

INDEX Sheet Name		Descriptive Sheet Name	Link to tab
1	Overview & Glossary	Draft introductory notes and glossary to describe column values for each module and other	Overview & Glossary'!A1
2	Capacity - Minimum	Module 1 employment and capacity data elements - separated by minimum and enh	Capacity - Minimum'!A1
2	Capacity - Enhanced	Module 1 employment and capacity data elements - separated by minimum and enh	Capacity - Enhanced'!A1
3	Education - Minimum	Module 2 education data elements - separated by minimum and enhanced data eler	Education - Minimum'!A1
3	Education - Enhanced	Module 2 education data elements - separated by minimum and enhanced data eler	Education - Enhanced'!A1
4	Identification - Minimum	Module 3 registration & demographic data elements - separated by minimum and er	Identification - Minimum'!A1
4	Identification - Enhanced	Module 3 registration & demographic data elements - separated by minimum and er	Identification - Enhanced'!A1
5	Reference list	Includes references from the modules	References!A1

Overview & Glossary

Overview

The data elements outlined in this MDS are separated by modules for: Capacity, Education, and Identification. Each module is further separated into minimum and enhanced data elements.

Considerations for data elements: Our primary consideration is that these are data elements needed for more robust health workforce planning, and secondarily that these data elements are required/encouraged for other forms of governance/accountability (e.g., official languages act, employment equity act(s) [federal/provincial/territorial]. Implementation may be different for different groups; e.g., some items have already been collected and are tombstone, therefore would not need to be collected again as long as the link to the individual was maintained (e.g., through unique identifier, name)

Identification information is important for high useability and interoperability of data, merging across sources, and reducing response burden if answers are tracked over time. However, there are also potential risks to identification related to security and protection of personal information to consider. There are many techniques used to combat bad actors which should be considered in handling this type of data.

It is important to note that the use of this MDS indicates the data elements which are important for analyses for workforce planning, however,

Glossary

Columns within each module

Number	A consecutive number tracking each data element across minimum and enhanced data elements
Data Element Name	The short name for each data element
Data Element Definition	Definitions for each data element
Prompt: Statement	Corresponding prompt for the data element, in statement format which may be more applicable to using secondary versus primary data
Prompt: Question Format	Corresponding prompt for the data element, in question format which may be more applicable to using primary versus secondary data
Values/Response	Response options for the prompt, which may include categorical character responses, numeric scales, open text, etc.
Value/Response	A definition for the response options are sometimes helpful
Source	As this MDS builds on existing MDS for health workers, we list specific MDS where we have drawn from or adapted for the purposes of this MDS. Where possible, preference was to match with existing MDS. In lieu of a corresponding data element in an existing MDS, we pulled from relevant surveys (such as Census).
Rationale - description	A description is provided for why each data element would be beneficial in health workforce planning
Rationale - example from	For minimum data elements, an example of a published research paper which uses a similar data element is listed

Terms and acronyms

HPDB	Health Professions Data Base
HRRI	Healthcare Regulatory Research Institute
OMA	Ontario Medical Association
Position	Position refers to distinct paid employment positions that a health worker may hold. Some health workers would have one position, e.g., full-time RN at a hospital, while others may hold multiple employment positions within or beyond a single organization.
RN	Registered Nurse
WHO	World Health Organization

