



# Standards of Postnatal Care for Mothers and Newborns in Ontario:

## A focus on implementation and evaluation



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## About the Provincial Council for Maternal and Child Health

The Provincial Council for Maternal and Child Health has two distinct roles. First, it generates information to support the evolving needs of the maternal-child health care system in Ontario. Second, it is a resource to the maternal-child health care system in Ontario to support system improvement and to influence how services are delivered across all levels of care.

### Vision

The best possible beginnings for lifelong health.

### Mission

- 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 health care delivery for system support and advice.
- Improve the delivery of maternal and child health care 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 health care 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 therefore improving the lives of individual mothers and children, providers, and stewards of the system.

## Introduction

Approximately 140,000 babies are born in Ontario each year.<sup>1</sup> In the context of early hospital discharges, rising health care costs, and constraints on resources, there is concern that the quality of postnatal care for the mother\*-baby dyad during this transition period may be compromised. The Standards of Postnatal Care for Mothers and Newborns Expert Panel was established with the objectives to:

1. Articulate the provincial standards for postnatal care;
2. Review the literature and identify strategies to facilitate the implementation of the standards;
3. Develop an evaluation framework to monitor the implementation of these standards; and
4. Identify or develop parent education tools to assist with the communication of the standards to families.

Firstly, the panel reviewed the standards against existing research evidence and best practice guidelines, in order to ensure that they were up-to-date. The panel then administered a provincial survey to identify innovative models or methods that were currently in use or being adopted for providing and/or coordinating postnatal care, and concurrently performed a literature review to identify models of care that could potentially be used at local and provincial levels to coordinate and implement the postnatal standards. Finally, the panel identified a number of indicators to be included in the evaluation framework for this initiative.

## About the Report

This report describes elements that contribute to a high quality and coordinated postnatal care system in Ontario, and includes a suggested evaluation framework that identifies the standards that should be prioritized for monitoring across the province. It is meant to provide health care providers, institutions, public health units and Local Health Integration Networks (LHINs) with recommendations as to how the delivery of postnatal care can be enhanced, to ensure that all mothers and babies receive the necessary care in the first week after birth. This report is a complement to the previously published report that articulated the standards of postnatal care.

*\*Please note that the term 'mothers' described in this report is meant to refer to all birth parents regardless of gender or gender identity.*

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<sup>1</sup> Statistics Canada. No date. Table 102-4503, Births and total fertility rate, by province and territory. CANSIM (database). Last updated October 26, 2016. Retrieved from: <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/hlth85a-eng.htm> (Accessed November 2016).

## Standards of Postnatal Care for Mothers and Newborns in Ontario

### VISION

**Coordination of quality postnatal care for all mothers and newborns in Ontario during the birth to one week postnatal period**

## Implementation of a High Functioning Postnatal Care System for Mothers and Newborns in Ontario

The following section describes the elements of a high functioning health care system, highlighting different models of care and the methods that can be applied to facilitate the coordination of postnatal care for mothers and newborns during the birth to one week postnatal period. A set of implementation tips are also provided to facilitate the implementation and sustainability of the model(s) and/or method(s).

### Principles and Strategies to Achieve a High Functioning Postnatal Care System

#### **Principles**

The expert panel identified six principles to guide individuals and institutions when selecting their chosen model and/or method of service delivery:

#### **Mother-Baby Dyad Care:**

Health care providers should be aware that the mother and newborn should be cared for together in the first week after birth and upon discharge from hospital. Their care should be coordinated with consideration of limiting the number of health care visits outside of the home.

#### **Collaborative Care:**

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

#### **Family-Centred Care:**

Family is whoever the mother says is family and may include their partner, family members, or friends.

#### **Effective & High Quality Care:**

Mothers and newborns should receive high quality care that is based on the best available scientific information.

#### **Safe Care:**

Mothers and newborns should not be harmed by an accident or mistake when they receive care.

