

# **The Canadian Physician Database: A new approach to build data in support of physician workforce research, planning and decision-making**

S. A. Slade<sup>1</sup>, S. DiMillo<sup>1</sup>, C. Jacob<sup>1</sup>, D. Fr chet te<sup>1</sup>,

<sup>1</sup>Royal College of Physicians and Surgeons of Canada, Ottawa, ON;

## **Background/Rationale**

Self-report surveys have long served as a source of workforce planning information. Launched in 2004, Canada's National Physician Survey (NPS) offered timely data on a wide range of workforce planning topics. However, like many self-report surveys, NPS response rates have declined significantly. The 2004 NPS achieved an overall 36% response rate, but dropped to 16% in 2014 despite a shorter, more focused version of the NPS questionnaire. As a result the NPS was retired in 2015.

At the same time, work started on an alternative pan-Canadian data resource to support planning, research and decision-making for improved workforce policy efforts. The Canadian Physician Database is a joint initiative of the Royal College of Physicians and Surgeons of Canada, College of Family Physicians of Canada and the Canadian Medical Association in partnership with Canada's Medical Regulatory Authorities (MRAs). It builds on the long-standing National Physician Survey (NPS) partnership and responds to data and information gaps that the NPS sought to address.

## **Objectives**

The first stage of CPDB development will test the feasibility, practicality and relevance of collecting secondary data sourced from administrative databases maintained by MRAs. A cross-jurisdiction analysis and mapping of data elements will evaluate the relevance, comparability and scope of MRA data for the purposes of physician workforce research.

## **Methods**

A convenience sample of MRAs was selected to cover regulated physician populations both large and small. Initial registration and annual license renewal forms were reviewed. Study investigators reviewed forms independently to identify relevant content for comparative analysis. Core NPS tracking data was also identified using past survey questionnaires. Relevant MRA/NPS data elements were cross-referenced for data-mapping purposes and evaluated with respect to how frequently they are collected across jurisdictions, the similarity of wording used to elicit information from physicians, and the similarity of response categories.

## **Key findings**

Four MRAs participated in the CPDB feasibility study, including British Columbia, Alberta, Manitoba and Ontario. Combined, they regulate approximately 65% of Canada's total physician workforce and range in size from an estimated 2,600 in Manitoba to 30,000 licensed physicians in Ontario. The review of regulatory forms produced a total of 25 data elements for cross-jurisdiction comparison. Data elements covered six main themes, including: 1) basic demographics (e.g., age, sex); 2) medical education (e.g., MD school, credentials); 3) licensed specialty; 4) practice location (e.g., postal code, urban/rural); 5) registration status (e.g., active,retired); 6) practice description (e.g., clinical services, hospital privileges). MRA data elements map closely to NPS data elements in several information domains, including physician demographics, education, specialty and practice location. MRA data is less comparable to NPS data on work hours, on-call activity, scope of practice and use of electronic health records.

## **Conclusions**

Sourced from MRA databases, the CPDB collects data without surveying physicians anew. MRA data is relevant and comparable across jurisdictions for a number of key physician workforce research areas. While MRA data covers most NPS tracking areas, a number of gaps remain, including physician workload and scope of practice.