

Physician Integrated Network (PIN)

Guide to Demonstration Site Plan Development

February 2007

Guide to Demonstration Site Plan Development Table of Contents

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I. **Physician Integrated Network Overview**

Manitoba has a long history of innovative approaches to the delivery of primary care to its residents. For example, Community Health Centres within Manitoba have been a model of collaborative, community-based service delivery for many decades. In addition, non-physician primary care providers have also been key in community health centres, northern and isolated communities. Recently, the Primary Health Care Transition Fund has supported the exploration of many different primary care delivery options. Hence, all of these are Manitoba Approaches to Primary Care (**MAPC**).

One strategy under MAPC includes the development of Physician Integrated Networks (PIN) which has been evolving under the guidance of an Advisory Committee with representation from the University of Manitoba; the Colleges of Registered Nurses and Physicians & Surgeons of Manitoba; the Manitoba Medical Association; the Winnipeg and Assiniboine Regional Health Authorities and other primary care stakeholders.

The Physician Integrated Network Initiative focuses on the engagement of autonomous, independently owned fee-for-service physician groups. The objectives of this initiative are:

- 1) To improve access to primary care,
- 2) To improve primary care providers' access to and use of information,
- 3) To improve the working environment for all primary care providers, and
- 4) To demonstrate high quality primary care with a specific focus on Chronic Disease management.

Rationale for change

- Need to re-orientate the health delivery system to recognize the importance of Primary Care and the role of Family Physicians.
- Need to demonstrate high quality primary care.
- Need to address the challenge of Family Physician isolation.

- a. Support inter-professional, collaborative care.
- Need to address physician work life.
- Increasing demand for, and challenge of, chronic disease management.
- Current and anticipated health care provider shortage.
- Lack of access to primary care; including Family Physicians.
- Desire to establish predictable and stable funding which supports Chronic Disease Management and the delivery of quality of care.
- Need for integrated Decision Support Tools within Primary Care.

Please review our rationale document to learn more about the rationale for change behind the PIN initiative: <http://www.gov.mb.ca/health/phc/rationale.pdf>.

In early June 2006, applications of interest were invited from group practice sites interested in actively participating in the development and implementation of the PIN initiative. As a result of this process, there are four group practices participating as demonstration sites: Brandon Clinic Medical Corporation, Agassiz Medical Centre in Morden, Dr. C.W. Wiebe Medical Centre in Winkler, and Assiniboine Clinic in Winnipeg. The PIN Initiative is now well underway, working directly with the four demonstration sites in developing strategies to meet the objectives of the initiative.

A PIN Workshop was held on November 17, 2006 with representation from each of the demonstration sites; other interested family medicine group practices; Manitoba Health; the Regional Health Authorities where each of the demonstration sites are located; and the Manitoba Medical Association. Feedback from the day was positive and indicated an interest and need to begin specific planning for each of the demonstration sites. Several key themes that emerged from the working day were:

- **An interest in the use of additional primary care providers (multidisciplinary teams)**
- **The need to understand delegation of functions and liability issues associated with the use of additional primary care providers**

- **The need to develop funding supports such as:**
 - **Flexibility as each site has different characteristics and needs**
 - **The need to focus on the intended outcomes of the objectives, namely access, quality of care and healthy work lives.**

For general updates on the PIN initiative please refer to the website:

www.gov.mb.ca/health/phc/pin.html.

Questions can be directed to:

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II. Implementation Process

In January, the PIN team visited each of the four Demonstration Sites discussing with them the next steps in the PIN Initiative. At request of the Clinics we have put together this short and simple document to help you in the next phase of the initiative.

Over the next few weeks the Demonstration Sites have been asked to review their patient profiles and select two deliverables (areas where the clinic group feels they would like to focus attention on demonstrating quality care) that they will focus on during the demonstration phase. Clinics (the group) will be encouraged to monitor clinical guidelines on these two deliverables. For compensation purposes, targets for each deliverable will be established based on the Canadian Institute for Health Information Primary care Indicators (released in 2006). The funding model attached to meeting set targets is now being developed by a Health Economist, Dr. Dominika Wranik, (Ph.D Health Economics) through the North South Group.

Using the attached Demonstration Site Plan Template, each clinic will be able to start identifying a clear strategy and timeline for implementing changes within the clinic. Clinics are asked to have a draft of their plan ready for late February, 2007. At the PIN Advisory Meeting on February 16, 2007, clinics will have the opportunity to review the evaluation plan with Drs. Katz and Martin.

Once an initial draft plan has been developed, the PIN team will work with the clinics to address change management processes that may need to occur. The goal is to have the plans operational as early as April 2, 2007; however, it is only once clinics identify their deliverables and strategies that an exact start date can be established. Implementation may be phased in, and different clinics may fully implement their plans at different times.

In the interim, extensive work is being done on gathering baseline data from each of the demonstration sites that will support the evaluation process.

III. Plan Development

To help groups in developing a plan, a proposed Template has been developed. This template is to assist in guiding the development of a brief yet comprehensive plan for implementation. It is hoped that this guide will serve as a starting point to developing individual clinic plans.

Possible Plan Development Process:

Step 1 – Selection of Deliverables

Step 2 – Developing a Strategy

Step 3 – Implementation and Change Management

Step 4 – Identifying Change Management Costs

Step 5 – Timeline Development

Step 1 – Selection of Deliverables

The first suggested step is to identify two health areas the clinic group is interested in pursuing.

