Ontario’s Provincial Council for Maternal and Child Health

Building a Productive, System-Level, Change-Oriented Organization

Charlotte Moore Hepburn and Marilyn Booth
In the early 2000s, similar to many sectors in the current healthcare system (Ahmed et al. 2010; Breton et al. 2009; Plsek and Greenhalgh 2001), the maternal-child health sector in Ontario was fragmented, encumbered with redundant elements and challenged to deliver high-quality, efficient, cost-effective care. Acknowledging the strategic importance of the maternal-child health sector and recognizing the need to resolve this fragmentation, the Ontario Ministry of Health and Long-Term Care (MOHLTC) created the Provincial Council for Maternal and Child Health (PCMCH; www.pcmch.on.ca) in late 2008. With a structure designed to engage the entire sector, together with the support of a dedicated secretariat, PCMCH was able to rapidly build momentum by unifying the maternal-child healthcare system and streamlining key elements of the organization and delivery of care (Day 2011; “New Bassinets = Better Access” 2011; Turner 2011). With an articulated function designed to focus on issues of mutual concern to the funder and provider, PCMCH has led to significant improvements in access, care quality and productivity (Moore Hepburn and Booth 2011; “SickKids Wins Celebrating Innovations in Health Care Award” 2011).

History of PCMCH
During the prior decade, multiple formal and informal provincial organizations focused on maternal-newborn and child-youth health were established in Ontario. Each group crafted a meaningful vision, engaged the passion and experience of selected leaders in the sector and contributed to enhancements in health system performance on a local, regional or provincial level. However, while each was independently valuable, the scope, scale, profile and support for each of these organizations created unproductive redundancies and critical service gaps across the provincial maternal-child healthcare system.

For the first time in the history of the province, the maternal-newborn and child-youth sectors were united under one umbrella organization.

For example, in 2002, MOHLTC convened and funded the Specialized Paediatric Coordinating Council to focus on the delivery of specialized pediatric services. A year later the province’s six children’s hospitals (five acute care and one rehabilitation) created a separate organization, the Ontario Children’s Health Network, supported by membership fees and designed to fill service planning and coordination gaps across the province. These two groups operated in parallel, despite significant overlap in membership, and focused on complementary issues, until merging in 2006 as the Provincial Council for Children’s Health. Concurrently, an informal group called the Ontario Provincial Perinatal Partnership focused on the coordination of maternal and high-risk newborn care, and the Multiple Maternal Marker Screening Advisory Committee, an ad hoc group of clinical and laboratory experts dedicated to
prenatal screening in Ontario, were both seeking a more formal means of influencing the system of maternal-newborn healthcare. Across all of these organizations, the maternal and child health sectors remained distinct, representation from community, rural and remote settings was limited and few opportunities existed for structured cross-talk with the domains of mental health, health promotion and public health.

**The scope of** PCMCH enables it to address issues that cut across clinical specialties and operational divides to truly reflect a life-course trajectory.

As MOHLTC increased its strategic attention on the vital maternal-child population, these system leadership and organizational challenges became apparent. Simultaneously, capacity pressures on the Level III (intensive care) obstetrical and neonatal system reached a critical state, resulting in the widely reported transfer of a number of Ontario’s pregnant women and neonates out of the region or out of the country for care (Priest 2007, July 24; 2008, May 5). To resolve this high-profile issue swiftly and effectively and to optimize sector governance for the management of future maternal-child health system challenges, there was an urgent need to formalize a productive, system-level, change-oriented, sector-wide leadership table.

The scope and mandate for a single entity, capable of meeting the needs of the entire maternal-child population, was defined through dialogue between sector leadership and government. This shared desire to align system change efforts, to ensure comprehensive sector and regional representation and to participate meaningfully in the crafting of a provincial response to the tertiary obstetrical and neonatal capacity crisis resulted in the creation of PCMCH. For the first time in the history of the province, the maternal-newborn and child-youth sectors were united under one umbrella organization. Furthermore, this leadership table was designed to reflect the full diversity of the sector: all levels of care (primary, secondary and tertiary), domains of care (acute care, rehabilitation, community care, mental health care, public health and health promotion) and the full geographical diversity of the province.

