Revitalizing Ontario's Public Health Capacity:

The Final Report of the Capacity Review Committee

May 2006

This report builds on the Capacity Review Committee's Interim Report, *Revitalizing Ontario's public health capacity: a discussion of issues and options (November 2005)*, which is available online at:http://www.health.gov.on.ca/english/public/pub/ministry_reports/capacity_review05/capacity_review05.pdf

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May 2006

Letter of Transmittal

May 2006

Dr. Sheela Basrur
Chief Medical Officer of Health and Assistant Deputy Minister
Public Health Division, Ministry of Health and Long-Term Care
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Toronto, ON M7A 1R3

Dear Dr. Basrur,

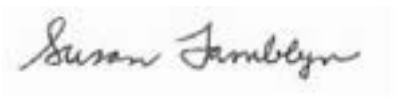
On behalf of the Capacity Review Committee (CRC), we are pleased to present you with our final report *Revitalizing Ontario's Public Health Capacity: The Final Report of the Capacity Review Committee*. This report sets out our vision and blueprint for the restructuring of the local public health system.

The recommendations found in this report largely focus on five key theme areas: health human resources, accountability, governance and structure, funding, and research and knowledge transfer. We also provide recommendations on strategic partnerships to strengthen and increase relationships at a time when the health care system in Ontario is undergoing transformation and reconfiguration.

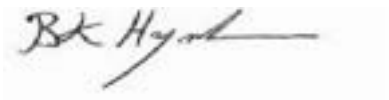
The CRC commends the Minister of Health and Long-Term Care and the Government of Ontario for the commitment to renew the public health system. Committee members are honoured to have had the opportunity to contribute to this process. We thank those whose work has gone before us, and the many individuals and organizations who have taken the time to provide us with their advice and guidance. The dedicated staff of the Strategic Planning and Implementation Branch and the Public Health System Transformation Office of the Public Health Division provided capable and energetic support to our efforts.

Ontario needs a strong and integrated public health system that is effective and accountable for the important work it does. The time to revitalize and renew public health in Ontario is now. We look forward to your consideration and the implementation of our recommendations.

Sincerely,



Dr. Susan Tamblyn
Chair, Capacity Review Committee



Brian Hyndman
Vice-chair, Capacity Review Committee

cc: Honourable George Smitherman, Minister of Health and Long-Term Care
Honourable Jim Watson, Minister of Health Promotion

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Acknowledgements

Members of the Capacity Review Committee would like to thank the many people who contributed to our work. First of all, we would like to thank the members of the five Sub-Committees whose valuable work and insight greatly added to this report. (See Appendix A for the list of Sub-Committee Members).

We appreciate the many organizations and individuals who took the time to assist through written submissions, presentations or participation in the Reference Panel and the Roundtables. We would also like to thank all board and staff members of Ontario's public health units who contributed to the surveys and the site visits. The level of input and consideration is a testament to the strong interest that those working in public health have in improving our system.

In addition, we would like to acknowledge the excellent support that the CRC has received from the Ministry of Health and Long-Term Care, specifically:

Evelyn Dean, Rachel Gray, Corinne Hodgson, Phil Jackson, George Pasut, Shonna Petrook, Paulina Salamo, Anne Simard, Camille Sookdeo, Monika Turner.

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Executive Summary

Why a Capacity Review?

Over the past 10 years, Ontario's public health system has come under increasing scrutiny. A number of reports have identified significant weaknesses and recommended changes and strengthening of the entire public health system.

In June 2004, the Ontario government announced *Operation Health Protection*, a three-year action plan to revitalize our public health system. One of the critical components of *Operation Health Protection* was a review of the organization and capacity of local public health units, a task undertaken by the Capacity Review Committee (CRC).

In November 2005, the CRC released its interim report, *Revitalizing Ontario's public health capacity: a discussion of issues and options*.[1] That report outlined the mandate, scope, methods and objectives of the CRC. (See Appendix B for the CRC's Terms of Reference). The current document is our final report.

What guided the CRC's deliberations?

The CRC was not an operational review or field assessment, and was not intended to evaluate individual health units or the public health system as a whole. Rather, our objective was to conduct a comprehensive assessment of the current capacity of local health units to meet the public health challenges of Ontario. In doing so we looked for strengths that we could build upon, weaknesses that required remediation and opportunities for innovation and improvement. As described in our interim report, our work was guided by the principles of meaningful participation, diversity, best practices, alignment and coordination, transparency and sustainability.

As outlined in our interim report, we conducted a comprehensive, year-long research and consultation process. Elements included: literature reviews; analysis of historical funding patterns and practices; consultations with key stakeholders (presentations and submissions); qualitative and quantitative surveys of health units, health unit staff and boards of health; and surveys of, and key informant interviews with, academia, the Ontario Public Health Association (OPHA) and its constituent societies, the Association of Local Public Health Agencies (alPHa) and other interested associations and groups. Over the course of our deliberations we received many position papers, briefing notes, reports, backgrounders and letters from Ontario organizations, as well as several personal (individual) communications.

[1] *Capacity Review Committee. Revitalizing Ontario's public health capacity: a discussion of issues and options: interim report of the Capacity Review Committee.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2005. [online.] Accessed January 12, 2005 from : http://www.health.gov.on.ca/english/providers/project/ohp/crc_mn.html

(See Appendix C for a list of submissions received by the CRC). Research and research papers were commissioned. (See Appendix D for the list of commissioned research).

In our deliberations, we tried to address common themes and concerns that emerged. Some of these related to human resources issues, such as the lack of opportunities for professional and career development, difficulties in recruiting and retaining an appropriate mix and complement of staff, workplace culture, remuneration and the need for strong provincial and local leadership. Others concerned funding, accountability and governance issues.

By its very size and diversity, Ontario poses a number of challenges for public health. The land masses covered by some health units, particularly in the north, are larger than some Canadian provinces or European nations. Population sizes also vary dramatically. Ontario is the only jurisdiction in Canada where the cost of public health services is shared between the provincial and municipal levels of government. The landscape of health care in Ontario is also changing, particularly with the creation of Local Health Integration Networks (LHINs).

In analyzing the vast amount of data we collected, we focused upon ideas that will strengthen the public health infrastructure and work force, increase public and community accountability, enhance relationships with local and provincial partners, ensure equity across the province, recognize the important role of municipalities and the diverse nature of Ontario communities and enlarge public health's evidence base. Our goal was to identify changes that would enable the public health system to better respond to the health needs of Ontarians by working in a more integrated, efficient and effective manner.

What is the CRC's vision for public health?

In our vision for public health, the provincial government provides strong leadership for a resilient and integrated system that ensures the equitable protection of the health of all citizens in all parts of Ontario. We envision a new spirit of partnership. The province will live up to its funding and leadership responsibilities, while limiting the costs, obligations and liabilities faced by municipalities. At the same time, local governments will retain a strong voice in the management of the system, so public health programs continue to be reflective of local community needs.

In our vision, the collaborative, integrated way public health works with its provincial and local partners (communities, health care providers, boards of education, LHINs and governments) is enhanced. The health of the population is promoted through a variety of programs and services in different settings, including those addressing the determinants of health. It is a system that inspires confidence in both health care practitioners and the public, and has surge capacity to quickly and effectively address emergencies.

Our vision for public health includes health units that have the appropriate number and mix of staff and volunteers, working together under strong and effective leadership. It is a system that attracts and retains the "best and brightest" and provides a variety of opportunities for training and professional, career and leadership development.

In our vision, public health has strong and effective accountability mechanisms at both the provincial and local level, including an integrated performance management system, mandatory accreditation and mandatory public reporting. This systematic approach to accountability supports a culture of continuous quality improvement. It also enables health units and boards of health to clearly and accurately describe what is being done and how they are improving the health of Ontarians. Important parts of this new system are revised approaches to funding that promote stability and long-term planning and an improved system of governance.

Another part of the culture of continuous quality improvement that we envision for public health is research and knowledge exchange. Public health must build upon its existing research infrastructure and relationships. It must also construct new relationships, such as with the Ontario Agency for Health Protection and Promotion and with national and even international bodies and agencies. Greater research and knowledge exchange will ensure that public health is evidence-based and all Ontarians will benefit from advances in public health.

How does the CRC propose to achieve this vision?

The CRC's recommendations are designed to revitalize public health system-wide. These recommendations are designed to ensure that all public health programs and services are:

- evidence-based;
- effectively governed;
- accountable to the public and the province;
- continually improving;

- equitable across the province but at the same time responsive to local needs;

- delivered in partnership with communities and other players within and beyond our health care system; and

- delivered by the appropriate number and mix of public health professionals and staff.

This report is essentially a map, outlining the steps that will lead public health forward, toward the fulfillment of the CRC's vision. This transformation is substantive – and essential. The challenges to the well-being of Ontarians are many, ranging from new and emerging diseases and pandemics, to chronic diseases and to healthy development of children and youth. If public health is to meet these challenges, and protect and promote the health of Ontarians, fundamental and meaningful changes must be made. There is no time to waste. The time to revitalize and renew public health in Ontario is now.

Our Recommendations

To Revitalize the Public Health Work Force

All health units in Ontario should be fully staffed with enough people and the right mix of people and competencies. There must be strong and effective leadership at all levels. We believe a two-pronged approach to public health human resources is needed. First, there must be a comprehensive provincial strategy that addresses the important human resources issues of public health leadership, opportunities for professional and career development, remuneration, critical shortages and human resources planning. Second, each health unit must have its own human resources strategy. Working together, these strategies will enhance the training, recruitment and retention of public health workers. They will ensure there is better recognition of the contribution made by those who work in public health and through improved opportunities for professional and career development, continuous quality improvement.

1. The Public Health Division should collaborate with the Ministry of Health and Long-Term Care's health human resources strategy to develop a comprehensive *Public Health Human Resources Strategy* that is based on best practices, ensures that the public health work force is adequate and well-equipped and addresses both systemic and working life issues. The Strategy should consist of the following elements:
    - a marketing initiative;
    - professional and leadership development initiatives;
    - a centralized work force database;
    - support for local health human resource initiatives including recruitment, retention and professional development; and
    - adoption or adaptation of the pan-Canadian public health core competencies.

2. The province should develop and implement a comprehensive marketing initiative that supports recruitment into public health and increases the visibility of public health careers.

3. The province should work with the Ontario Agency for Health Protection and Promotion to improve public health professional development and leadership training.

4. The Ministry of Health and Long-Term Care should enforce the 2000 directive regarding the appointment of a senior nurse leader in each health unit.

5. The province should lead the development and maintenance of a comprehensive, provincial *Public Health Work Force Database* to support human resource planning.

6. Each health unit should establish a local human resource strategy that complements the provincial public health human resources strategy, to address initiatives for: recruitment, retention, professional development and leadership development.

7. The province, in collaboration with appropriate professional bodies, should lead a process to develop a fair, equitable and more competitive salary strategy by:
    - assessing regional variance in compensation levels;
    - developing collaborative plans to address inequities; and
    - publishing existing salary bands on an annual basis.

8. The province, in collaboration with appropriate professional bodies, should develop a fair, equitable and more competitive compensation package for medical officers of health and associate medical officers of health.

9. The province, in collaboration with academia and professional associations, should enhance efforts to increase enrolment in public health programs and streams that:

    - address the unique requirements of northern and rural areas;
    - expand innovative training modalities (for example, more part-time and distance training options); and
    - expand funding opportunities for training of public health workers.

10. The Ministry of Health and Long-Term Care should immediately address critical shortages for public health physicians and public health dentists by supporting on an annual basis the following new positions:

    - five direct and re-entry positions for community medicine fellowship training;
    - five International Medical Graduate positions; and
    - two positions in specialty dentistry training.

11. All boards of health should support paid student placements, internships, student work opportunities and paid summer positions across all public health disciplines and levels of training.

To Demonstrate Accountability and to Measure Performance

We want public health to be able to clearly demonstrate its value – what it is doing and how it is making a difference in the health of Ontarians. To increase transparency and accountability, we propose the development of a comprehensive public health performance management system. This system will establish clear standards outlining the expectations for public health. Two types of standards should be established: programmatic and organizational. For each standard, measures should be created that make it possible to evaluate whether or not the standard is being met. Monitoring, reporting and follow-up would be conducted on an ongoing basis and episodically. Other mechanisms we propose as part of this renewed and revitalized approach to accountability are mandatory health unit accreditation and annual public reporting.

12. The public health system should adopt a new, comprehensive performance management system that links performance standards and measures to a monitoring and reporting system.

13. Every health unit should have a minimum of one quality and performance specialist to lead the implementation of local performance management activities, coordinate accreditation, manage reporting to the province and the public, and create a culture of continuous quality improvement.

14. Performance standards should be introduced that:

    - replace existing mandatory health program and services guidelines with program standards; and
    - address the organizational capacity of local boards of health.

15. Common data systems and software should be implemented to capture information and produce reports that can be used at different levels of the public health system.

16. Legislation should be amended to mandate accreditation for all public health units and to require public reporting of accreditation status.

17. The province should develop a comprehensive and transparent assessment process to be used in response to specific triggers, including performance monitoring and investigation of complaints.

18. Public health units should be required to produce an annual report for their funders and the general public, with both health status and performance indicators, to ensure transparency and accountability.

Ensuring Quality Governance Within a Province-Wide System

Currently, governance structures vary considerably across the province. We envision a consistent governance structure province-wide, based upon autonomous, skills-based boards of health. In this revised system, there will be clear and transparent accountability mechanisms and structures.

To reflect increased provincial funding, the model we are proposing reduces municipal representation to 50 percent of the board. However, community representation increases to 50 percent and we propose that the province delegate the authority to make these community appointments to the boards. This change will ensure that local appointments are made in a timely manner and reflect local knowledge and needs. We also recommend that the province take leadership in ensuring the quality of local board of health governance by

developing province-wide nomination, recruitment, orientation and self-assessment guidelines and tools.

19. Public health units should be governed by autonomous, locally-based boards of health. These boards should focus primarily on the delivery of public health programs and services.

20. Where local health units are currently integrated into the municipal structure, the boards of health and municipalities should jointly agree on their degree of future integration.

21. Boards of health should consist of eight to fourteen members, with equal balance between municipal appointees and local citizen representatives appointed by the board under authority delegated from the province.

Stable and Predictable Funding

The current funding system does not appear to satisfy any of the stakeholders and funders, and we offer recommendations which, taken in context of the proposed governance changes, will result in more stable and predictable funding. We reaffirm the decision to continue the planned uploading of the provincial portion of shared programs to 75 percent, although we do not preclude moving to full provincial funding in the future if municipalities and the province were to agree. We also recognize that new mechanisms are needed to ensure that public health funding achieves greater equity across the province. Finally, we lay the foundation for a new budgeting process, one that will help the province, municipalities and health units achieve greater stability and improved planning.

22. Public health units should be globally funded, with budgets approved by the province. For programs that are currently cost-shared, the funding formula should be 75 percent provincial and 25 percent municipal, consistent with the last phase of the planned upload announced in *Operation Health Protection*. The province should guarantee continued full funding of the current 100 percent-funded programs.

23. The Ministry should establish a collaborative process with municipalities, boards of health, public health professionals and academic partners to continue to refine the budgetary allocation mechanism, to achieve greater equity in public health system funding over time.

24. The Ministry should establish a budget process that allows for the approval of annual budgets within three-year rolling forecasts to ensure that boards of health and municipalities operate in a predictable financial environment.

25. Budget forecasting should include rolling ten-year forecasts for capital costs. The province should specify clear rules and criteria for how capital funding can be accessed through a special public health stream in the provincial health capital envelope.

26. The Ministry of Health and Long-Term Care should allow health units to establish cost-shared operating reserves up to three percent of their annual operating budget in order to address unforeseen operating cost pressures and surge requirements.

27. All provincial funding requests for public health programs should be channeled through one Ministry and via one point within the Ministry to ensure the simplification of budget reporting processes and coordination of decision-making.

28. The province should prioritize cost-shared funding of local information technology system development projects that have broader application across the public health system.

Building Stronger Health Units

Health units vary greatly in the number and type of staff they employ, the size of the population they serve and the geographic area they cover. We recommend changes to help bolster the resources of smaller health units and ensure they have the critical capacity needed for improved effectiveness and emergency and surge response. Some of our recommendations address emergency response, e.g., on-call systems and mutual aid agreements among neighbouring health units.

In some areas, we recommend amalgamation of specific health units. Our recommendations are designed to optimize existing and future local partnerships (e.g., relationships with boards of education and LHINs). We also propose that the province work with northern health units to develop approaches to address their critical capacity needs.

Over the next decade, public health will require strong transformational leadership. Over the course of our deliberations on the medical officer of health (MOH) and chief executive officer (CEO) roles, we reviewed advantages and challenges arising from different models of leadership. While we were unable to reach a consensus on whether non-MOHs

should serve as CEOs of local health units, we acknowledge that this model is a working reality in some areas of the province. We offer suggestions for securing the independence of the MOH for certain key duties while clarifying administrative responsibilities for the CEO. We also offer recommendations to support the role of the MOH.

29. The amalgamation of the following health units should be implemented for the purpose of achieving critical mass and strengthening public health:

    - Chatham-Kent Health Unit, Lambton Health Unit and Windsor-Essex County Health Unit;
    - Grey Bruce Health Unit, Huron County Health Unit and Perth District Health Unit;
    - Elgin-St. Thomas Health Unit, Middlesex-London Health Unit and Oxford County Board of Health;
    - Brant County Health Unit and Haldimand-Norfolk Health Unit;
    - Haliburton, Kawartha, Pine Ridge District Health Unit and Peterborough County-City Health Unit;
    - Porcupine Health Unit and Timiskaming Health Unit;
    - Hastings and Prince Edward Counties Health Unit, Kingston, Frontenac and Lennox and Addington Health Unit, and the Leeds and Grenville components of the Leeds, Grenville and Lanark District Health Unit; and
    - Renfrew County and District Health Unit and the Lanark component of the Leeds, Grenville and Lanark District Health Unit.

30. The province should work with northern health units to review and if necessary, increase the unorganized territory grants and implement any additional strategies required to achieve sufficient critical capacity.

31. The province should provide 100 percent funding of approved one-time reconfiguration costs for health unit consolidations.

32. The medical officer of health should report directly to the board of health as specified in the *Health Protection and Promotion Act*.

33. Every health unit should have a full-time medical officer of health and one or more associate medical officer(s) of health.

34. The Ministry of Health and Long-Term Care should work with the College of Physicians and Surgeons of Ontario to interpret and apply its policy #13-00 "Requirements When Changing Scope of Practice" to acting medical officer of health appointments.

35. Every health unit should have:

    - adequate administrative support for the health unit's business functions; and
    - adequate programmatic support including epidemiologists, data analysts, communications specialists, volunteer co-ordinators, research officers, and access to libraries and professional development opportunities.

36. Every health unit should have an on-call system for after-hours and weekend coverage supported by front-line professional staff with appropriate back-up.

37. With the help of a Ministry template, every health unit should develop mutual aid agreements with neighbouring health units to support their anticipated emergency needs.

