

Primary healthcare, or the **first-contact care** you receive at your family doctor's office, is an important part of the healthcare system. Primary care providers (family doctors and nurse practitioners) promote healthy behaviours, treat their patients' health problems, and act as a gateway to other health services. Manitoba is continually working to renew primary care. This involves making changes to the primary healthcare system to make it more accessible, and to make sure it provides high quality care.

In Winnipeg, there are five different models of primary care (described in Figure 2). A 'model of primary care' refers to the way primary care services are organized. For example, the way providers get paid for the services they offer varies across different models. Some models may have other staff (e.g. nurses or social workers) to support the primary care providers. When you visit your provider, you might not think much about what is happening behind the scenes. But to continue to renew the primary healthcare system, policy makers need to consider which models provide the best care to patients.

But how do we know which models are providing high quality care? Is there a way to measure which is best? As it turns out...yes! Researchers use **primary care indicators** to measure how well primary care models perform. Indicators are characteristics we can measure that tell us about different aspects of the healthcare system. For example, if we wanted to know about the quality of care for heart disease, we could look at how often heart disease patients visit their providers. We could also consider whether they receive the right prescriptions to keep them healthy. The number of visits and the number of prescriptions are indicators for quality of care.

Measuring Quality of Care

At the Manitoba Centre for Health Policy (MCHP), we set out to compare the quality of care provided in Winnipeg's five primary care models. We looked at what kinds of patients visited providers in each model. Then we used indicators to measure how well each model performed.

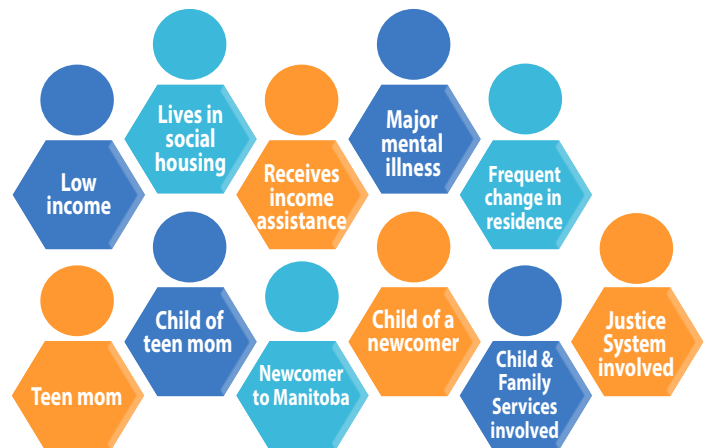
Information on patients and providers was taken from MCHP's data Repository, a large collection of health and social service records that can be linked for each person. Using linked records, we can follow virtually all Manitobans' contacts with the healthcare system, including the providers they visit and the prescriptions they fill. Their privacy is protected, however, because all personal information is removed from the data before it arrives at MCHP.

In this study, we included all Manitobans who made at least three visits to primary care providers in Winnipeg between 2010 and 2013. Each of these patients was "assigned" to the provider who was responsible for most of their care. Then each provider was matched to a model of care, creating groups of patients who were assigned to that model.

We looked at these patients' characteristics carefully because we wanted to understand what influenced their interactions with their providers. We focused on characteristics that we called '**social complexities**' – aspects of these patients' lives that might make their care more complicated (see Figure 1). Social complexities include things like being a newcomer to Manitoba, or living in social housing. You can probably imagine that a newcomer who doesn't speak English well might have a hard time explaining their health concerns. And someone who lives in social housing might not be able to afford time off from their job to visit their provider regularly.

Social complexities are aspects of patients' lives that might make care more complicated

Figure 1: Social complexities affecting patients



Taking into account the social complexities of the patients in the study, we compared the quality of care across models. We measured primary care indicators in four categories:

Prevention and Screening: These indicators were measures of preventing or screening for disease. For example, they measured how many patients in each model got a yearly flu shot or had a cancer screening test. **Higher rates** of these indicators are a good thing because they help to keep people healthy.

Managing Chronic Disease: These indicators measured care for chronic diseases, like heart disease. They looked at whether patients were prescribed the right drugs for their condition. Here too, **higher rates** of these indicators are a sign of high quality care.

Drug Prescribing: These indicators measured how often a certain group of drugs was prescribed in older adults. Some of these drugs are helpful in the short term to reduce anxiety and other unwanted symptoms. But they can cause more harm than good over longer time periods. Therefore, it's better to use them as little as possible. **Lower rates** of these indicators are considered to be high quality care.

