How many doctors do we actually need?

■ Cite as: CMAJ 2018 October 1;190:E1175-6. doi: 10.1503/cmaj.109-5646

Posted on cmajnews.com on Sept. 11, 2018.

n many parts of Canada, there is a shortage of doctors. The New Brunswick Medical Society, for example, says the province has 39 vacancies for family physicians and 50 new positions are needed to meet demand. In British Columbia, family medicine is in "crisis mode" with shortages across the province, says Dr. Shelley Ross, cochair of Doctors of BC's general practice service committee.

"We used to talk about shortages in rural areas; now it's across urban areas too," she says. "We are short 30 doctors just in Burnaby."

But deciding how many doctors a region actually needs is a tricky business, says Arthur Sweetman, a health economist at McMaster University. For one thing, the

rules of supply and demand don't really apply in a universal health care system. "You can forget supply and demand in the Canadian context," he says. "If the price is zero, people will want a lot." So the government constrains supply to control demand.

Calculating what that supply should be is not straightforward. "There is no single accepted method. Academics have many ways of calculating it, and some are used by governments, but political and money considerations come into it," says Sweetman.

One method is the needs-based assessment, in which experts estimate the burden of disease in a population and figure out how many doctors are needed to treat those patients based on best practice guidelines. But those guidelines change all

the time, and the assessment tends to throw up numbers that no jurisdiction in the world can reach. Even France, which has an oversupply of doctors, doesn't come close, says Sweetman.

Another system is the service-target approach, in which jurisdictions determine how many doctors per capita they have compared to neighbouring regions or countries, and how many hours of service those doctors are providing. But, as the trend over the past 20 years or so has been for doctors to provide fewer hours of service, "you need a whole pile of new physicians to keep up with declining hours," says Sweetman. According to Ross, it takes 2.5 new doctors to replace one older physician in BC because of this trend.



How many doctors are enough doctors for a region? It's complicated.

Most health ministries, says Sweetman, use a marginal approach, looking at what the situation was last year and deciding whether more doctors are needed based on demographic trends, such as an aging population.

In the end, each approach is used to varying degrees. To arrive at its target of 50 new doctors, for example, the New Brunswick Medical Society compared the number of residents without family physicians (around 50 000) to the average size of a doctor's patient pool in the province (1000–1200), says Anthony Knight, the society's chief executive.

Simply increasing the number of medical students will not solve the immediate problem though, because of the time it takes to train new physicians. And the num-

bers are restricted by the number and type of residency positions available. Both New Brunswick and British Columbia are recruiting doctors from other provinces, as well as Canadian physicians trained abroad and immigrants. But they are also focused on developing innovative approaches to primary care to make the best use of the doctors they already have. "New doctors don't want to work 24-7. They want to work in teams. They want to be paid differently," says Ross.

In BC's system of primary care networks, doctors and other health care professionals are grouped in teams, allowing them to spend more time with patients and less on paperwork, says Ross. In New Brunswick, physicians are beginning to share patients using elec-

tronic medical records and offering phone visits and online scheduling. "Changes to the primary care model have seen wait times go from four weeks to two days," says Knight. "It all contributes to more rapid access."

This trend of integrated teams of health care practitioners makes the question of how many doctors are needed even more complicated, says Sweetman. "When doctors provided all services, the question used to be, how many doctors do you need? Now it's how many health care practitioners and teams do you need to deliver those services," he says. "As scopes of practice change, how many people you need changes."

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