#### **Efficient Care:**

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

## **Strategies**

Elements of a high functioning postnatal care system include care that is well-coordinated between hospital, home, specialist and primary care, and public health. In many areas of Ontario, the current system is functioning well, and although it may benefit from some minor coordination or structural changes, it does not require any significant intervention. In other areas, however, where distance, human resources, technology, and communication challenges create barriers and silos, this document may be more applicable. This document can assist local leadership in maternal-child health care to look at opportunities for change to improve the care that their mother-baby dyads receive in this critical transition phase of life.

In order to identify the elements of a high functioning postnatal care system, PCMCH has reviewed the literature and considered provincial health care priorities. Postnatal care models and methods that align with provincial priorities will enable LHINs, LHIN sub-regions, and communities to leverage the expected changes, which are anticipated as a consequence of the implementation of Ontario's Patients First Act. Under Patients First, in partnership with local clinical leaders, the LHINs will be responsible for the planning, management, delivery, and performance improvement of home and community care and primary care. Given that nearly all postpartum care is delivered in a primary care framework by midwives, family physicians, nurse practitioners and primary care paediatricians, embedding the implementation of a high functioning postnatal care system within the context of Patients First aligns a provincial priority with an identified care challenge.

## Implementation Tips for Facilitating Quality Coordination of Postnatal Care

The expert panel encourages individuals and institutions to identify local leads to thoroughly assess the needs of their community before considering the adoption of any of the postnatal care models and/or methods. Engaging key community stakeholders, including mothers and their families, during the community assessment phase is critical to reduce overlap and gaps in service that may exist within communities. When implementing a model (or a combination of models), it is important for institutions and individuals to first establish strong collaboration and partnerships with others in the community, as this will facilitate successful implementation and promote sustainability.

It is also important to consider health equity when implementing any of the postnatal care models and/or methods. Health care providers and institutions are encouraged to keep in mind the social determinants of health and how these impact access to high quality care. Provincial, regional and local strategies like the “We Ask Because We Care” initiative should be leveraged when and where possible.<sup>2</sup> Alignment with other provincial initiatives, such as the Special Needs Strategy, which focuses on care coordination for children with special needs, should also be considered.<sup>3</sup> Whether implementing a new postnatal care model or improving an existing one, conducting a Health Equity Impact Assessment (HEIA) is recommended to maximize positive impacts and reduce negative impacts in care models that could potentially widen health disparities between population groups. The Ministry of Health and Long-Term Care has an HEAI tool that is accessible on their website that can be utilized ([click here to access the tool](#)).

Other key tips to facilitate successful implementation include the commitment of all health care organizations and providers, including its leaders, to reinforce collaborative behavior, shared responsibility and accountability. This is outlined through concepts such as service or partnership agreements, shared values, goals and vision, and clinical protocols. Consistent data collection and analysis is also required to evaluate practices/ procedures and implement changes when there is an identified need, which will be essential to optimizing maternal and neonatal outcomes.<sup>4</sup>

The following has been adapted from the Breastfeeding Committee for Canada’s Integrated 10 Step Practice Outcome Indicators:

- Ensure that a reliable and formal system is in place for communicating the status and results of a baby’s screening tests, as well as a mother’s feeding, social, and health (physical and emotional) progress. Ensure timely and accurate communication at all transitions between health care providers and institutions, as patients move between hospitals, units, or from hospital or birthing centre to the community.
- Ensure that families with incomplete screening or unresolved feeding, social, or health issues are discharged from hospital or birthing centre with written plans. This includes plans that support the families’ goals and provide information regarding follow-up with an appropriate health care provider or health care service.
- Ensure that mothers and families are aware of and able to access assistance with breastfeeding and other relevant services between 24 hours to seven days after discharge. These services should be available 7 days per week including holidays and should include access to “after hours” care and support.
- Ensure that mothers and families are aware of the signs and symptoms of illness and know when, where and how to seek help.

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<sup>2</sup> Ontario Human Rights & Health Equity Office, Sinai Health System. (2017). Measuring Health Equity: Demographic Data Collection in Health Care. Retrieved from: <http://torontohealththeequity.ca/>

<sup>3</sup> Ontario Ministry of Children and Youth Services. (2016). Ontario’s Special Needs Strategy. Retrieved from: <http://www.children.gov.on.ca/htdocs/English/professionals/specialneeds/strategy.aspx>

<sup>4</sup> Simcoe Muskoka District Health Unit. (2013). Collaborative maternity care evidence summary: Recommended aspects of care.