Number	Data Element Name	Data Element Definition	Prompt: Statement Format	Prompt: Question Format	Values/Response Options	Value/Response Definition	Source	Rationale - description	Rationale - example from literature
1. Capacity/Service Provision (by position for all employment)									
a) Employment/Practice Submodule (based on the last year and would be updated on a yearly basis)									
1 Employment/practice status in Canada									
1.1	Employment status	Whether an individual was employed within the last 12 months prior to data collection.	Employment status in last 12 months	What is your employment status (in the last 12 months)?	Actively working in a position that requires healthcare education; Actively working in a position in the field of healthcare that does not require healthcare education; Actively working in a position in a field other than healthcare; Not currently working; Retired; Other: ____		HRRI - adapted	To capture whether an individual was employed within the last year. Some individuals may have worked in a healthcare-related position in the past or have registration status without employment as a health worker.	Max Vivienne S. L., Clark Alice, March Geoff, Gilbert Andrew L. (2013) The Australian pharmaceutical workforce: employment status, practice profile and job satisfaction. Australian Health Review 37, 127-130. https://doi.org/10.1071/ah12180
1.2	Tenure with employer	Tenure with an employer measures the number of consecutive months or years a person has worked for the current employer(s). The employer may have worked in one or more occupations or in one or more locations or businesses and will be considered to have continuous tenure if the employer has not changed. If a person has worked for the same employer over different periods of time, employer tenure measures the most recent period of uninterrupted work. A temporary layoff does not constitute an interruption.	Tenure with employer in a paid position (in consecutive months)	How long have you worked in a paid position with your employer (in consecutive months)?	Numeric: 0-1000		StatCan	In the event that previous work has not been captured over time, then directly asking about tenure with employer is relevant information for health workforce planning.	Buller, S. S., Berrens-Ing, M., Wardenski, S., & Ashley, A. (2014). Determinants of longer job tenure among home care aides: What makes some stay on the job while others leave?. Journal of Applied Gerontology, 33(2), 164-188.
2 Position title/occupation (by position)									
2.1	Health worker occupation mapped to Statistics Canada NOCs (by position)	Health worker occupational group matched to the national occupational classification (NOC) codes used by Statistics Canada	Employed within a health worker role matched to Statistics Canada national occupational code (by position)	In what health worker role are you employed within Statistics Canada national occupational code (by position)?	[dependent on health worker group, with the capability to match to NOC codes]			To allow for easier interoperability with StatCan reporting. StatCan data includes Census, annual, and one-time surveys/questionnaires. The ability to match against the NOCs allows for higher interoperability with StatCan data.	Gupta, N., Dhall, K., Zorn, P., & Dal Poz, M. R. (2009). Assessing human resources for health: what can be learned from labour force surveys?. Human Resources for Health, 7, 1-10.
3 Organization (by position)									
3.1	Organization/practice name (by position)	Name of employer. For example, if you work for an agency, please identify the agency which is paying for you.	Organization/practice name of employer	What is the name of your employer organization/practice?	Organization (dropdown): Self-employed: ____ Other: ____ Not applicable		HPDB/WHQ/HRRI - adapted	Captures where they work allowing for organization and regional information useful for planning.	Self employed used in Krajl, B., Islam, R., & Sweetman, A. (2024). Long-term trends in the work hours of physicians in Canada. CMAJ, 196(11), E369-E376.
3.2	Location - postal code (by position)	Postal code for employer(s). If you are a mobile worker, please indicate the postal code of the office from which you are working from.	The 6-digit postal code assigned by Canada Post to the provider's primary site of practice at the time of registration or renewal (by position).	What is the 6-digit postal code for your place of work (by position)?	Postal Code of Practice Site: 6 or 5 character string value, standard postal code or zip code format "XXV XX" (Canada) and "YYYYY" (US), may also want to include values of the same length for "Unknown", "Not Applicable", and "Outside Canada/US". Province or Territory or State of Practice Site: 2 character string value (e.g. ISO 3166-2 Province/Territory/State codes), may also want to include values of the same length for "Unknown", "Not Applicable" and "Outside Canada/US". Country of Practice Site: 3 character string value (e.g. ISO 3166-1 Country codes), may also want to include values of the same length for "Unknown", and "Not Applicable". Agency Nurse: 1 character value representing "Yes", "No", "Not Applicable", (i.e. all professions except nurses) and "Unknown". More Than Three Practice Sites: 1 character value representing "Yes", "No", "Not Applicable", and "Unknown"		HPDB/WHQ/HRRI - adapted	Captures where they work allowing for organization and regional information useful for planning. Organization/practices can have multiple locations and so capturing the organization/practice name and the postal code allows for more accurate geographic reporting. Postal code can be used to create other geographic variables, including rurality.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinisweil, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
3.3	Health care sector/practice setting (by position)	The practice setting(s) where an individual is employed	The setting where the provider is directly engaged in health care work (by position).	Which health care sector(s) do you work in (by position)?	Unable to disclose all values, but is a value of 2 characters in length representing 37 practice settings, and a value of the same length representing "Not Applicable" and "Unknown". At the very least includes: "Hospital", "Other Group Practice Office", "Residential/Long-term Care Facility", "Other Place of Work", "Community Pharmacy", "Mental Health and Addiction Facility", "Rehabilitation Facility", "Board of Health or Public Health Laboratory or Public Health Unit", "All Other Practice Settings: ____", "Not Applicable", "Unknown"		HPDB/WHQ/HRRI - adapted	A given organization can have multiple settings of care provision. This data element captures further details about where an individual works within an organization/practice.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinisweil, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
3.4	Area of practice/specialty (by position)	Area of Practice Activity: The main service/activity performed at each job. Practice Specialty: The specialty an individual is both certified and practicing in	The health worker's area of practice/specialty (by position).	What is your area of practice/specialty (by position)?	Area of Practice Activity: A value of 3 characters representing the following categories: "General Service Provision", "Geriatric Care", "Critical Care", "Acute Care", "Confining Care", "Comprehensive Primary Care", "Mental Health and Addiction", "Areas of Administration", "Other Areas", "All Other Areas of Practice Activity" (unable to disclose but may want to include more areas, and break up the two "other categories" e.g., "Research", "Education", "Not Applicable", and "Unknown". Practice Specialty: 4 characters in length representing 33 practice specialties: "Not Applicable" and "Unknown" (unable to disclose the specialties)		HPDB/WHQ/HRRI - adapted	This captures more details about where an individual works. For instance, organization/practice may capture whether an individual works for a specific hospital, but without this variable capturing sector/practice setting, it is difficult to know the sector/practice of work. This is important for planning purposes. For instance, if looking specifically into ICU capacity.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinisweil, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
b) Service Capacity Submodule (by position; based on the last 12 months, updated on a yearly basis)									
4 Total time (by position)									
4.1	Total paid working time, in weeks (by position)	The number of total paid weeks worked out of the last 12 months, by each position	The number of paid working weeks over the last 12 months (by position)	How many weeks were you paid to work in the last 12 months (by position)?	Numeric, 0-52; Unsure; Prefer not to say		HPDB - adapted	The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Total time and direct service time are captured as Core data elements that capture the main activities of interest for health workforce planning.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinisweil, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
4.2	Total paid working time, in average weekly hours (by position)	The number of average paid weekly hours worked, by each position within the last 12 months	The average number of paid working hours per week over the last 12 months (by position)	What was the average number of paid hours that you worked per week (by position)?	Numeric, 0-168; Unsure; Prefer not to say		HRRI - adapted	The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Total time and direct service time are captured as Core data elements that capture the main activities of interest for health workforce planning. Hours are a common outcome measured in health workforce research. Hours can also be used to generate full-time vs. part-time vs. casual hours of work, dependent on the definition.	Dass, A. R., Deber, R., & Laporte, A. (2022). Forecasting Staffing Needs for Ontario's Long-Term Care Sector. Healthcare Policy, Krajl, B., Islam, R., & Sweetman, A. (2024). Long-term trends in the work hours of physicians in Canada. CMAJ, 196(11), E369-E376.
5 Direct Healthcare Services (by position)									
5.1	Paid working time providing direct healthcare services, in weeks (by position)	The number of total paid weeks worked in direct healthcare services out of the last 12 months, by each position	The number of paid working weeks spent providing direct healthcare services over the last 12 months (by position)	How many weeks were you paid to work providing direct healthcare services (by position)?	Numeric, 0-52; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Total time and direct service time are captured as Core data elements that capture the main activities of interest for health workforce planning.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinisweil, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
5.2	Paid working time providing direct healthcare services, in average weekly hours (by position)	The number of average paid weekly hours worked in direct healthcare services, by each position	The average number of paid working hours per week providing direct healthcare services over the last 12 months (by position)	What was the average number of paid hours that you worked per week providing direct healthcare services (by position)?	Numeric, 0-168; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Total time and direct service time are captured as Core data elements that capture the main activities of interest for health workforce planning.	Dass, A. R., Deber, R., & Laporte, A. (2022). Forecasting Staffing Needs for Ontario's Long-Term Care Sector. Healthcare Policy, 17(SF), 91. Islam, R., Krajl, B., & Sweetman, A. (2023). Physician workforce planning in Canada: the importance of accounting for population aging and changing physician hours of work. CMAJ, 195(9), E335-E340.

5.3	Modality, direct healthcare services (by position)	Modality by which paid time in direct healthcare services was conducted virtually	The proportion of paid time in direct healthcare services completed virtually.	What proportion of your paid time providing direct healthcare services do you do virtually?	Proportion, 0-100%. Unsure; Prefer not to say	With changes to how health workers provide services, capturing the modality of care provides additional insight of increasing relevance to understanding how care is delivered.	Adams TL, Leslie K. Regulating for-profit virtual care in Canada: Implications for medical profession regulators and policy-makers. <i>Healthcare Management Forum</i> . 2023;36(2):113-118. doi:10.1177/08404794221134972. Coates, A., Mihalescu, M., & Bourgeois, L. L. (2024). Emergency responses for a health workforce under pressure: Lessons learned from system responses to the first wave of the pandemic in Canada. <i>The International Journal of Health Planning and Management</i> , 39(3), 888-910; Currat, V. R., Hollett, A., & Peddie, E. (2023). Virtual care and COVID-19: A survey study of adoption, satisfaction and continuing education preferences of healthcare providers in Newfoundland and Labrador, Canada. <i>Frontiers in Digital Health</i> , 4, 870112; Gupta, N., Balcom, S. A., Gulliver, A., & Witherspoon, R. L. (2021). Health workforce surge capacity during the COVID-19 pandemic and other global respiratory disease outbreaks: A systematic review of health system requirements and responses. <i>The International Journal of Health Planning and Management</i> , 36(51), 26-41.
11	Incident/Injury/Illness						
11.1	Incident/injury/illness occurred at work leading to time off or workplace limitations/modified duty (by position)	Capturing any incidents/injuries/illnesses at work which lead to time off or workplace limitations/modified duty	Incident/injury/illness occurred at work leading to reduced hours or workplace limitations/modified work within the last 12 months	Have you had an incident/injury/illness occur at work leading to reduced hours or workplace limitations/modified work within the last 12 months?	Yes; No; Unsure; Not applicable	Workplace incidents leading to time off or modified duty occur more frequently for many health workers compared to other occupations. Capturing injury at work leading to time off or workplace limitations is an important consideration for health workforce planning.	Aisagor, H., Chikowech, Y., Yu, S., & Yasse, A. (2007). Work-related injury among direct care occupations in British Columbia, Canada. <i>Occupational and environmental medicine</i> , 64(11), 769-775; McCaughy, D., DellFratte, J. L., McCham, G., & Bunting, N. S. (2013). The negative effects of workplace injury and illness on workplace safety climate perceptions and health care worker outcomes. <i>Safety science</i> , 51(1), 138-147.

