Health—Primary Care Networks

Summary

The first Primary Care Network began operations in 2005. The program has grown steadily since its inception. As of April 2012, there are 40 PCNs operating in the province, involving over 2,600 family physicians and more than 600 full-time equivalent other healthcare providers in delivering primary healthcare services to 2.9 million Albertans. The Department of Health expects to spend more than $170 million on the PCN program in 2012-13, and has provided over $700 million in funding to date.

Why it is important to Albertans

The significance of the PCN program goes far beyond the direct funding the Department provides to it. PCNs are a critical link that operationally connects family physicians with AHS in the delivery of primary healthcare services. High quality primary healthcare is critical for prevention of acute illness and for effective and efficient management of chronic disease. By focusing on health promotion and disease prevention, primary healthcare can help identify disease at its onset and reduce the subsequent severity of an illness. This can produce better health outcomes for Albertans and reduce the demand on more expensive acute care services.

What we examined

The objective of our audit was to determine whether the Department of Health has systems to demonstrate the value that Albertans are receiving from the public's investment in Primary Care Networks. We examined:

- whether the Department has systems to ensure PCNs, individually and overall, are achieving the objectives of the PCN program
- whether Alberta Health Services has systems to meet its responsibilities under the PCN program

We performed two concurrent audits—one at the Department of Health and one at AHS. The reason for presenting them in one report is that both entities have significant roles with respect to PCNs, and these roles must be coordinated for the program to succeed.

What we found

We found significant weaknesses in the design and implementation of the accountability systems for the PCN program. Our overall conclusions are as follows:

- The Department and AHS do not have systems to evaluate the PCN program and demonstrate that their current efforts are bringing the province-wide benefits envisioned for this initiative.
- Albertans are not informed that they are assigned to a PCN, and PCNs do not have the names of those the Department has assigned to them. PCNs know only the total number of patients assigned and the amount of funding they receive. This limits patients' ability to engage in decisions about their own healthcare, and impairs PCN program planning and accountability.
- Opportunities to create province-wide systems to support and improve the PCN program have been missed by both the Department and AHS.
- System weaknesses at different levels within the PCN program have resulted in poor compliance oversight for the program overall.
- Although we found weaknesses in the systems of accountability and centralized support for the PCN program, we observed many examples of positive outcomes and good practices by individual service providers, management and staff at PCNs and AHS, as well as the Department.

PCN context

The current state of the PCN program must be viewed in the context of challenges the program has faced since its inception. The following history provides some context for the progress of the program:

- The PCN program was the first systematic effort in Alberta to bring the Department, regional health authorities and family physicians together at the operational level in primary healthcare.
- During the eight years (2003–2011) that a Tri-lateral master agreement was in effect, the Department, regional health authorities (later AHS), and the Alberta Medical Association were considered equal parties in making decisions about the PCN program. This need for consensus created challenges in aligning the parties' interests to achieve the common objectives of the PCN program and measure its success.
- To get the initiative started, sacrifices were made around system design, controls and performance measurement. The Department and regional health authorities expected to overcome these limitations and gaps as the PCN program matured.
- From the start, the daily operations of PCNs were placed under the control of family physicians, with regional health authorities participating mainly at the governance level on PCN boards.
- Effective April 1, 2009, AHS took over from the nine regional health authorities as a 50% joint venture participant in all PCNs. AHS had to combine the different structures inherited from the regional health authorities into a province-wide approach to its PCN responsibilities. Subsequent reorganizations within AHS have further changed the processes between AHS and the PCNs.
- With the expiry of the Tri-lateral Master Agreement on March 31, 2011, the Department has sole authority for all financial matters related to the PCN program, with input from AHS and the AMA through an interim advisory committee that has representation from all three parties.

What needs to be done

We made the following four recommendations to the Department of Health and one recommendation to Alberta Health Services:

Recommendation—Department's accountability for the PCN program

We recommend that the Department of Health:

- establish clear expectations and targets for PCN program objectives
- develop systems to evaluate and report performance of the PCN program

Recommendation—AHS accountability for PCNs

We recommend that AHS within the context of its provincial primary healthcare responsibilities:

- define goals and service delivery expectations for its involvement in PCNs
- define performance measures and targets
- evaluate and report on its performance as a PCN joint venture participant

Recommendation—Engagement and accountability to PCN patients

We recommend that the Department of Health proactively inform Albertans about which PCN they are informally assigned to, and what services are available through their PCN.

Recommendation—Department's support to the PCN program

We recommend that the Department of Health improve its systems to provide information and support that the PCNs and AHS need to achieve PCN program objectives.

Recommendation—Department's oversight of PCNs

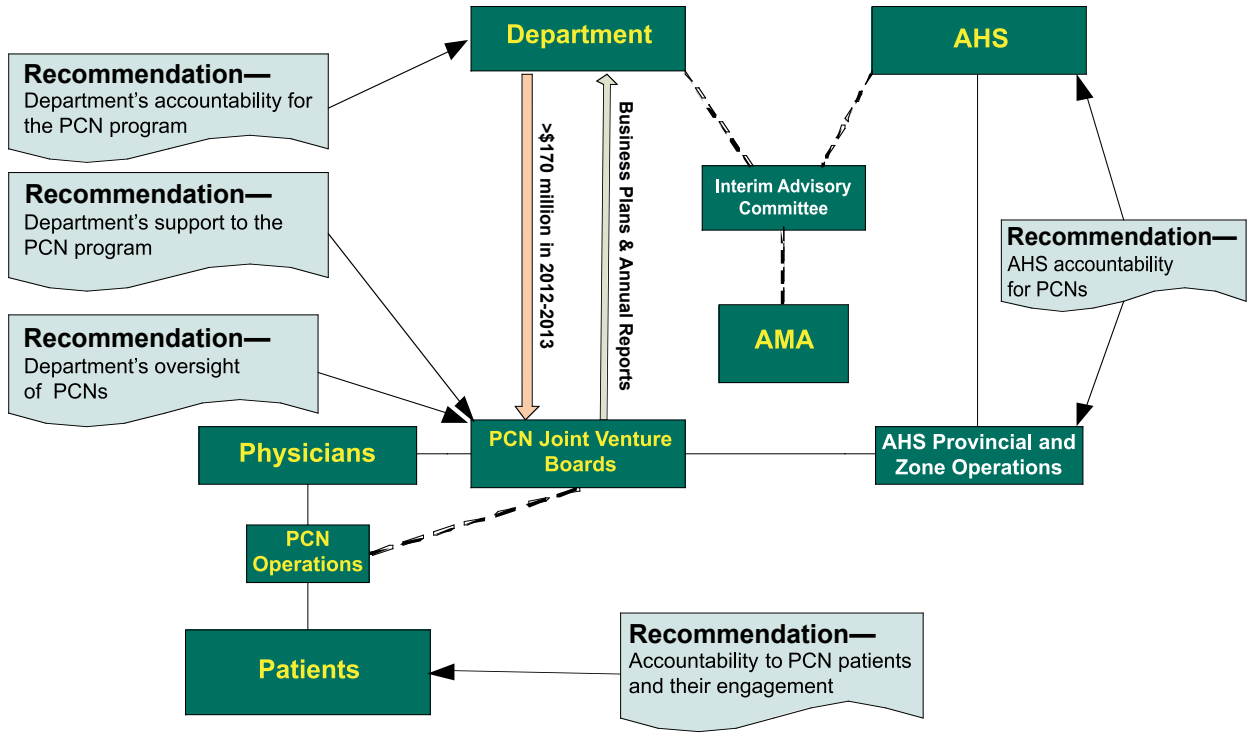
We recommend that the Department of Health improve its systems for oversight of PCNs by:

- obtaining assurance that PCNs are complying with the financial and operating policies of the PCN program
- ensuring PCN surplus funds are used in a timely and sustainable manner

Acronyms in this chapter

AHS	Alberta Health Services
AMA	Alberta Medical Association
AMEGW	Accountability Monitoring Evaluation Working Group
CDM	Chronic Disease Management
CIHI	Canadian Institute for Health Information
EMR	Electronic Medical Record
FCC	Family Care Clinic
FTE	Full-time Equivalent
HQCA	Health Quality Council of Alberta
IAC	Interim Advisory Committee
LPN	Licensed Practical Nurse
PCIC	Primary Care Initiative Committee
PCN	Primary Care Network
PDI	Performance and Diligence Indicators
PMO	Program Management Off ce
SRP	Surplus Reduction Plan

The f gure below shows the areas of the PCN program that our recommendations relate to:



Audit objective and scope

The focus of our audit was on the accountability systems in place at the Department and AHS to support the implementation of the PCN program as it currently exists. It was not our objective to conclude on how agreements between the Department, AHS and the AMA should be structured, or how resources for the delivery of the PCN program should be organized.

We did not audit the work of family physicians or individual PCNs. We met with management from f ve PCNs to understand their business operations, systems and perspectives on PCN effectiveness.

We did not audit systems at the Program Management Off ce[1] but met with the off ce's management to understand their role and perspective on PCN accountability.

Our scope did not include verifying the completeness or accuracy of information the PCNs report to the Department. We did not assess whether the patient or service data in the information systems of the Department, AHS or the PCNs is complete or accurate.

Audit Background

What is primary healthcare?

Primary healthcare consists of systems that provide Albertans with access to coordinated, integrated and expanded services within their community, with a focus on population health, sickness prevention through early intervention and health promotion. Optimal primary healthcare delivery provides Albertans access to primary healthcare when they need it, where they need it and from the most appropriate provider(s).

Primary healthcare services include, but are not limited to:

- prevention and treatment of common diseases and injuries
- basic emergency services
- referrals to, and coordination with, other levels of care (such as hospitals and specialists)
- chronic disease prevention and management
- primary mental healthcare
- palliative and end-of-life care
- health promotion
- healthy child development
- primary maternity care
- rehabilitation services

A key component of primary healthcare is that it is meant to be continuing rather than episodic, implying attachment to a family physician or group of primary caregivers. Primary healthcare is delivered in a variety of settings—appointments with family physicians, consultations with nurses or nurse practitioners, telephone calls to health information lines, and advice received from pharmacists are just some examples of primary healthcare services. According to Health Canada, primary healthcare includes aspects of health promotion, illness and injury prevention, as well as the diagnosis and treatment of illness and injury.[2]

Primary healthcare also requires individuals to play an active role in their own health, preventing people from becoming ill or injured, managing chronic conditions, and transitioning patients to more advanced levels of care when they suffer acute or episodic illness. The Ministry of Health believes that when Albertans understand and actively participate in their own care, health outcomes improve.

[1] The Program Management Off ce (PMO) is staffed through the Alberta Medical Association and funded by the Department. Its main role is to assist individual PCNs in preparing their business plans, budgets and reports.

[2] Health Canada website: http://www.hc-sc.gc.ca/hcs-sss/prim/about-apropos-eng.php

Why is primary healthcare important?

Primary healthcare improvement is one of the five strategies highlighted in *Becoming the best: Alberta's 5-year health action plan, 2010–2015.*[3] The five-year plan called for creation of a provincial primary healthcare plan by March 2012. The provincial primary healthcare plan has not yet been developed.

Primary healthcare is the cornerstone of prevention and early identification of illness and management of chronic disease. For most Albertans, primary healthcare providers, in particular family physicians, are the first point of contact with the healthcare system. As gatekeepers for the broader healthcare system, primary caregivers are critical to improving coordination with public health, continuing care, elder care, palliative care, emergency care, urgent care, hospital care, specialized care, diagnostic services, prevention services, educational centres, community clinics, self-help groups, women's shelters and youth treatment facilities.

