

# Rebuilding the primary care infrastructure one research project at a time

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If you chip away at foundation walls and remove critical supports, any structure will eventually collapse. So it should not have been a surprise when the Canadian health care system began teetering in the 1990s after its foundation, primary care, had been undermined by more than 2 decades of neglect. How did that happen? Easily. Arrogance and complacency with the belief that our system was the best in the world allowed the medical establishment, government decision makers, politicians, and the public to look away as the primary care infrastructure was critically weakened.

Then alarm bells started ringing.<sup>1</sup>

More medical students began choosing other specialties over family practice. After years of university and many thousands of dollars of debt, why become a family doctor and be unable to pay the bills? Subsequently, first contact with the medical system increasingly became emergency departments (EDs) and walk-in clinics, as Canadians could not find family doctors. Our specialist colleagues were being asked to do the job of general practitioners. When 4 million Canadians were unable to find personal physicians, politicians could no longer do nothing.<sup>2</sup> But their solution to simply spend more money was unsustainable.

International reports from such groups as the US-based Commonwealth Fund showed Canada dropping on the list of industrialized nations offering high-quality primary care. Countries that had supported and enhanced their primary care base were beating the pants off us—and doing so with much less money.<sup>3,4</sup>

## Diversion of resources

Because there were few decent measures of performance in the primary care sector, public debate focused on what was happening in our hospital system. As a result, resources for the foundation of our health system were diverted to hospitals and specialties, to “sexy” subjects the media would splash across front pages—wait times, ED lineups, and transplants. Governments expanded EDs and funded more specialists; primary care continued to crumble.

This diversion was wrong-headed. Quite simply, fewer people would need such things as heart surgery and hip replacements if excellent primary care were provided. Quadrupling the size of EDs and spending next to nothing on primary care sectors do not solve the problem. Caring for people in the ED who can be cared for in the primary care setting costs much more and the care is not as good. International research shows that countries that do not put their money into the rest of the health care system

until their primary care sectors are working properly have better outcomes: their citizens live longer and live better.

When Canada inevitably hit the bottom of the list—along with the United States—with respect to quality of primary care among industrialized nations,<sup>5</sup> everybody could finally see what was happening. The public was fed up and the government realized that the status quo was unsustainable.

We need to restore balance in the system. Specialists cannot be specialists without family doctors to care for the patient as a whole. Health care systems simply cannot work without a solid, stable foundation of primary care.

## Playing catch-up

Efforts are under way to play catch-up with our international counterparts. Indeed, a transformation is required. In the past 10 years, hundreds of millions of dollars have been invested across Canada to reform the primary care sector, from electronic health records to changes in systems of remuneration for family doctors to multidisciplinary team building to accountability requirements. But has this money been well spent? The only way to be sure is through research—studying the effects of increased funding, comparing results from jurisdiction to jurisdiction, and examining the data on patient outcomes.

In 2008, eminent US researcher Dr Barbara Starfield noted the following: “Canada seems to have stalled in its commitment to strengthening primary care. One reason for this lack of movement may be the poor investment in primary care research and evaluation. In this regard, Canada is probably at least 10 years behind.”<sup>6</sup>

Fortunately, this problem is also being addressed—the Canadian Institutes of Health Research (CIHR) has contracted a serious case of primary care-itis. In January 2010, the CIHR’s Institute of Health Services and Policy Research brought together researchers, health care professionals, administrators, and decision makers for a 2-day summit to discuss the state of primary health care research nationally and internationally and to explore innovative models that can be applied in Canada. Twelve months later, the CIHR approved a 10-year research initiative supporting the delivery of high-quality community-based primary health care across Canada.<sup>7</sup> Its objectives are to develop strong primary health care research evidence, build new research capacity, and increase consideration of research evidence by

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policy makers. As part of this initiative, the CIHR will soon be announcing \$60 million in funding for multisector and interdisciplinary primary health care research and capacity building (CIHR, oral communication, July 2011). This is more than the cumulative amount spent on the primary health care sector by the CIHR since it was created in 2000.

### Moving forward

Within months, more opportunities will become available through the CIHR's Strategy for Patient Oriented Research (SPOR), a plan to improve the research environment and infrastructure; set up mechanisms to train and mentor health professionals and nonclinicians; strengthen organizational, regulatory, and financial support for multisite studies; and support best practices in health care. Primary health care research is one of 2 priority areas targeted by SPOR.

To prepare for the SPOR competition, Canadian primary health care researchers have come together and created the Canadian Primary Health Care Research Network (CPHCRN), which was officially launched on October 3, 2011, in Edmonton, Alta, at the Accelerating Primary Care Conference. By coordinating and enabling multidisciplinary primary care research efforts across the country, the CPHCRN will improve the quality, accessibility, and cost-effectiveness of the Canadian health system. These efforts will be strengthened by the CPHCRN's strong partnerships with international researchers, all Canadian primary care disciplines, government decision makers, industry, quality councils, funding agencies, health charities, and patients.

Just as the microscope facilitated miracles in understanding infectious diseases, modern information technology

tools and new analytical techniques will unlock our understanding of what makes primary health care effective and inform us of what is needed to improve the quality and cost-effectiveness of the entire health care system.

We can now link data from patients and electronic medical records in community-based primary care practices across the country to provincial and national health administrative databases. We finally have the tools and resources to drive our discipline forward, reinforce the underpinnings of Canada's health care foundation, and rebuild our primary care system. In time, we will catch up with our international counterparts and resume our position in the world as primary care leaders.

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## Spirometry interpretation in primary care

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The role of spirometry in primary care continues to evolve with increasing peer-reviewed support for its use as a diagnostic and therapeutic tool.<sup>1,2</sup> Despite the availability of affordable hand-held spirometers, spirometry remains largely underused in primary care.<sup>3</sup> Barriers to implementation include time constraints, quality control, and the challenges of interpreting spirometric data.<sup>2</sup>

In this issue of *Canadian Family Physician*, members of the Primary Care Respiratory Alliance of Canada discuss how 2 different spirometry interpretation algorithms influence interpretation of the same spirometric data and how this can lead to disease misclassification (pages 1148 and 1153).<sup>4,5</sup> The articles describe a new algorithm that builds on principles of an existing algorithm endorsed by the Ontario Thoracic Society,<sup>4</sup> and critically appraise the older algorithm to highlight some important limitations and inconsistencies with current guidelines on asthma and chronic obstructive pulmonary disease management.<sup>6,7</sup> Caregivers can use the new algorithm as a stand-alone

document to manage patients with respiratory complaints, with a view to minimizing disease misclassification.

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