Research and Knowledge Exchange

Research and knowledge exchange is essential if public health practice in Ontario is to be evidence-based and continually improving. The following recommendations are designed to ensure that, working in collaboration with key partners such as the Ontario Agency for Health Protection and Promotion, a province-wide public health research and knowledge exchange agenda is established. Research and knowledge exchange must be established as a core function for health units, and knowledge management activities and services should be equitably accessible across the province. As part of the research and knowledge exchange infrastructure, we recommend that the Public Health Research, Education and Development (PHRED) program should be funded 100 percent by the province. The recommendations we propose will enable health units to develop, enhance and strengthen their in-house capacity and resources for research and knowledge exchange.

38. The Ontario Agency for Health Protection and Promotion should take a lead role in supporting the development of a province-wide public health research and knowledge exchange agenda with identified strategic directions, priorities and an implementation timeline.

39. The Public Health Research, Education and Development (PHRED) program should be funded 100 percent by the province in order to strengthen public health knowledge development and translation into practice.

40. The Ontario Agency for Health Protection and Promotion should act as an organizing hub to support a province-wide network for research and knowledge exchange.

41. Dedicated, stable and sufficient funding for public health research should be earmarked from existing government granting sources or through the creation of a dedicated public health research fund.

42. The province should expand, in scope and funding, the Health Services Research Personnel Development Fund to include strategic public health research.

43. The province, along with the Ontario Agency for Health Protection and Promotion, should ensure that knowledge management activities and services, including access to the electronic public health library, are equitably accessible at the local level.

44. Local health units should develop, enhance and strengthen in-house capacity and resources for research and knowledge exchange to support evidence-informed practice and decision-making.

Strategic Partnerships

One of the greatest strengths of public health is its ability to create partnerships with other sectors, both locally and at the provincial level. In this section, we make recommendations to strengthen and enhance the relationships between health units and primary health care, LHINs, universities and colleges, professional organizations and the Public Health Division.

45. Public health and primary health care leaders at both the provincial and local level should collaborate to develop mechanisms for joint planning, priority setting and partnerships and for funding and implementing innovative projects.

46. The Chief Medical Officer of Health or designate should meet regularly with the Local Health Integration Networks' chief executive officers to identify opportunities for partnership with public health.

47. Every medical officer of health or designate should regularly meet with the chef executive officers of the Local Health Integration Network(s) to which the health unit relates to identify mechanisms for collaboration in planning and service delivery.

48. Public health at both the provincial and local level should participate in the new Local Health Integration Networks Local Data Management Partnerships.

49. Health units should pursue academic partnership agreements with universities, colleges and other related institutions to:

    - formalize educational student placements;
    - support applied public health research and program evaluation;
    - support faculty and curriculum development;
    - encourage cross appointment of staff; and
    - support the ongoing professional development of public health workers.

50. The province should undertake the following actions to strengthen the capacity to support the field and ensure optimal province-wide planning and delivery of public health services:

    - in collaboration with the Ontario Agency for Health Protection and Promotion, ensure expert consultation in specialty areas such as toxicology and medical microbiology;

    - increase expertise and knowledge at the provincial level to support the field in the delivery of the mandatory programs;

    - establish a dedicated support unit to work collaboratively with the field, the Ontario Agency for Health Protection and Promotion and other relevant partners to provide analytic capacity and mechanisms for improving the scope, quality and availability of data used to support fiscal planning and projection;

    - establish capacity at the provincial level to support the reconfiguration of health units;

    - ensure there are quality and performance specialists within the Public Health Division to lead the development of the Public Health Performance Management System and to support assessment and compliance investigation activities; and

- appoint professional leaders for public health inspection, nutrition, public health dentistry and public health nursing.

What are the next steps?

This report and its recommendations are being given to the Chief Medical Officer of Health and the Ministry of Health and Long-Term Care. We recognize that commitment, effort and leadership will be required to put them into place. Change is never easy; however, the time for change has clearly come.

We have not included a detailed three-year implementation plan for these recommendations. Many of the recommendations are interdependent and cannot be considered in isolation. Some solutions are obvious and received widespread support during our consultations, whereas others are less clear. In some cases, immediate action is encouraged to leverage activities already underway or in development, such as the creation of the Ontario Agency for Health Protection and Promotion, the roll-out of LHINs and primary health care reform.

Although we believe the implementation plan is best left to the province to develop, there are some clear priorities for action that we would like to flag for immediate attention and implementation. These include:

- Development of a provincial public health human resources strategy, beginning with the marketing initiative, centralized workforce database and efforts to increase enrollment in public health programs, including support for more training positions for public health physicians and dentists. The appointment of senior nurse leaders in each health unit should be enforced. *As it will take time, in some cases years, to train new people it is important to begin these initiatives as soon as possible.*

- Adoption of a comprehensive performance management system for public health, beginning with the following elements: introduction of performance standards (with board standards as first priority); commitment to mandatory accreditation for all health units; and designation of a quality and performance specialist at every health unit. *Lack of accountability has been flagged as one of the biggest gaps in the current system. Immediate commitment to improved accountability at provincial and local level sends a strong message.*

- Adoption of a consistent, province-wide model of autonomous boards of health with a primary focus on public health and with a membership of half municipal and half local community representatives, locally appointed and supported with provincial guidelines and tools. *The strengthening of public health governance is the underpinning for all of the other reforms.*

- Increased provincial financial accountability with budgets approved by the province, three-year rolling forecasts, ten-year capital costs forecasts and a mechanism to access capital funding and improved timeliness in budget approvals. *This addresses the call for improved provincial accountability while streamlining the budget process for local boards.*

- Amalgamations of specified health units, supported by 100 percent funding for approved transition costs; and review of unorganized territory grants and other strategies to improve critical capacity of northern health units. *These measures will strengthen critical capacity of smaller health units.*

- Establishment of an after-hours on-call system in every health unit supported by front-line professional staff; and development of mutual aid agreements with neighbouring health units. *These measures are essential to ensure appropriate emergency response.*

- Development of a province-wide research and knowledge exchange agenda for Ontario; 100 percent funding for the *Public Health Research, Education and Development* program and its alignment with the Ontario Agency for Health Protection and Promotion. *The imminent creation of the Agency for Health Protection and Promotion offers unique opportunities for developing a more comprehensive and coordinated research and knowledge exchange system in Ontario.*

- Collaboration with primary health care initiatives and with the Local Health Integration Networks. *The roll-out of these new initiatives as part of the Ministry's transformation agenda presents a unique opportunity for public health collaboration that will benefit all parties.*

- Strengthening government capacity to support the field and lead the implementation initiatives.

Chapter 1

High Stakes, Growing Challenges: Public Health in Ontario

The public health system's mandate is to improve the health of the population through health promotion, disease and injury prevention and health protection. Much of the improvement in life expectancy that Ontarians have enjoyed over the past century has been due to public health measures, such as ensuring safe drinking water, safe sewage disposal, better housing and widescale immunization. Today, we face a broad range of public health challenges, such as infectious diseases, chronic diseases and injuries, healthy child development, family and community health and environmental health.

Ontario's network of 36 local public health units is on the front-line of disease prevention, health promotion and health protection. Public health plays an essential role in promoting the health of Ontarians by addressing the underlying risk factors for disease and injury. Public health also has a key role to play in working with other sectors to tackle the underlying social, cultural, economic and environmental determinants of health through effective community interventions and healthy public policies.

Work conducted by Ontario's public health units includes:

- monitoring and responding to communicable disease and infection outbreaks;
- immunization programs and clinics;
- monitoring food, air and water quality;
- reproductive health counseling and services, including sexually-transmitted infections and HIV/AIDS;
- promoting the health and well-being of children, youth and their families;
- injury prevention programs;
- initiatives to improve access to healthy and affordable food;
- intersectoral initiatives to support the creation of healthy environments and to promote healthy and safe communities;
- providing prevention and promotion services for disadvantaged groups, such as new immigrants and economically vulnerable families;
- promoting and protecting the oral health of those who cannot afford, or do not have access to, dental services;

- responding to environmental or health emergencies;
- reducing the risk of chronic diseases, such as cancer, heart disease and stroke;
- tobacco control initiatives;
- comprehensive workplace health promotion programs; and
- public health research and the application of those findings into improved public health practices.

An important strength of public health is its multidisciplinary nature and work force. The wide variety of services and programs offered by public health and the multidisciplinary nature of its work force reflect its broad-based mandate to address the various determinants of health – biological, social, cultural and environmental. The local knowledge and community partnerships typical of public health enable it to not only respond to local needs, but to support community development for enhanced health capacity.

Most of the time, the work of public health occurs with the public largely unaware of what is being done or the accomplishments it has achieved. A disease outbreak that is quickly and quietly contained and controlled, or cases of food poisoning that are prevented by regular food inspections, are not the fodder of media reports. Nor are many of public health's daily activities, such as providing effective parenting sessions for families, educating youth on responsible sexual practices, or supporting the development of comprehensive school health policies.

1.1 Challenges

Ontario needs a public health system that is ready and able to respond to 21st century challenges. It must be strong and flexible, and integrated both within the province and the broader national and international context. A patchwork of programs and services and of health units of varying size, capacity and skills does not provide Ontarians with the sort of care and protection they deserve.

The model for public health in Ontario has not changed substantively over the past 100 years. Throughout the past decade, a series of events and crises graphically illustrated not only the weaknesses of the current system, but how dangerous those weaknesses could be.

In talking with health units, boards of health, and other stakeholders, common themes and concerns emerged.

Writing in late 2002, the Honourable Justice O'Connor who chaired the Walkerton inquiry acknowledged the importance for society of a well-staffed and functional public health system. In particular, his report pointed to chronic vacancies of medical officers of health as a problem that needed to be expeditiously addressed. His concerns were reinforced by the spread of West Nile virus in 2003 and the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003. All four reports that were subsequently issued on SARS emphasized the critical role of public health in preventing the spread of disease and protecting the health of the public. The reports collectively questioned how the current system is funded, managed and governed. Concerns were raised about the critical mass of some health units. They stressed that while the public health system in Ontario has its strength, the status quo is no longer acceptable.

They included:

- **Workplace culture.** Although staff we spoke with are justifiably proud of their work, there are some who feel their contributions are not being adequately valued. Issues include the need for recognition, profile, feeling valued, work/life balance, networking within disciplines and meaningful input into decision-making.
- **Difficulties in recruiting and retaining not only enough staff, but the right mix of skills and professions.** For some professions, such as medicine, public health dentistry, epidemiology and nursing (especially nurse practitioners), vacancy rates can be high. Many health units are without the full range of public health skill sets, including the increasingly broad research and knowledge exchange expertise needed to address public health problems in our complex times.
- **Surge capacity.** In a small but significant number of health units, staff complements may be inadequate to meet the needs of emergencies. Mutual aid is one of the benefits of a provincial public health system. However, there is a danger that over time, weak health units can drain the resources of their neighbours. The overall public health system can only be as strong as its weakest link.
- **Concerns about the quality of public health leadership.** If public health is to meet the challenges of not only today but of tomorrow, strong and effective leadership is needed at all levels.
- **A lack of opportunities for professional and career development.** Without such opportunities, how can

public health retain its best workers – or prepare for future challenges?

- **Insufficient accountability.** A significant proportion of those we spoke with feel that there are no clear standards for evaluating how well health units and boards of health are performing. Strengthened, uniform accountability systems are needed that address not only the programs and services health units deliver, but also their governance.

- **Remuneration.** There is a strong perception that public health salaries are not competitive with those in other health care sectors. As well, there are discrepancies in salary bands between disciplines and between different health units.

- **The lack of predictable, long-term funding.** Current funding mechanisms make it difficult for either health units or the province to adequately budget or make long-term plans.

Although the threat of infectious disease may have driven the call for change, other issues have reinforced the need to strengthen public health capacity. Public health focuses on the root causes of disease and disability, and requires resources for integrated and comprehensive programs and policies that address whole communities and populations. At the same time, health units are also feeling the pressure of meeting the growing needs of high-risk populations, such as at-risk youth, seniors, immigrants, homeless persons and low-income children and families. Both population-based and at-risk approaches are required to meet the health needs of Ontarians.

By its very size and diversity, Ontario poses a number of challenges for public health. The land masses covered by some health units, particularly in northern Ontario, are bigger than some Canadian provinces or European nations. Such health units struggle to serve their widespread populations equitably. Population sizes also vary dramatically, ranging from a low of 34,000 in Timiskaming to over 2.6 million in the City of Toronto, creating resource challenges at both ends of the spectrum.

Ontario's public health system is different from systems elsewhere in Canada, in that public health units are not part of regional health planning bodies. Although mutual aid is common among public health units, there is no process for ensuring regional coordination. But as we have seen, health threats seldom respect geographic or regional boundaries. We need mechanisms for greater integration and coordinated emergency response across regions and across Canada and beyond. As well, the creation of Local Health Integration Networks (LHINs) has fundamentally changed the landscape of health care in Ontario. It is important that public health units optimize their relationships with LHINs.

Ontario is the only jurisdiction in Canada where the cost of public health services is shared between the provincial and municipal levels of government. Local presence and input is crucial to ensure that public health reflects and meets local needs. In the past, when municipal funding contributions ranged from 50 percent to 100 percent, this arrangement ensured municipal involvement. At the same time, this arrangement also placed a considerable financial burden on the municipalities.

1.2 Building a Healthier Future

Over the past two years, the Government of Ontario has made several important investments in public health. One of these has been the launch of *Operation Health Protection,* a three-year plan to rebuild public health. Other milestones include the creation of a new Ministry of Health Promotion and a new Ontario Agency for Health Protection and Promotion. As well, the devolution of authority for health planning to LHINs is setting the stage for a new type of health planning and service delivery system, one that is community-based and more locally-responsive.

In June 2004, the Ontario government launched *Operation Health Protection*, a three-year plan to rebuild public health.[2] Although the impetus for *Operation Health Protection a*rose from concerns about the province's ability to control infectious diseases, the plan reinforced public health's role in disease and injury prevention and health promotion. A series of related activities were undertaken, one of which was a review of the organization and capacity of local public health units. This review (under the Capacity Review Committee) was also charged with making recommendations for change and renewal. The status quo would no longer be allowed to continue.

Our committee, the Capacity Review Committee (CRC), was established as part of *Operation Health Protection*. Its mandate was to assess the capacity of Ontario's public health system and to make recommendations for change. Our interim report, *Revitalizing Ontario's Public Health Capacity: a discussion of issues and options*, was released in November 2005 and

[2] Ontario. Ministry of Health and Long-Term Care. *Operation Health Protection: an action plan to prevent threats to our health and promote a healthy Ontario.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2004. [online]. Accessed November 12, 2005 from: http://www.health.gov.on.ca/english/public/pub/ministry_reports/consumer_04/oper_healthprotection04.pdf

summarizes the committee's background, context, scope, methods and objectives.

The CRC was not an operational review or field assessment, and was not intended to evaluate individual health units or the public health system as a whole. Rather, our objective was to conduct a comprehensive assessment of the current capacity of local health units to meet existing and future public health challenges of Ontario. In doing so we looked for strengths that we could build upon, weaknesses that required remediation, and opportunities for innovation and improvement.

As outlined in the interim report, we conducted a comprehensive, year-long research and consultation process. Elements included: literature reviews; analysis of historical funding patterns and practices; consultations with key stakeholders (presentations and submissions); qualitative and quantitative surveys of health units, health unit staff and boards of health; and surveying of, and key informant interviews with, academia, the Ontario Public Health Association (OPHA) and its constituent societies, the Association of Local Public Health Agencies (alPHa) and other interested associations and groups. Over the course of our deliberations we received many position papers, briefing notes, reports, backgrounders or letters from Ontario organizations, as well as personal (individual) communications (see Appendix C). Research projects were commissioned. The commissioned research can be accessed online (see Appendix D).

In analyzing the vast amount of data we collected, we focused upon ideas that will strengthen the public health infrastructure and work force, increase public and community accountability, enhance relationships with local and provincial partners, ensure equity across the province, recognize the important role of municipalities and the diverse nature of Ontario communities, and enlarge public health's evidence base. Our goal was to identify changes that would enable the public health system to work in a more integrated, efficient and effective manner.

Chapter 2

A New Vision for Public Health

Our Vision 2010:

Ontario's public health system has achieved new levels of professionalism, preparedness and effectiveness. We now have an integrated, seamless system that provides evidence-based and effective disease prevention and health promotion programs and services. Through a combination of strong provincial and municipal involvement, there are equitable levels of service across Ontario and enhanced responsiveness to local needs and settings. Public health is not only doing a better job of promoting and protecting the health of Ontarians – it now has the mechanisms by which it can accurately measure what it is doing and demonstrate value.

The goal of the Capacity Review Committee is to provide direction for the creation of an optimal public health system for Ontario for the 21st century, one that is capable of meeting not only current health needs of Ontarians but of responding to new and emerging requirements. A revitalized public health system will contribute to a healthier future for all Ontarians.

As described in the interim report, our work was guided by the principles of meaningful participation, diversity, best practices, alignment and coordination, transparency and sustainability.

CRC's Guiding Principles

- **Meaningful participation** – stakeholders (health units, municipalities, related associations and others) had the opportunity to participate in the review, in the form of submissions, presentations and other communications.
- **Diversity** – the review process recognized the diversity and unique nature of Ontario's health units and the communities they serve.
- **Best practices** – the review was informed by key experts, information on best practices, and local, provincial, federal and international public health initiatives and studies.
- **Alignment and coordination** – we looked for opportunities to build on and collaborate with provincial and local partners, such as municipalities, boards of education, professional associations, the new Ontario Agency for Health Protection and Promotion and LHINs.
- **Transparency** – we consulted with a large number and wide variety of stakeholders and publicly communicated our progress in a timely manner.
- **Sustainability** – we focused on long-term and sustainable strategies and solutions for public health.

Through our extensive, year-long research and consultation, we formed a vision for Ontario's public health system. We focused on what it could be and what it could accomplish. The fundamental forces that shaped this vision were:

- **The need to revitalize the public health work force**

  All health units in Ontario should be fully staffed with not only enough people – but the right mix of people and skills. We need a human resource strategy that enables public health to attract and retain a sufficient number of the "best and the brightest" in all of its sectors. To achieve this goal, we envision a series of inter-related efforts that address the recruitment, retention and ongoing professional development of the public health work force. This strategy is designed to deal with critical shortages and to meet the challenges of the future.

  We also make recommendations to address the quality of the work environment and to optimize leadership at all levels of the system. We address the challenge of preparing the next generation of public health workers by offering practical and meaningful strategies that make public health a career of choice.

- **The need to demonstrate accountability and to measure performance**

  We want public health to be able to clearly demonstrate its value – how it is making a difference in the health of Ontarians. We provide a framework for a comprehensive performance management system that enables us to show governance, management, fiscal and programmatic accountability. Our recommendations include establishing program and organizational standards, measures to evaluate how well public health is doing in meeting these standards, and clear and transparent public reporting mechanisms. These mechanisms will make it possible to ensure continuous quality improvement across all aspects of service planning and delivery and organizational functioning.

- **The need to ensure quality governance within a province-wide system**

  We envision a system with a consistent, province-wide governance structure. Along with this new structure, we envision new governance standards that clearly set out expectations for boards of health. Complementing these structures will be provincial guidelines and tools to support boards and to help them measure whether they are meeting their governance standards. We believe the governance of public health should reflect the strong and important relationships health units have traditionally enjoyed with the municipalities. Although the province will now take a more direct role in the funding and oversight of public health services, we believe municipal appointees should comprise one-half of the board of health. The other half of the board should be community representatives, appointed by the boards of health through authority delegated by the province. We believe boards of health should be skill-based, so they have the diversity of skills necessary to make them good stewards of public health and to respond to local health needs.

