



2022 Health Human Resources Minimum Data Set Data Standard: Points of Interest

Introduction

In 2022, the Canadian Institute for Health Information (CIHI) updated the Health Human Resources Minimum Data Set (HHR MDS) data standard, which resulted in updates to the data elements and submission standards for the Health Workforce Database.

This document highlights some of the major changes and their rationales to help you understand the changes and to support reporting and analysis.

Submitting organizations can begin to voluntarily adopt these standards starting in 2022.

The 2022 HHR MDS data standard includes **49 unique data elements**. These are organized into 5 broad categories: Registration, Demographics, Geography, Education and Employment.

A [summary](#) of all the new and revised data elements is provided at the end of this document.

You can find more information about the project and the updated standards in the

- [HHR MDS Data Dictionary](#)
- [HHR MDS Data Submission Manual](#)





Key changes to data elements

Broad changes

Core data elements

Description of change	<p>Identifies a few data elements as core in each of the 5 categories</p> <p>These data elements are essential for monitoring and health system planning for all groups of health care providers.</p> <p>CIHI strongly recommends that you prioritize the collection and reporting of these core data elements. For a full list of core data elements, refer to the <i>HHR MDS Data Dictionary</i>.</p>
Rationale	<ul style="list-style-type: none"> • To facilitate the standardized collection of data related to supply, equity, geographic distribution, educational attainment and employment characteristics • To facilitate the linkage and integration of data sources

Multiple selection data elements

Description of change	<p>Allows the selection of multiple responses (values) for a few data elements</p> <p>For a full list of data elements that allow multiple selections, refer to the <i>HHR MDS Data Dictionary</i>.</p>
Rationale	<ul style="list-style-type: none"> • To better capture and understand information in situations where 1 selection is not possible or fully representative • Examples: <ul style="list-style-type: none"> – Demographic information: Racialized Group, to ensure an accurate representation of diversity – Employment information: Provider Employment Place of Work, Provider Employment Area of Practice, Primary Site Virtual Care

Primary site data elements

Description of change	<p>Includes a series of data elements to collect information about the health care provider's primary site of practice</p> <p>The primary site is where the provider is directly engaged in employment associated with their profession for the most hours.</p> <p>Note: CIHI will explore collecting data beyond the primary site in the future.</p>
Rationale	<ul style="list-style-type: none"> • To obtain a more detailed understanding of the location where services are being provided • To adhere to CIHI's standards and facilitate data integration



Changes to Registration data elements

Provider Type

Description of change	Includes a data element and list of values that capture the type of health care provider
Rationale	<ul style="list-style-type: none">• To identify the type of health care provider associated with each record• To use a list of values that conforms to CIHI's standard list of recognized health care providers and to facilitate data integration with other sources that identify a provider (e.g., electronic medical records [EMRs])

National Unique Identifier (NUI)

Description of change	Includes a data element that captures a unique registration number (or suitable alternative) for each health care provider in Canada Note: The methodology for generating the NUI is under development and will be piloted with early adopters before a full-scale rollout. For more information or to explore joining the pilot, email hhr@cihi.ca .
Rationale	<ul style="list-style-type: none">• To uniquely identify health care providers in Canada• To facilitate de-identified data linkage and integration• To support analysis of workforce movement across jurisdictions, professions and time

Provider Initial Registration Province/Territory

Description of change	Includes a data element that captures the first province or territory where the health care provider registered in Canada with a provincial or territorial health care provider regulatory body or professional association
Rationale	<ul style="list-style-type: none">• To identify the health care provider's first location of practice in Canada• To support analysis of workforce movement across jurisdictions and time

Provider Initial Registration Year

Description of change	Includes a data element that captures the first year the health care provider registered in Canada with a provincial or territorial health care provider regulatory body or professional organization
Rationale	<ul style="list-style-type: none">• To identify the health care provider's first year of service• To calculate the provider's total years of service



Changes to Demographics data elements

Gender

Description of change	<p>Updates the definitions for all values</p> <p>Includes 2 new values: <i>another gender</i> and <i>prefer not to answer</i></p>
Rationale	<ul style="list-style-type: none"> • To align with <i>CIHI Reference Data Model</i> standards • To support a more accurate understanding of diversity • To offer more inclusive options

Sex at Birth

Description of change	<p>Includes a data element that identifies the sex category assigned to a health care provider and recorded at their birth (e.g., recorded on their original birth certificate)</p> <p>Includes 2 new values: <i>intersex</i> and <i>prefer not to answer</i></p>
Rationale	<ul style="list-style-type: none"> • To delineate the concepts of gender and sex at birth • To support a more accurate understanding of diversity • To offer more inclusive options

