

Population rises dramatically but number of med-school applicants remains stagnant

Barbara Sibbald

Since 1976, Canada's population has grown by 30%. In the same period, the number of applicants to Canadian medical schools has grown by 0%, having hovered around the 7500 mark for 24 years. However, the number may finally start growing again if governments accept a call by the CMA and a coalition of other medical bodies for a 28% increase in first-year undergraduate enrolment at Canada's 16 medical schools. First-year enrolment currently stands at about 1580 students. Under the Canadian Medical Forum's plan, which is a direct response to the country's perceived physician shortage, this would rise to 2000 students this year. According to some estimates, there is already a shortfall of about 1000 new physicians every year.¹

Dr. David Hawkins, executive director of the Association of Canadian Medical Colleges (ACMC), says a wealth of data provided in the ACMC's Canadian Medical Education Statistics 1999 are portents of a potentially serious physician shortage. The data include information on escalating tuition fees, applicants' age and sex, and the ratio of accepted to nonaccepted applicants.

In 1998/99, approximately 1 in 5 applicants (1582) were admitted into medical school, a proportion that has remained fairly constant since 1984. However, between 1973 and 1983 25% of applicants were accepted, and before that nearly half were admitted.

Hawkins says the percentage of successful applicants will only change if the number of first-year positions increases, and he's hopeful it will. In 1999, for instance, Quebec created 65 new first-year positions at its 4 medical schools. Hawkins notes that no other profession is actively trying to increase undergraduate enrolment.

Enrolment in most professions has remained relatively stable through this decade, although there were some notable exceptions. For instance, enrolment in university-based computer science courses increased by 85% between 1990 and 1997, jumping from 8100 to 15 000 students. During the same period, first-year enrolment at medical school fell by more than 13%.

Escalating tuition fees may offer one explanation for the stagnant number of medical school applicants. Since 1994, average first-year medical school tuition for a Canadian citizen has nearly doubled, from \$3217 to \$6476. "There is great concern that entry into medicine will become limited to the well-off," warns Hawkins.

But Herb O'Heron says medicine is not the only profession faced with escalating tuition fees. O'Heron, senior analyst with the Association of Universities and Colleges of Canada, says fees are rising across the country and have nearly doubled in Ontario since 1994. The difference, he says, is that the increase in medical school fees occurred more rapidly because of actions by individual schools.

The types of students applying are also changing. Between 1977 and 1998, about 85% of applicants were aged between 19 and 28, but the number of applicants 29 or older increased by 57%, to 13% of the total; the proportion aged 19 and younger decreased by 37%. This makes medicine an exception, says O'Heron, because generally Canadian undergraduates have been getting younger. Hawkins says these data offer a warning, because the older the student, the shorter the medical career. "It all affects supply," he says.

The ACMC data indicate that more women have applied to medical school than men since 1991. In 1998, 3667

women and 3326 men applied. That year, 48.4% of the 1604 new doctors produced were women, compared with 25% in 1976 and 4% in 1940.

This mirrors trends in other areas. In the last 20 years, says O'Heron, 75% of the growth in undergraduate enrolment is attributable to women. Between 1972 and 1997, enrolment increased by 211% for women and 166% for men.

The growing number of female physicians may affect the supply because their practice patterns are different from those of men. However, O'Heron says it would be simplistic to conclude that this will adversely affect physician supply. "It's not all bad if more time with a patient means fewer visits in the end," he says.

Hawkins thinks it's too early to tell whether the pendulum will eventually swing completely to the point where female physicians vastly outnumber male ones. "Over the past 2 decades there have been 2 trends: women are more comfortable doing almost anything, and medicine is not as attractive as it once was to men." The profession has become a bit "beleaguered" by the media, he says, and other professions, such as computer science or business, are becoming more attractive.

He notes that Canada is not alone in facing these trends. The number of medical school applicants in the US declined by 4.7% in 1998, to 41 004 applicants; women accounted for 43.4% of that total.

Barbara Sibbald is CMAJ's Associate Editor, News and Features.

Reference

1. Sullivan P. Concerns about size of MD workforce, medicine's future dominate CMA annual meeting. *CMAJ* 1999;161(5):561-2.