- **The need to ensure stability and predictability of funding**

  The current system of funding does not appear to satisfy any of the stakeholders and funders. We offer recommendations which, taken in context of the proposed governance changes, ensure a system with stable and predictable funding at all levels. The revised system will make it possible to achieve greater equity in the distribution of public health services across Ontario, while maintaining strong municipal participation. We considered whether full provincial funding was required to ensure sufficient capacity to address the public health mandate and found there was no clear consensus among stakeholders. Indeed, concerns were expressed that changes should not be made that could appear to diminish local input into public health. Hence, we reaffirmed the direction for the planned uploading of public health costs (to 75 percent) to the province. Our recommendation does not, however, preclude moving to full provincial funding in the future if municipalities and the province agree. We have also made recommendations to streamline the budget process and make it more timely and helpful for health units, municipalities and the province.

- **The need to strengthen the critical capacity of health units**

  Every health unit should have an appropriate and sufficient staff complement. Ontario's structure of public health service delivery needs to be transformed to ensure each health unit has the necessary critical capacity to address the day-to-day mandate of service delivery, as well as emergencies and new and emergent threats. We propose the consolidations of some health units to achieve critical capacity, but we do so in a manner which recognizes that the delivery of public health services relies on effective local alignments and partnerships. We also propose changes to enhance capacity in northern health units. All health units must have an adequate mix of core competencies, administrative support and mechanisms to bolster their ability to respond to emergencies.

- **The need to ensure practice-relevant research and knowledge exchange in a rapidly changing environment**

  The effectiveness of public health service delivery is linked directly to the ability of front-line providers to acquire and apply knowledge in a rapidly changing environment. We offer a vision for a strengthened research capacity that addresses the important issues facing public health. We propose a more effective knowledge exchange network within the context of the creation of the Ontario Agency for Health Protection and Promotion. We also want to establish more effective relationships with universities and colleges. These changes will make it possible to align academic research to applied public health issues, and to more effectively prepare students for careers in public health.

- **The need to establish strategic relationships**

  Public health plays an important role within the entire health care system. We propose means of developing and optimizing strategic relationships with other parts of the health care system within the context of a rapidly-changing environment. There must be collaboration with concurrent initiatives, such as the creation of the new Ontario Agency for Health Protection and Promotion, the creation of the Ministry of Health Promotion, the restructuring of the MOHLTC, the implementation of LHINs and ongoing primary health care reform. While the majority of our recommendations focus on local public health units, we recognize the Public Health Division's role in evolving system reform. We offer directions on the function and capacity that the Public Health Division requires to effectively support public health across the province. We also discuss the importance of maintaining strategic relationships with professional organizations such as OPHA and alPHa, and universities and colleges.

  In the chapters that follow, we outline the steps we believe are necessary to achieve this vision. We believe these changes are not only possible and feasible, but critically important to the health of Ontarians. We cannot hesitate or wait for the next health crisis before we act. It is essential we start immediately to make the changes needed to revitalize and renew our public health system.

Chapter 3

Strengthening the Public Health Work Force

Our Vision 2010:

Public health has become a preferred career path for many disciplines and professions. Student placements and new training opportunities have made it possible for public health to attract many of the "best and brightest." Strong, effective leadership, competitive salaries and a variety of professional development opportunities make it possible to recruit and retain highly qualified staff. Staff turnover is significantly down, productivity up, and health units have the mix of skills they need to effectively deliver programs and services.

One of the most important strengths of our public health system lies in its dedicated work force. The typical health unit employs a mixture of many disciplines, skill sets and professions, as well as managers and administrative staff. Health units also benefit from the participation of volunteers, who enhance public health's connections to the community and extend its capacity to respond to issues. All of those who work in public health are justifiably proud of the contribution they make to their communities. However, many are concerned about the work environment in which they are employed, and the implications of current inadequacies.

Currently, there are critical shortages in some public health disciplines and ongoing vacancies in others. The greatest total numbers of vacancies are found in the two largest segments of the work force – public health nursing and public health inspection. For specific positions such as medical officers of health (MOHs), associate medical officers of health (AMOHs), public health dentists and nurse practitioners, vacancy rates can be even higher. Vacancies impact on the ability of health units to deliver programs and services, respond to emergencies or periods of increased need, and to assist other health units.

We looked at a number of human resource issues that impact upon public health, such as leadership, professional development and salary equity. In some cases, our findings were concerning. A substantial proportion of staff we surveyed or consulted reported feeling undervalued and unappreciated. Concerns were expressed regarding the workplace environment, leadership within health units and management skills at the senior management level. Staff indicated that they lack opportunities for professional development or to meet with discipline-specific communities of practice.

If public health is to improve, staff must feel that they have the support and resources they need. We must build on our existing human resources strengths to create a work environment with the capacity to meet current and future challenges. We want to ensure the work of public health staff is appropriately recognized and valued – both within the public health system and by society as a whole.

3.1 Building Human Resource Excellence: Provincial Role

The people who work in public health are essential for its success. Our research clearly demonstrated that an overall human resources strategy is needed to strengthen the public health work force. Provincial leadership is needed to ensure equity and to enhance coordination and capacity-building at both the provincial and local level.

3.1.1 A Provincial Strategy

The province has been developing a health human resources strategy, but it lacks a public health component. A provincial public health human resources plan is necessary for many reasons:

- the public health human resource issues are very serious;
- there is an opportunity to build on the existing Ministry of Health and Long-Term Care (MOHLTC) human resources strategy to avoid duplication and ensure effective coordination;
- there are economies of scale for a single provincial action; and
- a provincial plan will help to ensure greater consistency across the province (i.e., local initiatives will be consistent with the overall provincial strategy).

There must be leadership at the provincial level for the development of a practical, aggressive plan that can be both implemented and evaluated across the public health system. Thus we propose:

Recommendation #1: The Public Health Division should collaborate with the Ministry of Health and Long-Term Care's health human resources strategy to develop a comprehensive *Public Health Human Resources Strategy* that is based on best practices, ensures that the public health work force is adequate and well-equipped, and addresses both systemic and working life issues. The Strategy should consist of the following elements:

- **a marketing initiative;**
- **professional and leadership development initiatives;**
- **a centralized work force database;**
- **support for local health human resource initiatives including recruitment, retention and professional development; and**
- **adoption or adaptation of the pan-Canadian public health core competencies.**

This strategy should be based on an articulated human resource philosophy, and include the development of public health human resource principles and policies related to training, recruitment, retention and leadership. The strategy should adopt or adapt the pan-Canadian public health core competencies for professional public health workers, and take advantage of core competencies activities underway across Canada.[3]

A *Public Health Human Resource Action Team* (PHHRAT) accountable to the Public Health Division and with a three-year mandate to implement the provincial strategy should be struck. The role of the PHHRAT is to champion public health recruitment and to take responsibility for those areas that may not be currently covered in the provincial health human resources strategy (e.g., retention, professional and leadership development). The PHHRAT will have designated staff to lead this initiative and resources to develop and implement the plan. The team will have cross-disciplinary and cross-regional membership, as well as effective connections with the Ministry of Health Promotion, Ministry of Children and Youth Services and the Health Strategy Division of the MOHLTC.

Local health units should participate in the development of the provincial strategy and should be required to fulfill its planning and reporting requirements. As well, each health unit will be required to develop formalized recruitment, retention and professional and leadership development strategies consistent with the provincial strategy (see Section 3.2).

Accountability should be an integral part of the strategy. As described in Section 4.2, an organizational standard for local boards of health is required. This standard would acknowledge that public health programs and services can only be delivered if supported by sufficient human resources with the appropriate skills. The human resource standard should also reflect the role of each health unit in contributing to the public health

[3] Emerson, BP. *The development of a draft set of public health workforce core competencies. summary report.* Draft for discussion. Federal/Provincial/Territorial Joint Task Group on Public Health Human Resources. Advisory Committee on Health Delivery and Human Resources and Advisory Committee on Population Health and Health Security; 2005. [online] Accessed January 30, 2006 from: http://www.phac-aspc.gc.ca/php-psp/pdf/the_development_of_a_draft_set_of_public_health_workforce_core_competencies_e.pdf

work force database and using its data to develop human resource strategies at the local level (see Section 3.1.4).

3.1.2 Marketing Initiative

Currently, the public has a poor understanding of what public health is, what public health staff do and the sorts of career opportunities the field offers. Even among health professionals, public health tends to have relatively low visibility or priority. Moreover, there is a perception that public health is not competitive with other health care sectors in terms of salary expectations and opportunities for professional development. Even those who may be interested in public health careers often find it difficult to get accurate and detailed information about them. There is no one or comprehensive source where individuals interested in public health can find out about public health careers, vacancies, or training opportunities.

In order to attract students and to compete with other health care sectors for skilled professionals, the visibility of public health must be increased. There is a precedent for such an approach. In the past, a comprehensive marketing approach was successful in attracting medical officer of health candidates. A wider, public health initiative is needed that would communicate the idea that public health is a desirable career option for a variety of disciplines. Thus, we propose as part of the public health human resources strategy:

Recommendation #2: The province should develop and implement a comprehensive marketing initiative that supports recruitment into public health and increases the visibility of public health careers.

Marketing public health as a preferred career choice should be conducted at the provincial level, as part of the province's integrated public health human resources strategy. A comprehensive, coordinated marketing initiative would optimize effectiveness. The province should also provide direction and support to health units for local campaigns.

Objectives of the public health marketing initiative would be to:

- attract and retain the "best and the brightest" from target groups (e.g., secondary students, post-secondary students in health-related disciplines and practicing health professionals) into public health;
- brand public health as a "career of choice";
- strengthen and sustain the image and reputation of public health as a critical stakeholder in the health system;
- ensure that information about public health careers, training opportunities and contact information is readily available; and
- develop and maintain a single, primarily web-based, source of information, where those interested in public health can find information about careers and training opportunities, financial incentive programs and further contact information. This one-stop shop should be readily recognized as the definitive source for this sort of information.

Stakeholders in the province that should be involved in the development and implementation of this marketing strategy should include secondary and post-secondary educators and public health professional organizations, such as alPHa and OPHA. Key groups that should be targeted for recruitment to public health include high school students, post-secondary students in health-related disciplines and practising health professionals who are interested in a change in career focus.

3.1.3 Professional and Leadership Development

Formal and informal opportunities to develop leadership and management skills are important in public health. Current barriers to leadership development include lack of time, opportunities, suitable resources and perceived value. Although management training is common in many sectors of our economy, including the health sector, there are far fewer resources specific to public health.

Given the critical need for resources tailored to public health, provincial leadership is needed to spearhead their development. Thus we propose that as part of the provincial public health human resource strategy:

Recommendation #3: The province should work with the Ontario Agency for Health Protection and Promotion to improve public health professional development and leadership training.

This initiative would enhance the growth and development of public health staff, their core competencies and their leadership skills. A number of approaches could be used to provide this sort of training, including the creation of provincial, regional or local networks, conferences and meetings, mentoring, teleconferences or video conferences,

and electronic resources (e.g., online training and web casts). Regular and ongoing opportunities for professional networks should be available, both on a program and a discipline basis. Many multidisciplinary program networks are already available regionally or provincially (e.g., heart health, sexual health, infection control) and these should be encouraged to continue. However, as there are currently few opportunities for communities of practice to meet together, at least one offering for each discipline should occur each year. The Public Health Division should lead this initiative, in collaboration with the Ontario Agency for Health Protection and Promotion.

The province should ensure that these activities are available and accessible province-wide by those who work in public health. The province must also ensure that at both the provincial and local level there is recognition that time spent in professional development, team building and developing leadership skills is an important investment. The time spent on these activities contributes to staff career growth, and, in a very direct way, benefits public health.

Professional Practice Leadership

One of public health's many strengths is the degree to which services are delivered on a multidisciplinary basis. Most public health units are now organized along programmatic lines, where responsibility and accountability are aligned with programs and multi-disciplinary staff contribute to the delivery of services.

In our consultations, we were told of important and novel mechanisms by which public health units ensure that professional issues are not overlooked or minimized in a program-based organization. The appointment of professional practice leaders in nursing has been the subject of a previous MOHLTC directive to health care organizations. Some public health agencies have gone further in ensuring that professional and regulatory issues affecting staff are reflected at the decision-making level, through the designation of professional practice leadership responsibilities.

However, our investigations identified that not all boards of health have acted on the MOHLTC directive to appoint a senior nurse leader. There is a body of evidence showing that a senior nurse leader position, such as a chief nursing officer, and other supports (e.g., nursing practice councils) have a significant impact on recruitment, retention, work environment, job satisfaction and client outcomes. Within the public health system, well over half of the hands-on service providers are nurses. Thus, we propose:

Recommendation #4: The Ministry of Health and Long-Term Care should enforce the 2000 directive regarding the appointment of a senior nurse leader in each health unit.

Further, we would encourage health units to consider whether a similar role and function is necessary for other staff groups, particularly those covered by the *Regulated Health Professions Act.*

3.1.4 Centralized Work Force Database

Currently, there is no centralized or standardized means of identifying public health human resources gaps, turnover or trends. This makes it difficult for the province or health units to analyze their human resource capacities, identify where surge capacity may be available, or plan for the future. To rectify this gap, we propose that as part of the provincial public health human resources strategy:

Recommendation #5: The province should lead the development and maintenance of a comprehensive, provincial *Public Health Work Force Database* to support human resource planning.

This database will be a key component in the development and oversight of the provincial human resources strategy. It will contain data on the staff complement at each health unit and assist in identifying human resource trends and gaps (e.g., turnover, vacancies, pending retirements and leaves of absence). The database will support proactive human resource planning.

Creating this new database will be challenging; however, the benefits will be well worth the effort. For the database to be reliable, accurate and robust, there must be standardized terminology and clear definitions of disciplines, functions, competencies and positions (e.g., "public health inspector" versus "environmental health officer"). Data, including financial data such as salaries, should be collected regularly.

3.2 Local Human Resources Strategies

The people who staff our public health units constitute an invaluable resource and we must ensure that working conditions are supportive and reflect their importance. Public health staff want to be respected and valued for their expertise and contribution. They want opportunities to make meaningful input into decisions which impact on the health of the public, to network with and learn from their peers, and to develop their skills and careers. If public health is to recruit and retain the skilled staff needed to meet current and future

challenges, strategies must be developed to ensure a positive, progressive and productive work environment.

Ongoing education and professional development, grounded in core competencies, are critical to strategic growth. Staff identified the need for stronger discipline-specific communities of practice and more opportunities to meet with peers to discuss profession-specific issues. Evidence has shown that developing and maintaining strong connections among communities of practice leads to improvements in the quality of practice and outcomes.

Healthy workplace relations among workers and respectful and collaborative teamwork are correlated with good human resources retention rates and effective workplace outcomes. These require the support of strong and effective leadership. Staff identified leadership and management capacity as major issues impacting on their job satisfaction and productivity. A combination of professional development, experience and accountability systems would be beneficial in enhancing these skills.

Local health units should participate in the development of the provincial human resource strategy, as well as their own formalized recruitment, retention and professional and leadership development strategies.

Recommendation #6: Each health unit should establish a local human resource strategy that complements the provincial public health human resources strategy, to address initiatives for: recruitment, retention, professional development and leadership development.

The development and implementation of a comprehensive human resources strategy will require dedicated personnel within each health unit. An education coordinator should be assigned responsibility for the organization and coordination of recruitment and retention efforts, professional development, in-house education and student placements.

In our revitalized public health system, local human resources strategies will be assessed as part of the provincial Public Health Performance Management Framework (see Chapter 4). Using standardized performance management tools, health units will report annually to the Ministry on their progress in meeting their human resources standards. Ongoing monitoring and evaluation will make it possible to identify and share best practices and strategies with the province and other health units. Furthermore, if problems are detected, follow-up can be conducted.

Recruitment Strategies

All health units should have a recruitment strategy consistent with the provincial public health human resources strategy. Strategies should be led by dedicated human resources personnel within each unit, with the health units and boards of health being accountable for their development and implementation. The recruitment strategy should include participation in the training and student placement programs described in Section 3.4 and be consistent with the provincial public health human resources strategy.

Other initiatives that will support health units in recruiting staff include changing the workplace environment, raising the profile of public health, increasing opportunities for professional development, improving public health management and improving compensation.

Retention Strategies

Retention strategies should incorporate: operating principles that emphasize respect and value for staff skills; recognition for contributions; opportunities for career growth and networking; professional development policies and programs; dedicated personnel in human resource planning, recruitment, management and professional development; and ongoing assessment of best practices and strategies.

There are many elements that could assist health units in developing and implementing successful retention strategies. They include: flexible work hours; retention bonuses targeted at difficult-to-recruit professionals or for northern and rural locations; and mechanisms that promote job flexibility and continuous learning (e.g., cross-appointments with academia, community organizations or community health teams). Retention can also be optimized by providing opportunities for coaching, mentoring, succession planning and career path planning (e.g., promotional career ladder programs that include the development of individual career plans with a continuum of learning objectives and advancement opportunities across the career span). Health units should also consider innovative mechanisms that encourage professionals to continue to contribute to the work of public health as they enter retirement.

Professional Development

Professional development is a key to increasing staff satisfaction and improving the quality of public health service delivery. All health units should have strategies by which they provide focused, purposeful and adequately-funded professional development programs based on program and

discipline needs. A number of different approaches and modalities should be considered, particularly for staff re-training. For example, subsidized refresher courses could be offered, or scholarships and loan repayment programs for practicing health professionals.

Public health staff should also have opportunities to participate in provincial program-based and discipline-based networks, and activities relating to the core competencies essential to public health. The province should take the lead in ensuring the development of such networks. Other essential partners in enhancing professional development opportunities for local health units include professional associations and the colleges and universities (see Chapter 8).

To implement professional development strategies, health units must have sufficient resources of two types. First, there must be dedicated human resources, such as an education coordinator to organize professional development within health units. Second, boards of health need to integrate professional development into their budgets. It is recommended that all boards of health dedicate a proportion of their budget (e.g., a minimum of one to two percent) for professional development. Funds are also required to support training activities, for example by temporarily filling positions of staff on education leave.

Leadership Development

Although technical skills are important, many of those we consulted also spoke to the fact that the quality of a health unit depends in large part upon its leadership. Staff appreciate leaders who have strong management skills, who can articulate a vision, seek and incorporate staff input, promote staff independence, and build effective internal teams and linkages across the system.

As part of the revised public health human resources strategy and standards, each health unit should develop plans to promote visionary, strategic and effective leadership. If health units are to achieve their mandate and undergo successful transformations, those in management and formalized leadership positions must have the competencies, skills and expertise to lead and work effectively with other professionals. They must also be able to contribute in a meaningful way at the community and provincial levels. Orientation, mentoring, coaching and in-service training in leadership should be available. Training requirements for those new to management roles should be established that reflect the importance of leadership competencies. Time and support must be provided to develop leadership skills. Graduated leadership expectations should be developed to ensure appropriate leadership at different levels within health units.

Many new leaders are found within an organization. Managers must identify those staff with potential for leadership and ensure there is support for them to acquire and develop the necessary knowledge and skills. Supports for succession planning are important components of a local human resource strategy.

3.3 Remuneration

Remuneration arose as an important theme in relation to human resources recruitment and retention. The need for fair, equitable and more consistent compensation for public health professionals was deliberated. In this section, we look at the overall issue of public health salaries, as well as the specific issues of MOH/AMOH remuneration.