In order to populate the new PCMCH, a call went out for expressions of interest in membership on council or on one of its advisory committees. A Nominations Committee reviewed the 86 applications and recommended 11 respected and highly accomplished system thinkers from across the province to serve as the inaugural council. In order to facilitate continuity, the chair of the former Provincial Council for Children’s Health was asked to be the inaugural chair of PCMCH. Representatives from MOHLTC, the Ministry of Children and Youth Services and the former Ministry of Health Promotion and Sport established relationships with council.

**Overview of Current Structure and Function Structure**

The council is composed of esteemed experts and senior representatives from a variety of disciplines from both the health and social services sectors across the province, representing maternal, newborn, child and youth health services planning and delivery across the continuum of care. Operationally, council is supported by a secretariat composed of an executive director, project managers and administrative staff.

The work of PCMCH is supported by both standing committees and focused, time-limited, volunteer expert panels, all sharing a set of common goals: enhancing access, improving quality and working together as a system (Figure 1). Recently, council has been working directly with the provider community to share and promote the understanding and adoption of its clinical recommendations and the use of its evidence-based clinical guidelines to support enhanced delivery and quality of care.

PCMCH is hosted by The Hospital for Sick Children (SickKids). SickKids is the signing authority for the annual transfer payment agreement from MOHLTC for PCMCH, and, therefore, has responsibility for oversight regarding PCMCH’s annual deliverables. The annual deliverables are identified through a process of priority setting within the advisory committees with final recommendations being reviewed and approved by council. PCMCH’s annual work plan is included in the transfer payment agreement. An annual report on the deliverables is provided to MOHLTC at the end of each fiscal year.

**PCMCH Function**

The vision of PCMCH is “the best possible beginnings for lifelong health.” PCMCH’s mission is as follows:

- **Be the provincial forum** in which clinical and administrative leaders in maternal and child health can identify patterns and issues of importance in health and healthcare delivery for system support and advice.
- **Improve the delivery** of maternal-child healthcare services by building provincial consensus regarding standards of care, leading practices and priorities for system improvement.
- **Provide leadership and support** to Ontario’s maternal and child healthcare providers, planners and stewards in order to maximize the efficiency and effectiveness of health system performance.
- **Mobilize information and expertise** to optimize care and contribute to a high-performing system, thereby improving the lives of individual mothers and children, providers and stewards of the system.
Structural Enablers of Success
A Scope Inclusive of the Comprehensive Maternal-Child Continuum

The scope of PCMCH includes the full range of maternal-child care from an optimal preconception period through a healthy pregnancy and a vigorous childhood and culminating in the successful transition to adulthood. This scope enables PCMCH to address issues that cut across clinical specialties and operational divides to truly reflect a life-course trajectory. This represents the first formal effort in Ontario to unite these two highly interdependent healthcare sectors for purposes of priority setting, service planning, care delivery and quality improvement.

There is significant evidence documenting the physiological, social, emotional and economic benefits (Kahn et al. 1999, 2002; Wang et al. 2002; Zuckerman and Beardslee 1987) of delivering maternal and child health services holistically. The global health community has long recognized the need to approach population health using a life-course approach (Bhutta et al. 2008; Kerber et al. 2007) and has developed sophisticated frameworks for integrating maternal, newborn, child and youth health – as a whole – into health, healthcare delivery and broader social development agendas (Ekman et al. 2008). Certainly tensions exist within the diverse facets of the maternal-child community, namely the perception of “competing” for limited resources (McCoy et al. 2010). However, the interconnectedness and inseparable nature of maternal and child health compel us to reframe our approach to health system planning away from sector- or service-specific design to a more robust, interrelated, life cycle–oriented enterprise.

A key example of the importance of the maternal-child continuum is the Neonatal Abstinence Syndrome (NAS) project. NAS is a term used for neonatal withdrawal symptoms resulting from maternal use of drugs of addiction. Maternal substance use during pregnancy is an important risk factor for negative pregnancy and neonatal outcomes. The rising incidence of NAS and the resulting impact on provincial neonatal resources was raised by one of the province’s neonatal leaders during discussions about access to neonatal services. After quantifying the alarming trend (see Appendix), PCMCH convened a panel of clinicians and administrators from across the spectrum of maternal-newborn care, addiction medicine, pharmacology and child protection to address approaches to care for this rapidly increasing population of pregnant women and infants.