The benefits of primary healthcare include its potential to help maintain a healthier population.[4] An effective primary healthcare system treats disease and meets patient needs in the community, before hospitalization is required. Patients that do not receive timely and effective treatment from primary healthcare providers don't simply get their care elsewhere—more often than not they later present at emergency departments and hospital inpatient units. Effective primary healthcare services help reduce the financial burden of the disease because prevention and early treatment are almost always less expensive than hospitalization.

Primary healthcare is also the key to effective and efficient management of chronic diseases. Chronic diseases are a significant burden for the healthcare system. Alberta's health utilization data shows the Ministry of Health spends about $400 a year for a healthy person. This compares to $650 for someone with an acute condition, $1,400 for a person with a single major chronic condition, and $10,000 for someone with multiple chronic conditions. Although cancer is generally presumed to be a major cost to the system, the average yearly expenditure for someone with cancer is $4,700.[5]

Globally, the case for primary healthcare is well established: stronger primary healthcare leads to better health outcomes. International studies demonstrate that the strength of a country's primary healthcare system is associated with improved population health outcomes for all-cause mortality, and all-cause premature mortality. Increased availability of primary healthcare results in higher patient satisfaction and reduced total healthcare spending. Countries such as New Zealand, Finland, Denmark, Norway and the United States (Kaiser Permanente) have demonstrated positive health outcomes for their populations and significant improvements in equity, efficiency, effectiveness and responsiveness of their health systems. In light of these benefits, there has been a world-wide resurgence and refocus on primary healthcare.[6]

[3] See http://www.health.alberta.ca/initiatives/5-year-health-action-plan.html
[4] Starfield, Shi & Macinko, 2005, Contribution of Primary Care to Health Systems and Health.
[5] AHS, 2010, Discussion paper on primary care models (unpublished).
[6] Ibid.

What is the Primary Care Network program?

History

In 2000, Canada's prime minister and the provincial and territorial premiers agreed that improvements to primary healthcare are crucial to the renewal of health services and highlighted the importance of multidisciplinary teams. To that end, the Government of Canada established the $800 million Primary Healthcare Transition Fund, of which Alberta's share was over $50 million. The fund supported provinces and territories in their efforts to reform the primary healthcare system by providing support for new approaches to primary healthcare delivery.

In Alberta, the policy response to the national primary healthcare initiative has been the PCN program. PCNs were initially conceived of as a means to apply the federal funding. However, the Department, regional health authorities and the Alberta Medical Association collectively recognized the value of ongoing funding for primary healthcare reform and innovation. They formed a trilateral primary care initiative,[7] what we now refer to as the PCN program. Administration of the program became the responsibility of the Primary Care Initiative Committee. The committee had equal representation from the Department, AHS and the AMA, and made program decisions based on consensus of the three parties.

What is a PCN?

A PCN is a joint venture between a group of family physicians and Alberta Health Services, funded by the Department of Health. The five key objectives of PCNs are to:

1. increase the proportion of residents with ready access to primary care
2. provide coordinated 24-hour, 7-days-per-week management of access to appropriate primary care services
3. increase the emphasis on health promotion, disease and injury prevention, and care of the medically complex patient and patients with chronic diseases
4. improve coordination and integration with other healthcare services, including secondary, tertiary and long-term care through specialty care linkages to primary care
5. facilitate the greater use of multidisciplinary teams to provide comprehensive primary care

The intent was that decisions on service priorities and delivery models would be made jointly by physicians and AHS representatives. Individual PCN business plans, budgets, mid-year and annual reports were forwarded to the Primary Care Initiative Committee for approval. As of April 1, 2012, the Department had assumed direct authority for review and approval of accountability documentations, as per PCN grant funding agreements (see Appendix A).

A PCN board or governance committee comprised of physicians and AHS representatives sets policy direction in each PCN. Daily clinical operations of the PCN are primarily in the control of the family physicians, an issue that was deemed important by the physicians.[8]

[7] The PCN program was set out in Schedule G to the Tri-Lateral Master (Physician Funding) Agreement in effect from April 1, 2003 to March 31, 2011.

[8] College of Family Physicians of Canada website: http://toolkit.cfpc.ca/en/governance/appendix-2-alberta-primary-care-networks-governance-issues.php

A brief summary of PCN facts is presented below (for more details see Appendix B):

Number of PCNs at April 1, 2012	40
PCN physicians at April 1, 2012	Over 2,600
PCN non-physician healthcare providers employed by PCNs at March 31, 2011	About 600 full-time equivalent (FTE) non-physician healthcare providers (e.g., nurses, dietitians, mental health workers, pharmacists), or an average of 0.25 non-physician FTEs for every PCN physician. Signif cant variation among PCNs—some employ none, while others employ 0.7 FTEs for every PCN physician.[9]
Albertans assigned to PCNs at April 1, 2012	Approximately 2.9 million
Funding allocated to PCNs	Total to March 31, 2012: $645 million 2012–2013 budget: $174 million These funds are in addition to more than $1 billion/year the Department spends in fee-for-service payments to family physicians and the Department's $10.5 billion grant to AHS in 2012–2013.
PCN payments to non-physician healthcare providers	In 2010–2011, an average of 36% of all PCN expenses were for compensation to non-physician healthcare providers, ranging from 0% to 65% of expenses.[10]
PCN payments to physicians	In 2010–2011, an average of 28% of all PCN expenses were payments to physicians for services other than fee-for-service patient care, ranging from 4% to 62%.[11]
Other PCN expenses	In 2010–2011, other expenses (e.g., utilities and rent, management compensation, information technology, administrative and support), averaged 36% of all PCN expenses, ranging from 15% to 93%.[12]

Clinical services provided by PCNs

The services provided by individual PCNs vary due to variations in size of the geographic area covered, number of physicians in the PCN and known patient needs. In most PCNs, family physicians continue to provide care through their own off ces or clinics. In some cases, family physicians and other healthcare providers employed by the PCN may co-locate, providing one-stop service to their patients.

PCNs employ multidisciplinary teams of healthcare providers, including nurses, dietitians, mental health workers and others to increase access and deliver comprehensive care. A PCN may establish a triage system to direct patients to a physician or one of these other healthcare providers, depending on the patient's needs. PCNs deliver programs in areas of health promotion, disease and injury prevention, care of chronic disease and complex needs, family planning and pregnancy counselling, well-child care, obstetric care, palliative and end-of-life care, geriatric care and rehabilitative care (see Appendix C).

[9] Newly established PCNs in general will show higher administrative costs in relation to total PCN expenses while their clinical programs are being developed.
[10] Ibid.
[11] Ibid.
[12] Ibid.

The potential benef ts of PCNs

It is important to look at the f ve stated objectives of the PCN program and understand the potential that achievement of these objectives has for the health of Albertans and the healthcare delivery system as a whole. Appreciating the opportunities presented by the PCN program helps set realistic expectations, performance measures and targets for meaningful program evaluation. Potential benef ts include:[13]

PCN objective	Potential service benefits	Potential health benefits
Improved access	• increased number of Albertans with a personal family physician, or other primary healthcare provide • reduced wait times to see an appropriate primary healthcare provider, including a family physician	• patients with a personal family physician tend to have better health and better health outcomes than patients who do not • improved health outcomes because problems are treated before they become more serious
24/7 (extended hours) services	• reduced visits to emergency departments for conditions that can be treated in a family care setting • patients can see a primary healthcare provider when they need to	• better health outcomes for these patients when treated in a family care setting • improved access—see access benef ts above
Chronic disease prevention and management (CDM)	• future cost savings by preventing onset of acute and complex medical problems • use of evidence-based clinical practice guidelines and information technology to improve quality of care • reduced acute care admissions and emergency visits for conditions that can be treated in a primary healthcare setting	• increased years of good health improved and more consistent outcomes from best practice treatment • chronic problems are managed before they become severe
Improved linkages with other providers	• reduced wait times to receive specialized care • more timely and complete communication of medical information between providers • reduced redundant tests	• improved health outcomes because problems are treated sooner • reduced prescription errors and more accurate diagnoses and treatments save time, reduce stress and risk from unnecessary tests
Multidisciplinary Teams	• chronic disease management is facilitated using other health providers (dietitians, pharmacists, therapists, etc.) • a team of providers, including family physicians, can offer broader and more appropriate service to patients	• more comprehensive and timely primary healthcare services, for treatment of such conditions as chronic disease—see CDM benef ts above • improved access—see access benef ts above

[13] We reviewed several sources to compile this list, including Health Canada (e.g., http://www.hc-sc.gc.ca/hcs-sss/prim/about-apropos-eng.php), the Department and AHS, as well as the Primary Care Initiative website (http://www.albertapci.ca/Pages/default.aspx).

Key entities and their roles in the PCN program

The Department's role is to:

- set PCN program objectives and types of services the program is to deliver
- allocate patients to PCN physicians based on patients' historical pattern of visits to those physicians and provide funding to the PCNs
- formerly through the Primary Care Initiative Committee, approve policies on the form and content of PCN business plans and performance reports—since April 1, 2011, the Department has direct authority to approve PCN program policies, in consultation with AHS and the AMA through the Interim Advisory Committee
- review and approve the plans and reports submitted by the PCNs
- evaluate PCN performance and be publicly accountable for the success of the PCN program overall

AHS's role is to:

- enter into joint venture agreements with groups of family physicians to form PCNs
- participate in the Interim Advisory Committee
- jointly with family physicians in the PCNs:
  - plan the delivery of each PCN's services based on local population needs and the PCN's service capacity
  - deliver primary healthcare services in different service areas, in new or expanded ways, or to different patient groups. PCN funding must go to services and programs not already provided by other entities.
  - prepare, approve and submit PCN business plans, budgets and annual reports to the Department, as per PCN grant funding agreements
  - monitor each PCN budget at the local PCN governance level

Family physician's role is to:

- manage daily clinical operations of the PCN
- jointly with AHS, fulfil governance responsibilities in the PCN (see above)
- provide patient services and programs in accordance with approved PCN business plans and in compliance with PCN program policies and expectations

The AMA's role is to:

- represent physicians in negotiations with the Department and AHS
- receive grant funding for, and oversee the operations of, the Program Management Office

Importance of physician engagement

Historically, the regional health authorities operated with very little daily operational contact with one of the main providers of primary healthcare in the province—family physicians. Before PCNs, there was no formal mechanism for the two parties to engage in joint planning and coordination of primary healthcare services. The PCN program was intended to help resolve this fragmentation.

The vast majority of family physicians in the province, including those who have hospital privileges at AHS, are self-employed service providers who are compensated by the Department on a fee-for-service basis—they are not employees of AHS. Physicians are accountable to the Department through the billing process, and are accountable to their patients and the College of Physicians and Surgeons of Alberta for the quality of the care and treatment they provide.

Family physicians represent over 50% of all physicians in Alberta. Decisions made by family physicians, directly and indirectly, have a significant impact on the overall cost and outcomes of healthcare in Alberta. The *Canada Health Act* stipulates that provinces must provide insured medical services, many of which are provided or initiated by physicians. This means that most medical treatment decisions can only be made by a physician. A family physician is often the

patient's first point of contact with the healthcare system. When a physician decides on a treatment, prescribes medical testing or makes a specialist referral, AHS or the Department pays for these services. Decisions made by family physicians therefore have immediate and long-term effects on the future demand and costs for all health services.