3.3.1 Salary Equity

Our research found that in a significant proportion of cases, public health salary bands for some disciplines were not competitive with nearby health units, other health sectors, or other jurisdictions. We concluded that the issue of significant salary discrepancies should be addressed. Salary equivalency presents a number of challenges given local variations such as cost of living, and these must be taken into account. To ensure that Ontario health units can compete for, and retain their staff, we propose:

Recommendation #7: The province, in collaboration with appropriate professional bodies, should lead a process to develop a fair, equitable and more competitive salary strategy by:

- **assessing regional variance in compensation levels;**
- **developing collaborative plans to address inequities; and**
- **publishing existing salary bands on an annual basis.**

The salaries for public health staff groups should be fair, equitable and more competitive across the province. In developing salary strategies, a number of elements must be considered, including direct salaries, benefits, after-hours and on-call requirements, compensation for job-related expenses and portability of benefits among health units. Models in the hospital sector and other provinces should be examined (e.g., province-wide salary scales).

3.3.2 MOH/AMOH Remuneration

A fair compensation package is an important part of an effective MOH/AMOH recruitment and retention strategy. At present, there is a large discrepancy between the salaries of MOH/AMOHs and those of other medical specialists. As well, public expectations and expanding scope of duties are making public health an increasingly demanding field of practice. A more competitive compensation package would make public health a more attractive option at all career stages (e.g., for those in medical school, specialty or re-entry training, and those already working in the field). Any compensation package must also recognize the substantial burden of providing on-call services, particularly related to infectious disease control and emergency management.

Over the past two decades, a number of health units have either been unable to retain the services of a full-time MOH or have retained a physician without public health training, usually on a part-time basis. Complicating this issue is the fact that the public health physician work force is aging and many are approaching retirement. For example, our survey found that 29% of MOHs will retire over the next 5 years (see Table 3 in the CRC's Interim Report).

Recommendation #8: The province, in collaboration with appropriate professional bodies, should develop a fair, equitable and more competitive compensation package for medical officers of health and associate medical officers of health.

The Ontario Medical Association negotiates on behalf of most physicians in Ontario and currently has a framework in place for the compensation of salaried physicians that could form the basis for negotiations. Any compensation package developed should include: benefits, compensation for on-call services and support for professional development. Although no consensus was reached, we would also suggest that the province consider including MOH salaries in the envelope of 100 percent-funded public health programs.

Adequate incentives are needed to encourage community-based physicians and nurse practitioners to play a role in supporting the delivery of selected health unit programs and services. This would also help to bridge the gap between public health and clinical care, and would assist in fostering effective communication mechanisms with community practitioners.

3.4 Preparing the Next Generation

Ensuring a future work force is essential. Currently, public health has a low profile among secondary and post-secondary students, even among those in the health sciences. This contributes to recruitment challenges for health units, particularly in northern and rural areas. We looked at a number of ways in which the profile and quality of training in public health could be improved. New initiatives should be developed to enhance the relationship between public health and colleges and universities, thereby opening new opportunities for training, professional development and strategic partnerships.

3.4.1 Training

There is an urgent need to increase the supply of public health professionals in Ontario. In many health disciplines, students receive little or no exposure to public health during their training. In other cases, the cost of specialized public health education, particularly at the post-graduate level, may be a barrier to entering the field. The problems are particularly pressing in terms of the number of people willing to train for positions as medical officers of health and public health dentists. We looked at a number of options and propose that as part of its public health human resources strategy:

Recommendation #9: The province, in collaboration with academia and professional associations, should enhance efforts to increase enrolment in public health programs and streams that:

- **address the unique requirements of northern and rural areas;**
- **expand innovative training modalities (for example, more part-time and distance training options); and**
- **expand funding opportunities for training of public health workers.**

A number of models for enhancing student enrolment are in place but they need consolidation and streamlining. Some ideas that should be considered include scholarship and loan repayment programs, "service-obligated" scholarships, bursary programs, creative loan repayment and tuition reimbursement incentives, subsidized refresher courses in exchange for relocation to/within the province and/or a service commitment and recruitment bonuses (e.g., debt relief). Incentives should be provided to encourage students to return to local health units to work, especially rural and northern health units.

At the local level, boards of health should prioritize support for training as part of their strategic or operational plans and recruitment strategies. Resources should be allocated to support training, such as tuition support for return-of-service agreements and the financing of a dedicated education coordinator within health units.

With their post-secondary partners, health units and the Public Health Division should encourage and develop creative, accessible training modalities (e.g., in-service training, virtual training, work-study and distance teaching) to encourage health professionals practicing in other areas to enter public health. A range of public health disciplines could potentially be targeted for delivery in part through distance education.

Given the proliferation of Masters programs in public health across the country, there is the need for a catalogue of suitable training programs. This catalogue should be developed and maintained by the MOHLTC and would help students to understand their graduate training options. This is particularly important where educational programs must meet regulatory requirements as a precondition of appointment.

Critical Shortages

For positions with critical shortages, such as public health physicians and dentists, the province should explore a variety of options to encourage enrollment or transfer into public health. For example, recruitment bonuses to public health graduates for service in under-serviced areas across Ontario should be considered. We also propose the following:

Recommendation #10: The Ministry of Health and Long-Term Care should immediately address critical shortages for public health physicians and public health dentists by supporting on an annual basis the following new positions:

- **five direct and re-entry positions for community medicine fellowship training;**
- **five International Medical Graduate positions; and**
- **two positions in specialty dentistry training.**

To achieve this objective, the Public Health Division should work with the Health Strategy Division, the Royal College of Dental Surgeons of Ontario, the Royal College of Physicians and Surgeons, the College of Physicians and Surgeons of Ontario, the Council of Medical Officers of Health and academic institutions.

3.4.2 Student Work Opportunities

Student placements benefit both students and health units. For health units, they are a major opportunity to enhance recruitment, provide staff with mentorship experience and, in some cases, profit from those with advanced training or the most up-to-date academic information. For students, field placements are important means of developing critical competencies, relationships with public health professionals and practical experiences. There is evidence that local field placements increase the likelihood that individuals will stay in the health unit where they trained.

Recommendation #11: All boards of health should support paid student placements, internships, student work opportunities and paid summer positions across all public health disciplines and levels of training.

Dedicated education coordinators within health units could facilitate the identification of candidates for student placements and act as their mentors. Given the role of the Ontario Agency for Health Protection and Promotion in public health training, there is also a potential for collaboration and support between the Agency and health unit education coordinators. The role of the Agency in this area is described in Section 8.4.

The provision of effective coaching and mentoring is critical to the success of student placements and for newly hired workers who may be transitioning from educational training programs. Increasing the recognition and prestige associated with the preceptor and mentor role and modifying workloads to accommodate the time required to support students could help to encourage people to take on this task. Opportunities for developing preceptorship skills should be available locally and provincially.

Local boards of health should allocate resources from cost-shared funds for travel and accommodation subsidies for local student placement programs and internships. Such subsidies are especially important for health units located far from universities or colleges, particularly in rural or northern regions.

In developing student placements, it should be recognized that they need not be limited to the "four walls" of the health unit. To make placements attractive to students, and to encourage rural and remote assignments, they should be flexible and innovative.

Chapter 4

Charting Our Progress: Ensuring Accountability

Our Vision 2010:
Public health performance is now measured at all levels through an integrated performance management system that is grounded in research and best practices. Continuous quality improvement is the driving force. All public health units are now accredited and annual public reporting provides boards of health and citizens with clear information on the health of their communities, what public health is doing and how they do it.

It is essential that the public health system is able to show how it contributes to the health of Ontarians and achieves its health promotion and protection mandate. How can public health best demonstrate that it is taking responsibility for performance and meeting its accountability obligations?

In answering this question, we looked at lessons and best practices from other public health systems, other sectors, and the literature. We also reviewed health unit survey results and submissions by professional organizations. We concluded that existing accountability mechanisms are inadequate and have not kept pace with program developments. They do not provide the tools that health units need to monitor and improve the quality of their service.

The data currently being used to assess performance across the system are neither reliable nor capable of identifying strengths or gaps. They do not provide stakeholders with enough information to assess whether public health is doing its job properly, or for public health to measure its success and make improvements. As a result, current accountability mechanisms and tools cannot be used to support system-wide planning, establish benchmarks, or make comparisons between health units.

4.1 A Performance Management System

We recommend a new approach to accountability: a *performance management* approach. Performance management is the practice of evaluating how an organization is managed and the value it provides to stakeholders. It is grounded in clear *standards* that state what needs to be done, and *measures* that make it possible to evaluate whether or not those standards are being met. A performance management system will enable the public health sector to prove the extent to which it delivers value and achieves success, and to continuously improve the quality of what it is doing.

4.1.1 Continuous Quality Improvement

There was a consensus among stakeholders that continuous quality improvement should be the foundation of an effective performance

management system for public health in Ontario. Continuous quality improvement is a management philosophy that focuses on processes and systems rather than the performance of individuals. It uses objective data to analyze and continually improve those processes and address the needs of both internal and external customers.[4] It links data collection, reporting, monitoring and learning and makes them the cornerstones of an ongoing, quality improvement cycle, as shown in Figure 1. Stakeholders throughout the public health system need to understand and embrace the value of continuous quality improvement.

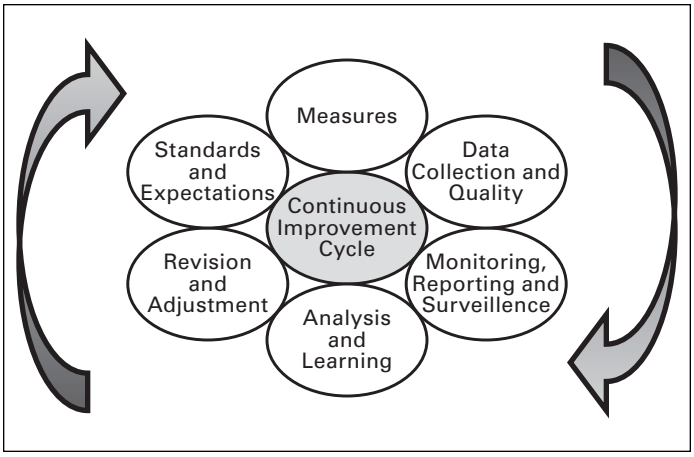

Figure 1: Continuous Quality Improvement

4.1.2 Characteristics of a Performance Management System

To achieve high accountability and quality in public health, Ontario needs a performance management system that is evidence-based, dynamic, integrated and comprehensive. Such a system will make it possible to:

- assess and demonstrate the extent to which Ontario's public health system delivers value to Ontarians and achieves success;
- ensure that Ontario's public health system (both local health units and the provincial government) meets the standards and expectations set out in legislation; and
- promote continuous quality improvement in Ontario's public health system.

To achieve these critical goals, we propose a framework that will impact on the whole public health system:

[4] *Graham NO. Quality in health care: theory, application, and evolution. Gaithersburg, MD: Aspen Publishers; 1995.*

Recommendation #12: The public health system should adopt a new, comprehensive performance management system that links performance standards and measures to a monitoring and reporting system.

To support this framework, we also propose appropriate staffing for its implementation:

Recommendation #13: Every health unit should have a minimum of one quality and performance specialist to lead the implementation of local performance management activities, coordinate accreditation, manage reporting to the province and the public, and create a culture of continuous quality improvement.

Figure 2 illustrates the performance management system envisioned by the CRC. Its components will be described in more detail in the rest of this chapter.

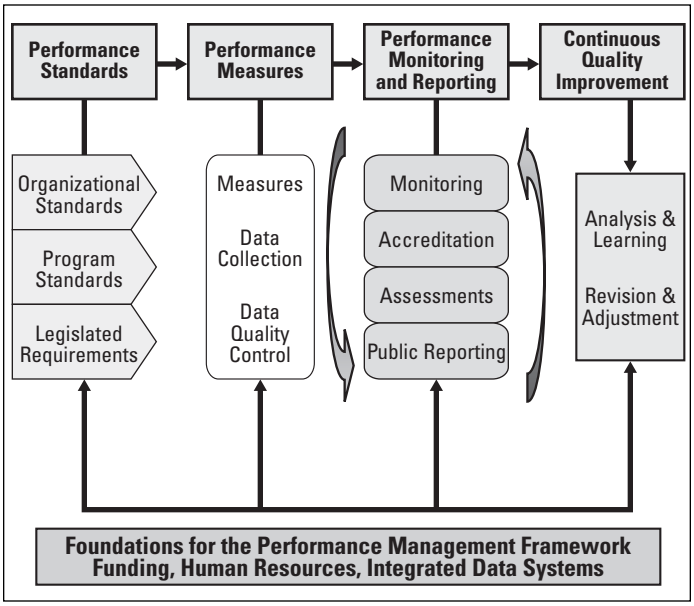

Figure 2: Public Health Performance Management Framework

The performance management system will efficiently capture, report on, and respond to the performance of health units and the overall public health system. To ensure that results are relevant to all parties and to reduce duplicate work for the health units and the province, all system components must be inter-related and integrated. Data entered at one point should be accessible for multiple purposes at different points throughout the system.

Overall, the performance management system should foster reflective practice, incorporate new knowledge and distill lessons that can be used locally and across the public health system. Moreover, it should undergo continuous renewal and revision, in light of new findings generated by public health

research and knowledge exchange. The quality and performance specialist will lead and facilitate quality processes, but all public health workers will be responsible for committing to continuous quality improvement.

The Public Health Division has a key responsibility for monitoring performance, acting on results, ensuring quality and integrating research and best practices into all aspects of the performance management system. It must play a key role in the development and implementation of the proposed system. This stewardship requires a quality or performance management team within the Public Health Division (see Section 8.6). Together, the quality and performance specialists at the Public Health Division and in each local health unit will create a network of public health performance management experts. This network will focus on developing and sustaining Ontario's new public health performance management system – the system that will demonstrate public health's value to its stakeholders.

There may also be a role for the Ontario Agency for Health Protection and Promotion in supporting research and knowledge exchange activities related to each of the framework's components (see Section 7.1.1).

4.2 Performance Standards and Measures

At the heart of every performance management system is a definition of what must be accomplished (i.e., standards that outline what is required to achieve specified results). Currently, *Ontario's Health Protection and Promotion Act* (HPPA) outlines key elements of public health activity and the *Mandatory Health Program and Services Guidelines* (MHPSG) set out program and service direction. The term "guidelines" in the title of this document, however, implies flexibility in whether health units must adhere to them. In addition, the MHPSG were approved in 1997, nearly 10 years ago, and have not been updated to reflect new research or emerging needs.

The MHPSG have focused predominantly on program requirements. We see the need for organizational standards that capture a true portrait of the performance of local health units and the public health system as a whole. Such standards have been repeatedly called for by stakeholders to provide clear direction, strengthen the system and improve accountability. Thus, we propose:

Recommendation #14: Performance standards should be introduced that:

- **replace existing mandatory health program and services guidelines with program standards; and**
- **address the organizational capacity of local boards of health.**

The new organizational standards should include:

- effective human resources management (see Section 3.1.1);
- board of health functioning (see Section 5.1.2);
- financial management (see Section 5.2); and
- research and knowledge exchange (see Section 7.2).

In tandem with the development of public health performance standards, valid, reliable and meaningful performance measures (indicators) should be created. Performance measures are the quantitative and/or qualitative evidence that show whether a standard is being met. Taken collectively they allow us to evaluate how well a system or organization is functioning. Performance measures facilitate benchmarking and comparisons among health units and regions.

4.3 Monitoring and Reporting

Once performance standards and measures are in place, a key factor for performance management is evaluating success in meeting the standards. We recommend four mechanisms for performance monitoring and reporting:

1) ongoing monitoring;
2) mandatory accreditation of health units;
3) provincial assessment and compliance investigations; and
4) public reporting.

In considering performance monitoring and reporting, we tried to strike a balance between the need for more information with the work involved in collecting, reporting and analyzing these data. Wherever possible, we should build on existing reporting and accountability mechanisms and integrate them into the day-to-day operations of health units. We also propose common data systems/software to reduce duplication.

4.3.1 Ongoing Monitoring

The current Mandatory Program Indicator Questionnaire (MPIQ) is an unsatisfactory tool for monitoring purposes and must be replaced. The province has often requested submission of historical data, and analysis and feedback have not been timely. This affects the credibility and usefulness of the results.

A different approach to monitoring is required which can capture information for the local health unit's planning and monitoring cycle (i.e., information of local interest), while simultaneously providing the province with the information it requires. This new approach to monitoring must be consistent with the standards being measured, should occur both in an ongoing fashion (i.e., constant tracking of information and performance) and episodically. Tools are needed to support the different elements of the performance management system and to streamline data entry. Thus, we propose:

Recommendation #15: Common data systems and software should be implemented to capture information and produce reports that can be used at different levels of the public health system.

The system must be capable not only of routine monitoring of data submitted by health units, but of identifying when there should be follow-up to respond to potential problems or issues. Follow-up could take place within the health unit, or be initiated by the board of health or even the province.

There are a number of ways in which follow-up by the Public Health Division could be triggered. These include: failure to meet certain standards as identified through routine monitoring; a particular concern (e.g., investigation of a complaint); or in response to the results of episodic or random monitoring. Follow-up is particularly important in cases where performance expectations are not being satisfied, or the health of Ontarians may be put at risk. In cases of severe performance problems, a Ministry assessment should result (see Section 4.3.3).

4.3.2 Mandatory Accreditation

Accreditation is a widely-accepted practice in many parts of the health care system. This independent, peer-review process is used to demonstrate accountability, build public confidence and enhance visibility. To date, only 40 percent of health units have participated in accreditation. Our scan of practices in other jurisdictions demonstrated that participation in accreditation is a key component of most accountability systems. While health units in some jurisdictions participate voluntarily, other governments such as Québec have legislated mandatory accreditation for health services. Based on these considerations, we propose:

Recommendation #16: Legislation should be amended to mandate accreditation for all public health units and to require public reporting of accreditation status.

In implementing this recommendation, we propose that the Public Health Division and alPHa establish a process for determining the most appropriate accreditation body for Ontario. The Ontario Council for Community Health Accreditation has a long history of accrediting Ontario health units and has recently expanded its accreditation standards to include program areas. There could be advantages, however, in participating in a national system. Therefore we suggest that both the existing and the proposed national accreditation systems should be reviewed.

The selection of the accreditation body for Ontario's health units should reflect analysis of standards' content, accreditation process and cost. The mandated accreditation model should include both organizational standards (governance, management, financial, risk management, human resources) and programmatic standards (public health program and service delivery). The process should be based on peer review, led by an independent third party, and accreditation processes and tools should be regularly updated. The accreditation process and report should promote learning and continuous quality improvement.

4.3.3 Provincial Assessment and Compliance Investigations

Strengthening the triggers for assessment and compliance investigations supports the province's stewardship role and demonstrates its responsibility to hold the public health sector accountable. We recommend:

Recommendation #17: The province should develop a comprehensive and transparent assessment process to be used in response to specific triggers, including performance monitoring and investigation of complaints.

To fulfill this function, the Ministry must have the following in place:

- adequate capacity to conduct assessments;

- clear triggers and mechanisms for assessments, whether complaint-based or based on the results of performance monitoring;

- clear processes and follow-up mechanisms for acting on assessment results and resolving identified issues; and

- a transparent process for dealing with complaints, whether originating from the public, health unit staff or management, or boards of health.

