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Family Physicians in Winnipeg: What's Changed?

MANITOBA CENTRE FOR HEALTH POLICY

Summary by
Carolyn De Coster and
Kip Sullivan, based on
the report: *Supply, Avail-
ability and Use of Family
Physicians in Winnipeg*,
by Diane Watson,
Bogdan Bogdanovic,
Petra Heppner, Alan Katz,
Robert Reid and
Noralou Roos

A decade ago, physician groups and policy-makers were voicing concerns that Manitoba had too many doctors. For instance, on June 22, 1993, the *Winnipeg Free Press* reported that a Canadian Medical Association survey found half of Canada's doctors believed "enrolment in medical schools should be cut."

But barely a decade later, worries about a physician oversupply have changed to worries about a shortage. Over the last several years, national physician groups have issued reports warning of a physician shortage, and there have been reports in the Winnipeg media about "burned-out physicians" and patients who have trouble finding a doctor.

The rapid change from concerns about a doctor surplus into anxiety about a doctor shortage begs for an explanation. What happened?

This report by MCHP takes a look at that question, focussing on family physicians (FPs) in Winnipeg over the last ten years. We examine a number of explanations that have been put forward to explain current perceptions of a shortage. Did the rate at which Winnipeggers use medical services go up or down? Did the number of doctors relative to the population shrink? Did some FPs restrict the types of services they offered? Did the proportion of FPs who are female rise? (Female FPs—at least those who have children—tend to see fewer patients than males.)

We found scant evidence to support any of the above explanations. We found only

small declines in the number of FPs, the FP to population ratios, and the use of FP services during the study period. But we did find some important changes: there was a big shift in the workloads of FPs, from younger to older doctors; and a shift in who uses family physicians, with younger patients seeing FPs less often and older patients more.

What we did

Broadly speaking, doctor shortages and surpluses are caused by changes in the supply and use of physician services. Supply is a function of the number of doctors, their workloads, and the scope of their practice, while use is affected by the size, age and level of illness in the population. The most fundamental question we asked therefore was, Did these factors change between fiscal years 1991 and 2000?

We used several measures of supply, including the number of practising FPs, and the number of full-time-equivalent (FTE) FPs. Measuring FTEs is important because physician workloads vary. One physician who has a workload that is 25% less than the average, and another with a workload 25% more than the average will add up to the equivalent of two full-time physicians. If the number of physicians didn't change, but they reduced their workload, a 'head-count' would fail to detect the drop in the supply of services.

To measure the workloads of FPs, we counted the average number of visits provided by an FP over the course of a year, and on an average full-time day at work.

We also measured the average number of days FPs worked full time. We defined visits as encounters outside of hospitals.

We used visit rates as a measure of use of FP services. We looked separately at visit rates for people with high needs for medical care. These *vulnerable populations* were Winnipeg residents in their last year of life, in the year before they entered a nursing home, aged 85 or older, or with a mental health condition, diabetes, or high blood pressure. We looked at both actual (or crude) visit rates and standardized rates. Standardization accounts for the fact that the population is getting older, so we can understand whether people use more or fewer services after we account for an aging population.

Use of FP services

The rate at which Winnipeg residents used FPs changed little during the study period. The proportion of people who visited an FP one or more times a year declined only 1%. The standardized visit rate among all residents dropped 3%.

What are we to make of a 3% drop in the standardized visit rate? If this drop occurred during a time when the number of FPs shrank sharply, or when the overall health of Winnipeggers deteriorated, it might be viewed with some concern. But the health of the average Winnipeg resident did not decline; in fact, the weight of the evidence indicates it improved during the study period. And the number of FPs didn't change substantially, nor did the size of the Winnipeg population.

Unfortunately, what we cannot tell from our data is whether Winnipeggers encountered difficulties in making an appointment to see an FP. However, we did look at whether there was a change in the number of different FPs Winnipeggers saw in the course of one year. We reasoned that if people were having trouble finding a regular doctor, then they might see several physicians over the course of one year. This measure did not change: on average, Winnipeg residents saw two different FPs a year in both 2000 and 1991.

