Strengthening Canada's Health Workforce: The Role of Pan-Canadian Data

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Abstract

The health workforce is the lifeblood of the Canadian health system. Comprehensive data is essential to inform policy and resources allocation and to address care gaps. While data collection challenges exist, Canadian Institute for Health Information's (CIHI's) new health workforce data standards and the establishment of Health Workforce Canada strive to improve data quality. Using findings from *The State of the Health Workforce in Canada, 2023* report, this article provides insights into Canada's health workforce and underscores the value of enhancing Canada's data collection and reporting. Strengthening health workforce data will drive improvements, fostering a healthier population and a sustainable health workforce.

The Health Workforce Landscape in Canada

The health workforce comprises diverse professions across multiple sectors, each playing a vital role in delivering care. Ensuring an adequate and sustainable supply of skilled health workers requires accurate, reliable and comparable data. While Canada has made significant progress advancing the collection and reporting of health workforce data, challenges remain to paint a truly comprehensive, pan-Canadian picture of the health workforce.

To address data quality and comparability challenges and support health workforce planning, the Canadian Institute for Health Information (CIHI) modernized its Health Workforce Information Minimum Data Set (HWI-MDS) data standard (CIHI n.d.b) in 2022. The modernized data standard captures record-level data across five categories: registration, demographics, geography, education and employment. The standard ensures consistency in collection and agreement on definitions and is applicable across healthcare provider groups.

The following section presents select findings from the *State of the Health Workforce in Canada, 2023* (CIHI 2024e) report, providing insight into the data captured through current collection methods and exploring the potential of the HWI-MDS (CIHI n.d.b) to strengthen and enhance health workforce data in Canada.

The State of the Health Workforce in Canada

In December 2024, CIHI released its latest *State of the Health Workforce in Canada* (CIHI 2024e) report with a special focus on primary care. Primary care is a key pillar of Canada's health system. With an increasingly diverse network of healthcare providers delivering primary care (e.g., family physicians, nurse practitioners, other regulated nurses, occupational therapists, physiotherapists, pharmacists, social workers, dietitians, midwives, paramedics, psychologists and psychotherapists), understanding trends in supply, distribution and composition of the various providers is essential to inform policy and strategies for proper planning, management and delivery of health services.

Supply: demographic composition

Canada's population is growing increasingly diverse. According to the 2021 census, approximately 16% of the Canadian population identified as a racialized group, and 2.2 million people reported Indigenous ancestry (Statistics Canada 2022). Knowing the total supply and demographic composition of the health workforce allows health planners and administrators to plan for an equitable and sustainable health workforce (CIHI 2022).

Prior to the 2022 HWI-MDS, demographic reporting was limited to age and sex at birth. The updated HWI-MDS has expanded its demographic data collection to capture new variables, including gender, racialized group and Indigenous identity. The addition of these variables will allow policy and decision makers to answer questions related to inequities that exist in Canada's healthcare system and determine whether Canada's health workforce has the capacity to support diverse population needs (CIHI 2023).