Findings and recommendations

Department's accountability for the PCN program

Background

In our view, a top performing healthcare system requires:

- clear definitions of service delivery expectations, measures and targets
- systems to measure and manage costs, activities, outputs and outcomes
- systems to report on program performance

Measurement and management of performance can be viewed at three basic levels:

- clinical programs within PCNs—Measures relate to service delivery levels and impacts on individual patients in individual programs. These are volume, type and quality of service measures focusing on relatively immediate patient outcomes.
- individual PCNs—Measures relate to factors under the direct control of the PCN, including the activities related to management and clinical decisions that impact the availability, volume, type and quality of services provided.
- overall PCN program level—Measures relate to the success of the program in relation to its core objectives and its impact on the healthcare system as a whole. This level of performance management is primarily the responsibility of the Department and AHS, and includes policy and governance activities that affect the resource inputs into primary healthcare.

Program evaluation requires information on:

- inputs (e.g., information on cost of services)
- processes and activities (e.g., use of electronic medical records and chronic disease registries, use of multidisciplinary teams, extended hours offered)
- outputs (e.g., number of screens, extended hours visits, program attendance, specialist referrals)
- outcomes (e.g., emergency visit reductions, reduced emergency revisits, acute care reductions, patient self-assessed health status, reduced overall costs over time)
- quality/compliance with good clinical practice (e.g., % screened, compliance with chronic disease management guidelines)

History of PCN performance evaluation

Accountability Monitoring Evaluation Working Group—The Primary Care Initiative Committee established this working group in 2005 to develop an approach for evaluating and reporting the progress of the PCN program. In 2006, the group released its program evaluation framework, setting out a comprehensive approach that could be used to measure the performance of PCNs across Alberta. The framework built on primary healthcare evaluation work done by the Canadian Institute for Health Information, tailored for Alberta's circumstances and the PCN program.[11]

Malatest Report—The AMEWG project culminated in a $1.9 million one-time evaluation study of the PCNs completed in 2010 by R.A. Malatest & Associates Ltd.[12] The Malatest Report noted various good practices and instances of favourable results, but the study was limited by lack of complete and comparable data across PCNs. For example, Malatest found many instances of PCNs engaging in desired activities such as the use of multidisciplinary teams, but had difficulty determining the outcomes of these practices on a comparable basis across PCNs.

[11] Canadian Institute of Health Information, 2006, Pan-Canadian primary healthcare indicators.
[12] http://www.albertadoctors.org/PresLet/malatest_summary_may

.The key f ndings Malatest reported were generally not based on information from the PCNs because PCNs did not have the systems to produce this information. For example, Malatest reported:

- greater attachment of PCN patients to a regular family doctor, based on a patient survey by Malatest (91% of patients in a PCN vs. 81% among patients not served by a PCN)
- lower use of emergency department services by PCN patients, based on AHS data and supported by a patient survey by Malatest (46 visits/year per 100 population by PCN patients vs. 52 visits/year per 100 population by non-PCN patients)
- better use by PCN physicians of screening tools as part of health promotion and disease and injury prevention initiatives, based on data from the Toward Optimized Practice program administered by the AMA (PCN physicians compared to non-PCN physicians more commonly screened their patients for smoking [93% vs. 77%], tetanus/diphtheria immunization [59% vs. 33%], clinical breast exam [99% vs. 84%], mammography [96% vs. 85%] and bone density [63% vs. 44%])
- various measures reporting higher patient satisfaction among PCN vs. non-PCN patients, based on a patient survey by Malatest

Apart from the Malatest Report, the AMEWG evaluation framework has not been implemented.

Performance and Diligence Indicators Program—The PDI program was developed by the Department, AHS and the AMA to introduce a set of primary healthcare indicators in two phases. In Phase 1, physicians validated their patient panels. Over 1,350 physicians completed Phase 1 in the f rst two years, 2009–2010 and 2010–2011. In Phase 2, physicians were to report information on these measures for which they would receive incentive payments based on results achieved. Proposed PDI indicators included chronic disease screening, wait times for an appointment to see a family physician, and continuity of care measured by repeat visits to the same physician. In 2011–2012, the Department cancelled the PDI program and Phase 2 was not implemented.

Recommendation: Department's accountability for the PCN program

5 RECOMMENDATION

We recommend that the Department of Health:

- establish clear expectations and targets for each of the PCN program objectives
- develop systems to evaluate and report performance of the PCN program

Criteria: the standards for our audit

The Department should:

- provide clear objectives for PCNs, and review and approve additional objectives that may be proposed by the PCNs if they will help achieve the Department's goals
- provide or approve performance measures and targets for each objective of the PCN program—These measures and targets should be:
  - clearly linked to funding provided for key programs and services to be delivered by PCNs
  - specif c, meaningful, reasonable and, where possible, focused on patient outcomes
- report publicly on the overall performance of PCNs for funds spent, including outputs and, where possible, improvements in patient outcomes

Our audit findings

Key findings

- The PCN program does not have def ned service delivery expectations, performance measures and targets for individual program objectives.
- The Department and AHS have each done work on performance evaluation, but the work is fragmented and does not constitute an adequate performance evaluation system for the PCN program.

PCN program in the big picture

Primary healthcare improvement is one of the five key strategies outlined under *Becoming the best: Alberta's 5-year health action plan, 2010–2015.*[13] The five-year plan called for creation of a provincial primary care health plan by March 2012, but as of April 30, 2012 the plan had not been issued. PCNs are only one of many possible models of primary healthcare service delivery. Without knowing the provincial plan for primary healthcare, it is difficult to define how PCNs fit strategically within the Alberta healthcare system, and whether PCNs are developing along the right path.

Current reporting on the PCN program

The Department provides very little information on the performance of the PCN program. The Department and AHS each report a variety of measures related to the overall area of primary healthcare, but few of them relate directly to PCNs and none reflect on performance of the PCN program.

In its annual reports, the Department provides only basic statistics on:

- the number of PCNs in the province
- percentage of Alberta population informally assigned to PCN physicians
- percentage of family physicians linked to PCNs
- percentage of Albertans reporting that they have a personal family doctor

This information does not shed light on work done by PCNs, and does not show whether the PCN program overall is meeting its objectives. See Appendix D for examples of performance measures the PCN program could potentially use.

Expectations, measures and targets for the PCN program

The Department has not set service delivery expectations, measures and targets for the five PCN program objectives:

1. *Increase the proportion of residents with ready access to primary care*

   PCN responsibility for increasing access to primary healthcare is unclear because neither PCNs nor AHS know which patients are assigned to each PCN. The Department assigns patients to PCNs, but does not inform PCNs or AHS who it has assigned to their patient panels. PCNs and AHS can request information on individual PCN physician patient panels, but we saw few instances where this happened.

   The Department also does not define service or catchment areas that PCNs are responsible for. AHS zones are divided into geographic areas, while physician patient lists are based on the historical pattern of patient visits to those physicians. In rural areas of the province, a single PCN may include most physicians and patients in a given geographic area. However, over two thirds of Albertans live in and around urban centres, and may not see a family physician in the same area they live in. As a result, the nine PCNs in Edmonton and seven PCNs in Calgary do not know whether patients they provide services to are assigned to their PCN or not.

2. *Provide coordinated 24-hour, 7-days-per-week management of access to appropriate primary care services*

   The Department has not defined what it means to provide "24/7 access to primary healthcare" and has not set minimum service expectations. We observed significant variation among service providers in their views of appropriate 24/7 access to primary care. Some PCNs

[13] See http://www.health.alberta.ca/initiatives/5-year-health-action-plan.html

run community clinics during evenings and weekends, while others rely on HealthLink or a local emergency department to fulfill the 24/7 access expectation.

3. *Increase emphasis on health promotion, disease and injury prevention, and care of the medically complex patient and patients with chronic diseases*
The Department has not set expectations for the types of chronic diseases PCNs should focus on, service expectations in terms of patient numbers and type of service, and does not require PCNs to follow minimum clinical standards or guidelines, such as clinical practice guidelines approved by the AMA's Toward Optimized Practice program.[14]

   Promotion, prevention and care for chronic diseases includes a wide variety of activities and health conditions, some of which may not be a provincial health priority. Without clear expectations, PCN services for this objective could range from putting up information posters and distributing pamphlets, to comprehensive clinical programs with patient registries and multidisciplinary teams responsible for managing care of patients with diabetes or hypertension, for example.

4. *Improve coordination and integration with other healthcare services, including secondary, tertiary and long-term care through specialty care links to primary care*
The Department has not set clear expectations for the type and level of coordination and integration either in terms of wait times and ease of service navigation, or in terms of treatment outcomes. Without clear expectations, the concept of better coordination and integration with other service providers is open to interpretation. Knowing the names and phone numbers of other service providers in the area is viewed as an improvement by some PCN service providers, while others have established referral lists and designate staff to navigate patients through the healthcare system.

5. *Facilitate the greater use of multidisciplinary teams to provide comprehensive primary care*
The Department has not set expectations for the types of skills that multidisciplinary teams should have or the services they should provide. In combination with setting expectations for objective 4 above, this guidance is necessary to direct PCN workforce planning.

Systems for PCN evaluation—The Department does not have a system to evaluate the performance of individual PCNs, or the PCN program overall, in relation to program objectives. The Department also cannot assess PCN impacts on the demand for, and cost of, acute care and emergency department services in the province. The Department has some of the necessary data, but does not use it for evaluation.

PCN evaluation framework—Evaluation initiatives to date have not been adequate given the magnitude of the public investment and significance of the PCN program:

- The AMEWG evaluation framework has not been implemented or piloted.
- The Malatest Report was a one-time study and does not constitute an ongoing performance evaluation system.
- The Department's Performance and Diligence Indicators program was cancelled before the evaluation phase was implemented.
- PCNs have worked to develop their own evaluation systems to manage their clinical programs. In essence, there are 40 separate PCN measurement systems that do not share common performance measures, do not share definitions and rarely have targets. This prevents province-wide performance reporting and constitutes a significant duplication of effort and resources by the PCNs. The quality

[14] See http://www.topalbertadoctors.org/cpgs.php?sid=17&cpg_cats=74.

and sophistication of PCN evaluation systems varies widely, ranging from manually populated Excel spreadsheets to interconnected databases.

- Although the Health Quality Council of Alberta is not involved in or responsible for the PCN program, it has done work to measure performance of some PCNs in the province. The HQCA has compiled data from the Department, AHS and PCNs in an effort to provide program evaluation information to individual PCNs. For example, the HQCA has used PCN patient panel information to assess the impact of PCN extended hours access programs on AHS emergency department visits.

Cost effectiveness of the PCN program—One of the main benef ts expected from an effective primary healthcare system is that early prevention and community treatment will help reduce the demand for, and associated cost of, relatively more expensive acute care services. The Department does not have a system to evaluate whether PCNs are having an impact on the overall healthcare costs of the patients allocated to them, although the Department and AHS collectively have the information to do this analysis.