	Data Element Name	Data Element Definition	Prompt: Statement Format	Prompt: Question Format	Values/Response Options	Value/Response Definition	Source	Rationale	Rationale - example from literature
1. Capacity/Service Provision (by position all positions)									
a) Employment/Practice Submodule (based on the last year and would be updated on a yearly basis)									
1	Employment/practice status in Canada								
1.3	Reasons for not employed as a health care worker	If not employed in a health care worker role in the last 12 months, then the reason(s) why the individual was not employed as a health care worker.	If not working as a health care worker at any time in the last 12 months, the reason(s) for not being employed as a health care worker in the last 12 months	If not employed as a health care worker in the last 12 months, why were you not employed as a health care worker in the last 12 months?	Employed outside of health care work and seeking employment as a health care worker"; "Employed outside of health care work and not seeking employment as a health care worker"; "Not employed and seeking employment as a health care worker"; "Not employed and not seeking employment as a health care worker"; "On leave"; "Other."	Capturing whether employed or not, and whether seeking health care employment or not.	HP/DB - adapted	If an individual reported no employment as a health worker within the last 12 months, then this data element captures reasons why they were not employed as a health worker. It provides additional insight into why trained/experienced individuals are not working as a health worker.	
1.4	Seeking employment change	If an individual is seeking an employment change, at various geographical, employer, and other levels within the next year.	Seeking employment change within the next 12 months.	Are you seeking an employment change in the next 12 months?	Keeping current employment but seeking additional; Plans to change country; Plans to change province/territory; Plans to change region within province/territory; Plans to change employer(s); Plans to change area(s) of practice (specific unit/team); Plans to change sector(s); Plans to change occupation(s).		OMA - adapted	This data element provides some insight into the employment plans of individuals.	
2	Position title/occupation (by each position)								
2.2	Role title	Captures a health worker's title at work. E.g., "Nursing manager"	The main role(s) by position of employment (by position)	What are your main role(s) by position of employment (by position)?	[Flexible response options by health worker group]		HP/DB/WHC/HBRI - adapted	Capturing the role title can provide more context to the job. E.g., an RN with a role title "Nursing manager" provides more details about their role.	
3	Organization (by each position)								
b) Service Capacity Submodule (by position; based on the last 12 months)									
4	Total time (by position)								
4.2	Total hours overtime	Of the number of average paid weekly hours worked, by each position within the last 12 months, the number of overtime hours beyond scheduled time	The average number of paid working hours per week over the last 12 months (by position) that qualified as overtime hours.	Of the total hours worked, what was the average number of paid overtime hours that you worked per week (by position)?	Numeric, 0-168; Unsure; Prefer not to say	Numeric response options to capture a range of average weekly unpaid hours worked across minimum to maximum.	HBRI - adapted	Workers can provide paid overtime hours on top of scheduled paid hours within their jobs. This data element captures hours provided that was beyond scheduled time. This is helpful in understanding capacity and work beyond scheduled time relevant for capacity, and cost at additional fee for overtime hours paid to the health worker. The number of hours would be captured for total time suggested here, but there could be further nuance added if captured for each type of service (e.g., number of unpaid hours in direct healthcare services, teaching, etc.), however, this is higher burden.	Zeyneloglu, I. U., Denton, M., Davies, S., Baumann, A., Blythe, J., & Boos, L. (2006). Retaining nurses in their employing hospitals and in the profession: effects of job preference, unpaid overtime, importance of earnings and stress. Health Policy, 79(1), 57-72; "After hours, holidays, weekends: Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinwiddie, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
4.3	Total unpaid working time, in average weekly hours	The number of average unpaid weekly hours worked, by each position within the last 12 months	The average number of unpaid working hours per week over the last 12 months (by position)	What was the average number of unpaid hours that you worked per week (by position)?	Numeric, 0-168; Unsure; Prefer not to say	Numeric response options to capture a range of average weekly unpaid hours worked across minimum to maximum.	HBRI - adapted	Workers can provide unpaid overtime hours on top of scheduled paid hours within their jobs. This data element captures hours provided that went unpaid. This can be above contracted hours in salary positions, or beyond what was compensated in hourly pay. The number of hours of unpaid work would be captured for total time suggested here, but there could be further nuance added if captured for each type of service (e.g., number of unpaid hours in direct healthcare services, teaching, etc.).	Zeyneloglu, I. U., Denton, M., Davies, S., Baumann, A., Blythe, J., & Boos, L. (2006). Retaining nurses in their employing hospitals and in the profession: effects of job preference, unpaid overtime, importance of earnings and stress. Health Policy, 79(1), 57-72; "After hours, holidays, weekends: Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinwiddie, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
5	Direct Healthcare Services (by position)								
5.4	Supervisory role, direct healthcare services	This data element captures time spent supervising direct healthcare service delivery.	Proportion of direct healthcare services provided in a supervisory role	What proportion of your paid time in direct healthcare services were provided in a supervisory role?	Proportion, 0-100%; Unsure; Prefer not to say			This is an important element of work and differs from direct care in a non-supervisory role. It also helps to capture availability of those needed to train incoming health care workers.	
6	Teaching (by position)								
6.1	Paid working time teaching, in weeks	The number of total paid weeks worked teaching out of the last 12 months, by each position	The number of paid working weeks spent teaching over the last 12 months (by position)	How many weeks were you paid to teach (by position)?	Numeric, 0-52; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Capacity for teaching allows for better understanding of where current health workers spend their time and can provide insight into the ability to train incoming health workers.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinwiddie, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
6.2	Paid working time teaching, in average weekly hours	The number of average paid weekly hours worked teaching, by each position	The average number of paid working hours per week teaching over the last 12 months (by position)	What was the average number of paid hours that you worked per week teaching (by position)?	Numeric, 0-168; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Capacity for teaching allows for better understanding of where current health workers spend their time and can provide insight into the ability to train incoming health workers.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinwiddie, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
7	Research (by position)								
7.1	Paid working time spent on research, in weeks	The number of total paid weeks worked in a research role out of the last 12 months, by each position	The number of paid working weeks spent on research over the last 12 months (by position)	How many weeks were you paid to research (by position)?	Numeric, 0-52; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Capturing capacity for research allows for better understanding of where current health workers spend their time.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinwiddie, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
7.2	Paid working time spent on research, in average weekly hours	The number of average paid weekly hours worked in a research role, by each position	The average number of paid working hours per week spent on research over the last 12 months (by position)	What was the average number of paid hours that you worked per week on research (by position)?	Numeric, 0-168; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Capturing capacity for research allows for better understanding of where current health workers spend their time.	Steffler, M., Chami, N., Hill, S., Beck, G., Cooper, S.C., Dinwiddie, R., Newbery, S., Simkin, S., Chang-Kil, B., Wright, J.G. and Kantarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
8	Administration (by position)								
8.1	Paid working time on administration, in weeks	The number of total paid weeks worked in administration out of the last 12 months, by each position	The number of paid working weeks spent on administration over the last 12 months (by position)	How many weeks were you paid to work on administrative tasks (by position)?	Numeric, 0-52; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Capturing time spent on administration allows for better understanding of where current health workers spend their time.	
8.2	Paid working time on administration, in average weekly hours	The number of average paid weekly hours worked in administration, by each position	The average number of paid working hours per week spent on administration over the last 12 months (by position)	What was the average number of paid hours that you worked per week on administrative tasks (by position)?	Numeric, 0-168; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts. Capturing time spent on administration allows for better understanding of where current health workers spend their time.	
9	Other (please specify) (by position)								
9.1	Other areas of work	Areas of work other than direct healthcare services, teaching, research, or administration	Other areas of work besides direct healthcare services, teaching, research, or administration	What other areas of work do you perform tasks outside of direct healthcare services, teaching, research, or administration (List all that apply)?	Open text field			There may be other aspects of a person's work that is not listed above.	
9.2	Paid working time on other tasks, in weeks	The number of total paid weeks in areas other than direct healthcare services, teaching, research, or administration worked out of the last 12 months, by each position	The number of paid working weeks spent in areas other than direct healthcare services, teaching, research, or administration over the last 12 months (by position)	How many weeks were you paid to work in areas other than direct healthcare services, teaching, research, or administration (by position)?	Numeric, 0-52; Unsure; Prefer not to say			The number of paid time worked is an essential element for health workforce planning. It allows for more accurate capacity/supply analyses beyond headcounts.	
9.3	Paid working time on other tasks, in average weekly hours	The number of average paid weekly hours worked in areas other than direct healthcare services, teaching, research, or administration, by each position	The average number of paid working hours per week in areas other than direct healthcare services, teaching, research, or administration over the last 12 months (by position)	What was the average number of paid hours that you worked per week in areas other than direct healthcare services, teaching, research, or administration (by position)?	Numeric, 0-168; Unsure; Prefer not to say			With changes to how health workers can work by modality, capturing the modality of care provides additional insight of increasing relevance to understanding how care is delivered.	