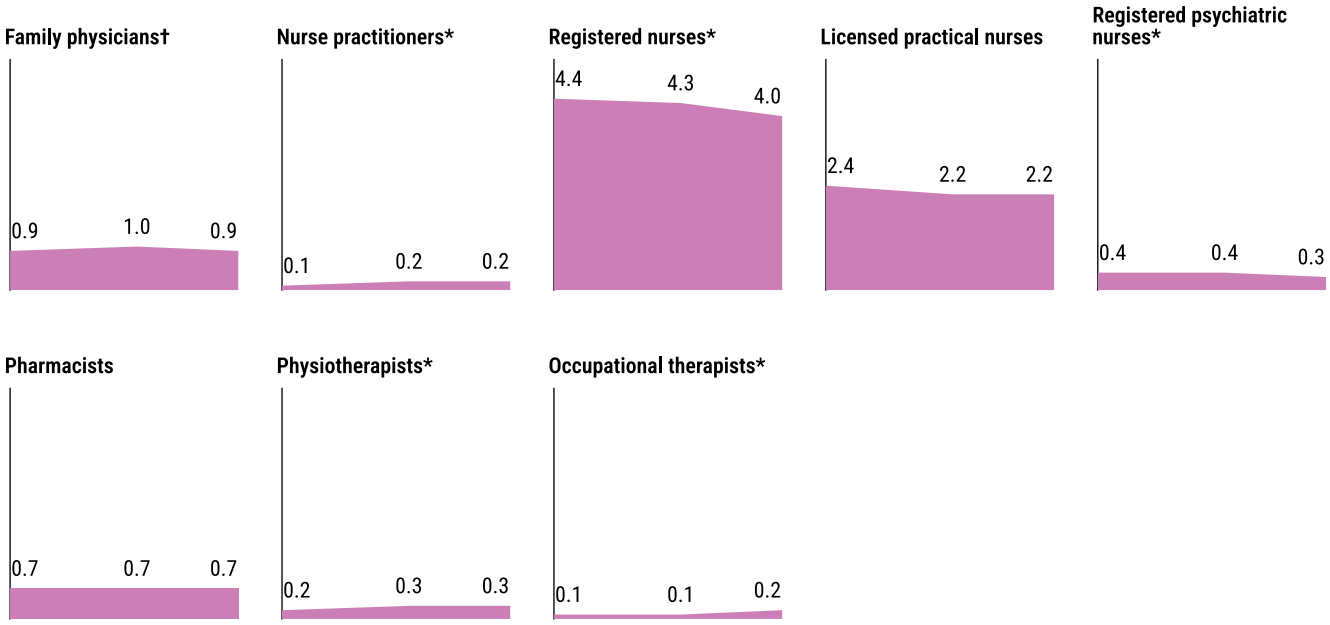
Distribution: urban versus rural

People living in rural/remote areas may experience less access to care compared with those living in urban areas; furthermore, the density of health workers in rural/remote areas is often lower than in urban areas (Clark et al. 2021). As shown in Figures 1 and 2, the density of registered nurses in rural/

remote areas (4.0 per 1,000 rural/remote population, or 40 per 10,000 population) was less than half the density in urban areas (80.5 per 10,000 urban population) in 2023 (CIHI 2024b). In addition, rural physicians often serve multiple roles, providing both primary and emergency care in settings such as the emergency department (CIHI 2024a).

Current findings primarily rely on supply data, offering only a partial understanding of the geographic distribution of the health workforce. Expanding data collection is necessary to gain a more comprehensive picture. The 2022 HWI-MDS introduces new variables, such as the organization identifier, which identifies a provider's primary site of practice and expands on the previously collected place of work variable, allowing providers to report up to three work locations – while previously being able to report only one. Collecting this additional information will facilitate a clearer understanding of healthcare workforce distribution and workplace locations, supporting more effective resource planning and allocation, including efforts to address healthcare access in rural areas.

FIGURE 1.
Number of rural/remote healthcare providers per 1,000 rural/remote population in 2014, 2019 and 2023



†Family physician data for 2023 were not available; data for 2022 are presented instead. Family physician data exclude Prince Edward Island, Quebec, Saskatchewan, Alberta, the Yukon, the Northwest Territories and Nunavut (included data cover about 60% of family physicians). *Denotes statistical significance ($p < 0.025$) using the Mann-Kendall trend test.

