# What Could a Good CLHIN Health System Look Like?

The Service Needs Assessment and Gap Analysis (SNAGA) was extensive and aimed at addressing a broad range of issues, including a needs-based planning approach for the future of the LHIN, looking at possible future configuration and inter-relationships of health services, and evidence-based models of care from other jurisdictions (See Appendix Q for detailed analysis of these jurisdictions and research). In the visioning sessions and at the project advisory committee, there was a strong message that the over-arching need is for greater integration. Participants expressed that to be effective, investments in specific services should be dependent on greater integration.

In this section, KPMG presents a possible future model for the LHIN which is designed to meet these objectives. The future model is based on KPMG's knowledge and experience of the issues that inhibit integration from occurring in health care. We believe that the model we are proposing will strengthen the linkages between providers across the continuum of care. However, how these regional programs work in reality will be based on a number of specific considerations in the provider environment. It is up to the LHIN, working with its health service providers, to develop detailed plans that will overcome or deal with considerations (such as the legal, financial, and political barriers) and enhance the enabling supporting issues (such as IT infrastructure and shared outcomes measures) that will need to be overcome for our proposed model to be implemented.

The Future Model must strengthen the LHIN's capacity to address both:

- The health needs of the population as identified by health status indicators; and
- The health services as measured by the LHIN Health System Goals of access, coordination, efficiency, and effectiveness.

The model incorporates the concept of a core basket of services required at local, regional and LHIN-wide levels and alignment of services with needs. It is designed to build capacity and facilitate linkages across the LHIN and strengthen community services to reduce reliance on the acute care sector. The model includes elements to support a performance culture and continuous quality improvement, strengthen the use of information technology (IT) and strengthen human resource capacity in the system.

A proposed Future Model for the LHIN is illustrated below and consists of:

- Comprehensive ongoing population-based planning and service integration;
- A regional program model to ensure equitable access, and efficient, effective and coordinated service; and
- Coordinated service delivery networks at the planning area level.


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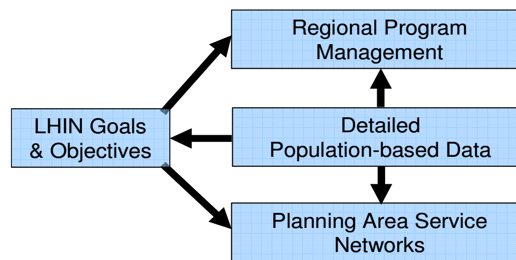
***Exhibit 78: Elements of a Future Model***




## Population-based Planning and Service Integration

One of the major developments in health system reform has been the increased use of population data to plan and deliver effective services and this should be a key element of the Central LHIN Model. Populations are defined in a number of ways: by geography (LHIN Planning Areas), demographic characteristics (age, gender, language, etc), and by disease group (diabetics, etc.).

Population-based planning uses population data in increasing levels of detail both to identify health needs and to deliver and evaluate services. Population information would be needed at a sufficient level of detail for each of the LHIN's purposes.

For example, the population data for each of the planning areas which was gathered and analyzed in the SNAGA Project revealed considerable variation in the health status of the population across the seven planning areas of the LHIN and across the different ethno-racial groups. This was sufficient for the objectives of the SNAGA Project, and it demonstrates the value of the planning areas for the LHIN.

However, as the LHIN plans effective programs to meet these needs, a greater level of detail will be required. For example, this report presents the number of seniors and the number of people from various ethno-cultural groups in each planning area, but not the number of seniors in each ethno-cultural group. In many focus groups, participants noted that some ethno-cultural groups do not access certain services and most data is not currently collected by ethnicities. This level of detail is not needed for the SNAGA Project but will be important data in the detailed design and delivery of effective services to seniors.

The service populations for one service can vary significantly from the service population for another service. For example, there is some evidence that the population of South Asian heritage may be more susceptible to diabetes; those of African heritage to heart disease. While both services need to be accessible to both ethnic groups, an effective program must also target resources to the group most at risk and/or most affected. Population planning is combined with service planning to accomplish this objective.

As part of its program planning methodology, the LHIN can build upon the data gathered in the SNAGA project to refine the knowledge upon which programs and services are built. In some cases, this will involve additional analysis of existing data sources such as the Census. In other cases, new data will need to be collected at the community and service level.