9.4	Modality	Modality by which paid time for other tasks was conducted virtually	The proportion of paid time for other tasks completed virtually	What is the proportion of your paid time on other tasks do you do virtually?	Proportion, 0-100%; Unsure: Prefer not to say		Provides an understanding of the use of virtual care services to deliver direct care. When assessed with Provider Employment Place of Work, provides information on the use of virtual care across the health care system. Represents the modes of service delivery between the provider and their clients. Enables better understanding of how providers are delivering virtual care.
9.5	Team-based care	According to the WHO, team-based care occurs when multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, caregivers and communities to deliver the highest quality of care across settings.	Working within a team-based care model	Are you working within a team-based care model?	Yes; No; Unsure; Not applicable	WHO	Team-based care can influence the level of capacity which can be provided by a health worker and influences the workplace environment.
10 Employment Preferences (by position)							
10.1	Hours worked preferences	The preferred number of hours worked per week, by position of employment.	Health care worker's interest in working more or less hours per week with their current employer(s).	Would you prefer to work more or less hours per week for your current employer?	No - "I want to work the same number of hours that I currently do"; "More hours"; numeric: -1 to +168, "Less hours"; numeric: -1 to -168; "Unsure"; "Prefer not to say"; "Not applicable"		This data element can help to identify a mismatch between actual and preferred employment status, and trends in employment status preference across the profession, and the labour supply available
10.2	Overtime hours paid and unpaid	The number of weekly hours worked over time, on average, over the last 12 months. This can correspond to any task.	Number of hours of overtime typically worked per week in the last 12 months	How many hours of overtime did you typically work per week in the last 12 months?	Yes - paid [number of hours in a dropdown]; Yes - unpaid [number of hours in a dropdown]; No paid or unpaid overtime hours		To capture the number of overtime hours worked - paid or unpaid
11 Incident/Time off/Sickness							
11.2	Number of days off of work due to workplace incident/injury/illness or number of days with workplace limitation/modified work (by position)	If reporting an incident/injury/illness at work which lead to time off or workplace limitations/modified duty, the number of days where this applied within the last year.	If reported an incident/injury/illness at work within the last 12 months, then the number of days off of work due to workplace incident/injury/illness or number of days with workplace limitation/modified work	If reported an incident/injury/illness at work within the last 12 months, then how many days were you off of work due to workplace incident/injury/illness or number of days with workplace limitation/modified work within the last 12 months?	Numeric: 0-365		Workplace incidents leading to time off or modified duty occur more frequently for many health workers compared to other occupations. Capturing injury at work leading to time off or workplace limitations is an important consideration for health workforce planning.
11.3	Other leave of absence taken during the past year apart from incident/injury/illness at work (type, duration or anticipated date of return if still on leave)	Individuals can take leave of absences for many reasons. If there was a reason other than injury at work, including paternal leave or maternity leave, then this data element would capture that.	Other leave of absence during the last 12 months apart from injury at work	Did you have a leave of absence for a different reason other than injury at work during the last 12 months?	Yes; No; Unsure; Not applicable; If yes, then type [dropdown options TBD] and number of days off of work in last 12 months [numeric 0-365]		Understanding health workers leave of absence behaviour is an important element of labour supply and health workforce planning. This includes maternity leave.
11.4	Self-rated mental health status		Self-rated mental health status	In general, would you say your mental health is...?	1 - Excellent, 2 - Very good, 3 - Good, 4 - Fair, 5 - Poor	Canadian Community Health Survey Annual Component 2023, StatCan	The mental health of the health workforce provides insight into the well-being of these health workers and has important implications for turnover and other elements of health workforce planning.
11.5	Burnout	Burnout is a psychological syndrome of emotional exhaustion (feeling drained, tired, or unable to cope), depersonalization (feeling detached, alienated, or cynical), and reduced personal accomplishment (feeling ineffective, negative, or intangible) that can occur among individuals who work with other people in some capacity. Thinking of [a specific time period], how would you rate your level of burnout?	Experiencing burnout	Thinking of the last 12 months, how would you rate your level of burnout?	1 - I enjoy my work. I have no symptoms of burnout.; 2 - Occasionally I am under stress and I don't always have as much energy as I once did, but I don't feel burned out.; 3 - I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion.; 4 - The symptoms of burnout that I am experiencing won't go away. I think about frustration at work a lot.; 5 - I feel completely burned out and often wonder if I can go on. I am at a point where I may need some changes or might need to seek some sort of help.	Physician Worklife Survey	Burnout experienced by the health workforce provides insight into the well-being of these health workers and has important implications for turnover and other elements of health workforce planning.

