



August
2006

Can We Compare Family Practices in Manitoba?

MANITOBA CENTRE FOR HEALTH POLICY

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based on the report:
*Profiling Primary Care
Practice in Manitoba*
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There's an old anecdote about a patient whose family physician tells him that at his age, he should have a flu shot. Since the patient hates needles and doesn't want to feel old, he goes to another practitioner who tells him the same thing. He sees a third MD who tells him he's not old enough to be worrying about flu shots. So he makes the third doctor his regular doctor.

In some ways this story relates to this report on primary care in Manitoba. First off, for most people, the family physician (FP) is the first point of contact with the health care system. Second, different physicians have different approaches, including preventive medicine. Third, it is not always straightforward who a patient's regular doctor is. Lastly, in assessing family practices in Manitoba, one must consider both the physicians and their patients.

These were but a few of the considerations we faced in trying to develop indicators of primary care—a method to compare family practices in Manitoba. We undertook the project in response to a request by Manitoba Health. Our indicators are based on an analysis of anonymized physician billing information from 2001/02.

This is a methodological study. That is, our primary goal was not to measure; it was to *develop* measures (or indicators). To use an analogy, we measure some boards, not to find out how long they are, but to test a newly designed “measuring tape” and to show how it can be used. A working group of health care providers and decision-makers advised us on the project: design, methods and interpreting the results.

Our study builds on earlier work by MCHP and borrows from similar research done elsewhere. At the same time, we break new ground. We offer some exploratory analysis to show how the indicators can be used. Along the way, we uncover some interesting, albeit preliminary, findings.

Five measures (described a little further on) cover three main aspects of family practice: type of care (1 indicator), volume (2 indicators) and quality (2 indicators).

For each measure, we first calculate the average rate for FPs in Winnipeg and Rural South* Manitoba. Individual physician rates—or scores—are then compared to these averages. We then look for differences in these scores and what characteristics (physician and patient) are related.

For example, the sex of the physician has an impact on continuity of care. Patients

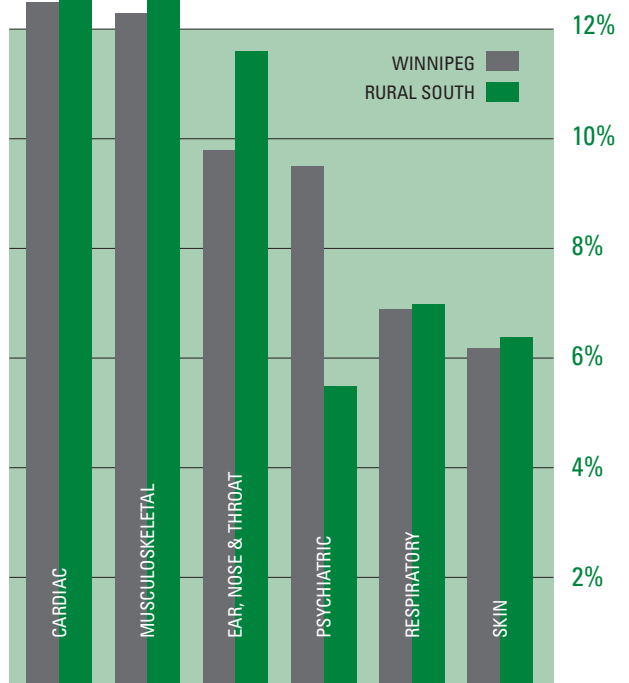
whose regular doctor is female are less likely to see other FPs. Other physician characteristics included in the study are: age, years in practice, workload, having hospital privileges (Winnipeg only, almost all rural practitioners have hospital privileges), payment method and graduating in Canada. Patient characteristics include sex, age, illness levels and socioeconomic status (SES).

As for who is a patient's regular doctor, a majority-of-care rule applies: it's the FP that provides the most services for that patient. In the full report they are referred to as *most responsible physician* and *core patient*.

The Measures

The following are the five indicators used, and some noteworthy examples of what they can reveal:

The Atypical Diagnostic Coding Index (ADCI) identifies physicians whose practice is different from the typical generalist or family physician's. We came up with a range of typical complaints for which a family doctor sees a



1. Most Common Patient Complaints, Primary Care Physicians, Manitoba, 2001/2002

patient. These fall into one of 27 diagnostic groups. For example, heartburn complaints and stomach aches are both in the gastrointestinal group. The top six—accounting for 57% of all visits—are: cardiovascular, muscle/bone, ear-nose-and-throat, psychiatric, respiratory and skin (Figure 1).