Data collection improvements are already underway through initiatives such as the Ontario Mental Health Reporting System (OMHRS) and common data standards for community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services. The LHIN can also create tools to gather increasing levels of detailed information about the populations in each Planning Area, program and service. Collection of the new data can be incorporated into the design of information systems and can be mandated in the Accountability Agreements with providers.

The decisions about what data to collect will be driven by the goals and objectives of each Regional Program and Planning Area. With these measures, over time, the amount of data, its detail, and its value, will increase.

In summary, the Central LHIN and providers could use population data at three planning levels. At the macro level, the LHIN could use population data to identify current health needs and drivers of future demand for health services, across the LHIN and in each planning area. At the program level, the LHIN and the providers could also use the data to design programs (e.g. diabetes, cancer, etc). Regional programs are discussed in more detail below. Providers could also use the data about their own service populations to customize services to make them more effective and to evaluate their effectiveness.

The following is an illustrative list of data elements which can be used at all three levels. It is not meant to be exhaustive nor static. As the planning processes of the LHIN and the providers develop, new questions will arise that require new data to answer and the population-based information system will grow. The list is provided below:

- Age distribution by geography and program;
- Sex distribution by geography and program;
- Language by geography and program;
- Cultural influences by geography and program;
- Predictors of disease (e.g., rates of obesity and smoking);
- Screening indicators of impending disease (e.g., rates of hypertension);
- Prevalence of disease (e.g., number of people diagnosed with diabetes);
- Registries of patients; and
- Co-morbid conditions by program.

Going forward, the LHIN will likely need the capacity to keep this data current, ensure its integrity and reliability, make it available to planning bodies and providers, and teach health system participants how to maximize its value.

The planning areas could also serve as the focal point for service integration. Combining detailed population data and plans, the service providers in each planning area will collaborate to deliver their services in an efficient and effective manner. For example, access can be enhanced by the following:

- Co-locating services in community hubs close to the populations in need – One agency with a site close to the service population might serve as the host for a variety of services provided by partner agencies;
- Using local community centres to conduct health awareness and education sessions, screening clinics, etc.;
- Cross-training of staff – In this model, staff members of one type or agency are trained to recognize the need for other services and a process is established to refer clients in need


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of those services to another provider who will conduct a more extensive assessment and arrange for the services; and

- New Community Health Centres will both strengthen primary care and provide a hub for a range of services.

## Regional Program Management

Although the priority health needs may vary between planning areas and populations, all LHIN residents need the same standard of care. Regardless of where people live within the LHIN, they need access to services across the continuum of care which includes the following:

- Health promotion / prevention to stay healthy (e.g. nutrition, smoking, etc.);
- Early identification of health problems (e.g. screening programs);
- Primary care services including early treatment and service coordination;
- Disease management and support for self-care;
- Secondary, tertiary and quaternary services;
- Home and community care; and
- Palliative care.

The elements of this core basket of services are the same for all of the major health service domains (cardiac, mental health, etc.) and provide the basis for meeting needs and addressing gaps. However, the content of the services will vary in each domain (e.g. primary cardiac care is not identical to primary mental health care).

A structure and process would be required at the LHIN level to develop agreement among the providers on what constitutes consistent high-quality services along the continuum of care in each domain, and to manage, monitor and measure system performance on an ongoing basis. Program management provides this structure.

Marcus Hollander recently published the results of a substantial study [4] into the best practices for organizing care delivery systems. The research team studied care systems and conducted over 270 interviews with experts across Canada and focus groups with clients and families.

The Exhibit below illustrates the key finding: to achieve integrated service delivery at the local level an administrative structure with certain critical elements would likely be required. These findings are consistent with other smaller studies and conceptual models which have been developed over the years. They provide the foundation for regionalized planning and program management structures that fulfill key functions including those in the diagram under “Administrative Best Practices”.

[4] From Hollander, Marcus J and Prince, Michael J. Organizing Healthcare Delivery Systems, Healthcare Quarterly, Vol. 11 No. 1, 2008.