- Ensure that there is a strong liaison and good communication between hospital and community health facilities and providers.
- Ensure that there is a system of follow-up support for mothers after they are discharged as outlined later in this document or utilizing other local solutions that are effective for the specific community. E.g., early (within 7 days) visit to their family physician, midwife, nurse practitioner or paediatrician, early postnatal or lactation clinic check-up, home visit, telephone call, and/or referral to a mother support group.
- Ensure that referrals are routinely made to community resources. For example,
  - Where mother-to-mother (peer) support groups exist, families should be offered referral to them.
  - Where other services are available (such as baby clinics, telephone help lines, home visits from community health nurses and breastfeeding clinics), families should be referred or given information to enable them to access these services.
- Ensure that outreach occurs to families in the community who do not routinely or regularly use/ access hospital and community programs or do not have a primary care practitioner.

## Evaluation Considerations

The expert panel identified the following standards as priority for monitoring by individuals, clinics, and/or institutions in Ontario:

Standard	Rationale for Monitoring	Suggested Outcome Measures
Breastfeeding Initiation and Support	Breastfeeding initiation and support can help prevent jaundice and dehydration, and is a major concern for mothers planning to breastfeed.	<ul style="list-style-type: none"> <li>● Percentage of infants placed on uninterrupted skin-to-skin contact for 60 minutes</li> <li>● Rate of breastfeeding initiation</li> <li>● Rate of breastfeeding at discharge</li> <li>● Rate of breastfeeding at 6 weeks (as an indicator of the breastfeeding follow-up support accessed during the first week after birth and beyond)</li> <li>● Rate of both medically and non-medically indicated supplementation</li> </ul>
Maternal Mental Health	Maternal mental health can impact mother-baby bonding but is not always screened for or discussed in the way that it should be.	<ul style="list-style-type: none"> <li>● Percentage of postpartum Healthy Babies Healthy Children screens</li> <li>● Percentage of completed Edinburgh Postnatal Depression Scale screens on new perinatal record</li> </ul>
Pulse Oximetry Screening For Critical Congenital Heart Disease	Critical Congenital Heart Disease screening and Hyperbilirubinemia screening are designed to prevent catastrophic events that occur in the first month. Undiagnosed or untreated jaundice can lead to Kernicterus.	<i>Please refer to Newborn Screening Ontario.</i>
Jaundice and Hyperbilirubinemia Screening		<ul style="list-style-type: none"> <li>● Percent infants receiving a bilirubin measurement in the first 72 hours of life</li> <li>● Readmission rates</li> <li>● Percent infants with severe hyperbilirubinemia</li> <li>● Percent infants with critical hyperbilirubinemia</li> </ul>
Newborn Exam	Newborn follow-up visits in the community within the specified time frame is important but may be challenging given resource limitations in some regions of Ontario.	<ul style="list-style-type: none"> <li>● Percentage of completed newborn exams within the recommended time frames, i.e.: <ul style="list-style-type: none"> <li>○ For hospital births – within 24 hours of birth, and again within 24-72 hours after discharge from the hospital</li> <li>○ For out-of-hospital births – during the birth visit within 24 hours of birth, and again within 24-72 hours of the first complete physical exam</li> </ul> </li> </ul>

## Examples of Strategies and Models of High Functioning Postnatal Care Systems

In the tables on the next seven pages, models and methods that have been identified in the literature are presented, including: effective communication strategy, continued use of technology, home visiting program, care coordinator model, and ambulatory integrated postnatal care model. Examples of current initiatives occurring in Ontario or Canada are highlighted and implementation considerations for LHIN, LHIN sub-regions and/or community leadership are addressed as each relates to today's health care climate.

## Effective Communication Strategy

Clear communication between institutions, health care providers in the community and families is essential for ensuring successful coordination of postnatal care. Thus, a communication strategy should be developed by birthing institutions, physicians and midwives to facilitate effective communication of pertinent health information as postnatal mothers and their families transition into the community. A comprehensive discharge summary or an Ontario-based maternal-newborn passport program are examples of communication strategies that may be useful tools in relaying pertinent health information to health care providers in the community. Increased implementation and provider access to secure electronic communication may play a key role in this strategy to improve care.