Obtaining Patient Profile

The PIN team has begun working with each of the four clinics to obtain EMR data on patient populations. Some of the clinics were unable to use the data from their EMR because of concerns regarding required recording of the data, where other clinics' EMRs did not yet have the capabilities to obtain information on their patient population. The PIN team will continue to work with the clinics to obtain EMR data. If this data is not accessible, billing data and Community Health Assessment data may be useful in providing a basic patient profile for the clinic group.

a. Assessing the Data

The patient profile will highlight the composition of each site's general patient population.

For example: Clinic A's patient profile shows that the clinic has a high prevalence of Coronary Artery Disease at 7% and hypertension at 18%. The Clinic also has a high number of asthmatic patients (10%). However, their Diabetes and Depression proportions are similar with the Manitoba average.

The Clinic group may decide to meet to discuss this patient profile and confirm its findings.

Clinic A physicians met and reviewed the results and recognized that while Coronary Artery Disease was prevalent among their population, they were eager to address the issue of asthma and treatment for respiratory disease.

b. Selecting two Deliverables

Once the clinic group has reviewed and assessed the data, the group should determine what two areas would be of interest to focus on during the demonstration period. As a demonstration site, the group will need to track the identified indicators in these two areas. Each demonstration site will monitor these practice processes and be provided with financial incentives for achieving targets based on clinical guidelines. Prevalence of health conditions is one very important factor that should influence group's choice of strategies and areas to be measured. Physician perception of opportunities to improve care, ability to mobilize commitment, or ability to address areas such as access and physician work life through a chosen strategy must all be considered when selecting two deliverables. See Table 1 for a list of deliverables and their associated indicators.

Clinic A has selected Hypertension and Asthma as the two deliverables it will focus on.

PIN Deliverables

Health Risks

- Tobacco use
- Unhealthy eating habits
- Problem drug use
- Physical inactivity
- Overweight status
- Problem alcohol drinking
- Unintentional injuries (home risk factors)
- Unsafe sexual practices
- Unmanaged psychosocial stress and/or depression

Preventive practices

- Screening: Pap every 2-3 years
- FOBT annually over 50 years
- Mammography according to screening policy/ recommendations
- Lipids (every 5 years)
- Blood sugar annually
- Processes for medication incident reduction
- Childhood immunizations
- Influenza vaccination rates
- Pneumococcal vaccinations
- Breast feeding support/counseling
- BP measured
- Weight/exercise activity recorded
- Smoking cessation advice given to smokers

Diabetes

- Hgb Alc
- Microalbuminuria
- Fundoscopy exams
- Foot exams

- Lipid profiles
- BP measurement
- Obesity/overweight screening

Asthma

- Use of preventive meds (inhaled steroids and Leucotriene antagonists)
- ER visits
- Patients with self care plans

CHF

- ER visits
- Patients weighed regularly
- ACE inhibitor as first line treatment
- Lipids
- BP measurement
- Blood sugar
- Obesity/overweight screening

Hypertension

- Blood sugar
- Lipids
- Serum creatinine
- BP measurement
- Obesity/overweight screening

Mental Health

- Depression - offered treatment or referral to a mental health provider
- Panic disorder or generalized anxiety disorder - offered treatment or referral to a mental health provider
- Patients starting antidepressants and seen within 2 weeks for monitoring

Table 1- PIN Deliverables

Please see Appendix A for the definitions of the above indicators.

The College of Family Physicians of Canada toolkit includes clinical guidelines for many of the deliverables mentioned above. The website also links to copies of flow sheets for the various conditions.

<http://toolkit.cfpc.ca/en/continuity-of-care/appendix.php>

Step 2 – Developing a Strategy

Once the group has selected the two deliverables to focus on, possible strategies to address these areas need to be identified.

Clinic A noted that, at present, they do not have time or resources to enable their patients with asthma in developing self care plans. One physician at the clinic felt that having a Nurse working with these patients in developing self care plans could be an efficient and effective way to help these plans get developed. Physicians also agreed they could set up their EMR to prompt them to prescribe preventative medications once a patient has been diagnosed with Asthma. All physicians felt these two steps would help lower Emergency Room visits by the clinic's patients with asthma.

The clinic's group strategy (ies) should consider addressing one or more of the PIN objectives:

1. To improve access to primary care.
2. To improve Primary Care Providers' access to and use of information.
3. To improve the working environment for all primary care providers.
4. To demonstrate high quality primary care with a specific focus on Chronic Disease management.

Example of how Clinic A's strategy addresses the PIN objectives:

To improve access to primary care –Patients with asthma would have increased access to seeing primary care workers to address their chronic condition. Appointments could be set with the nurse to develop and maintain their self care plans. Introducing another primary care provider, a nurse, could also support the physician in addressing the medical aspects of asthma and leave more time for the physician to work with other patients, thereby increasing access to the clinic.

To improve Primary Care Providers' access to and use of information. – Physicians in Clinic A currently do not use the EMR to its full capacity. Physicians agreed that flagging a patient with asthma was important and the EMR could then prompt them to ensure they prescribe appropriate preventative medication and book an appointment with the nurse for developing a self care plan.

To improve the working environment for all primary care providers.-

Physicians in Clinic A spend a significant amount of time with their asthmatic patients in educating them on self care and prevention. Referring them to a Nurse to develop these self care plans and to work on education on asthma prevention could free up time for the physician to a) provide care to other patients or b) lessen their overall workload.