Through the assessment process the Ministry should:

- ascertain whether the board of health is providing, or ensuring the provision of, health programs and services;

- assess the quality of the management or administration of the affairs of the board of health as set out in the governance and management standards; and

- determine whether the board of health is complying in all other respects with the HPPA and its regulations.

In the assessment process, the Ministry needs access to all available sources of information. This includes but is not limited to: program and service monitoring and evaluation data reports; organizational performance related to all public health standards (including both program and organizational standards); and accreditation reports and awards.

4.3.4 Public Reporting

Our fourth strategy for performance management monitoring focuses on reporting to the public. Public reporting is an important aspect of ensuring greater accountability and transparency for public health.

Currently, there is wide variation across the province in how health units report to the public. Meanwhile, "score cards" have become increasingly popular. A 2004 publication by the Institute for Clinical Evaluative Sciences noted that score cards of health care performance can be helpful accountability instruments and that they are useful for facilitating improvements in service quality and effectiveness.[5]

[5] Woodward, G, Manuel D, Goel V. *Developing a balanced scorecard for public health.* Institute for Clinical Evaluative Sciences: Toronto, Ont.: 2004. [online.] Accessed January 14, 2006 from: http://www.ices.on.ca/file/Scorecard_report_final.pdf

Public health reporting at the provincial level has already been strengthened by the requirement for an annual report to the Legislature by the Chief Medical Officer of Health. This legislated duty to report should be extended to the local level and models for such reports should be investigated. Thus, we propose:

Recommendation #18: Public health units should be required to produce an annual report for their funders and the general public, with both health status and performance indicators, to ensure transparency and accountability.

Local annual reports may be based on a provincial template and should incorporate local performance results and health status indicators against provincial standards. The concept of a balanced score card was attractive to many, and should be strongly considered for adoption at the provincial and local level. For public health, a balanced score card could include the following dimensions: health, social, cultural and economic determinants; health status, resources and services; community engagement; and integration and responsiveness.

Chapter 5

Foundations for Success: Governance and Funding

Our Vision 2010:

Enhanced governance has led to stronger, more effective public health organizations and improved ties with local communities. The new system builds on strong relationships with local partners and municipal governments. Health unit funding is based upon a new, more equitable and responsive funding approach ensuring greater equity in public health service delivery. There is now more consistency across the province in the ability of health units to meet local and regional health needs quickly and efficiently, including times of crisis.

Public health is an increasingly complex responsibility, with impacts that often cross local, provincial or even national boundaries. Municipalities in Ontario have been struggling to meet the growing public health financial obligations imposed on them by provincial mandates from their tax bases. The financial burden associated with emerging public health issues has been significant and has contributed to variance in health unit capacity in different parts of the province.

Operation Health Protection has already identified a planned provincial uploading of public health funding to 75 percent by 2007. With the province taking a greater share of the financial burden and accountability, we need to address the changes that would ensure a strong, effective and coordinated public health system. In this chapter, we explore two key components: improved governance and more stable and predictable funding.

Governance bodies are responsible for the general oversight of the direction of programs and services. Stronger and more consistent governance is the foundation of a revitalized public health system. Our goal was to design a system that builds on the strong links with local partners and municipal governments and strengthens local governance, while at the same time ensuring greater provincial responsibility for funding and oversight.

Funding allocation and monitoring are key to ensuring that expectations are appropriately supported and met. The province should ensure optimization of resources, appropriate resource allocation from a system perspective and better alignment of funding and program requirements across the province. In this way, the province can ensure better accountability in our commitment to protect the health of the public *consistently* across Ontario.

The new approach to funding public health services that we are proposing requires a process with clear accountability. It should support full compliance with legislated requirements and provide surge capacity in the face of local outbreaks and unexpected health emergencies. The allocation of funding should be evidence and needs-based and more predictable and explainable.

It should support more equitable access to programs and services and a reduction of inequities in health outcomes.

5.1 Governance by Autonomous Boards

Currently, the 36 boards of health in Ontario are divided among three distinct governance structures. Twenty-two are autonomous and operate separately from the administrative structure of their municipalities, with their own policies and procedures. Four have been integrated into municipal administrative structures and although autonomous and focused primarily on public health, operate under the policies and procedures of their municipalities. In the 10 health units with a regional government, a single tier city or a restructured county, the municipal council has the mandate and authority of a board of health, and public health services may be combined with other services or placed in other departments.

Our review focused on the governance elements that are necessary to ensure a strong and resilient province-wide system that can react quickly and effectively to the challenges of the 21st century. We believe that all boards of health should be:

- **Local:** A local board of health ensures community-based decision-making and responsiveness to diverse community characteristics. This supports tailoring of programs to local needs. When health units are closer to the community level it is easier to get community input on health issues and maintain relationships with other locally-governed bodies and agencies that are primary partners in the delivery of services (e.g., school boards).

- **Autonomous:** An autonomous board allows for the recruitment of members with specific skills and interest in public health, to add to the perspective brought by municipal councillors. This model allows for continuity of membership and ongoing development of the board. One can ensure staggered recruitment, and protect against complete turnover of board membership following a municipal election. With guidance from the province about the right mix of skills, this model allows for a purposeful and planned board composition. An autonomous board also ensures the independence of the MOH and direct MOH reporting to the board without having to work through other bureaucratic layers.

- **Primary focus on public health:** A board with a primary focus on public health ensures that appropriate attention is paid to its mandate. The very nature of the prevention work of public health often means that outcomes are long-term or invisible except during a crisis. Public health can be easily overlooked or marginalized, possibly resulting in the erosion of services. A board focused solely on public health will ensure this does not happen.

Recommendation #19: Public health units should be governed by autonomous, locally-based boards of health. These boards should focus primarily on the delivery of public health programs and services.

A significant proportion of the population of the province is currently served by boards of health modeled differently from the one we are proposing. Our recommendation will allow the province to take a consistent system-wide approach to focus purposefully on meeting the public health mandate across the province. With continued municipal representation, boards can build on existing strengths and opportunities for local integration, but add a skill mix to enhance their capacity.

The legal responsibilities and expectations placed on boards of health are significant. Boards of health are responsible and accountable for overseeing all facets of programs and services required by health units, including budget oversight and the hiring, work priorities and performance management of health unit leadership. Skills-based boards of health with specialized and devoted focus on public health will be better positioned to provide sound risk management and attention to liability issues.

In addition, through this focus on establishing a consistent, province-wide public health system, the provincial government will ensure municipalities are no longer liable for public health. The province recognizes that the liability for local public health matters will rest with the boards of health, rather than the municipalities. The recent Ontario Superior Court decision with respect to the Toronto Board of Health reflects this direction.[6]

5.1.1 Health Unit Integration

One of the strengths of local governance is that it allows the system to adapt to the unique needs and circumstances in different parts of the province. Where local health units are currently integrated into the municipal structure, we envision that boards of health and municipalities would jointly agree on the degree of integration they wish to enjoy in the future. Thus, we propose:

[6] *Williams v. Canada (AG), (2005)*, 76 O.R. (3d) 763.

Recommendation #20: Where local health units are currently integrated into the municipal structure, the boards of health and municipalities should jointly agree on their degree of future integration.

Some newly autonomous boards of health may want their health units to remain heavily integrated with the municipality, whereas others may wish less or even no integration. For example, in some areas, staff might continue as municipal employees. In other cases, health units may be separate and may or may not contract to purchase specific supportive services from the municipalities. The Toronto Board of Health is a current example of an autonomous governance board that is intimately integrated into a municipal structure.

Whatever the degree of integration, health unit resources should not be transferred to other areas of the organization outside of public health. Furthermore, public health staff and programs must be accountable via the health unit leadership to the board of health. Models of integration that propose accountability through any route other than the health unit leadership and the board of health would not be acceptable. The MOH should report directly to the board of health and have the independence to be fully accountable for fulfilling the legislative requirements of the HPPA and its regulations.

In order to ensure an orderly implementation of this recommendation, the MOHLTC would need to develop a process to guide transition plan development and implementation. Where joint agreement between the municipality and board of health cannot be reached, the province should also develop a mechanism for dispute resolution.

5.1.2 Optimizing Boards of Health

Although the HPPA sets out some general requirements for board composition, there is wide variation across the province in how board members are recruited and supported. The appointment process for provincial appointees has not been timely. Health units with vast geographic areas often struggle to ensure geographic representation. In many cases, municipal councillors make up most or all of the members, so board composition may be dependent upon election results or municipal committee appointment processes. In some areas, board vacancies, turnover and instability are concerns.

Our goal is to ensure that boards have an adequate number of members to function effectively, together with sufficient flexibility to meet local circumstances. Most of all, we want to ensure that there is strong, skill-based local representation. A skills-based board will ensure stronger local representation than the current approach of solely geographic representation.

The change we are proposing in the composition of boards will have the effect of reducing the number of municipal councillors sitting on boards of health across the province. The reduced municipal accountability, especially in those jurisdictions where the council currently is the board of health, will be offset by the increased accountability being assumed by the province. The province will assume responsibility for oversight of the budget, taking a system perspective as the new major funder of public health.

Our deliberations led us to believe that a board consisting of half municipal and half citizen representatives would be appropriate. This allows municipalities to retain accountability for the 25 percent of the budget they fund, while ensuring there are enough citizen representatives to bring an appropriate mix of skills to the board. This "half and half" approach underscores the equal importance of both types of representatives on the board. Thus, we propose:

Recommendation #21: Boards of health should consist of eight to fourteen members, with equal balance between municipal appointees and local citizen representatives appointed by the board under authority delegated from the province.

The mix and numbers of board members for each board would be determined and fixed by the province by regulation, based on recommendations from current boards of health and in collaboration with the municipalities. We recommend that where there is more than one municipality involved, the board of health and the affected municipalities work out the details of representation for the municipal half of the board. Where the board and municipalities are unable to reach agreement, the municipal composition should reflect the population size of each municipality. We recommend that the terms of municipal and community representatives be staggered to ensure sufficient overlap of members.

Community representatives should be appointed through a selection process and nominating committee set up by the boards using provincial guidelines. In the past, the provincial appointment system has not always produced optimal results at the local level. To ensure that local appointments benefit from local knowledge and are timely, the authority to nominate local citizen representatives should be delegated to the board. The province should also clarify the conditions under which it could revoke this authority.

In order to facilitate the transitioning of health units from their present governance structure to one model of governance, a number of "enablers" must be put into place. These include:

- changes to the legislative framework;

- the development of a series of provincial standards in the area of board governance, including standards and measures for the nomination, recruitment and local appointment of members of the boards of health, orientation, training, self-assessment and requirements for strategic planning;

- tools to help boards meet the new board standards. For example, a provincial template for codes of conduct and confidentiality agreements could ensure greater province-wide consistency. Guidance should be provided by the province on the issue of compensation of board members;

- guidelines and tools for board recruitment. We believe the province should develop consistent, province-wide eligibility criteria that boards can use in making their decisions. As we believe boards should be skills-based, we urge the province to seek advice from such agencies as alPHa on the appropriate mix of skills required for public health governance. Tools could include such things as an information package, role description and a sample application form to support the establishment of nominating committees and the development of transparent application and selection processes that provide due diligence to the appointment process;

- improved provincial audit and board support capacity, including a tool whereby boards can regularly evaluate their governance process and effectiveness; and

- provincial support for training and continuing development of board of health chairs and members. An important part of this training is orientation of board members. Orientation sessions should be mandatory in the first year of a member's appointment, although the manner in which they are delivered can be dictated by local conditions and needs. We suggest that the province collaborate with alPHa in developing appropriate orientation tools and processes. The province may also explore other means by which it, the Public Health Division and the boards of health can collaborate in orientation and ongoing training (e.g., yearly provincially-sponsored orientation sessions, written or video information packages, yearly board chair and MOH sessions, or ongoing education in partnership with alPHa).

5.2 A Strong Financial Foundation

Before 1998 the provincial share of public health funding was 75 percent for most health units (40 percent for Toronto), with 100 percent funding for some selected programs (e.g., tobacco and sexual health). In 1998 the responsibility for funding public health programs was transferred entirely to municipalities, with the exception of a new program (Healthy Babies Healthy Children) funded 100 percent provincially. In 1999, the province committed to fund 50 percent of public health programs. The proportion of provincial funding has been increased under *Operation Health Protection* and will reach 75 percent by January 2007. In addition, the province pays 100 percent of the funds for several new and targeted initiatives, which brings the overall provincial share of funding to over 80 percent.

It is important and fitting that the province is taking increased responsibility for public health funding, and that the source of this funding is shifting from the property tax base of municipalities to the more stable and equitable tax base of the province. We believe that all public health programs funded by the provincial government need to be adequately resourced, and that province-wide equity will be enhanced by continuing to relieve the municipalities of this burden. At the same time, we believe that there must be flexibility in funding to reflect differences between communities.

We also believe accountability must be appropriately aligned with funding. There must be clear accountability for how public health funds and resources are used. When public health funding was downloaded to the municipalities, accountability was shifted to local boards of health, and planning, budgeting and accountability occurred primarily at the local level with municipal involvement. Subsequent uploading, however, has not been accompanied by any modification of these accountability mechanisms. Although local boards of health may address their performance and fiduciary responsibility, at the provincial level there has been limited information to explain public health expenditures or to show their impact on population health.

From the provincial perspective, the current open-ended funding system lacks appropriate accountability. We need to be able to link public health spending to accomplishments in meeting public health standards and achieving outcomes at both the provincial and local level.

We believe a more systematic, province-wide oversight of public health funding is needed to ensure equitable access to programs and services, thus reducing inequities in health outcomes, full compliance with legislated requirements, and surge capacity for disease outbreaks and unexpected health emergencies. In our changing environment, the current patchwork of capacities across the province is unacceptable. To ensure that all public health units have a strong and secure financial foundation, we propose a revised funding process that will:

- provide more stable and predictable funding, along with clear fiscal accountability mechanisms;
- increase equitable access to services and health outcomes across the province;
- provide capacity to meet unexpected surges in demand due to local episodic, unanticipated health needs, such as outbreaks, emergencies and health hazards; and
- ensure sufficient funding for compliance with the HPPA and other relevant legislation, as well as the MHPSG.

5.2.1 Cost-Sharing

What proportion of public health funding should be provided by the province, as opposed to the municipalities? Our consultations on the idea of 100 percent provincial funding for public health failed to produce a consensus among stakeholders. Although some felt that 100 percent provincial funding would strengthen a provide-wide system, others believed that severing the link to local governments could damage the strong relationships between health units and their communities. Therefore, we concluded that the issue of transferring the full cost of public health to the province should most appropriately be part of a larger discussion between the province and municipalities about the optimal alignment of costs, responsibilities and mandates.

At the same time, we believe that to ensure equity and a system-wide approach, the province should take leadership on establishing the funding envelope for public health. To further this goal, we propose:

Recommendation #22: Public health units should be globally funded, with budgets approved by the province. For programs that are currently cost-shared, the funding formula should be 75 percent provincial and 25 percent municipal, consistent with the last phase of the planned upload announced in *Operation Health Protection*. The province should guarantee continued full funding of the current 100 percent-funded programs.

We are not specifically recommending a further increase in the provincial funding share for public health at this time, although we believe it should remain a future option. We also believe that municipalities should have the discretionary power to provide additional funds for local initiatives outside of the MOHLTC-approved budget, as negotiated between the board of health and municipality at either's request.

Our findings support having the province take strong leadership by establishing a global funding envelope for cost-shared programs and clear boundaries on annual increases. This shift will eliminate the current experience of uncapped public health budgets causing significant budget pressure for local councils and the province, and will support multi-year local and provincial forecasting. Local boards of health will still be responsible for tailoring programs within the allocated envelope to best meet local needs, and for identifying emerging priorities and pressures at the local level and communicating them to the province via a multi-year budget planning process.

The model we are proposing will increase predictability and stability of funding, support two-way communication between local boards of health and the province throughout the budget cycles, and strike the right balance between local autonomy and provincial control. In addition, through increased provincial control over funding, the new system will allow for greater provincial oversight and province-wide equity in the allocation of new funds.

5.2.2 Funding Allocations

In the current system, local public health budgets are determined and approved at the local level. There is a risk of inequity in this system, as funding may be related to local willingness or ability to pay for services (as opposed to public health need) or the ability of health units to secure other resources, such as grants. Although it is generally agreed that per capita funding is not an appropriate or valid mechanism for assessing equity of funding, the report of the Auditor General of Ontario was unable to find an explanation for the wide variation in current health unit funding.[7]

[7] Office of the Auditor General of Ontario. *1997 annual report. chapter 3: reports on value for money (VFM) audits: section 3.10: public health activity.* Toronto, Ont: Office of the Auditor General of Ontario; 1997. [online]. Accessed January 25, 2006 from: http://www.auditor.on.ca/en/reports_en/en97/310en97.pdf

Differences in service costs and health needs across the province justify variances in funding and would modify the outcome of a simple per capita allocation of funds. The challenge has been to identify appropriate indicators of need and service demands that are valid, easy to measure, and have readily accessible data sources. It can also be argued that because many public health programs are targeted at populations, as opposed to individuals, quantifying the relationship between indicators and the need for funding is a greater challenge in public health than in other parts of the health care system.

We commissioned the Centre for Health Economics and Policy Analysis (CHEPA) at McMaster University to research the relationship between public health budgets in Ontario and indicators of need.[8] This study is a first step toward developing a new funding approach for public health. In its research, CHEPA found that needs indicators are highly correlated with one another, and as a group explained about 50 to 70 percent of the variance in public health funding over the three-year study period. However, the association declined over time. In addition, there were a number of currently unmeasured and fixed aspects associated with variation in health unit funding. CHEPA's work highlights some of the challenges faced in developing funding formulae for public health.

Further work is needed to assess what is feasible given the data available in Ontario. Thus, to achieve future greater system equity in funding, we propose:

Recommendation #23: The Ministry should establish a collaborative process with municipalities, boards of health, public health professionals and academic partners to continue to refine the budgetary allocation mechanism, to achieve greater equity in public health system funding over time.

In other parts of the health care system, it has taken a number of years to develop funding allocation methods. We believe CHEPA should continue to work on assessing what is feasible given the data available in Ontario, and what role a funding formula could play within the provincial funding system. The province should build upon and further this work. The evolution of a funding allocation method for public health could be an important and valuable component of the work of the centralized, dedicated support unit we envision within the Public Health Division (see Section 8.6). This work would help to build a system of greater province-wide funding equity.

[8] Hurley J, Rakita O. *The relationship between public health unit budgets in Ontario and indicators of need for public health: report to the Public Health Funding Sub-Committee of the Capacity Review Committee.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2006.

5.2.3 A Revised Budget Process

While the shift to 75 percent funding from the province may alleviate some of the fiscal pressure on municipalities, it will not resolve the basic structural problems such as budget timing (i.e., the different provincial and municipal fiscal years) and the lack of multi-year funding to support long-term planning. In our interim report, we described the timelines associated with the budget approval process for municipal and provincial funds, and the problems associated with them (please refer to Figure 2 in the CRC's Interim Report for an overview of the municipal and provincial timelines). As we reported, many feel the current approach to budget planning and approval does not provide adequate, stable or predictable funding to fulfill health units' legal and program expectations. The issue is not just the total amount of funding for public health, but how that funding is allocated within and across health units.

