An Integrated Health System Review in PEI

A CALL TO ACTION: A PLAN FOR CHANGE

OCTOBER 2008

CORPUS SANCHEZ
INTERNATIONAL CONSULTANCY

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ACKNOWLEDGEMENTS

Health care providers and system leaders from communities across Prince Edward Island shared their insights and experiences with Corpus Sanchez International to ensure the sustainability of the health system and provide improved health services to all Islanders.

We extend our gratitude to these people for their commitment to providing high quality, safe, and appropriate care.

Specific thanks to Ms. Judy Hughes for all of her incredible assistance with organizing the meetings and helping to manage the logistics of the project.

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EXECUTIVE SUMMARY

INTRODUCTION

In 2006, the previous government through the PEI Department of Health contracted Corpus Sanchez International (CSI) Consultancy Inc. to conduct an initial high level analysis of the Island health system. In 2008, the Department of Health engaged CSI again to undertake a province-wide review of the health system. The intent of this review was to engage a broad cross-section of stakeholders from across the province, make observations on the system and identify potential opportunities for system improvement.

The work was conducted in five phases, with some upfront data review taking place earlier in the spring of 2008, followed by a series of onsite meetings in April and May. Subsequent phases of work included more analysis and follow-up discussions with leadership. The team of 14 consultants spent more than 70 days reviewing the system, conducting more than 200 meetings and focus groups with over 1,000 people, and developing the findings in this report.

Clearly, the health system in Prince Edward Island faces challenges, but it also has many strengths. The system's greatest assets are the thousands of dedicated health care providers, support staff, managers, and system leaders across the province who make tremendous efforts every day to provide Islanders with high quality, safe, and appropriate care.

The Department of Health and government leaders have demonstrated their commitment to system improvement through both their actions to date and their decision to undertake a focused review of the health system to identify additional initiatives that should be considered. Actions to date include:

- review of long-term care which will lead to building new facilities to provide the care that residents require;
- expansion of the palliative care program to address a gap surrounding coverage for medications for patients at home;
- creation of an Office for Recruitment and Retention to bring more doctors and nurses to the Island;
- establishment of a Medical Residency Program to enhance training of doctors locally;
- formulation of a Youth Addictions Strategy to respond to the growing needs related to alcohol and drug use, particularly amongst teenagers; and
- investments in Infection Control strategies to ensure Islanders are better protected from emerging "super-bugs".

Initiatives such as these signal a level of dedication of the leaders to the well-being of Islanders and provides a strong foundation for change that will be especially important as they work with those in the health system to make the changes necessary to ensure an excellent health care system not only now, but for future generations of Islanders.

SIGNIFICANT CHALLENGES

There are several key issues impacting the health care system both nationally and in PEI.

Increasing demand for services: Islanders have some of the highest rates of chronic illnesses in the country. The risk for chronic disease tends to increase as people age. With already high rates of chronic illness and a high percentage of the Island's population either close to or over the age of 65, it is doubtful that PEI can cope with the increasing demands on the system as it is now.

*Global health human resources shortages***:** Existing shortages in some areas, a large number of health professionals soon eligible for retirement, the declining appeal of some health care jobs and an increasingly competitive global market will make the health human resource situation worse for Atlantic Canadian provinces like PEI over the next decade.

Growing costs: The cost of the health care system is growing faster than the rate of growth of the provincial treasuries. It is increasing as a percentage of the overall provincial budget. This is of particular importance in PEI which currently spends the lowest per capita spending on health care in Canada and has recently experienced the fourth highest rate of growth in its health care costs.

AN EMERGING VISION

The health care system in PEI is in need of an overarching vision to guide its future development. A shared vision will set the foundation for the health system that Islanders expect and deserve. The proposed vision - S*upporting improved health for all Islanders* – would require a refocused mission that has integration as a cornerstone, and grounds it in a set of statements that define how care will change.

It will be necessary for the province to determine an appropriate mission statement but the following is offered as an example: *Care will be delivered through a single, integrated system of care, one grounded in evidence-based decision making and focused on improving health, enhancing access and refocusing the emphasis of the care delivery system on primary health care and services that can appropriately and safely be provided locally. The system is more focused on meeting needs in the most appropriate setting, by the most appropriate provider and in the most cost effective manner.*

BENEFITS FOR ISLANDERS

Adapting language used in the National Health Service Plan for Scotland, such a shift will lead to the following opportunities and benefits for Islanders:

- More health care will be provided locally in doctor's offices, or in family health centres, with greater use of day treatment.
- Islanders in rural areas will have access to a core set of services in primary care hospitals.
- Local primary health care teams will have dedicated resources to reach out and help people at greater risk of becoming ill.
- Islanders with a long-term health condition will get support to play a larger role in managing their condition.
- Caregivers will be treated as partners in providing care.
- Coordinated care will be provided locally, especially for patients who are older, frail or are frequently admitted to hospital.
- If they need to go to an acute care hospital, Islanders will have quicker access; more tests will be done locally and they won't need to stay as long because their care will be better planned.
- If patients require care urgently, they will be able to see the right person with the right skills.
- If they need specialist treatment in hospital they will get access to a good, safe service provided by the right person, even if that means they have to travel.
- Patients will experience fewer cancelled appointments or procedures because of an emergency or because tests are not available.
- Patients will have access to their own electronic health record and so will the clinical staff that treat them.

CHANGE IS REQUIRED

To achieve the health care environment described above, the current system in PEI must address a number of gaps. These include the lack of a primary care provider for every Islander, required investments in home care and long-term care, and efforts to improve gaps in mental health and addictions, as well as services for key population groups such as youth and seniors.

Addressing these challenges will require focused efforts to improve the current system by shifting the focus away from an over-dependence on hospital-based care to stronger primary health care services at a local level. This would lead to a system more focused on meeting needs in the most appropriate setting, by the most appropriate provider and in the most cost effective manner.

These efforts should include targeted initiatives to:

- deliver care as a single, integrated system;
- create provincial frameworks, standards and structures for seniors' health, community-based primary health care, pre-hospital care, emergency services, critical care, maternal newborn, and peri-operative care; and
- redesign acute care delivery even further, including defining roles for all hospitals and defining appropriate levels of care in acute, sub-acute/convalescent, transitional management of medically discharged patients, and palliative and respite.

The four basic goals of health care system improvement must be **quality** (high standards and good health outcomes), **equity** (fair access to and use of services), **optimal efficiency** (value for money), and **sustainability** (ensuring that enough resources are available to support the system over the long-term).

To work toward these goals, the PEI health system must change its focus from acute (hospital-based) care to primary health care renewal.

FOCUS ON PRIMARY HEALTH CARE RENEWAL

The most serious gaps observed in the health system in PEI are grounded in the need for primary health care renewal. A future strategic planning framework grounded in four dimensions should be considered. The four dimensions are:

- *A renewed model of community-based primary health care:* This would include all care provided outside of the person's home including prevention, assessment, observation, treatment and rehabilitation that is provided as an alternative to inpatient hospitalization (e.g. care delivered in family health centres, physician offices, community-based care settings and ambulatory clinics).

- *An enhanced system of delivery for home-based care:* This would include all care delivered in a person's home, even when that home is a manor or nursing home.
- *Focused integration of acute and related facility-based care:* This would include all care delivered in hospitals including emergency services and inpatient care for acute care, sub-acute care, transitional care and bed-based palliative care.
- *Investments in system enablers:* This would include processes, services and functions that are designed to support the effective management of the system (e.g. governance, corporate management and I.T.) and smooth transitions across sectors (e.g. access and patient flow).

A NEW OPERATING FRAMEWORK

Perhaps the most pressing issue is the need for a new operating framework. The current governance model is unique in Canada in that there is no overall governance entity that provides direction to the system, while still providing the typically required arms-length framework between the government (including the Department of Health), and those who provide health care.

In the absence of a robust governance model, traditional decision making roles and responsibilities for resource deployment have been transferred to Treasury Board, and in some cases, directly to the Cabinet table. This leads to a degree of bureaucracy that impedes the system, resulting in a lack of clear lines of authority and accountability. This in turn leads to an inability within the Department of Health for system leaders to assume appropriate ownership of issues and challenges.

The recommendation of the consultants is that the province re-establish a health authority (or equivalent) with a global budget and the authority to deliver services in accordance with Department of Health plans and overall directions.

SECTOR BY SECTOR REVIEW

The sector by sector review of PEI's health care system explores the current state, performance indicators (where the data exists) and the gap between what exists now versus what could exist in the future. The sectors studied are community-based primary health care, home-based/continuing care, emergency services, and hospital-based care.

Recommended strategic directions are provided for each sector. The overall conclusion reached by the consultants is that the current system relies too heavily on institutional-based care (either in hospitals or long-term care settings) as a response to health care demand. Investment is required in virtually all of the key cornerstones of the emerging health care service delivery models such as home care, primary health care, chronic disease management and pharmacare. In addition, frameworks and processes are required to drive integration, ensure quality and allow for better accountability.

CONCLUDING COMMENTS

The challenge of sustainability in health care today is greater than it has ever been, as is the need for a system-wide integrated approach to addressing fundamental issues. This report provides a comprehensive set of options that will only have their intended impact on the system when considered as a whole.

It has been prepared to show where critical investments are required, so that system improvement as well as efficiencies can be achieved. Given the level of focused investment required, it is critical that government focus first on system improvements rather than potential short-term savings. Further cost cutting efforts would have a dramatic negative impact on the both the people served by the system, and the people working within it.

Given this, the consultants urge the government to consider the following:

- Acknowledge the exceptional efforts of the people in the system everyday to deliver care and meet the needs of the citizens of PEI.
- Accept that, despite those efforts, the system is in need of some significant changes.
- Endorse the directions outlined herein as an integrated set of solutions designed to put the system back on track.
- Allow the system leaders – specifically the Deputy Minister and departmental staff – to effectively lead the system by creating governance and management structures that are more consistent with best practices elsewhere.
- Accept that overall bottom line savings are neither practical nor feasible, but if the right investments are made now, the overall growth in the projected cost curve may be more manageable in the future.

Ultimately, this report is about more than creating a health system that is integrated, effective and makes good use of taxpayer's dollars. Simply put, it is about doing what is necessary as a government, as health system leaders, as health care providers and as Islanders to support improved health for Islanders now, and for years to come.

CHAPTER 1: INTRODUCTION

"Like so many other facets of our society, our potential strength in health care lies in meeting the challenge of working together. The long-range goal must be a health care system that embraces and integrates the services and programs which Islanders depend upon. We will build a sustainable, integrated health care system, one that shifts emphasis and culture toward wellness and primary care, placing patients, the community as a whole and sustainability above all considerations."

Speech From the Throne, Prince Edward Island, April 4th, 2008

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Clearly, the health system in Prince Edward Island faces challenges, but it also has many strengths. The system's greatest assets are the thousands of dedicated health care providers, support staff, managers, and system leaders across the province who make tremendous efforts every day to provide Islanders with high quality, safe, and appropriate care.

The Department of Health and government leaders have demonstrated their commitment to system improvement through their willingness to carry out this review. Their strength and dedication to the well-being of Islanders will be especially important as they consider the options provided in this review and work with those in the health system to make the changes necessary to ensure an excellent health care system not only now, but for future generations.

This document discusses the need for planned change in the PEI health system. The proposed actions are offered to the government in the form of recommended strategic directions.

1.1 CONSIDERATIONS

The health system in Prince Edward Island needs to adapt to change because the Island's population itself is changing. A greater percentage of the population will soon be eligible for retirement, and Islanders have a growing number of long-term illnesses, which will result in a greater need for health care services than at any other point in the Island's history. The province needs to take action now to ensure that it is ready to meet the future challenges of delivering health care on the Island.

In order to be effective though, the change needs to be not only in the system and the way it delivers services, but in how Islanders manage their own health and the role they are willing to play in improving services. The government of Prince Edward Island and Island residents must work together to ensure that their health system will continue to meet the needs of the Island's residents and visitors well into the future.

This report takes into account several considerations:

- **Improved health of Islanders**
  Islanders have some of the highest rates of chronic illnesses in the country. Health programs and services are only valuable if the health of Islanders improves over time. At the same time, the services delivered through the health system are only one factor in the determinants of health, which are a series of factors that work together to impact a person's health. Determinants of health can range from health promotion activities and education to economic status and genetics. While many of these factors are not within the control of the health system or sometimes even government as a whole, provincial and system leaders do need to consider whether each decision they make will have an overall positive impact on the health of Islanders. In much the same way, individual Islanders and community organizations must act on factors within their control to ensure that they, their families and their communities remain as healthy as possible.
- **Rural issues**
  55% of the Island's population lives in what is considered a rural area (2006 Census). Rural communities often face additional challenges with transportation, access to services and the population decline that can lead to greater sustainability issues. By recognizing those differences, options can be developed that better address rural needs.
- **Standards of care**
  Islanders need to feel comfortable that the care they are receiving is based on national standards and evidence where they exist. While there will be variation across the country in the publically funded services available and how they are provided, as much as possible, Islanders should have access to the same type and quality of services that are available to other Canadians.

- **Staffing issues**
  Health human resource issues are a challenge around the world. An aging workforce, less interest in the field (combined with more options overall) and highly competitive recruitment efforts are making it difficult for any province or territory to recruit and retain the number of health care providers they need to meet current and future demands. This is certainly the case in PEI with, existing shortages in some areas, a large number of health professionals due to retire soon, the declining appeal of some health care jobs and an increasingly competitive global market.
- **Affordability**
  This year (2008-09), the province's health budget will be more than $420 million. The cost of the health system is growing by about 8-10% a year, while provincial revenue continues to grow at about 3%. Clearly it is important that Islanders get good value for their tax dollars. Further to that, government must find ways to contain the growth in costs in order to ensure that there continues to be money to fund education, roads and the many other services that are important to Islanders.
- **Equity of access**
  Equity of access to health services is a key underpinning of the Canada Health Act and ties into both rural issues and national standards. Rural Islanders deserve the same access to services as other Canadians and other Islanders. However, this does not mean every service in every location, and in some cases it may mean travel for specialized services.

Keeping in mind these considerations, the options provided within this report are intended to:

- improve health care for all Islanders;
- provide safe, dependable, quality care;
- address some existing gaps in services;
- ensure better allocation of services based on community need;
- ensure more efficient allocation of health care spending; and
- improve quality and long-term sustainability of all government services.

1.2 A UNIQUE PROVINCE WITH COMMON CHALLENGES

Prince Edward Island is unique in many ways. Its position as Canada's smallest province, both in terms of geography and population, can make it difficult to compare to other provinces or territories. Its largely rural population continues to embrace traditional values and its small size allows for strength in community that isn't always experienced in larger, more urban areas.

Yet the characteristics that make it so special - those that Islanders hold dear - are also the ones that create the greatest challenges for the delivery of a safe, high quality and sustainable health system.

The province of Prince Edward Island has a population of 140,000 people. While this means that there are fewer people requiring health care than in other provinces, it also means that there is a smaller tax base to pay for the increasing costs of the services. To further complicate the situation, the population of people over the age of 65 is growing faster on the Island than in most parts of Canada. This is true for all of Atlantic Canada.

Almost 50,000 Islanders are between the ages of 40 and 65. This has an impact on the system in several ways. As they leave the workforce, Islanders will pay fewer taxes annually to support the system. If they are one of the many health care providers eligible for retirement in the next five to ten years, their retirement will add to a growing shortage of health professionals. And finally, it has been shown that as people age, they tend to develop more long-term illnesses and require more health services.

While Prince Edward Island is unique, its challenges are not. Health systems everywhere are struggling to solve the same issues that are highlighted in this report.

1.3 COMMON CHALLENGES

In November 2002, the Commission on the Future of Health Care in Canada made recommendations 'to ensure the long-term sustainability of a universally accessible, publicly-funded health system' (Health Canada, 2002). The Commission saw three essential aspects to enable sustainable care. They described them as follows:

Sustainability means ensuring that sufficient resources are available over the long-term to provide timely access to quality services that address evolving health needs.

Services – A more comprehensive range of necessary health care services must be available to meet health needs. The services must be of a high quality and accessible on a timely basis. This aspect of sustainability involves looking at ways in which health care services are delivered, whether they are accessible for Canadians and whether they are efficiently and effectively delivered.

Needs – The health care system must meet people's needs and produce positive outcomes, not only for the individuals but for the population as a whole. This dimension examines how health care outcomes measure up and identifies disparities in health.

Resources – This includes not only financial resources but also the required health care providers and the physical resources (facilities, equipment, technology, research and data) that are needed to provide the range of services offered.

The sustainability of the health care system nationally has been the subject of numerous Royal Commissions and related studies including:

- the Romanow and Kirby Commissions at a national level;
- the Fyke Commission in Saskatchewan;
- the Health Services Review Committee and Premier's Health Quality Council in New Brunswick; and
- the recent Provincial Health Services Operational Review in Nova Scotia.

In addition to raising the question of sustainability, the emerging issue raised in these reports is "does the health system do the right things and does it do those things right?" In other words, as system leaders seek to improve the health system, has the fundamental question been asked regarding whether all the services currently being delivered are appropriate given overarching goals for all Canadians that are outlined in the *Canada Health Act*? This may represent a larger societal question in PEI that will need to be addressed at some point in time.

For now, most of the questions raised in these previous reports focus on a consistent set of issues impacting the health care system nationally including growing costs, global health human resources (HHR) shortages, and an aging population and its impact on demand for services.

Facts and observations related to services, needs and resources are provided in the following section.

Services

- The Prince Edward Island health system is comprised of the Department of Health and five community hospital authorities: Souris, Montague, Tyne Valley, O'Leary and Alberton.
- The Department of Health is overseen by the Minister of Health and managed by a departmental management committee comprised of the Deputy Minister, Assistant Deputy Minister, and nine senior directors. This group is responsible for providing overall management direction to the department and for overseeing long-term strategic planning.
- The role of the Department of Health is to provide leadership in maintaining and improving the health and well-being of citizens; to provide leadership in innovation and continuous improvement; to provide specific high quality administration and regulatory services to the health system and Islanders; and to provide high quality, client-centreed health services consistent with community needs.
- The department provides public health services, primary care, acute care, community hospital and continuing care services.
- Prince Edward Island has eight hospitals including Queen Elizabeth Hospital (major referral centre); Prince County Hospital; Souris Hospital, Kings County Memorial Hospital, Stewart Memorial Hospital, Community Hospital O'Leary, and Western Hospital (community hospitals) and Hillsborough Hospital (inpatient psychiatric acute care).
- There are six Family Health Centres: Beechwood Community Health Centre in O'Leary, Central Queens Family Health Centre in Hunter River, Eastern Kings Family Health Centre in Souris, Four Neighbourhoods Community Health Centre in Charlottetown, Harbourside Family Health Centre in Summerside, and Montague Family Medical Clinic in Montague.
- There are 18 long-term care facilities in the province (nine public manors and nine licensed private nursing homes) with a total of 1003 beds.

- Another important part of the primary care system in any province is family physicians. Prince Edward Island has about 89 family doctors/GPs per 100,000 people or 1 physician per 1126 people; and 55 specialist physicians per 100,000 people or 1 per 1818 people (2005 data based on CIHI Health Indicators 2005-2007). In both cases, the ratio of physicians to patients is less in PEI than the Canadian average which is 1 family physician per 1013 people and 1 specialist per 1071 people (Statistics Canada data).
- The availability of services alone is not enough to ensure a strong health care system. It is also necessary to look at whether the services offered are easy to access, safe, of high quality, and if care is being provided efficiently and effectively.

Needs

- PEI, when compared to other provinces, has numerous indicators of poor health, including the lowest male life expectancy; high incidence and/or mortality rates of several types of cancer; low rates of residents reporting physical activity; and high mortality rates for stroke.
- In addition, the Island has (compared to other provinces) the highest hospitalization rates for ambulatory care sensitive conditions; and the highest proportion of the population reporting difficulty obtaining immediate care for a minor health problem any time of day.
- These population health issues have a direct impact on the health care system as they drive demand as well as cost.
- Information provided by the Department of Health reflects this reality:
    - Childhood obesity has tripled in 20 years. One in three Islanders are obese. Diabetes is increasing at epidemic proportions and costs to manage it are growing.
    - Cancer rates are increasing dramatically, but mortality is level. This will drive costs up as the system manages more people with extended illness.
    - Cardiovascular disease is a leading cause of death.
    - Mental health problems are increasing.
    - Rapid growth of chronic disease is threatening the sustainability of the health system as research confirms that modifiable risk factors (such as smoking and second-hand smoke) are driving costs.
- Demographics and increased demand are part of the “perfect storm” that is emerging with regard to the baby boom generation, who are rapidly approaching the 65+ age group when they will both withdraw from the workforce and increasingly become consumers of services.

- Based on 2006 Statistics Canada Census data, almost 50,000 Islanders are between the ages of 40 and 65. As this population cohort ages, pressure on health care costs will be significant. According to the Halifax Chamber of Commerce Health Action Committee (2006), the cost to provide health services to a person under the age of 65 is close to $1500 a year while the cost is more than four times as much for a person over 65 years. Every ten years after that, the cost doubles so that a person aged 85 and older requires about $23,500 a year in health services. Much of this care is provided in hospitals — the most expensive type of care. Not only are the baby boomer generation getting older, but they also tend to be better informed and have higher expectations than the generations that preceded them. Given their increased awareness of safety and quality issues, and a clear expectation that their concerns will be heard and responded to, it is a given that they simply will not accept some of the current flaws in the system. This, combined with the fact that the health status of Prince Edward Islanders (and Atlantic Canadians in general) are some of the worst in Canada, means that this issue will be even more pronounced in PEI than it will be elsewhere.

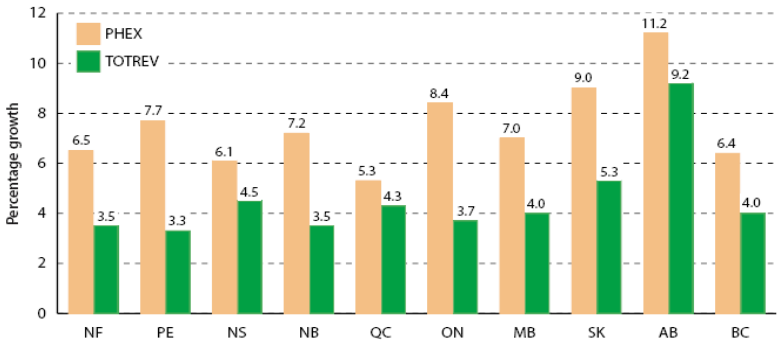
Resources

The cost of the health care system is growing faster than the rate of growth of the provincial treasuries. This means that it is increasing as a percentage of the overall budget.