To demonstrate high quality primary care with a specific focus on Chronic Disease management. – *The strategy identified by Clinic A is focused on providing quality care to manage a chronic disease. Following evidence based clinical practice guidelines, Clinic A will ensure their patients are supported in developing self care plans, and are prescribed preventative medication.*

Brainstorm possible ways to address the two deliverables within the clinic. Build on existing partnerships and resources that are in place (e.g. referral linkages with services delivered by the Regional Health Authority, a local private practitioner and/or an alternate primary care provider already in place at the clinic). The final section in this document provides examples of strategies in other jurisdictions that may also be helpful. Once the clinic group has identified a strategy(ies), link these with the PIN objectives.

Things to include in the strategy:

- If the strategy includes additional primary care providers, identify the type of provider(s), and full-time equivalency. If more than one type of provider is involved, provide a brief description of their respective roles. Also note if the group will need to recruit the provider or already has access to the provider.
- A brief description of any linkages/partnerships (e.g., service coordination and collaboration initiatives) with other service delivery organizations and the role/services to be delivered by the other service delivery organization. Please note if a partnership with these organizations is already in place.

Step 3 – Implementation and Change Management

Once the group has identified a strategy to address the two deliverables and this plan links with the PIN objectives, the group will need to consider how to actually bring about change within the practice. It is suggested that the group reflect on the strategy and envision how the clinic will be functioning when the strategy is fully implemented. This vision needs to be compared to the current clinic operation. What needs to change in order to bring about the implemented state? What barriers exist to implementing these changes?

The following list highlights different potential points of change:

Note: there may be areas that are not included that apply to each clinic, or others that are irrelevant. Use this list as a starting point.

1) Practice Change

This section includes areas related to the practice and patients.

a) Roles and Responsibility of Providers

If a site is introducing a new provider in the clinic the roles and responsibility of providers may also change. The roles of the new provider and responsibility areas need to be clearly identified. For example, time may be required to develop clinical roles and guidelines, and/or, information or training sessions to help existing providers recognize these roles and responsibility changes within the practice may be required.

b) Group dynamics

Introducing a new provider will also impact the group dynamics within your practice. Working in a team approach can be a difficult transition for some providers. Team building is an important change management process that may help ease the transition. A team should work in a respectful and supportive manner.

The College of Family Physicians of Canada has developed a toolkit that addresses many of the issues involved in working in interdisciplinary teams.

<http://toolkit.cfpc.ca/en/interdisciplinary-collaboration/index.php>

c) Administrative Support

Practice changes may also impact administrative support functions within a clinic. For example changing the way information is recorded on the EMR may affect the processing of new patients, handling of diagnostic results, etc. Increasing access to your clinic may be directly related to administrative functions within the clinic.

d) Continuity of Care - Patient care

The goal of primary care renewal is to demonstrate and provide continuing quality care to patients. It is important to think through how each strategy will affect the continuity of care for the patient, patient access to the clinic, etc. For example, what are patients going to need to know about the change in practice? How can the group inform patients of the changes? Is there anything they will need to do differently? Will the clinic be able to accept new patients?

2) Information Technology Change

This section deals specifically with the changes with information technology in the clinic, specifically the Electronic Medical Record (EMR).

a) EMR Changes

With each strategy, at least one change regarding the function and/or use of the EMR will likely be identified. Several sites, during the demonstration phase, will have upgraded their EMR. This will impact the clinic in a variety of ways. Other clinics are working with their EMR vendor to ensure reports and fields are written and included in the software. Each site will need to identify what changes will need to occur with the EMR system.

b) Physician usage

Information technology is a very important part of the PIN initiative. Through the use of information, physicians will be able to demonstrate the quality care. Many groups have noted that they are not using their EMR to the full capacity. Some questions that may require consideration are:

What changes need to take place with physician's usage of the EMR?

Is further training required for physicians?

How can the group ensure proper data is entered in the EMR?

c) Administrative usage

Changes to EMRs may also impact the administrative component of the clinic. Since incentives will be based on demonstrating quality care through EMR data, the collection and recording of this data becomes important. A clinic may want to run reports on their patients and the status of their deliverable targets regularly. There may be a need to train administrative staff on the use of the EMR.

3) Community Relationships

This section looks at the relationship between the clinic and community organization and groups. Specifically, it looks at any potential changes and working relationships with the Regional Health Authority (RHA).

a) RHA relationship

Introducing new programs or services within the clinic may impact the relationship the group has with the RHA. The group's strategy itself may include working in collaboration with an RHA provider or program.

b) Community organizations and groups

The relationship with the community may also change as a result of changed programs and services. Collaboration opportunities or expansion

opportunities may be of interest to groups and organizations within the community.

4) Remuneration (Funding) and Organization

The logistics of operating the clinic may be affected by the group's strategy. This includes physical space and funding.

a) Physical Location

Will any changes to the clinic space be required to support the suggested strategy? For example, is there space for introducing other providers if that is in the group's plan?

b) Remuneration

With the introduction of blended funding (funding incentives to the group based on the selected deliverables over and above the FFS remuneration), the group will need to make decisions on how to use these additional funds. For example, will a portion of these funds be used to acquire additional non physician providers?

c) Management

Clinic Managers play an important role in the day to day running of the clinic. Implementing a strategy based on meeting target incentives on clinical practice will affect the role of the clinic manager. What role in change management and leading change will the clinic manager have to play? Are there physician leaders within the group that can help the clinic manager implement the strategy? What kind of supports are required for the clinic manager to implement the strategy? How will day-to-day management change?