Number	Data Element Name	Data Element Definition	Prompt: Statement Format	Prompt: Question Format	Values/Response Options	Value/Response Definition	Source	Rationale - description	Rationale - example from literature
2. Education/Training Module									
12	Entry-level training needed to work/practice in your role								
12.1	Area(s) of training	Area(s) in which a health worker has been certified	Area(s) of certification achieved as part of entry-level training needed to work/practice in current role (by position)	What area(s) did you complete your entry-level training to for your current (last 12 months) work/practice (by position)?	Flexible response options by health worker group	The general areas of training, as applied to exemplar health worker groups. Additional response options can be added, and options removed, as applicable to a given health worker group. [Note that we continue to edit the list of response options]	HPDB - adapted	Captures the area of study and the area of training that an individual is receiving/received	Ariste, R. (2019). Availability of health workforce in urban and rural areas in relation to Canadian seniors. The International journal of health planning and management, 34(2), 510-520; Hewko, S., Reay, T., Estabrooks, C. A., & Cummings, G. G. (2019). The early retiree divests the health workforce: a quantitative analysis of early retirement among Canadian Registered Nurses and allied health professionals. Human resources for health, 17, 1-10.
12.2	Entry-level training/type required to work/practice in your role	Level and type of core training or education completed to enter current (past 12 months) job/profession	Required entry-level training completed for current role (last 12 months)(by position)	What required entry-level training did you complete for your current role (last 12 months)(by position)?	"Diploma" "Baccalaureate" "Entry to Practice Post Diploma Certificate/Course" "Masters" "Professional Doctorate/Doctorate". Other: ____; "Not Applicable", "Unknown"		HRRI - adapted	Allows monitoring of changes in the basic educational attainment of the workforce.	Ariste, R. (2019). Availability of health workforce in urban and rural areas in relation to Canadian seniors. The International journal of health planning and management, 34(2), 510-520; Hewko, S., Reay, T., Estabrooks, C. A., & Cummings, G. G. (2019). The early retiree divests the health workforce: a quantitative analysis of early retirement among Canadian Registered Nurses and allied health professionals. Human resources for health, 17, 1-10.
12.3	Institution	Educational Institution, Province or Territory, and Country at Graduation	Post-secondary institution(s) (college or university) where entry-level training needed for current (last 12 months) work/practice was obtained (by position)	In which post-secondary institution(s) (college or university) did you complete your entry-level training required for your current (last 12 months) work/practice (select all that apply) (by position)?	Blank OR Dropdown OR Type and fill with response options specifying name of institution, province, country (select all that apply). For Canadian institutions, more information is helpful. For international, the value may just list the country instead of all possible international institutions.		WHO/HPDB/HRRI - adapted	Provides information on training that can be compared against location of current practice; useful in assessing training to working pipeline by institution	Metter, D. M., Colgan, T. J., Leung, S. T., Timmons, C. F., & Park, J. Y. (2019). Trends in the US and Canadian pathologist workforces from 2007 to 2017.JAMA network open, 2(5), e194337-e194337.; Loewen, S. K., Doll, C. M., Halperin, R., Parliament, M., Pearcy, R. G., Milosevic, M. F., ... & Brundage, M. (2019). Nations trends and dynamic responses in the Canadian radiation oncology workforce from 1990 to 2018. International Journal of Radiation Oncology® Biology® Physics, Kralj, B., Islam, R., & Sweetman, A. (2024). Long-term trends in the work hours of physicians in Canada. CMAJ, 196(11), E368-E376; Steffler, M., Chami, N., Hui, S., Beck, G., Cooper, S. C., Dinwiddie, R., Newbery, S., Simkin, S., Chang-Kit, B., Wright, J. G. and Karliarevic, J., 2021. Disparities in physician compensation by gender in Ontario, Canada. JAMA Network Open, 4(9), pp.e2126107-e2126107.
12.4	Completion date	Date of completed entry-level training required to work/practice in current (last 12 months) role (by position)	Date of completed entry-level training required for current (last 12 months) work/practice (by position), or expected year of completion if currently a student.	When did you complete your entry-level training required for your current (last 12 months) work/practice (by position)?	YYYYMM	Year and month	WHO/HPDB/HRRI - adapted	To measure the length of time to complete education, and timeline/trends of continuing education. Provides insight into the number of years likely practicing within a given occupation, where tenure is often included in past studies.	
13	Additional skills relevant to your work/practice								
13.1	Area(s) of training	Area(s) in which a health worker has been certified	Area(s) of certification achieved as part of post-entry level training needed to work/practice in current (last 12 months) role (by position)	What area(s) did you complete your post-entry level training to for your current (last 12 months) work/practice (by position)?	Response options will be highly variable by occupation		HPDB - adapted	Captures the area of study and the area of training that an individual is receiving/received	Hewko, S., Reay, T., Estabrooks, C. A., & Cummings, G. G. (2019). The early retiree divests the health workforce: a quantitative analysis of early retirement among Canadian Registered Nurses and allied health professionals. Human resources for health, 17, 1-10.
13.2	Post-entry level training/type required to work/practice in your role	Level and type of enhanced skills training or education completed beyond entry-level for your current (last 12 months) job/profession (by position)	Training for post-entry level training relevant to current (last 12 months) work/practice (by position)	What enhanced post-entry level skills training did you complete relevant to your current (last 12 months) work/practice (by position)?	"Diploma" "Baccalaureate" "Entry to Practice Post Diploma Certificate/Course" "Masters" "Professional Doctorate/Doctorate". Other: ____; "Not Applicable", "Unknown"		HPDB - adapted	Examine trends in education levels of healthcare professionals and how this changes as their career progresses	Hewko, S., Reay, T., Estabrooks, C. A., & Cummings, G. G. (2019). The early retiree divests the health workforce: a quantitative analysis of early retirement among Canadian Registered Nurses and allied health professionals. Human resources for health, 17, 1-10.
13.3	Institution	Canadian Educational Institution, Province or Territory, and Country at Graduation	Post-secondary institution(s) (college or university) where post entry level training needed for current (last 12 months) work/practice was obtained (by position)	In which post-secondary institution(s) (college or university) did you complete your post-entry level training required for your current (last 12 months) work/practice (select all that apply) (by position)?	Blank OR Dropdown OR Type and fill with response options specifying name of institution, province, country		WHO/HPDB/HRRI - adapted	Provides information on training that can be compared against location of current practice; useful in assessing training to working pipeline by institution	Metter, D. M., Colgan, T. J., Leung, S. T., Timmons, C. F., & Park, J. Y. (2019). Trends in the US and Canadian pathologist workforces from 2007 to 2017.JAMA network open, 2(5), e194337-e194337.; Loewen, S. K., Doll, C. M., Halperin, R., Parliament, M., Pearcy, R. G., Milosevic, M. F., ... & Brundage, M. (2019). Nations trends and dynamic responses in the Canadian radiation oncology workforce from 1990 to 2018. International Journal of Radiation Oncology® Biology® Physics, 105(1), 31-41
13.4	Completion date	Date of completed enhanced training needed to work/practice in current role	Date of completed post-entry level training required for current (last 12 months) work/practice (by position), or expected year of completion if currently a student.	When did you complete your post-entry level training required for your current (last 12 months) work/practice (by position)?	YYYYMM	Year and month	WHO/HPDB/HRRI - adapted	To measure the length of time to complete education, and timeline/trends of continuing education	Metter, D. M., Colgan, T. J., Leung, S. T., Timmons, C. F., & Park, J. Y. (2019). Trends in the US and Canadian pathologist workforces from 2007 to 2017.JAMA network open, 2(5), e194337-e194337.