Evidence	Implementation Considerations
<p><b>Maternal-Newborn Passport:</b><sup>5,6</sup></p> <p>The maternal-newborn passport is typically a booklet held by the patient/ mother and contains relevant information for the mother to think about and discuss with her health care provider; this can include information about the care the mother and infant received and/ or can expect to receive and a list of resources that mothers can refer to for more information.</p> <p>The benefits of the maternal-newborn passport program include:<sup>7</sup></p> <ul style="list-style-type: none"> <li>• minimal change to processes for health care providers and organizations,</li> <li>• reported improved adherence by care providers to clinical guidelines,</li> <li>• improved communication between health care providers and patients.</li> </ul> <p>Although more research is required to confirm the effects of these types of programs, some research reported mixed results regarding improvements in clinical outcomes and patient satisfaction, and no difference in missed proportion of well-clinic visits and missed immunizations (up to 9 months).<sup>8</sup></p>	<p>Every family needs to have a comprehensive discharge summary to allow for effective coordination of care. The maternal-newborn passport or comprehensive discharge summary will allow for clear communication amongst health care providers to ensure effective transition into the community.</p> <p>A comprehensive discharge summary that includes relevant information about the mother and newborn can serve as an effective communication tool. This summary can be used to relay important information about any feeding, social, or health concerns identified prior to discharge, and any follow-up tests or appointments that are required. Mothers and their families should be informed of the importance of the discharge summary as a communication tool to ensure continuity of care in the postnatal period.</p> <p>In the future, developing a communication tool for postnatal or longer-term infant care, such as an Ontario based maternal-newborn passport program, may be an effective communication tool for parents/ mothers. The benefits and challenges with this type of communication tool require further exploration and consideration.</p>

<sup>5</sup> British Columbia Healthy Families BC. (2013). Child health passport. Retrieved from: <http://www.immunizebc.ca/sites/default/files/graphics/child-health-passport2013.pdf>.

<sup>6</sup> Government of Western Australia, Department of Child Protection. Child Health Passport. Western Australia; 2006.

<sup>7</sup> Lee, L.K., Mulvaney-Day, N., Berger, A.M., Bhaumik, U., Nguyen, H.T. & Ward, V.L. (2016). The patient passport program: An intervention to improve patient-provider communication for hospitalized minority children and their families. *Acad Pediatr*, 16(5), 460-7.

<sup>8</sup> Stevens-Simon, C., Kelly, L. & Brayden, R.M. (2001). A health passport for adolescent parents and their children. *Clin Pediatr (Phila)*, 40(3), 169-72.

## Continued Use of Technology

With the strategic use of technology,<sup>9</sup> primary or specialized care can be delivered remotely in ‘real time’ through video-conferencing, telephone, or ‘store and forward’ technology such as e-mail or text message, and health care providers can provide patient education and real-time assessment of clinical status. Additionally, health care providers, such as midwives, nurses, nurse practitioners, or physicians, can receive consults from specialists virtually. Increasing primary care access to documentation through ConnectingOntario will also ensure that care providers have critical information that is needed at the point of patient care.<sup>10</sup> Increased patient access to their own medical record via Personal Health Information Protection Act (PHIPA), would allow patients to support their own document sharing amongst providers (e.g., an electronic version of the maternal-newborn passport), although additional patient education about the interpretation of the medical record would also be required.