By tracking individuals through the healthcare system using their unique identif ers, total healthcare costs over time for patients in PCN programs such as diabetes management can be calculated and compared to similar patients not in such programs, to help funders and providers understand:

- whether patients in PCN programs are relatively more or less expensive to the healthcare system than patients who are not, and how differences in costs may relate to outcomes
- the healthcare service areas, such as acute care, where the greatest proportions of patient costs are being incurred; for example, whether patients in PCN programs rely less on emergency departments and spend less time in hospital
- what the optimum level of funding should be for the PCNs

Implications for Family Care Clinics—As with the PCN program, all major initiatives in primary healthcare need clearly def ned expectations and systems to measure and report performance. As the FCC initiative goes forward, the Department needs to consider the issues discussed above to determine the systems it will require to ensure FCCs are duly accountable and have adequate support to ensure their success.

Implications and risks if recommendation not implemented

Without clear objectives and performance measures to track activities and outcomes, the Department and AHS cannot provide meaningful evaluation of the success and cost-effectiveness of the PCN program. As a result, the Department will not have the critical information to make informed decisions on whether to change, expand or discontinue the PCN program.

AHS accountability for PCNs

Background

AHS is the Alberta government crown corporation responsible for the majority of healthcare service delivery in the province. It is the largest employer in the province. AHS's mandate is to:

- promote and protect the health of the population in Alberta and work toward the prevention of disease and injury
- assess on an ongoing basis the health needs of Alberta
- determine priorities in the provision of health services in Alberta and allocate resources accordingly
- ensure that reasonable access to quality health services is provided in and through Alberta; and
- promote the provision of health services in a manner that is responsive to the needs of individuals and communities and supports the integration of services and facilities in Alberta[15]

[15] AHS, December 2010, Alberta Health Services mandate and roles.

In 2012–2013, the Department will provide AHS with funding of $10.5 billion to deliver this mandate. The majority of this funding is used to deliver acute inpatient care in hospitals, emergency department services, long-term care, diagnostic imaging and laboratory services, and administrative support.

AHS is also the largest single provider of primary healthcare in the province. In 2010–2011, AHS spent $290 million on promotion and prevention programs, $800 million on community-based care programs and $400 million on home care programs. A portion of AHS's costs for diagnostic and therapeutic services, emergency services, laboratory services and ambulance services also involves or supports primary healthcare delivery. Examples of AHS's direct primary healthcare services include:

- home care services for certain patients discharged from hospital into the community
- HealthLink, the provincial 24-hour health information telephone service, which handled 758,971 calls in 2010–2011
- public health centres delivering child health, immunization, nutrition counselling, school dental and other services
- public health nurses providing maternal/child/family health, communicable disease control, school health and health promotion services
- health promotion programs for injury prevention and disease prevention, including stop smoking, healthy eating, active living and sun safety
- screening programs for breast, cervical and colorectal cancer
- immunizations or vaccinations for inf uenza, polio, measles, mumps, tetanus and other diseases
- child health clinics providing health education and counselling for parents, health assessment and screening, and referral to other healthcare providers
- prenatal services including counselling, education on nutrition, and information on Fetal Alcohol Syndrome prevention and effects
- community mental health programs including assessment, crisis intervention and stabilization, intervention services, and continuity of care
- chronic disease management (CDM) programs, including a Provincial Diabetes Plan, Provincial Obesity Strategy, registry systems to help manage and integrate care, and a diabetes program offering education, assessment and multidisciplinary care at a diabetes centre

Family physicians also provide a major portion of the primary healthcare services in the province, for which they receive more than $1 billion/year in fee-for-service payments from the Department. PCN funding has allowed family physicians to provide new services, and in some cases deliver services similar to those provided by AHS. It is in AHS's best interest to ensure PCN services align with its own primary healthcare services and contribute to the achievement of its objectives for primary healthcare and healthcare delivery overall.

PCNs represent a tremendous opportunity for AHS to:

- extend the breadth and depth of both AHS and family physician delivery of primary healthcare by working collaboratively to identify gaps and reduce overlaps
- collaborate more closely with family physicians to help patients transition between primary healthcare and acute care
- engage family physicians to increase their awareness of the impact their decisions have on the overall utilization and cost of healthcare services
- improve the effectiveness of its delivery of primary healthcare, with resulting benef ts in AHS's acute care, emergency departments and other healthcare service areas

It is important for AHS to identify these potential benef ts because they form the basis for setting objectives and targets for its involvement with PCNs.

As in any joint venture, the activities in each PCN will be driven by the goals and expectations of the parties to the joint venture. This recommendation focuses on whether AHS has clearly established what it expects to achieve through its participation in the PCN program, with respect to its provincial mandate to provide primary healthcare services to Albertans.

Recommendation: AHS accountability for PCNs

6 RECOMMENDATION

We recommend that Alberta Health Services within the context of its provincial primary healthcare responsibilities:

- def ne goals and service delivery expectations for its involvement in Primary Care Networks
- def ne performance measures and targets
- evaluate and report on its performance as a PCN joint venture participant

Criteria: the standards for our audit

AHS should clearly def ne its accountability relationship with PCNs, including its role as a PCN joint venture participant in preparing and approving PCN business plans, mid-year and annual reports, and ensuring execution of those business plans.

AHS should have systems to work jointly with physicians to prepare PCN business plans, budgets, mid-year and annual reports that are:

- designed to meet the needs of each PCN's service population
- prepared in accordance with the Department's expectations and submitted on time

Our audit findings

Key findings

- AHS has not def ned clear corporate objectives, performance measures or targets for its work with PCNs, within the context of its provincial primary healthcare responsibilities.
- AHS does not provide meaningful reporting to its board or the public on its performance as a 50% joint venture participant in PCNs.
- The extent and quality of the data AHS uses in working with physicians to plan and evaluate PCN services can be improved.

AHS's objectives for its work with PCNs

AHS does not have clear corporate goals and targets for its joint venture participation in PCNs, and has not set a clear direction for what it wants to accomplish through PCNs.

AHS needs greater corporate focus on PCNs. For example, AHS's 2010–2011 annual report and 2011–2012 business plan provide very little information on PCNs and the services they offer, or the benef ts AHS seeks to achieve through PCNs.

At the operational level, AHS's zone plans mention the need to create closer relationships with PCNs and in some cases outline initiatives in which PCN involvement is necessary. However, zone plans do not provide specif c objectives, timelines, performance measures and targets for its work in PCNs. While AHS has drafted internal strategy documents,[16] it has not provided clear policy direction to its zone managers who represent AHS on PCN boards and governance committees.

[16] For example: AHS April 2010, *A discussion paper on primary care models* and AHS March 2011, *draft evaluation framework for primary care.*

AHS targets and performance measures

AHS has not defined performance measures and targets for its involvement in PCNs at the individual PCN, zone or provincial levels. AHS reports only one performance measure that is directly related to PCNs—the number of patients allocated to PCNs—and the information for that measure comes from the Department.

In Appendix D, we list examples of primary healthcare performance measures[17] and indicate measures applicable to AHS and for which AHS is the main source of information. For example, AHS has information on two measures that it could use to demonstrate PCN progress towards the objectives of improved access and improved prevention and chronic disease management. The measures of hospital admission rates for ambulatory care sensitive conditions and emergency department visit rates for family practice sensitive conditions could be, but are currently not, analyzed for differences between patients in PCN programs vs. patients who are not. Matching PCN program patients to its own records would help AHS assess whether PCN programs are having a positive impact in reducing these avoidable encounters. Similar analyses could be done for immunizations and screenings.

Performance reporting to the AHS board and the public

At the overall program level, AHS reports little information on PCNs to its board or the public. Except for statistics on the percentage of Albertans informally assigned to PCNs, AHS has no province-wide performance measures for the PCN program.

We found that various PCNs have developed a number of performance measures to manage the delivery of their individual clinical programs, but AHS does not compile or assess this information on an overall basis. The only summary information on PCN performance that AHS produces on a regular basis is a schedule in its financial statements showing PCN expenses by categories such as salaries and wages, supplies and services, which does not provide meaningful information on PCN programs such as the amounts spent on health promotion or chronic disease management. Current reporting to the AHS Board does not provide information on PCN clinical programs, service levels or patient outcomes.

Without this information, AHS cannot demonstrate to its board or the public what benefit AHS is achieving from its work with PCNs.

Information for planning

AHS provides PCNs with some information that is useful in planning PCN clinical programs. For example, AHS shares detailed demographic and chronic disease prevalence information for the PCN's geographic area. However, AHS could do more by sharing utilization information such as emergency department visits at local hospitals to help PCNs plan extended hours services.

Information for evaluation

AHS has extensive information on hospital, emergency, laboratory and other health services utilization, but shares very little of this information with PCNs to help them evaluate their performance. For example, a recent independent study compared 75,000 diabetics receiving treatment in a PCN with 75,000 diabetics not receiving their treatment in a PCN and found "care within a PCN was associated with a 20% reduction in the rate of admissions to hospitals and visits to emergency departments for diabetes-specific conditions."[18] The study also found areas in which the quality of diabetes care appeared suboptimal, suggesting opportunities for targeted education through PCN-directed programs.

[17] Our sources included: Canadian Institute for Health Information, the Accountability Monitoring Evaluation Working Group, the Department's PDI program, the Department's evaluation framework for Family Care Clinics, and elements of the patient-centered medical home as expressed by the College of Family Physicians of Canada and the AMA.

[18] Interdisciplinary Chronic Disease Collaboration, "How effective are Alberta primary care networks?" policy research brief, December 5, 2011.

This type of analysis provides valuable insight on whether PCN programs are effective and what they can do to improve, but AHS does not currently extract or analyze such hospital or emergency information or share it with PCNs for evaluation purposes. AHS could also analyze or provide PCNs with information including cardiovascular events and costs that could provide a more complete picture of the impact of PCNs on patients with chronic diseases like diabetes.

Implications and risks if recommendation not implemented

PCNs are a critical operational link for coordination and integration between AHS and family physicians in delivering primary healthcare. If AHS does not have effective systems to link PCN clinical programs with its own primary healthcare services, substantial improvement in AHS's delivery of primary healthcare services through PCNs will not be achieved.

Engagement of PCN patients

Background

To improve primary healthcare delivery, greater attention is being given to the role and responsibility of the patient in determining how healthcare resources should be used. Healthcare policymakers hope that a renewed focus on patient-centered care and shared decision-making by physicians and their patients will help increase the value of healthcare spending and improve patient outcomes and satisfaction.

The process of patient education and engagement in managing their own health, and making informed choices when treatments are indicated, requires that patients have:

- access to their own healthcare records
- information on the medical care services available from their healthcare providers
- general health and medical treatment information

Recommendation: engagement and accountability to PCN patients

7 RECOMMENDATION

We recommend that the Department of Health proactively inform Albertans which Primary Care Network they have been assigned to, and what services are available through their PCN.

Criteria: the standards for our audit

The Department should clearly def ne accountability relationships and reporting requirements for all parties involved in managing PCNs.

Our audit findings

Key findings

- Albertans are not informed that they are informally assigned to a PCN physician.
- Albertans are not informed about services their PCNs have to offer.

The Department does not proactively inform Albertans that they have been assigned to a PCN physician or inform Albertans about the services available through their PCN.

There is no mechanism for patients to f nd out with certainty which PCN they have been assigned to. Some PCNs post signs and make an effort to inform their patients that they are visiting a PCN physician off ce, but others do not. Some general information about the program is available on the PCN program website,[19] and many PCNs have their own websites. However, a patient is not likely to be aware of these websites if they are not aware of PCNs in general or that they are assigned to one.