For example: A clinic may want to begin to run reports on the status of the deliverables by-weekly. The clinic manager may then want to meet with the

team of providers and discuss the results and plans for meeting targets for the next period.

In Summary

The strategy the clinic has developed may impact the clinic practice, the use of information technology, relationships with the community, and the remuneration and organization of the clinic. Only once the group has documented the various changes required, can it begin to develop an idea of the costs of implementing change and the amount of time and resources that are required.

Step 4 – Identifying Change Management Costs

As a Demonstration Site, the group may have costs for implementing change within the clinic. The PIN budget has modest funding set aside to help with change management issues. These are one time costs, or change management costs.

Clinic A wants to hire a nurse 1 day a week to help with asthma care. The Clinic decided that they will pay the nurse with some of the incentive money received from meeting the targeted deliverables. The EMR will require coding changes and reports to be written. This will be a one time requirement to begin the strategy and therefore it is considered a change management cost. Physicians will also need further training to learn how to flag and track a patient with asthma within the EMR. This too, is identified as a change management cost.

Each strategy needs to be reviewed and any change management requirements identified. Items that are one time change management costs for implementing practice change need to be identified. These items require a cost estimate and will need to be added to the budget spreadsheet.

The following are some areas which may be considered change management costs:

- Information Technology training and EMR report writing and EMR Form changes (this excludes EMR upgrades)
- Costs arising from co-location of interdisciplinary primary health care providers to support expanded clinical practice and patient care requirements.
- Staff training and development relating to introducing practice changes, such as interdisciplinary teams.
- Initial costs of adding a provider prior to implementation of ongoing financial incentive funding. For example for the first quarter (3 months)

This list is not exhaustive. For questions on specific items, please contact the PIN team.

Once a budget has been submitted, the PIN team will review the estimated costs. Approval of the costs will be based on consistency with the PIN objectives, consistency with the strategy and plan of the clinic, and reasonableness of cost estimates.

Step 5 – Timeline Development

Once identifying the clinic strategy and highlighting the change management supports required, the group will have a better idea of the time that may be required to implement the changes. The PIN Team is available to meet with the group to help with developing a specific and detailed timeline.

Points to consider when developing the timeline:

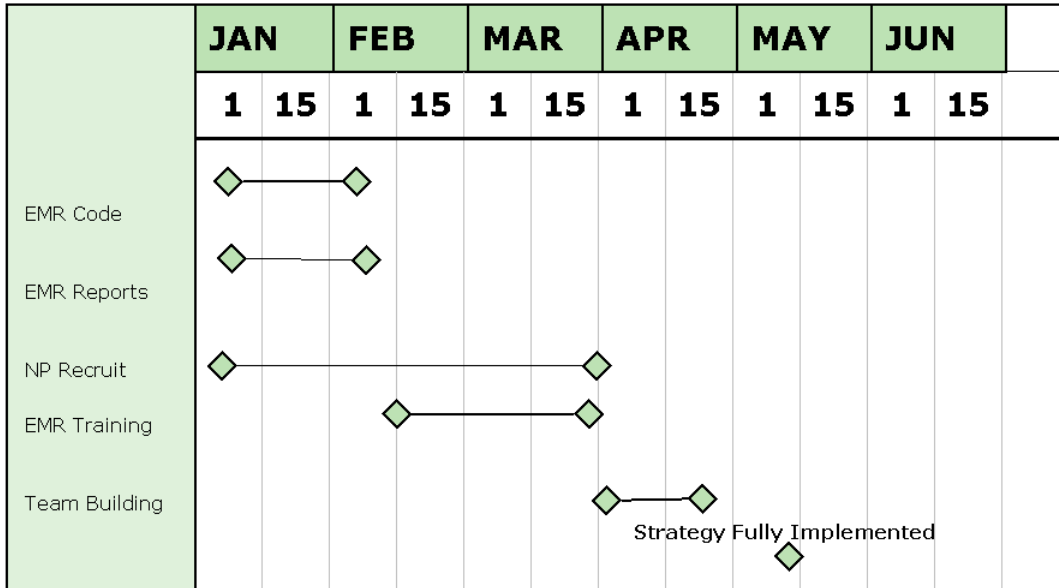
- Since the PIN Team is working with EMR vendors regarding EMR changes and change management costs, each demonstration site does not need to include EMR tasks within the proposed timeline
- Go through the strategy and identify key milestones for the roll-out of services and programs that the clinic needs to undertake.
- Remember to identify any training requirements

- Remember the strategy can be phased in.
- Identify both physical and human resource requirements

Clinic A must go through the process of recruiting a nurse. They have estimated that the recruitment and hiring of a nurse may take three months. Once work with the EMR vendor is complete, the clinic can begin to train staff on the change in usage of the EMR. The start date is estimated as three and a half months until the full strategy will be implemented. Changes to EMR practice may begin earlier than that, and the other changes in practice will be slowly phased in. Here is what the timeline may look like.