Composition: internationally educated health providers

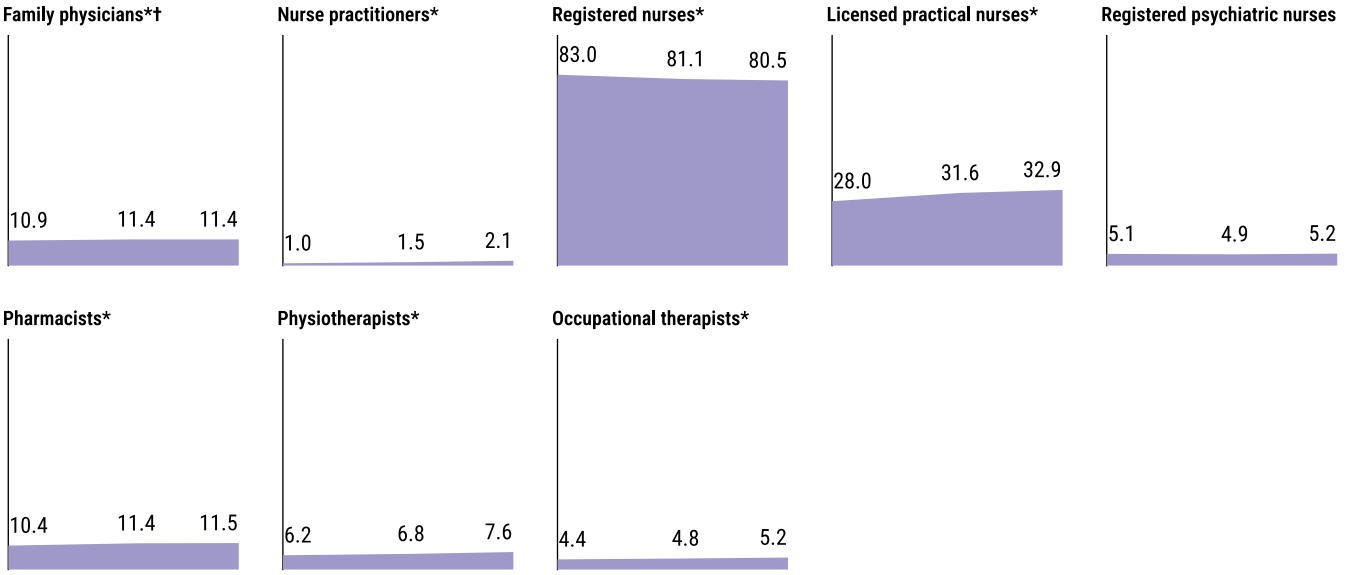
Internationally educated healthcare providers (IEHPs) have long been a part of Canada's health workforce. IEHPs may enter Canada's health workforce through various pathways based on their profession and the jurisdiction in which they seek to practice.

In 2023, nearly 14% (n = 84,083) of healthcare workers in Canada were internationally educated. Over the past 10 years, the number of internationally educated family physicians remained stable, while almost all other professional groups saw an increase, the highest being among registered nurses, licensed practical nurses, pharmacists and physiotherapists. As Canada's population continues to grow and the complexity of care increases, reliance on a greater number of IEHPs may be required (CIHI 2024c).

To ensure equitable access to healthcare services, it is essential to recognize Canada's diverse population and consider needs, such as language requirements, to support ongoing improvements in care delivery. The updated HWI-MDS now collects data on up to three languages in which a provider can deliver services – an advancement, as previously, no language collection was conducted. This data will be crucial for facilitating effective communication between patients and providers, which can reduce unintended harm and promote improved health outcomes and patient safety (CIHI 2024d).

Language data can also inform strategic workforce placement of IEHPs by aligning providers' language abilities with the needs of various regions, addressing the needs of patients who may have difficulty communicating in Canada's official languages (CIHI 2024d).

FIGURE 2.
Number of urban healthcare providers per 10,000 urban population in 2014, 2019 and 2023



*Denotes statistical significance ($p<0.025$) using the Mann-Kendall trend test, †Family physician data for 2023 were not available; data for 2022 are presented instead. Family physician data excludes Prince Edward Island, Quebec, Saskatchewan, Alberta, the Yukon, the Northwest Territories and Nunavut (included data covers about 60% of family physicians).

Advancements in Pan-Canadian Health Workforce Data

Comprehensive, standardized, pan-Canadian data is required to effectively plan and manage the supply and sustainability of the Canadian health workforce. This article presents findings based on the most recent data available under the existing standard. While the existing standard provides essential information, the updated HWI-MDS will provide deeper insights to address health system challenges. Interest in the standard is strong, and adoption and implementation by data partners continue to grow rapidly. Stay tuned for future releases posted to CIHI's Health Workforce webpage (CIHI n.d.a) in 2025 that incorporate newly acquired HWI-MDS data.

Pan-Canadian adoption of the standard, along with the establishment of Health Workforce Canada (HWC 2024), promises to improve strategic planning, policy and decision making by delivering high-quality, comparable and linkable health workforce data. No one organization or government can solve this problem alone – it will take collective action and quality data to make a meaningful difference when it comes to Canada's health workforce. HQ

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