While many Islanders will likely see increasing investments in health care as a positive move, the need for steadily increasing investments will mean that in only a few years, that money will need to come from reductions in other services.

From 2001-2005, PEI experienced the fourth highest rate of growth in health care costs, but this has been offset by the lowest growth in provincial treasury (see chart below).

Figure 1: Average annual percentage growth in public health expenditure (PHEX) and total revenue (TOTREV) by province, 2001–2005



Source: Author's calculations based on data from Statistics Canada, 2005c.

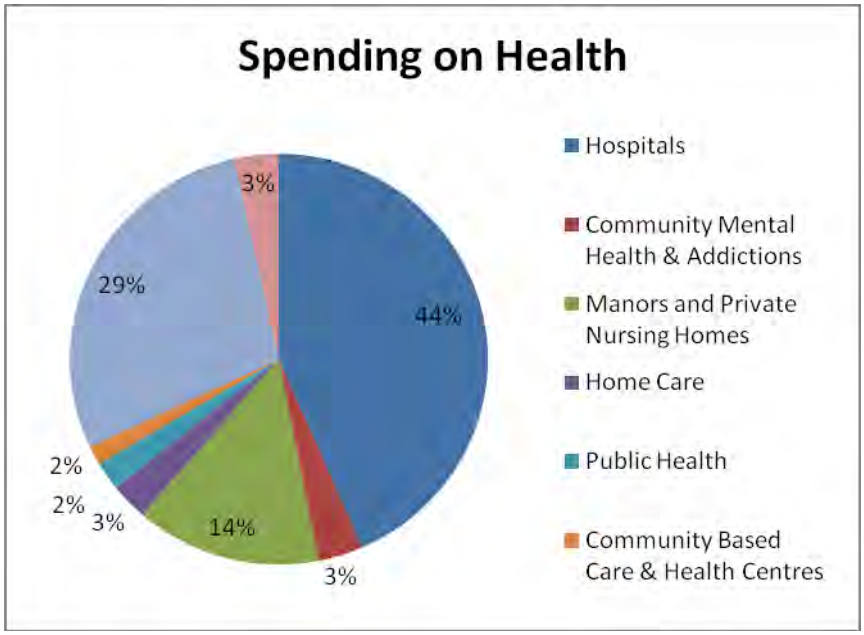
Growth curves such as these appear to be continuing trends in all provinces. While it is obvious that these trends are not sustainable, without significant change they are likely unavoidable.

Given that growth in health system costs are routinely outpacing growth in overall revenue, it is only a matter of time before the health care system consumes every new dollar that is received in the provincial treasury in any given year. Using a simple forecasting model that shows overall revenue growth at 3% and ongoing spending growth of 8%, health consumes all new incremental revenue by 2013, meaning that, in that year, all other provincial departments will have their spending frozen in order to pay for increases in the Department of Health budget. In the following year, the other departments will have to collectively reduce actual spending by more than $2.5 million to pay for health care cost increases.

This example assumes that revenue growth will continue at 3%, but a decrease of just half a percentage point could mean that the Department of Health would consume every new dollar in the 2009/10 fiscal year – just seven months from now.

Even if provinces can find additional money and keep the growth in health spending at or below historical levels, the global health care industry is in the middle of the worst health human resources (HHR) crisis in its history. The current research, including *Towards 2020* from the Canadian Nurses Association, and the work of Dr. Jeanne Besner from the University of Calgary and Dr. Gail Tomblin-Murphy from Dalhousie University, states that our current models can't be maintained.

How the money is currently being spent is also an issue (see below):



PEI spends 44% of its current health care resources in hospitals. By contrast, it spends approximately 3% on home care and only 3% on corporate and administrative costs. All of these represent significant variances from the trends that have emerged nationally over the past twenty years. For example, hospitals now typically reflect less than 30% of spending in other provinces as investments in home care and community-based services has increased. Home care now sits at a national average of 4%, with virtually all provinces recognizing that increases are required. The benchmark for corporate and administration is 6-7%, reflecting that fact that investments in system leadership and management are critical enablers of future system sustainability.

PEI needs to change the way they deliver services and use its valuable health care providers to ensure that it delivers safer, better, sustainable, high quality care that Islanders need, expect and deserve.

1.4 OBSERVATIONS

The situation in PEI may be even more challenging than in other places given the following observations:

- Some significant shortages already exist in key areas, which are impacting access to services (for example, family physicians, speech language pathologists, allied health professionals, and specialists in key areas such as diagnostic imaging).
- Many health professional are eligible for retirement within the next five years.
- Many health professionals are performing a significant number of non-professional tasks, which makes the job less desirable for people entering the profession and limits how effectively these professionals can deliver health services. For example, registered nurses are making beds or spending large amounts of time on paperwork when other staff are not available to do that work.
- Scopes of employment do not reflect scopes of practice for some professions, such as licensed practical nurses (LPNs), so some staff aren't able to do the level of work that they are trained and licensed to do.
- PEI will continue to find itself trying to compete in an increasingly competitive global market – and the economics of competing with richer provinces (and countries) are simply not in the Island's favour.
- The number of leadership positions was significantly downsized in 2005, which seriously impacts the ability to help staff cope with required changes. Strong leadership is key to successfully managing complex organizations like hospitals and health systems, especially given the challenges that the system is facing.

Clearly, the health system overall is changing:

- The infectious diseases and industrial accidents that marked the development of acute care in the first half of the 1900s are not a factor to the same extent today.
- The greatest risks to health now are long-term illnesses and chronic diseases that can usually be managed outside of a hospital.
- Acute care hospitals are increasingly being used to care for the frail elderly prior to placement in another level of care.
- Significant numbers of health professionals will soon be eligible to retire. In response, many jurisdictions are creating new roles, including allied health assistive roles. This means that there are an increasing number and variety of opportunities for health care providers and support staff, but less people to fill those positions.
- The next generation of doctors, nurses and other health professionals (like most Islanders) are looking for balance between their home and work lives, and are unwilling to work the kind of hours that were common in the past. This affects on-call coverage as well as requirements for health professionals as doctor to patient ratios drop.
- Health technology and practices are advancing and significant investment is often required to take advantage of these opportunities.

1.5 A CHANGING VIEW OF HEALTH CARE

All of this means that the way health services are provided has to adapt too. Not just change for the sake of change, but because the health system can now often prevent people from becoming sick, treat them faster and better if they do, and often treat them close to their home rather than in a hospital. The graphic below is taken from a review of Scotland's National Health Service in 2004, and it generally holds true for Prince Edward Island.

Current View vs. Evolving Model of Care

Current View	*Evolving Model of Care*
Geared towards acute conditions	Geared towards long-term conditions
Hospital centred	Embedded in communities
Doctor dependant	Team-based
Episodic care	Continuous care
Disjointed care	Integrated care
Reactive care	Preventative care
Patient as passive recipient	Patient as partner
Self care infrequent	Self care encouraged and facilitated
Carers (e.g. family caregivers) undervalued	Carers supported as partners
Low tech	High tech

This shift to a new model of care will be necessary if the PEI health system is going to help Islanders effectively manage their long-term illnesses to avoid hospital stays.

1.6 WHAT ISLANDERS SHOULD EXPECT

With a renewed system of health care based on the elements noted above, Islanders should expect:

- sustainable and safe local services – redesigned were possible to meet local needs and expectations and specialized where necessary to ensure quality and safety;
- more services to be provided locally in doctor's offices or, increasingly, in family health centres with greater use of day treatment;
- access to a core set of services in primary care hospitals in rural areas;
- primary health care teams in rural areas with dedicated resources to help people who are at greater risk of becoming sick;
- help and support for long-term conditions so they can play an increasing role in managing the conditions themselves;
- caregivers to be treated as partners in care;
- to see the right person with the right skills if they need care urgently;
- quicker access when they need to visit a hospital, with more tests done locally and a length of stay that is planned and shorter;
- care coordination provided locally for patients who are older, frail or frequently admitted to hospital;
- if they need specialist treatment, access to a good, safe service provided by the right person, even if that means they need to travel;
- more appropriate use of hospital beds, so patients aren't in a hospital any longer than they need to be;
- fewer cancelled appointments because of an emergency or because tests are not available; and
- access to their electronic health record and access for all of their care providers to their records.

In short, Islanders should expect to get safe, effective, timely care as close to home as it can safely and efficiently be delivered.

This means increased home care, non-emergency care provided at family health centres or primary care hospitals, and emergency care provided through the ambulance system and in the hospital best suited to provide the type of emergency care they need.

1.7 CONCLUSIONS

In order for Prince Edward Islanders to receive the care they need, changes to the system are necessary. A thorough review of the challenges and opportunities in the Prince Edward Island health system led to the following conclusions:

- New ways of delivering care are essential.
- Current gaps in fundamental parts of the system will require investments.
- These investments should help to enable new ways of delivering care.
- System leadership challenges will be significant.
- A unifying vision is necessary.

CHAPTER 2: AN EMERGING VISION

We are limited not by our abilities, but by our vision. -- Anonymous

In order for any organization to be effective it needs a strong vision that is shared by everyone. This is especially true in an organization as complex as a health system. A system without a vision and a framework to guide how money and other resources are invested can't provide the leaders with what is required to truly lead. It requires them to move from one challenge to the next without a strong, shared understanding of what they're working towards.

The health care system in PEI is in need of an overarching vision to guide its future development. The 2008 Throne Speech entitled One Island Community; One Island Future suggests a common vision for the province. With a focus on integration, the vision of One Island Health System emerges.

Stronger integration is necessary on many levels, including:

- integration within sectors, including one acute care hospital system, one trauma/emergency system, one critical care system, one mental health and addictions system, one youth health system and one system of continuing care, encompassing both home care and long-term care; and
- integration within communities, including access to coordinated services, physical consolidation of services within sites and the creation of health infrastructures to ensure coordination.

A shared vision will set the foundation for the health system that Islanders expect and deserve. However, to achieve One Island Health System, shared vision is only the first step. Action is required at all levels. While Islanders should expect action to improve their health system, it is sometimes more difficult than it would seem.

Leaders at the most senior levels must believe in the principles and options proposed in this report. Weary system leaders and managers must believe that change will happen, that it will result in a system that will improve that health of Islanders, and that they can make it happen. And most importantly, Islanders themselves need to accept and believe that very positive changes can come from a process like this – a wider range of local services, better quality care, and the peace of mind that comes with knowing that the best care possible will be available not only for them, but for their children and grandchildren.

2.1 CHANGE GROUNDED IN SYSTEM WIDE DESIGN

Every Royal Commission and large-scale study has called for a new system design that focused on expanded primary health care and better integration across the broader continuum of care. This includes needs such as increased emphasis on prevention, self-care and chronic disease management; improved access to in-home care, with more types of services offered in people's homes; strategic investments in all areas of primary health care; and improved access to family physicians and other primary care providers.

This is not reflected in the current system in PEI:

- There is not a primary care provider for every Islander.
- There is a need for further expansion of home care and a need for more services with a chronic disease and acute care focus.
- Long-term care has not received adequate attention. There appears to be a lack of standards for staffing and care and no classification system to define different levels of need for care.
- There are gaps in mental health and addictions services.
- Gaps in services also exist for key population groups including youth and seniors.

2.2 ADDRESSING GAPS

Addressing these gaps will require focused restructuring of the current system so that resources can be redirected to most appropriately meet the needs of Islanders. To achieve this goal, it will be necessary to shift the focus of the current system away from one that is overly dependent on hospital-based care as the system response to virtually every need, and turn the system's focus and resources to a stronger set of primary health care services.

These efforts could include targeted initiatives to:

- start delivering care as a single, integrated system of care;
- create provincial frameworks, standards and structures for seniors' health, community-based primary health care, pre-hospital care, emergency services, critical care, maternal newborn, and perioperative care;
- consolidate acute care even further and define roles for all hospitals; and
- define appropriate levels of care in acute, sub-acute and convalescent, transitional care of medically discharged patients, and palliative and respite care.

This would lead to a system more focused on meeting needs in the most appropriate setting, by the most appropriate provider and in the most cost effective manner.

2.3 DRAFT VISION

The overarching goal of all of these initiatives is improved health for Prince Edward Islanders. Thus, a suggested draft vision for the health system would be:

Supporting Improved Health for All Islanders

A vision such as this will require a refocused mission that drives the integration theme forward and grounds it in a set of statements that define how care will change. The following is offered as an example:

Care will be delivered through a single, integrated system of care, one grounded in evidence-based decision making and focused on improving health, enhancing access and refocusing the emphasis of the care delivery system on primary health care and services that can appropriately and safely be provided locally. The system is more focused on meeting needs in the most appropriate setting, by the most appropriate provider and in the most cost effective manner.

2.4 BENEFITS FOR ISLANDERS

Adapting language used in the National Health Service Plan for Scotland, such a shift will lead to the following opportunities and benefits for Islanders:

- More health care will be provided locally in doctor's offices, or in family health centres, with greater use of day treatment.
- Islanders in rural areas will have access to a core set of services in primary care hospitals.
- Local primary health care teams will have dedicated resources to reach out and help people at greater risk of becoming ill.
- Islanders with a long-term health condition will get support to play a larger role in managing their condition.
- Caregivers will be treated as partners in providing care.
- Coordinated care will be provided locally, especially for patients who are older, frail or are frequently admitted to hospital.
- If they need to go to an acute care hospital, Islanders will have quicker access; more tests will be done locally and they won't need to stay as long because their care will be better planned.
- If patients require care urgently, they will be able to see the right person with the right skills.
- If they need specialist treatment in hospital they will get access to a good, safe service provided by the right person, even if that means they have to travel.
- Patients will experience fewer cancelled appointments or procedures because of an emergency or because tests are not available.
- Patients will have access to their own electronic health record and so will the clinical staff that treat them.

CHAPTER 3: TRANSLATING THE EMERGING VISION INTO REALITY

3.1 ENABLERS FOR CHANGE

The vision outlined in the previous chapter requires changes and redesign to address a number of challenges.

First and foremost, decisions surrounding system change will need to reflect an overall accountability model and ethical decision making framework that puts the interests of all above the interests of a few. All decisions need to be weighed against a framework that, at a minimum, raises the question of collective versus individual impact and benefit. It also needs to consider the principles or goals that should be met through any system change or redesign.

Using such a framework, decision makers can more easily assess the goals expressed by individual communities, individual organizations and other potential special interest groups, against criteria that reflect the "greater good". (Note: The "greater good" does not always apply under this framework. Some minimum standards/principles need to be identified to protect individual interests such as safe, quality care and access standards.)

To that end, the four basic goals of health care system improvement must be:

- quality (high standards and good health outcomes);
- equity (fair access to and use of services);
- optimal efficiency (value for money); and
- sustainability (ensuring that enough resources are available to support the system over the long-term).

There is also the challenge of strategically improving health care service delivery in PEI through innovation and redesign, with an ultimate focus on the delivery of better care for patients. This needs to be articulated through:

- a clear action plan with clearly defined priorities;
- clarity of responsibilities within a renewed accountability framework and structure; and
- clear measures of performance.

3.2 THE BIGGEST GAPS

Moving forward will require some upfront investment to enable change, allowing some savings to be realized in the future as the system reduces its dependency on hospital-based acute care and re-invests its resources in primary health care.

At a system level, the most serious gaps observed in the health system in PEI are grounded in the need for primary health care renewal. One view of the system that could be considered is a future strategic planning framework grounded in four dimensions: a renewed model of community-based primary health care; an enhanced system of delivery for home-based care; focused integration of acute and related facility-based care; and investments in system enablers.

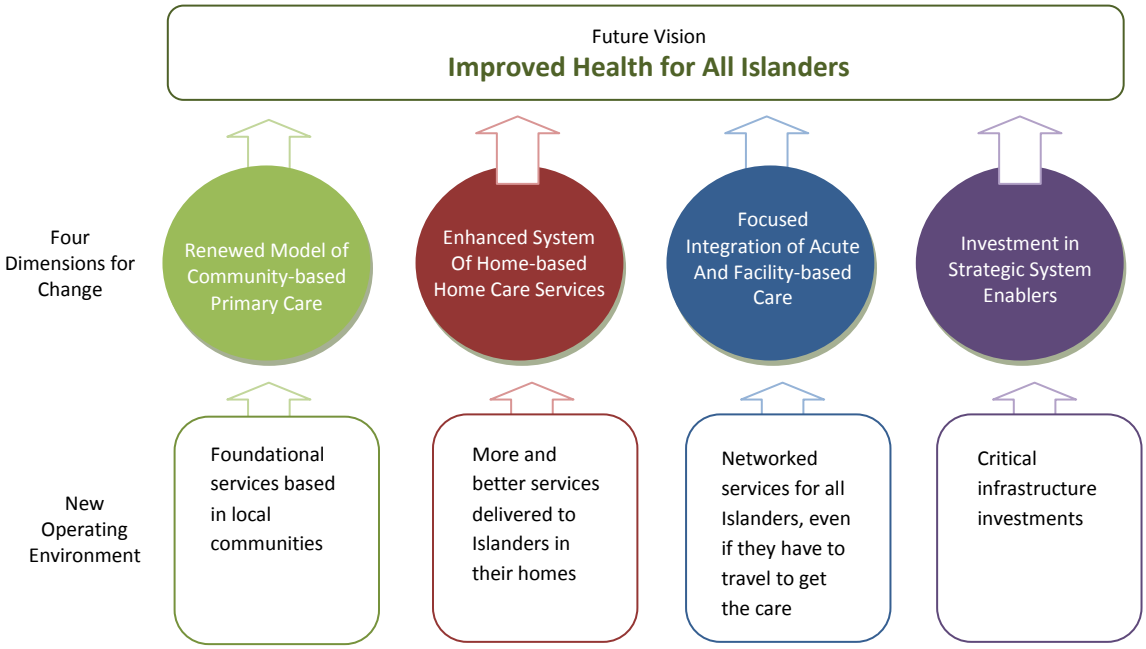
A renewed model of community-based primary health care would include prevention, assessment, observation, treatment and rehabilitation that is provided as an alternative to inpatient hospitalization (such as care delivered in family health centres, physician offices, community-based care settings and ambulatory clinics).

An enhanced system of delivery for home-based care would include all care delivered in a person's home, even when that home is a manor or nursing home.

Focused integration of acute and related facility-based care would include all care delivered in hospitals including emergency services and inpatient care for acute care, sub-acute care, transitional care and bed-based palliative care.

Investments in system enablers would include processes, services and functions that are designed to support the effective management of the system (including governance, corporate management and information technology) and smooth transitions across sectors (including access and patient flow).

FUTURE STRATEGIC PLANNING FRAMEWORK



The four dimensions for change will be discussed in later chapters.

3.3 A NEW OPERATING ENVIRONMENT

A fundamental challenge that needs to first be addressed is the operating environment within which the health system functions. PEI, like many other jurisdictions, has undergone a series of subsequent restructurings, with the most recent one (in 2005) leading to elimination of all regional health authorities and the centralization of all direct management of the system under the Department of Health with input from community hospital boards. At the same time, there is a clear appreciation that some system redesign is likely required if the system is to be effective.

Governance and operating structures differ dramatically across Canada. There is no clear best practice that can be applied consistently from one setting to the next. Yet all other provinces have maintained a fundamental relationship between overall system leadership and direct care delivery.

In all cases, the Department or Ministry of Health has the role of creating the overall system plan, setting policy directions and standards, providing an overall resourcing framework and monitoring system performance against the plan that has been defined.

The management model has regional health authorities or direct care provider organizations such as hospital corporations who receive a global budget and have flexibility within that budget to assign resources to deliver care effectively. Some service level agreements may exist where Department of Health policy limits that flexibility, but there is an ongoing arms-length relationship that limits the need for strict control while maintaining proper checks and balances and overall accountability.

The most recent restructuring had an unexpected, unplanned and ultimately undesirable impact on the overall management of the system. The result has been an overall governance model that lacks the required arms-length framework and has shifted the ultimate decision making responsibility for spending to Treasury Board, and in some cases, directly to the Cabinet table. This requires health care decisions to be made by politicians rather than those with health system expertise, and results in a decision making process that may be more vulnerable to lobbying from groups or individuals.

From the perspective of the review team, this has led to a degree of bureaucracy that impedes the system, resulting in a lack of clear lines of authority and accountability. This in turn leads to an inability within the Department of Health to assume appropriate ownership of issues and challenges.

There are two viable options for moving beyond this current state:

- adapt the current model to create an internal separation within the Department of Health between governance responsibilities (Minister, Deputy Minister and a small staff) and management responsibilities (Chief Operating Officer equivalent and all direct service delivery and corporate support functions), or
- re-establish a health authority (or equivalent) with a global budget and the authority to deliver services in accordance with Department of Health plans and overall directions.

The obvious third option, to stay with the current model, will not address the significant challenges that exist in the current environment. Now more than ever, there is a clear need for an effective structure to lead and manage the system as it enters what is likely the most complex decade ever experienced.

Assuming the status quo is rejected as an option, the consulting team's bias would be in favour of a stand-alone health authority. This option maintains appropriate authority in the Department of Health (and other government departments), while creating the required separation between the political and policy authority and the operational entity. This allows for clear definition and separation of the management and governance of the health care system with clear accountabilities and responsibilities for each.

Under this model, a plan must be developed to ensure that the Premier and Cabinet are at all times aware of the status of health system evolution so Islanders' concerns can be addressed. This will require a much stronger evidence-based approach and data-driven analytical capacity throughout the system.

3.4 COMMITMENT TO CHANGE

In either model, some clear commitments are required at all levels of the health care system.

Cabinet/Treasury Board:

- Need to define overall direction for the health system and define governance parameters within which the health system must function.
- Need to communicate overall direction to the public, making it clear to all Islanders that investments will be required in the health care system to create sustainability.
- Must withdraw from day-to-day management of the system; however, Cabinet must continue to insist that evidence be brought before it regularly to support health system recommendations and changes and to demonstrate their proposed benefits to PEI.

