

WHO Minimum Data Set (MDS) Crosswalk

Tools for Mapping the WHO Minimum Data Set to Local Elements and Local Elements to the WHO Minimum Data Set

The following is a terminology crosswalk between local data elements and a minimum data set (MDS). Crosswalks are human readable documents that attempt to harmonize different data standards.

In this case, we provide examples of how to harmonize potential local and national HIS data elements with a minimum data set for use by a health worker registry.

BACKGROUND

A health worker registry is a centralized listing of health workers within a country. Information contained within a health worker registry most often comes from different health management information systems (HMIS), such as iHRIS, used, for example, by independent organizations, health clinics run by non-state actors or regulatory bodies. These client systems are often organized around specific workflows revolving around human resources (hiring a new health worker, providing a salary bonus, transferring a health worker to a new location), but the health worker registry may contain only specific information about health workers.

During the planning and implementation phase of a health worker registry, health workforce planners will most likely create a minimum data set, or a list and definitions of essential data elements that client systems must provide to communicate with the HWR.

While the naming and defining of the minimum data set elements depends on the local realities, we utilize a [MDS created by the World Health Organization](#) in this crosswalk to illustrate the concept. We hope this will allow you to translate local elements into the sample MDS to better plan how to make your local system interoperable with other parts of the health information system.

This crosswalk contains two sections. The first lists the MDS elements as listed by the World Health Organization to which you can then map your local elements. The second part provides space for your local elements, which you can map to the WHO MDS elements. We have created two sections because your local data elements may not map directly to MDS profile elements (or, vice-versa). We speak about this below.

Minimum Data Set Elements and Definitions

The WHO's Minimum Data Set for a health workforce registry contains 10 top-level elements:

Definitions of WHO MDS

- Identification Number: Unique identification number or other form of ID, date of issue, date of expiration, place of issue.
- Full Name: First name, last name, middle name, maiden name, other name 1, other name 2, other name 3
- Birth History: Date of Birth, Sex at Birth, Place of Birth (country, town), father's name and mother's name, photograph
- Citizenship, Country of Residence and Language: Citizenship at birth, citizenship at present, country of residence, ability in spoken and written languages.
- Address: Physical address (country, town, street address)
- Contact Information: Telephone number , email address , emergency contact name
- Professional License and Certification: Education, license and certification name, issuing institution, date of issue and date of expiration, photograph.
- Employment Status: Employment status , employment title and occupational category
- Employment Address: Full address of current employer.
- Data Submission Institution: Name of the institution submitting data; date and time of submission

Each top-level element can include a number of sub-level elements. For example, Identification Number can include: Unique identification number or other form of ID, date of issue, date of expiration, place of issue.

Per the WHO's guidance, identification number should be a combination of values that uniquely identifies individuals within a country's health system. This unique identification number (UIN) can be system-generated based on a pre-set algorithm.

Depending on how a country distributes and utilizes identification numbers for health workers, users may use a national identification number in place of the UIN.

EXAMPLE OF HOW TO USE THE CROSSWALK

Below is an example of how to fill out the crosswalk with the MDS element on the left-hand side (in this version) and columns for users to enter local elements on the right. In this example, the health worker's National ID number, which is distributed by the country's Commission of National Identity Management, is used as an identification number. The implementation note defines the ID number.

MDS Element	Local Elements	Data Source	Implementation Note
Identification Number	National ID number	Commission of National Identity Management	A set of eleven digits (e.g. 43848190876) assigned to every citizen and legal resident 16+ years

Depending on the country context, you can also add a few other sub-elements to the Identification

Number element. For example, an HWR may also hold information such as:

- Date of Issue
- Date of expiration
- Place of issue

The crosswalk for these sub-elements would look like this:

Identification Number sub-element	Local Elements	Data Source	Implementation Note
Date of Issue			
Date of Expiration			
Place of Issue			

The [WHO's guide](#) provides definitions of specific sub-elements.