Recently, the MOHLTC moved to multi-year funding for hospitals to address financial concerns similar to those occurring in public health, such as funding instability and the inability to do long-term planning. We believe a similar model would be beneficial for public health.

Recommendation #24: The Ministry should establish a budget process that allows for the approval of annual budgets within three-year rolling forecasts to ensure that boards of health and municipalities operate in a predictable financial environment.

Elements of this new budgeting process would include the creation of a reporting template by the Ministry that would allow each health unit to specify budget assumptions and unknowns (e.g., potential wage settlements) as part of their budget submission to the province. Program expectations would be tendered by the health units in the fall, prior to the Ministry fiscal year, thereby assisting the Ministry in its results-based planning and budgeting processes. Approval or grant letters for annual funding would be issued each year by the Ministry by July 1st at the latest.

Annual budget submissions would be accompanied with three-year rolling forecasts based on current and local health needs assessment. In this way, budgeting would become a two-way process, with three-year planning and forecasting by the boards of health and annual approvals with three-year forecasts by the Ministry. A stable three-year funding forecast

would assist the health units and municipalities in long-term budget planning. Multi-year planning would provide better predictability and stability of funding. The practice of approving public health budgets earlier in the municipal budget year would also reduce exposing the municipality to the risk of unfunded programs.

Mechanisms to streamline the budgeting process should also be developed. They may include such things as incentives for health units to submit their budget requests on time in order to receive prioritized consideration for future enhancements. As well, performance targets should be established for the province to meet deadlines for its own components of the budgeting process.

5.2.4 Capital Budgets

It is good business practice to develop long-term capital budgets for the "bricks and mortar" that are essential for health units. In the past, this sort of forecasting was not possible for provincial funds. We propose the following change:

Recommendation #25: Budget forecasting should include rolling ten-year forecasts for capital costs. The province should specify clear rules and criteria for how capital funding can be accessed through a special public health stream in the provincial health capital envelope.

5.2.5 Operating Reserves

Health units frequently experience unexpected expenses (e.g., responding to a disease outbreak, replacing or repairing capital equipment). In business, hospitals and municipal governments, operating reserves are a standard and common means of preparing for unexpected costs. To date, however, health units have not had the option of creating or maintaining operating reserves from provincial dollars. Enabling health units to establish such operating reserves would better equip them to address unforeseen operating cost pressures and surge requirements, and reduce one-time requests for provincial funding. Therefore, we propose:

Recommendation #26: The Ministry of Health and Long-Term Care should allow health units to establish cost-shared operating reserves of up to three percent of their annual operating budget in order to address unforeseen operating cost pressures and surge requirements.

Clear criteria for eligible expenses should be developed by the province to govern its share of the funding.

5.2.6 Streamlining Funding Requests

Currently, health unit funding comes from multiple provincial sources, which creates multiple reporting requirements and complicates program planning. To streamline the process and enhance planning and budgeting, we propose:

Recommendation #27: All provincial funding requests for public health programs should be channeled through one Ministry and via one point within the Ministry to ensure the simplification of budget reporting processes and coordination of decision-making.

This would include programs currently funded through Ministry of Children and Youth Services (MCYS) and programs that may be funded in the future through the Ministry of Health Promotion, as well as programs that are 100 percent MOHLTC-funded that currently require multiple reporting (e.g., West Nile Virus).

It should be noted that boards of health currently receive a small proportion of their total funding from other sources. For example, there are 100 percent municipal programs, grants from a variety of sources, and project-based funds. Boards of health should continue to receive funds from other sources as need and opportunity arise.

5.2.7 Supporting Local Information Technology Development

Information technology (IT) is essential for the delivery of public health programs and a key enabler for budgeting systems and performance management. Innovation at the local level in information technology should be complementary to provincial initiatives and funded on a cost-shared basis by the province. Currently, local initiatives are patchwork and may or may not be shared with other health units or cost-shared with the province. The Ministry has specific information systems (e.g., an IT financial system) that are not shared with the health units. In addition, some health unit requirements (e.g., clinic scheduling, paperless charting) are unique to the local level yet important components of the overall system.

Recommendation #28: The province should prioritize cost-shared funding of local information technology system development projects that have broader application across the public health system.

Local IT solutions should be developed in collaboration with the province. Successful local pilot projects may be implemented in other health units to enhance the capacity of

the whole system. Requests or proposals could be referred to the Public Health e-Health Council as a venue for collaboration. This new process for funding approval will encourage innovation regarding new IT projects, and the performance management processes they support within a provincial framework. The new process will ensure greater transparency of process and equity of access across health units.

Chapter 6

Positioning for Achievement: Building Stronger Health Units

Our Vision 2010:

Whether you live in downtown Toronto or the remote north, all Ontarians are served by effective, highly professional public health units that have the capacity required for optimal service and program delivery. Systems are in place for after-hours, on-call coverage for health units, and mutual aid agreements have been established. The changes have given health unit staff, boards of health and the public a strong sense of confidence in the quality of the province-wide public health system.

Strong health units begin with strong governance but they also need a solid structure and staff complement. Both a sufficient number of staff and the right mix of skills and competencies are needed. These concepts relate to "critical mass", which in our research has been defined as "the minimum amount of resources, expertise and capacity of PHUs (public health units) required to fulfill expectations for performance."[9]

Health units vary considerably in terms of the size of the populations they serve, the geographic region they cover, their staff complement, and the skill sets staff possess. Some small health units have done excellent and innovative work despite the lack of optimal resources. However, small health units sometimes find it difficult to recruit and retain skilled staff. For example, in our research, we found that all of the Ontario health units with medical officer of health (MOH) vacancies for five or more of the past 10 years served populations of less than 135,000.

Small health units generally lack sufficient team size and bench strength to manage smoothly during vacancies or emergencies. For surge capacity they may have to draw extensively from other departments or neighbouring health units, affecting overall productivity. Many key positions in smaller health units have sole incumbents, leaving the health unit vulnerable and without backup during vacation, illness or recruitment lag periods. It is harder for small health units to afford or justify the specialized staff needed to deal with expanding and increasingly complex public health programs and issues, including positions needed for organizational support.

In the Walker report on SARS, concerns about critical mass and ensuring sufficient surge capacity for public health crises led to the recommendation to reconfigure and merge smaller health units.[10] In assessing critical mass,

[9] Moloughney B. *Defining "critical mass" for Ontario public health units.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2005.

[10] Expert Panel on SARS and Infectious Disease Control (Ont.), Walker D. *For the public's health: a plan of action: final report of the Ontario Expert Panel on SARS and Infectious Disease Control.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2004. [online]. Accessed February 12, 2006 from: http://www.health.gov.on.ca/english/public/pub/ministry_reports/walker04/walker04_mn.html

we looked at core public health functions required to meet the provincial mandate, local needs and surge needs. We reviewed comparative studies of the organization, structure and role of public health in other Canadian jurisdictions. In the process, we identified certain basic skill sets needed in every health unit and noted that sharing of certain skill sets can stretch services unacceptably thin (e.g., epidemiologist, public health dentist, MOH). In this chapter, we present the results of our research on, and deliberation about, this issue.

6.1 Reconfiguration

Why reconfigure? A reconfigured public health system, combined with strong leadership, will strengthen and enhance service delivery both locally and across the province. It will improve the system's overall management, capacity, coordination and operational depth by reducing duplication and increasing the provision of more specialized skills and services within each health unit. Reconfiguration will improve the ability of health units to respond to critical needs and emergencies and ensure greater province-wide responsiveness.

We believe carefully designed reconfiguration will increase the overall quality of public health in Ontario. The short-term costs must be balanced against long-term benefits of enhanced program and service delivery, increased surge capacity and more equitable access to quality service.

6.1.1 Consolidation of Health Units

In making our recommendations for reconfiguration, we looked first and foremost at health unit critical mass. Other important considerations were health unit geography and key relationships. To facilitate planning and coordination within the health sector, we sought, wherever possible, to move towards alignment with LHIN boundaries (see Section 8.2 for more detailed discussion of LHIN relationships). However, we recognized that relationships with municipalities, school boards and other community agencies are equally relevant for health units. Alignments with LHINs that disrupted such community relationships would not serve public health well.

Recommendation #29: The amalgamation of the following health units should be implemented for the purpose of achieving critical mass and strengthening public health:

- **Chatham-Kent Health Unit, Lambton Health Unit and Windsor-Essex County Health Unit;**
- **Grey Bruce Health Unit, Huron County Health Unit and Perth District Health Unit;**
- **Elgin-St. Thomas Health Unit, Middlesex-London Health Unit and Oxford County Board of Health;**
- **Brant County Health Unit and Haldimand-Norfolk Health Unit;**
- **Haliburton, Kawartha, Pine Ridge District Health Unit and Peterborough County-City Health Unit;**
- **Porcupine Health Unit and Timiskaming Health Unit;**
- **Hastings and Prince Edward Counties Health Unit, Kingston, Frontenac and Lennox and Addington Health Unit, and the Leeds and Grenville components of the Leeds, Grenville and Lanark District Health Unit; and**
- **Renfrew County and District Health Unit and the Lanark component of the Leeds, Grenville and Lanark District Health Unit.**

These reconfigurations should be achieved as quickly as possible. They will reduce the total number of health units in Ontario from 36 to 25. Reconfigured health units will have improved operational depth and should be in a better position to recruit and retain skilled staff. Reconfiguration will also help to reduce the number of vacancies currently plaguing many of the small health units (e.g., MOHs, epidemiologists, public health dentists, public health nurses and inspectors).

Reconfiguration is not a cost-saving exercise. Closing branch offices or reducing staff complements is not intended. Rather, the goal is to increase the amount and quality of service. Local service planning and delivery should remain a priority for the reconfigured boards of health.

6.1.2 Support for Northern Health Units

The reconfiguration plan recommended above does not adequately address the critical mass issues faced by some northern health units. Consolidations among these units would result in huge geographic challenges that in our opinion might outweigh the benefits. Therefore we believe that different mechanisms should be sought to strengthen and achieve critical mass in northern health units.

Recommendation #30: The province should work with northern health units to review and if necessary, increase the unorganized territory grants and implement any additional strategies required to achieve sufficient critical capacity.

6.2 Managing the Change Process

To achieve maximum benefit from reconfiguration, best practices for change management must be utilized. Change needs to be well planned and well managed. Thus, short-term investment is needed to facilitate the reconfiguration process.

Recommendation #31: The province should provide 100 percent funding of approved one-time reconfiguration costs for health unit consolidations.

Such costs may include the cost of change management consultation, IT costs, union negotiations and other items. The implementation plan should take into account both immediate transition costs and those that may occur later in the reconfiguration process. Costs must be approved by the province as part of the implementation plan.

To facilitate transitioning health units to the new model and systems we envision, the following "enablers" are required:

- changes to legislative framework;
- involvement of existing boards and municipalities;
- effective communication with internal and external community stakeholders;
- provision of a provincially-supported transition team to assist local transition teams (e.g., to provide additional expertise in areas such as human resources, change management, restructuring of services, labour relations, compensation, recruitment, IT, communications and finance);
- strategies to encourage involvement and input of staff in planning for and adjusting to these changes; and
- strong and positive leadership from the management teams.

6.3 Health Unit Leadership

We believe the public health system requires strong and effective leadership and governance. In Chapter 5, we identified governance strategies to promote these qualities. But we also believe that strong and effective leadership within health units is essential.

6.3.1 The Role of the Chief Executive Officer

A strong, visionary chief executive officer (CEO) at the local level is an essential prerequisite for an effective public health system in Ontario. Our research suggested that the focus on the chief executive officer role should be much more than a discussion of financial and budgetary authority. Competent CEOs require a combination of organizational leadership and management and external leadership skills.

Prior to 1998, the *Health Protection and Promotion Act* (HPPA) was explicit that the MOH serve as the CEO of the board of health. In concert with the downloading of public health service costs to municipalities, this section was amended. Under the amended section, the MOH was responsible to the board for the management of public health programs and for providing direction to staff whose duties relate to the delivery of public health programs. In a few health units this has given rise to senior leadership models that include a full-time executive officer with a full- or part-time MOH working together in a matrix or shared-leadership model.

We agreed that MOHs should be able to serve as CEOs of local health units. However, we were unable to reach consensus on whether the role of CEO should be assumed by non-MOHs. The complexity of this issue was evident in our extensive deliberations, which revealed a number of potential advantages and challenges to the model of non-MOHs serving as CEOs.

Factors supporting the non-MOH as CEO option include:

- extensive human resource management literature indicating that the requisite competencies for an effective CEO are not related to discipline;
- data indicating that many recent community medicine graduates do not aspire to the management and administrative roles required of the CEO position;
- a current shortage of MOHs, which may be exacerbated by new employment opportunities at the federal and provincial levels including the Public Health Agency of Canada and the Ontario Agency for Health Protection and Promotion; and
- some MOHs are not explicitly trained to assume the role of CEO, while others are unwilling to serve as CEO.

Conversely, potential challenges to non-MOHs serving as CEOs include:

- the risk of marginalizing the role of a non-CEO MOH;

- potential interference with the MOH's ability to report directly to a Board;

- the possibility of unclear reporting roles and relationships between MOHs and CEOs, which could lead to conflict; and

- the lack of alignment between legislative responsibility and executive authority.

We acknowledge that the current practice of mixed leadership models is a working reality in some regions of the province. Given the potential challenges arising from these models, we offer the following suggestions to secure the independence of the MOH for certain key duties and clarify administrative responsibilities for the CEO:

- the MOH must report directly to the board of health;

- the MOH must be part of the senior management team;

- the MOH must be employed on a full-time basis;

- the CEO cannot intervene in the MOH's ability to report directly to the board of health and the general public; and

- the competencies of all health unit CEOs must include a strong background in public health.

6.3.2 The Role of the Medical Officer of Health

The MOH plays a vital and dual role in Ontario's public health system. He/she is entrusted with statutory responsibilities to guard and protect the community's health. In some circumstances, this can include the application of broad and coercive legal power. As with other senior managers, MOHs must combine public health expertise with a variety of skills such as communications, advocacy, collaboration and public policy.

In most Ontario health units, the MOH also has executive responsibilities for the overall management of the health unit. Most MOHs are strong, competent, visionary leaders and serve their communities well as chief executive officers. Other models have also evolved, primarily in health units without a full-time MOH. Whatever the model, the role of the MOH is not exercised in isolation. It requires expert program and administrative leadership within health unit management teams and it requires full and direct access to the skills that support modern public health service delivery.

The Ontario public health system has been designed around the fundamental reporting relationship of the MOH to the board of health. Section 67(1) of the HPPA requires that the MOH "report directly to the board of health on issues related to public health concerns and to public health programs and services".[11]

Recommendation #32: The medical officer of health should report directly to the board of health as specified in the *Health Protection and Promotion Act*.

We endorse the comment by Justice Campbell in his Second Interim Report on SARS that

> … medical officers of health must have both the duty and the power to speak out publicly about local public health concerns. These include the power to bring to the attention of the public a local board's failure or refusal to comply with its obligations under the Act. The local medical officer of health must be able to do so without fear of reprisal, dismissal, or other adverse employment consequences.[12]

In recent years, the MOH reporting relationship has been compromised in two different ways. In some regions of the province where board responsibilities are integrated within a municipal structure, the MOH is positioned within a municipal hierarchy. As such, the MOH may be prevented from reporting directly to the board of health. We believe that our governance recommendations have addressed this situation.

The second situation is where boards of health have not hired a full-time MOH, and have replaced this role with a part-time acting MOH who may lack the prerequisite training. We believe this situation has marginalized the role of the MOH in these environments, and has resulted in situations where public health issues may have been inadequately addressed. We believe that our reconfiguration and governance recommendations have addressed this situation in part.

There have been substantial changes in the scope and volume of work for MOHs in the past decade, with many additional

[11] *Health Protection and Promotion Act.* R.S.O. 1990, c. H.7, s. 4. [online]. Accessed September 7, 2005 from: http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/90h07_e.htm

[12] Ontario. SARS Commission, Campbell A. *SARS Commission second interim report: SARS and public health legislation.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2005. [online]. Accessed April 20, 2005 from: http://www.health.gov.on.ca/english/public/pub/ministry_reports/campbell05/campbell05.pdf

demands including new crisis situations. Ontario currently has proportionately fewer medical officers on a per-capita basis than all other provinces. We believe that each health unit requires one or more associate medical officer(s) of health.[13] Thus we propose:

Recommendation #33: Every health unit should have a full-time medical officer of health and one or more associate medical officer(s) of health.

We recognize a need for greater clarity related to the appointment of acting MOHs. Boards of health require a mechanism to deal with temporary MOH vacancies in situations where there are no AMOHs employed by that board. This mechanism should be appropriately informed by MOHLTC policy, and by the College of Physicians and Surgeons of Ontario's policy related to scope of practice. This policy defines the College's expectations of physicians who wish to change the scope of their clinical practice to an area of medicine in which they do not have appropriate training or recent experience.

Recommendation #34: The Ministry of Health and Long-Term Care should work with the College of Physicians and Surgeons of Ontario to interpret and apply its policy #13-00 "Requirements When Changing Scope of Practice" to acting medical officer of health appointments.

6.3.3 Support Functions

As described in the preceding section, all health units must be able to effectively discharge their responsibilities. Our research has identified substantial variation in the availability of core functions across health units. Thus, we propose:

Recommendation #35: Every health unit should have:

- **adequate administrative support for the health unit's business functions; and**
- **adequate programmatic support including epidemiologists, data analysts, communications specialists, volunteer co-ordinators, research officers, and access to libraries and professional development opportunities.**

[13] Canada. National Advisory Committee on SARS and Public Health, Naylor D. *Learning from SARS: renewal of public health in Canada: a report of the National Advisory Committee on SARS and Public Health.* [Ottawa]: Health Canada; 2003. [online]. Accessed January 4, 2006 from: http://www.phac-aspc.gc.ca/publicat/sars-sras/naylor/

6.4 Emergency Response and Surge Capacity

Public health units play a lead role in responding to public health emergencies such as communicable disease outbreaks. They also play important supportive roles in many other types of emergencies. The recurring challenges of the past decade have highlighted the need for strong emergency response and surge capacity, both in individual institutions and across the system. For health units, this involves the development of contingency plans (e.g., for pandemic influenza), training and exercises, as well as infrastructure supports such as on-call arrangements and mutual aid agreements. There has been considerable progress in the past few years but we still lack consistent arrangements across the province.

After-hours Call

All health units are expected to have 24-hour response capability. Formal on-call expectations and arrangements have been put in place in all health units but they have evolved in various ways. Most health units have negotiated paid arrangements for appropriate front-line staff (e.g., nurses and inspectors from the communicable disease and/or environmental health teams) to take call after hours and on weekends and statutory holidays. There is often a back-up arrangement with managers who may or may not be compensated for this call. In a few health units, first call is assigned to managers or even the MOH, a burden on these already overworked individuals.

In addition to other arrangements, there is usually an expectation that the local MOH is always available (unless on vacation). If there is no AMOH with whom to share call, this amounts to a 24/7 responsibility for the MOH. On-call responsibilities for MOHs have been cited by community medicine trainees as a disincentive to entering the field. Not only are these responsibilities onerous but with few exceptions, they are generally uncompensated.