Treasury Board:

- Should immediately initiate a three or five-year planning cycle for health care, both operating and capital, under the leadership of Treasury Board. Under this longer range planning framework, the health care system should be directed to set up human resources, procurement and management systems that follow the spirit and intent of government directives, but without the same requirement for signoff at the Treasury Board level.

Department of Health:

- Need to set out mandates for the operational entity to deliver services in accordance with the plan.
- Need to define policy and standards and shift day-to-day role to one of monitoring and evaluation.
- Must also withdraw from day-to-day management of the system.

Health Authority:

- Need to deploy resources (within a global budget model) to deliver the defined mandate(s).
- Must build effective models for integration and service delivery and reduce variation between communities and functional care delivery sectors.
- Must be given resources to support system leadership and management.

Management and Staff:

- Must embrace the need for change and pursue opportunities to enable new models of care delivery and new ways of working and assume responsibility for system and quality.

Medical Staff:

- Must be more formally integrated into both “large M” and “small m” management processes by accepting appropriate leadership roles as well as engaging in solutions development at the unit level.

CHAPTER 4: ONE ISLAND COMMUNITY – AN INTEGRATED HEALTH SYSTEM

Sector by Sector Observations

This chapter will outline the sector by sector findings. Each sub-section will start with a description of the current state, identify performance indicators (where possible) and attempt to define the gap between what exists now and what could exist in the future.

It is important to note that reviews of this type are intended to identify opportunities for improvement and therefore focuses on gaps and changes that are required. These need to be considered against the backdrop of the opening comments in this report which stress that the current health care system in PEI has many strengths, the greatest of which are the thousands of dedicated health care providers, support staff, managers, and system leaders across the province who make tremendous efforts every day to provide Islanders with high quality, safe, and appropriate care. This report provides suggestions for change that build on this core strength.

The section is divided into four sub-sections:

- community-based primary health care;
- home-based and continuing care;
- emergency services as a bridge between community and hospital care; and
- hospital-based care.

4.1 COMMUNITY-BASED PRIMARY HEALTH CARE

Primary health care is typically the public's first level of access to the health care system. For the purposes of this report, primary health care is identified as including the following services:

- primary care providers;
- chronic disease management issues;
- prevention and self management strategies;
- public health services;
- family health centres; and
- community mental health and addictions.

Every major health care study in Canada and throughout the developed world has noted that these services represent the key underpinning of a health care system designed to optimize health of the citizens it serves.

Health Canada's website notes that:
At present, primary care services in Canada are delivered chiefly by family physicians and general medical practitioners who focus on the diagnosis and treatment of illness and injury. Further developments seek to build on this foundation.

In recent years, the ways in which primary health care services are organized and delivered have been the focus of much debate (including the Romanow Report and Health Council of Canada Report). Concerns include:

- *the relative lack of emphasis on health promotion and disease prevention, which has been linked to high rates of preventable illness;*
- *lack of continuity, with various providers and institutions often appearing to work in isolation from one another;*
- *problems with access, particularly in rural and remote areas, but also in urban centres where the lack of after-hours services often results in the use of emergency rooms for non-urgent care; and*
- *providers' concerns regarding their working conditions, including long hours and impacts on their own health and family life.*

Consequently, numerous studies of the health care system have emphasized the importance of primary health care reform.

This has been an area of ongoing focus and effort in PEI as the Island has experienced chronic shortages of family physicians for a number of years. On a positive note, recent efforts appear to have closed the gap so that most positions are now filled or committed.

OBSERVATIONS

At the same time, there are some concerns and observations.

- 66% of the current complement of family physicians is men and their average age is 45–50 (but the range is broad with many facing potential retirements in the next five years).
- The system uses mixed remuneration models and these differences appear to have created some conflicts, such as:
  - a perception that fee for service doctors (both family physicians and specialists) work harder;
  - a need for more clarity regarding performance expectations in the contracts of salaried physicians; and
  - a lack of effective reporting relationships and accountability linkages between physicians and the overall system.
- There is limited use of nurse practitioners to date (two on the Island at the time of the review). Since government is supportive of this type of role in the system, a long-term strategy to increase use of nurse practitioners is required.

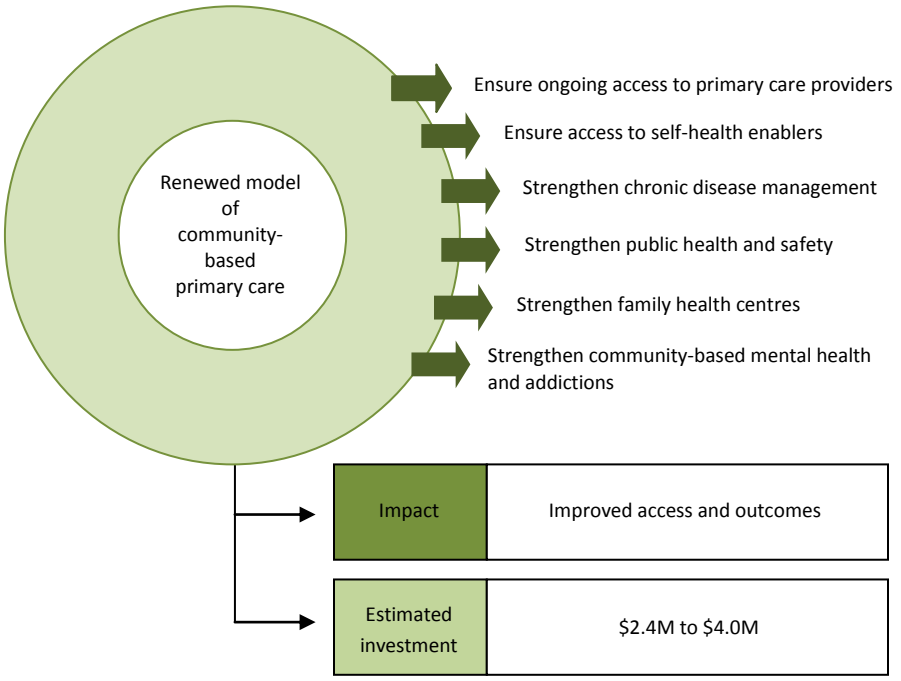
- There are reportedly some questionable practices in some areas, with variation in the way care is delivered. One example is the potential for some practices to schedule short appointments, which increases the potential for over-prescribing versus focused management of the patient.
- Current on-call schedules to cover emergency services lead to an excessive burden of being on-call to maintain the services, and likely contribute to access issues. There is also some reported requirement for physicians to stay on-site at the hospital when on-call. This needs to be reviewed to ensure that on-site is required (versus being on-call and available to be on-site with a defined period of time – e.g. 15 minutes).
- Gaps in coverage likely lead to inappropriate use of hospital-based facilities – although some of this is behavioral on the part of the providers.

The diagram below demonstrates a proposed renewed model for primary-based care:

4.1.1 RENEWED MODEL OF PRIMARY-BASED CARE

Primary-based care represents a first line of protection and support for Islanders.

It reflects a shift in emphasis to ensure that the majority of people's needs can be met as close to home as possible.



SUMMARY OF RECOMMENDED STRATEGIC DIRECTIONS – COMMUNITY-BASED PRIMARY HEALTH CARE

- **Confirm the primary care human resource model.** In confirming the future HR model, the government will need to consider how other roles can be leveraged to support family physicians. Three examples include:
  - expansion of the nurse practitioner model, including redefining the nature of the collaborative practice model so that access to nurse practitioners is not impeded due to the lack of an on-site family physician;
  - expansion of the family practice nurse role in family health centres or physician office practices; and
  - new roles – such as community pharmacists – as part of a broader primary care provider model.

  New or expanded roles could increase access to appropriate primary care providers and eliminate or reduce the number of people who report that they do not have a primary care provider. It also could serve to reduce the burden on the physician by providing alternate providers for some interactions.

- **Redefine and realign physician compensation models.** This has the potential to improve access to primary care services. One component of the current compensation model pays family physicians to provide coverage in a 24-hour emergency department setting. In many cases, patient volumes (especially at night) are very low, but the physician is compensated for this time. This is not the best use of resources as it provides limited work in return for the payment. These resources could be used to buy alternate services, shorter wait times and increased access to care at the local level. On a positive note, the new Master Agreement appears to address many of these concerns.

- **Consider mandatory coverage models.** There should be a model that ensures a primary care provider for all children in PEI. This would mean that a child born in PEI would be assigned a family physician (if the mother has no provider) and that all families who move to the Island would be ensured access to a care provider (at least for their children). This would require a rostering model that requires physicians to accept new patients by rotation, and likely a wait time goal to ensure timely access.

4.1.2 CHRONIC DISEASE MANAGEMENT

The umbrella of chronic disease management (CDM) includes a series of initiatives aimed at addressing population health issues and improving the underlying health status of the population. To that end, it is important to reiterate that PEI, when compared to other provinces, has numerous indicators of poor health, including the lowest male life expectancy; high incidence and/or mortality rates of several types of cancer; low rates of residents reporting physical activity; and high mortality rates for stroke.

In addition, Prince Edward Island has (compared to other provinces) the highest hospitalization rates for ambulatory care sensitive conditions; and the highest proportion of the population reporting difficulty obtaining immediate care for a minor health problem any time of day.

These population health issues have a direct impact on the health care system as they drive demand as well as cost. Information provided by the Department of Health reflects this reality:

- Childhood obesity has tripled in 20 years. One in three Islanders are obese. Diabetes is increasing at epidemic proportions and costs to manage it are growing.
- Cancer rates are increasing dramatically, but mortality is level. This will drive costs up as the system manages more people with extended illness.
- Cardiovascular disease is a leading cause of death.
- Mental health problems are increasing.
- Rapid growth of chronic disease is threatening the sustainability of the health system as research confirms that modifiable risk factors are driving costs (e.g. smoking reportedly costs $10 million in direct costs and $43 million in lost productivity, and second-hand smoke costs another $47 million).

OBSERVATIONS

Observations regarding current efforts to deliver services to address chronic disease management issues include the following:

- Some programs (such as diabetes) have been in place for years. This provides a strong foundation upon which to build.
- Self-management modules have been developed and are beginning to be deployed. A shift to self-management may require a shift in the current culture, which appears to have an overly professionalized focus.
- There is a strong perception in some programs that they are under-resourced.
- There is likely increased opportunity for better coordination and integration with other parts of the primary health care sector (e.g. family health centres).

- Some of the population health strategies that have been developed have likely not been resourced at the appropriate level. Non-governmental organization (NGO) partnerships and access issues may need to be reviewed further (e.g. Stroke Strategy, AIDS Strategy).
- There appear to be some major HHR issues/gaps.
- There appears to be limited uptake of technology to support self-care. (For example, PEI is the last province to have adopted a nurse call line).

THE KEYS TO MANAGING LONG-TERM CONDITIONS

Effective long-term conditions management will:

- focus on the whole person
- involve people in their own care
- provide care in the least intensive setting
- aim to minimize unnecessary hospital visits and admissions
- be coordinated in primary care
- be provided by a multi-disciplinary team
- integrate generalist and specialist care
- integrate health and social care
- use a population approach
- use good information systems and intelligence
- identify people with long-term conditions and place them on a general practice-based register, with their consent/authorization
- use a structured approach to call and recall
- review care using evidence-based protocols and guidelines
- focus on improving medicines management
- use community and voluntary resources well, including support for family caregivers

Source: NHS National Framework for Service Change

The previous graphic identifies keys to effective management of chronic disease. The following Recommended strategic directions reflect many of these points.

RECOMMENDED STRATEGIC DIRECTIONS – CHRONIC DISEASE MANAGEMENT

- **Confirm chronic disease management priorities.** The province is working on a plan to rollout additional CDM initiatives. These need to be confirmed and resources directed to the highest priority areas.

- **Review model of care in community-based settings.** The province continues to use a largely professional model for CDM initiatives. For example, diabetic educators report an increasing workload that makes it difficult to address demand, but adding educators is not likely the best response. Models need to reflect a "train the trainer" approach that uses both patients and families in self-care as well as other providers. This should be linked to prior work by the QI Team to provide expert clinical leadership in all primary care services.

- **Pursue co-location/integration options.** Care for CDM is currently delivered in a number of settings including hospitals, community-based service settings, family health centres and physician offices. A model that would see services co-located in key service delivery sites across the province, thereby providing "hubs" for care delivery (e.g. family health centres) would be strongly recommended.

- **Develop a technology strategy.** Technology enablers such as web-based self-care tools and tele-health options should be considered for expansion as part of an integrated CDM initiative.

4.1.3 PUBLIC HEALTH

Health Canada released The Chief Public Health Officer's Report on The State of Public Health in Canada 2008 in June 2008. This is the first annual report to be released and as such, should be viewed as a blueprint outlining key issues and directions to be considered in public health.

Quoting from the Report, Public Health is defined as "…the organized efforts of society to keep people healthy and prevent injury, illness and premature death. It is a combination of programs, services and policies that protect and promote the health of all Canadians."

The report goes on to note that:
"…while health care focuses on treating individuals who are not well, public health works to keep people from becoming sick or getting sicker. Both work to limit the impact of disease and disability. While individuals receive and benefit from services of the public health system, public health programs target entire populations − not just individuals – by identifying and reducing health threats through collaborative action involving many sectors of society."

Finally, the report notes the following six dimensions of public health:

1. *Health protection – Actions to ensure water, air and food are safe, a regulatory framework to control infectious diseases, protection from environmental threats, and expert advice to food and drug safety regulators.*
2. *Health surveillance – The ongoing, systematic use of routinely collected health data for the purpose of tracking and forecasting health events or health determinants. Surveillance includes: collection and storage of relevant data; integration, analysis and interpretation of this data; production of tracking and forecasting products with the interpreted data, and publication/dissemination of those products; and provision of expertise to those developing and/or contributing to surveillance systems, including risk surveillance.*
3. *Disease and injury prevention – Investigation, contact tracing, preventive measures to reduce the risk of infectious disease emergence and outbreaks, and activities to promote safe, healthy lifestyles to reduce preventable illness and injuries.*
4. *Population health assessment – Understanding the health of communities or specific populations, as well as the factors that underlie good health or pose potential risks, to produce better policies and services.*
5. *Health promotion – Preventing disease, encouraging safe behaviours and improving health through public policy, community-based interventions, active public participation, and advocacy or action on environmental and socio-economic determinants of health.*
6. *Emergency preparedness and response – Planning for both natural disasters (e.g. floods, earthquakes, fires, dangerous infectious diseases) and man-made disasters (e.g. those involving explosives, chemicals, radioactive substances or biological threats) to minimize serious illness, overall deaths and social disruption.*

OBSERVATIONS

Using these six dimensions or functions as a framework to assess the current state of public health, observations on the system in PEI are as follows:

- The current model of health protection appears to be under resourced with regard to environmental health officers, especially given the cyclical nature of the tourism business in PEI. Environmental health officer positions should be added.
- Some investments have been made in health surveillance. Some additional investments may be required but the province should be applauded for work to date.

- There is limited evidence that disease and injury prevention is in place. This is potentially a quality and safety issue and investments are required to address the issue.
- One epidemiologist has been hired to support population health assessment. More detailed analysis may require the addition of another epidemiologist.
- Public health is partly carried out by public health nursing and is normally linked to analysis and identification of priority issues. Public health nursing is not under the umbrella of public health in PEI. Instead it sits in primary health care where it appears to be focused on traditional maternal/newborn care. This structure should be reviewed to consider re-integrating it within the public health program. Additional investments may be required.
- Some work on emergency preparedness is underway, but it wasn't assessed in detail during the review.
- The addition of five to seven FTE positions in the areas of health protection, disease and injury prevention, population health assessment and health promotion should be considered for immediate investment at a cost of $380,000 to $460,000.

RECOMMENDED STRATEGIC DIRECTIONS – PUBLIC HEALTH

Confirm HR plan for public health. There is an immediate need to consider expanding key roles to support the growth of priority functions. At a minimum, the number of environmental health officer positions should be increased to address workload pressures and underlying safety issues. Public health should define organizational priorities in other functions and submit plans for consideration to the Department of Health.

Review overall structure. There is a need to confirm if PEI wants to maintain the current model in which public health nursing is not part of the public health portfolio. This is a unique model in Canada and likely warrants review to confirm if it continues to be appropriate.

4.1.4 FAMILY HEALTH CENTRES

Virtually every health care system has some form of primary health care centre as a key access point for citizens requiring health services. These centres take many forms including community health centres, primary care centres and family health teams.

While all are defined somewhat differently, these centres typically have teams that include physicians, nurse practitioners, nurses, counselors, community workers, social workers and dieticians. They may also offer a wide range of complementary programs. As an example, community health centres in Ontario offer services such as youth peer support programs, programs to address violence, youth leadership training and skills development, parent and child programs, and outreach to isolated seniors. In most jurisdictions, these centres are viewed as a highly effective model of primary health care, and are of particular value to people who face barriers to accessing services.

In PEI, the family health centres (FHCs) were established under the Federal Primary Care Transition Fund. There are currently six family health centres on the Island at an annual cost of approximately $6 million. The general perception is that they are a good idea, but may not have been implemented as effectively as possible. As a result, the family health centres have all evolved somewhat differently with different staffing models, different hours of operations and, perhaps most importantly, different philosophies of care delivery.

OBSERVATIONS

While the family health centres are an important ongoing component of the overall health system, the following observations should be considered:

- There are issues with how to measure patient volume and overall performance. Current measures tend to focus on physician visits. This does not reflect other work done by the rest of the team (for example, there is inconsistent tracking of registered nurse visits). There is a clear need to develop a standard set of metrics to measure value and performance.
- There is a need to expand emphasis and consistency of the multi-disciplinary team. At a minimum, there is likely a need for mental health and nutrition staff in each site.
- Physician payment models may need to be changed to ensure that doctors work in a way that supports and encourages integrated care delivery. This includes the need to formalize medical leadership roles within family health centres.
- There is a need to enhance integration by co-locating additional community-based services in the family health centres (including services like diabetes education, community-based speech therapy and community mental health).

RECOMMENDED STRATEGIC DIRECTIONS – FAMILY HEALTH CENTRES

Confirm vision for family health centres. There is a need to confirm the intended role for family health centres as part of an integrated health system. The role needs to be defined, communicated and agreed to by all senior leaders. Once defined, strategies to enable the success of family health centres need to be defined and implemented (including co-location of services and improved integration with community hospital services). Potential expansion of the family health centre model to additional communities should also be considered as part of the overall plan. However, the need for these centres in a particular area requires more analysis to confirm an appropriate volume of patients or population base to support efficient and effective care delivery.

Confirm human resources plan for family health centres. Once the role is defined, there will be an immediate need to confirm the HR plan and model of care delivery required to deliver the expected mandate. This plan should consider new roles, roles previously planned but not yet implemented and current roles that could be redeployed from existing settings/models.

Define performance expectations and measurement strategy. Some people expressed a concern that the family health centres are not seeing enough patients to justify the current expense, yet the current systems to track their volume of work are weak at best. Clarity is required to define what is expected (per renewed mandate), what metrics and performance indicators will reflect those expectations and what processes can be put in place to allow for measurement.

4.1.5 COMMUNITY MENTAL HEALTH AND ADDICTIONS

Mental health is a vital part of a person's overall well-being. Mental illness, mental health disorders and addictions, are widespread throughout all of society. It is estimated that one in five Canadians will experience some form of mental health disorder this year. Applying that statistic to Prince Edward Island would suggest that 28,000 Islanders may require some form of support for mental health issues each year.

Symptoms of mental illness may be mild, moderate, or severe, and may emerge at different times throughout a person's life. However, these disorders are treatable and can often be minimized by early intervention. Early and effective intervention requires a comprehensive, integrated, evidence-based system of mental health and addictions services. These services need to focus on health promotion, prevention, treatment, and recovery. They must also recognize and support each individuals' and families' resiliency and ability for self-care.

OBSERVATIONS

The following observations resulted from the review of community mental health in Prince Edward Island:

- There is a serious disconnect between community mental health and acute care, and some fragmentation between the mental health system and addictions services. While this is a common issue across Canada, the underlying level of fragmentation seems to be more systemic in PEI. A parallel initiative (facilitated by a senior leader at the Centre for Addiction and Mental Health in Toronto) was underway during this review so the review team will not duplicate that work, but believes that renewed planning and improved integration is needed. Better integration and alignment between mental health and addictions is required to address the needs of people with concurrent disorders.
- There also appears to be some significant fragmentation within the acute care delivery system at Hillsborough Hospital and the psychiatric unit at QEH. While each runs programs that should be complementary, there appear to be some major gaps in continuity and this has the potential to negatively impact patient care.
- Generally, core services are strong in the community. These core services could be used as a foundation for changes to the overall system. Addiction services in the community also appear to be strong in some areas, and these could serve as local benchmarking opportunities for other communities.
- Inpatient mental health services at Hillsborough Hospital provide a broad spectrum of services despite a deteriorating and difficult physical plant. Throughout the years, the facility has been updated, however the practicality of this structure as an effective and appropriate care environment must be reviewed and considered within capital planning.
- Prince Edward Island appears to have a full complement of psychiatrists, yet there still appears to be an overall access and wait time issue for psychiatry. This may be due in part to a process to access psychiatrists that has resulted in a reduction in team-based care.
- Youth and senior's mental health and addiction issues are emerging as a major gap, although a number of strategies have been developed and are in progress to address youth addiction. Many communities in the province appear to be facing some major challenges in this area and should be viewed as a priority.
- Despite the existence of the Provincial Addictions Treatment Centre, people requiring detox services cannot access the care they need in a timely manner and many are under-treated. When they do try to access care, they seek assistance in sectors not well equipped to deal with their needs (such as emergency departments). Additional detox capacity may be required, but at a minimum the access and flow for this service area needs to be reviewed and likely redesigned.

