Language   | Changed  | 12             |
| PROMs Data Entry Details | Remote collection   | Changed  | 12             |
| PROMs Data Entry Details | Other reason  | Changed  | 12             |
| PROMs Data Entry Details | Laterality  | Changed  | 13             |

# Appendix B: Data Set Structure - PROMs Metadata

Changes to the NHS Wales Data Dictionary are detailed below, with new text being highlighted in **blue** and deletions shown with a **strikethrough**. Text shaded in grey denotes existing content.

| Data Module      | Item<br>Reference | Name   | Mandatory (M) / Optional (O)   |
|------------------|-------------------|--|--|
| Patient Details  | MPDPX001X         | NHS Number   | M (where available)  |
| Patient Details  | MPDPX001A         | NHS Number Status<br>Indicator                               | М  |
| Patient Details  | MPDPX002X         | Local Patient Identifier                                     | М  |
| Patient Details  | MPDPX003X         | Patient Name<br>(Forename)                                   | M (or optional where NHS No. is supplied and validated, i.e. with Status Indicator = 01) |
| Patient Details  | MPDPX004X         | Patient Name<br>(Surname)                                    | M (or optional where NHS No. is supplied and validated, i.e. with Status Indicator = 01) |
| Patient Details  | MPDPX005X         | Date of Birth  | М  |
| Patient Details  | MPDPX006X         | Gender Identity  | M (or optional where NHS No. is supplied and validated, i.e. with Status Indicator = 01) |
| Patient Details  | MPDPX007X         | Postcode   | M (or optional where NHS No. is supplied and validated, i.e. with Status Indicator = 01) |
| Document Details | MDDPX001X         | Originating System   | М  |
| Document Details | MDDPX002X         | Originating<br>Organisation                                  | М  |
| Event Details    | MEDPX001X         | Treatment Function   | М  |
| Event Details    | MEDPX002A         | Senior Responsible<br>Professional Name                      | M (or optional where Identifier and Code System are supplied)                            |
| Event Details    | MEDPX002B         | Senior Responsible<br>Professional Identifier<br>Code System | M (or optional where Name is supplied)   |
| Event Details    | MEDPX002C         | Senior Responsible<br>Professional Identifier                | M (or optional where Name is supplied)   |
| PROMs Details    | MPRPX001X         | PROMs Site Code  | 0  |
| PROMs Details    | MPRPX002X         | PROMs Issued Date  | М  |
| PROMs Details    | MPRPX003X         | PROMs Completion<br>Date & Time                              | М  |
| PROMs Details    | MPRPX004X         | PROMs Pathway ID   | 0  |
| PROMs Details    | MPRPX005X         | PROMs Pathway Type   | М  |
| PROMs Details    | MPRPX006X         | PROMs Tool   | М  |
| PROMs Details    | MPRPX007X         | PROMs Trigger<br>Classification                              | М  |
| PROMs Details    | MPRPX008X         | PROMs Language   | М  |
| PROMs Details    | MPRPX009X         | Unique Form Identifier                                       | M  |

| Data Module                 | Item<br>Reference | Name  | Mandatory (M) / Optional (O) |
|-----------------------------|-------------------|---|------------------------------|
| PROMs Data<br>Entry Details | MDEPX001X         | Are you completing this questionnaire for someone else? | M                            |
| PROMs Data<br>Entry Details | MDEPX002X         | What is your relationship to the patient?               | M                            |
| PROMs Data<br>Entry Details | MDEPX003A         | Physical impairment                                     | M                            |
| PROMs Data<br>Entry Details | MDEPX003B         | Mental impairment                                       | M                            |
| PROMs Data<br>Entry Details | MDEPX003C         | <del>Under 16</del>                                     | М                            |
| PROMs Data<br>Entry Details | MDEPX003D         | No Language   | M                            |
| PROMs Data<br>Entry Details | MDEPX003E         | Remote collection                                       | M                            |
| PROMs Data<br>Entry Details | MDEPX003F         | Other reason  | М                            |
| PROMs Data<br>Entry Details | MDEPX004X         | Laterality  | М                            |

For mandatory items where data is not available, please use the `unknown' and `N/A' values as defined in the information specification below.