[19] See http://www.albertapci.ca/Pages/default.aspx

Albertans need to be informed for the following reasons:

- Informing Albertans about their informal assignment to PCN physicians is consistent with the patient-centered care model adopted by the Department and AHS, and is necessary for patients' full engagement in decisions about their own healthcare.
- Informing Albertans about the public services available to them is a fundamental principle of good governance and accountability. An informed patient is a key component in the PCN accountability framework. The Department, AHS and PCNs need to work with the public to ensure alignment between what Albertans expect and what PCNs deliver.
- One of the key objectives of the PCN program is to form stronger attachments between patients and their PCN team to facilitate continuity of care. Few things could be more fundamental to creating this attachment than informing patients which physician they have been assigned to.
- If a PCN cannot meet the primary healthcare needs of its patients, they need to know they can go to another PCN that can deliver the value PCN funding is intended to provide.

Implications and risks if recommendation not implemented

If patients, as the intended recipients of PCN program benef ts, do not know what services the program offers or how to access them, the benef ts will not be fully realized.

Department's support to the PCN program

Background

Departmental systems to provide centralized assistance to PCNs can improve the economy and eff ciency of the PCN program by avoiding the need for individual PCNs to reinvent solutions for similar problems. Individual PCNs do not have the Department's capacity, expertise, access to data and provincial perspective to help optimize their service delivery. The potential benef ts of the Department's assistance are most apparent for smaller PCNs that generally lack the resources required to develop sophisticated service planning and evaluation systems on their own.

While the strength of PCNs lies in their ability to develop local solutions for local needs, the Department has the ability to provide common solutions for common needs. As funder, the Department is ultimately accountable for the PCN program and has a vital role to play in contributing directly to the program's success.

Recommendation: centralized support by the Department

8 RECOMMENDATION

We recommend that the Department of Health improve its systems to provide information and support to help Primary Care Networks and Alberta Health Services achieve PCN program objectives.

Criteria: the standards for our audit

The Department should ensure that PCNs have access to suff cient and timely information to set meaningful performance measures and targets.

Based on cost/benef t considerations and where the information is generated or resides, the Department should determine what data it should supply to PCNs, what data AHS should supply to PCNs, and what data PCNs should develop internally.

Our audit findings

Key findings

- The Department assigns patients to PCN patient panels but does not proactively inform the physicians, the PCNs or AHS which patients have been assigned to the PCN physician panels.
- Data sharing between the Department, AHS and PCN physicians is limited, and systems to do so are not well developed.
- The Department is not capitalizing on existing opportunities to help guide and support PCN planning and evaluation efforts.

Informing PCNs who their patients are

The Department does not proactively provide patient panel information to PCNs to more fully assist them in service planning and evaluation. The Department allocates patients to PCN physician panels based on patients' visits to the physicians. The Department tells PCN physicians how many patients their PCN will receive funding for, but does not provide the physicians, the PCNs or AHS with a list of those patients. The Department also does not def ne service/catchment areas PCNs are responsible for.

PCNs need to know which patients they are receiving funding for to properly plan service delivery and measure progress. PCNs cannot be accountable for the outcomes of their service if they do not know what patients they are responsible for.

AHS zones are divided into geographic areas. In rural areas of the province, a single PCN may include most physicians and patients in a given geographic area. However, over two thirds of Alberta populations live in and around urban centres, and may not see their family physician in the same area they live. For example, someone who lives in Airdrie may have their family physician in Calgary. As a result, multiple PCNs in Edmonton and Calgary have no way of knowing whether the patients they provide services to are informally assigned to their PCN or not.

Informing AHS who PCN patients are

The Department does not proactively provide patient panel information to AHS to allow it to more fully assist PCNs in service planning and evaluation. For example, AHS currently provides PCNs with summary information on the incidence of chronic diseases such as diabetes in each PCN's geographic area. This information would be much more useful if it identif ed the specif c patients in each PCN physician's panel that have these conditions. Another example is AHS's Provincial Obesity Business Plan 2011–2016, which states "Primary Care physicians and PCNs should be assisted (by AHS) to actively monitor their patient panels to identify patients at risk due to weight, mental health, or lifestyle issues, and those already overweight or obese who may benef t from interventions."

As discussed on page 41, for AHS to assess the impacts of PCN programs on the overall utilization of its services, it needs the ability to track PCN patients through its acute, emergency, long-term and home care service areas.

Sharing of health data between the Department, AHS and PCN physicians

The Department, AHS and PCN physicians share very little health data critical for planning, delivering and evaluating PCN services.[20] PCN physicians have access to healthcare information on individual patients in their care, but do not know who is on their assigned patient panel. To effectively plan and evaluate their services they need information on their patient panel, such as:

- demographics and chronic conditions (available from the Department and AHS)
- frequency and reasons for emergency department visits (available from AHS)
- frequency and length of hospitalizations (available from AHS)

[20] Standard algorithms can be used to anonymize patient identif ers to share and track patient conditions and treatments across the system without disclosing a patient's identity.

- frequency of visits to other healthcare providers (available from Department and AHS)
- frequency and reasons for physician visits (available from physician records and the Department)

The Department has a wealth of health data that would be very useful to PCNs in planning and evaluating their services, but does not have systems to share this data with PCNs or help them analyze it. For example:

- The Department's Population Health unit analyzes healthcare service data to determine which Albertans have chronic diseases.
- The Alberta Health Care Insurance Plan database has information on all physician services received by patients.
- The Department has developed public health databases to record immunizations and patients who require and have received screening services.

AHS has a wealth of health data on emergency department utilization, hospital inpatient services, and the various community health services it provides, but does not have a system for sharing this with the PCNs. This information would be very useful for both planning and evaluating PCN services. Further details on AHS activities are provided in Recommendation No. 6 (page 40).

PCN physicians have patient-specif c information critical for planning and evaluating PCN services. The ability of physicians to access and share this information in a practical way is constrained by whether they have electronic medical records, and what capabilities their EMR systems have. Apart from physician billings, there is no system for the Department or AHS to access generic patient information held by physicians, such as the numbers of patients monitored for chronic conditions.

Privacy issues

We considered whether there are legal barriers to sharing healthcare information and whether there are mechanisms to ensure this information is used appropriately and is adequately protected.

Alberta's *Health Information Act* allows sharing of personal health data for treatment planning and program evaluation purposes. In response to our enquiries, the Off ce of the Information and Privacy Commissioner of Alberta indicated that a formal process exists to share patient data. The parties must submit a Privacy Impact Assessment to the Off ce of the Information and Privacy Commissioner. The Off ce will accept the Privacy Impact Assessment if entities demonstrate a legitimate purpose for sharing the data, its use will be limited to that purpose, and the data will be properly safeguarded.

Opportunities to better support PCN program planning and evaluation

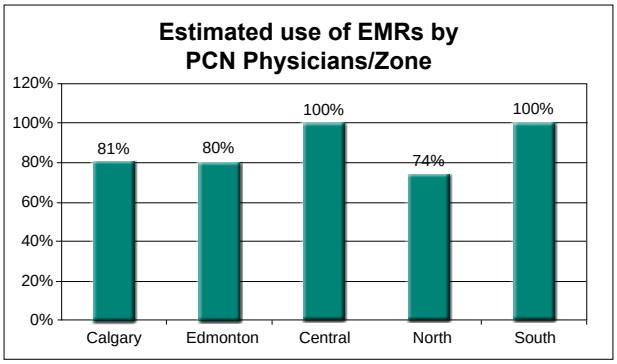
Electronic medical records—An EMR is a computerized medical record created in a health facility or physician's off ce. EMRs tend to be a part of a local stand-alone health information system that allows storage, retrieval and modif cation of records. EMRs assist Alberta's family physicians by facilitating improved business processes and clinical management.

Information systems are being increasingly used in primary healthcare to increase eff ciency and improve the quality and speed of information. Information technology such as EMRs helps clinicians improve outcomes and adhere to recommended care guidelines for patients with chronic diseases such as diabetes.

EMRs are a fundamental building block of comprehensive patient management systems to track patient histories relative to established clinical practice guidelines and care maps, automate reminders to notify patients for recommended care, and support increased coordination of care between health professionals. EMR benef ts include:

- better access to patient medical history, both in a clinic setting and remotely
- bringing evidence-based information and practices to the point of care where they can be used to improve services and patient outcomes
- reduced duplication of medical tests
- easily accessible records of dispensed medications during patient visits, helping to reduce prescription errors
- alerts and reminders for patient tests and results follow-up
- greater connectivity with the provincial electronic health record system (Netcare) for province-wide evaluation of programs

The average rate of EMR adoption across all PCNs is 84% (number of PCN physicians using EMRs divided by the total number of PCN physicians).[21]



This indicates that PCN physicians are generally more progressive than non-PCN physicians in using EMRs. For example, in its 2010–2011 annual report, the Department estimated that Alberta physicians' overall EMR adoption rate was 53%.

While PCN physicians have relatively higher EMR adoption rates than non-PCN physicians, we found:

- Not all PCN physicians using EMRs were using one of three vendor solutions approved as compliant with the Physician Off ce System Program's technical, security and privacy requirements.[22]
- PCNs often did not know whether individual PCN physicians had, or were using, chronic disease management functionality in their EMR systems.
- PCN physician EMR systems were generally not used by their PCNs to collect and report performance information such as screening rates and compliance with clinical practice guidelines.
- Connectivity between PCN physician EMR systems and the province's Netcare system was not being used by all PCN physicians, in part because Netcare's current ability to download information into EMRs is limited.

Robust and fully functioning EMR systems are essential for sustained eff ciency gains in PCN program delivery and meaningful performance reporting on results.

Centralized specialist referral system–The Department has not yet developed a centralized specialist referral system for family physicians. As the custodian of the physician billing information, the Department is in the best position to coordinate the development of such a referral system.

[21] Data comes from two sources—the number of PCN physicians using EMRs (AHS) and the total number of PCN physicians per zone (Department). The data is not perfect because some physicians serve in multiple zones.

[22] POSP is funded by the Department to subsidize physicians in adopting EMRs (70% of cost over f ve years). In addition to f nancial support, POSP helps physicians with change management, data management and privacy obligations as they implement EMRs. Through stakeholder consultation, POSP has developed EMR Vendor Conformance and Usability Requirements, which are a set of functional requirements and technical, security and privacy requirements. From 2005–2006 to 2010–2011, POSP paid $162 million to physicians to subsidize EMR adoption.

In the absence of a centralized specialist referral system, family physicians generally refer their patients to specialists they know or can find in their geographic area. When physicians make such referrals, they may not know how long the waiting lists are for individual specialists, and may not be able to systematically direct their patients to specialists with the shortest wait times. A specialist may also require the patient to repeat medical tests if the referral wait time is too long.

We found several PCNs have developed their own lists of specialists and several had joined together to share their lists. The Department's planned province-wide database of specialists, to be completed by March 31, 2013, is urgently needed.

Population health status—Information on patients' self-rated health status can be valuable in assessing whether PCN programs are having a positive impact on patient outcomes. By periodically sampling a representative cohort of Albertans on an ongoing basis over time using generally accepted assessment tools such as SF-12,[23] the Department could provide PCNs with information to allow them to evaluate whether patients themselves find PCN programs beneficial to their physical and mental health.

Workforce planning—Workforce planning is one of the areas where PCNs are lacking centralized support. Using diabetes as an example, the table on this page shows how structured workforce planning can ensure consistent and appropriate allocation of primary healthcare resources across the province.