- The Provincial Addictions Treatment Centre appears to face challenges with regard to location (outside of Charlottetown), resources (training dollars need to be re-established), and integration (not viewed as part of the overall system strategy). Addiction services needs to be a network of services that plan together with this facility as a hub.
- Waiting lists for all services (mental health and addictions) are reported to be a problem, leading clients to access care in emergency departments. The emergency departments are not well prepared to address these needs. There are also inconsistencies in approaches and philosophies among community sites as to whom they will treat, which leads to further issues.
- Access to appropriate community housing alternatives for chronically mentally ill patients is virtually non-existent.

RECOMMENDED STRATEGIC DIRECTIONS – COMMUNITY MENTAL HEALTH AND ADDICTIONS

Complete needs assessment and confirm priorities. There is a need to confirm the at-risk populations (with a focus on youth, seniors, First Nations, and newcomers to Canada) and develop priority strategies surrounding service delivery options for each.

Confirm human resources plan for mental health and addictions. Once the service priorities are defined, there will be an immediate need to confirm the human resources plan and model of care delivery required to deliver the expected mandate. The plan should examine psychology as well as the potential to leverage additional staff (e.g. psychometrists) to meet priority access issues.

Redesign intake process for mental health and addictions. There is a need to regain some degree of consistency surrounding referrals and intake to ensure consistency between sectors (acute and community) and between different parts of the province. Some options include considering more centralized intake models that reduce potential for fragmentation of care, especially for clients with ongoing and persistent mental health issues or case management processes that span both mental health and addictions.

Initiate study to improve access to mental health and addiction services. The Department of Health should sponsor a study to investigate models for enhancing emergency department patients' access to mental health and addiction services.

Define overall leadership model. There is a clear need to define a new operating model with a defined accountability framework. This model should consider changes in reporting structure to put community mental health, addictions, psychiatry and inpatient psychiatry under the same leadership structure.

4.2 HOME-BASED AND CONTINUING CARE

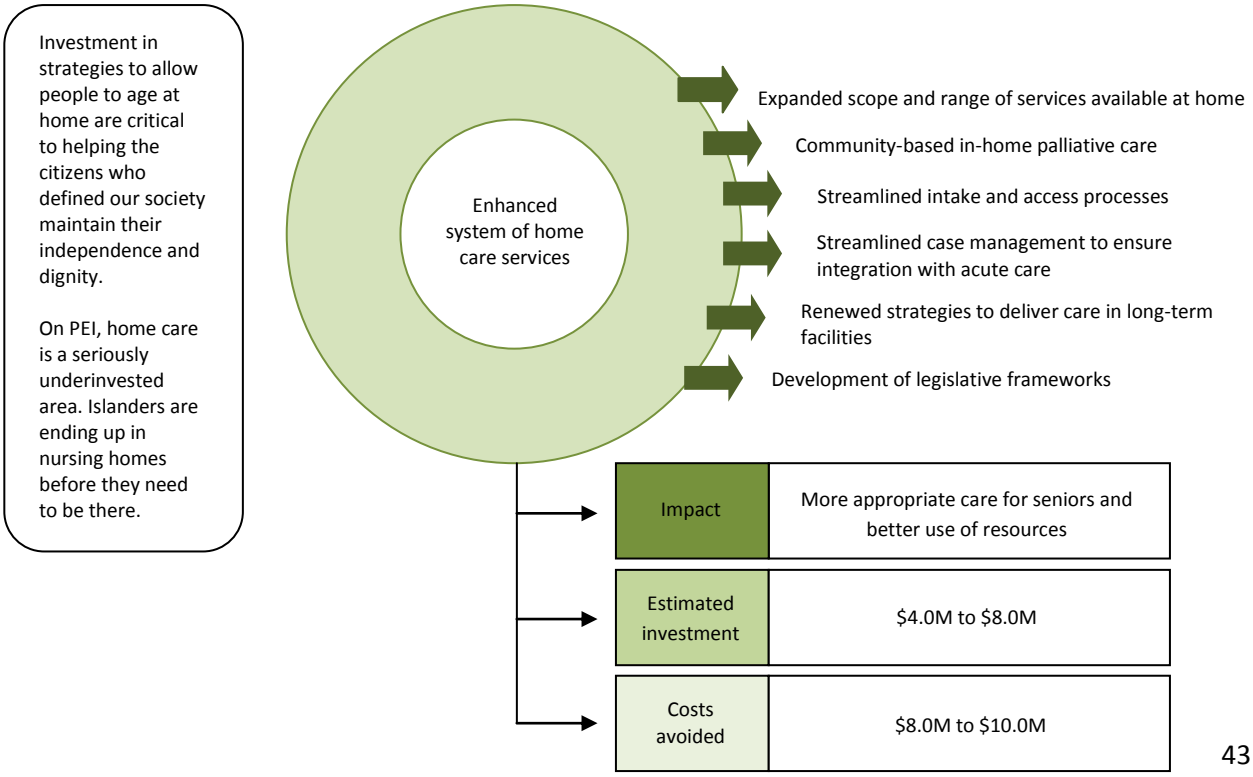
Continuing care is an umbrella that typically includes home care and long-term care (or facility-based care). In some jurisdictions, it also includes supportive housing or assisted living. It is the view of the review team that the entire umbrella could be considered home care as this sector involves services that are delivered in a person's home, whether that is the home they have always lived in or the residential-care facility that they now call home. The key is to view the home care umbrella as an integrated component, with cohesive investment strategies and intake processes to ensure appropriate and timely access to the right care in the right place at all times.

That said, for the sake of clarity, this section will be divided into care provided in the community (home care) and care provided in long-term care facilities.

Observations from the review suggest that the entire sector requires an overhaul to address some fundamental shortcomings. Operationally, Prince Edward Island seriously lags behind the national average for spending on home care. Without immediate investment, other potential changes could be jeopardized. At the same time, some focused work on bed utilization and overall resource management may yield savings that can be re-invested in improved services at the bedside (such as more consistent staffing levels and additional resources such as allied health).

The diagram below demonstrates a proposed enhanced system of delivery for home-based care:

ENHANCED SYSTEM OF DELIVERY FOR HOME-BASED CARE



4.2.1 HOME-BASED CARE

Home care is considered a key pillar of the health care system in most jurisdictions, with 'aging at home' (or similar) strategies viewed as a key enabler of future sustainability. As a result, virtually all provinces and territories are increasing home care budgets. PEI appears to have lagged behind other jurisdictions and needs to view this area as the top priority for immediate investment.

OBSERVATIONS

The following are observations surrounding the services delivered through the traditional home care sector in PEI:

- The province has historically experienced some serious shortfalls in the level of spending in this key area. Nationally, spending equated to 4% of total spending in 2003/04, yet in PEI spending levels have tended to be closer to 2% (1.99% in 2004/05 and 2.28% in 2007/08). Since the Department of Health budget in PEI excludes many costs that are included in other provinces, a 4% target may not be appropriate as the base is not comparable. That being said, moving to 4% as an initial resource target would require approximately $6 million in new monies directed at this service sector.
- In addition, spending increases for home care nationally continue to outpace overall spending growth patterns. This does not appear to be true for PEI.
- The case management function for home care needs to be updated and expanded. Key elements of the case management role are assessment of needs, collaboration on goal setting for treatment and care, determining eligibility for funded services (whether in home or in a facility), arranging for delivery of services, linking providers and families, updating plans and facilitating discharges from acute care. All of these are necessary to address access and flow for patients. Case management needs to address both acute and chronic care requirements.
- One integrated intake process to assess all individuals requiring home care or long-term care could ensure that a wider range of options (home care, adult day programs, etc.) are considered to address the patient's needs. Admission to a long-term care facility might not be required with the right supports at home and in the community.
- The depth and range of services offered is not consistent with those offered across the country.

RECOMMENDED STRATEGIC DIRECTIONS – HOME-BASED CARE

Define resource levels for immediate investment in priorities. A target for home care spending as a percentage of the total health care budget needs to be confirmed. An immediate investment of at least $2 million (0.5% of total) with a target of growing to 4% by 2010 is recommended. Reassessment of the target at that time will confirm if the level of funding remains appropriate.

Define process to access new funding. As new funding is made available, the process to access those funds should be developed and communicated. An innovation funding model is one option that provides a pot of funding for project proposals that are innovative and meet an identified need. Program priorities should be considered using criteria related to long-term sustainability.

Redefine services. Services should be updated and redefined to reflect current needs for clients requiring acute care and for those who need ongoing support for chronic conditions. Service updates need to reflect hours of care and types of services ranging from professional to unlicensed and support services.

Redesign case management models to improve access and flow. One of the issues that needs to be considered in case management redesign is the number of case managers required (likely more than the current complement) and the appropriate caseload for each. Technology enablers for case management should be considered.

Confirm model of care. There is a clear need to reconsider the roles and numbers of staff in all categories, with particular attention to the need to expand allied health service providers and consider options for licensed practical nurses to support care in the home environment.

Redesign intake process. More consistency with referrals and intake will ensure better integration with the acute and long-term care sectors and the community. Any new model should reflect a single intake point for all of continuing care and be linked to assessment processes and tools that clarify needs.

4.2.2 FACILITY-BASED LONG-TERM CARE

The province has completed work with another consultant – The Ascent Group – to undertake a review of long-term care. At the time of the assessment, the final report from that process was still draft, but the review team was able to review the general findings. In addition, the review team dedicated a consultant to review long-term care.

Above all, it is clear that the dedication and caring of the many stakeholders who participated in discussions have sustained the system and provided quality care to seniors in the face of many significant and varied challenges.

Despite the commitment of providers, there appears to be significant variation in the quality of services being delivered to seniors. The review team observed that some facilities provide quality care with warmth and compassion, while other facilities need more focused attention to ensure a level of care that one expects for the Island's seniors.

Information from key interviews suggests that there is a pressing need for redesign in the delivery of long-term care services in Prince Edward Island.

The following is a summary of findings and observations.

OBSERVATIONS

Observations on facility-based long-term care are as follows:

- The number of long-term care beds required in PEI is a key consideration for future planning. There are 18 long-term care facilities in the province with a total of 1003 beds or approximately 110 beds per 1,000 people over the age of 75. This is one of the highest levels in the country and is inconsistent with emerging research and trends that call for less institutionalization of the elderly and increased access to and utilization of home care.
- Three provinces (BC, Alberta and Ontario) have recently updated their planning targets and have set targets ranging from 92 to 96 beds per 1,000 people over 75. If PEI were to achieve a target of 96 beds per 1,000, the province would only require 883 beds, which is 120 fewer than the full capacity in the province and approximately 80 beds fewer than are used every day (based on average occupancy). While there is no exact science to setting a target, it is clear that the province has historically relied heavily on bed-based care as a response to non-acute needs.
- Increases in home care spending should reduce the system's reliance on residential care as a first response, which would allow more people to be cared for in their homes.

- There appears to be significant variation in the quality of services being delivered to seniors. Currently, there does not appear to be any way to ensure consistency of standards across all homes. In homes where the standards of care seem especially high, the leaders spoke of commitment to improving the overall quality of life for residents. In other homes, this vision seemed to be missing. An overall philosophy of care should be articulated that defines expectations surrounding resident-focused care.
- Staffing levels vary in terms of hours of care and skill mix, but the overall perception is that more resources are required. At the same time, there are scope of practice issues, with restrictions in just about every category of health care provider.
- There are not enough allied health staff (e.g. physiotherapists, occupational therapists, clinical nutrition and pharmacy) to support care delivery and key programming such as formal activation, recreation therapy and nutrition counseling. There is also not enough programming for high needs clients (such as dementia care).
- From a staffing perspective, the hours of care in public manors in 2006/07 ranged from 3.69 to 4.25 per day, and the staff mix ranges from 38% to 75% for combined RN and LPN staffing. This differs from other provinces where hours of care are typically closer to 3.3 to 3.5 hours per resident day and staff mix is usually 20% RN, 20% LPN and 60% aides. Consistently applying targeted hours of care per patient and appropriate skill mix would have enabled the system to deliver care more efficiently. Last year, it could have potentially saved the province as much as $1 million. Note: This potential efficiency could only be pursued if additional initiatives, such as resident classification tools are put in place to enable matching of resources to resident need.
- PEI lacks a formal resident classification tool or system that would allow resources to be aligned with resident needs. Many systems can accurately assess a resident in real time by using technology and web-supported applications. Not only does this have the potential to support improved resource management, it could also dramatically streamline the intake process.
- The intake and placement process requires a redesign to make it more consistent and timely. Typically long-term care sites have a targeted occupancy of 98% (or higher). Public manors in PEI operate with an average occupancy closer to 95%. If the public manors operated at 98%, the equivalent of 17.4 beds per day could have been freed up for use by people who were instead “medically discharged” but continued to receive care in acute care hospitals.
- Special needs populations are under-served and under-resourced. This is particularly an issue for patients with advanced dementia. Many long-term care homes in Prince Edward Island do not provide optimal spaces for patients with dementia or other special needs, such as smaller resident home areas, kitchen and serving areas located in resident pods, circular tracks for residents with dementia, and secure and accessible outdoor space. Access to psychiatrists is also extremely limited.

- Classification tools typically do not adequately capture the true level of need these individuals have, and nursing staff struggle to provide the best care they can for the senior while ensuring their safety and the safety of other residents.
    - The Seniors Mental Health Referral Team (SMART) is an available referral source. This multidisciplinary team provides psychogeriatric care, but currently provides nursing services only. A multidisciplinary team that includes psychiatrists, psychogeriatricians and advanced preparation nurses can contribute significantly to the health and well-being of the resident, to improved working conditions for staff and to improved living conditions for other residents.
    - In addition to specialized health human resources, the need for dedicated protected assessment beds was identified.
    - The other special needs population is people under the age of 60 with serious physical limitations and behavioral problems as well as those with mental illness. This is a sizable proportion of the long-term care residents in PEI, and the province has commissioned a study on the needs of this group. Consideration should be given to options for these individuals that include a less restrictive environment such as enhanced community care or supportive housing.
- There is no single legislative framework under which all long-term care facilities operate and there is no legislation at all governing care delivered in public manors. These facilities report through the government's bureaucratic structures and the oversight function appears to be considerably less than that applied to the private sector. While public manors are not inspected, it should be noted that they are accredited by Accreditation Canada and are assessed based on national standards as part of a quality improvement initiative.
- The privately operated community care facilities and nursing homes are governed by the Community Care Facilities and Nursing Homes Act, which has not been updated in more than 20 years. It provides for annual inspections by a Department of Health official which includes licensing, building construction, safety, health and social rights and general operation and administration. Should a single act be created (or at a minimum the Community Care Facilities and Nursing Homes Act updated), it will be important to ensure that legislation does not limit appropriate scopes of practice by all providers (e.g. licensed practical nurses administering medications).

RECOMMENDED STRATEGIC DIRECTIONS – FACILITY-BASED LONG-TERM CARE

Confirm vision for long-term care. The government should confirm its vision for facility-based long-term care in the future, including a common vision for philosophy of care to be delivered in all facilities.

Confirm long-term care bed target. The government needs to confirm if it wants to continue to invest in long-term care beds at the same rate as today or at a lower target that reflects emerging philosophies and trends elsewhere in Canada. If an investment in home care is supported, the planning target could be confirmed once the impact of home care redesign on access and demand has been determined. The facility replacement plan needs to proceed regardless of the final target, but maintaining current bed numbers for the foreseeable future could start to change the culture of institutionalization of the elderly.

Confirm model of care for long-term care. The province should review and expand the scope of practice for registered nurses, licensed practical nurses and resident care workers to reflect best practice and the experience of other jurisdictions. Consideration should be given to several new, expanded or adapted roles in all long-term care settings, including nurse practitioners, physiotherapy and occupational therapy assistants, expanded dietician roles, and pharmacists and social workers as part of the core team. Finally, the province should establish multidisciplinary teams to develop the plan of care as part of the admission and ongoing review process for all residents in long-term care.

Confirm special programming needs for special needs populations. This plan needs to address a number of issues including addressing physical space issues by incorporating facilities' needs assessments into overall redevelopment plans, ensuring access to psychogeriatric and related resources for residents with special needs, and providing regular education sessions for caregivers and staff related to the care of residents with special needs.

Enhance leadership and staff development. A competency-based leadership model and leadership development programs are needed. The province should also establish staff development programs and expectations regarding continuing education in the long-term care sector.

Improve resident assessment. The province needs to immediately identify and implement an alternative resident needs assessment tool that can accurately and consistently identify care needs for individuals across the continuum of care (home, community and long-term care). The assessment tool should be integrated with national home and community care standards.

Undertake a legislative review. The Community Care Facilities and Nursing Home Act and its regulations should undergo a comprehensive review and revision with a view to having all long-term care facilities (both private and public) governed by a single act. Standards that encompass accommodation and health services should be developed and applied to both private and public facilities. All long-term care and community facilities should be subject to an annual audit of their compliance with the standards. The annual audit report should be publically available and shared with residents and families. The annual inspection should be conducted by personnel from the Department of Health, and the reports should be processed through the government bureaucracy in a manner similar to other government audits.

4.3 EMERGENCY SERVICES: THE BRIDGE BETWEEN COMMUNITY AND HOSPITAL CARE

4.3.1 EMERGENCY DEPARTMENTS

In conducting a review of the PEI health system it was necessary to consider the role of emergency services delivered across the province. Like many provinces and territories, PEI is faced with challenges in staffing emergency services. In the past this has resulted in reductions in emergency care services in some centres across the province due to a combination of staffing shortages and recognition of lack of critical mass to make the delivery of services viable. This review suggests the need to further consider how and where emergency and primary health care services should be provided across the province.

The population in Prince Edward Island is shifting toward a higher percentage of seniors and lower numbers of people under the age of 65. This will likely result in a greater shift to chronic disease management from trauma care, and will result in less opportunity for emergency room physicians and nurses to practice their trauma skills. It becomes even more critical to focus on quality and safety in this environment.

The concept of “close to home” is seen through a different lens with emergency care than it is with other types of services because true emergency care requires the skills and experience of highly specialized emergency room physicians who are often not located in smaller and more rural communities.

Demand for emergency services throughout the province has resulted in the delivery of care through emergency departments in a highly fragmented model that theoretically has five hospital emergency departments to serve less than 140,000 people. The need to provide ongoing physician staffing in the three smaller emergency departments (Montague, Alberton and O'Leary) has also presented challenges for covering other primary health care services. All these issues raise questions surrounding critical mass and, ultimately, quality.

OBSERVATIONS

The analysis of care delivered through emergency departments can usually be guided through data which measures both volume and acuity of the patient requiring care. Unfortunately, the ability to review data across PEI was very difficult due to inconsistent collection and reporting of emergency department visits for both volume and acuity. This made definitive analysis challenging, but through consultation with health care providers and a qualitative review of facilities where emergency services were provided, the following observations were identified:

- Emergency departments in smaller hospitals in PEI have low volumes at night. This is consistent across Canada, and leads to potential safety issues related to critical mass for volume and skill sets if true emergencies present.
- Nurse staffing at night is cross covered (at least in some sites) with staff from inpatient units. This doesn't ensure that staff have core emergency department skills and often leaves the inpatient units understaffed.
- Physician and nurse shortages may make ongoing coverage of emergency departments a less attractive option for physicians and nurses.
- Sustainability issues for 24/7 emergency departments exist across the country. Many small hospitals are experiencing temporary or planned service reductions or closures with increasing frequency. The unpredictability shakes public confidence in the system overall.
- Current physician compensation models reflect need to cover the emergency departments at higher than necessary cost for volume of work seen. Money could be better spent on increasing access to primary health care or improved access to pre-hospital (ambulance) services. It should be noted that the new Master Agreement between the Government of PEI and the Medical Society of PEI (MSPEI) does address this issue.

Despite the lack of data available in PEI, it is evident that historically several communities have been unable to sustain ED services. In other jurisdictions across the country, this is most often due to a lack of physicians to cover on-call requirements during weekends specifically. Physician on-call expectations for many hospitals impede recruitment, contribute to physician burn-out, and do not make the most effective use of limited and valuable human health care resources.

The availability of nursing staff across the province is also decreasing, and expectations of nurses in small communities to "be all for all" is not sustainable. Nurses working night shift are regularly expected to cover both acute medical units and emergency departments, and often act as the only RN for an entire facility, without adequate administrative or nursing supports.

Although closures have not been occurring across the entire province, the possibility of temporary closures becoming a reality is an increasing concern as the nursing workforce moves toward retirement with no temporary nursing staff pools. While nursing shortages remain a significant issue, the majority of planned closures have been due to insufficient physician coverage. This can be expected to increase in frequency at sites that are already experiencing issues and will likely be an issue at an increasing number of sites over time.

The lack of consistent data collection and reporting in Prince Edward Island's emergency departments makes it very difficult to determine the number and types of emergency room visits in ERs across the province. In other small community hospitals in Canada that deliver emergency services, it is reported that nearly 50% of ED visits between 0000 and 0800 are categorized as less urgent in nature and 16% are determined to be non-urgent, using the Canadian Triage and Acuity Scale (CTAS). This means that a large number of visits during the night may be more appropriately served the next day, or during evening hours in primary care clinics rather than in an emergency department. For most small sites throughout Canada, the overall volumes seen during the night are so small that staffing both physicians and nurses is becoming cost prohibitive. It is also stressing resources available during day and weekend hours. Observations in PEI would suggest that these trends are also evident here.

Across the health care system in Canada, data is generally not collected using common data elements. This limits its usefulness for data management purposes and strategic health system planning. Technology to support data management is often inadequate and fragmented with systems that are not integrated. Individual hospitals have varying levels of data to support primary health care decisions, for comparative purposes, and to establish performance and health outcomes standards.

As previously suggested, the review of PEI emergency services was impeded by the inability to collect consistent and comparative provincial data. This data issue results in the comparison of 'apples and oranges' across the system, and significant data manipulation across hospital sites would be necessary to reconcile discrepancies in instances where data exists.

In order for PEI to strategically expand primary health care initiatives, improved data management must be a priority. Data management initiatives must:

- collect, process and analyze data for components of care delivery including timeliness and standardization factors;
- support management decision making at the hospital and provincial levels;
- facilitate provincial and national comparative reporting;
- support related approved analysis and research; and
- support the development and use of case-mix and utilization grouping methodologies.