<i>#</i>	<i>Task</i>	<i>Duration</i>	<i>Start Date</i>	<i>End Date</i>
<i>1</i>	<i>Get EMR code for Asthma Problem button developed</i>	<i>PIN Team</i>	<i>PIN Team</i>	<i>PIN Team</i>
<i>2</i>	<i>Develop report capabilities on asthma patient and patient care plan</i>	<i>PIN Team</i>	<i>Pin Team</i>	<i>PIN Team</i>
<i>3</i>	<i>Recruit and hire Nurse</i>	<i>3 months</i>	<i>January, 07</i>	<i>April, 07</i>
<i>4</i>	<i>Hold Physician and Staff EMR Training sessions</i>	<i>1 month</i>	<i>Feb, 07</i>	<i>March, 07</i>
<i>5</i>	<i>Hold interdisciplinary team building sessions</i>	<i>2 weeks</i>	<i>April, 07</i>	<i>May, 07</i>
<i>6</i>	<i>Strategy fully operational (team-based practice commences)</i>	<i>1 day</i>	<i>May, 07</i>	<i>May, 07</i>

Clinic A



IV. Ideas for Change

The Physician Integrated Network Initiative provides sites with the opportunity to explore new and exciting ways to deliver primary care. Every group is different and will choose different deliverables and develop different strategies. It may be helpful to share what other places are doing that is innovative in primary care. Below is a collection of ideas and notes on other initiatives across Canada.

Primary Care Reform

For a general toolkit on Primary Care Reform check the College of Family Physicians of Canada Toolkit. <http://toolkit.cfpc.ca/en/interdisciplinary-collaboration/appendix.php>. The toolkit highlights a few projects around Canada doing work with multidisciplinary teams. Thus far, this document highlights work in Alberta and British Columbia.

Alberta

In Alberta, a group of family doctors and the local health region work together to coordinate health services for patients in what they call a Primary Care Network.

These networks help to coordinate health services provided by family doctors, the health region and other health care professionals, so some of the change happens behind the scenes. A network may also introduce new programs to provide care for patients, such as a new way to manage chronic illness. Often in a Primary Care Network, family physicians work with other health care professionals who provide some health services for patients.

In Alberta clinics provide the following basic care:

- Basic health care (ambulatory care)
- Care for healthy children
- Pregnancy care and delivering babies
- Care and follow-up of complex health problems
- Screening and chronic disease prevention (e.g., diabetes)
- Mental health care
- Palliative care (care for the terminally ill)
- Elder (geriatric) care
- Care of chronically ill patients

- Minor emergency care (e.g., stitches)
- Primary care for patients in hospitals and long-term care
- Rehabilitative care

As well, networks coordinate with other areas of health care, such as lab and X-ray, home care, specialty care, long-term care and public health. The networks also work to manage 24-hour patient access to appropriate primary care services.

In Alberta, clinics have developed in conjunction with the communities:

a) a women's health clinic to promote screening for conditions such as cervical or breast cancer, and to help educate patients about various health issues.

b) A well-baby clinic where family physicians and public health nurses work together to see moms and babies in one visit, reducing duplication of visits to see both the doctor and the public health nurse for check-ups and immunizations.

c) A chronic disease management program where nurses work with family physicians to follow patients with complex health problems.

British Columbia

Clinics in British Columbia have come up with a variety of different programs to impact primary care delivery. These programs can operate within the clinic itself, or often in partnership with the community.

Injury and Illness Prevention

- One clinic introduced a primary care nurse to provide care to patients focusing on illness and injury prevention, chronic disease management and self care, and health promotion.
 - Injury Prevention goals include increasing awareness of injuries in the region through education, media awareness, and coalition activities with other injury prevention stakeholders in the community. Not only increasing awareness of the injuries but educating around the preventable nature of injuries, cost of injuries (personal and financial), and types of injuries and who is at risk.

- Other future initiatives include a possible pilot project around home safety with parents; other ideas from the coalition include a conference and various health fairs etc.
- Another initiative is to prevent injuries through education and promotion activities in the communities with a strong focus on preventing unintentional injuries in childhood.
- This group works with other injury prevention partners including ICBC, RCMP, City of PG, Playground Inspector, Seniors Fall Prevention Coordinator, Child Care Resource and Referral Agency, PARTY Program, School District 57, Fire Department, Red Cross, YMCA of Prince George, Public Health Nurses, and others.

Mental Health Physician

- A clinic in Downtown Vancouver partners with other community organizations for use of meeting space and helps in the operation of various clinics such as youth clinics, well baby clinics and groups for new parents.
- The clinic also has a Mental Health Physicians that has further education in mental health issues and functions as an “in-house” specialist for members of the clinical team and patients.
 - The Mental Health Physician sees patients referred by other physicians and provides ongoing support to people with mental health issues such as chronic depression, bi-polar illness and schizophrenia. In this capacity, the Mental Health Physician is functioning in a “shared care” role with the existing primary care team. This individual also provides an initial mental health evaluation for individuals who need a working diagnosis before appropriate referrals can be made. As requested, the Mental Health Physician will also review a patient’s chart and make recommendations regarding diagnoses and treatment plans of patients for other clinicians.

- It is noted that the patient population has a prevalence of mental health issues and most patients are unable to access public and private mental health services. Other successes of this initiative include; better management of people living with mental health disorders in the community particularly around decreasing the number and length of hospital stays. This position has provided more support for the family physicians, clinical pharmacist and nurse practitioner in delivering health services to people with mental health problems, increasing education of clinical staff on mental health issues.
- Plans include expand the range of mental health services provided by the clinic to include drug and alcohol counsellors, mental health workers and the like.