Evidence	Implementation Considerations
<p>The benefits of technology in health care include:<sup>11</sup></p> <ul style="list-style-type: none"> <li>• improved system utilization and contact between patients and health care providers,</li> <li>• patient convenience and cost savings,</li> <li>• improved and timely access to care,</li> <li>• more efficient use of the health system’s resources.</li> </ul>	<p>The continued use of technology can be used to supplement face-to-face interactions between families and health care providers, particularly in remote or rural regions in Ontario, or where an integrated postnatal care model or home visiting program is not currently possible. The use of ‘remote monitoring’ services is included in some “bundled care” pilot programs that are currently being implemented in Ontario. Leveraging the use of this existing technology for the maternal-newborn population is recommended. Providers and institutions should be receptive to the adoption of new and emerging technologies that may assist with the provision of postnatal care whenever possible. In addition, consideration should be given to ensuring data security and confidentiality, and to determining the costs and acceptability of the use of this technology amongst patients and health care providers before scaling up, as studies have demonstrated mixed results.<sup>12</sup></p> <p>Secure remote video conferencing solutions that are currently being studied in the home and community care framework could also potentially be leveraged to allow patients to directly access providers when a physical visit is not practical or necessary.</p>

<sup>9</sup> Praxia & Gartner. (2011). Telehealth benefits and adoption: Connecting people and providers across Canada. Retrieved from: <https://www.infoway-inforoute.ca/en/component/edocman/resources/reports/333-telehealth-benefits-and-adoption-connecting-people-and-providers-full>.

<sup>10</sup> eHealth Ontario. (2017). ConnectingOntario. Retrieved from: <https://www.ehealthontario.on.ca/for-healthcare-professionals/connectingontario>

<sup>11</sup> Flodgren, G., Rachas, A., Farmer, A.J., Inzitari, M. & Shepperd S. (2015). Interactive telemedicine: Effects on professional practice and health care outcomes. Cochrane Database Syst Rev, 7(9):CD002098.

<sup>12</sup> Ontario Ministry of Health and Long-Term Care. Guide to the Advanced Health Links Model. Ottawa, ON; 2015.

	<p>Limitations of relying on technology include limited/ poor access to the internet in some rural/ remote communities (i.e., Northern Ontario). Such communities that have different needs and capacities may need to engage their LHINs to determine opportunities for innovative information-technology solutions.</p>
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## Home Visiting Program

Trained medical professionals, such as public health nurses or midwives, visit families in their homes to provide patient education and health care services shortly after birth. The focus, frequency and duration of home visits vary.

Evidence	Implementation Considerations
<p>Home visiting programs can lead to higher exclusive breastfeeding rates and patient satisfaction scores, and have been identified as a preferred model of care (over ambulatory care) by some patients.<sup>13</sup> This model has also been found to:<sup>14,15,16</sup></p> <ul style="list-style-type: none"> <li>• increase mother-child interactions,</li> <li>• stimulate positive attachment between mother and baby,</li> <li>• improve uptake of other medical and educational interventions in the community,</li> <li>• decrease emergency medical care for babies,</li> <li>• help prevent or improve postpartum depression,</li> <li>• improve access to care for at-risk populations,</li> <li>• allow for more accurate assessment of the family’s needs and risks.</li> </ul> <p>An extended home visiting care program focusing on the identification and management of the mother’s physical and psychological health (rather than on routine observations) and guided by evidence based guidelines was shown to improve maternal mental health but showed no significant differences in patient satisfaction scores, exclusive breastfeeding rates, or overall costs compared to routine care.<sup>17</sup></p>	<p>Home visiting programs are already in existence in Ontario (e.g. Public Health Healthy Babies Healthy Children program, LHIN Home and Community Care program, and the Midwifery model). Thus, individuals, groups, or institutions wishing to expand home visiting programs in their regions should first seek to explore partnership opportunities with established programs.</p> <p>Six regions in Ontario are in the process of piloting a “bundled care” program.<sup>18</sup> This program is meant to support short-term care at home once patients are discharged from the hospital. Core components of the program vary but could include, remote monitoring, navigation assistance, care coordinator (as a single point of contact), ambulatory clinic, and access to a unified electronic medical record. Elements of the program should be considered for use within home visiting programs and where possible, the infrastructure should be leveraged to minimize costs.</p> <p>The development of a Self-Directed Care (SDC) program for home care clients is another initiative underway in Ontario. A care coordinator at the LHIN develops a care plan for patients, and families are provided with direct funding to implement the care plan. Although this program is currently being targeted</p>

<sup>13</sup> Yonemoto, N., Dowswell, T., Nagai, S. & Mori, R. (2013). Schedules for home visits in the early postpartum period. CDSR, 7.

