

# PrimaryCare NETWORKS

## Calculating Potential Service Impacts of Adding Interprofessional Teams in Primary Care

Version 1.0: October 29, 2013



The integration of interprofessional teams is a core feature of Manitoba's primary care strategy. Interprofessional teams will build capacity within primary care practices and help free family physician time; ensuring physicians are more accessible to those who need them. Manitoba Health is working with partners to develop tools to assist PCNs and primary care practices to find effective ways to integrate interprofessional team members.

The Manitoba Patient Access Network (MPAN) funded a project to develop an "Interprofessional Practice in Fee for Service Toolkit to explore the potential contributions and impacts of various team members, select the right provider for the practice, and to successfully integrate them into the practice. These resources are currently under development by the Winnipeg Regional Health Authority team responsible for this work.

This document presents an example of the process to provide support to PCNs while the MPAN toolkit is being developed. The intention is that there will be, in the end, one Manitoba Toolkit.

## The Example:

This is provided as an illustration of the three steps described in the Primary Care Interprofessional Team Toolkit (“the toolkit”) for integrating new Primary Care Providers. It describes a process for calculating the human resource needs and the net gains in appointments and attachment for physicians. In this case the example is for a Primary Care Network (PCN), but the process should be useful in other primary care settings. The numbers reflect a fictitious clinic and PCN. Each PCN will need to generate local numbers and analysis.

### Step 1: Needs Assessment and Common Objectives

The PCN partners agreed on the common objective to increase the provider attachment numbers within the PCN without increasing the hours of work for physicians.

One of the strategies considered was to add other providers to the team. This required the physicians to look at their clinic data to determine categories of care that took up a significant portion of their appointment times and then to determine the number of patients in this category and the average number of patient visits per year for that category. At the same time, the region examined their programs to determine where there was some capacity to support the PCN.

In this example, physicians chose to focus on chronic disease management, mental health brief treatment, prenatal care and pediatric care. The region proposed nurses, mental health workers and dieticians to meet the needs:

Physician Data		
Item	No. of patients	Patient visit rate / year
Panel size	1500	3.5
Composition of panel:		
Chronic Disease	400	5
Mental health: brief counseling	300	6
Prenatal patients	100	11
Pediatric patients	300	5

The next task for the PCN planning team was to explore with each physician in the PCN: if other providers could manage some of these appointments, what is the minimal number of physician visits per year each PCN physician would see as appropriate? This paved the way to the calculations for the Gap (visits to be filled by team members) and the Total Gain of physician visits per year:

**Needs Assessment Version One:**

	No. of patients	Average physician visits/year	Minimum desired physician visits/year	Gap: visits per year to be filled by team members.	Total gain in physician appointments per year	Potential Increased Physician Attachment Capacity
Chronic Disease	400	5	1	4	1600	400
Mental Health; counseling	300	6	2	4	1200	600
Prenatal patients	100	11	5	6	600	120
Pediatrics (immunization & child health)	300	5	2	3	900	450
<b>Total</b>	<b>1100</b>				<b>2300</b>	<b>1470</b>

The PCN team reviewed the results in the above chart and realized that some modifications were needed in order to provide physicians with time to support the team members and to be available to see the patient when needed (e.g. added one additional visit per year per program area for the physician to make up this time). They also identified that they needed to see patients with a newly diagnosed chronic disease more often (e.g. adjusted minimum # of visit by physician per year to 2, versus 1). The appointment numbers and attachment capacity was adjusted down somewhat. The planning team also identified the need to develop a plan to introduce the change in an incremental fashion.

They were now ready for Step 2--to determine which other providers to incorporate into the PCN services and the increased attachment capacity of physicians and explore what existing and new resources might be required.

**Step 2: Determine the Fit: Review the Roles and Functions of Potential Providers.**

In this example the PCN planning team now knew the visit gap estimate and had a good understanding of the services already provided by their current team members. For

example, their Public Health Nurses can provide childhood immunizations and could take on this role for clinic patients. The planning team also skimmed the Profiles section of the toolkit to see if they were overlooking a potential provider group.

More in detailed discussion occurred regarding the roles and functions to be filled by team members. This ensured that there was a common understanding of the services to be provided.

In Step 2 the planning team needed to determine which providers would cover specific needs and to calculate the FTE needed to fill the Gap. The planning team used the formulas below to estimate appointments per day for the team members and FTE for the visits, existing and new FTE required. These numbers are specific to this region and each PCN needs to determine their own.

### **Example: Calculating number of RHA staff required to support physician**

#### **Assumptions:**

- **Prenatal:** primary care nurse: .5 hours/visit
- **Mental Health:** mental health worker .5 hours/visit
- **Chronic disease:** dietitian: .5 hours/visit  
nurse: .5 hours/visit
- **Pediatrics (immunizations & child health):**  
public health nurse: .25 hours/visit;  
primary care nurse: .5 hours/ visit

For the purpose of calculating the staff requirement it is assumed that RHA staff work 40 hours/week 46 weeks/year. It is estimated that full-time staff would provide 25 hours/week of direct patient care of 1150 hours/year.

The first line of the table below illustrates that the dietitian would see 400 patients for 2 visits per year for .5 hour appointments for a total of 400 hours a year. This was equated to a .35 FTE.

RHA Staff Requirements						
	Total no. patients	No. visits per patient/year	Required no. of hours/ year	Equivalent FTE	Existing FTE Available:	New FTE required
Chronic disease: dietitian	400	2	400x2x.5=400 hours/year	.35 FTE	0	.35
Chronic disease: chronic disease nurse	400	2	400x2x.5=400 hours/year	.35 FTE	3.5	0
Mental Health: worker brief counselor	300	4	300x4x.5=600 hours/year	.52 FTE	0	.52
Prenatal patients: primary care nurse	100	6	100x6x.5=300 hours/year	.26 FTE	0	.26
Pediatrics (immunization): PHN	300	1.5	300x1.5x.25=112.5 hours/year	.10 FTE	.1	0
Pediatrics (child health): primary care nurse	300	1.5	300x1.5x.5=225 hours/year	.20 FTE	0	.2

The team then analyzed the net new providers required and proposed that these positions be included in the PCN budget.

**Step 3: Successful Integration**

Operational and change management leadership is needed for new teams to be successful. Periodic evaluation and feedback is also critical to successful integration. Specific guidance and resources for successful integration can be found in the Primary Care Interprofessional Team Toolkit. As part of the ongoing PCN planning process, PCNs are required to integrate new services and to at times modify service plans. The following questions may assist in developing a successful plan.

**Operational Management:**

How will the work be organized—e.g., one-on-one or group visits? Where will care be delivered—physician’s clinic or RHA or partner location? What resources are needed to achieve the goal—space, equipment, information technology, supplies?

**Change Management:**

What steps will be taken to ensure safe and efficient communication about patient care delivery and issues? How will this change affect the roles of other team members in the clinic? How will patients be informed about the changes and new opportunities for their care?

**Evaluation and Feedback:**

This ranges from evaluating the planning assumptions, such as the length of time needed for visits, to outcomes of the teams work. How are providers and patients responding to the changes? Is the plan actually being implemented or is the change stalled and not being implemented as planned? Would it be beneficial to do a PDSA to experiment with appointment lengths?

**Summary:**

We hope that this example is useful to the PCN service planning process. Don't forget that there are additional resources in the toolkit to help with the planning an integration of an interprofessional team. Please call your PCN Liaison if you have questions or would like a "walk through" on this process.