Another valuable example of the comprehensive continuum of care effectively serving sector improvement relates to the inclusion of mental health as an integral component of health system planning and improvement (Kirby and Keon 2006). A recent expert panel brought together primary care providers, emergency medicine specialists and those with community- or hospital-based mental health expertise to focus on the development of a care pathway for children and youth who present to an emergency department (ED) with a mental health or addiction issue. The richness of the discussions between groups that rarely interact with each other resulted in an innovative approach to the
care pathway and a strategy and tools for strengthening hospital provider–community provider relationships for the improved transition of patients back to the community post-ED visit. The resulting pathway, risk assessment tools and supporting templates have been shared with and applauded by hospital and community-based providers alike.

A Scope Inclusive of All Levels of Care
A second significant advantage to the new PCMCH structure involved the deliberate inclusion of all levels of care (primary, secondary and tertiary) and all regions of the province (urban, rural and remote) in deliberations and decision-making. Prior planning activities created artificial separations between academic and non-academic settings, and community and acute care settings, and rarely considered the varying challenges of providing service in a densely populated urban centre in comparison to a large and sparsely populated rural or remote region (Ricketts 2000).

An excellent example of the success of this new structure was the Access to Care Work Group (Bhutta et al. 2008), which was convened to address capacity issues in maternal-newborn services. Members represented all levels of maternal-newborn care and all areas of the province. Impressively, members were able to put their institutional and regional interests aside and identify level II neonatal care (intermediate or special care) as the single most pressing concern for the system. Approaching the problem from a system-wide perspective, the shortfall in level II neonatal capacity was identified as negatively impacting access to level III maternal and neonatal beds and was compromising Ontario’s ability to provide high-quality care close to home. Data analysis identified the relative shortfall of level II bassinets by region, thus providing MOHLTC with an evidence-driven rationale for allocating their investment of 49 additional bassinets in specific low-capacity, high-demand locales. The Access to Care Work Group also recommended a number of practice changes aimed at improving the use of the province’s maternal-newborn beds and recommended standardized definitions for the levels of maternal and newborn care in Ontario. Several of the key practice changes have been implemented, and the standardized levels of care have since been applied in partnership with Ontario’s regional health authorities (the Local Health Integration Networks or LHINs) and Ontario’s critical care communication and referral service (CritiCall) (MOHLTC 2008).

In summary, by designing a structure that facilitates working together as a single sector, the following valuable objectives are met:

- The historic tendency to vie for limited resources and policy attention between the maternal-newborn and child-youth communities, acute care and primary care communities, and urban, rural and remote communities is greatly reduced. This streamlines the use of time, energy and resources of both sector leaders and decision-makers. The sector also positioned itself to effectively set its own priorities, allowing the advancement of shared interests in novel and effective ways.
- PCMCH is able to benefit from the varied wisdom and experience of individuals across the entire sector. The PCMCH forum created new relationships across specialties, disciplines, interests and geographies that facilitates innovative practice changes and opportunities for creative, new efficiencies.

A Robust, Well-Supported and Highly Engaged Expert Panel System
Expert panels are an effective method to bridge the gaps between the best available evidence, applied clinical practice and health system policy and planning (Fink et al. 1984; Jones and Hunter 1995). In addressing the annual work plan, PCMCH uses focused, time-limited, all volunteer expert panels, directed by council and supported by the staff of the secretariat. Based on their known expertise, expert panel members are nominated by council and the advisory committees. Attention is paid to balancing panel representation by level of care, discipline and geography. By structuring a well-supported expert panel system, the following objectives are achieved:

- A significant number of front-line physicians, nurses, allied health professionals and administrators have been engaged in system change–oriented expert panel activity. In addition to expert panel deliberations generating the best possible recommendations for the Ontario maternal-child sector, practitioner engagement in identifying issues and developing solutions has created an expansive and energetic network of system advocacy and practice change champions. A timely response from government to some of the recommendations has helped to build and maintain momentum for subsequent volunteer panels.
- Many of the expert panel recommendations require neither policy change nor additional funding. Experienced, well-informed front-line providers can detail the required changes to everyday clinical practice that will strengthen the sector system-wide. They recommend changes for practitioners in response to issues identified by practitioners. This ”we can do it” mentality has been a powerful motivator and engagement tool and has allowed the sector to, in large part, direct its own agenda.