Use of FPs: Digging deeper

In addition to knowing how often the average Winnipegger visited an FP, we asked, Did vulnerable populations visit an FP less often over the ten years? Here is what we found:

- Seniors aged 65 or older saw FPs more frequently in 2000 than in 1991. Their visit rates increased by 13%.
- In 1991, one in five FP visits was made by a senior, but in 2000 it was one in four. This change came about not so much because of an increase in the number of seniors, but because of an increase in the number of visits made per senior, especially those aged 65 to 74.
- The increase in the visit rate to FPs by seniors aged 65 to 74 was accompanied by a corresponding decline in their use of specialists.
- Visit rates for vulnerable populations decreased but less than for Winnipeggers as a whole. For instance, Winnipeg residents in their last year of life had a 2% decrease in visit rates, as did Winnipeg residents with a major mental health disorder.
- All of the vulnerable populations had above average visit rates at the beginning of the study period and all of them had above average visit rates at the end of the study period.

In short, we found no evidence that physician visit rates among Winnipeg's vulnerable populations dropped, despite the perceived shortage of FPs over this period. However, we did find a big shift in the age distribution of patients making use of FPs. Visit rates by seniors increased and visits by children decreased, by 25% for children under five and 19% for children aged six to 19 years. There was no change in children's visit rates with specialists, which means these reductions in use represent real declines in service levels among children.

Change in supply

The drop in supply of FPs was very similar to the drop in use. The supply of FPs fell by 3% to 5%—depending on which measure we used. The number of FPs providing clinical care declined 5%, from 634 in 1991 to 605 in 2000. If we measure the number of FPs in terms of full-time-equivalents, the decline was even smaller; there were 470 at the beginning of the study period compared with 454 FTEs at the end, a 3% decline. If we measure the number of FPs per 100,000 residents, the decline was 5%—from 97 to 92 FPs per 100,000.

Supply of FPs: Digging deeper

When we looked more closely at the data, we found that a significant shift in the workload from younger FPs to older took place during the 1990s. FPs between the ages of 30 and 49 years (64% of the FP workforce) were providing 20% fewer visits per year by 2000 than that age group had provided in 1991. FPs aged 50 to 59 were providing 5% fewer visits per year than doctors of that age in 1991 (see figure).

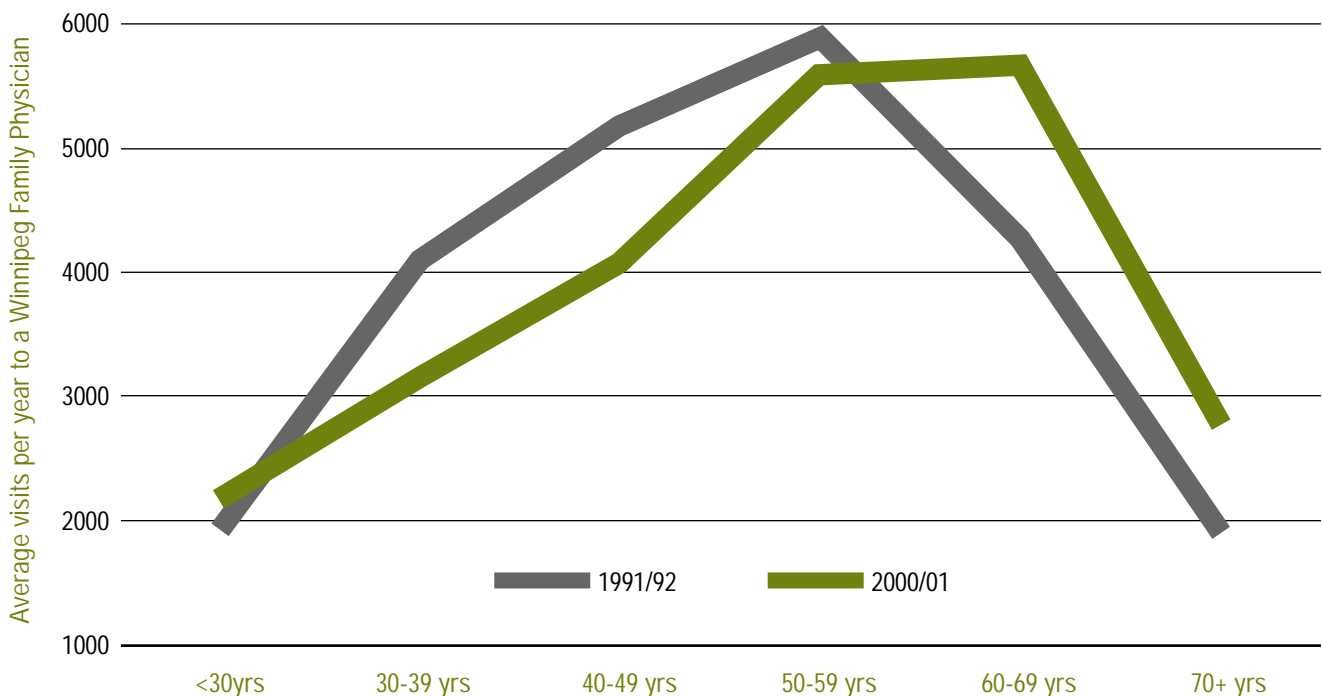
Together, these age groups accounted for 82% of the FP work force in 2000.