RECOMMENDED STRATEGIC DIRECTIONS - EMERGENCY DEPARTMENTS

Emergency department role review. The province should undertake a focused role redesign of ED services across the province with a goal of creating a provincial trauma and emergency services system with an overarching goal of quality and safety. A detailed review of current needs and utilization of other emergency and outpatient departments should include review of hours of service delivery and volumes by time of day, confirm the roles for the two larger centres and seek to strengthen the roles for Queen Elizabeth Hospital (QEH) and Prince County Hospital (PCH) as district trauma centre and primary trauma centre respectively. It should also consider the creation of urgent care centres outside of Queen Elizabeth Hospital and Prince County Hospital (one in the west and one in the east) to enable enhanced local access to Canadian Triage Acuity Scale (CTAS) visits at the 3, 4 and 5 levels of care as required by time of day. As discussed in section 4.4.2, the department should consider moving to a single emergency department in West Prince to stabilize emergency department service delivery for residents for this geographic region of the Island. The single emergency department should likely be at Western Hospital in Alberton as this facility has a larger inpatient base to address potential admissions from the ED.

Focus on system flow. Patient flow processes should be designed to facilitate appropriate rapid access to care at Queen Elizabeth Hospital and/or Prince County Hospital.

Include data management processes. The ongoing collection and management of data must be at the forefront of services management to provide volume, quality and safety indicators.

4.3.2 PRE-HOSPITAL CARE/AMBULANCE SYSTEM

Pre-hospital care is an area of ongoing emphasis and investment in PEI, and is a key underpinning of both the primary health care system and the provincial trauma/emergency care system. The current system in PEI is managed by the same organization that provides emergency health services in Nova Scotia – a program that is arguably one of the best in North America. Under this management model, paramedic training is being updated with a goal to have 50% of all paramedics trained with advanced trauma life support skills at the Paramedic 3 level, with at least one P3 paramedic on all emergency calls. Government is encouraged to stay the course with this plan, unless fast tracking is an option.

RECOMMENDED STRATEGIC DIRECTIONS – PRE-HOSPITAL CARE/ AMBULANCE SYSTEM

Fast track the development of advanced care paramedics. The Department of Health should consider options to fast track the plan to have 50% of paramedics trained at the advanced care level as soon as possible.

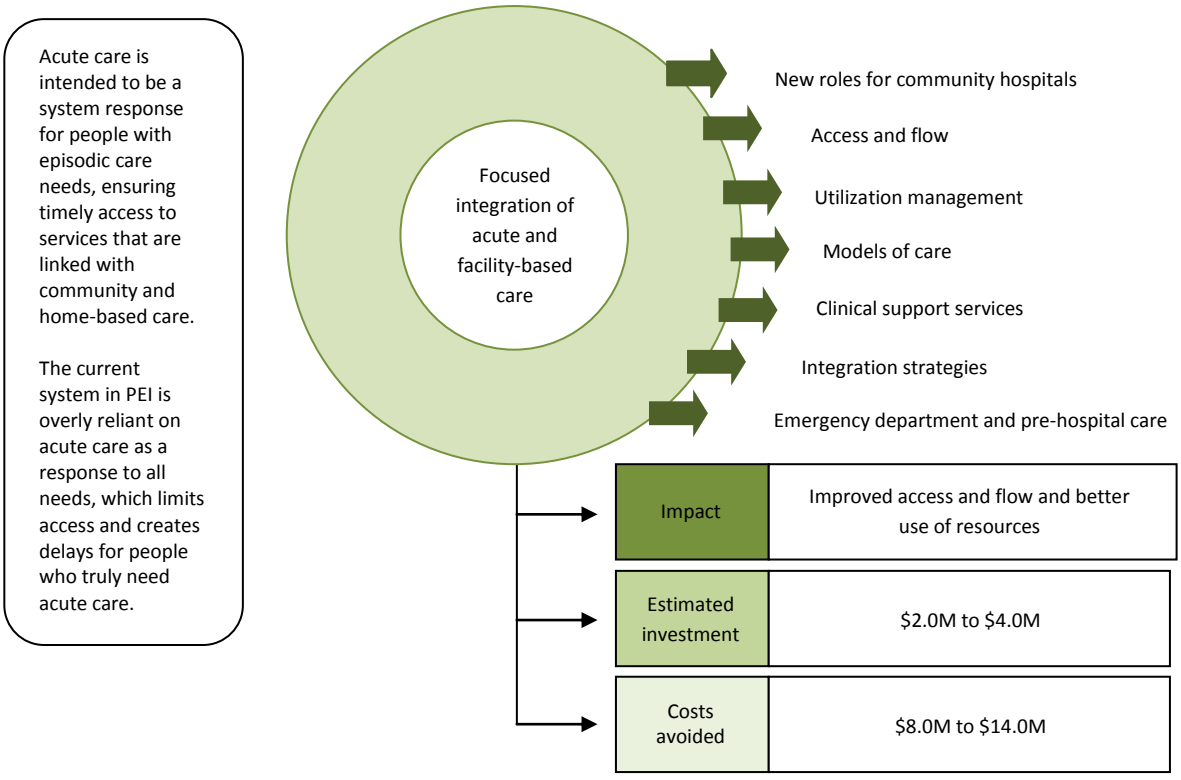
Fast track the commitment to free emergency ambulance services. The government should consider fast tracking their previously stated commitment to no cost emergency ambulance services, and increase the availability of services by recruiting additional paramedics at an accelerated rate. Such a move should support the emergency department review identified earlier in section 4.3.1.

4.4 HOSPITAL-BASED CARE

For a variety of reasons, Prince Edward Island continues to demonstrate an excessive reliance on hospital-based care as a response to health issues. While other provinces have tended to decrease the proportion of the overall budget spent on hospital care by investing in home care and primary health care, PEI has not yet made many of these investments at the level required. This causes Islanders to be admitted to, and have ongoing stays in, acute care beds in hospitals even though care may have been more appropriately provided at home or in another setting.

The diagram below demonstrates a more integrated view of acute and facility-based care:

FOCUSED INTEGRATION OF ACUTE AND FACILITY-BASED CARE



Overall Plan for Hospital Bed Capacity

The view that the province has an excessive reliance on hospital-based care is reinforced by looking at utilization management analysis which suggests that the Actual Lengths of Stay (ALOS) in hospital are significantly above the Expected Lengths of Stay (ELOS).

This measure (ALOS vs. ELOS) can be used to estimate how many beds would be freed up if the average length of each patient's stay in hospital were equal to how long they would be expected to stay.

Even if PEI were to achieve the target of Expected Lengths of Stay just at QEH and PCH, as many as 65 acute care beds would have been freed up during the review period, either for additional required services or as an efficiency opportunity.

Using another comparator (beds per 1,000 population), Prince Edward Island, with approximately 450 beds across its seven hospital sites (515 if Hillsborough is included), currently provides acute care at a rate of approximately 3.2 – 3.7 beds per 1,000. Alberta is using a planning target of 1.9. Using Alberta's planning target, PEI would only require 265 acute care beds, which is essentially the capacity of the QEH. Even if PEI chose a higher target of 2.5, reflecting the fact that it has a higher proportion of elderly people (who tend to use acute care at higher rates), the total acute care bed need would only be 350 (roughly the equivalent of PCH and QEH combined). Note: Any calculation of bed numbers includes the beds utilized off-Island in New Brunswick and Nova Scotia, so the on-Island need would be less.

Both of the above comparators suggest that PEI is "over-bedded" in acute care, which is the most expensive part of the care delivery system. Significant changes are required, ones that will require a significant shift in philosophy, starting with the future role of the community hospitals.

4.4.1 COMMUNITY HOSPITAL SERVICES

The hospital system in PEI is comprised of seven hospitals – five community hospitals and the two larger referral hospitals in Summerside and Charlottetown.

Total days compared to expected days for each site (excluding Community Hospital O'Leary which does not report ALC and for which ELOS data was not provided) shows that the system overall in 2007/08 used more than 26,000 surplus days across six of the seven hospital sites. This represents 45.7% of all days, with a range of 36.7% of days at PCH to a high of 79.8% of days at Stewart Memorial (see table below):

Hospital	Total cases	Total Actual Days	Total Expected Days	Surplus Days (actual - expected)	Percent Surplus
Kings	242.0	3,530.0	1,538.8	1,991.2	56.4%
Souris	38.0	551.0	231.8	319.2	57.9%
Stewart Memorial	21.0	690.3	139.2	551.1	79.8%
Western	75.0	1,344.2	297.1	1,047.1	77.9%
Prince County	1,280.0	13,786.0	8,720.9	5,065.1	36.7%
Queen Elizabeth	3,609.0	37,225.5	20,068.2	17,157.3	46.1%
TOTAL	**5,265.0**	**57,127.0**	**30,996.0**	**26,131.0**	**45.7%**

Note - in the above table:

- Total cases = total acute care discharges during the year.
- Total actual days = the in-hospital days associated with the total discharges.
- Total expected days = a measure based on average or expected length of stay for similar cases across Canada.
- Surplus days = the difference between actual and expected total days.

This suggests that there are dramatic opportunities to deliver care differently and refocus the roles of hospitals to ensure that (a) acute care services are delivered efficiently, (b) other services are developed to meet the needs associated with "conservable days" and (c) new levels of care are developed for community hospitals. This streamlines care, enables access and ensures that required services are met in the most appropriate setting.

Given that the largest opportunities (in terms of percentages) exist at the community sites, further examination of their bed capacity and average occupancy is presented below.

Community Hospitals

Community	*Hospital*	*Beds*	*Average Occupancy (2007/08)*	*Emergency Services (Y/N)*
Alberton	Western Community Hospital	27	63%	Y
Montague	Kings County Memorial Hospital	30	86%	Y
O'Leary	Community Hospital O'Leary	13	69%	Y
Souris	Souris Hospital	17	76%	N
Tyne Valley	Stewart Memorial Hospital	4	81%	N

OBSERVATIONS

Observations on hospital-based care are as follows:

- The five hospitals each play very different roles in their communities. Some have 24-hour emergency departments, some have long-term care beds formally included onsite and some provide office space for staff who work under the primary health care or community mental health services.
- Bed numbers range from a low of four at Stewart Memorial to a high of 30 in Montague and occupancy varies from 63 – 86%. With regard to bed numbers and occupancy, it is important to note that neither reflects true need for acute care. The beds are currently occupied by significant numbers of acute long-term care patients (medically discharged) as well as patients who would otherwise be classified as sub-acute or convalescent care. That is not to imply that this is not a need, but rather that the need is not likely for acute care (at least not in the numbers noted in the table above).
- Staffing models are very different in each of the sites, with planned ratios of patients per nurse varying across all sites. In addition to differences in planned staffing levels, there were also differences in efficiency and productivity (as measured in hours of care per patient day or HPPD).

- Hours of care per patient day (HPPD) calculates the total worked hours consumed in the prior year and divides that by the total number of patient days of care provided. In PEI's community hospitals, there is quite a significant difference between the planned hours of care per patient day and the actual. This suggests that there could be an efficiency opportunity that should not be overlooked. At the same time, it will not be easy to achieve savings for re-investment as all organizations feel that they are grossly understaffed and in dire need of additional resources.

As a key first step, Department of Health needs to define new and vibrant roles for the community hospitals that are focused on delivering the care that people need (e.g. new levels of patient care including sub-acute care, transitional care and long-term care). To deliver these roles, the organizations need to implement new staffing models of care that better reflect the needs of the patients they currently serve or should serve in the future.

Failure to address role changes for the community hospitals will perpetuate the current model and lead to ongoing inefficiency within the system, it also could:

- prevent the Department of Health from advancing the changes required across the system on a larger level;
- perpetuate the idea that the emergency care system in PEI is a five-site model with equivalent emergency care delivery at each site;
- prevent appropriate investment in the right local services (including health promotion and chronic disease management); and
- weaken the overall ability to strengthen the primary care system and deliver services that people need.

RECOMMENDED STRATEGIC DIRECTIONS – COMMUNITY HOSPITAL SERVICES

Confirm roles for community hospitals. A renewed system of primary health care requires appropriate services to be available locally, reducing the public's dependence on acute care hospitals for primary health care or non-acute services. The community hospitals in PEI represent an important cornerstone for such a system. Community hospitals could provide a more in-depth primary health care focus, where a broad range of ambulatory services and non-acute bed-based services could be expanded at the hospital. 24-hour emergency departments may not be required at all sites, but sites could offer urgent care services for defined hours each day. These hospitals would be supported by acute care services that would be streamlined and delivered primarily at the two larger hospital sites.

Define models of care consistent with new roles. Staffing roles need to reflect the care requirements consistent with those roles. Additional investments in allied staffing and other community-based service providers, as well as strategic use of staff at all levels will ensure that the right staff are delivering the right services, and will help to maintain jobs at various levels in local communities.

Match resources to models of care. The potential efficiency opportunity identified in the HPPD data reflects inappropriate use of resources to maintain roles that are no longer appropriate. New models of care will enable more consistency and standardization of roles and resources within each community. Standards and ranges should be defined and performance monitored to ensure that hospitals function within the defined ranges.

Define governance mandates to support 'One Island Health System'. With or without role changes there is a need to review the role of the current community hospital boards. There is a lack of governance at the province's two largest hospitals, Queen Elizabeth Hospital and Prince County Hospital. The current governance structure includes hospital boards for the community hospitals, but none for QEH or PCH. This governance structure is inconsistent and results in skewed representation, with less for the larger hospitals that serve more Islanders and more for the smaller hospitals. In addition, the focus of the community hospital boards are on hospitals rather than community-based services or health services overall and, as a result, the current board structure discourages integration of the health system. Supporting five community hospital boards is an impediment to creating a fully integrated system. The province must move to one governance system that recognizes the role of community input if it is to achieve the system perspective of 'One Island Health System'.

4.4.2 THE PROPOSED WEST PRINCE HOSPITAL

Prior to the last provincial election, the government of the day expressed support for building a new hospital in West Prince. The proposal called for the decommissioning of the existing hospitals in Alberton and O'Leary and the development of one new hospital an equal distance between the two communities in Bloomfield.

OBSERVATIONS

Findings with regard to the proposed new hospital in West Prince are as follows:

- While the project was originally estimated at $30 million in 2006, the revised estimates suggest that this number is likely closer to $50 million.
- One of the two main arguments made in support of a new site were a potential to deal with HHR issues related to sustainability, based on an assumption that a new hospital will be able to more easily attract staff and on-call demands will be reduced because a joint medical staff will only have one site to cover as opposed to two staffs at two sites.
- The second argument is based on a sense that losing the hospital locally will be more acceptable if one community doesn't get to keep their hospital.

Neither argument is strong. From a health human resources perspective, the trends across Canada show that rural environments continue to struggle with recruitment as the staff continue to move to urban areas for employment. There is not enough evidence to suggest that a new hospital will overcome this trend.

As for the "both lose" argument, it is not appropriate to ask all citizens of PEI to take on the cost burden associated with this project when there are so many additional pressing issues in the province.

RECOMMENDED STRATEGIC DIRECTIONS – THE PROPOSED WEST PRINCE HOSPITAL

Discontinue plans for a new hospital in West Prince. It appears that the hospital in Alberton, with some redevelopment, can serve as the referral base for West Prince, while the relatively new hospital in O'Leary could be leveraged for additional primary health care services in addition to being a logical location for the expansion of long-term care capacity.

4.4.3 ACUTE HOSPITAL CARE: QUEEN ELIZABETH HOSPITAL AND PRINCE COUNTY HOSPITAL

This section of the report focuses on high-level summary findings related to the Queen Elizabeth Hospital and Prince County Hospital. The two acute care settings provide a number of similar services including emergency services, ambulatory care, peri-operative services, critical care and inpatient beds for medical, surgical, maternal/child and mental health populations. Prince County Hospital also has restorative care and satellite oncology services, and Queen Elizabeth Hospital has rehabilitation and oncology services (also offered as a satellite service in Kings County Memorial Hospital).

Patient day statistics for each of the two sites is as follows:

Community	Hospital	Beds	Average Occupancy (2007/08)	Comment
Charlottetown	Queen Elizabeth Hospital	254	83%	Occupancy ranges from 45% on paediatrics to 108% on medicine
Summerside	Prince County Hospital	104	75%	Occupancy ranges from 23% on paediatrics to 94% on medicine

On many levels, there are significant opportunities to view the delivery of care in all of these areas as an opportunity to improve integration across the continuum. For example, critical care should be viewed as a single system on two sites, as opposed to two separate units. This is true of a number of services areas. The focus of the report is a higher degree of integration of services, driven largely by a need to increase efficiency in inpatient care delivery. Accordingly, the observations and findings are clustered largely by program or topic area, not by site.

4.4.4 INPATIENT MEDICAL/SURGICAL

The core inpatient business for both sites is acute inpatient medical and surgical beds. There are a number of common issues in each:

- Units tend to be identified as medical or surgical, with capacity for medical patients being exceeded and medical patients being forced to be admitted off-service on surgical beds. This leads to a perception that medical patients are occupying surgical beds – a bone of contention for nursing staff and surgeons who view the patients as inappropriate (and requiring extra workload).
- The “bed map” (the allocation of beds by service) has not been adjusted for years, suggesting that the presence of medical patients on surgical beds is routine and likely appropriate, and therefore the designation creates an artificial issue.
- There is variable use of “sitters” or constant care observation between the two sites. A new strategy needs to be in place and needs to be consistent across all sites. The new procedure for approving sitters needs to reflect appropriate consideration of technology solutions (e.g. alarm beds and wander guards) and needs to link any decision to use staff to address this perceived need with the appropriate accountability framework.

- The medical units tend to house a number of patients who have been medically discharged (awaiting placement in long-term care) or are about to be medically discharged. While exact counts of these patients vary, people perceive that they equate to the patients who are then admitted off-service to surgery. Staff report that they find caring for medically discharged patients adds to the workload, even though their care requirements should be less when calculated in relation to required hours of care (see next section).
- Analysis suggests that these units are operating below the expected level of efficiency. That being said, efficiencies can likely only be pursued after some changes are made to the bed map and after some focused work on model of care has been completed.
- Flow in and out of the units is a challenge, largely related to the lack of adequate discharge planning processes and ineffective bed management processes. At QEH, the barriers to effective flow lead to patients being managed in the hallway in emergency. This situation is not acceptable, nor is moving them to hallways in other areas of the hospital. Alternate options to manage these patients need to be explored and implemented. Addressing the bed map and improving discharge planning will be important steps to addressing this issue.

RECOMMENDED STRATEGIC DIRECTIONS – INPATIENT MEDICAL/SURGICAL

Revise bed maps to appropriately reflect current and projected demand for medical beds. Medical beds need to be allocated based on historical and emerging utilization patterns. Beds should be calculated using a target occupancy of 90%, which will provide some flex capacity. Data related to Expected Length of Stay (ELOS) should be incorporated to ensure that the future bed allocations reflect more appropriate utilization management targets.

Define surge capacity solutions to alleviate pressure on the emergency department. This is linked to patient flow and the bed map, but there is an initial need to acknowledge that caring for patients in the hallways in the emergency department is an unacceptable model and that it is not simply the emergency department's problem.

4.4.5 MEDICALLY DISCHARGED PATIENTS AND THE FRAIL ELDERLY

Like many hospitals in Canada today, both the QEH and PCH are experiencing ongoing challenges surrounding patients who have been medically discharged and are now awaiting placement in an alternate care setting.

The patients, commonly referred to as alternate level of care (ALC), appear to be increasing in number – a trend that has been observed in many jurisdictions. Given this, staff were engaged in some preliminary discussion of the potential benefits of grouping these patients in a transitional care unit (or similar model). The rationale behind the idea that a transitional care unit is appropriate is grounded in the following concepts:

- It would co-locate patients who have needs quite different from the larger acute care population and would allow both hospitals to structure the care team more appropriately to focus on these needs.
- It provides for enough critical mass to allow for a different staffing model that could leverage less expensive resources in the form of licensed practical nurses and health care aides. This model assumes both a reduction in HPPD for these patients, as well as a reduced cost per hour of care (as a result of shifts in staff mix).

OBSERVATIONS

A previous attempt at this model (at QEH) was abandoned because it was deemed to be ineffective. The unit was restricted to eight beds, and admission was restricted to patients that did not require the features of a safety unit. As a result, the average occupancy was often below eight beds.

It is reported that there have been up to 25 at QEH and up to 10 patients at PCH who have been formally designated as medically discharged and are awaiting placement in another type of facility. It was also noted that, on any given day, there are numerous other patients who exhibit the same care needs, but the process to formally declare them as medically discharged has not yet been completed. This suggests that the population of patients who would benefit from renewed service delivery models is larger than just those patients formally designated as medically discharged. Given this, there should be sufficient critical mass to revisit the potential solution of a transitional care unit.

Despite some resistance vocalized by staff, the review team believes that grouping this population and building care teams to better serve their needs (e.g. mobility, activities of daily living and focused rehab interventions) is a better option than having them remain in an acute care environment where their needs may be less acute than the majority of the patients. In acute settings, the potential to have some of the needs of the ALC patient overlooked appears to be higher than it would be on an ALC unit that is structured and resourced to provide a more focused and appropriate care environment.

Mezey (2005) states that "the demographics of hospitals are such that older patients currently represent the 'core business' of hospitals." The frail elderly present with different needs than would have been seen in hospitals in years past. These patients can often be cared for with a less expensive model of care, while continuing to leverage core services that function together to support an older individual's movement through the acute care hospital system and the transition to the community.

The preferred model would allow for the frail elderly to be transferred off a pure acute unit to another unit that would be able to provide more focused care delivery options to meet the needs for more appropriate geriatric care, including models for ongoing acute care, sub-acute care or transitional and supportive care.

Initial analysis suggests savings could be as much as $1.0 million if a transitional care unit was created. This estimate assumes a 36 bed unit, staffed by a mix of health care providers, with a reduction in average hours of care per day from 6.0 (the average across medical-surgical units) to 4.0 (which is slightly higher than the hours of care that they would receive in a long-term care setting) These two changes would result in a lower average cost per patient day.

RECOMMENDED STRATEGIC DIRECTIONS – MEDICALLY DISCHARGED PATIENTS AND THE FRAIL ELDERLY

Create a transitional care unit (or frail elderly unit). Revisions to the bed map should include such units at the QEH and PCH sites. These units should have clearly designated admission criteria, but the criteria should not be so restrictive as to impede proper flow.