WORKFORCE PLANNING [24]

Step 1: Determine health status of the region

Using the best available data, establish health status of the service population re diabetes and protocols for prevention and management (e.g., number of persons by diabetes type and stage).

Step 2: Define best practice care

Use clinical practice guidelines for diabetes management, identify roles of various providers (e.g., family physician, nurse, dietitian, pharmacist). Consider whether objective is best practice or "acceptable" care and implications of this decision on resourcing, outcomes and total cost.

Step 3: Translate best practice protocols into resource requirements per patient

Determine hours by health provider/year for a patient at each disease stage.

Step 4: Translate resource hours into an FTE requirement for each provider type

Combine annual hours for each provider per patient with estimated numbers of persons in each disease type and stage.

Step 5: Match FTE requirements with current supply

Match FTE requirements with health workforce, distribution of population, and alternative approaches to program delivery.

Step 6: Calculate required budget

Determine funding level required to support the projected service requirement. Compare with current resourcing levels. Consider possible funding sources and alternatives.

Step 7: Evaluate and adjust

Plan periodic evaluations and revise services based on evidence of diabetes prevalence and effectiveness of treatment programs.

[23] SF-12 is a 12-question survey developed by QualityMetric. It assesses physical functioning, role limitations due to physical health, bodily pain, general health perceptions, vitality, social functioning, role limitations due to emotional problems and mental health. It yields scale scores for each of these eight health domains, and provides two summary measures of physical and mental health.

[24] Leonie Segal, Kim Dalziel and Tom Bolton, 2008, "A workforce model to support the adoption of best practice care in chronic diseases—a missing piece in clinical guideline implementation," *Implementation Science*, 3:35.

Implications and risks if recommendation not implemented

If the Department does not do all that it reasonably can to provide PCNs with the information and tools they need to plan, deliver and evaluate their services, the PCN program will not be able to perform as eff ciently or effectively as it could, and the achievement of program objectives may ultimately be compromised.

Department's oversight of PCNs

Background

PCN program policies set out the types of allowable expenditures PCNs can use their funding for (see Appendix E). The Department needs assurance that PCN expenditures comply with the f nancial and operating policies of the program, and that reported f nancial and clinical performance information is accurate. This assurance comes from four sources:

- the Department's expectation that AHS, through its direct involvement as a 50% joint venture participant in PCNs, will oversee PCN activities at the local level
- the Department's expectation that the Program Management Off ce will review PCN business plans, budgets and annual reports for alignment with program objectives
- the Department's own review of PCN business plans, budgets and reports, and any other compliance activities it carries out on PCNs
- an annual audit of each PCN by an independent accountant engaged by the PCN

The Department provides per capita funding to PCNs from the time they are formed. Most PCNs do not fully use their funding in their early years when programs are in development and staff members are being recruited. As a result, many PCNs have accumulated signif cant surpluses. In the short term, these surpluses may increase further while PCNs develop plans to use the additional $12 annual per capita funding announced in February 2012 after their 2012–2013 budgets had been prepared.

In 2009, the Department approved a surplus reduction policy issued by the Primary Care Initiative Committee. The policy required all PCNs to submit a three-year surplus reduction plan and to report their use of funds relative to those plans. The policy set out allowable uses for surpluses, including pilot projects, leasehold improvements to develop program space, education and training for clinical teams, and information systems development. The intention was that expenditures be for capacity building purposes or one-time costs, rather than ramping up core programs and ongoing costs to unsustainable levels.

Recommendation: Department's systems to oversee PCNs

9 RECOMMENDATION

We recommend that the Department of Health improve its systems for oversight of Primary Care Networks by:

- obtaining assurance that PCNs are complying with the f nancial and operating policies of the PCN program
- ensuring PCN surplus funds are used in a timely and sustainable manner

Criteria: the standards for our audit

The Department should:

- clearly def ne accountability relationships and reporting requirements for all parties involved in managing PCNs
- have systems to:
  - provide guidance on the form and content of PCN business plans and budgets
  - review and formally approve PCN business plans and budgets to ensure they are consistent with PCN program objectives
  - review PCN mid-year and annual reports, and other information from AHS or its own sources to obtain assurance that:
    - PCN funding is spent in accordance with project objectives
    - individual PCNs are meeting their performance targets and achieving the objectives established by the Department
    - take appropriate and timely action if a PCN is unable to meet its performance expectations or fails to comply with the Department's requirements

Our audit findings

Key findings

The Department does not have adequate systems to obtain assurance that:

- PCN f nancial and clinical performance information is accurate
- PCNs expenditures comply with program policies, approved business plans and budgets

The Department has not provided suff cient direction to PCNs to ensure their surpluses are used in a timely manner. We found:

- Some PCNs are now incurring unsustainable def cits that may require cuts to clinical programs when surpluses are drawn down.
- The Department's rationale for freezing $16 million of PCN assets to fund PCN closing cost reserves is unclear.

Assurance on PCN compliance with program policies

The current combination of oversight and audit activities by parties to the PCN program does not provide the Department with adequate assurance that PCNs are complying with PCN program policies.

Role of AHS in providing assurance—The Department informed us that it expects AHS to oversee PCN operations, verify adequate internal controls are in place, and ensure expenses comply with program policies. We found that AHS's current level of involvement in PCNs does not provide the level of assurance the Department expects.

Under PCN joint venture agreements between AHS and physicians, the physicians are generally responsible for day-to-day PCN operations, management of clinical programs and overall execution of the PCN business plan. AHS views its role as that of a strategic partner and advisor. While this role may be consistent with the joint venture agreements, AHS's lack of involvement in daily operations does not allow it to exercise direct oversight of f nancial and clinical performance information. AHS currently does not have other means to provide the assurance the Department expects.

The Department also needs to manage the risk that AHS may shift some of its costs to PCNs. While integration of services between AHS and PCNs is a critical success factor for the program, program policies clearly state that PCN funding is not to be used for services AHS is already funded for. Because this risk relates to AHS, the Department needs assurance from another source that this is not occurring.

Role of the Program Management Office—There is lack of clarity about the current role of the PMO in relation to its review of PCN business plans, budgets and annual reports.

The PMO assists PCNs in their preparation of business plans and reports, and reviews copies of the f nal versions of these documents at the time they are submitted to the Department. Based on its review, the PMO provides a brief ng memo to the Department, AHS and the AMA to assist the Department in its decisions to approve PCN plans and reports.

Although the Department continues to fund the PMO's $1.8 million annual budget, it has little knowledge of the review procedures performed by the PMO. The Department does not rely on reviews done by the PMO in making approval decisions. The Department communicates its information requests and decisions directly to PCNs or the PMO. In some cases, PCNs f nd there is duplication in questions posed by the Department and the PMO.

Department's review process—Current templates and guidance prescribing the information PCNs are to submit in their business plans and annual reports do not provide the Department with suff cient detail to adequately evaluate PCN compliance with program policies.

We found that the Department's analysts are conscientious in reviewing PCN accountability documents. However, in many cases the information in PCN business plans and annual reports is not suff ciently clear to allow the Department to determine whether a planned program or expenditure is appropriate. For example, we found the following:

- In some instances, PCN physician compensation programs did not fully describe services to be rendered. For some programs, it was not clear what the physicians were delivering in addition to what they were already being paid for through other PCN compensation programs or fee-for-service payments from the Department.
- The expense category "Administration" was in some cases 10 to 20% of PCN expenses but lacked detail as to the nature of costs incurred.
- PCN surplus reduction plans are not clearly set out in a way that allows the Department to monitor the extent to which surpluses have been used for the purposes intended (see Surplus Reduction Plans on following page).

With improved reporting templates and clearer guidance, the Department will be better able to assess PCN policy compliance. The Department will also need to develop procedures to assess the accuracy of PCN clinical performance information.

Under the Health and Wellness Grants Regulation,[25] the Departmen has the authority to audit the books and records of the PCNs with respect to the use of PCN grant funding. Until the spring of 2012, the Department had not done so. The Department's f rst site visit for compliance testing purposes began shortly before we completed this report.

PCN annual audits

As currently performed, PCN audits do not provide direct assurance that PCN expenditures comply with the eligibility rules of the program, and do not examine any clinical performance information reported by the PCNs.

The majority of PCN audits examine general purpose f nancial statements, which do not correspond with the program categories and expense classif cations reported in PCN budgets and year-end reports. The Department could get greater value from these audits if PCN auditors were asked to:

- examine PCN annual report f nancial schedules
- test a sample of PCN expenses for compliance with program policies
- submit to the Department a copy of the auditor's management letter with observations and recommendations to improve internal controls

[25] AR146/2002

Surplus Reduction Plans

By March 31, 2009, PCNs had amassed total surpluses of $78 million. In the subsequent two years, PCNs did not fully execute their SRPs and surpluses have persisted. At March 31, 2011, 38 of the 39 PCNs reported surpluses of more than $80 million in total. The Department needs to revitalize the SRP policy to encourage PCNs to use these idle funds in a sustainable and timely manner.

Sustainability

We examined several SRP initiatives and found:

- many initiatives appeared appropriate because they were for one-time or temporary costs, but some were not well described or appeared to be extensions of core programs
- although SRP budgets and costs were reported in 2009–2010, the 2010–2011 PCN annual reports generally lacked sufficient information to track SRP expenditures relative to plans
- some PCNs have increased spending in core programs to use their surpluses, creating structural deficits that may require significant program cuts to meet expenses

The Department needs to provide clear guidance to PCNs on how they can spend their surpluses without creating structural deficits. The Department also needs PCNs to report their surplus reduction initiatives in a way that allows the Department to track these expenditures separately from ongoing PCN operations to ensure SRP initiatives are carried out and surpluses are not being applied to core operations.

Closing cost reserves—The PCN program policy on closing cost reserves has resulted in $16 million intended for primary healthcare being frozen in PCN bank accounts.

PCN grant funding agreements require PCNs to hold the Minister and the Minister's employees and agents harmless from any and all claims, demands, actions and costs whatsoever that may arise in carrying out the purposes of the agreement. PCNs are required to retain a closing cost reserve approximating staff severance and lease obligation costs if the PCN were to cease operations.

At March 31, 2011, PCNs in total had set up closing costs reserves of $16 million. We found the average reserve was 23% of annual manpower costs, but there was wide variation in the amounts individual PCNs had calculated. These variations indicate lack of guidance to PCNs on what an appropriate reserve should be, or ineffective monitoring by the Department when approving PCN plans that establish the reserves.

The Department has instructed PCNs to set aside a portion of their funding to fully cover these unlikely future costs. An alternative would be to fund PCNs closing costs if and when they come due.

Implications and risks if recommendation not implemented

The Department needs assurance that PCN funding has actually been spent for the purposes intended. Without such assurance, ineffective or inappropriate expenditures may go undetected and the achievement of program objectives could be compromised.

Without clear guidance on appropriate use of surpluses and effective monitoring of PCN surpluses and surplus reduction initiatives, public funding for the program may not be effectively used on a timely and sustainable basis.