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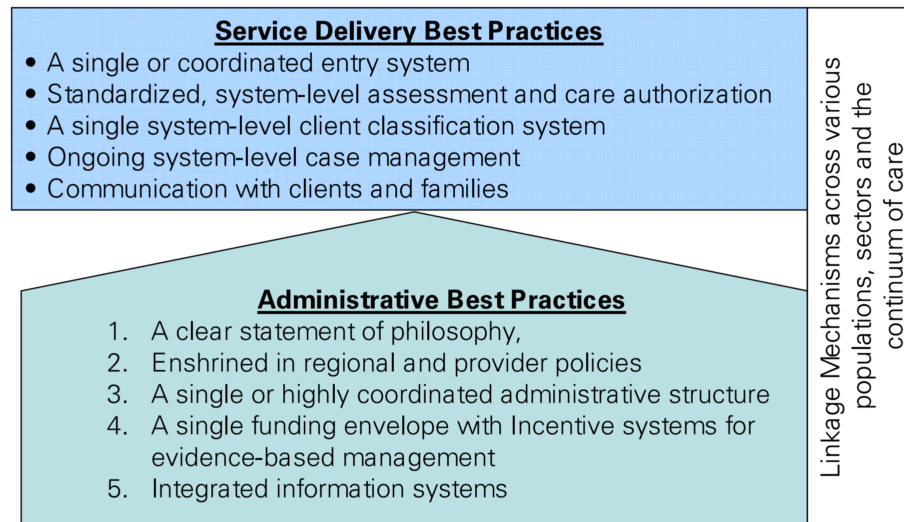
*Exhibit 79: Best Practices in Organizing Delivery Systems*




Program management is a model that has been used in Canada and elsewhere to provide the necessary administrative support for integrated service delivery which the Hollander and other studies have identified. The regional program management model is particularly appropriate to achieve system objectives in jurisdictions with multiple providers.

Regional program management structures could be developed initially among the providers in each of the following major health service domains:

- Mental health and addictions;
- Chronic disease;
- Primary care; and
- Seniors.

Each Regional Program could consist of a structure and processes that includes the following:

- Plan for the population affected by the health service domain;
- Develop and manage a coordinated continuum of services from prevention to palliative care; and
- Assume accountability for system performance.

Each Program would require a mandate from the LHIN and the formal commitment of its participating providers. Commitment is needed to shared goals, objectives and performance indicators and to protocols among providers which are aligned with the goals and objectives. (See section on Determining Priorities for characteristics of an effective performance measurement system).

Each program would require leadership that is accountable and designated roles for each provider. The membership in each program needs to include all of the relevant providers across the continuum of care.

Each Regional Program would also be responsible for human resource planning; identifying the best use of the current human resources as well as planning for future needs. The LHIN would need to align funding to support the programs and facilitate the integrated service delivery.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The programs would need to be supported by information systems which use common data for planning, management and continuous improvement. The development of information systems would need to be coordinated across programs and with the provincial eHealth program.

## Performance and Quality

The performance goals and measures should correspond to the performance standards set by the Ontario Health Quality Council and other standards identified by clinicians, provincial policy and the Central LHIN. The Ontario Health Quality Council has produced a framework[5] that provides a foundation for the LHIN and its providers. The Council described the following characteristics of a high-performing health system:

**FOCUSED ON POPULATION HEALTH** – The health system should work to prevent sickness and improve the health of the people of Ontario.

**ACCESSIBLE** – People should be able to get the right care at the right time in the right setting by the right health-care provider.

**EFFECTIVE** – People should receive care that works and is based on the best available scientific information.

**SAFE** – People should not be harmed by an accident or mistakes when they receive care.

**PATIENT-CENTRED** – Health-care providers should offer services in a way that is sensitive to an individual's needs and preferences.

**EQUITABLE** – People should get the same quality of care regardless of who they are and where they live.

**EFFICIENT** – The health system should continually look for ways to reduce waste, including waste of supplies, equipment, time, ideas and information.

**APPROPRIATELY RESOURCED** – The health system should have enough qualified providers, funding, information, equipment, supplies and facilities to look after people's health needs.

**INTEGRATED** – All parts of the health system should be organized, connected and work with one another to provide high-quality care.

Using Chronic Disease Management and diabetes in particular, as an Integrated Regional Program example, one would expect to include performance metrics for a number of different clinical and lifestyle indicators. Many chronic diseases can be prevented or have the onset slowed by following a healthy diet, regular exercise, weight control and not smoking, and ensuring access to medical care in the form of proper monitoring and the right medications to mitigate serious complications. The indicators would be shared across the regional programs and would require coordinated service delivery to affect change in their performance.

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[5] Ontario Health Quality Council Report 2007.