* Rural South refers to Manitoba below the 53rd parallel, excluding Brandon.



Each physician's practice is compared to these six averages, plus an amalgam of the remaining 21 diagnoses groups called "other." Physician "scores" are based on how much they differ from the average for each of the seven groups. The higher the score, the more their practice differs from a generalist's.

Winnipeg physicians score higher on average, indicating a more specialized focus—such as sports medicine—not always possible when practicing in rural areas.

The Visit Index (VI) looks at the number of visits a physician should expect given the age, sex, SES and level of illness of each one's core patients, then compares it with the actual number of visits each has. If it's the same they score 1. But if they see their patients, say, 50% more often, they score 1.5; 50% less often, 0.5; and so on. With a few exceptions, the highest scorers on the VI see their patients about 40% more often than the average physician; the lowest, about 50-75% as often. The gap between lowest and highest is larger for Winnipeg physicians than for the rural physicians.

The Referral Index (RI) is similar to the VI: it looks at the number of patients a physician should expect to refer (usually to a specialist) given the age, sex, SES and level of illness of each one's patients, then compares it to the actual number of referrals each made. Both core and occasional patients are looked at, but separately. Physicians in both regions are more likely to refer their occasional patients. One possible explanation for this is that physicians may be more willing to refer patients they are less familiar with. Or it may be that patients go looking for referrals that their regular doctor won't give them. We can only guess.

The Continuity of Care Index (COCI) looks at each of an FP's core patients and asks: What percentage of their care comes from their regular doctor? The average of these percentages is that doctor's COCI score. In Winnipeg and Rural South, core patients receive over 70% of their care from their regular doctor. We must point out here that we cannot differentiate a group practice from a single FP practice. So a patient that always goes to the same doctor's office, but sees several doctors there—arguably, high continuity—might appear to be receiving low continuity, and bring down the average.

The Preventive Care Index (PCI) measures the extent to which physicians provide preventive services—childhood immunizations, flu shots and cervical cancer screening—to eligible patients. Even if a public health nurse administered the immunization, it gets attributed back to the regular doctor. With the mean score set at 0.0 (meaning half the scores are above 0, half below), the Rural South (-0.1) lags well behind Winnipeg (.34). And female practitioners appear more likely to provide preventive care. Also of note, and opposite to what one might expect, practices with higher proportions of low SES patients—who tend to be sicker—are less likely to provide preventive care.

Do they work? How would they be used?

Do our indicators measure—and fairly—what they are supposed to measure? We think so.

For instance, for many indicators, standards are not available. So it seemed fair to compare doctors to their colleagues who practice under the same conditions. It also made sense, where possible, to develop indicators based on standards of care—PCI for example.

We find relationships to suggest our "measuring tape" is working as it should. Where visit rates are high, we also find higher levels of illness. We also see a relationship between visits and physicians with higher workloads—which makes sense.

Furthermore, if our measures are valid, we would expect to see that physicians who have been in practice longer have higher continuity—it takes time to build up a core of patients. We see that in both Winnipeg and Rural South regions.

As effective as these indicators are, they could be more effective if the following difficulties could be remedied:

- Group practices are a blind spot. Our data can't tell us how they share patients, office space and billing systems, nor the impact of group practice on patients.
- The province will only be able to track these indicators if physicians systematically report info on patient contacts. Historically, this has not been a problem with physicians who submit claims to get paid (fee-for-service). For physicians paid by other means, there can be gaps.

That being said, these indicators do provide an important basis for comparison. Physicians and physician groups can see how their practice measures up to their peers. Policy-makers can evaluate individual physician practices or the practice patterns of groups of practitioners—by region, gender, age, or what have you. For example, perhaps a physician's referral rate is well below the provincial average. Or maybe the same is true for all physicians over the age of 35, or all physicians in a region.

The point is, concerned parties will be able to pinpoint possible areas of concern and take whatever steps may be necessary. What's more, the indicators are useful for follow-up evaluation of the effectiveness of reform initiatives.

Our indicators work, but in doing so they raise questions. For example, while it's interesting to know that some physicians see their patients more often, are their patients more healthy or less? Some physicians give more flu shots; are their patients sick less often? hospitalized less overall? Follow-up study is needed.

In the meantime, primary indicators do provide an initial glimpse of what's going on with family practice in our province. Long-term, amid Manitoba's efforts to improve primary care, we see primary indicators as a tool that can continue to help.

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