Appendix A—Structure of the PCN Program

Legal framework for the PCN program

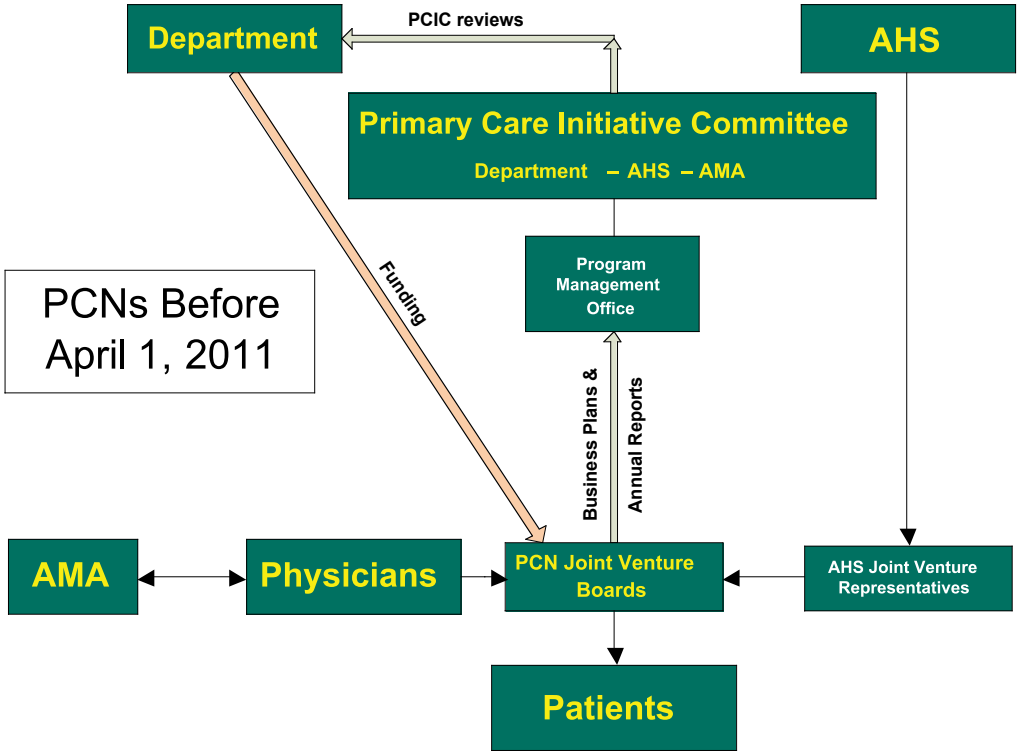
The legal framework for the PCN program is set under the following agreements:

- Tri-lateral Master Agreement between the Department, AHS and AMA (expired on March 31, 2011)
- PCN joint venture agreements between AHS and physicians
- grant funding agreements between the Department on one side, and AHS and physicians on the other

Tri-lateral Master Agreement 2003 - 2011

The Tri-lateral Master Agreement between the Department, AHS and the AMA provided the overall legal framework and funding provisions for the PCN program. Under the Tri-lateral Master Agreement, the Primary Care Initiative Committee was responsible for establishing PCN guidelines and policies, and reviewing and approving PCN business plans, budgets and reports. The committee was comprised of representatives from the Department, AHS and the AMA, and committee decisions were made by consensus of the three parties (see diagram below).

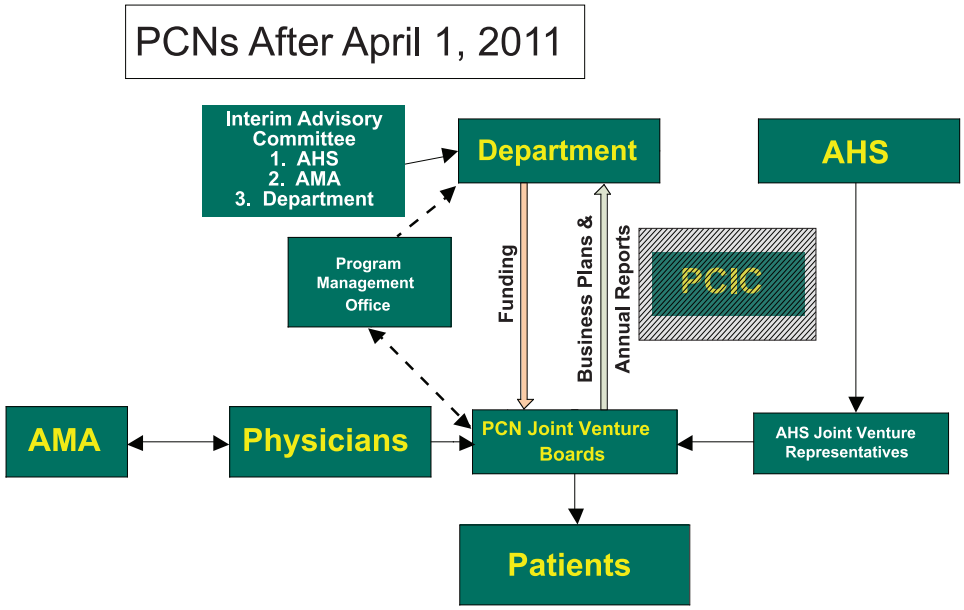
Before April 1, 2011



The work of the committee was supported in part by the Program Management Off ce, which was staffed through the AMA and funded by the Department. The main role of the PMO was and continues to be to assist individual PCNs in preparing their business plans, budgets and reports. The grant agreement between the Department and the AMA sets out details of the PMO's role.

Since April 1, 2011

The second significant change came on April 1, 2011 with the expiry of the Tri-lateral Master Agreement between the Department, AHS and AMA. From that moment, the PCN program governance model changed fundamentally (see the table below).



Following the expiration of the tri-lateral agreement, the Primary Care Initiative Committee was dissolved and the Department has assumed sole authority for PCN governance. From April 1, 2011 to June 30, 2011, an Agreement in Principle was in place between the Department, AHS and the AMA. Since July 1, 2011, an Interim Advisory Committee consisting of all three parties provides advice to the Department. Although the Department is the sole funding and approval body, it requests feedback from the AMA and AHS before it approves PCN business plans, budgets and reports.

The PMO continues to function as an advisory body to the PCNs; for example, it assists with business planning and reporting, a role for which it continues to receive about $1.8 million/year in funding from the Department.

While negotiations over a new agreement are underway, the Department has reached an interim arrangement with AMA and AHS that no significant operational changes will be made to the PCN program until a long term agreement with physicians is reached. The Interim Advisory Committee provides a forum where issues can be raised and resolved collaboratively. However, the IAC does not have decision making authority at present. The governance structure going forward will depend on the results of negotiations between the Department, AHS and the AMA.

PCN joint venture agreements between AHS and physicians

Joint venture agreements between AHS (at the time regional health authorities) and physicians are a legal vehicle for creating and operating PCNs. PCNs are legal entities formed under these agreements, are recipients of PCN funding and are jointly operated by AHS and physicians.

PCN grant funding agreements

As of April 1, 2011, grant funding agreements are between the Department (the funder) on one side, and AHS and physicians (funding recipients) on the other. Under these agreements, AHS and physicians jointly are recipients of PCN funds to implement PCN business plans.

Appendix B—PCN Facts and Figures

Depending on their location (urban vs. rural) and other factors, PCNs vary in size with respect to the patient populations they serve and the number of service priorities they are able to meet. Chronic disease initiatives, health promotion, women's health, mental health and geriatrics are common across several PCNs. Various health professionals (e.g., nurse practitioners, nurses, LPNs, dietitians) have been hired to work with PCN physicians in multidisciplinary teams.

PCN (Head Office)	Patients Assigned at Mar.31/11	Physicians at Mar.31/11	Average # Patients per Phys	PCN 2010-11 Financial Information per annual reports ($ in thousands)							
				Other Direct Provider FTEs	Other Direct Provider to Phys ratio	Revenue	Payments to Physicians	Payments to Other Direct Providers	Other Expenses	Net Income (Loss)	Accumulated Surplus (Deficit)
Calgary Zone											
Calgary Foothills	313,021	272	1,151	49.9	0.19:1	$17,700	$8,266	$4,026	$7,797	$(2,389)	$(479)
Calgary West Central	285,593	273	1,046	41.3	0.16:1	14,996	7,862	3,531	5,139	(1,535)	4,606
Mosaic (Calgary)	132,634	96	1,382	27.0	0.29:1	6,594	1,767	1,965	1,580	1,281	5,082
South Calgary	115,401	110	1,049	11.6	0.11:1	5,711	1,851	1,182	2,655	23	1,369
Calgary Rural	100,891	115	877	25.0	0.22:1	5,251	1,657	2,499	1,791	(696)	1,580
Highland (Airdrie)	46,737	41	1,140	8.7	0.22:1	2,525	529	753	695	548	2,148
Bow Valley (Canmore)	24,202	34	712	5.5	0.17:1	1,233	304	366	346	217	1,296
	1,018,479	941	1,082	169.0	0.18:1	54,010	22,236	14,322	20,003	(2,551)	$15,602
Edmonton Zone											
Edmonton North	156,464	117	1,337	36.5	0.31:1	8,442	1,636	2,587	3,795	425	12,158
Edmonton Southside	142,295	129	1,103	40.9	0.32:1	7,122	1,737	4,102	1,338	(55)	5,587
Edmonton West	101,474	87	1,166	22.9	0.27:1	4,836	1,539	2,183	840	274	2,864
Sherwood Park	82,363	66	1,248	24.7	0.38:1	4,283	342	2,324	2,014	(397)	1,439
St. Albert & Sturgeon	77,032	53	1,453	21.5	0.41:1	4,080	1,157	1,955	1,279	(311)	1,663
WestView (Stony Plain)	68,875	70	984	36.9	0.53:1	4,091	1,207	2,162	1,251	(528)	4,338
Leduc	53,985	49	1,102	10.2	0.21:1	2,929	1,015	889	1,775	(750)	1,049
Edmonton Oliver	49,663	61	814	23.2	0.39:1	2,826	593	2,393	694	(854)	2,358
Alberta Heartland (Ft. Sask)	34,355	27	1,272	8.1	0.31:1	1,737	152	544	755	287	1,115
	766,506	659	1,163	224.9	0.35:1	40,346	9,377	19,137	13,741	(1,909)	$32,572
Central Zone											
Red Deer	103,998	69	1,507	19.3	0.28:1	5,392	1,878	1,572	2,605	(663)	5,962
Wolf Creek	53,970	46	1,173	12.9	0.28:1	2,717	779	905	1,057	(23)	1,714
Big Country	37,479	28	1,339	9.1	0.33:1	1,977	665	688	646	(22)	835
Wetaskiwin	24,164	23	1,051	-	-	689	22	-	107	560	557
Camrose	23,214	20	1,161	5.2	0.26:1	1,165	286	399	700	(221)	2,441
Rocky Mountain House	14,006	14	1,000	4.8	0.34:1	929	51	486	337	56	280
Lloydminster	13,479	14	963	-	-	168	2	-	22	145	145
Kalyna (Vegreville)	6,182	6	1,030	0.4	0.07:1	259	6	9	118	126	126
Vermilion	5,613	4	1,403	-	-	160	2	-	17	142	142
Provost	5,166	2	2,583	1.1	0.57:1	268	57	73	59	80	343
	287,271	226	1,271	52.7	0.24:1	13,724	3,746	4,133	5,666	180	12,546
North Zone											
Wood Buffalo (Ft. McMurray)	55,560	32	1,736	13.8	0.44:1	3,246	232	1,429	1,545	40	721
Grande Prairie	42,178	30	1,406	-	-	1,057	28	-	165	865	865
St. Paul/Aspen	38,607	29	1,331	7.9	0.28:1	2,194	465	473	1,099	158	1,310
Northwest (High Level)	25,356	37	685	2.0	0.06:1	1,266	312	280	315	359	1,602
McLeod River (Edson)	24,798	26	954	3.0	0.12:1	1,195	166	294	316	419	606
Athabasca	21,387	21	1,018	3.7	0.18:1	1,073	190	71	45	766	766
Peace River	18,922	19	996	7.3	0.39:1	953	53	456	253	191	329
Bonnyville	12,100	14	864	6.1	0.44:1	701	86	532	266	(183)	330
Cold Lake	12,060	7	1,723	-	-	442	8	-	101	333	333
Sexsmith	10,145	8	1,268	0.6	0.08:1	392	75	112	45	160	219
West Peace (Hythe)	9,202	6	1,534	3.0	0.51:1	450	95	207	124	24	194
	270,315	229	1,180	47.5	0.21:1	12,969	1,708	3,855	4,274	3,132	7,274
South Zone											
Chinook (Lethbridge)	121,904	98	1,244	69.0	0.71:1	6,182	385	4,638	3,030	(1,871)	6,889
Palliser (Medicine Hat)	88,909	63	1,411	34.5	0.55:1	4,539	436	2,751	1,877	(525)	5,565
	210,813	161	1,309	103.5	0.65:1	10,721	821	7,389	4,907	(2,396)	12,454
Total	**2,553,384**	**2,216**	**1,152**	**597.6**	**0.27:1**	**$131,770**	**$37,888**	**$48,836**	**$48,591**	**$(3,544)**	**$80,448**

Sources: Department's September 2011 PCN funding allocation data and PCN 2010-2011 annual reports.