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The following are some indicators of quality care from the Ontario Health Quality Council could be considered when developing this particular Regional Program:

- A number of disease specific tests done in past year; and test results under certain levels;
- Treatment options discussed with the patient;
- Had a foot exam in past two years;
- Screened for eye problems in past two years;
- Blood pressure within appropriate range;
- Number receiving care for chronic disease who smoke daily or are obese; and
- Number of elderly receiving care for chronic disease who received a flu vaccination.

Detailed sample performance metrics for Diabetes indicators are outlined in the following table.

***Exhibit 80: 2008 Report on Ontario's Health System, Ontario Health Quality Council: Indicators for Diabetes***

| Diabetes Indicators | Reason why it is Important |
|---|---|
| Two HbA1c tests done in past year | HbA1c measures the average blood glucose level over the past three months. Careful monitoring can help identify sooner when a patient's blood sugar is too high, so that medication and lifestyle changes can be made to reduce blood sugar levels. |
| ACE Inhibitor or ARB treatment discussed with patient | Angiotensin converting enzyme (ACE) inhibitors help reduce blood pressure and reduce damage to the kidney's from diabetes. Angiotensin receptor blockers (ARBs) are an alternative for those who cannot tolerate ACE inhibitors. |
| Had a foot exam in the past two years | A regular foot exam can spot early problems with the skin which, if managed early, can prevent progression to foot ulcers and amputation. |
| Was screened for eye problems in the past two years | Regular screening can identify damage to the retina at the back o fthe eye from diabetes. If caught early, this damage can be treated with laser therapy before it spreads further. |
| HbA1c<7.0% | Keeping the HbA1c (3-month blood glucose average) below this level has been shown to be associated with less damage to eh kidneys and eyes. |
| Blood Pressure <130/80 | Keeping the blood pressure at a very low level has been shown to reduce heart attacks, strokes, aneurysms, heart failure, kidney damage and death. |

These are the standards against which the LHIN and its providers could be measured and they provide guidelines to plan and manage the various domains of the local health system. However, responsibility for the performance of the health system is currently fragmented among many different providers and none alone can be held accountable to achieve these objectives. Strengthening the accountability for performance is the main driver for regional program management.

To prevent the programs or planning areas from becoming new silos it would be important that each reflect on transparency; principles and guidelines; and, process:

- Transparency of data, program plans, so that each program can see how the others are developing;
- Common principles and guidelines which can be established at the beginning to guide all program committees so that they stay within scope and align to each other without continually having to submit to the LHIN for approval; and


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- Processes to be followed by program committees that require them and their support staff to confer with other related programs and committees, and validate progress at various milestones.

## The Planning Area Service Coordination Networks

To plan for local service delivery for targeted populations, planning area service coordination networks would be required. The planning area service coordination networks would be responsible for implementing regional program standards, protocols and performance measures as described above in the diabetes example. The planning areas are also where integration with services not funded by the LHIN could take place. The Planning Area Service Coordination Networks could include Public Health, Community Housing, school boards, faith networks, immigrant-serving organizations, etc. The objectives of these local service networks would be:

- To leverage all available community resources to support effective services; and
- To facilitate the coordination of services to the population.

The Planning Area Service Coordination Networks would be focused on serving the needs of the population in that Planning Area. They would need to remain flexible as there are several sub-populations in each Planning Area, and each requires a different mix of providers at the table. For example, there may be little need to engage the schools in service delivery to seniors. But it would be essential to have the schools at the table when planning and integrating children's services.

It would be important that the local service networks have a flexible structure focused on clear objectives. The objectives would be driven by the LHIN priorities (e.g. improved diabetes prevention and management). In this example, those providers related to diabetes and the target population for the diabetes program would need to be at the network table to discuss integrated service for the diabetes program.

Although all human service organizations would need to be linked at the local level, a flexible structure would likely be necessary to avoid burdening providers with all-inclusive structures which tend not to make efficient use of limited staff resources. Some of the local providers would need to come together to achieve a particular objective such as the diabetes example above, but a different combination would need to come together to achieve another objective (e.g., Mental Health and Addictions service coordination). A rigid local service network structure responsible for multiple services to multiple sub-populations would quickly become a burden and ineffective. There would be a need for mechanisms to allow for the networks to work together efficiently when required, for example serving the needs of mental health clients with multiple chronic diseases over the age of 65. Primary Care models may provide strong local options.

Common supports that all networks may require include:

- Case management;
- Electronic referral;
- Common client records; and
- Relationship Managers.