Clinical Pharmacist

- The same clinic in downtown Vancouver also houses a Clinical Pharmacist (CP) who provides pharmaceutical services to people who attend the clinic, in addition to supporting physicians in their pharmaceutical practices.
 - Working in a half-time position, the CP provides services to patients in the clinic (around 45% of all CP services), on the telephone (40%) in patient's home (10%) and nursing home(5%). Referrals to the CP are made by the physicians, nurse practitioner, administrative staff as well as self referral by patients.
 - Key activities include educating physicians regarding best pharmaceutical practices and providing drug information and drug therapy monitoring to patients. A considerable percentage of the CP's time is spent providing health promotion activities and education to patients on topics such as nutrition, diabetes, smoking cessation, asthma and depression. The CP also undertakes case reviews of patients' charts, manages all drug supplies, sees drug company representatives, coordinates Pharmanet searches.

- Successes are many; highlights include the development of references and resources for both patients and health professions at the clinic, the development of different documentation and assessment tools used by other members of the primary health care team. The CP role has helped to further the development of an integrated team of health professionals working together at the clinic.

Family Centre

- One clinic in BC works with community organizations to run a Multicultural Family Centre that facilitates a variety of health education presentations, delivered in culturally appropriate formats for three target communities, including information on HIV/AIDS, cardiac health, nutrition, physical fitness, elder abuse prevention, depression, women's health, arthritis, stress management, living with chronic illness, and health benefits.
 - There is also a Community Kitchen model to assist members of the Vietnamese, Latin American and African communities to make the necessary lifestyle changes to prevent the onset of diabetes or to prevent complications in those already diagnosed with the disease.
 - Following the Multicultural Family Centre community development focus, it emphasizes the involvement of members of the three target communities in the design and implementation of the centre.

Prenatal care

- A comprehensive clinic in Vancouver offers on-site and outreach health services and support, including primary health care, health information services, and opportunities for community involvement.
 - Community nurses, doctors, community counsellor, rehabilitation therapists, nutritionists, long-term care case managers, addictions counsellors, and other health professionals provide direct health services. Services include newborn home visits and hotline, child

health clinics, parent-infant/toddler groups, speech/language services for children, immunization, school-age health programs, rehabilitation therapy, youth health programs, medical care, needle exchange program, methadone maintenance, alcohol and drug treatment services, home care and home support, a home hospice program, and education and support groups. Referral to other regional services such as residential care, adult day centres, treatment centres and meal programs is also offered. The Centre also hosts a number of innovative programs including Pride Health Services for the Lesbian, Gay, Bisexual and Transgender community and Boys"R"Us for male sex trade workers.

- The clinic plans to provide prenatal care for clients who plan/desire to give birth at the local hospital.
- Provide prenatal care for clients whose family physician does not deliver babies.
- They also provide postnatal care to six week postpartum offered by family physicians in the clinic, four days a week, hospital care, and on-call support provided by clinic physicians.
- Future plans include expansion of the clinic hours, as demand for service increases.

Youth Clinic

- One clinic in BC operates a youth clinic focused on youth 13 – 24. They hope to reduce preventable illness & unintentional injury, and preventing STDs & unwanted pregnancies.
 - Key activities carried out at the clinics include: history taking, assessment, counselling, Pap smears, pregnancy testing, contraception teaching and advice, providing contraception, HIV/STD testing, treatment & follow-up.

- Two drop-in clinics and one appointment clinic per week are held with a physician, clerical support and two or three community health nurses in attendance.
- On their first visit, youth see a nurse who looks after pregnancy tests and concerns, birth control options and STD prevention concerns; if a pap smear or STD check is required, the youth then sees the physician.
- A fourth drop-in outreach clinic is held weekly in a portable classroom at a local school. At this site there is no physician, but youth see nurses as well as other professionals from area Alcohol & Drug Team, Youth Services and Community Centre, Adolescent Crisis Counsellor.
- The clinic hopes to expand to include Nurses/Nurse Practitioners on the team who will have direct patient contact and responsibilities, especially in the areas of triage, urgent care, and chronic disease management. Utilization of advanced practice nurses is still one of their early objectives.
- They also hope to increase accessibility to care providers by having extended hours (e.g. 0800 to 1900hours) and some weekend availability. The physicians and nursing personnel will create a schedule to handle booked appointments, same day care, and walk-ins.
- Patients will be “attached” to a physician of their choice but should be comfortable receiving primary care from any of the providers in the group. This “continuity of care” is important for good care and should minimize use of the ER and walk-in clinics
- Currently there is only one physician who does obstetrics but plans are to include midwife and another GP who does primary maternity care.

- Future plans are to include other specialist practitioners (e.g. paediatrician, GP gerontologist, acupuncturist, and chronic pain specialist) in the clinic

Aboriginal Health

- Another clinic in BC is focused on improving the health status of Native people. The clinic plans to introduce Primary medical and nursing care, methadone maintenance, addictions counselling, phlebotomy, limited medication dispensing
 - The clinic focuses on under serviced populations such as aboriginals, women, youth, the mentally ill, inner city peoples, the homeless, substance dependent persons
 - Goals include providing primary care, medical trainee teaching program (ST1) diabetes teaching and awareness program (ADAPT), female condom education and awareness program
 - Every Friday there is a drop-in for First Nations families with a different theme. An Elder talks about traditional medicine, people share stories about diabetes self-care and the Dietician Educator provides nutritional counselling.
 - The clinic seeks out partnerships with community and organizations to hold workshops with similar themes within the community.
 - The clinic offers a series of four classes in the neighbourhood primary schools, some preschools and at an alternative Aboriginal high school. The classes include games, art, storytelling, exercise activities and education about balanced eating.
 - Twice monthly they hold a free diabetes-specific community kitchen in a local café. Participants plan the menu, cook and eat the food, then take home leftovers. The kitchen events are posted in the community and doctors and nurses in the area refer members of the community to the kitchens.