Number	Data Element Name	Data Element Definition	Prompt: Statement Format	Prompt: Question Format	Values/Response Options	Value/Response Definition	Source	Rationale
2. Education/Training Module								
12	Core training needed to work/practice							
12.6	Bridge training	Some health worker groups more commonly rely on bridge training. This data element captures whether that was a part of a health worker's education.	Bridging Program Completion: Completion of a program designed to bridge the training, education, skills, and knowledge of internationally educated professionals to meet registration requirements in province of registration; Year of Completion of Bridging Program: the year the bridging program was completed	Did you take bridge training? If yes, where (institution) and when (year of completion)?	Bridging Program Completion: "Yes", "No", "Not Applicable" and "Unknown"; Year of Completion of Bridging Program: 4 digit value of the format "YYYY"; values of the same digit length representing "Not Applicable" and "Unknown"		HPDB - adapted	If an individual received bridge training, this is particularly important for some health worker groups in understanding their education pathway.
13	Additional skills relevant to your work/practice							
13.5	Qualified to educate other health workers	Enables planners to understand the capacity in the education/training system	Qualified to educate other health worker	Are you qualified to educate other health workers?	"Yes", "No", "Unknown"			Enables planners to understand the capacity in the education/training system

Number	Data Element Name	Data Element Definition	Prompt: Statement Format	Prompt: Question Format	Values/Response Options	Value/Response Definition	Source	Rationale	Rationale - example from literature
Identification information is important for high usability and interoperability of data, merging across sources, and reducing response burden if answers are tracked over time. However, there are also potential risks to identification related to security and protection of personal information to consider. There are many techniques used to combat bad actors which should be considered in handling this type of data.									
3. Identification Module									
a) Identification & Registration									
14. Unique Identifier									
14.1	Unique Identification Number	UIN is in square brackets here to be replaced with the UIN of choice (e.g., SIN, MINC, OMAF, CPSPID, CHIP billing #, NURS'YS). An individual's unique identifier (e.g., Social Insurance Number (SIN)) allows for high interoperability with opportunities to link with other data sources. In a case where the data collector does not want to use the international standard (SIN), then another other available unique identification number (UIN) could be captured in place of this variable. Ideally the number used would be one that would allow for linkages with other data sources beyond a single data collector. If a UIN is not collected, we strongly recommend including other information which can be used to identify individuals across data sources.	Unique identification number (UIN)	What is your [unique identification number]?	Unique identification number	If using SIN, it is 9-digits	HPDB/WHO - adapted	An equivalent to the SIN is used in many OECD countries when collecting this type of information in order to increase interoperability, ultimately leading to better modeling and analyses for data-driven decision-making. SIN would allow for higher usage of the data and improvements to data quality relevant for health workforce planning. For instance, SIN allows for better capturing of movement of individuals outside of a singular registry to extend to movement between provinces and territories and between occupations. Although SIN is suggested as the international standard, in the absence of SIN, using a form of a unique identifier that can track an individual at least within a given registry will allow for substantial reduction in participant burden when responding to annual data collection surveys/questionnaires. Data that is timelapse or could be verified for those without changes year to year could be utilized, ultimately reducing the number of data elements requested year-by-year. Unique identifier: Algorithm based on combination of variables, generated by a computer application. Various identification numbers are recorded at the time of registration in compliance with privacy policies. Storage of multiple identification numbers will assist in resolving issues that might arise due to duplicate records. It is also advised to maintain data on Date of issue, Date of expiration, and Place of issue for all types of ID recorded in the registry. It is strongly recommended that all individuals registered in the system are uniquely identified. A unique identification number may serve as an important record link key within the HRHIS. As such, efforts must be made to define the UIN appropriately. If a UIN or national identification number is not available, details of at least two other forms of ID (e.g., driver's license number, social security number, income tax number, national passport number) need to be collected to truly be able to validate the records.	Gupta, N., Diallo, K., Zum, P., & Del Poz, M. R. (2003). Assessing human resources for health: what can be learned from labour force surveys? <i>Human Resources for Health</i> , 1, 1-16.
14.2	Full name	Considered as a Core data element in the absence of a Unique Identification Number. [*Note that this data element was added back into the module more recently and still requires some details to be added.]	Full name	What is your full name (last, middle, first)	Separate text fields for last, middle, first name.		HPDB/WHO - adapted	In the absence of a UIN, full name aids in connecting multiple data streams [Many sources use this for linking. Specific example pending.] for improved collective data for health workforce planning.	
15. Licensure/Registration(s) (for up to 3 distinct concurrent registrations)									
15.1	Registration number	For health workers belonging to a licensed/registered profession, then this data element would capture the licenseregistration number(s).	health worker Provincial/Territorial Registration Number(s)	What is your provincial/territorial registration number (list all)?	Numeric, blank, allow for multiple responses	Multiple response options allow for those who have multiple licenses to respond fully to this question.	Multiple	A registration number allows for better tracking within a given registry. In the case where SIN or other unique identifier is available, the licensate number may not be necessary; this is dependent on available data and linkage opportunities by health worker group.	Simkin, S., Chamberland-Rowe, C., & Bourgeault, I. L. (2021). An integrated primary care workforce planning toolkit at the regional level (part 2): quantitative tools compiled for decision-makers in Toronto, Canada. <i>Human Resources for Health</i> , 19, 1-11.
15.2	Registration status	The class of license/registration issued to a health worker by a regulatory body or other professional association at the time of registration or renewal.	health worker registration status	What is your registration status?	Active, full; Active, other; inactive; Not applicable	Whether an individual is active and fully registered, active but not fully registered (e.g., provisional), or inactive in regards to a registry. Not applicable to those working in a health worker group without a regulatory body (e.g., PSW).	HPDB/WHO	This provides insight into the ability of a health worker to work to their fullest capacity under a specific regulatory body and jurisdiction.	Ariste, R. (2019). Availability of health workforce in urban and rural areas in relation to Canadian seniors. <i>The International journal of health planning and management</i> , 34(2), 510-520.
15.3	Issuing institution(s) in last 12 months	Institution(s) that the health worker was licensed/registered with in the last 12 months	Issuing institution(s) in last 12 months	What are your issuing institution(s) in the last 12 months?	Blank OR dropdown OR type and fill with specific options dependent on health worker type (e.g., The College of Nurses of Ontario); Not Applicable, Unknown		HPDB	This captures all regulatory institutions to which a health worker is registered.	Ariste, R. (2019). Availability of health workforce in urban and rural areas in relation to Canadian seniors. <i>The International journal of health planning and management</i> , 34(2), 510-520.
b) Demographic Information Module									
16. Age									
16.1	Date of birth	health worker's date of birth	health worker's date of birth	What is your date of birth?	YYYYMMDD	Date of birth.	WHO	Allows for analyses to include age of the workforce. Full date of birth allows for data interoperability in combination with name in the case where a unique identifier is not present. If privacy limits ability to collect full date of birth, then the data collector should consider collecting year of birth and note the more limited linkage capabilities with other data.	Wang, C., & Sweetman, A. (2013). Gender, family status and physician labour supply. <i>Social Science & Medicine</i> , 94, 17-25.
17. Gender									
17.1	Gender identity	*Gender refers to the socially constructed roles, behaviours, expressions and identities of girls, women, boys, men, and gender diverse people. It influences how people perceive themselves and each other, how they act and interact, and the distribution of power and resources in society. Gender identity is not confined to a binary (girl/woman, boy/man) nor is it static; it exists along a continuum and can change over time. There is considerable diversity in how individuals and groups understand, experience and express gender through the roles they take on, the expectations placed on them, relations with others and the complex ways that gender is institutionalized in society" - Canadian Institutes of Health Research (CIHR). (2024). Gender and Health: What is gender? What is sex? Accessed from: https://doi.org/10.26107/2024.01	Gender identity (select all that apply)	What is your gender identity (select all that apply)?	Woman; Man; Non-binary; Prefer not to disclose	Options allow for multiple responses beyond the binary (Woman/Man).	Racism in Nursing Survey	Gender identity is an important EDI component. Shifts regarding who is providing care cannot be reported on without capturing this type of data. The degree to which health worker demographics match patient populations is an example of one way in which this data element represents an important element of care. There is always an option to not respond due to sensitivity of gender; the option of 'prefer not to say' is an important inclusion.	Gender (or sex, where gender is unavailable) is often included in health workforce research. E.g., Kralj, B., Islam, R., & Sweetman, A. (2024). Long-term trends in the work hours of physicians in Canada. <i>CMAJ</i> , 196(11), E369-E376. Wang, C., & Sweetman, A. (2013). Gender, family status and an important element of care. There is always an option to not respond due to sensitivity of gender; the option of 'prefer not to say' is an important inclusion.
18. Languages									
18.1	Language ability	Ability to provide services in language (including reading, writing, speaking).	Ability to provide services in language (including reading, writing, speaking)	What language(s) would you be able to provide services in (including reading, writing, speaking)?	Blank OR dropdown OR type and fill; Not Applicable; Unknown		HPDB	To assess the language capabilities of health workers, and determine availability of care in specific languages (e.g., American Sign Language, French)	Simkin, S., Chamberland-Rowe, C., & Bourgeault, I. L. (2021). An integrated primary care workforce planning toolkit at the regional level (part 2): quantitative tools compiled for decision-makers in Toronto, Canada. <i>Human Resources for Health</i> , 19, 1-11; Lum, L., & Vu, J. (2020). How Official Language and Country of Origin Impacts Health Workforce Integration in Canada. <i>Medical Research Archives</i> , 8(6).
19. Race, national or ethnic origin									
19.1	Race, national or ethnic origin	The health worker's Race, national or ethnic origin group(s). Race is a social construct used to characterize people based on perceived physical differences (e.g., skin colour, facial features).	The health worker's Race, national or ethnic origin group(s) (select all that apply)	What Race, national, or ethnic origin group(s) do you belong to (select all that apply)?	Black (African descent); Afro-Caribbean; African Canadian descent); East Asian (Chinese, Korean, Japanese, Taiwanese racial/national/ethnic dimensions); First Nations, Inuit, Latino (Latin American, Hispanic descent); Metis; Middle Eastern (Arab, Persian, West Asian descent (e.g., Afghan, Egyptian, Iranian, Lebanese, Turkish, Kurdish); South Asian (South Asian descent (e.g., East Indian, Pakistani, Bangladeshi, Sri Lankan, Indo-Caribbean); Southeast Asian (Filipino, Vietnamese, Cambodian, Thai, Indonesian, other Southeast Asian descent); White (European descent); Do not know; Prefer not to answer	Including the 'select all that apply' option allows for multi-dimensional	Adapted from Racism in Nursing Survey	Race, national, or ethnic origin is an important EDI component. Shifts regarding who is providing care cannot be reported on without capturing this type of data. The degree to which health worker demographics match patient populations is an example of one way in which this data element represents an important element of care. The option of 'prefer not to say' is an important inclusion.	Wang, C., & Sweetman, A. (2013). Gender, family status and physician labour supply. <i>Social Science & Medicine</i> , 94, 17-25; Simkin, S., Chamberland-Rowe, C., & Bourgeault, I. L. (2021). An integrated primary care workforce planning toolkit at the regional level (part 2): quantitative tools compiled for decision-makers in Toronto, Canada. <i>Human Resources for Health</i> , 19, 1-11.