<sup>14</sup> Armstrong KL; Fraser JA; Dadds MR; Morris J. A randomized, controlled trial of nurse home visiting to vulnerable families with newborns 1999 Jun (The Cochrane Controlled Trials Register (CTCR/CENTRAL)). In: The Cochrane Library, Issue 1, 2012.

<sup>15</sup> Leis, J.A., Mendelson, T., Tandon, S.D., Perry, D.F. A systematic review of home-based interventions to prevent and treat postpartum depression. Archives of Women’s Mental Health (2009). 12 (3) DOI: 10.1007/s00737-008-0039-0.

<sup>16</sup> Benahmed, N., Devos, C., San Miguel, L., Vankelst, L., Lauwerier, E., Verschueren, M., & Christiaens, W. (2014). Caring for mothers and newborns after uncomplicated delivery: towards integrated postnatal care. Health Technology Assessment (HTA) Brussels: Belgian Health Care Knowledge Centre (KCE).

<sup>17</sup> MacArthur, C., Winter, H.R., Bick, D.E, Lilford, R.J., Lancashire, R.J., Knowles, H., & Gee, H. (2003). Redesigning postnatal care: A randomised controlled trial of protocol-based midwifery-led care focused on individual women’s physical and psychological health needs. Health Technol Assess, 7(37).

<sup>18</sup> Ontario Ministry of Health and Long-Term Care. (2015). Ontario Funds Bundled Care Teams to Improve Patient Experience: Province Expands Coordinated Team Approach to Provide Seamless Service to Patients. Retrieved from: <https://news.ontario.ca/mohltc/en/2015/09/ontario-funds-bundled-care-teams-to-improve-patient-experience.html>

	<p>towards children with the highest need for intensive home care, the concept of the proposed SDC program may be adapted to the maternal-newborn population. For example, during the first seven days after birth, a maternal-newborn care coordinator at the LHIN could develop a tailored care plan outlining what follow-up services families require during this period. Alternatively, a similar model could be administered through public health units. Vulnerable populations, such as young mothers, newcomers to Canada, and those who have been identified as at-risk for developing maternal or newborn complications, should be prioritized for receiving the support of a care coordinator to develop the postnatal care plan.</p>
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## Care Coordinator Model

A care coordinator role may be useful in helping families, particularly those who are at risk for complications, navigate the health care system to ensure timely and coordinated access to care in the immediate postnatal period. Such a method has been widely popular within the older adult population in Ontario, specifically through the Health Links Model of Care. This model encourages greater collaboration between local health care providers to better meet the needs of patients with complex care needs. Adapting elements from the Health Links model<sup>19</sup> to suit the postnatal population may help enhance the coordination of postnatal care for families in the immediate postnatal period.

Evidence	Implementation Considerations
<p>The benefits of a care coordinator role in the health care system include:<sup>20</sup></p> <ul style="list-style-type: none"> <li>• minimal change to processes for Health Link partner organizations,</li> <li>• more patients having coordinated care plans,</li> <li>• improved access to primary care,</li> <li>• enhanced patient experience through participation in care planning,</li> <li>• strengthened relationships and communication between providers in local areas,</li> <li>• small-scale improvements in health outcomes for high users – including reductions in emergency department use and hospital admissions.</li> </ul>	<p>The implementation of a care coordinator role for postnatal care should be done in consultation with the LHINs and/or public health units, given that an expansion of existing Health Links models and other care coordinator models, or the development of new models may be required.<sup>21</sup> As mentioned previously, given that there are new initiatives currently underway within the province with respect to innovative primary care service delivery, it is critically important to determine how these innovative models can be leveraged for application to the postnatal population.</p>

<sup>19</sup>The Health Links approach to coordinated care planning promotes a shared understanding of what is most important to the patient through the establishment of a Coordinated Care Plan, inclusive of clear roles and responsibilities of each member of the patient's care team. A designated care coordinator within the patient's care team helps organize various health care services and supports.