Define the model of care to reflect needs. The model of care of the transitional care unit should reflect reduced reliance on RNs and increased use of licensed practical nurses and health care aides.

4.4.6 RESTORATIVE CARE AND REHABILITATION

Prince County Hospital has a restorative care unit that is intended to serve a specific population needing post-acute follow-up care. Queen Elizabeth Hospital has a rehab unit that plays a significant role in the flow of patients from both orthopedics and neurology.

OBSERVATIONS

The observations are as follows:

- Restorative care at PCH has admission criteria, but the unit appears to be experiencing some challenges related to appropriateness (with reports of patients not meeting the criteria blocking beds and flow).
- The restorative care unit at PCH has the highest hours of care of all units at either site (outside of critical care), and this appears to reflect a significant efficiency opportunity. Immediate action should be taken to address this issue.
- Rehab at QEH is reported to be a block in flow for scheduled ortho patients (hips and knees), yet inpatient rehab as a routine part of the care plan has been largely abandoned in other jurisdictions.
- The focus for each unit needs to be reviewed and more fully articulated. Guidelines need to be clarified and processes to ensure appropriateness need to be managed.

RECOMMENDED STRATEGIC DIRECTIONS – RESTORATIVE CARE AND REHABILITATION

Define roles for restorative/rehab care as an inpatient modality. Each of these units needs to be reviewed and considered as part of a larger overall plan of care for patients requiring non-acute services.

Define models of care. Staffing models need to reflect needs of the patients to be served.

4.4.7 MATERNAL CHILD

The maternal child units at PCH and QEH function using very different philosophies and care models. When constructed, PCH was designed to provide single room maternity care – labour and delivery, recovery and post-partum care are all provided in the same room. QEH, on the other hand, still has a newborn nursery where the baby is cared for in a nursery unit, separate from the mother. This was changing to mother-baby dyad care at the time that the review team was onsite.

OBSERVATIONS

Observations regarding these services are as follows:

- Mother/baby dyad care (having the baby in the room with the mother) is viewed as the standard so the shift must be fast-tracked and maintained at QEH as soon as possible.
- C-Section procedures at QEH need to be reviewed and updated. Currently mothers requiring a C-Section are reportedly asked to go directly to the operating room. The normal process would be for them to report to the unit and to be accompanied to the operating room by a labour and delivery nurse.

- Staffing patterns at QEH should be reviewed as the complement of staff is likely more than required to maintain care in a mother-baby dyad model. A major efficiency relates to how staff previously assigned to the nursery are deployed in the future.
- Care at PCH, while meeting a current standard for single room maternity care, has a major gap in care. Anaesthesia reportedly does not offer epidurals. This is a quality issue and needs to be addressed immediately as a serious deficiency.
- Linkages across the continuum of perinatal care are not clearly defined or articulated. Links with public health nursing and other providers are critical for ensuring good prenatal, antenatal, and postnatal care.
- There are critical mass concerns related to volumes (particularly at PCH), which may reflect structural "inefficiencies" that simply need to be accepted.
- Pediatric units at each site are small, particularly at PCH. Some people interviewed felt that the pediatric unit was essential to maintaining the maternity program, but there are numerous examples where maternal/newborn programs exist without on site pediatric units (or even onsite pediatricians).

RECOMMENDED STRATEGIC DIRECTIONS – MATERNAL CHILD

Review staffing levels and models of care for maternal newborn. A detailed review of current utilization patterns and staffing levels should be completed, with a view to increasing efficiency of these units. The potential to leverage the staffing base for other services should also be considered (e.g. pediatric and/or gynecology).

Confirm standards of care at each site. The lack of epidural care at PCH needs to be addressed immediately.

Revisit inpatient pediatric units at each site. The Island should invest in one pediatric inpatient unit (at QEH) and the unit at Prince County Hospital should be closed. Pediatric services at PCH could be delivered through observation beds and/or ambulatory care.

4.4.8 CRITICAL CARE

The province has 15 critical care beds - a 10-bed intensive care unit (ICU) at QEH and a 5-bed intensive care unit at PCH. While both units are called ICUs, it is clear that they do not provide care to the same patient populations. This is not a criticism of either unit, but rather a reflection of the appropriate reality.

The Canadian Critical Care Society (CCCS) has endorsed a paper adapted from the Critical Care Operations Group of the London Teaching Hospitals. Entitled "Guideline for categorization of services for the critically ill patient", this paper is an important building block for this report, as it helps to differentiate levels of critical care units.

A companion document of equal importance is the CCCS Guideline document. The guideline document not only recommends a classification system for levels of ICUs, it clearly states the standards that should be met at each level. These standards describe the medical staff and the medical staff organization, nursing and other staff, unit organization, staff availability and leadership, availability of various support disciplines that should be on-call, equipment, support services, transport policies, education and even research.

Many of these standards are based on evidence available in the literature that demonstrates higher quality care in ICUs if certain factors are in place. Examples include physician leadership in ICUs, nursing education programs, quality improvement processes, and availability of laboratory and pharmacy services.

Other factors that improve quality are closed over open units, increased nurse to patient ratios, decreased use of tests that will not change clinical management, development and implementation of evidence-based protocols and guidelines, use of computer-based alerting systems, and having a pharmacist participate in daily patient rounds.

The CCCS Guideline document essentially defines three levels of ICU care.

- Level 1 hospitals represent facilities that provide care to complicated, critically ill patients who require ongoing treatment. This level of care is dependent on the continuous availability of sophisticated equipment provided by a multidisciplinary team of health care professionals trained in the care of the critically ill. Level 1C units represent this high level of care while Level 1A units have an additional commitment to education and research in the field of critical care medicine and affiliated personnel.
- Level 2 hospitals usually serve large communities with some limitation of resources. While often these institutions may be able to deliver a high quality of care to critically ill patients, transfer agreements must be negotiated for complicated patients or those requiring special services available only in Level 1 institutions. Protocols should also be developed cooperatively between Level 2 units and Level 1 units relating to the care of the critically ill patient during the stabilization and intrahospital transport period.
- Level 3 hospitals encompass all other critical care capabilities provided in the community setting. While able to provide stabilization and monitoring of critically ill patients, transfer agreements must be in place for transport to a more appropriate level facility when indicated. Transfer protocols as described above also need to be in place. Standards described for Level 3 hospitals represent minimal standards for critical care units.

OBSERVATIONS

Using this categorization model as a guide, the review team would suggest that there are no Level 1 units on PEI (these beds are accessed through hospitals in Nova Scotia or New Brunswick as required), QEH reflects a Level 2 unit, and PCH reflects a Level 3 unit.

Differentiating units in this way is not intended to signify value or importance, merely reality. The key will be to interpret these levels and ensure that staffing is appropriate for the patient population in each. Moving to an integrated critical care system - with unified leadership over the units at both sites - will allow this to occur more easily. Other observations related to critical care are as follows:

- Both units operate as 'open units', where patients can be admitted under multiple physicians. The literature suggests that 'closed units', where a core group of medical staff manage all cases, are preferable.
- The volume of patients requiring ventilation varies dramatically across the two sites, with PCH being as low as 30 per year. Given critical mass issues, the system needs clear guidelines for managing ventilator care at the Level 3 site.
- PCH has experienced challenges in maintaining respiratory therapy coverage in recent years. The impact on ICU capability needs to be considered.
- There are limited (if any) protocols in place to guide patient management. These should be considered. Some care management practices by individual physicians were reported to be "outdated". Guidelines would help to address this situation.
- There appears to be limited ability (under current structures) to address physician behaviours deemed inappropriate (e.g. not making rounds in a timely manner as per defined policy).
- Planning related to the need to potentially close beds and go on diversion appears to happen with some frequency (especially at PCH), but in reality, the hospital rarely, if ever, actually goes on diversion and very few patients are ever diverted. This means that unnecessary time is wasted planning for an event that rarely happens. The perception of the need for diversion appears to reflect ingrained perceptions of safe staffing levels, although it is not clear that these perceptions reflect true need or historical beliefs. Staffing models need to be clarified and matched to levels of care.
- Evidence from the Leapfrog Group clearly shows that the quality of ICU care is improved with intensivists in ICUs either in a leadership position, co-managing patients with another physician or via telemedicine (experts in larger centres using telemedicine to review patients and their laboratory findings at smaller sites with telemedicine, or as some call it, e-ICU). Given this, the Department of Health should consider new leadership roles in the QEH (and by extension the PCH) ICUs.

RECOMMENDED STRATEGIC DIRECTIONS – CRITICAL CARE

Confirm roles for each ICU. The province should confirm whether it accepts the CCCS levels of care designations and if it agrees that QEH is a Level 2 facility and PCH is a Level 3 site. If so, patient populations appropriate for each should be defined and staffing levels should be developed to reflect acuity and need.

Create an integrated leadership model for all critical care beds. A unified leadership model, ideally with an intensivist in the leadership role, should be pursued.

Define guidelines and protocols for high volume cases. Standard guidelines and protocols need to be developed for patients. This will reduce the tendency for care to be subject to individual provider preference or practice.

Define expected performance indicators for critical care. The province should ensure that the provincial leader (or leadership group) establishes standards and performance indicators, monitors unit performance to ensure accountability and assists in improvement when necessary.

4.4.9 EFFICIENCY ANALYSIS AND FINDINGS

Previous analysis by the review team suggested that there was some potential for improved efficiency in the delivery of acute care services. This reflects staffing analysis and national benchmarks for care delivery. The analysis has been updated for this review and found that overall, there may be as much as $4 million in potential efficiency opportunities that need to be pursued at QEH and PCH.

Of the above potential savings, approximately $1.4 million of the total $4.7 million is related to maternal/newborn/child services across the two sites. As noted previously, these services suffer from critical mass issues which, without significant system redesign, may not be able to be addressed. This reinforces the need to consider integrated models for services such as maternal/child, as well as areas like ICU, perioperative (OR) services and rehab and restorative care.

It also shows significant wastage related to the delivery of care to people who are deemed medically discharged or off-service. While some savings require focused efforts to redesign the model of care, the bed map issue is an opportunity that should yield significant savings for re-investment through new staffing models. While the analysis suggests that acute care reflects an opportunity for significant efficiencies, these cannot be realized without first investing in the other sectors and other initiatives to enable change.

4.4.10 MODEL OF CARE

Model of care is a term that can ignite debate in today's hospital environments. Largely unchanged for the past two decades, the current models of care tend to either reflect an all-RN staffing mix that is focused on total patient care, or reflect use of licensed practical nurses at levels well below the scopes of practice. Beyond nursing, allied health professionals tend to be scheduled on a Monday to Friday basis, largely in the day time hours, and limited supports are available from these areas on weekends.

Given this situation, many hospitals need to step back and take a very serious look at the current models of care. This opinion has been informed by work across the country and review of the research and literature that has been emerging over the last few years, including a major emphasis on the looming crisis in health human resources.

Current projections suggest that as many as 1.1 million RNs could retire in Canada and the U.S. in the year 2010 (just over one year from now). Even if one assumes that only 50% of those eligible to retire will do so, the projections on new graduates over the next two to three years suggest that there will be a serious gap in 2010 that will be extremely difficult to fill. This trend applies to LPNs and other providers as well. This will lead to an even higher reliance on overtime and increased demand throughout the country for agency staff, which will exacerbate the current situation.

OBSERVATIONS

In response to the current and expected shortage of nurses, there are multiple discussions on issues and possible strategies to adapt to the shortage without negatively affecting patient care standards. Several are noted below:

- Staffing models reflect very traditional roles for RNs and licensed practical nurses where LPNs and other providers are not allowed or enabled to function at full scope of practice. It should be noted that this is currently being updated in PEI. These models need to be adapted in the future to reflect emerging trends and health human resources realities.
- The emerging generation of workers reflects different value sets and a markedly different set of expectations regarding the environments in which they are willing to work. It is reasonable to expect that new nurses (and doctors and allied health staff) will refuse to work in the same manner as their predecessor generations.
- Advanced practice models and roles are providing new opportunities for all professionals (such as hospitalists, midwives, nurse practitioners and advanced practice physiotherapists). These new opportunities are competing with the needs for bedside staff and all are being drawn from the same, shrinking pool of resources. Planning must incorporate these roles effectively to ensure that all staff are leveraged and deployed appropriately.

- The cost per hour of care can be expected to increase dramatically as global competition drives up salary expectations. The Dana Farber Cancer Centre in Boston, as just one example, has recently entered into a contract whereby it will pay almost $150,000 for every RN with more than seven years of experience. This is more than twice what the RN with the same experience in PEI is currently paid. Global changes such as these may drive the cost of care delivery in Canada to a point that existing models are not viable, even if an appropriate supply of staff can be recruited.
- Recurring budgetary pressures continue to demand that organizations find additional efficiencies year over year, which could lead to ongoing questions surrounding the affordability of the current model.
- Ongoing changes in the patient populations being served (largely due to demographic shifts) leads to more co-morbidities and a need for new strategies to meet the needs of the frail elderly. This will demand models that provide more extensive services on a seven day a week model, which may lead to additional pressure to attract professionals who currently function in roles that largely work Monday to Friday.
- Technology solutions are necessary to enable more efficient care delivery and are currently lacking.

Given these issues, any effort to redesign the model of care must start by examining role redesign from the perspective of the broader care team. It must include the full care delivery process – from accessing, to managing, to delivering, to evaluating, and then to improving. The methodology takes staff into account and also seeks to understand other key system resources such as processes, information and supporting technology. The diagram below outlines the proposed approach to coordinated care team redesign.

COORDINATED CARE TEAM REDESIGN: A COORDINATED APPROACH

A major component of the new model will need to be the informed consideration of the appropriateness of introducing licensed practical nurses (at full scopes of practice) more formally into the care delivery process. In short, a redesign project will need to look at all the nursing roles, as well as other professional roles and potential new roles, to confirm principles for care team redesign and define a new model of care for deployment across the acute care settings in QEH and PCH.

RECOMMENDED STRATEGIC DIRECTIONS – MODEL OF CARE

Confirm overall model of care. The province should establish a Model of Care Redesign Team to lead development of a new model of care. The work of the team should consider the general care requirements of the patients being served, the desired role of the bedside RN, and how all other existing and potentially new roles on the care team would relate to and support that role, the desired role for the front-line manager and its relationship to other roles, care processes and supporting processes, and opportunities to leverage technology to support care delivery.

Confirm pilot sites for initial rollout of model of care. While much of the discussion has focused on acute care, there may be some value in considering a focused effort to redesign the model of care in the community setting as this will represent a key enabler of larger system flow opportunities.

4.4.11 PERIOPERATIVE

Perioperative services in Prince Edward Island have been consolidated over the years. There are operating rooms in two sites: QEH and PCH. At QEH, there is physical capacity of nine operating rooms with dedicated rooms for cystoscopy, vascular and ophthalmology. The operating room schedule is composed primarily of four-hour and eight-hour blocks assigned by a surgeon. Two two-hour blocks are assigned to Electro-Convulsive Therapy (ECT). The schedule provides four rooms per day, Monday to Friday.

At PCH, there is a capacity of three operating rooms. The operating rooms are not assigned to any specific service. Services include general surgery, ENT, gynecology, orthopedic surgery, plastic surgery and dental. C-Sections are done in the operating room. The hospital runs two operating rooms per day following a two week schedule assigned by surgeon. The blocks are a mix of 7 hours, 4.5 hours and 5.5 hours.

OBSERVATIONS

General observations with regard to operating room services are as follows:

- Perioperative resources are valuable assets and must be used wisely. The decision making and accountability structures are not clear, and this appears to reflect some significant efficiency opportunities.
- A recurring theme in the interviews was that the surgeons and anesthesiologists, as independent practitioners, did not actively participate in improving the use of the hospital resources and in fact, hindered patient flow and appropriate utilization by basing their usage on personal convenience.
- The allocation of operating room time is not based on patient need or demand. Surgeons are allocated blocks of operating time that may or may not be used. At QEH, semi-elective cases are frequently done throughout the evening shift, and true urgent cases get bumped into the night-time hours, resulting in very large amounts of nursing overtime. There is a sense that the urgency ratings assigned to the evening and weekend emergency operating room cases may not be accurate, leading to inappropriate use of overtime in the evening shift.
- The hospitals need to examine their perioperative processes, determine whether they are effective and make improvements to match capacity to demand. For example, surgery is being cancelled due to "no bed available" especially for orthopedic surgery.
- With the exception of manually prepared case counts and Canadian Institute for Health Information (CIHI) data, there has been no operating room process specific data available for the past ten years. The operating room information system currently in use has not been updated on a consistent basis. Information on how the OR functions, such as cancellation rates, room utilization, room delays and resource utilization, are not available. The lack of information supports inefficient use of operating room resources. Examples offered during the interviews include lack of standardization of equipment and process for like cases, the continuation of four-hour surgical blocks of time and case times that are not based on actual procedure times (a standard for effective management and flow).

RECOMMENDED STRATEGIC DIRECTIONS – PERIOPERATIVE

Define an overall accountability framework for the operating room. The province should consider establishing a leadership model that manages all operating rooms in the province. This group would advise on decisions related to the efficient and safe use of hospital resources. The model should be responsible for the ongoing functioning of an effective perioperative service and enhance the role of the clinical chiefs, including more clearly defined role accountabilities and commensurate stipends.

Mapping perioperative processes and utilization management. The hospitals should map the typical in- and out-patient visit, and analyze the demand for services and the capacity to meet the demand. The mapping exercise will assist the hospitals to predict maximum patient flow, identify bottlenecks and determine opportunities to improve processes and maximize the use of resources. This process should include the pre-operative planning and post-operative phases of care (especially length of stay).

Invest in information technology. The province needs to invest in an operating room information system that can be implemented on an urgent priority basis and that can support a strategic process to review and update booking practices. With the introduction of the PEI Wait Time Initiative and the implementation of the Cerner Information System, there may be an opportunity to define and build in the appropriate performance measures during the implementation of the operating room module.

Review current utilization of operating room time and consider reallocation. The province should establish an operating room subcommittee to develop a new process for the allocation of operating room time across both sites, and it should be facilitated by someone with no vested interest in the outcome. This group should also review the use of emergency time and define new procedures for the emergency case classification system. This system should be reviewed and adhered to more strictly. A regular review of emergency cases should be included as part of the perioperative services utilization management activities, and follow-up of non-compliance should be the responsibility of the chief of the relevant service. No elective cases should be performed after hours.

Initiate model of care redesign. The perioperative team roles should be reviewed and a team appointed to lead development of a new model of care.

4.4.12 PATIENT FLOW

Managing patient flow is an important enabler for increasing patient safety; enhancing patient, family and provider satisfaction; and ensuring people and physical resources are used effectively and efficiently. However, until recently, patient flow has not been a key focus in many Canadian hospitals.

To help understand and address patient flow challenges within PEI, flow was reviewed at the Queen Elizabeth Hospital (QEH), Prince County Hospital (PCH), Western Hospital (WH) and Kings County Memorial Hospital (KCMH) resulting in discussions with over 55 stakeholders. Consultations focused on gaining a better understanding of existing challenges and collaboratively identifying solutions.

Overall, stakeholders have shown commitment to improving patient flow. Staff members are expending significant amounts of time assisting and personally managing flow often on a patient-level basis. However, there are limited system-wide solutions and limited coordination among initiatives. The net result is that people are working hard but are not getting the benefit or impact that is required.

Most care facilities appear to view themselves as an island onto themselves and may not fully appreciate the One Island Community, One Island Future view from the Throne Speech. For the PEI health care system to work safely and productively, facilities and services from across the continuum need to understand, appreciate and support the necessary interconnected working relationships. This implies a greater focus on proactive decanting (moving people out of acute care hospitals to more appropriate settings), repatriation and inter-facility consultations where necessary.

Management of beds and other key resources (such as clinics and diagnostic capacities) must be a key focus amongst all acute care providers. A high level review of data provided identified a number of areas where a higher proportion of patients are spending more time in inpatient beds than would be expected (e.g., comparison of average length of stays to expected length of stays). There is also a growing ALC challenge that will place added capacity pressures on the acute care system. There is a pressing need to invest time and efforts into bed management approaches that will support patient flow at both the facility, and more broadly, the provincial levels.

OBSERVATIONS

The following observations and findings were identified as part of the review:

- Facilities are working in isolation to fix their own facility's problems, solutions have not been focusing on the whole system, and facilities are not using evidence to improve patient flow.
- Different facilities have established unique approaches to managing flow. Some of these differences were due to facility specific requirements or capacities, while many were as a result of individual decisions and designs. There are some very successful approaches that can be reviewed and expanded on a provincial basis, and therefore support a high degree of standardization across facilities.
- One example of variation is the patient assessment for community services. In some facilities it is completed in a few days while in another facility it can take up to a month.
- Modifying processes to increase coordination within a facility and between facilities should be investigated to increase coordination. PEI must leverage existing opportunities to operate the health care system as a coordinated system. Areas of focus include:
  - inter-facility transfer capacity;
  - timely referrals to consultants (inter/intra-facility);
  - established decanting emergency department policies;
  - varying practices for assessing patients for long-term care or community services;
  - emergency department backlog challenges experienced on a daily basis;
  - better access to mental health and addiction services from the emergency department; and
  - patients' transition out of acute care and where necessary, inter-provincial repatriation processes.
- Bed management and discharge planning must be key areas of focus. This includes re-establishing the provincial bed monitoring tool, ensuring daily bed meetings have clear authority to make timely placement decisions on behalf of the organization, and establishing discharge times and planned discharge dates that are adhered to.
- There is a clear need for investment in education of the public and staff. An important element of education must focus on how information can be utilized effectively to support both patients and providers as they navigate through or work within the system. This is the focus on information management.
- As technology is an important enabler to care delivery, the recent implementation of Cerner creates a number of opportunities for increased technology adoption that will assist and support improved patient flow through access to important information.

RECOMMENDED STRATEGIC DIRECTIONS – PATIENT FLOW

Improve coordination of transfers, ER decanting processes, referrals and repatriation. The Department of Health should establish, implement and monitor adherence for a provincial patient transfer policy to support appropriate decanting of patient care systems while ensuring patients are cared for in the most appropriate setting. Acute care institutions should develop standardized policies to support timely inter and intra facility referrals. A provincial inter-provincial repatriation capacity should be developed and implemented to ensure out-of-province patients are repatriated as appropriate. Acute care institutions should develop simplified emergency department decanting policies and procedures and work with other departments to support the decanting process.