Isolated Care

- One area in BC, the Gulf Islands, has a very dispersed and isolated population. This area has developed solutions to help in the delivery of primary care to these communities.
 - Initiation of Meals on Wheels program in isolated communities.
 - Initiation of “protective surveillance” service for isolated, frail elderly population
 - Extension of medical alert program on all islands
 - Extension of Elderly Outreach & seniors’ substance abuse counselling to all islands
 - Core funding for Wellness Coordinator
 - Registered Nurses provide “on call” coverage for each island’s physician 7 or 8 days each month. They are able to assess, diagnose, treat and discharge patients with minor, uncomplicated health problems on their own authority, guided by protocols which have been approved by the health authority. They liaise with physicians in neighbouring island communities as needed, and with the Emergency Room Physicians in the tertiary care hospital if transfer to a higher level of care is required.

Hepatitis Care

- One area in northern BC has created a team to work with physicians. The team consists of two nurses, a social worker, and an addictions counsellor working closely with the physicians to deliver hepatitis education, counselling, treatment support, and prevention services.
 - The team is based in a central area but travels throughout the region.
 - Access to the service is through self-referral or service provider referral.
 - The initial services are to those that are designed to support the treatment of people with hepatitis. The team will work closely with

treating physicians to prepare people for treatment, and support them through the treatment process.

- Working with other agencies to enhance supports for people with hepatitis is also an important activity.

Chronic Disease Management

- A clinic in BC developed a chronic disease management program for a primarily elderly patient population. The first year the program focused on the development of chronic disease management program for diabetes. The second year focused on other chronic illnesses to incorporate them within their model development.
 - The clinic worked with a local endocrinologist to adapt clinical practice guidelines to an elder population and clearly defined interdisciplinary practice, particularly the role of nurses in their clinic including chronic disease surveillance and intentional follow up.
 - Results have shown attendance increasing with each session.
 - Future plans include further work in defining interdisciplinary practice.
 - The clinic continues to work in partnership with community and health authority on implementation of an expanded chronic care model that includes the social determinants of health.

Nursing Centre

- One clinic in BC offers a nursing clinic that provides care for chronic illness management, Health promotion; Provision of health information including a lending library and internet terminal; and Community development.
 - Nursing care is provided through a daily drop-in clinic, booked appointments with a primary nurse and/or telenursing. The nursing services are complemented by the use of support groups (developed by the Nursing Centre staff with client input) and interagency collaboration.

- Clinical specialty areas include chronic illness in general, women's health, chronic pain, and eating disorders. Men's health is an emerging area of need that became evident following a Men's Health Forum in 2000.

Appendix A - Indicator Definitions

Category	Indicator	Applicable Patient Population	Population/Condition Definition	Indicator Definition
Health Risk Identification				
	Tobacco use	Core Patients 12 years and over	Definition of Core Patient	% of patients screened for health risk over the past 12 months
	Unhealthy eating habits	Core Patients 12 years and over		% of patients screened for health risk over the past 12 months
	Problem drug use	Core Patients 12 years and over		% of patients screened for health risk over the past 12 months
	Physical inactivity	Core Patients 12 years and over		% of patients screened for health risk over the past 12 months
	Overweight status	Core Patients 12 years and over		% of patients screened for health risk over the past 12 months
	Problem alcohol drinking	Core Patients 12 years and over		% of patients screened for health risk over the past 12 months
	Unintentional injuries (home risk factors)	Core Patients 12 years and over		% of patients screened for health risk over the past 12 months
	Unsafe sexual practices	Core Patients 12 years and over		% of patients screened for health risk over the past 12 months
	Unmanaged psychosocial stress and/or depression	Core Patients 12 years and over		% of patients screened for health risk over the past 12 months
Prevention				
	Screening: Pap every 2-3 years	Female core patients 18 years to 69 years		% of patients who received papanicolaou smear within past 3 years
	FOBT annually over 50 years	Core patients 50 years and over		% of patients who received screening with Hemoccult test within past 24 months
	Mammography	Female core patients 50 years to 69 years		% of patients who received mammography and clinical breast examination within past 24 months
	Lipids	Female core patients 55 years and over		% of patients who received a full fasting lipid profile within the past 24 months
	Lipids	Male core patients 40 years and over		% of patients who received a full fasting lipid profile within the past 24 months
	Blood sugar annually	Core patients 50 years and over		% of patients who had fasting blood sugar measured in past 24 months
	Childhood immunizations	Core patients 7 years and over		% of patients who have received required childhood immunizations by age 7
	Influenza vaccination rates	Core patients 65 years and over		% of patients who have received influenza immunization within past 12 months
	Pneumococcal vaccinations	Core patients 65 years and over		% of patients who have received a pneumococcal immunization
	Breast feeding support/counseling	Core patients who had a live birth		% of patients who received counselling on breast feeding, education programs and postpartum support to breast feeding [timeframe?]
	BP measured	Core patients 18 years and over		% of patients who had their blood pressure measured within the past 24 months
	Weight/exercise activity recorded	Core patients 12 years and over		% of patients who received specific help or information on regular physical activity within the past 12 months
	Smoking cessation advice given to smokers	Core patients 12 years and over who are smokers		% of patients who have received help or information to quit smoking within the past 24 months
Diabetes Management				
	Hgb Alc	Core Patients with Dx of Diabetes 18 years and over	Definition of dx of diabetes = at least two visits where billing was submitted with a dx of diabetes and a drug was prescribed	% of patients who received testing within the past 12 months