<sup>20</sup> Lee, L.K., Mulvaney-Day, N., Berger, A.M., Bhaumik, U., Nguyen, H.T., & Ward, V.L. (2016). The Patient Passport Program: An Intervention to Improve Patient-Provider Communication for Hospitalized Minority Children and Their Families. *Acad Pediatr*, 6(5), 460-7.

<sup>21</sup> Ontario Ministry of Health and Long-Term Care. Guide to the Advanced Health Links Model. Ottawa, ON; 2015.

## Ambulatory Integrated Postnatal Care Model

This model has been described in the literature as a one-stop shop model where care providers delivering different services are co-located in a practice or an interdisciplinary clinic. These clinics are staffed by health care providers such as midwives, physicians, nurse practitioners, and/or nurses.<sup>22,23,24,25,26</sup> Examples of community-based integrated postnatal care models are [The Monarch Maternal Newborn Health Centre](#) in Ottawa and [Vancouver's South Community Birth Program \(SCBP\)](#). These centres provide postnatal care to families for up to six weeks postpartum. The Monarch Centre focuses on hospital discharge planning and transitions of care, and coordinates connections with community and institutional partners. The SCBP provides postpartum home visits, and weekly breastfeeding and postpartum drop-in clinics. Hospital-based ambulatory postnatal care clinics, such as [Mount Sinai Hospital's Postnatal Ambulatory Clinic \(PNAC\)](#), are also available. This clinic offers breastfeeding support and other maternal and newborn follow-up supports within the first seven days after birth.

Evidence	Implementation considerations
<p>The benefits of an integrated postnatal care model include:<sup>27,28,29</sup></p> <ul style="list-style-type: none"> <li>• higher rates of exclusive breastfeeding,</li> <li>• higher patient satisfaction scores,</li> <li>• improved convenience of being able to access all necessary care in one location,</li> <li>• rapid delivery of different services to patients,</li> <li>• improved understanding by care providers of each other's roles,</li> <li>• increased efficiency due to care providers sharing the assessment and care management processes through the development of shared paperwork and joint visits.</li> </ul>	<p>Local adaptations and an incremental, step-wise approach to tackling initiatives is recommended since the securement of government funding and restructuring of infrastructure may be required in some communities. Individuals, groups, and/or institutions should work in close collaboration with their LHIN and LHIN sub-regions to determine which postnatal services are required and define the patient population that would benefit most from these services. Integrated postnatal care models that are already in operation, such as the Monarch Centre and PNAC, should be consulted for mentorship opportunities.</p> <p>As part of the province's commitment to the Patients First Act, the LHINs are currently piloting innovative "bundled care" services to help patients transition from hospital to home.<sup>32</sup> Although this program is focused on the older adult</p>

<sup>22</sup> Harris, S. J., Janssen, P. A., Saxell, L., Carty, E. A., MacRae, G. S., & Petersen, K. L. (2012). Effect of a collaborative interdisciplinary maternity care program on perinatal outcomes. *Canadian Medical Association Journal*, 184(17), 1885-1892.

<sup>23</sup> Laliberté, C., Dunn, S., Pound, C., Sourial, N., Yasseen, A.S., Millar, D., & Lacaze-Masmonteil, T. (2016). A randomized controlled trial of innovative postpartum care model for mother-baby dyads. *PLoS One*, 11(2).

<sup>24</sup> Canadian Health Services Research Foundation. (2012). Interprofessional collaborative teams. Retrieved from: [http://www.cfhi-fcass.ca/Libraries/Commissioned\\_Research\\_Reports/Virani-Interprofessional-EN.sflb.ashx](http://www.cfhi-fcass.ca/Libraries/Commissioned_Research_Reports/Virani-Interprofessional-EN.sflb.ashx).

<sup>25</sup> French, R.S., Coope, C.M., Graham, A., Gerressu, M., Salisbury, C. & Stephenson, J.M. (2006). One-stop shop versus collaborative integration: what is the best way of delivering sexual health services?. *Sex Transm Infect*, 82(3), 202-206.

