

# **The Medical Workforce Knowledgebase: A foundation for data, analysis and discussion about the medical workforce**

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## **Purpose of study**

There have been repeated calls to produce a physician workforce that meets the needs of Canadians. While these calls promote the right number, mix and distribution of physicians, relatively little has been done to integrate key data that informs planning, and helps to evaluate progress toward intended workforce goals. With initial development focusing on supply indicators, the Medical Workforce Knowledgebase brings together relevant data and synthesizes these to identify potential areas of workforce reduction or expansion. The conclusions can serve as a resource to support physician workforce decision-making and research.

## **Methods**

The Knowledgebase uses five authoritative data sources to produce six physician supply indicators. Canadian Resident Matching Service data is used to report the number of residency positions. Canadian Post-M.D. Education Registry data provides the number of physicians entering residency training. The Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada provide data on newly certified specialists. The Canadian Institute for Health Information provides supply and age data on all active physicians in Canada. Together, these sources provide several comprehensive data snapshots along the physician workforce supply chain. The most recent 3-5 years of data is used to measure temporal workforce change.

## **Key findings**

Knowledgebase statistics cover thirty-two primary specialties, grouped within the broad categories of Family Medicine, Medical, Surgical and Laboratory/Pathology disciplines. Since 2010, overall physician supply has increased according to each of the six Knowledgebase indicators. Mirroring the overall trend, six specialties have grown by every measure: Family Medicine, Anatomical Pathology, Emergency Medicine, Internal Medicine, Physical Medicine and Rehab, and Psychiatry. For example, Psychiatry has seen a 7% increase in the number of residency positions, a 13% increase in the number of entry level trainees, a 75% increase in the number of new certificants and an 11% increase in the size of the active Psychiatrist workforce. In contrast, for 26 of 31 (84%) medical, surgical and laboratory specialties, one or more supply indicators show signs of possible workforce decline. Surgical disciplines have seen some of the most significant reductions. For example, the number of Orthopedic Surgery residency positions decreased 21% since 2013 and the number of first year General Surgery trainees also decreased 21% since 2010.

## **Implications**

While Canada has a wealth of physician workforce data, sources are generally fragmented and reporting is not standardized or coordinated. Moreover, recent and repeated calls to better align the physician workforce with societal need underscores the need to integrate data and produce readily-accessible physician workforce indicators. The Medical Workforce Knowledgebase centralizes physician supply data and highlights workforce changes that might, otherwise, go unnoticed. By covering a broad data spectrum – ranging from residency spots to fully licensed physicians – Knowledgebase indicators offer decision-makers relevant information for monitoring and possible course-correction. With its initial focus on supply, the Knowledgebase could evolve to cover other important factors, such as physician workload and scope of practice as well as patient needs and health outcomes.