Functional Enablers of Success
A Focus on Change Management
Continuous improvement, once considered an “ideal” in healthcare delivery and health system planning (Berwick 1989), is now an expectation. To achieve this expectation, forward-thinking health sectors embrace the complexity associated with health system change (Plsek and Wilson 2001), function to encourage change behaviour and facilitate a culture of creative solution-
oriented transformation at every level of the health system (Grol and Grimshaw 2003). By focusing on change management, PCMCH is priming the maternal-newborn sector for ongoing evolution in clinical practice and system planning patterns and is equipping the sector with the tools to identify new areas for system-level change attention.

Key lessons from this important focus are as follows:

- Expectation management is essential. This is achieved through rigorous annual priority-setting processes and transparent communication regarding the focus of current and future activities.
- The avoidance of “scope creep” is critical. Terms of reference for expert panels are clearly written to focus the purpose of the project by stating the goals and expected outcomes of the work and directing feasible timelines. Care delivery and system change dimensions that are “out of scope” are carefully detailed to ensure that deliberations result in realistic recommendations that can translate into workable system change.

A Focus on Improvement though Organizational Change and Efficiency

As governments face the challenging combination of constrained resources and increasing public demands, scrutiny over health system investments will continue to intensify. While the current epidemiological, demographic and technological realities in healthcare provide near-limitless capacity to rationalize further investments in the health sector, continued spending growth is a fiscal and political impossibility.

By concentrating on areas of improvement that do not require, or require only minimal, investment PCMCH has improved access, quality and system performance through a focus on innovative organizational change and operational efficiency. For example, a PCMCH recommendation to ensure the province-wide availability of fetal fibronectin testing – an inexpensive test used to identify women unlikely to deliver within two weeks of presentation with symptoms of preterm labour – has lead to the avoidance of unnecessary hospital admissions and transfers, through a modest investment in testing kits and supportive technology (Moore Hepburn and

FIGURE 2.
Evolution of Ontario’s Provincial Council for Maternal and Child Health (PCMCH)
Parental satisfaction is simultaneously maximized as pregnant women prefer being able to remain at home, having been assured that delivery is not imminent.

Similarly, a PCMCH program to expand screening for retinopathy of prematurity—a necessary eye-screening service for premature babies at risk of developing a potentially blinding eye disease—enhanced access for this vulnerable population with minimal up-front costs and significant long-term cost savings. A relatively modest investment in technology and training has enabled three community hospital–tertiary hospital partnerships to create the local ability to capture images of at-risk newborns’ eyes. The images are then transferred electronically to the teaching hospital, where they are read by a pediatric ophthalmologist. Infants are thus able to either avoid a transfer to tertiary care for screening or return to their local hospital earlier in their stay in the neonatal intensive care unit. These projects have resulted in significant cost avoidance, decreased the risk incurred in transferring vulnerable infants between centres for screening and been welcomed by families and providers alike.

The key lesson from this focus is this: Significant progress can be made when an organization is deliberately oriented away from the “more is better” view to the “not more, but different” philosophy. These early and influential PCMCH successes, focused on low-cost, high-yield system solutions, have cemented this focus in the operating practice of the organization and the sector.