<sup>26</sup> Ojikutu, B., Holman, J., Kunches, L., Landers, S., Perlmutter, D., Ward, M., & Hirschhorn, L. (2014). Interdisciplinary HIV care in a changing healthcare environment in the USA. *AIDS Care*, 26(6), 731-5.

<sup>27</sup> Harris, S. J., Janssen, P. A., Saxell, L., Carty, E. A., MacRae, G. S., & Petersen, K. L. (2012). Effect of a collaborative interdisciplinary maternity care program on perinatal outcomes. *Canadian Medical Association Journal*, 184(17), 1885-1892.

<sup>28</sup> Laliberté, C., Dunn, S., Pound, C., Sourial, N., Yasseen, A.S., Millar, D., & Lacaze-Masmonteil, T. (2016). A randomized controlled trial of innovative postpartum care model for mother-baby dyads. *PLoS One*, 11(2).

<sup>29</sup> Brown, L., Tucker, C. & Domokos, T. (2003). Evaluating the impact of integrated health and social care teams on older people living in the community. *Health Soc Care Community*, 11(2), 85-94.

<sup>32</sup> Ontario Ministry of Health and Long-Term Care. (2015). Ontario Funds Bundled Care Teams to Improve Patient Experience: Province Expands Coordinated Team Approach to Provide Seamless Service to Patients. Retrieved from: <https://news.ontario.ca/mohltc/en/2015/09/ontario-funds-bundled-care-teams-to-improve-patient-experience.html>

<p>When SCBP was implemented in a less socio-economically advantaged neighbourhood, higher exclusive breastfeeding rates and shorter hospital stays were observed.<sup>30</sup> When the Monarch Centre was implemented in a group composed of highly educated mothers, study authors did not find differences in exclusive breastfeeding rates in favour of the intervention group.</p>	<p>population, elements of the program, such as how ambulatory clinics can be used to support families, should be considered for adaptation to the maternal-newborn population. Within this model, communities could offer a limited number of “bundled” postnatal services at an ambulatory clinic after determining the needs of the population and available resources.</p>
<p>This model demonstrated mixed results on readmission rates, and little improvement in postpartum depression scores or breastfeeding self-efficacy scores.<sup>31</sup> Thus, more research is required before drawing firm conclusions on the benefits and drawbacks of this model.</p>	<p>Also, in the ‘Patients First: A Proposal to Strengthen Patient-Centred Health Care’ report, timely access to primary care and increasing the number of after-hour and weekend care is identified as a priority.<sup>33</sup> Thus, an ambulatory integrated postnatal care model should strive towards being accessible outside of regular business hours.</p>

## Conclusion

A number of different models of care and methods have been presented that are aimed to support health care providers and institutions in the implementation of the standards of postnatal care. Selecting the right model/ approach based on evidence, best practices and local needs and experience is essential. Decision making should also consider the health equity perspective, to ensure that the chosen model/ approach is appropriate for the patient population that is most in need and would benefit from these services the most. Individuals, groups, and/or institutions should work in close collaboration with their LHINs, public health units, and other community agencies to determine the best approach to ensure coordinated delivery of postnatal services, and thus optimize maternal and newborn health outcomes.

<sup>30</sup> Harris, S. J., Janssen, P. A., Saxell, L., Carty, E. A., MacRae, G. S., & Petersen, K. L. (2012). Effect of a collaborative interdisciplinary maternity care program on perinatal outcomes. *Canadian Medical Association Journal*, 184(17), 1885-1892.

<sup>31</sup> Laliberté, C., Dunn, S., Pound, C., Sourial, N., Yasseen, A.S., Millar, D., & Lacaze-Masmonteil, T. (2016). A randomized controlled trial of innovative postpartum care model for mother-baby dyads. *PLoS One*, 11(2) and Harris, S. J., Janssen, P. A., Saxell, L., Carty, E. A., MacRae, G. S., & Petersen, K. L. (2012). Effect of a collaborative interdisciplinary maternity care program on perinatal outcomes. *Canadian Medical Association Journal*, 184(17), 1885-1892.

<sup>33</sup> Ontario Ministry of Health and Long-Term Care. *Patients First: A Proposal to Strengthen Patient-Centred Health Care*. Ottawa, ON; 2015.

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