Introduce bed management initiatives. These should include:

- a mandatory bed management system developed in partnership with the health department and acute care institutions utilizing ADT fields to present timely bed information to help providers make patient flow decisions;
- a new bed management meeting process to support bed management strategies for both intra and inter-facility flow, with consideration of opportunities to utilize approaches like the IHI AM Huddles or variations; and
- business cases for bed management strategies, which should be submitted by acute care facilities to the Department of Health and should outline staffing models, evaluation measures and monitoring approaches.

Introduce a common discharge time and ensure timely discharge of patients. A common discharge time for all acute care facilities, and a policy and strategy for timely discharge of patients should include a communication strategy for patients, nurses, and physicians. The policy must be focused on implementing care plans/pathways and initiating discharge planning as early in the care process as possible, and include evaluation frameworks to assess adherence. Periodic reports comparing planned discharges to actual discharges should be compiled and provided to hospital leadership and the Department of Health.

Standardize patient assessments. The Department of Health should institute a standard process for patient assessments to ensure timely and guaranteed access to services within a pre-determined time.

Redesign access processes. Acute care institutions should redesign access processes to enable timely access to diagnostic supports (e.g., diagnostic imaging, laboratory services).

Introduce a nursing call line. The Department of Health should invest in a nursing call line to manage inappropriate flow into hospital EDs.

Introduce provincial tracking of ALC patients. The Department of Health should institute provincial tracking of all ALC patients including monitoring of pending ALC, active ALC and long-stay ALC patients. ALC reports should be monitored on a periodic basis by acute institutions and the Department of Health.

Conduct a review of patient populations to determine effectiveness of resource deployment. The Department of Health should investigate inpatient appropriateness screening approaches and implementation feasibility (e.g., prospective, retrospective or concurrent review).

Initiate a study to improve patient flow. The Department of Health should sponsor a study to investigate opportunities for leveraging clinical information system functionality to support patient flow.

Support redesign. The Department of Health should develop a redesign capacity and skill sets to support necessary redesign requirements. Mini Lean, IHI Improvement Teams/Advisor or CSI IMPACT methodologies can be used to streamline and simplify existing processes, eliminate non-value added work, quickly identify and prioritize opportunities and build ownership for solutions.

4.4.13 UTILIZATION MANAGEMENT

There is a critical need for information driven processes to support decision making and evaluation of operations in real-time. Overall, there appears to be limited availability of timely and appropriate information for managers and leaders of the system. This points to a greater need to enhance the provincial utilization management capacity.

Across the province, actual average lengths of stay (ALOS) exceed the expected length of stay (ELOS) significantly. Department of Health analysis of the top ten case mix groups (CMGs) notes a gap of some 15,700 days. At targeted 90% occupancy, this reflects a 48-bed opportunity and a potential opportunity for re-investment of $3 to $4 million per year. However, it must be noted that this shift, whether due to inappropriate inpatient stays in the hospital or barriers to discharge out of the hospital in a timely fashion, will require some investments in utilization management capacity or alternative service delivery models outside of the hospital to realize opportunities.

From the review teams' consultations, it was noted often that some of these capacities used to be available but are no longer priorities. Active and immediate efforts in these areas need to become the priority once again. The review suggests that greater emphasis and investment must be placed on utilization management capacity to support both day-to-day management of the system and ongoing evaluation of success from quality, safety and productivity perspectives.

RECOMMENDED STRATEGIC DIRECTIONS – UTILIZATION MANAGEMENT

Develop a utilization management strategy. Key priorities of the strategy will be to ensure capacity (e.g., skills, expertise and tools) to complete analysis, to develop structures and working relationships that ensure access to information, and to clearly define awareness and accountability to use information.

Develop a provincial utilization management program. In partnership with the acute care institutions, the health department should create a UM program with additional analyst capacity, reporting functionality and tools.

Develop necessary structures and processes to ensure use of information. This will ensure that information developed as part of the utilization management capacity is used to support care delivery. Committee structures and organizational structures should be reviewed with a utilization management focus.

Develop an accountability framework. The framework should clearly identify how information is to be used by stakeholders. This will reflect an important change in culture where front-line staff, administration and physicians will be held accountable for behaviour, practicing evidence-based medicine, meeting national standards and operating within guidelines and budget, since information will be available to monitor activity and performance.

Support the utilization management strategy with education and training. The Department of Health will require investments in education and training (both orientation and ongoing efforts) to ensure front-line providers of care and all levels of leadership understand how to use the most currently available information resulting from the utilization management program to support decisions.

4.4.14 CLINICAL SUPPORT SERVICES

Clinical support services include diagnostic imaging (DI), laboratory medicine, and pathology (lab) and pharmacy. All of these are at different stages of evolution as provincial services, yet all have been considerably enabled as province-wide services by the rollout of the new Cerner Clinical Information System. To date, only diagnostic imaging has been structured provincially, and the program is still having growing pains because facilities are not accustomed to managing in a matrix structure.

In order to properly build the foundation for provincial clinical solutions, all three of these vital clinical support services should be immediately structured and operated as provincial resources. Wherever possible, links should be created with neighbouring provinces to ensure, for example, adequate medical and technologist resources to fully utilize available staff and technology.

4.4.14.1 DIAGNOSTIC IMAGING

Previous investment in equipment and technology has positioned PEI to be a leader in imaging practice in Canada. State-of-the-art technology is in place in both Summerside and Charlottetown, and a Radiology Information System (RIS) and Picture Imaging and Archiving System (PACS) are deployed throughout the Island in all modalities except mammography, which is due to be added early in 2009.

These technologies allow PEI to deliver images to radiologists anywhere in the world (subject to some technical limitations) for interpretation or for second opinions.

OBSERVATIONS

Observations regarding DI are as follows:

- All DI equipment is significantly underutilized in PEI. A shortage of radiologists and certain technologist groups such as sonographers (for ultrasound) has meant that equipment sits idle for some part of every working day. Critical diagnostic tools such as CT and MRI machines are scheduled for only one shift per day and even then are not fully utilized. Existing waitlists could be eliminated within a few months with adequate access to radiologists. PEI could easily double CT scans and take MRI scans from 12 to 18 per day with extended hours using available technologists.
- PEI is budgeted for 8.6 FTE radiologists and has 5.4 FTEs. Despite recruiting efforts there is still a shortage. A Maritime solution is being examined where radiologists in Halifax could read scans from PEI. The radiologist recruiting issue is critical and warrants an in-depth external review.
- Wait times for ultrasound have gone down to six months from one year. To help deal with the shortage of sonographers, X-ray technologists received upgrades to perform ultrasound. Each of two technologists received a $15,000 provincial contribution in return for agreeing to remain in PEI for several years after graduation. A similar approach of aggressive recruiting and paid education was used in Cape Breton several years ago and now there is a full complement of sonographers.

- DI has been working hard to consolidate booking across both main sites. To date, ultrasound, screening mammography and CT have moved to one booking system. However each new modality requires a separate implementation project, and idiosyncratic approaches at each main site requires considerable training and problem-solving to resolve. Urgent outpatient wait times for CT were two weeks at PCH but four months at QEH. Islanders, if given a choice, will drive an hour to get a scan more quickly so these two wait times have started to converge. With a radiologist-mandated limit on scans (9 per day out of an available 30 or so), the service is massively underutilized.
- The province reports a shortage of technologists (or at least full time technologist positions); however, technologists are not the limiting factor in increasing access to most services in DI (with the exception of ultrasound). Technologists throughout the province could be leveraged more effectively if not for limits placed on their workload by the radiologists. That being said, long-term plans to continue to train new staff (and create new positions for them) should not be ignored.

RECOMMENDED STRATEGIC DIRECTIONS – DIAGNOSTIC IMAGING

Define a contingency plan to enable additional access to radiology services. Additional access to qualified radiologists should be possible by using off-Island resources. These resources should be identified, retained and quality systems implemented to permit reading of scans outside PEI. Given serious delays, this should be pursued as soon as possible. Artificial barriers such as limits placed on workload by radiologists should be eliminated to allow technologists to provide more service.

Redesign the scheduling/booking process for digital imaging. All booking for all services should be centralized and all waitlists centrally managed.

4.4.14.2 LAB

The lab program in PEI is not really led or managed provincially (although medical and administrative leads have "Provincial" titles). There are three components – QEH, PCH and the other small hospitals. The lab staff are professional, knowledgeable and capable and form a strong foundation for an improved lab service.

OBSERVATIONS

Observations regarding lab are as follows:

- The types of analyzers used are determined by each lab independently and standard operating procedures are different. Although effort is made to standardize reference ranges, there is no common approach to quality management.
- Two different types of glucometers are in use depending on whether a patient lives in "East PEI" or "West PEI." This degree of separateness is highly unusual in such a small geography and may be unique in Canada. It leads to inefficiency and lack of standardization, and creates an environment in which quality concerns can arise.
- The small numbers of medical practitioners leads to potential concerns about oversight of key areas. Maritime solutions may be required and should be sought.
- There will be an opportunity to rethink medical oversight with the addition of a fifth pathologist in October 2008.

RECOMMENDED STRATEGIC DIRECTIONS – LAB

Fast-track the development and rollout of an integrated provincial lab model. Consideration to working in collaboration within PEI and with regional partners in providing lab services should be investigated for those areas where the medical director and other staff are concerned about the province's ability to deliver specialty services.

Define a quality review framework. There is a need for a single and integrated approach to quality management and quality control.

Standardize equipment and operating procedures. Although it will take some time before analyzer contracts can be aligned, the effort should begin immediately. The revised program should include central booking for all lab work, with available slots for urgent cases. It should also include coherent plans for both inpatient and outpatient venipuncture to ensure staff are used professionally and efficiently. An expanded point of care testing solution should be planned and implemented at the earliest opportunity to place testing solutions (under laboratory control) as close as feasible to the patient.

4.4.14.3 PHARMACY

PEI's pharmacy service was the subject of a very professional and extensive review conducted in 2006/07 (BMS Review). The province has begun to implement several of the key recommendations of the review. This process should be continued and, where feasible, accelerated.

OBSERVATIONS

Observations in pharmacy are as follows:

- It is broadly agreed among pharmacists that the only way for pharmacy to survive and prosper in PEI is as a single program like DI. There has been active work across the two main sites to collaborate and lobby for one program, but to date there are still two. Initial plans for unit dose packaging called for one packager in each of QEH and PCH. Only one has been bought.
- A unit dose packager has been purchased but has not yet been installed. Plans for any required modifications need to proceed so that unit dose can be implemented.
- There are no advanced plans for a central intravenous additive service (CIVA).
- As in other parts of the PEI health care system, pharmacy leaders appear to be a unsure of the decision making process as recommendations are advanced into an uncertain hierarchy. It may be necessary to site the CIVA function at PCH as an interim measure and transport the products, providing that space is available at PCH without considerable renovation cost. It would be preferable to site CIVA at QEH because of the volume of product to be transported.
- Pharmacists are very keen to play a more profound clinical role, as is common in other Canadian hospitals. At the moment, the key role for PEI hospital pharmacists is drug distribution rather than assisting clinical colleagues in front line units. A system redesign is required so pharmacy technicians can play a more central role in drug dispensing. The so-called "tech-check-tech" system enables specially-trained technicians to check the work of other technicians to prevent medication errors. The new approach would enable hospital pharmacists to devote their time to activities designed to reduce errors, such as working with physicians and nurses to evaluate medications and ensuring the absence of allergies or drug interactions. The need for technician training is hindering the province's ability to start the program.
- In PEI, there should only be one hospital formulary, one Drugs and Therapeutics Committee, and one set of pharmacy policies, procedures and manuals. This is not currently the case. Furthermore, the one set of policies, procedures and manuals should be maintained online.

- The Provincial Drug Program (non-hospital) was mentioned on several occasions. This program is not matched to the hospital program, and patients are often sent home with drugs from the hospital that they cannot afford to buy in the community. This sometimes causes patients to be readmitted so they can receive necessary drugs. A review should be undertaken of the alignment of the hospital and community drug programs and that a method be developed to maintain this in closer balance.

RECOMMENDED STRATEGIC DIRECTIONS – PHARMACY

Fast-track the development and rollout of an integrated provincial pharmacy model. This area should be pursued as soon as possible and needs to consider single leadership, single formulary, redesigned (and faster) drug approval processes, and consistent distribution processes and roles.

Implement unit dose and a central intravenous additive service. Plans need to be finalized to implement both initiatives as they represent safety and quality issues. Plans to overcome space barriers need to be sought as soon as possible.

Review model of care. Pharmacists should, to the extent possible, be on the units engaged in clinical pharmacist roles. Technician roles should be expanded.

Align pharmacare coverage. The pharmacare program needs to eliminate barriers to effective patient flow (e.g. drugs free if admitted in hospital but not at home). Catastrophic drug coverage also needs to be reviewed.

CHAPTER 5: ENABLING PROCESSES AND SYSTEMS

5.1 LEADERSHIP

The capability of the health care system to manage itself strategically has been degraded through successive reorganizations to the point that there is almost no financial or human resources planning capacity at all.

The restructuring in 2005 led to a reduction of a significant number of management and administrative positions. This effectively eliminated most of the strategic capability that existed, requiring staff that remained to focus on more transactional functions. As an example, a process to initiate a capital budgeting system for health care only started in the fall of 2007 and remains incomplete.

At the same time, there was no attempt to reduce the administrative burden associated with being part of government. A Treasury Board Minute is required for every request for funding down to the level of a request for an additional FTE. This degree of control is inappropriate, and inconsistent with the management practices in every other province.

As a result of the reduction in system strategic and financial planning, there is no comprehensive business plan and no strategy to cope with the ever-increasing costs and demands of health care. The current planning cycle spans one year. If the health care system in PEI is to become sustainable, this capacity must be replaced. Business processes need to be redesigned at all levels of the system, and time is required to think and plan, not just “do.”

Risk assessment and management is another core corporate function that has been almost entirely eliminated in past restructurings. Senior managers in the health system agree that the risks of operating the current system are very high, but that they have no accepted across-the-board method of managing them – the current approach is entirely ad hoc. Leaders in PEI need look no further than public review processes currently under way in Newfoundland and New Brunswick to identify the significant risk in this approach.

The long turnaround times for decisions and extremely complex government approvals process that currently exist are no substitute for a robust health care prioritization and escalation approach that trusts a health team to make important decisions within an overall government framework.

The system is weakened by essentially removing the necessary link – Department of Health management – that ensures that requests that go to (or come from) political leaders have gone through a system of checks and balances to ensure that they are necessary and in the best interests of Islanders.

5.2 CAPACITY FOR CHANGE

There is inevitably resistance to change in a system which has been changed so many times in the recent past. Those in the system have had enough structural change and would welcome systemic operational changes that improve the care they can provide to patients, and the environment in which it is provided.

The changes that are proposed in this report are not primarily structural, but focus instead on creating system capacity to measure and manage itself and on removing roadblocks to better operations. Those that do focus on elements of structure are built from an attempt to understand how to run the system more sustainably on a daily basis, rather than a preference for centralization or decentralization.

Resistance to change in PEI should be expected. It is already evidenced by the ongoing organization of the system along geographic lines with different access to care and types of care depending on where the patient lives. This is an identified issue in parts of Canada with large geographic areas, but is not one that would be expected in a province with a population of 140,000.

The type of sustainable change proposed in this report will need to be driven quickly so that resistance does not delay it. As well, though, staff will need to be helped to understand how new approaches will improve patient care and lead to a more sustainable PEI health care system. This level of understanding will take time.

Evidence is the principal key to sustainability. Managers will embrace an evidence-driven system that provides tools and comprehension to manage capacity. They do not have this advantage today, so many decisions are made anecdotally.

If a new leadership model is implemented as suggested in this report, it will be important that there be an ongoing leadership development strategy in place to support people as they learn to work in new models, with new systems and potentially in new roles. Potentially, there may also be a need to consider that not all roles be based in Charlottetown, thereby providing some distribution of leadership positions in other centres. If that were to occur, the leadership development strategy would need to help build capacity for team work in this scenario.

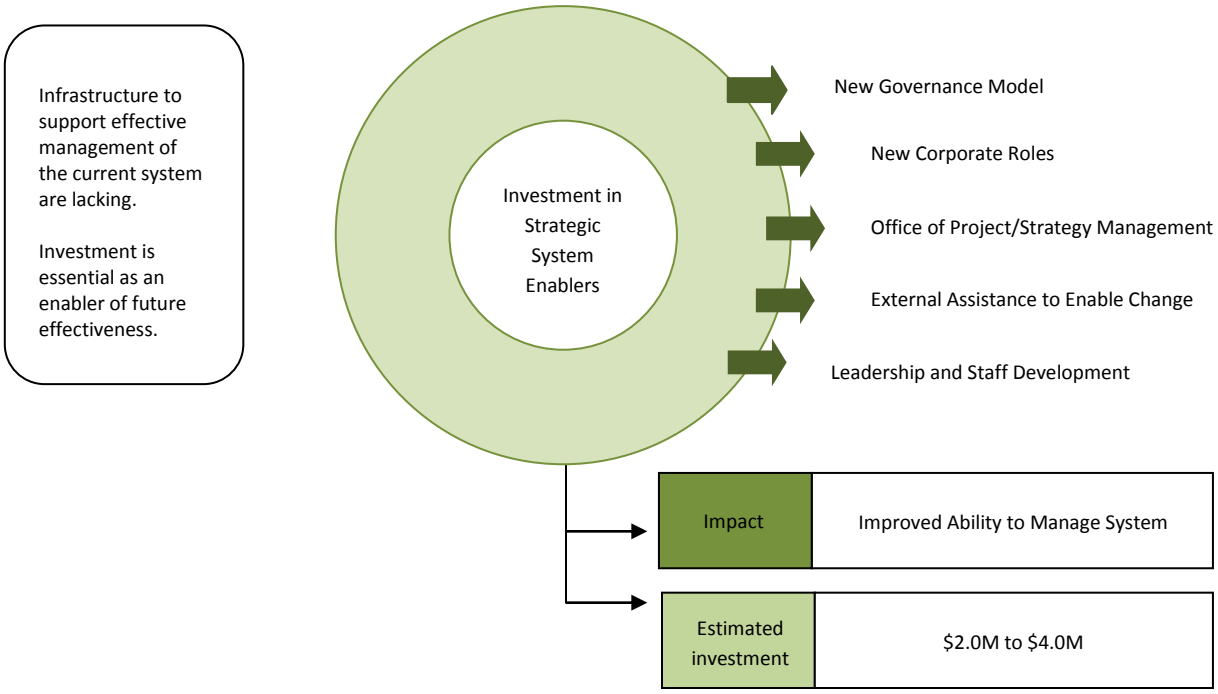
A current governance structure that includes hospital boards for the community hospitals, but none for QEH or PCH is inconsistent and ineffective from a system perspective, and the existence of five community hospital boards discourages integration of the health system. The province must move to one governance system that recognizes the role of community input if it is to achieve the system perspective of ‘One Island Health System’.

RECOMMENDED STRATEGIC DIRECTIONS – LEADERSHIP AND CAPACITY FOR CHANGE

Re-establish a health authority (or equivalent). This entity should have a global budget and the authority to deliver services in accordance with Department of Health plans and overall directions.

Invest in leadership development. Once new roles are established and filled (with permanent staff or interim/external roles) a plan should be developed to train and support all staff to work within the new environment.

CRITICAL INVESTMENTS IN SYSTEM ENABLERS



5.3 FINANCE AND HUMAN RESOURCES

Financial management has become a largely transactional model, not because staff don't understand the value of business planning and decision support functions, but rather because the resources to do these jobs no longer exist. The result is an inability to provide an integrated and focused approach to setting clear goals and related action plans, and then seeing those plans through to results.

Executive leaders are to be commended for the valiant efforts they have made in staying and working under such a scenario, but the strain that has been placed on them cannot be ignored. They have been forced to function at a basic operational level, struggling to complete day-to-day activities, with no time for process improvement or systems redesign.

Under this umbrella, the existing leadership commitment to the system compels them to develop plans and to strive for change despite the vacuum and scarcity of appropriate resources. However, the planning work doesn't result in improvement because the plans are not integrated, not properly resourced and are not based on any shared strategic direction.

One of the first actions of government flowing from this review should be to put in place an adequate level of resources to allow leaders to manage the system properly. This does not mean that investments need to be huge, but they must be strategic. Targeted investments in some key roles in finance, human resources, strategy formulation and decision support will help put the executive leaders in a position to excel in their roles.

RECOMMENDED STRATEGIC DIRECTIONS – FINANCE AND HUMAN RESOURCES

Confirm overall organizational structure for corporate services. This overall recommendation will include a series of actions, including:

- the creation of a senior leadership role with overall responsible for integrating the corporate functions (including all planning, HR, finance and performance management functions as well as the capital assets management) into one corporate portfolio; and
- completion of the necessary (likely minimal) reorganization to ensure alignment of roles and work processes; and
- definition of an investment plan for corporate services that confirms the priority roles that need to be re-established to support strategic management processes. Potential roles that should be considered include strategic HR support for recruitment and retention and organizational development/training, additional decision support, analytical and business planning capability, process redesign capacity, quality management, and project management.

Confirm roles that should be leveraged through external resources. Not all resources need to be identified internally. Some skill sets may be best acquired on a short-term basis and used to create immediate energy, traction and results. Any such roles should be expected to help build internal capacity.

Redesign the operating planning framework and process. The government should develop a three-year plan and be realistic in the establishment of annual milestones that make steady progress towards achieving sustainable improvements to the system.

5.4 INFORMATION MANAGEMENT/INFORMATION TECHNOLOGY

Over two years ago, PEI initiated implementation of the Cerner Clinical Information System with the goal of developing a provincial electronic health record (EHR). Cerner, like most other clinical information systems, provides the necessary ingredients – namely, a standardized platform, nomenclature, and functionality – to more easily link providers from across the continuum and ensure timely access to patient specific information. However, implementations of this nature require significant resources both from a technical as well as business process perspective.