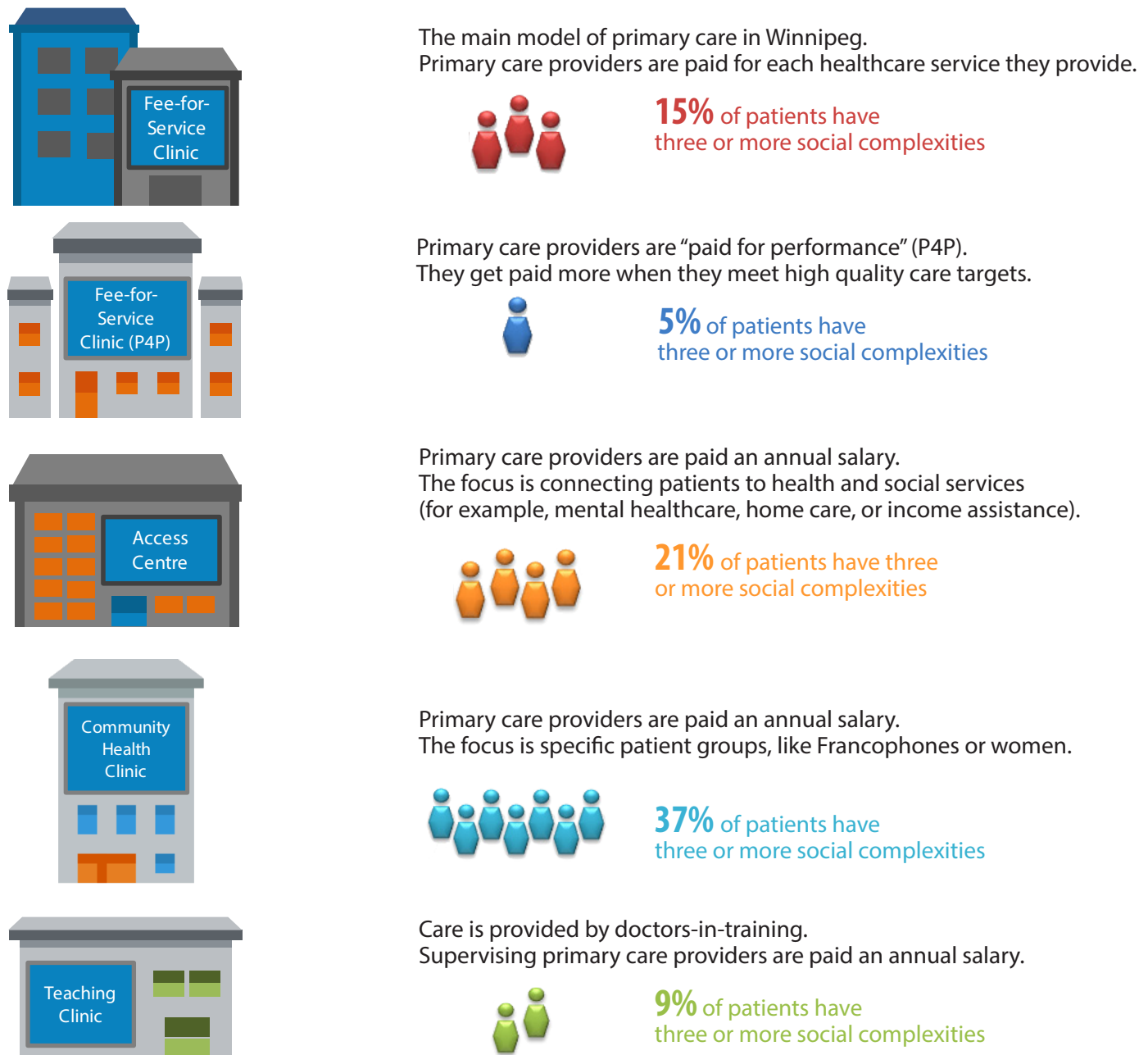
Health Services Delivery: The last group of indicators measured how primary care is delivered to patients. For example, they looked at whether patients tended to see the same provider each time or a different provider at each visit. Patients who have a regular provider for most of their care are healthier than those who see different providers each time. So, **higher rates** of visits to the usual provider demonstrate high quality care.

Comparing Models of Primary Care

Social Complexities

Figure 2 shows us how socially complex the patients were in each of the five models of primary care. Community Health Clinics and Access Centres had the highest percent of patients with social complexities. In particular, there were more low-income patients and patients on income assistance in these two models compared to other models. Community Health Clinics and Access Centres also had more patients with **multiple** social complexities.

Figure 2: Models of Primary Care and the Patients They Serve



The important thing to note about these results is that in general the most socially complex patients went to the right places. That is, they were seeking care in the models that are designed to meet their higher needs. Community Health Clinics, for example, saw more low-income patients and patients with a major mental illness than most other models. But Community Health Clinics are built like one-stop-shops: they have social services that can connect patients to income assistance. And they have mental health workers that can help patients dealing with mental health concerns.

Quality of Care

When we look at the primary care indicators across all five models of care, a few indicators tended to be better in a particular type of model. Some of the disease prevention measures were better in Fee-for-Service models, and care for heart disease was better at Community Health Clinics. But when we took into account how socially complex the patients were in each model, in most cases no single model stood out as providing higher quality care than the others. In fact, for many of the indicators, the five models had similar results.

No single model stood out as providing higher quality care than the others

We also observed a trend in social complexities: as the number of social complexities per patient increased (from zero to five or more), the quality of care got worse across all models. Socially complex patients had lower rates of cancer screening and heart disease drug prescription, and higher rates of possibly harmful drug prescription. These patients also tended to see many different providers, instead of having one regular provider. This tells us that social complexities make it more challenging to provide high quality primary care.

The Take-Home Message

The way we organize primary care in Winnipeg seems to be working well. In general, patients with complex needs are receiving care in models that are designed to support them. Social complexities have a major impact on quality of care – in general, the more social complexities a patient has, the more difficult it is to provide them with high quality care. That's why it is important to have models of care specifically aimed at supporting these complex needs. Overall, we found that no single model of care provides better quality care than all others. Although there is room for improvement in all the models of care, Winnipeg's patient population is diverse, so it makes sense that a range of different primary care models is needed to provide optimal care to all.

The more socially complex patients are, the more difficult it is to provide them with high quality care

The Manitoba Centre for Health Policy at the University of Manitoba's College of Medicine, Faculty of Health Sciences, conducts population-based research on health services, population and public health, and the social determinants of health.

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