19.2	Indigenous Identity	Statistics Canada defines Indigenous identity in the following text: "Indigenous identity refers to whether the person identified with the Indigenous peoples of Canada. This includes those who identify as First Nations (North American Indian), Métis and/or Inuit (Inuit), and/or those who report being Registered or Treaty Indians (that is, registered under the Indian Act of Canada), and/or those who have membership in a First Nation or Indian band. Aboriginal peoples of Canada (referred to here as Indigenous peoples) are defined in the Constitution Act, 1982, Section 35 (2) as including the Indian, Inuit and Métis peoples of Canada." (https://www23.statcan.gc.ca/indb/p3/Var.pl?Function=DECC&id=42927) [NOTE: we continue to work on this definition.]	Identify as Indigenous	Do you identify as an Indigenous person?	Yes; No; Unsure; Prefer not to say	Racism in Nursing Survey	Indigenous identity is an important EDI component. However, this data should be collected with specific consideration of separating Indigenous data and considerations of ownership as relevant to the jurisdiction. We strongly recommend that data collection, verifications, storage, and knowledge mobilization using this data element be conducted in partnership with Indigenous authorities and communities. It is important to capture because changes regarding who is providing care cannot be reported on without capturing this type of data. The degree to which health worker demographics match patient populations is an example of one way in which this data element represents an important element of care. The option of 'prefer not to say' is an important inclusion.	Simkin, S., Chamberland-Rowe, C., & Bourgeault, I. L. (2021). An integrated primary care workforce planning toolkit at the regional level (part 2): quantitative tools compiled for decision-makers in Toronto, Canada. Human Resources for Health, 19, 1-11.
20	Citizenship/Immigration							
20.1	Place of birth	Captures a health worker's place of birth.	Place of birth	Where were you born?	If "Born in Canada" choose province: "N.L.", "P.E.I.", "N.S.", "N.B.", "Quebec", "Ontario", "Manitoba", "Sask.", "Manitoba", "Alberta", "B.C.", "Yukon", "N.W.T.", "Nunavut". If "Born outside Canada" blank space to "specify country"	StatCan: 2021 Census	Capturing place of birth is an important element that allows health workforce planning initiative to better understand trajectories of incoming health workers.	Wang, C., & Sweetman, A. (2013). Gender, family status and physician labour supply. Social Science & Medicine, 94, 17-25.; Dumont, J., et al. (2008). "International Mobility of Health Professionals and Health Workforce Management in Canada: Myths and Realities", OECD Health Working Papers, No. 40. OECD Publishing, Paris. https://doi.org/10.1787/228478636331 ; Lum, L., & Vu, J. (2020). How Official Language and Country of Origin Impacts Health Workforce Integration in Canada. Medical Research Archives, 8(6).
20.2	Current citizenship status	Captures whether a health worker has citizenship status in Canada.	Current citizenship status in Canada	Do you have current citizenship status in Canada?	"Canada", "Other: [dropdown menu with all options/type and fill]"	StatCan: 2021 Census	Citizenship status is an important element that allows health workforce planning initiative to better understand trajectories of incoming health workers.	Dumont, J., et al. (2008). "International Mobility of Health Professionals and Health Workforce Management in Canada: Myths and Realities", OECD Health Working Papers, No. 40. OECD Publishing, Paris. https://doi.org/10.1787/228478636331 ; Lum, L., & Vu, J. (2020). How Official Language and Country of Origin Impacts Health Workforce Integration in Canada. Medical Research Archives, 8(6).
21	Disability							
21.1	Disability status	Refers to a person whose daily activities are limited as a result of an impairment or difficulty with particular tasks.	Disability status	Do you identify as a person with a disability?	Yes; No; Unsure; Prefer not to say	StatCan: Canadian Community Health Survey Annual Component 2023	As the health of the health workforce is of critical importance to supply, capturing disability status is an important EDI element. There is always an option to not respond due to sensitivity; the option of 'prefer not to say' is an important inclusion.	Loewen, S. K.; Ruan, Y.; Wu, C. H. D.; Arlin, A.; Kim, M.; Bashir, B., ... & Stuckless, T. (2024). Supply and Demand for Radiation Oncologists in Canada: Workforce Planning Projections From 2020 to 2040. International Journal of Radiation Oncology* Biology* Physics, 119(3), 756-770.
22	Household/Family							
22.1	Postal code of primary residence	Postal code of primary residence	Postal code of primary residence	What is the postal code of your primary place of residence?	6-digit postal code; Unsure; Prefer not to say	Primary Postal Code of Residence: 6 or 5 character string value, standard postal code or zip code format "XXXX-XX" (Canada) and "YYYYYY" (US), may also want to include values of the same length for "Unknown", "Not Applicable" (i.e. if inactive registration), and "Outside Canada/US"; Primary Province or Territory or State of Residence: 2 character string value representing Province/Territory/State codes, may also want to include values of the same length for "Unknown", "Not Applicable" (i.e. if inactive registration), and "Outside Canada/US" (see note);	HFDB	Can be used with the postal code of practice to analyze where professionals/Artists, R. (2019). Availability of health workforce in urban and rural areas in work compared to where they live. Also measures the regional distribution of healthcare professionals within Ontario, and the number of professionals and management, 34(2), 510-620. relation to Canadian seniors. The International journal of health planning that live outside of Ontario (i.e., other provinces/territories, the US, and countries outside Canada/US). In the absence of a common unique identifier, postal code can be used to help generate one-to link to other databases. Having a data element for postal code allows for a variety of aspects to be captured within a single data element versus individually asking about province, city/town of residence, urban/rural.