Appendix C—PCN Patient Allocation and Services

PCN patient allocation

The Department uses a “four-cut” method to assign patients who have received service(s) from one or more PCN physicians in the last three years. The allocation process basically assigns patients to the PCN of the physician they have seen most, with subsequent “cuts” used if the first cut is not determinative. As of March 31, 2011, there were 2.5 million patients assigned to PCNs, which is less than the Department’s target of 80% of Alberta’s population of 3.7 million.

There are four steps used to assign patients to physicians:

Step 1: Patients who have seen one PCN physician only are assigned to that physician.

Step 2: Patients who have seen more than one PCN physician, but one physician is predominant, are assigned to the physician they have seen the most.

Step 3: Patients who have seen more than one PCN physician, the same number of times each, are assigned to the physician who did their most recent physical exam.

Step 4: Patients who have seen more than one PCN physician, the same number of times each but had no physical exam, are assigned to the physician who saw the patient most recently.

Services PCNs are expected to provide

PCNs organize their resources to operate priority initiatives based on the local health needs within their geographic area. Services must be outlined in each three-year business plan and include:

1. Basic ambulatory care and follow-up
2. Care of complex problems and follow-up
3. Psychological counselling
4. Screening/chronic disease prevention
5. Family planning and pregnancy counselling
6. Well-child care
7. Obstetric care
8. Palliative care
9. Geriatric care
10. Care of chronically ill patients
11. Minor surgery
12. Minor emergency care
13. Primary in-patient care including hospitals and long-term care institutions
14. Rehabilitative care
15. Information management
16. Population health
17. 24-hour, 7-days-per-week management of access to appropriate primary care services
18. Access to laboratory and diagnostic imaging
19. Coordination of home care emergency room service, long-term care, and public health
20. Acceptance into the Primary Care Network’s patient population and provision of the service responsibilities to an equitable and agreed upon allocation of unassigned patients

Appendix D—Examples of Potential PCN Performance Measures

Objectives and Performance Measures Examples	Stakeholder				Source
	PCN	AHS	AHW	Public	
Objective 1: Access					
Number of patients enrolled in the PCN	x	x	x	x	AHW
% of population in the PCN's catchment area who have a personal family physician	x	x	x	x	PCN
Number of PCN physicians who are accepting new patients	x	x	x	x	PCN
Average wait time for an appointment (or third next appointment) with a PCN patient's family physician: • Urgent acute episodic care • Routine or ongoing care	x	x	x	x	PCN
Continuity of care - % of patients visits to own family physician or own family physician's clinic	x	x	x		AHW
Objective 2: 24/7 Extended Hours					
Number of patients who are seen during extended hours by the PCN by acuity (e.g., CTAS classif cation)	x	x	x	x	PCN
Number of PCN patients who access telephone advice (HealthLink) and their disposition by service received (e.g., advice only, referred to urgent care, referred to emergency, given next day appointment)	x	x	x		AHS
Extended hours offered by the PCN by type of services (e.g., Help line linked to PCN, on-call service by PCN physicians for all PCN users or vulnerable groups, on-site service by PCN physicians)	x	x	x	x	PCN
Emergency mental health services provided by the PCN by either PCN physicians or a mental health therapist	x	x	x	x	PCN
% of emergency department and urgent care centre visits by PCN patients for family care sensitive conditions (e.g., conjunctivitis, migraine)	x	x	x	x	AHS
Objective 3A: Promotion and Prevention					
Vaccinations of PCN and non-PCN patients considered at-risk according to provincial policy (e.g., inf uenza, hepatitis)	x	x	x	x	PCN AHS
Screenings of PCN and non-PCN patients at-risk according to provincial policy (e.g., mammogram and clinical exam, pap smear, bone density, D(Rh) antibody, hemoccult test, nicotine dependence, body mass index (BMI), blood pressure, cervical cancer, mental health, addictive substances)	x	x	x	x	PCN AHS
PCN patients receiving information on lifestyle factors (e.g., tobacco use, eating habits, physical inactivity, excessive alcohol use, unintentional injuries (home risk factors), unsafe sexual practices, unmanaged psychosocial stress)	x	x	x	x	PCN

continued on next page

Appendix D—Examples of Potential PCN Performance Measures

Objectives and Performance Measures Examples	Stakeholder				Source
	PCN	AHS	AHW	Public	
Objective 3B: Chronic Disease Management (CDM)					
PCN use (or access to) CDM registry systems that identify target groups, provide reminders and alerts, record medications taken, and allow summary reporting for medical conditions considered a priority in the PCN catchment area (e.g., diabetes, smoking, arthritis, asthma and chronic obstructive pulmonary disease (COPD), congestive heart failure, hypertension, depression)	x	x	x	x	PCN AHS
Numbers and % of PCN patients with chronic disease(s) tested and monitored according to clinical benchmarks and/or patient-agreed targets (with examples of common indicators): - Diabetes (haemoglobin A1c testing, lipid prof ling, nephropathy screening, blood pressure, medications) - Asthma / COPD (spirometry exam, pulmonary testing, medications) - Congestive Heart Failure (left ventricular function test, medications) - Coronary Artery Disease (blood pressure, blood lipid prof ling, medications) - Hypertension (blood pressure, blood sugar, lipid prof ling, smoking cessation, waist circumference, body mass index, medications) - Mental Health (in-patient acute care rates, chemical dependency, depression screening, medications) - Use of addictive substances	x	x			PCN AHS
% of PCN CDM patients participating in their own treatment planning	x	x	x	x	PCN
PCN patient self-reported physical and mental health status (e.g., SF-12, EQ-5D) before and after participating in a CDM program	x	x	x	x	PCN AHW/AHS
Number of acute care admissions of PCN patients for family care sensitive conditions (def ned by provincial policy as angina, asthma, COPD, diabetes, epileptic seizures and convulsions, heart failure/ pulmonary edema, and hypertension)					AHS
Number of Emergency visits by PCN CDM patients for their CD and % of revisits within 30 days					
Objective 4: Coordination and Linkages with Other Providers					
% of PCN patients who received a required appointment for specif ed referred services in a timely manner (e.g. chronic disease specialists mental health specialists, advanced diagnostic testing, surgical specialists, children's developmental specialists, geriatric specialists)	x	x	x	x	PCN
PCN physician use of standardized clinical tools (e.g., clinical guidelines, protocols, care maps/ pathways, assessment tools) to coordinate Network user care with other healthcare organizations	x	x			PCN
Objective 5: Multidisciplinary Teams					
PCN provider Full Time Equivalent (FTEs) healthcare providers by type (e.g., general practitioner/ family physician (GP/FP), nurse practitioner (NP), registered nurse (RN), occupational therapist (OT), physiotherapist (PT), pharmacist, dietician, psychologist, chiropodist, etc.)	x	x	x	x	PCN
Number of PCN patients accessing multidisciplinary teams, by type of provider (e.g., family physician, nurse practitioner (NP), registered nurse (RN), licensed practical nurse (LPN), occupational therapist, physiotherapist, pharmacist, dietician, psychologist, chiropodist)	x	x			PCN
Cost of Services					
Annual cost of family physician services (PCN + FFS) for PCN program patients	x	x	x	x	PCN/AHW
Annual cost of other primary care services (PCN + AHS) for PCN program patients	x	x	x	x	PCN/AHS
Annual cost of specialists and allied health providers (FFS) for PCN program patients	x	x	x		AHW
Annual cost of other health services (e.g., hospital, long-term, lab, drugs) for PCN program patients					AHS/AHW
Total annual cost of health services care for PCN program patients over time	x	x	x	x	AHW
Information Technology and Communication					
PCN physician use of EMRs	x	x	x		PCN
PCN physician access to their patients' healthcare information in the province's Electronic Health Record (Netcare) database	x	x			PCN
PCN patient access to their own Personal Health Record (MyHealthAlberta)	x	x	x	x	AHW

Appendix E—PCN Expenditure Policies

Under PCN guidelines, eligible expenditures from PCN per capita funding include the following:

Physician reimbursement

- Must be for services or activities not currently funded from other funding pools (e.g., fee-for-service) and cannot be compensated for more than one service at the same time from PCN funds (e.g., team management and disease management).
- Services can include:
  - clinically related activities such as a clinical supervisor, team manager or multidisciplinary team manager of other health professionals
  - clinical services such as disease management, case management including coordination or management of 24/7 access
  - PCN administrative/governance services
    costs recovery for PCN operating expenses such as space, equipment, supplies, staff ng, specialized training, evaluation, recruitment and innovative initiatives that add value to the PCN

AHS reimbursement

- Must substantially improve provision of primary care through new or enhanced services, including support for other healthcare providers.
- Must not duplicate services AHS is already funded for; however, some overlap may be temporarily allowed for transition to new models.

Capital expenditures

- Capital vs. operating expense criteria are Generally Accepted Accounting Principles.
- Capital expenditures must directly enhance and support service delivery related to the PCN service delivery model.
- Cannot exceed $100,000 annually without prior approval from the Department.
- Individual items over $5,000 are considered capital, and can include:
  - IT equipment including hardware, software, EHR interfaces and PCN administrative systems
  - medical or clinical equipment including diagnostic and treatment services
  - off ce equipment and furnishings
  - upgrades to physical infrastructure such as remodelling and leasehold improvements

In evaluating proposed expenditures, the following conditions should be met. The proposed service:

- directly supports, enables, or is attributable to one or more of the PCN program objectives
- supports physician/AHS productivity and promotes eff cient use of other healthcare providers within the PCN
- is measureable and verif able without overlapping other provincial funding systems
- includes appropriate accountability measures, performance measures and monitoring approaches
- must not duplicate services AHS is already funded for; however, some overlap may be temporarily allowed to allow for transition to new models
- must not be funded from other funding pools (e.g., fee-for-service).

Capital expenditures must directly enhance and support service delivery related to the PCN service delivery model, and must not exceed $100,000 annually without prior approval from the Department.