# **Appendix C: Information Specification – PROMs Metadata**

Changes to the NHS Wales Data Dictionary are detailed below, with new text being highlighted in **blue** and deletions shown with a **strikethrough**. Text shaded in grey denotes existing content.

| Data Definition Type | Item<br>Reference | Name                           | Format  | Definition  | Value Set / Example                                     |
|----------------------|-------------------|--------------------------------|---|---|---|
| Patient Details      | MPDPX001X         | NHS Number                     | 10-character alphanumeric                     | See <u>NHS Wales Data Dictionary</u> for details of NHS Wales Document Metadata Standard  | e.g. 0123456789   |
| Patient Details      | MPDPX001A         | NHS Number Status<br>Indicator | 2-digit numeric                               | See <u>NHS Wales Data Dictionary</u> for existing standard  | e.g. Number present & traced                            |
| Patient Details      | MPDPX002X         | Local Patient Identifier       | 10-character alphanumeric                     | See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard   | e.g. 9876543210   |
| Patient Details      | MPDPX003X         | Patient Name<br>(Forename)     | 35-character alphanumeric                     | See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard   | e.g. John<br>Use NULL for missing or N/A<br>values      |
| Patient Details      | MPDPX004X         | Patient Name<br>(Surname)      | 35-character alphanumeric                     | See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard   | e.g. Smith Use NULL for missing or N/A values           |
| Patient Details      | MPDPX005X         | Date of Birth                  | CCYY-MM-DD                                    | See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard   | e.g. 1950-01-31   |
| Patient Details      | MPDPX006X         | Gender Identity                | 1-character alphanumeric                      | See NHS Wales Data Dictionary for details of NHS Wales Core Reference Data Standard   | e.g. F  |
| Patient Details      | MPDPX007X         | Postcode                       | 8-character alphanumeric                      | See <u>NHS Wales Data Dictionary</u> for details of NHS Wales Document Metadata Standard  | e.g. AB12 3CD<br>Use NULL for missing or N/A<br>values  |
| Document Details     | MDDPX001X         | Originating System             | 6- <del>digit</del> character<br>alphanumeric | For PROMs, this would be the PROMs platform, e.g. DrDoctor, PKB, Amplitude, National Platform, etc. See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard | Please refer to the technical specification for details |

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| Data Definition Type | Item<br>Reference | Name   | Format   | Definition   | Value Set / Example   |
|----------------------|-------------------|--|--|--|---|
| Document Details     | MDDPX002X         | Originating<br>Organisation                                  | 5-character alphanumeric   | See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard  | e.g. 7A100  |
| Event Details        | MEDPX001X         | Treatment Function   | 3-digit numeric  | This is the pathway specialty at the time the PROMs form is generated See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard      | e.g. 100  |
| Event Details        | MEDPX002A         | Senior Responsible<br>Professional Name                      | 100-character alphanumeric   | See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard  | e.g. JONES, Alan N, Dr<br>Use NULL for missing or N/A<br>values   |
| Event Details        | MEDPX002B         | Senior Responsible<br>Professional Identifier<br>Code System | 100-character alphanumeric   | See <u>NHS Wales Data Dictionary</u> for details of NHS Wales Document Metadata Standard   | e.g. GMC Use NULL for missing or N/A values Please refer to the technical specification for details       |
| Event Details        | MEDPX002C         | Senior Responsible<br>Professional Identifier                | 8-character alphanumeric   | See <u>NHS Wales Data Dictionary</u> for details of NHS Wales Document Metadata Standard   | e.g. 2345678 Use NULL for missing or N/A values   |
| PROMs Details        | MPRPX001X         | PROMs Site Code  | 5-character<br>alphanumeric  | For PROMs, this is the code of the site where the PROMs form was initiated See NHS Wales Data Dictionary for details of NHS Wales Document Metadata Standard | e.g. 7A1A1<br>Use NULL for missing or N/A<br>values   |
| PROMs Details        | MPRPX002X         | PROMs Issued Date  | yyyy-mm-dd   | This is the date and time the PROMs form was issued to the patient   | 2020-12-10  |
| PROMs Details        | MPRPX003X         | PROMs Completion<br>Date & Time                              | 2020-12-<br>10T13:30:10.99<br>9+00:00yyyy-<br>mm-<br>ddThh:mm:ss.s<br>ss+hh:mm | The date and time the PROMs form was completed (or when the last item was recorded for incomplete records)   | For PROMs, this is the date when the form is completed by the patient, e.g. 2020-12-10T13:30:10.999+00:00 |