Number	Data Element Name	Data Element Definition	Prompt: Statement Format	Prompt: Question Format	Values/Response Options	Value/Response Definition	Source	Rationale
3. Identification Module								
a) Identification & Registration								
14.	Unique Identifier							
14.3	Former name	Only required in absence of a unique identifier in the section above. For a person in the registry, Full name refers to a combination of last name (surname/family name), first name (forename), middle name, maiden name (when applicable), and any other names that appear in original national identification documents. Each name may be up to 16 characters in length. Other characters as nationally and linguistically appropriate may be permitted. The Full name must match fully with the primary document reviewed at the creation of the record. This data element needs to be authenticated through original verifiable source documents at the time of record creation. It is also important to use this data element while capturing names of employees; the names of the employee's mother, father and guardian(s), and their emergency contact, must also be captured. In addition, it is important to capture previous names and name changes. For example, it is important to verify that names given at registration with professional health councils are the same as the names in the registry. Any change of name(s) during the course of the person's life must be appropriately updated. This is especially important for documenting any potential disciplinary actions and follow-up action with the professional health councils. This data element is only necessary if a unique identifier is unavailable. In the case where a unique identifier is unavailable, then this becomes a "Core" data element.	Former name (if applicable)	What is your former name (if applicable)?	Other name	Other name. String; Alpha characters with permissible special characters including hyphen and period	WHO - adapted	This data element is only necessary if a unique identifier is unavailable. In the case where a unique identifier is unavailable, then this becomes a "Core" data element.
15.	Licensure/Registration(s) (for up to 3 distinct concurrent registrations)							
15.4	Initial year and month of registration	Year and month of health worker initial licensure/registration	Year and month of initial licensure/registration	When were you first licensed/registered?	YYYYMM; Not Applicable; Unknown	4 digit value of the format "YYYYMM" representing the year and HPDB month; "Not Applicable" (i.e. for those not registered yet, e.g. students); "Unknown"		Allows for additional information relevant for understanding health worker history in the licensed/regulated profession.
15.5	Date of expiration	Expiration date for each license/registration within a given institution	Date of expiration, by institution	When does your registration expire for each institution?	YYYYMMDD; Not Applicable; Unknown	Year, month, and date of expiration. Options for not applicable and unknown included.	WHO	Allows for additional information relevant for understanding future health worker behaviour around licensure/registration.
15.6	Past issuing institution(s)	All past issuing institution(s) to which the health worker has been licensed/registered.	Past issuing institution(s)	What are your past issuing institution(s)?	Blank OR dropdown OR type and fill with specific options dependent on health worker type (e.g., The College of Nurses of Ontario); Not Applicable; Unknown		HPDB - adapted	Examines where a health worker was previously able to provide services.
b) Demographic Information Module								
17	Gender							
17.2	Non-binary	Captures additional details regarding non-binary gender categories.	Titles of gender identity within Non-binary (select all that apply)	If you selected a Non-binary gender identity, then which of the following titles do you identify with (select all that apply)?	Fluid, Agender, Queer, Two Spirit, Gender Neutral, Neither Man nor Woman, Gender-nonconforming, Unknown; Prefer not to disclose, Not applicable	Options allow for multiple representations within Non-binary.	Racism in Nursing Survey	There are many groups represented within the non-binary categorization and this data element allows data collectors to capture more detailed gender responses applicable to this group.
18	Languages							
18.2	Language preferences	Ability of the person in the registry to read, write and speak one or more languages.	Preference to conduct work by reading, writing, or speaking in a given language	What language(s) would you prefer to communicate by reading, writing, or speaking for work?	Blank OR dropdown OR type and fill; Not Applicable; Unknown		WHO - adapted	To assess the language preferences of health workers, and determine availability of care in specific languages (e.g., American Sign Language, French)

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