But overall visit rates declined only slightly over this period, which means that another age group within the FP work force must have increased its workload. That age group was the FPs who were 60 to 69 (11% of the FP work-force); their workload was 33% higher than doctors of that age in 1991. In a short period of time, a big change in workload patterns occurred.

We also investigated changes in other factors affecting the supply of FP services and, potentially, the perception of a doctor shortage:

- Females (who carry a smaller workload) as a per cent of all FPs barely changed over the study period, from 29% to 31%.
- Some FPs restrict their scope of practice—for example, to musculoskeletal injuries. But the proportion of FPs who maintained

Average Visits per Winnipeg Family Physician by Age Group: 1991/92 and 2000/01



full-scope practices remained stable at about 80% during the entire study period.

- The per cent of non-Winnipeg patients seen by Winnipeg FPs remained stable at about 15% over the study period.
- The turnover rate within the Winnipeg FP workforce remained stable during the study period.

Implications

Our findings are puzzling. They indicate that the use and supply of FP services declined only slightly from the levels of the early 1990s, a period when a physician surplus was widely perceived. Such a decline might even have been expected, since the Winnipeg population's health improved during that period. The data suggest that Winnipeggers, particularly vulnerable populations, visited FPs nearly as often in 2000 as they did in 1991. For people aged 65 or older, visit rates actually increased by 13%.

The one group where visits rates have dropped is children. Whether this drop is problematic has not been examined in this study. However, other MCHP research suggests that children and adolescents are among the healthiest members of the population.

Perhaps the most surprising finding of this study was the intergenerational shift among FPs. Workloads, measured by visit rates, have shifted remarkably from one generation of doctors to another in a very short period of time. Almost two-thirds of the work force, those between the ages of 30 and 49, provided 20 per cent fewer visits per year than their same-age peers did only ten years ago. And the 11% who are 60 to 69 provided roughly 30 per cent more visits over doctors of this age in 1991.

Although the FP-to-population ratios in Winnipeg and the productivity of the entire work force is relatively unchanged, our findings lead us to some possible explanations for why the perception of a shortage has arisen. It may be that older doctors whose workloads

have increased substantially are feeling over-worked. They may be refusing to take new patients, and publicly expressing frustration about their workload. At the same time, FPs in their middle years, despite the fact that they are seeing fewer patients than their peers a decade ago, may feel their workloads are at or above what they desire. Thus, they too might be reluctant to take on new patients. Patients might therefore be having big problems in scheduling appointments, even though visit rates have stayed pretty stable.

Our research does not tell us how this inter-generational shift in workload developed. Is it because older FPs see older patients who are using more and more services? Was it caused by younger FPs opting for somewhat smaller practices? Perhaps practice styles have changed; smaller practices may permit more individualized or holistic care. Lifestyle preferences may also play a part. These possible explanations require further research to substantiate.

Our findings give reason to believe that the perceived shortage of FPs might get worse before it gets better. The older generation will be retiring over the next five to fifteen years and their replacements have workloads that are quite different—and lower—than doctors of the past. Clearly, these findings are important to planning health human resources and primary care services for Manitobans. And, should these findings be verified in other jurisdictions in Canada, policy-makers across the nation will have to consider carefully how to deliver what they've promised—24 hour-a-day access to primary care.

There is hope. Many medical schools, including the University of Manitoba, have increased their enrolments, so more doctors will soon be entering practice. And as recent health reform reports have emphasized, alternative models of providing primary care through the use of an array of health care practitioners are needed. As these new models are developed, both patients and family physicians should begin to feel some relief.

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4th Floor, Room 408, 727 McDermot Ave., Winnipeg, Manitoba, R3E 3P5