CROSSWALK #1 WHO MDS TO LOCAL DATA ELEMENTS

This section allows you to map your local elements to MDS Elements. We have created this because local data elements may not correspond exactly with this example.

MDS Element	Local Elements	Data Source	Implementation Note
Identification number			
Full name			
Birth History			
Citizenship, Country of Residence, and Language			
Address			
Contact Information			
Professional License and Certification			
Employment Status			
Employment Address			
Data Submission Institution			

Identification number

MDS Element	Local Element(s)	Data Source	Implementation Note
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Date Of Issue			
Date Of Expiration			
Place of Issue			

Full Name

MDS Element	Local Element(s)	Data Source	Implementation Note
First Name			
Last Name			
Middle Name			
Maiden Name			
Other Name 1			
Other Name 2			
Other Name 3			

Birth History

MDS Element	Local Element(s)	Data Source	Implementation Note
Date of Birth			
Sex at Birth			
Place of Birth (country)			
Place of Birth (town)			
Father's Name			
Mother's Name			
Photograph			

Citizenship, Country of Residence and Language

MDS Element	Local Element(s)	Data Source	Implementation Note
Citizenship at Birth			
Citizenship at Present			
Country of Residence			
Ability in Spoken Languages			

Address

MDS Element	Local Element(s)	Data Source	Implementation Note
Physical Address (Country)			
Physical Address (Town)			
Physical Address (Street Address)			

Contact Information

MDS Element	Local Element(s)	Data Source	Implementation Note
Telephone Number			
Email Address			
Emergency Contact Name			

Professional License and Certification

MDS Element	Local Element(s)	Data Source	Implementation Note
License and Certificate Name			
Issuing Institution			
Date of Issue			
Date Of Expiration			
Photograph			

Employment Status

MDS Element	Local Element(s)	Data Source	Implementation Note
Employment Status			
Employment Title			
Occupational Category			

Employment Address

MDS Element	Local Element(s)	Data Source	Implementation Note
Full address of current employer			

Data Submission Institution

MDS Element	Local Element(s)	Data Source	Implementation Note
Name of the institution submitting data			
Date and time of submission			

CROSSWALK #2 LOCAL ELEMENTS TO WHO MDS

This section allows you to map your local elements to the WHO MDS Elements. We have created this because local data elements may not correspond exactly with a sample MDS.

Identification number

Local Element(s)	Data Source	Implementation Note	MDS Element
			Date Of Issue
			Date Of Expiration
			Place of Issue

Full Name

Local Element(s)	Data Source	Implementation Note	MDS Element
			First Name
			Last Name
			Middle Name
			Maiden Name
			Other Name 1
			Other Name 2
			Other Name 3

Birth History

Local Element(s)	Data Source	Implementation Note	MDS Element
			Date of Birth
			Sex at Birth
			Place of Birth (country)
			Place of Birth (town)
			Father's Name
			Mother's Name
			Photograph

Citizenship, Country of Residence and Language

Local Element(s)	Data Source	Implementation Note	MDS Element
			Citizenship at Birth
			Citizenship at Present
			Country of Residence
			Ability in Spoken Languages

Address

Local Element(s)	Data Source	Implementation Note	MDS Element
			Physical Address (Country)
			Physical Address (Town)
			Physical Address (Street Address)

Contact Information

Local Element(s)	Data Source	Implementation Note	MDS Element
			Telephone Number
			Email Address

			Emergency Contact Name

Professional License and Certification

Local Element(s)	Data Source	Implementation Note	MDS Element
			License and Certificate Name
			Issuing Institution
			Date of Issue
			Date Of Expiration
			Photograph

Employment Status

Local Element(s)	Data Source	Implementation Note	MDS Element
			Employment Status
			Employment Title
			Occupational Category

Employment Address

Local Element(s)	Data Source	Implementation Note	MDS Element
			Full address of current employer

Data Submission Institution

Local Element(s)	Data Source	Implementation Note	MDS Element
			Name of the institution submitting data
			Date and time of submission

