



MARCH
2004

Quality Indicators: Helping Good Doctors Be Better

MANITOBA CENTRE FOR HEALTH POLICY

Summary by RJ Currie based on the report: *Using Administrative Data to Develop Indicators of Quality in Family Practice*, by Alan Katz, Carolyn De Coster, Bogdan Bogdanovic, Ruth-Ann Soodeen, and Dan Chateau

Have you ever been asked to recommend a good doctor? If so, your answer was likely largely based on your physician's bedside manner, how you were treated as a person. But do you really know how good the care is that you received? In fact, is there a way, clinically speaking, to know how one physician measures up to others?

In a sense, those questions are at the heart of this report by MCHP. But our objective was not so much to assess family practice in Manitoba as it was to help our province's physicians to improve the quality of care they deliver. Manitoba physicians are performing well, but what might enable them to perform better?

So we developed something we call *quality indicators*. What are they? In simple terms, they're sort of a "checklist" of expectations: What would a physician be expected to do given patients with certain ailments? Using this checklist, we can tell how physicians "measure up" in terms of providing quality care.

The idea behind our quality indicators is not new. Similar assessments have been done elsewhere in Canada, as well as in the U.S. and the U.K. So we began by checking the literature. What expectations—or indicators—did those other assessments have on their checklists? Which could we use in Manitoba?

Hand in hand with selecting indicators was the question of measurement. What information did those other areas use to determine how their physicians measured up? Several approaches had been taken. These included reviewing patients' medical records, surveying patients or physi-

cians, sitting in on patient-physician interactions, and using administrative data.

Using administrative data made the most sense for us. There is a wealth of such data available to us in the *Population Health Research Data Repository*. And while administrative data (like other sources of information) can't tell us everything, numerous studies hold it up as one of the more reliable sources of information.

The Repository is a comprehensive database that holds records for all Manitobans' contacts with physicians, hospitals, home care, nursing homes and prescriptions. These records are anonymous. Prior to transfer, Manitoba Health encrypts all personal identifiers, removing the names and addresses of all physicians and patients.

Since our focus was on family physicians, it was important for the indicators chosen to be acceptable to family practitioners. If physician behaviour is to change, they need a say in what indicators they are "measuring up to."

So a *Working Group* (practising physicians along with representatives from Manitoba Health, the Manitoba College of Family Physicians and the University of Manitoba, Department of Family Medicine) was established to provide feedback on the project. We also consulted with three *Physician Focus Groups*: two in Winnipeg and one in rural Manitoba. Each group was made up of 6 to 10 practising physicians. These groups reviewed our selections. Modifications were made based on

their recommendations. In time, we arrived at an agreed-upon set of quality indicators (Fig. 1).

To use the indicators, we had to define each physician's *practice population*. Simply put, we had to determine who were a doctor's patients. This was based on which physician provided most of a patient's care. Part of this *assigning* of patients was the "value" of the visit. For example, we assumed a complete history and physical examination was a stronger link with a physician than, say, a regular visit where a patient has one or two complaints. And if two physicians supplied primary care visits of equal value, the patient was assigned to the physician whose referrals to other services—such as lab work, imaging (x-rays for example), or specialists—generated the highest costs.

Once patients were assigned, all the services each patient received—visits, immunizations,

drug prescriptions, laboratory tests—were used in our assessment. All our analyses were carried out on these "virtual" practices of assigned patients.

We'd like to add that we recognize the indicators used in this study aren't perfect. In the necessary process of assigning patients, there might be instances where one doctor gets credited with the good work of another practitioner, who in turn might be credited with the work of another, and so on. One could argue it all evens out, but we really don't know. And while administrative data can tell us a great deal about "clinical" effectiveness, there are non-clinical aspects of care—such as bedside manner—that it can't tell us about. These aspects are no less important, but fall outside the scope of this work.

That being said, our consulting physicians agreed that the following indicators were good measures of quality in family practice.