Recommendation #36: Every health unit should have an on-call system for after-hours and weekend coverage supported by front-line professional staff with appropriate back-up.

On-call arrangements for MOHs and AMOHs have already been identified in Recommendation 8 as something that could be addressed in negotiations. Appropriate compensation, frequency of call and cross-coverage should be addressed.

Mutual Aid

Achieving critical mass in health units goes a long way towards improving response to outbreaks and emergencies without completely disrupting a health unit's routine services. However there are times when a health unit needs outside assistance (e.g., for wide-scale mass vaccination clinics). As part of a larger public health system, health units should be able to call on one another, the province and even the federal government for assistance. This assistance can happen more rapidly and smoothly if there are pre-existing agreements.

Recommendation # 37: With the help of a Ministry template, every health unit should develop mutual aid agreements with neighbouring health units to support their anticipated emergency needs.

Chapter 7

Translating Knowledge into Practice: Public Health Research and Knowledge Exchange

Our Vision 2010:

Research and knowledge exchange has blossomed throughout the public health system in Ontario. At both the local and provincial level, there is generation of new research evidence and effective dissemination and use of that information for decision-making. As a result, public health practices in Ontario are not only evidence-based but continuously improving.

Public health research provides the foundation upon which evidence-based practice can be built. Knowledge from research is used by decision-makers and incorporated into the programs and services delivered by public health workers to achieve public health goals. It also provides the context for the interpretation of surveillance data regarding emerging threats to health. The evidence base to support effective public health practice is increasingly broad in scope.

Our research has found a number of major challenges in this area:

- There has been insufficient investment in developing public health knowledge through applied research. Too few public health researchers and too few research dollars are available. Academic researchers may not have direct experience in the delivery of public health services and may be unaware of the research or evidence gaps. Public health practitioners are only rarely engaged in applied research.

- The public health research and knowledge exchange landscape in Ontario is very diverse, with multiple actors and stakeholders. Little attention is paid to enhancing and improving coordination and collaboration between funders, researchers, practitioners and policy-makers. Furthermore, research priorities do not adequately reflect the needs of the field for greater emphasis on policy and program intervention research.

- Because of its current mandate, local funding, and gaps in some regions, the Public Health Research, Education and Development (PHRED) program is unable to provide adequate support to all health units across the province.

- There are continuing challenges in ensuring that knowledge about effective interventions is put into practice. We need to ensure that existing evidence can be comprehensively assessed, summarized, disseminated widely and fully applied by public health workers across Ontario.

This chapter focuses on proposed structures and mechanisms to enable and better support public health knowledge development and more effective translation of this information into practice at the local and provincial levels. Our work in this area has been guided by the concept that public health policy and practice in Ontario needs to be strengthened by implementing evidence-informed programs and policies. To this end, an effective system for research and knowledge exchange should be developed and supported.

Research and Knowledge Exchange

Research is the organized and purposeful collection, analysis and interpretation of data with the goal of exploring an issue or investigating a particular question. Research designs include descriptive, observational, comparative and experimental models. It may involve the primary collection of new data, or the analysis or synthesis of existing data and research findings. The focus may be on individuals or communities. Types of research particularly relevant in the context of population and public health include descriptive studies of health status, etiologic and epidemiologic studies, and evaluation of the delivery and effectiveness of public health programs.

Knowledge exchange is collaborative problem-solving between researchers and decision-makers that happens through linkage and exchange. Effective knowledge exchange involves interaction between decision-makers and researchers and results in mutual learning through the process of planning, producing, disseminating, and applying existing or new research in decision-making. [14]

The new research and knowledge exchange system should be based on collaborative structures and partnerships at the provincial, regional and local levels. Such structures and partnerships should be charged with undertaking a number of complementary and inter-related functions to support the production of relevant public health research evidence and its subsequent application to programming and policy development. These functions include the following:

- generation of research evidence;
- collection and annotation of existing and emerging research evidence;
- identification of gaps in knowledge;
- prioritization and coordination of the dissemination of new research evidence;
- dissemination of existing and new research findings customized for different audiences;
- evaluation and redesign of knowledge exchange and dissemination strategies;
- capacity building and training of research users (e.g., policy-makers, public health practitioners and community organizations) to facilitate uptake and use of research evidence;
- strategies to facilitate uptake and utilization of research evidence; and
- strategies to support continuous quality improvement based on the evidence, such as evaluating the impact of research evidence on service delivery and policy development as well as public accountability.

The following diagram (Figure 3) is adapted from Kiefer et al. and depicts the inter-relationships between these functions.[14]

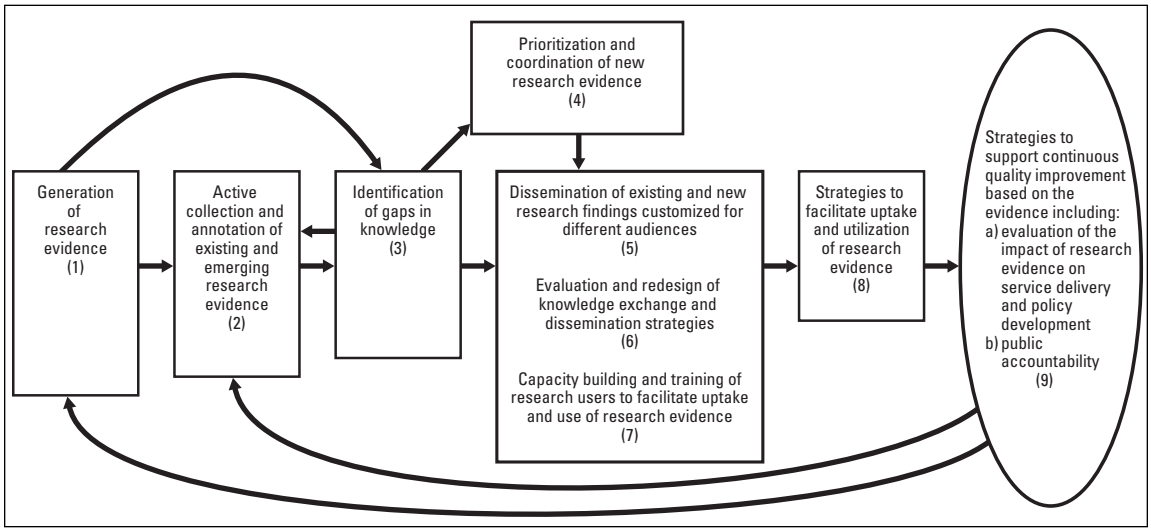

Figure 3: Research and Knowledge Exchange System

[14] Kiefer L, Frank J. Di Ruggiero E, Dobbins M, Manual D. Gully PR, Mowat D. Fostering evidence-based decision-making in Canada: examining the need for a Canadian Population and Public Health Evidence Centre and Research Network. Can *J Public Health* 2005;96(3):I1-I20.

7.1 Provincial Leadership

In this time of public health revitalization, we believe it is essential for the Ontario government to make a visible commitment to applied public health research and knowledge exchange and to support evidence-informed public health policies, programs and practice. This commitment must include supports at both the provincial (centralized) and local levels. We fully support the proposed direction to establish the Ontario Agency for Health Protection and Promotion, and believe the Agency can play an important role in supporting the development of new public health knowledge and its translation into action.

7.1.1 Ontario Agency for Health Protection and Promotion

The Ontario Agency for Health Protection and Promotion should be well positioned to play a facilitating and coordinating role as part of its mandate of aligning and fostering research excellence in public health. This support would take two forms: setting a province-wide agenda and acting as an organizing hub to support a province-wide network.

A Province-Wide Agenda

A province-wide public health research and knowledge exchange agenda that is relevant to Ontario public health practice and policy is an important first step in promoting public health research and development. We propose:

Recommendation #38: The Ontario Agency for Health Protection and Promotion should take a lead role in supporting the development of a province-wide public health research and knowledge exchange agenda with identified strategic directions, priorities and an implementation timeline.

Furthermore, we recommend that a collaborative process be used in setting this public health research and knowledge exchange agenda. Key stakeholders in this process include provincial government (e.g., MOHLTC, Ministry of Health Promotion, MCYS, Ministry of Education, Ministry of Training, Colleges and Universities, and the Ministry of Research and Innovation), stakeholders (health units, colleges and universities, non-governmental organizations and the private sector), the federal government (e.g., Public Health Agency of Canada, Health Canada, the Canadian Institutes of Health Research).

An Organizing Hub

Effective public health knowledge development and exchange requires strong links between research and practice. Not all health units have the resources to ensure local access to the specialized skills required for public health research and knowledge exchange. In some cases, geographic distances can make establishing such links challenging. In the health field, links between research and practice have been facilitated through regional supports or infrastructures.

The Public Health Research, Education and Development (PHRED) program was originally established as a 100 percent provincially funded program to serve system-wide mandates for applied research and education of students in public health. Unfortunately, as a direct consequence of the downloading of public health funding to municipalities, and the subsequent return to cost-shared status, the PHRED program has been unable to serve as a regional support.

We believe that the PHRED program should be fully funded by the province and aligned with the Ontario Agency for Health Protection and Promotion. In order to ensure that local and regional needs are addressed, each PHRED site should be governed by a regional steering committee. Thus, we propose:

Recommendation #39: The Public Health Research, Education and Development (PHRED) program should be funded 100 percent by the province in order to strengthen public health knowledge development and translation into practice.

As knowledge exchange tends to be more effective when strong and ongoing connections exist between those conducting research and those using it, mechanisms to coordinate and support such exchange throughout the province should be established. These mechanisms would support and enhance the research and knowledge exchange capacity of health units. They could also facilitate linkages between health units and the province (i.e., MOHLTC, the Ministry of Health Promotion and the Ontario Agency for Health Protection and Promotion) to inform and align priority-setting. Such mechanisms should be formally established, building on the experience and mandate of the PHRED program and other regional coordinating structures, such as the Regional Infection Control Networks.

Other jurisdictions in Canada have fostered their research and knowledge exchange activities through the active support of a network (e.g., the Population Health Research Network in Québec and Atlantic Networks for Prevention Research). We believe the Ontario Agency for Health Protection and Promotion should act as an anchor for the establishment of a similar network in Ontario, particularly if it plays the proposed lead role in establishing a provide-wide public health research agenda.

Recommendation #40: The Ontario Agency for Health Protection and Promotion should act as an organizing hub to support a province-wide network for research and knowledge exchange.

7.1.2 Provincial Research Funding

The allocation of specific and dedicated financial resources to support academics and the field with research, evaluation and knowledge exchange activities is essential. New sources of dedicated and stable funding are needed for public health research and knowledge exchange. Thus, we propose:

Recommendation #41: Dedicated, stable and sufficient funding for public health research should be earmarked from existing government granting sources or through the creation of a dedicated public health research fund.

Concerted and dedicated funding could focus substantial resources on field and system-relevant research, build long-term research capacity and provide incentives for collaborative endeavours between academia and health units.

In addition to new sources of funding, we believe existing provincial research funding programs, such as career awards and career transition awards, should be utilized to support public health research and knowledge exchange. We propose:

Recommendation #42: The province should expand, in scope and funding, the Health Services Research Personnel Development Fund to include strategic public health research.

Such funding should be awarded with specific terms and conditions that include active participation from the field. The province could undertake revisions to the Health Services Research Personnel Development Fund in 2006.

7.2 Program Standards for Research and Knowledge Exchange

Research and knowledge exchange are core functions underlying the development, implementation, and review of public health program standards. As part of the development of new program standards (see Section 4.2), specific attention should be paid to research and knowledge exchange. New standards should be created to include research and knowledge exchange and to promote evidence-informed practice. The new research and knowledge exchange standards should require health units to:

- have core staff competency requirements for using evidence and participating in research and knowledge exchange activities;
- develop, foster and maintain organizational competencies for research and knowledge exchange and the use of evidence for practice. These competencies should be supported through the development of in-house capacity, as well as collaborative endeavours with the academic sector, the voluntary sector, and the Ontario Agency for Health Protection and Promotion's proposed research and knowledge exchange network;
- incorporate knowledge and evidence from practice, including benchmarking, into planning and decision-making processes as part of a continuous quality improvement process;
- enhance, foster and support local research, evaluation and enquiry endeavours for knowledge generation and innovation in the development, implementation and evaluation of public health programs and services; and
- use comprehensive evaluation strategies, including qualitative, quantitative and mixed-method approaches.

7.3 Local Level Capacity

There is substantial variability across health units in the supports available to staff for translating research knowledge into practice. Currently, only about one-third of health units have direct access to knowledge management specialists. Information access is key to a research and knowledge exchange system for public health. Changing organizational culture with respect to evidence-informed practice entails concerted support to, and commitment by, health units. The MOHLTC should continue to provide and support further capacity enhancements through the Public Health Information and IT Strategy, as well as the Ontario Agency for Health Protection and Promotion.

Recommendation #43: The province, along with the Ontario Agency for Health Protection and Promotion, should ensure that knowledge management activities and services, including access to the electronic public health library, are equitably accessible at the local level.

The ability of health units to generate and utilize research is influenced by a number of factors. Some of these influences are part of the external environment and entail the community with which the health unit works, such as the public,

community partners and research funders. Other factors are internal to the health unit, such as the health unit's organization culture and capacity.

Recommendation #44: Health units should develop, enhance and strengthen in-house capacity and resources for research and knowledge exchange in order to support evidence-informed practice and decision-making.

To support health units in strengthening their in-house research and knowledge exchange capacity, the following elements are required:

- linkages with PHRED sites;
- orientation of board of health members on the health unit's research and knowledge exchange mandate, scope of activities and requirements;
- establishment and nurturing of linkages, through formal agreements with colleges and universities as well as other research/knowledge generation bodies (including the Ontario Agency for Health Protection and Promotion);
- participation in specific networks and communities of practice;
- establishment of formal and flexible staffing arrangements with other organizations such as colleges and universities (e.g., via cross-appointments or secondments) to support and complement in-house capacity;
- designation of an education coordinator in each health unit; and
- developing, supporting and enhancing opportunities for staff to train and enhance their knowledge and research exchange skills. This should include research and education mentorship and internships for students, field staff and returning professionals. Such endeavours should be integral components of health units' human resources development plans.

Chapter 8

Strategic Partnerships

Our Vision 2010:
One of the greatest strengths of public health has always been its ability to create and maintain strategic partnerships. Now, our traditional partnerships (e.g., with municipalities, boards of education, community organizations, health care providers, and universities and colleges) have been enriched by our collaborations with Local Health Integration Networks and the new Ontario Agency for Health Protection and Promotion.

In local communities, health units work successfully with many partners. We looked at ways of strengthening and increasing the strategic relationships of health units at a time when the Ontario health care system is undergoing major transformation. In particular, we examined opportunities and challenges in six specific areas: primary health care, LHINs, the Ontario Agency for Health Protection and Promotion, colleges and universities, public health associations and the Public Health Division of the Ministry of Health and Long-Term Care.

8.1 Primary Health Care

Primary health care, which refers to an individual's or family's first point of contact with a health care team, is an essential foundation for the effective delivery of health services. Primary health care and public health share overlapping visions and goals related to disease prevention and health promotion. Their collaboration can help strengthen the delivery of clinical services and emergency response. Public health has a long tradition of working in partnership with primary health care, and the current primary health care reform initiatives taking place in Ontario and nationally offer new opportunities to strengthen these relationships.

One of the most important initiatives currently underway is the establishment of 150 Family Health Teams across Ontario by 2007-08. In this model, health care is delivered to a defined population by teams of doctors, nurses, nurse practitioners and other health care professionals. The increased focus of such teams on chronic disease management, health promotion and disease prevention sets the stage for collaboration with health units and other community-based organizations. There are similar opportunities for public health collaboration with existing models, such as Family Health Groups, Family Health Networks and Community Health Centres.

The roles of public health and primary health care reform are complementary. Collaboration will benefit both partners, increase overall health system effectiveness and lead to better health outcomes. A review of public health and primary health care prepared as part of our research

has documented successful examples of collaboration.[15] For effective collaboration, links between public health and primary health care initiatives are needed at both the provincial and local level. We propose:

Recommendation #45: Public health and primary health care leaders at both the provincial and local level should collaborate to develop mechanisms for joint planning, priority setting and partnerships and for funding and implementing innovative projects.

Provincial policy, guidelines and funding should encourage collaboration while avoiding duplication. Flexibility in funding and the roles of health personnel can encourage innovation. Mechanisms for provincial collaboration might consist of ongoing meetings between the Chief Medical Officer of Health (or designate) and senior Ministry officials responsible for primary health care reform. Broader involvement of professional organizations and other partners on an ad hoc basis or through a structured committee would provide additional insights.

At the local level, health units can assist primary health care initiatives with population health planning and the development of infection control and emergency response protocols (including pandemic planning). They can assist the primary health care team to incorporate more disease prevention and health promotion into client and family services and to make better use of health unit resources and community programs. They can support the development of information technology to promote sharing of important clinical and population health data (e.g., reportable diseases, pandemic planning). There could be opportunities for joint and collaborative program delivery (e.g., education programs, wellness clinics and health fairs). The roles of health personnel should be interpreted with flexibility in order to better meet local needs (e.g., sharing or secondment of staff).

Local health units should ensure that innovative joint projects with primary health care services in their community are evaluated and the results disseminated. This might be done in collaboration with the Ontario Agency for Health Protection and Promotion. Less formal mechanisms for sharing information about health unit involvement and innovative projects should also be developed, for example a website or list-serve.

[15] Ciliska D, Ehrlich A, DeGuzman A. *Public health and primary care: challenges and strategies for collaboration.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2005.

8.2 Local Health Integration Networks

LHINs have been created by the Government of Ontario to facilitate the integration of health care services and to increase local decision-making. Once operational, LHINs will be responsible for a wide variety of services and facilities within their respective boundaries, such as public and private hospitals (including divested provincial psychiatric hospitals), Community Care Access Centres, Community Support Service Organizations, Mental Health and Addiction Agencies, Community Health Centres and Long-Term Care Homes.

The five core functions of LHINs are integration and service coordination, local health system planning, local community engagement, accountability and performance management, and funding and allocation. The ultimate goal is to enhance health care in Ontario by transforming health care from a collection of separate "silos" to an integrated, accountable, patient-focused, results-driven, and sustainable system.

LHIN borders were determined predominately by hospital referral patterns and do not necessarily conform to public health or municipal boundaries. Nevertheless, it is critical that health units work as closely as possible with LHINs. LHINs and public health share a number of interests, such as ensuring accountability for health services, population health assessment, data management, emergency management, communicable and infectious disease control, reproductive health and health promotion. It is important that health units and LHINs develop strong and effective partnerships.

The importance of LHIN boundaries, for example, was carefully considered when making decisions on the reconfiguration of health units. To promote effective partnering within and between LHINs and public health units, we make the following recommendations. The goal of these recommendations is to facilitate public health/LHIN partnership at both the provincial and the local level. Thus, we propose the following:

Recommendation #46: The Chief Medical Officer of Health or designate should meet regularly with the Local Health Integration Networks' chief executive officers to identify opportunities for partnership with public health.

Recommendation #47: Every medical officer of health or designate should regularly meet with the chef executive officers of the Local Health Integration Network(s) to which the health unit relates to identify mechanisms for collaboration in planning and service delivery.

Recommendation #48: Public health at both the provincial and local level should participate in the new Local Health Integration Networks Local Data Management Partnerships.