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| Data Definition Type        | Item<br>Reference | Name  | Format   | Definition   | Value Set / Example   |
|-----------------------------|-------------------|---|--|--|---|
| PROMs Details               | MPRPX004X         | PROMs Pathway ID  | <del>20</del> 36-character<br>alphanumeric         | An identifier that uniquely identifies the PROMs pathway for the individual patient completing the PROMs form All PROMs forms associated with the same patient and pathway/problem must have the same Pathway ID This could be the patient's clinical pathway ID or an identifier generated locally in the PROMs application | e.g. 000000000000000000001<br>Use NULL for missing or N/A<br>values   |
| PROMs Details               | MPRPX005X         | PROMs Pathway Type                                      | 3-character alphanumeric                           | The type of pathway that the PROM is associated to, e.g. lung cancer, heart failure, cataract, etc.  | e.g. KNA Please refer to the technical specification for details  |
| PROMs Details               | MPRPX006X         | PROMs Tool  | 43-character<br>alphanumeric                       | The national code representing the PROMs tool associated with the PROMs record The 4 <sup>th</sup> character of the code indicates the version number for the tool   | e.g. OKS <mark>2</mark> Please refer to the technical specification for details                                       |
| PROMs Details               | MPRPX007X         | PROMs Trigger<br>Classification                         | 2-digit numeric                                    | The national code representing the classification of the PROMs trigger   | e.g. 03 - Pre-op or prior to surgical intervention Please refer to the technical specification for details            |
| PROMs Details               | MPRPX008X         | PROMs Language  | 2-character alphanumeric                           | The code representing the language of the completed PROMs form   | en=English<br>cy=Welsh<br>71=Other  |
| PROMs Details               | MPRPX009X         | Unique Form Identifier                                  | <del>50-character</del><br><del>alphanumeric</del> | An identifier that uniquely identifies the record associated with a particular form instance. This should be unique to each record  To be derived from: Originating Org, Local Patient ID, Completion Date/Time  | e.g. 7A1009999998888882020-<br>01-31-00:00:00:000   |
| PROMs Data<br>Entry Details | MDEPX001X         | Are you completing this questionnaire for someone else? | 1 digit numeric                                    | To identify whether the patient required assistance to complete the form   | e.g. 0 - No Please refer to the technical specification for details   |
| PROMs Data<br>Entry Details | MDEPX002X         | What is your relationship to the patient?               | <del>2-digit numeric</del>                         | To describe the relationship of the person completing the form to the patient  | e.g. 02 - Relative or carer on<br>behalf of the patient<br>Please refer to the technical<br>specification for details |
|                             |                   | Why is your assistance needed?                          |  | To identify the reason why the patient required assistance to complete the form  | [Question header, no returned data]   |

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| Data Definition Type        | Item<br>Reference | Name                | Format          | Definition  | Value Set / Example   |
|-----------------------------|-------------------|---------------------|-----------------|---|---|
| PROMs Data<br>Entry Details | MDEPX003A         | Physical impairment | 1-digit numeric | The patient has a physical impairment that prevents them from completing the questionnaire. | No*     Yes     N/A     Unknown  *Note that a value of '0 no' should only be recorded if there is an option for the patient to explicitly answer 'no' to the question, otherwise use '9 unknown'  |
| PROMs Data<br>Entry Details | MDEPX003B         | Mental impairment   | 1-digit numeric | The patient has a mental impairment that prevents them from completing the questionnaire.   | 1 Yes  8 N/A  9 Unknown  *Note that a value of '0 - no' should only be recorded if there is an option for the patient to explicitly answer 'no' to the question, otherwise use '9 - unknown'  |
| PROMs Data<br>Entry Details | MDEPX003C         | <del>Under 16</del> | 1-digit numeric | The patient is under 16 years old   | No*   Yes     White   Washington   Washin |

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| Data Definition Type        | Item<br>Reference | Name              | Format          | Definition                                    | Value Set / Example  |
|-----------------------------|-------------------|-------------------|-----------------|---|--|
| PROMs Data<br>Entry Details | MDEPX003D         | No Language       | 1-digit numeric | The patient does not speak English / Welsh    | 1 Yes  N/A  Unknown  *Note that a value of '0 no' should only be recorded if there is an option for the patient to explicitly answer 'no' to the question, otherwise use '9 unknown'     |
| PROMs Data<br>Entry Details | MDEPX003E         | Remote collection | 1-digit numeric | Remote collection (e.g. telephone collection) | 1 Yes  8 N/A  9 Unknown  *Note that a value of '0 no' should only be recorded if there is an option for the patient to explicitly answer 'no' to the question, otherwise use '9 unknown' |
| PROMs Data<br>Entry Details | MDEPX003F         | Other reason      | 1-digit numeric | Other reason                                  | 8 N/A 9 Unknown  *Note that a value of '0 – no' should only be recorded if there is an option for the patient to explicitly answer 'no' to the question, otherwise use '9 unknown'       |

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| Data Definition Type        | Item<br>Reference | Name       | Format          | Definition   | Value Set / Example            |
|-----------------------------|-------------------|------------|-----------------|--|--------------------------------|
| PROMs Data<br>Entry Details | MDEPX004X         | Laterality | 1-digit numeric | To capture the anatomical side associated with the questionnaire being completed Note that if a patient completes a questionnaire for both left and right sides, two records should be generated and labelled as per the specified value set Note also that this item is intended to capture the laterality specified as part of the patient's PROMs pathway record as opposed to any patient reported laterality information which would be captured within the form itself | 1 Left 2 Right 8 N/A 9 Unknown |

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