1. Per cent of eligible patients receiving indicated care: W) Winnipeg, B) Brandon, NU) Non-Urban

	W	B	NU
Childhood Immunization	64%	68%	67%
Flu Shot	63%	65%	57%
Cervical Cancer Screening	70%	70%	60%
Cholesterol Screening*	68%	*	*
Blood Sugar Screening*	70%	*	*
Anticoagulation Medication Monitoring*	35%	*	*
Antidepressant Prescription Follow-up	49%	51%	43%
Asthma Care	59%	61%	64%
Benzodiazepine in Seniors (lower % is better)	15%	16%	13%
Diabetes: Cholesterol Screening*	54%	*	*
Diabetes: Eye Exams	37%	48%	40%
Post Heart Attack: Beta-Blocker prescription	63%	62%	54%
Post Heart Attack: Cholesterol test*	35%	*	*

Disease Prevention/Health Promotion Indicators

- 1 *Childhood immunization*: full set of immunizations by age 24 months.
- 2 *Influenza vaccination*: patients, aged 65+, who received at least one flu shot in the past two years.
- 3 *Cervical cancer screening*: females aged 18 to 60 (excluding those who have undergone a hysterectomy) who had at least one Pap test in the last three years.
- 4 *Cholesterol screening**: males over 40 years old, females over 50, who had a test in the past five years.
- 5 *Blood sugar screening**: patients aged 48+ who had at least one blood sugar test in the previous three years.

Acute and Chronic Disease Management Indicators

- 1 *Anticoagulation medication monitoring**: patients with a 30-day supply (or more) of blood thinners who had at least one blood clotting test per each 45-day period.
- 2 *Antidepressant prescription follow-up*: patients diagnosed with depression and given a new prescription for an antidepressant (within two weeks of each other) who

* Due to a lack of data outside of Winnipeg, indicators that need laboratory information include only Winnipeg physicians.

then saw a physician three times within four months of filling the prescription.

- 3 *Asthma care*: patients diagnosed with asthma (defined as those who had one repeat prescription of a beta 2-agonist in the past year) who filled a prescription for long-term control of asthma.
- 4 *Potentially inappropriate prescribing of benzodiazepines (anti-anxiety drugs) for older adults*: patients aged 75+ with prescription(s) for two or more benzodiazepines, or prescriptions for greater than a 30-day supply of medication (a lower percentage is better for this outcome).
- 5 *Diabetes care—Cholesterol testing**: diabetic patients (at least one drug used to treat diabetes) who had a cholesterol screening test in the same fiscal year as the prescription.
- 6 *Diabetes care—Eye examination*: diabetic patients (at least one drug used to treat dia-

betes) who saw either an optometrist or ophthalmologist in the same fiscal year as the prescription.

- 7 *Post-heart attack care—Beta-Blocker prescribing*: patients discharged from hospital (during the preceding three years) with a diagnosis of heart attack (excluding those with prior diagnosis of asthma, chronic obstructive pulmonary disease or peripheral vascular disease) who filled at least one prescription for a beta-blocker within four months of the first attack.
- 8 *Post-heart attack care—Cholesterol testing**: patients discharged from hospital (during the preceding three years) with a diagnosis of heart attack who had a cholesterol test within four months of discharge.

Scoring

Each family physician in Manitoba is scored on all 13 indicators by measuring the percentage of the physician's assigned patients who meet the target. For example, if a physician has 100 patients aged 65 and older, and 80 received at least one flu shot in the past two years (even if it was provided by a different practitioner), then the physician's score for that indicator is 80%. All physician scores for each indicator are then combined into regional averages—Winnipeg or Brandon or Non-Urban.

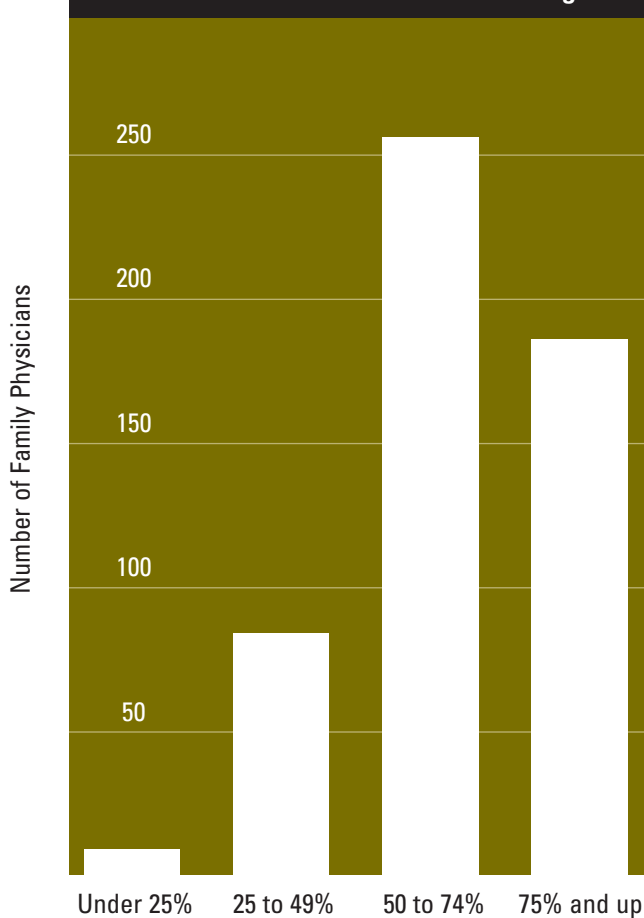
The point we want to make clear is that while individual (and anonymous) physician scores went into our calculations—which do give a picture of physician-to-physician differences—only group comparisons, not individual, are offered in this report (example Fig. 2).