Language — Ability to Provide Service

Description of change	<p>Includes a data element (for all health care provider groups) that identifies the language(s) a provider is capable of providing professional services in</p> <p>For physiotherapists, streamlines language information into 1 data element</p>
Rationale	<ul style="list-style-type: none"> • To understand the workforce’s capacity to support diverse population needs

Indigenous Identity

Description of change	<p>Includes a data element that allows providers to self-identify as First Nations, Inuit/Inuk and/or Métis</p>
Rationale	<ul style="list-style-type: none"> • To inform and align with CIHI’s equity initiatives • To measure, monitor and address potential inequities in the health workforce and health system • To encourage diversity and cultural safety in health care

Racialized Group

Description of change	<p>Includes a data element that allows providers to identify their racialized group(s)</p> <p>Note: To align with CIHI’s standard, it is recommended that you allow respondents to select all the values that apply to them. However, for data management purposes, CIHI can accept a maximum of 3 entries. When a respondent identifies with 4 or more values (10 to 49), as a data provider, you should record Racialized Group as 50 (mixed racial group) and record the remaining 2 entries as 98 (not applicable).</p>
Rationale	<ul style="list-style-type: none"> • To inform and align with CIHI’s equity initiatives • To measure, monitor and address inequities in the health workforce and health system • To encourage diversity and cultural safety in health care



Changes to Education data elements

Provider Basic Education Level, Provider Highest Level of Education

Description of change	Includes additional education level values
Rationale	<ul style="list-style-type: none"> • To comprehensively represent the education of health care providers in Canada • Example: <ul style="list-style-type: none"> – Additional values for unregulated professions that may not have or require formal training programs or certifications

Provider Highest Level of Education, Provider Highest Level of Education Graduation Year, Provider Highest Level of Education Institution, Provider Highest Level of Education Graduation Province/Territory, Provider Highest Level of Education Graduation Country

Description of change	<p>Streamlines alternative types of education (i.e., education outside profession, post-basic education) into 1 concept</p> <p>Highest education: Highest level of education attained or participated in. This includes any post-basic education leading to a degree, such as bridging or upgrade education.</p> <p>Expands the breadth/scope of the data element so that highest education attained does not have to be specific to the profession</p>
Rationale	<ul style="list-style-type: none"> • To ensure uniform data collection across all health care provider groups • To comprehensively represent the education of health care providers in Canada

Changes to Employment data elements

Employment Status, Employed in Profession, Seeking Employment

Description of change	Separates concepts previously captured in 1 data element (Employment Status) into 3 data elements
Rationale	<ul style="list-style-type: none"> • To comprehensively describe a health care provider's employment status • To adhere to CIHI's and international standards and to facilitate data integration



Provider Employment Place of Work, Provider Employment Position, Provider Employment Area of Practice

Description of change	<p>Eliminates overlapping values between data elements</p> <p>Eliminates values that contain multiple concepts. Concepts have been disentangled and now can be captured under the applicable data element:</p> <ul style="list-style-type: none"> • Provider Employment Place of Work: where a health care provider provides services • Provider Employment Position: who is providing services • Provider Employment Area of Practice: what services a health care provider is providing <p>Includes values that cover more health care provider groups and profession-specific needs</p>
Rationale	<ul style="list-style-type: none"> • To better reflect today's workforce • To comprehensively describe the health care provider's employment

Provider Employment Funding Source

Description of change	Includes a data element (for all health care providers) that identifies the sources of funding for each employment
Rationale	<ul style="list-style-type: none"> • To identify the distribution and capacity of the workforce at the sector level • To identify whether the data submitter needs to provide the Primary Site Organization Identifier (i.e., only public site organization identifiers will be captured at this time)

Agency Health Care Provider Flag

Description of change	Includes a data element that identifies employment with a staffing agency
Rationale	<ul style="list-style-type: none"> • To identify the distribution and capacity of the workforce • To allow for a better understanding of health workforce planning needs

Primary Site Virtual Care

Description of change	Includes a data element to capture the estimated proportion of direct care the health care provider delivers virtually at their primary site of practice
Rationale	<ul style="list-style-type: none"> • To identify the use of virtual methods for delivering patient care • To complement the health system's evolving needs (i.e., the shift to or progression in the use of virtual services to deliver care)

Primary Site Encounter Mode

Description of change	<p>Includes a data element to identify up to 3 different methods in which the health care provider delivers direct care services to patients</p> <p>The methods should be listed from most to least used.</p>
Rationale	<ul style="list-style-type: none"> • To distinguish the various methods used to deliver services to patients and estimate their level of use • To complement the health system's evolving needs (i.e., the shift to or progression in the use of virtual services to deliver care)