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### Summary

In summary, KPMG believes the LHIN and any developed regional programs could use population-based planning to identify those most in need of service, and, the research literature and international standards to determine the type and quality of service that would be required and the most appropriate providers. They could manage, monitor and continuously improve the service according to the system performance standards of the Ontario Health Quality Council through formal agreements among the providers and funding mechanisms.

The LHIN and the providers in each planning area could use the population planning data to build an increasingly sophisticated understanding of the population and its needs and to customize service delivery to effectively reach each population segment. They could use the regional programs to define the quality of the services and how they would be measured. The LHIN could support the model and its performance objectives by aligning its funding and Accountability Agreements to these objectives.

## Moving to the New Model

We propose that the Central LHIN consider re-orienting its planning and integration structures around the seven planning areas and key programs. We have suggested four key programs coming out of the SNAGA project, but the number is not static. If there is a clear need and/or opportunity to increase integration by adding another regional program that is not duplicating the work of other programs, then it could also proceed. The LHIN should consider focusing its resources in order to have a greater impact. This would include consideration of the availability of resources including LHIN and provider staff time before adding more program management structures.

The objective would be to re-structure the LHIN planning and integration structure to align with regional programs and planning areas, not to add these integration structures on top of the many committees and task forces which the LHIN and providers already support. However, the shift would likely need to be incremental as some of the existing committees and task forces may have outstanding tasks which need to be completed. These could be wrapped up as soon as possible. Some elements of the mandates of the existing committees may be appropriate to incorporate into the generic mandate of regional programs and/or planning areas, or that of a specific program.

A new study provides important lessons on what the LHIN needs to incorporate into the implementation plan going forward. The study, conducted by Ross Baker and his team [6] from the University of Toronto, examines the features of high-performing health systems. Dr. Baker was the co-author with Peter Norton of the ground-breaking Canadian Patient Safety Study.

This new report presents a series of case studies which document how health systems in Canada and around the world are achieving high performance in a number of categories. At the end of the book, Steven Lewis, one of Canada's premier health policy consultants summarizes the key lessons from the studies. His words are repeated here.

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[6] High Performing Health Systems, Delivering Quality By Design, Ross Baker et al, Longwoods Publishing Corporation, Toronto, 2008.


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*"The key object lessons from the inspiring stories in this collection of case studies are:*

1. *Policy and leadership matter. Success cannot be optional. Accountability must be clear. Performance improvement is a serious business that requires steely commitment and refusal to tolerate persistent failure.*
2. *Policy without tools is ineffective; tools without policy are highly limited.*
3. *It may take a village but it doesn't have to take a generation. Transformation is never complete, and in some areas progress can take a long time. But some transformations have been rapid – notably at the Veteran's Affairs (VA) and in some aspects of the UK's healthcare system. Always aim for fast, even if sometimes slow is all you can get.*
4. *Integrating key providers fully into the system and engaging them in goal-setting and performance improvement are essential to success. Fostering a culture of cooperation and participation requires a dedicated strategy, resources and a policy framework. In Canada there are several competing cultures at play; hierarchical vs. egalitarian; primary care focused vs. intensive specialized care; a population focus vs. a patient focus. Creating a unified approach to system improvement will not come about by osmosis. Great organizations invest a lot in building common cultures; healthcare must as well.*
5. *Let people experiment, fail, regroup and improve. Let them organize their own work. Once they have embraced the culture of performance, the need to instruct, cajole, persuade and intervene vanishes*
6. *Be wary of narrow targets and paying for isolated successes. Incentives are important but they must be carefully calibrated, and there is always the risk of unintended consequences. Healthcare is a public service with powerful ethical underpinnings. The greatest international successes seemed to have abandoned flirtation with market concepts and pseudo-competition; instead they have focused on cultural change supported by tools, relationships and a powerful sense of common purpose.*
7. *Successful transformers are fundamentally dissatisfied with the status quo. Canadians are slow to see the flames on the platform even when we feel the heat. Let's get constructively agitated and apply the resulting energy and sense of urgency to getting better. Every delay means that people will suffer needlessly.*
8. *Learn from Canadian success stories. There is hardly a species of excellence that cannot be found in Canada. From the Ontario provincial Cardiac Care network to the Group Health Centre in Sault Ste. Marie to the Alberta Bone and Joint Institute, there have been triumphs of access and quality. Making excellence mandatory is the next step. That's what high performing healthcare systems do, and that's what Canada ought to do."*


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