How are Manitoba's Physicians Doing?

The news is good and not so good. In general, Manitoba's physicians are doing well. And their performance is on par with physicians in other provinces.

But the quality of care is inconsistent. Our physicians appear to be pretty good at some things, like childhood immunizations (66%). But there are low scores for other indicators—like 47% for antidepressant prescription follow-up—which are not so good, even if on par with other regions. And even where scores are

2. Per cent of children immunized and the number of Manitoba FPs who scored in each range



higher, to say that 66% of patients received a particular treatment—which is good—also means 34% did not—which is not so good.

Across physicians, there is also wide variation in quality of care. Many met published standards while others did not meet national targets nor the standards set out in clinical practice guidelines. So while many physicians are performing above average, there are some performing below average.

The bottom line in all this is that there is room for improvement.

We noted some physician characteristics associated with higher quality *preventive care*. In Non-Urban practices: being a younger physician; seeing patients more often; having more older patients, female patients, and higher income patients. In Urban practices: having hospital privileges; more visits per patient; higher continuity of care (highest continuity would be doctors whose patients see only them; the more patients see other doctors, the lower the score); having more female patients, higher income patients, and fewer patients with multiple ailments.

Unlike *preventive care*, the characteristics associated with higher quality *disease management* are much more elusive. No clear pattern emerged; we can explain less than 10% of the variability. In short, we cannot at this point say for sure which physician characteristics are associated with better disease management.

Okay, so we know some characteristics of higher-performing physicians, we know there is room for improvement; how do we go about the improvement process?

It starts at the first level: physicians must be involved. Attempts to change clinical practices aren't going to succeed if physicians don't support the initiative.

At the next level, policy-makers need to foster a culture of support for quality improvement. Examples from abroad show how adding improvement incentives (physician compensation packages in the U.S.; part of a funding model in the U.K.) has led to growth in quality improvement activities.

In those examples, the process has been aided by electronic improvements: computer-

ized patient records available in doctors' offices. Something along those lines could likewise help here. For example, rather than leafing through a bulky folder, a physician could see, with a couple of mouse clicks, the clinic's file on a patient—including, say, the patient is diabetic, is taking drug X, and (in flashing letters) is due for a cholesterol screening. It's not hard to see the benefits.

There are smaller-scale changes policy-makers might also consider. For example, more female providers for cervical screening in rural areas would likely lead to more women being tested more often. Mobile screening clinics staffed by female practitioners is one idea.

Our study highlighted a link between higher quality of care and physicians with hospital privileges. Thus, from a quality perspective, the current trend for family physicians to remove themselves from providing in-hospital service might need a closer look.

Also needing a closer look is the lack of laboratory data from rural Manitoba. We could tell you more in this study (and previous MCHP studies) if individual lab tests were reported to Manitoba Health. We can't tell you, for example, how closely rural physicians followed cholesterol and blood sugar testing guidelines. It limits our understanding of what is going on outside Winnipeg and Brandon and will inhibit quality of care improvement.

Our study pinpoints areas where changes could lead to improved quality of care. So at the third level, both the Manitoba College of Family Physicians and the Continuing Medical Education Department of the University of Manitoba can help by providing relevant educational opportunities to practising family physicians.

We see our set of indicators as a tool the province's physicians can use to improve the care they deliver to Manitobans. They were well accepted by the physicians we consulted with. So there's good reason to believe that other family physicians will also respond positively. We have good doctors in Manitoba. It's hoped that quality indicators will help them be even better.

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