OBSERVATIONS

While a detailed technology system review was not completed as part of this study, the following observations were identified for discussion:

- All IT has been consolidated into one government department leaving no separation of this function between government and a health management entity. This could lead to serious negative implications on implementation of the Clinical Information System as implementation can be inappropriately distanced from the professionals who will use and benefit from the system.
- Overall, the implementation of the Clinical Information System has been generally well received. The main concern expressed from providers was that implementation activities took many individuals away from the delivery of care.
- It is unclear whether full functionality had been rolled out from the Clinical Information System.
- Some providers noted that key functionalities that used to be available under the old system are no longer available. A clear plan as to which functionality will be rolled out and its expected benefit and impact on users should be assessed to ensure it meets users' needs.
- A significant barrier to realizing benefits from the system will be an ongoing preference to maintain individual processes within a facility. A focus on standardizing processes, and where necessary redesigning processes, is required to ensure data is collected in a consistent fashion to support access to comprehensive information. A consistent approach within the province will help ensure that the data collected can be used effectively for evidence-based system management.

- Both the Clinical Information System and PeopleSoft payroll system installations were largely done without the necessary process redesign. Both the finance (payroll) and HR departments have identified the necessary design requirements but do not have the resources to execute. Neither do they have the resources to verify payroll data, complete routine/fundamental audit functions nor manage absenteeism, return to work programs, overtime utilization and other variables that impact labour costs. The downstream implications on a $300 million labour budget could be significant. A 1% reduction through more prudent management could realize $3 million in annualized savings.
- A significant opportunity for implementing the Clinical Information System is the potential to use data to drive decisions and evaluate performance. To date, information is used to support CIHI and other statistical processes. There are limited attempts to use data for PEI hospital or system management. The Clinical Information System must be viewed as a critical source for utilization management and decision support activities within the province. Over time, data collected will become a necessary component of the feedback loop to ensure the system is working as it should by fueling metrics, scorecards and other evaluative tools.

RECOMMENDED STRATEGIC DIRECTIONS – INFORMATION MANAGEMENT/INFORMATION TECHNOLOGY

Create CIO role with emerging health management model. Within the corporate services portfolio recommended above, create a senior Chief Information Office (CIO) role. The role needs to define clear lines of authority for this critical portfolio, but must have responsibility for managing the ongoing implementation of systems and technology. Linkages and potential accountabilities to technology roles in other government portfolios will need to be clarified.

Develop future technology rollout strategy. The next phases of system implementation (Cerner, PeopleSoft or others) must be incorporated into the three-year plan recommended previously. To that end, a plan for optimal functionality needs to be created with a longer time horizon. Any existing and future implementations must be appropriately staffed with trained and available staff, which also includes sufficient backfilling of staff to support their clinical workload.

Develop a redesign strategy to leverage investments in technology. An overall plan to redesign core processes is an essential underpinning of any technology investment strategy. An early priority for the new CIO will be to work with the leadership in both patient care and corporate services to identify and prioritize the core processes that require redesign. Once identified, a benefits realization plan can be created (note: not all will have financial benefits, some will be safety and quality issues) and implemented.

Develop a data management strategy for business management. As decision support, quality management and other key functions are strengthened, a focus for collecting high quality, timely and comparable data must become a priority and combined with the development of capacity to use the information to support strategic and operational decision making processes.

5.5 SUPPORT SERVICES

Support services are the foundation upon which health care best practices are built. Clean linen and rooms, information about patients and patient care, quality food for patients and staff, well maintained equipment – all of these contribute significantly to a health system's overall success. Although the review was primarily focused on clinical services, the review team met with all support services and identified the following potential areas for improvement and options for change.

5.5.1 PATIENT REGISTRATION, ADMITTING AND HEALTH RECORDS

Information from registration, admitting and health records is necessary for patient care activities, tracking patient outcomes, comparing health data with other jurisdictions and overall, for the effective management of the health system.

OBSERVATIONS

- This service is currently managed and delivered on a facility basis. It has been made more robust because of the Clinical Information System implementation. Despite the presence of a single clinical information system for the Island, registration and admitting are not managed as a single service.
- Transcription and coding are the two main health records activities undertaken in the health care system. Both Queen Elizabeth Hospital and Prince County Hospital are significantly behind in document transcription. Coding is slightly more up-to-date but both services are less than optimal (about two weeks for coding and less for transcription).
- Only a portion of all transcription is centrally provided. DI, labs, pediatrics, oncology and physical medicine each has a unique group of transcriptionists within their program. Physician outpatient clinics also transcribe their own records.
- Coders translate activities performed for every case into a standard set of metrics to enable in-hospital, between-system and cross-Canada comparisons through the Canadian Institute for Health Information. The data is not used to its full potential for PEI hospital or system management.

- With current delays in transcription and coding, it has been difficult to persuade physicians to complete their charts. However, when the Clinical Information System enables timely coding, the onus will shift to physicians to maintain patient charts in a timelier manner. Utilization management, another critical absence from the current system, is also informed by the timely presence of information concerning the patient encounter.

RECOMMENDED STRATEGIC DIRECTIONS – PATIENT REGISTRATION, ADMITTING AND HEALTH RECORDS

Create a single leadership model for patient information and registration. The creation and management of patient information (from presentation to post-discharge coding) should be consolidated under a single provincial structure.

Redesign core processes. The provincial lead should immediately redesign all patient registration and admitting processes to ensure the new Clinical Information System is used identically in all locations. This will enable a set of standard operating procedures to be created and adhered to in all patient interactions anywhere in the system. The provincial lead should also design a single solution for transcription, records and coding throughout PEI. Transcription capacity currently in non-health records departments should be transferred to the new provincial program.

Define a decision support role. The patient information lead should consider setting up a small-scale analytical capacity within the team to begin to gather and interpret data for broader system management.

5.5.2 ENVIRONMENTAL SERVICES

Environmental services include housekeeping, facilities, biomedical engineering and security.

OBSERVATIONS

- Each of the services noted above is mainly organized on a facility basis and is not integrated. In the majority of situations, the facilities have their own employees, including trades, to undertake all environmental activities. Some of these services may benefit from redesign.
- It is important to note that activities such as housekeeping are in the forefront of infection prevention and control. Hospital-acquired infections are a major problem in many institutions – a problem only resolved by close cooperation among front-line health care workers, infection prevention and control experts, and environmental services staff. Recognizing this, many organizations across Canada have been able to derive new models that cost less and maintain quality environmental services. This should be the goal in PEI.
- Biomedical engineering, responsible for the maintenance of medical equipment, should also be organized provincially. There is an opportunity to determine what maintenance should remain in-house and what can be provided by external providers.
- Utility costs are a major issue in the current environment, and their management should be consolidated under a single management structure. Consideration should be given to any new construction being LEED-compliant. LEED is the Leadership in Energy and Environmental Design Green Building Rating System™.
- Security is also a major issue. Emergency room physicians have expressed concerns about working without increased security, and facilities are now providing security services without having a budget to do so.

RECOMMENDED STRATEGIC DIRECTIONS – ENVIRONMENTAL SERVICES

Create a single leadership model for environmental services. A provincial lead should be appointed to design a single environmental services capacity for the province including housekeeping, facilities and biomedical engineering. The lead should examine all options to improve the quality of these services while achieving efficiencies.

Review security. There should be a review of security services throughout the health care system in PEI with a goal of evaluating the current and required future standards in security services and of identifying gaps and risks within the current system.

5.6 MEDICAL SERVICES

Medical services processes and structures were reviewed from a perspective of effectiveness and appropriateness with regard to key issues of safety and quality.

OBSERVATIONS

No specific serious quality or safety issues were identified during the review process. That being said, there are many issues outlined below that are patient safety risk factors. The situations are identified below:

- Based on discussions, there appear to be barriers to full disclosure of quality and safety information. The emerging patient safety agenda demands transparency and full disclosure.
- There are numbers of patients transferred between facilities, and problems have occurred. Sometimes case specific collaboration occurs between two facilities, but there is no system established to evaluate quality concerns or risks, especially proactively. There is a Patient Safety Committee, but its focus has been too narrow.
- Many patients do not have progress notes on the chart. As a result, physicians covering for their colleagues don't have the information they need to approve a patient discharge even though the patient may be ready. Progress notes are critical for team communication – physician to nurse, to other physicians and to other members of the health care team.
- Morbidity and Mortality reviews are not held (very few exceptions were acknowledged).
- Data pertaining to quality is not regularly available to clinicians or quality committees. Data is not circulated, nor is there a system in place for who should receive the data.
- Many expressed concern regarding care for patients with mental health problems, addiction, chronic pain and chronic diseases.
- The quality assurance system is reactive, not proactive.

Shifting focus to medical structures and processes to support a quality environment, the following is noted:

- The Patient Safety Committee is advisory and has focused specifically on disclosure and hand washing. A joint committee (between PCH and QEH) does exist but it has not met for some time.
- Medical Advisory Committees exist in both institutions and are well attended, but some are considered ineffective in addressing issues. Chiefs of staff (department heads) are in place (with some vacancies) but their ability to manage difficult situations is limited by concern that the Medical Advisory Committee may not support them, and by the challenge of holding colleagues accountable.

- There are some necessary committees in place – such as operating room, pharmacy and therapeutics – but they are not felt to be effective. There is a need to design a system that responds to management of tough situations in small physician groups (which is likely every site in PEI where there are physicians).
- Some structures are missing. Leadership in the intensive care unit, currently done by committee, is often ineffectual when it comes to dealing with problem behavior amongst staff (e.g. accountability for performance in accordance with defined policies and standards).
- There is no formal process to hold MDs accountable for behaviour, practicing evidence-based medicine or meeting national standards for length of stay, and systems to manage this are under-developed.
- The Medical Advisory Committee seems to have an excessive orientation to advocacy, and not quality management. For instance, the Medical Advisory Committee should develop standards and determine if staff are expected to abide by the standards. These policy commitments become the means by which the administrative arm of the institutions (including the department head and medical director) function to address individual concerns.
- The Medical Advisory Committee is currently mainly focused on advocacy whereas it should be quality oriented.
- Relationships between administration and medical leadership seem to be quite good. Respectful interactions can occur even if agreement is not present.
- Management of contracts – as in compensation via service contract or salary – is inadequate. Initial conditions and expectations are not well laid out, deliverables are unclear and ongoing routine evaluation/renegotiation (on an individual basis) is non-existent. Management of contracts is poor and in other provinces in similar situations, the Auditor General's Office has chastised other Ministries of Health for inadequate fiscal management.
- Bylaws are not standardized across the province. While in and of itself, this is not necessarily bad, it reflects that standards have not been set for clinical expectations allowing for lack of accountability and inappropriate individual discretion.

Simply put, the current system is ineffective from the perspective of supporting principles of patient safety, administering contracts, establishing and defining standards, ensuring accountability and adherence to standards.

RECOMMENDED STRATEGIC DIRECTIONS – MEDICAL SERVICES

Define strategy to enable quality and utilization management. This would include processes to ensure that issues are identified and tracked and that improvement/resolution occurs when required. This will demand:

- defined processes for quality review, incident reporting and routine monitoring of quality indicators;
- clear targets for access to address areas where delays could be leading to unsafe or lower quality care (e.g. DI wait times);
- introduction of protocols and pathways for high volume patient populations;
- clear accountabilities for all physicians to participate in processes, with consequences for non-compliance; and
- identification and endorsement of a lead physician(s) to assist in building capacity surrounding quality and safety.

Renew structures and processes. There is a clear need to create the proper environment and structures for effective medical leadership and involvement in quality management. This should include one set of bylaws and rules for all medical staff, medical leadership positions with clear roles, responsibilities and reporting relationships that reflect the three main thrusts of medical leadership: advocacy, quality management and medical administration, and one medical director position each for the West and East Island to manage issues, support and mentor department heads and play a leadership role in quality management. Additionally, a province-wide Medical Advisory Committee (PEIMAC) should be created representing all medical staff in the province irrespective of whether the medical staff is defined provincially or locally.

CHAPTER 6: SUMMARY OF RECOMMENDED CHANGES

Chapter 2 of this report includes a draft new vision for the health system:

VISION

Supporting Improved Health for All Islanders

Inclusion of the word "supporting" reflects the fact that the health system itself is but one component of a strategy to improve health. The underlying determinants of health include:

- income and social status;
- social support networks;
- education and literacy;
- employment/working conditions;
- social environments;
- physical environments;
- personal health practices and coping skills;
- healthy child development;
- biology and genetic endowment;
- health services;
- gender; and
- culture.

Most of these will require long-term energy, direction and investment from beyond the formal health system (including healthy public policy, renewed education strategies and job creation initiatives).

MISSION

This vision, in turn, requires a refocused mission that drives the integration theme forward and grounds it in a set of statements that define how care will change. The following was offered as an example in Chapter 2:

In the future, care will be delivered through a single, integrated system of care, one grounded in evidence-based decision making and focused on improving health, enhancing access and refocusing the emphasis of the care delivery system on primary health care and services that can appropriately and safely be provided locally.

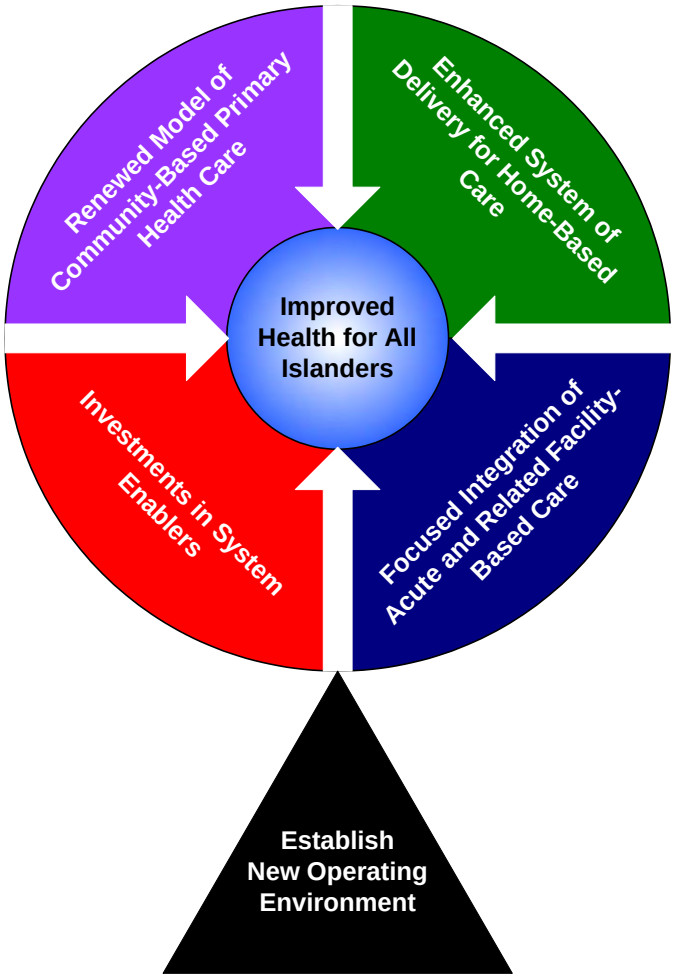
The recommended strategic directions contained in this report have been developed with this mission in mind.

While they have been presented in a traditional sector by sector model, they reflect the four-part framework suggested in Chapter 3:

- a renewed model of community-based primary health care;
- an enhanced system of delivery for home-based care;
- focused integration of acute and related facility-based care; and
- investments in system enablers.

All of these are dependent on a new operating framework. This model is depicted graphically below:

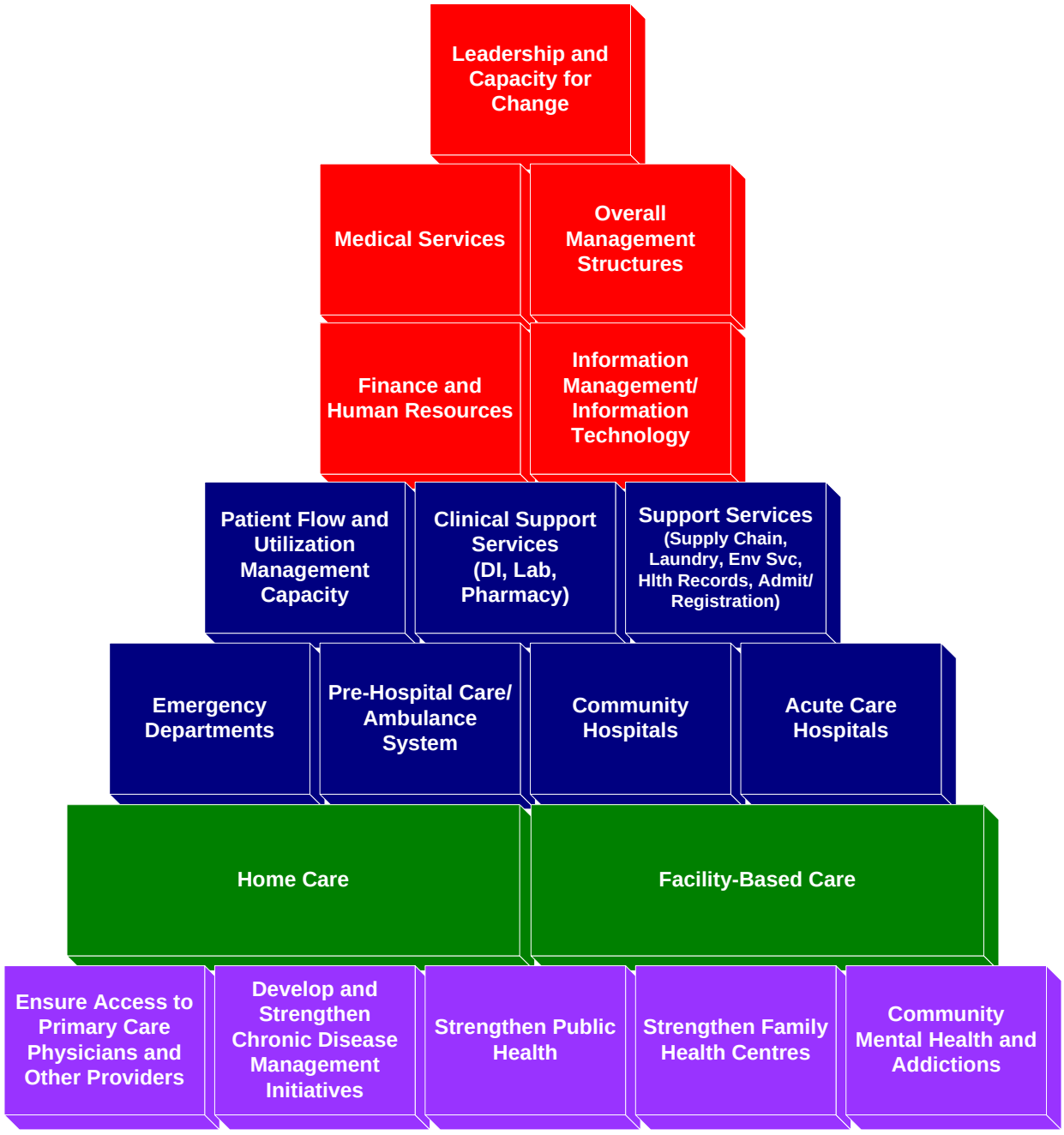
6.1 FUTURE STRATEGY PLANNING FRAMEWORK: FOUR DIMENSIONS AND A NEW OPERATING SYSTEM



The new operating framework reflects the most pressing issue as it represents the fulcrum upon which the future system is balanced. This balance is essential and was described in detail in Chapter 3.

The remaining four components of the framework can then be translated into a series of building blocks as shown below:

6.2 BUILDING BLOCKS FOR THE NEW OPERATING FRAMEWORK



6.3 COST IMPLICATIONS

While detailed costing for individual initiatives will need to occur as implementation proceeds, it is clear that some overall sense of cost issues is required to enable decisions surrounding this report. The summary of investments required is as follows:

- **Primary Health Care.** Additional investments required likely range from $2.4 - $4.0 million. These will help enable system flow and access to improved services locally.

- **Home Care.** Additional investments required range from $4.0 - $8.0 million. These will help enable improved models of care delivery to seniors and others and enable improved system flow. They will also allow for cost avoidance in long-term care by not building and operating 130+ new long-term care beds. The estimated operating cost savings associated with the 130+ new beds are $8.0 - $10.0 million.

- **Hospital Care.** Various areas of investment are required to enable changes, but once these are in place and investments have been made in community capacity and home care, annual savings in acute care could be $7.5 – 14.5 million.

- **Enabling Processes and Systems.** These may well represent the most critical investments of all; without them, other areas of focus cannot be effectively managed. Investments required here include additional staff, external consulting assistance to help build capacity and fast-track implementation, and leadership and staff development. Estimated investments required range from $2.75 - $5.5 million.

CHAPTER 7: CONCLUDING COMMENTS

The challenge of sustainability in health care today is greater than it has ever been, as is the need for a system-wide integrated approach to addressing fundamental issues. This report provides a comprehensive set of options that will only have their intended impact on the system when considered as a whole.

It has been prepared to show where critical investments are required, so that system improvement as well as efficiencies can be achieved. Given the level of focused investment required, it is critical that government focus first on system improvements rather than potential short-term savings. Further cost cutting efforts would have a dramatic negative impact on the both the people served by the system, and the people working within it.

Given this, the consultants urge the government to consider the following:

- Acknowledge the exceptional efforts of the people in the system everyday to deliver care and meet the needs of the citizens of PEI.
- Accept that, despite those efforts, the system is in need of some significant changes.
- Endorse the directions outlined herein as an integrated set of solutions designed to put the system back on track.
- Allow the system leaders – specifically the Deputy Minister and departmental staff – to effectively lead the system by creating governance and management structures that are more consistent with best practices elsewhere.
- Accept that overall bottom line savings are neither practical nor feasible, but if the right investments are made now, the overall growth in the projected cost curve may be more manageable in the future.

Ultimately, this report is about more than creating a health system that is integrated, effective and makes good use of taxpayer's dollars. Simply put, it is about doing what is necessary as a government, as health system leaders, as health care providers and as Islanders to support improved health for Islanders now, and for years to come.