	Nephropathy screening (e.g. albumin/creatinine ratio, microalbuminuria)	Core Patients with Dx of Diabetes 18 years and over		% of patients who received testing within the past 12 months
	Fundoscopy exams	Core Patients with Dx of Diabetes 18 years to 75 years		% of patients who received testing who saw and optometrist or ophthalmologist with the past 24 months
	Foot exams	Core Patients with Dx of Diabetes 18 years and over		% of patients who received a microfilament foot exam for peripheral neuropathy
	Full fasting lipid profile screening	Core Patients with Dx of Diabetes 18 years and over		% of patients who received testing within the past 12 months
	BP measurement	Core Patients with Dx of Diabetes 18 years and over		% of patients who received testing within the past 12 months
	Obesity/overweight screening	Core Patients with Dx of Diabetes 18 years and over		% of patients who received testing within the past 12 months
Asthma Management				
	Use of preventive meds (inhaled steroids and Leucotriene antagonists)	Core Patients with Dx of Asthma 6 years to 55 years of age	Definition of dx of asthma = at least 2 visits where billing was submitted with a diagnosis of asthma and at least two prescriptions for asthma drugs (given at separate visits)	% of patients who were dispensed more than 4 cannisters of SABA within the past 12 months and received a prescription for preventer/controller medication
	ER visits	Core Patients with Dx of Asthma 6 years to 55 years of age		% of patients who visited an emergency dept. within the past 12 months
	Patients with self care plans	Core Patients with Dx of Asthma 6 years to 55 years of age		% of patients who have received a self-care plan (plan for medication adjustment in response to change in symptoms or Peak flow rate)
Congestive Heart Failure Management				
	ER visits	Core Patients with Dx of CHF 20 years to 75 years of age	Definition of dx of Congestive Heart Failure = at least two visits where billing was submitted with a diagnosis of CHF	% of patients who visited an emergency dept. for CHF within the past 12 months
	Patients weighed regularly			% of patients who received testing within the past 12 months
	ACE inhibitor as first line treatment	Core Patients with Dx of CHF 18 years and over		% of patients using ACE inhibitor or ARBs
	Lipids	Core Patients with Dx of CHF 18 years and over		% of patients who received testing within the past 12 months
	BP measurement	Core Patients with Dx of CHF 18 years and over		% of patients who received testing within the past 12 months
	Blood sugar	Core Patients with Dx of CHF 18 years and over		% of patients who received testing within the past 12 months
Hypertension Management				
	Fasting blood sugar	Core Patients with Dx of Hypertension 18 years and over	Definition of dx of hypertension = at least two visits where billing was submitted with a dx of hypertension and at least one prescription given for an antihypertensive drug	% of patients who received testing within the past 12 months
	Full fasting lipid profile screening	Core Patients with Dx of Hypertension 18 years and over		% of patients who received testing within the past 12 months

	Test to detect renal dysfunction (e.g. serum creatinine)	Core Patients with Dx of Hypertension 18 years and over		% of patients who received testing within the past 12 months
	BP measurement	Core Patients with Dx of Hypertension 18 years and over		% of patients who received testing within the past 12 months
	Obesity/overweight screening	Core Patients with Dx of Hypertension 18 years and over		% of patients who received testing within the past 12 months
Coronary Artery Disease Management				
	Fasting blood sugar	Core Patients with Dx of Coronary Artery Disease 18 years and over	Definition of dx of coronary artery disease = at least one visit where billing was submitted with a dx of CAD and at least one prescription was given for a drug related to treatment of CAD	% of patients who received testing within the past 12 months
	Full fasting lipid profile screening	Core Patients with Dx of Coronary Artery Disease 18 years and over		% of patients who received testing within the past 12 months
	BP measurement	Core Patients with Dx of Coronary Artery Disease 18 years and over		% of patients who received testing within the past 12 months
	Obesity/overweight screening	Core Patients with Dx of Coronary Artery Disease 18 years and over		% of patients who received testing within the past 12 months
	Lipid reduction counselling	Core Patients with Dx of Coronary Artery Disease 18 years and over		% of patients with LDL > 2.5mmol/L who were offered advice on lifestyle and/or lipid-lowering medication
	Beta blockers	Core Patients who have had an acute MI		% of patients currently prescribed a beta blocking drug
Mental Health				
	Patients starting antidepressants and seen within 2 weeks for monitoring	Core Patients with Dx of Depression	Definition of dx of depression = at least one visit where billing was submitted with a dx of depression and treatment was given at the same visit	% of patients who are taking antidepressant drug treatment under the supervision of a PHC provider and had follow-up contact by a PHC proviers for review within 2 weeks of initiating treatment
		Core Patients with Dx of Depression 18 years and over		% of patients who were offered treatment (pharmacological or non-pharmacological) or referral to a mental health provider
		Core Patients with Dx of Panic Disorder or Generalized Anxiety Disorder 18 years and over		% of patients who were offered treatment (pharmacological or non-pharmacological) or referral to a mental health provider