Primary Site Organization Identifier

Description of change	Includes a data element to capture the CIHI-generated 10-digit code that identifies the health care provider's primary site of practice
Rationale	<ul style="list-style-type: none"> • To adhere to CIHI's standard and facilitate data integration • To uniquely identify the primary site of employment for health care providers • To ensure data alignment across all health care provider groups

Changes to the submission and collection processes

Control record/file characteristic: Submitting Health Care Provider Type

Description of change	Relabels the field name and updates the values and length
Rationale	<ul style="list-style-type: none"> • To ensure process alignment for all health care provider groups and jurisdictions

Control record/file characteristic: Data Provider Identifier

Description of change	<p>Relabels the field and updates the 5-character code for nursing professions</p> <p>All nursing professions now use the same identifier as other data provider groups.</p>
Rationale	<ul style="list-style-type: none"> • To ensure process alignment for all health care provider groups and jurisdictions

Record layout

Description of change	<p>Updates the record layout</p> <ul style="list-style-type: none"> • Reorders data elements • Introduces multiple occurrences of the same data element: <ul style="list-style-type: none"> – Multiple selection: allows for a maximum of 3 value entries – Multiple employment: allows for a maximum of 3 employment entries
Rationale	<ul style="list-style-type: none"> • To ensure process alignment for all health care providers

Value codes

Description of change	<p>Assigns new, arbitrary numerical codes</p> <p>These replace the mix of numerical and alphabetical codes previously used by different health care provider groups.</p>
Rationale	<ul style="list-style-type: none"> • To ensure a consistent approach to coding for all health care provider groups



Summary of key changes to HHR MDS data elements

Category	Data element	Nurses	Occupational therapists	Physiotherapists	Pharmacists
Registration	Provider Type	New	New	New	New
	Provider Registration Status	Updated	New	No change	New
	Provider Registration Date	No change	No change	No change	No change
	National Unique Identifier	New	New	New	New
	Provider Provincial/Territorial Registration Number	No change	No change	No change	No change
	Provider Registration Province/Territory	No change	No change	No change	No change
	Provider Concurrent Registration Province/Territory	New	No change	New	New
	Provider Concurrent Registration Country	New	No change	New	New
	Provider Initial Registration Province/Territory	New	New	New	New
	Provider Initial Registration Year	New	New	New	New
Demographics	Gender	Updated	Updated	Updated	Updated
	Sex at Birth	New	New	New	New
	Birth Year	No change	No change	No change	No change
	Language — Ability to Provide Service	New	New	Updated	New
	Indigenous Identity	New	New	New	New
	Racialized Group	New	New	New	New
Geography	Provider Residence Province/Territory	New	No change	No change	No change
	Provider Residence Country	New	No change	No change	No change
	Provider Residence Postal Code	No change	New	New	New



Bulletin

Category	Data element	Nurses	Occupational therapists	Physiotherapists	Pharmacists
Education	Provider Basic Education Level	Updated	Updated	Updated	Updated
	Provider Basic Education Graduation Year	No change	No change	No change	No change
	Provider Basic Education Graduation Institution	New	No change	No change	No change
	Provider Basic Education Graduation Province/Territory	New	New	New	New
	Provider Basic Education Graduation Country	New	No change	No change	No change
	Provider Highest Level of Education	New	New	New	Updated
	Provider Highest Level of Education Graduation Year	New	New	New	No change
	Provider Highest Level of Education Institution	New	New	New	No change
	Provider Highest Level of Education Graduation Province/Territory	New	New	New	No change
	Provider Highest Level of Education Graduation Country	New	New	New	No change
	Employment	Employment Status	Updated	Updated	Updated
Employed in Profession		New	New	New	New
Seeking Employment		New	New	New	New
Provider Employment Category		New	Updated	Updated	Updated
Provider Employment Full-Time/Part-Time/Casual Status		Updated	Updated	Updated	New
Provider Employment Full-Time/Part-Time/Casual Preference		New	New	New	New



Category	Data element	Nurses	Occupational therapists	Physiotherapists	Pharmacists
Employment (continued)	Provider Employment Annual Earned Hours	New	Updated	Updated	Updated
	Provider Employment Place of Work	Updated	Updated	Updated	Updated
	Provider Employment Position	Updated	Updated	New	Updated
	Provider Employment Area of Practice	Updated	Updated	Updated	New
	Provider Employment Funding Source	New	No change	New	New
	Agency Health Care Provider Flag	New	New	New	New
	Multiple Site Flag	New	New	New	New
	Primary Site Virtual Care	New	New	New	New
	Primary Site Encounter Mode	New	New	New	New
	Primary Site Organization Identifier	New	New	New	New
	Primary Site Postal Code	No change	No change	No change	No change
	Site of Practice Indicator for Postal Code	New	No change	New	New
	Primary Site Province/Territory	New	No change	No change	No change
	Primary Site Country	New	No change	No change	No change

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