Future Focus
Over the past year, PCMCH has broadened the focus of its

**APPENDIX.**
Rising incidence of NAS in Ontario and its impact on neonatal resources

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Infants with NAS as a Diagnosis*</th>
<th>Average LOS**</th>
<th>Beds per Day Used Across the Province</th>
<th>Top Three LHINs Regarding No. of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003–2004</td>
<td>171</td>
<td>11.9</td>
<td>5.6</td>
<td>Hamilton Niagara Haldimand Brant – 38</td>
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<td></td>
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<td>Toronto Central – 17</td>
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<td></td>
<td></td>
<td>Central East, North East – 16</td>
</tr>
<tr>
<td>2004–2005</td>
<td>199</td>
<td>13.9</td>
<td>7.6</td>
<td>Hamilton Niagara Haldimand Brant – 32</td>
</tr>
<tr>
<td></td>
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<td>Toronto Central – 22</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Central East – 19</td>
</tr>
<tr>
<td>2005–2006</td>
<td>265</td>
<td>13.0</td>
<td>9.5</td>
<td>Hamilton Niagara Haldimand Brant – 47</td>
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<td>North West – 33</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Central East – 27</td>
</tr>
<tr>
<td>2006–2007</td>
<td>249</td>
<td>15.4</td>
<td>10.5</td>
<td>North West – 35</td>
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<td></td>
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<td>Hamilton Niagara Haldimand Brant – 35</td>
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<td>North West – 58</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>South West – 36</td>
</tr>
<tr>
<td>2008–2009</td>
<td>380</td>
<td>14.6</td>
<td>15.2</td>
<td>North West – 77</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hamilton Niagara Haldimand Brant – 57</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>South West – 38</td>
</tr>
<tr>
<td>2009–2010</td>
<td>482</td>
<td>15.0</td>
<td>20.0</td>
<td>North West – 88</td>
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<tr>
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<td>Hamilton Niagara Haldimand Brant – 78</td>
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<td></td>
<td></td>
<td>South West – 44</td>
</tr>
<tr>
<td>2010–2011</td>
<td>654</td>
<td>13.1</td>
<td>23.4</td>
<td>North West – 156</td>
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<tr>
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<td>Hamilton Niagara Haldimand Brant – 112</td>
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<td></td>
<td>South West – 59</td>
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</tbody>
</table>

LHIN = local health integration network; LOS = length of stay; NAS = neonatal abstinence syndrome.

Not just the most responsible diagnosis.

The average LOS for a term newborn in 2004–2005 was 1.4 days.

The range of LOS is highly variable, with some hospitals reporting >42 days (Moore Hepburn and Booth 2011).
attention to include not only the generation of expert panel recommendations for system change, but also the implementation of initiatives informed by previous expert panel recommendations. Specific emphasis has been paid to those initiatives that do not require government policy change or additional funding. This requires the application of knowledge transfer strategies and a collection of tools to assist the sector with both direct implementation efforts and the development of permanent change management capacity. One of these tools is the publication of widely circulated communication materials designed to highlight positive examples of PCMCH-sponsored initiatives implemented locally by front-line providers. These success stories serve to promote broader uptake and foster innovative communities of practice dedicated to access, quality and system thinking across the sector. A second tool directs the ability of similar institutions to benchmark their performance on a number of sector-derived variables. This similarly promotes the uptake of PCMCH-sponsored initiatives and encourages a culture of continuous quality improvement.

Moving forward, a second area of dedicated focus will be the advancement of sector-wide standardization. Recognizing that standardization is essential to optimize both efficiency and quality of care, PCMCH is well positioned to serve as the forum to develop provincial practice and clinical policy standards and to translate those standards into the lived environment. Also in the near term, PCMCH will refine its already-transparent process for identifying priorities for action. The incorporation of sophisticated priority-setting tools, such as horizon scanning, long-range scenario planning and effective stakeholder consultation, can be used to ensure that the focus of future work is of the highest impact and will benefit the needs of Ontario’s maternal-child sector.

Finally, it is essential that PCMCH continues to develop approaches to measure and evaluate the impact of its work. The identification of indicators and data sources, the frequency of monitoring and the appropriate group for reviewing evaluation information are all areas of development for council.

Significant progress can be made when an organization is deliberately oriented away from the “more is better” view to the “not more, but different” philosophy.

Conclusion

The creation of PCMCH has transformed Ontario’s capacity to respond to maternal-child health challenges and to advance productive, evidence-informed system-change agendas (Figure 2). The structure of PCMCH successfully united the entire maternal-newborn-child-youth health sector and facilitated a comprehensive life-course approach to practice improvement and health system planning. The explicit function of PCMCH supports a culture of continuous improvement appropriate for this time of fiscal restraint. The resulting improvements in access, quality and efficient and cost-effective care have been valuable for both the sector and the province. The specific objectives sought and the valuable lessons learned from the PCMCH experience may inform the development of similarly valuable, system-level, change-oriented organizations in other sectors or jurisdictions.

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References


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