Potential mechanisms for collaboration include one-on-one meetings of the MOH and LHIN CEO, participation in meetings of the CEOs of the transfer payment agencies, involvement in program/services networks, and participation in the development of the initial LHIN service plan and the subsequent planning for specific services. Sustained liaison is required to ensure that health units and LHINs work effectively in the many areas of shared responsibility.

The reconfiguration of public health units proposed in Chapter 6 addresses many of the challenges of the current discordant LHIN/health unit boundaries. However, there are areas of the province where more than one health unit relate to a single LHIN. In this situation, we suggest that the local MOHs identify a designated contact among them who will be responsible for health unit representation. This individual will work with the LHIN for public health and population health planning.

8.3 Ontario Agency for Health Protection and Promotion

As the Agency becomes a reality, the opportunities for linkages, partnerships and supports to the field will be significant. Not only will health units benefit from the technical support and advice the Agency will provide, but the Agency will find the field an invaluable resource in achieving its mission. To this end, we envision health unit staff contributing to:

- the articulation of strategic priorities for the Agency;
- the Agency's operations, by means of innovative staffing arrangements (e.g., secondments and cross-appointments);
- specific technical committees; and
- the development and provision of specific services by the Agency (e.g., training).

In this report, a number of specific areas in which health units and the public health system will collaborate with the Agency have already been outlined.

8.4 Academia

There is a long and productive history of collaboration between academia and public health. Such experience has been fostered through formal and informal relationships and partnerships and has focused on health human resource development as well as research and knowledge exchange. As the public health system in Ontario is revitalized and the Ontario Agency for Health Protection and Promotion is established, there will be increased opportunities for colleges and universities to respond and be part of a strengthened system.

Many health units already enjoy productive relationships with universities, colleges and other related institutions across Ontario. Such linkages provide opportunities for information exchange, professional development, research and collaboration. There are also valuable opportunities to expose students and graduating professionals to the professional opportunities in public health. Such linkages should be encouraged and enhanced for all health units.

In Section 3.4.2 we discussed the important role of student placements in attracting and training the next generation of public health professionals. We also discussed the role health units and boards of health should play in providing such placements. In this section, we explore additional relationships with academia.

We believe colleges and universities should provide education and training opportunities that are relevant, accessible, flexible, interdisciplinary, and aligned with the provincial public health human resources strategy and local needs and context. These opportunities should include field placement opportunities for students and modalities such as accredited distance learning and flexible delivery systems for both certificate and degree training. These opportunities should be provided to undergraduate, graduate and post-graduate students, health unit staff wishing to upgrade and enhance their competencies, and other practitioners (in health, non-governmental organizations and other sectors) who want to work in public health. Such activities would also facilitate opportunities for joint research and knowledge exchange.

Recommendation #49: Health units should pursue academic partnership agreements with universities, colleges and other related institutions to:

- **formalize educational student placements;**
- **support applied public health research and program evaluation;**
- **support faculty and curriculum development;**

- **encourage cross appointment of staff; and**

- **support the ongoing professional development of public health workers.**

The Ontario Agency for Health Protection and Promotion should support this development by providing a template for academic partnerships. Such agreements would:

- increase meaningful and dynamic placement opportunities for undergraduate and graduate students;

- support and advocate for the integration of public health core functions and competencies into undergraduate and graduate programs (i.e., ensure public health is included in all health curriculum), including technical, management and leadership training relevant to emerging public health needs;

- provide teaching and academic supervision opportunities to public health practitioners;

- engage academic partners in providing continuous learning events to meet local needs;

- identify best practices in public health education and encourage educators to apply them;

- partner with educational institutions for curriculum development and designing an integrated learning system; and

- provide opportunities for cross appointments between academia and public health.

Academic Roundtable participants indicated that sustainable relationships will likely require ongoing fora for academics and health units to come together and identify opportunities for collaboration. Mechanisms and incentives to facilitate partnerships between health units and academia may include secondments and cross-appointments, placement agreements, flexible academic career paths, focused fellowships, collaborative research projects, joint funding of programs and public health practitioner involvement in curriculum design and implementation. Health units may need dedicated staff time to support such linkages, hence our recommendation for education coordinators. Wherever possible, collaborative affiliation agreements should be established between health units and academia to strengthen and enhance training and research and knowledge exchange activities.

8.5 Public Health Associations

There are many professional public health associations in Ontario representing the broad range of public health interests, activities and disciplines. Two non-profit umbrella professional associations (OPHA and alPHa) deserve particular mention due to the important contribution they make to public health in Ontario. Both of these associations provide education opportunities, recognition awards, coordinated advocacy and other initiatives. We believe these organizations can play important supporting roles in implementing our recommendations. Areas of particular relevance for them include professional development, orientation of board members, input into development of the new standards, and assistance with the development and implementation of the public health human resources marketing initiative.

Ontario Public Health Association (OPHA)

OPHA provides leadership on issues affecting the public's health. It seeks to strengthen the impact of people who are active in public and community health throughout Ontario and it advocates about public health issues on behalf of its members. In particular, OPHA represents the collective interests of its members who are individual practitioners and constituent societies representing discipline-specific front-line staff and public health management staff, Ontario Community Health Centres and the PHRED program. Specific activities often take the form of workgroups, position papers and resolutions, government briefings, coalitions and collaborative projects. These activities represent policy analysis and development, and advocacy designed for provincial and federal governments. They also provide educational initiatives for public health professionals.

Association of Local Public Health Agencies (alPHa)

alPHa provides leadership to boards of health and health units in Ontario. It advises and lends expertise on governance, administration and management of health units. It also collaborates with governments and other health organizations, advocating for a strong, effective and efficient public health system. In particular, alPHa advocates for public health policies, programs and services on behalf of member health units. The membership of alPHa includes an arm representing boards of health, and another representing medical officers of health. Affiliate organizations representing senior public health managers in each public health discipline are also part of the membership. Specific alPHa activities include workgroups and participation on external advisory committees.

8.6 The Provincial Component of the Public Health System

While we have focused primarily on the capacity of local public health units, we also recognize that strong central leadership is essential for a robust public health system. We recognize that the province has a critical role in ensuring that the public health infrastructure is well designed, supported, staffed and funded.

Our analysis has examined the primary components of public health system infrastructure: a sufficient and competent work force; organizational capacity; and information and knowledge systems. Within each of these areas, substantial resources are needed at the provincial level to ensure optimal coordination, province-wide planning and delivery of services. The provincial component of the public health system is now spread across multiple ministries with different mandates, and we recognize that our recommendations will require effective coordination among these ministries.

To ensure there is a consistently high quality of services across the province, there must be centralized supports, education and accountability for public health as a whole and for each of the public health disciplines. Thus, we are making recommendations concerning Public Health Division capacity, human resources and accountability as they relate to the support of health units. Resources are also required so the Public Health Division can support health units undergoing reconfiguration.

Recommendation #50: The province should undertake the following actions to strengthen the capacity to support the field and ensure optimal province-wide planning and delivery of public health services:

- **in collaboration with the Ontario Agency for Health Protection and Promotion, ensure expert consultation in specialty areas such as toxicology and medical microbiology;**

- **increase expertise and knowledge at the provincial level to support the field in the delivery of the mandatory programs;**

- **establish a dedicated support unit to work collaboratively with the field, the Ontario Agency for Health Protection and Promotion and other relevant partners to provide analytic capacity and mechanisms for improving the scope, quality and availability of data used to support fiscal planning and projection;**

- **establish capacity at the provincial level to support the reconfiguration of health units;**

- **ensure there are quality and performance specialists within the Public Health Division to lead the development of the Public Health Performance Management System and to support assessment and compliance investigation activities; and**

- **appoint professional leaders for public health inspection, nutrition, public health dentistry and public health nursing.**

Chapter 9

Next Steps

We submit this report and its recommendations to the Chief Medical Officer of Health and the MOHLTC in full recognition of the commitment, effort and leadership that will be required to implement them. Change is never easy; however the time for change has clearly come. We must not let this opportunity slip away.

We began this report by setting out our vision for a revitalized public health system for Ontario, one which will promote and protect the health of our citizens well into the 21st century. We have identified the key areas where changes are needed to make this vision a reality, including the need to:

- revitalize the public health workforce;
- demonstrate accountability and measure performance;
- ensure quality governance within a province-wide system;
- ensure stability and predictability of funding;
- strengthen the critical capacity of health units;
- ensure practice-relevant research and knowledge exchange in a rapidly changing environment; and
- establish strategic relationships both within and beyond the health care system.

Many of the recommendations are interdependent and should not be considered in isolation. Some solutions are obvious and received widespread support during our consultations. For some issues, however, there are no easy answers. In these cases we have carefully weighed the input and evidence, and have recommended the solutions that we believe will best improve the capacity of health units to impact on the health of the public. Public health units do not serve in isolation and they must all be strong for our system to be strong.

Priorities for Action

We have not included a detailed three-year plan for implementing our recommendations. We believe that the implementation plan is best left to the provincial government to develop. There are, however, some clear priorities for action that we believe require immediate attention and implementation:

- Development of a provincial public health human resources strategy, beginning with the marketing initiative, centralized workforce

database, and efforts to increase enrollment in public health programs, including support for more training positions for public health physicians and dentists. The appointment of senior nurse leaders in each health unit should be enforced. *As it will take time, in some cases years, to train new people it is important to begin these initiatives as soon as possible.*

- Adoption of a comprehensive performance management system for public health, beginning with the following elements: introduction of performance standards (with board standards as first priority); commitment to mandatory accreditation for all health units; and designation of a quality and performance specialist at every health unit. *Lack of accountability has been flagged as one of the biggest gaps in the current system. Immediate commitment to improved accountability at provincial and local level sends a strong message.*

- Adoption of a consistent, province-wide model of autonomous boards of health with a primary focus on public health and with a membership of half municipal and half local community representatives, locally appointed and supported with provincial guidelines and tools. *The strengthening of public health governance is the underpinning for all of the other reforms.*

- Increased provincial financial accountability with budgets approved by the province, three-year rolling forecasts, ten-year capital costs forecasts and a mechanism to access capital funding, and improved timeliness in budget approvals. *This addresses the call for improved provincial accountability while streamlining the budget process for local boards*.

- Amalgamations of specified health units, supported by 100 percent funding for approved transition costs; review of unorganized territory grants and other strategies to improve critical capacity of northern health units. *These measures will strengthen critical capacity of smaller health units.*

- Establishment of an after-hours on-call system in every health unit supported by front-line professional staff; and development of mutual aid agreements with neighbouring health units. *These measures are essential to ensure appropriate emergency response.*

- Development of a province-wide research and knowledge exchange agenda for Ontario; 100 percent funding for the Public Health Research, Education and Development program and its alignment with the Ontario Agency for Health Protection and Promotion. *The imminent creation of the Agency for Health Protection and Promotion offers unique opportunities for developing a more comprehensive and coordinated research and knowledge exchange system in Ontario.*

- Collaboration with primary health care initiatives and with the Local Health Integration Networks. *The roll-out of these new initiatives as part of the Ministry's transformation agenda presents a unique opportunity for public health collaboration that will benefit all parties.*

- Strengthening government capacity to support the field and lead the implementation initiatives.

This report is essentially a map, outlining the steps that will lead public health forward, toward the fulfillment of the CRC's vision. This transformation is substantive – but essential. The challenges to the well-being of Ontarians are many, ranging from new and emerging diseases and pandemics, to chronic diseases, and the health of children and youth. If public health is to meet these challenges, and protect and promote the health of Ontarians, fundamental and meaningful changes must be made. There is no time to waste. The time to revitalize and renew public health in Ontario is now.

Appendix A:

Membership of CRC Sub-Committees

Public Health System Accountabilities Sub-Committee Mambers

Lori G. Chow (Chair)
Tony Button
John Dwyer
Hazel Lynn
Pat Main
Doug Manuel
Kris Millan
Doug Reycraft
Elizabeth Richardson
Ken Seiling
Michele Weidinger

Public Health Funding Sub-Committee Members

Liana Nolan (Chair)
Pam Carr
Jeremiah Hurley
Robert Jones
David McKeown
Penny Sutcliffe
Don West
Samantha Wilson-Clark

Governance and Structure Sub-Committee Members

Alex Munter (Chair)
Brian Bourns
Susan Eagle
Brent Feeney
Terry Hicks
Helena Jaczek
Penny Nelligan
Kathryn Pagonis
Ingrid Parkes
Charles Pascal
Fran Scott
Cathy Whiting

Health Human Resources Sub-Committee Mambers

Diane Bewick (Chair)
Wendy Carew
Donna Ciliska
Ronald de Burger
Isabelle Michel
Andrew Papadopoulos
Dorothy Pringle
Bill Ryding
Jane Underwood
Robin Williams

Research and Knowledge Transfer Sub-Committee Mambers*

***This sub-committee also reported to the Agency Implementation Task Force.**

Brian Hyndman (Co-Chair)
Jennifer Zelmer (Co-Chair)
Charlene Beynon
Larry Chambers
Erica Di Ruggiero
Matthew Hodge
Robert Kyle
Steve Manske
Vic Sahai
Harvey Skinner
Monique Stewart
Penny Sutcliffe

Capacity Review Committee

Background

As outlined in *Operation Health Protection - An Action Plan to Prevent Threats to our Health and to Promote a Healthy Ontario*, the Ministry of Health and Long-Term Care (MOHLTC) has committed to undertake a capacity review of local public health units in 2004/2005 to inform the development of long-term strategies to enhance capacity to plan and implement optimal public health programs and services that effectively respond to the current and emerging needs of Ontarians.

The MOHLTC has established a Capacity Review Committee to provide guidance and support in this endeavour.

Purpose

The Capacity Review Committee advises the Chief Medical Officer of Health and, through her, the MOHLTC on options to improve the function and configuration of the local public health unit system. The advice to be provided encompasses the following :

- core capacities required (such as infrastructure and staff) at the local level to meet communities' specific needs (based on geography, health status, health need, cultural mix and health determinants) and to effectively provide public health services (including specific services such as applied research and knowledge transfer);
- issues related to recruitment, retention, education and professional development of public health professionals in key disciplines (medicine, nursing, nutrition, dentistry, inspection, epidemiology, communications and health promotion);
- identifying operational, governance and systemic issues that may impede the delivery of public health programs and services;
- mechanisms to improve systems and programmatic and financial accountability;
- strengthening compliance with the *Health Protection and Promotion Act*, associated Regulations and the Mandatory Health Programs and Services Guidelines;
- organizational models for Public Health Units that optimize alignment with the configuration and functions of the Local Health Integration Networks, primary care reform and municipal funding partners; and staffing requirements and potential operating and transitional costs.

Responsibilities

The Capacity Review Committee has the following responsibilities :

- Consult with local public health units and with representatives of the MOHLTC and other appropriate ministries (i.e., traveling to local health units for meetings, focus groups, key informant interviews, call for submissions).
- Consult with key public health stakeholders (e.g., Association of Local Public Health Agencies, Association of Municipalities of Ontario, City of Toronto, Ontario Public Health Association, Ontario Council on Community Health Accreditation and various professional associations).
- Commission appropriate external research to support the review.
- Review and integrate relevant information (both internal and external) regarding other significant health restructuring initiatives, as well as be guided by overall MOHLTC system and planning goals and priorities, drawing and building on national and other relevant initiatives.

Membership

The CMOH appoints the Chair, Vice-Chair and members of the committee.

The committee includes people with expertise in public health delivery systems and organization in Ontario as well as change management in the health system. The committee membership will be representative of Ontario.

Accountability

Through the Chair, the committee reports to the Chief Medical Officer of Health and Assistant Deputy Minister of the Public Health Division. An ad hoc internal Ministerial Committee has been established to liaise with this committee.

Staff Support

The committee is supported by staff from the Strategic Planning and Implementation Branch of the Public Health Division of the Ministry of Health and Long-Term Care.

Term of Appointment

Committee members shall be appointed for a period of up to one year. This term may be extended, upon the needs of the Ministry of Health and Long-Term Care.

Time Frame

The committee will present interim recommendations to the Ministry of Health and Long-Term Care in June 2005. A final report will be presented in December 2005.*

*This timeline was extended due to the complexity of the capacity review.

Appendix C:

Submissions to the CRC

The CRC received submissions from organizations and individuals including:

- Association of Local Public Health Agencies
- Association of Local Public Health Agencies – Board of Health Section
- Association of Municipalities of Ontario
- Association of Nursing Directors and Supervisors in Official Health Agencies in Ontario
- Association of Ontario Public Health Business Administrators
- Association of Public Health Epidemiologists of Ontario
- Community Medicine Residents of Ontario
- Corporation of the County of Huron
- Council of Ontario Medical Officers of Health
- Elgin St. Thomas Health Unit
- Health Promotion Ontario
- Huron County Health Unit (letter from an individual supported by CUPE Local 1305 and ONA Local 21)
- Kingston, Frontenac and Lennox & Addington Public Health
- Middlesex-London Health Unit
- Norfolk & Haldimand Health and Social Services Department
- Ontario Association of Public Health Dentistry
- Ontario Council on Community Health Accreditation
- Ontario Public Health Association
- Ontario Public Health Libraries Association
- Ontario Public Health Volunteer Resources Management Network
- Ottawa Public Health
- Public Health Research, Education and Development Program - Operations Committee
- Regional Municipality of Peel – Office of the Chair
- Registered Nurses Association of Ontario/ Community Health Nurses' Initiatives Group
- Toronto Board of Health

Appendix D:

List of Commissioned Research

The following is a list of the work commissioned by the CRC. These papers can be found on the Ministry of Health and Long-Term Care website at: http://www.health.gov.on.ca.

Ciliska D, Ehrlich A, DeGuzman A. *Public health and primary care: challenges and strategies for collaboration.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2005.

Gregg, Kelly, Sullivan & Woolstencroft: The Strategic Counsel. *Public health survey – accountability section.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.

Gregg, Kelly, Sullivan & Woolstencroft: The Strategic Counsel. *Public health survey – funding and overall outlook.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.

Gregg, Kelly, Sullivan & Woolstencroft: The Strategic Counsel. *Public health survey – governance and structure section.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.

Gregg, Kelly, Sullivan & Woolstencroft: The Strategic Counsel. *Public health survey – human resource section.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.

Gregg, Kelly, Sullivan & Woolstencroft: The Strategic Counsel. *Public health unit survey – research and knowledge transfer activities.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.

Hodge, M. *Ontario Medical Officer of Health workforce: results of an empirical investigation.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2005.

Hurley J, Rakita O. *The relationship between public health unit budgets in Ontario and indicators of need for public health: report to the Public Health Funding Sub-Committee of the Capacity Review Committee.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2006.

Moloughney B. *Defining "critical mass" for Ontario public health units.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2005.

Moloughney B. *Criteria for successful implementation of support services agreements.* Toronto, Ont.: Ministry of Health and Long-Term Care; 2006.

Starfield Consulting. *Capacity Review Committee: Phase II stakeholder consultations: accountabilities, funding and governance report.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.

Starfield Consulting. *Capacity Review Committee: Phase II stakeholder consultations: data tables reference document.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.

Starfield Consulting. *Capacity Review Committee: Phase II stakeholder consultations: human resources report.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.

Starfield Consulting. *Capacity Review Committee: Phase II stakeholder consultations: research & knowledge transfer report.* [Toronto, Ont.]: Prepared for the Capacity Review Committee, Ministry of Health and Long-Term Care; 2005.