Annual Report 2016/17

Perinatal Services BC
An agency of the Provincial Health Services Authority

Perinatal Services BC

Perinatal Services BC (PSBC), an agency of the Provincial Health Services Authority, provides leadership, support, and coordination for the strategic planning of perinatal services in British Columbia. PSBC collaborates with the Ministry of Health, health authorities, and other key stakeholders. Perinatal Services BC is the central source in the province for evidence-based perinatal information.

Vision

Healthy women having healthy pregnancies and infants.

Mission

Through partnerships and collaboration and by building a high quality system of care across the continuum, we will optimize pregnancy and birth outcomes as a foundation for a healthy population.

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Introduction

Perinatal Services BC (PSBC) is pleased to share our 2016/17 Annual Report. We had another busy and successful year, advancing our strategic priorities to improve maternal and newborn health across the province.

This report highlights our work in the following areas:

- health promotion, prevention, and primary care;
- knowledge transformation and acute care;
- registry, surveillance, performance, and analytics;
- system planning; and
- communications and engagement.

PSBC has worked closely with the Ministry of Health, regional health authorities, other agencies within the Provincial Health Services Authority, and key provincial stakeholders to further important system planning initiatives, such as normalizing birth and sustaining rural maternity and surgical services.

We are excited to have begun developing a new perinatal data registry that will enable integration with external systems, timely access to data, and scalability in a cost-effective and sustainable manner.

And we have started planning our 3rd biennial *Healthy Mothers and Healthy Babies* conference to be held March 1-2, 2018—save the dates!

Perinatal Services BC looks forward to another year of collaborating closely with our partners across the health system and across the province to improve maternal and newborn health.

Health Promotion, Prevention & Primary Care

We collaborate with frontline leaders in community, primary care, and acute care settings across the province, as well as the Ministry of Health, health authorities, and national organizations to lead the development and implementation of best practice initiatives that promote healthy pregnancies and healthy infants.

Public Health & Health Promotion

Perinatal Services BC recruited for the new position of Coordinator, Public Health and Health Promotion to lead projects, activities, and best practice initiatives to strengthen public health nursing practice across the province in order to promote healthy pregnancies and healthy infants. The coordinator is collaborating with the Ministry of Health and provincial stakeholders, including managers and frontline leaders in community public health, primary care, and acute settings.

Diabetes Screening

Gestational diabetes mellitus (GDM) is a significant concern for maternal and newborn health. PSBC has begun work to achieve a better understanding of the root causes of GDM diagnosed in BC, implement strategies to prevent GDM where possible, and optimize outcomes for mothers and newborns affected by GDM. One of the planned activities is a provincial consensus meeting on: selective versus universal screening; the specific GDM test(s) to be ordered by providers; and diagnostic thresholds for laboratory use.

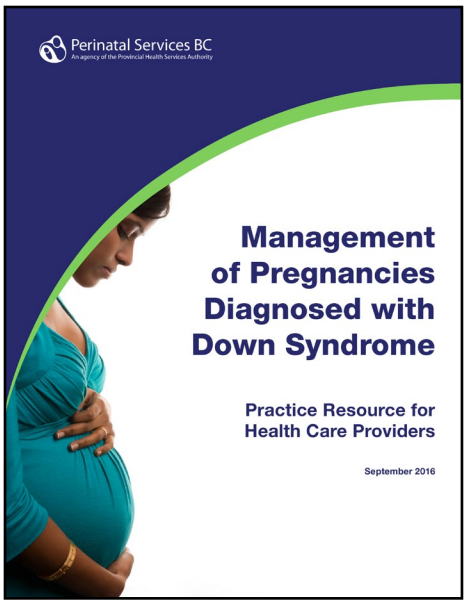
Safer Infant Sleep

Many families in BC may plan to or accidentally sleep with their newborns but may not be aware of the risk factors that make bedsharing more likely to contribute to infant death. Frontline care providers have requested additional patient and provider support resources and education to enable them to provide harm reduction guidance to families and promote safer sleep practices. To improve the knowledge and confidence of both families and providers to engage in discussions about safer sleep practices—and ultimately reduce sleep-related death among infants—PSBC and the Ministry of Health are co-leading a working group to develop professional practice support tools and refresh parent resources.

Aboriginal Health

Perinatal Services BC continues to work closely with the First Nations Health Authority, nurses, regions, and communities on maternal and child health programs and projects. The *Honouring Our Babies Safe Sleep Toolkit* is being updated to reflect current messaging and to make the kit smaller, more portable, and less costly. The revised toolkit will be available in October.

Prenatal Genetic Screening Program



Prenatal Diagnosis of Down Syndrome

PSBC led a working group to develop a new practice resource for health care providers called *Management of Pregnancies Diagnosed with Down Syndrome.* Counselling of these pregnant women and their partners should provide accurate, current, and balanced information that presents the obstetrical risks and medical concerns associated with Down syndrome as well as the benefits and challenges of raising a child with Down syndrome. The practice resource aims to optimize maternal and newborn outcomes in this patient population and includes a number of recommendations for the comprehensive evaluation and management of pregnancies diagnosed with Down syndrome.

Non-Invasive Prenatal Testing

BC began funding non-invasive prenatal testing (NIPT) in November 2015, making the 2016 calendar year the first full year of NIPT being offered to eligible women who were identified as high-risk based on their screen result, ultrasound anomalies, or pregnancy history. Offering funded NIPT as a new option means that eligible women are now in a position to choose a non-invasive alternative to amniocentesis, which poses a procedural miscarriage risk. Data from the first year of offering funded NIPT showed an uptake rate of 84%, thus hundreds of amniocentesis procedures were avoided.

Trisomy 21 Risk Calculator

A detailed trimester ultrasound at 18-20 weeks is part of a woman's prenatal standard of care in order to assess fetal anatomy and growth. The absence of fetal soft markers or anomalies on an 18-20 week ultrasound indicates that there is a lower risk of Trisomy 21 (Down syndrome). In contrast, the presence of soft markers or anomalies on an 18-20 week ultrasound indicates that there is increased risk for aneuploidy and should be interpreted in conjunction with the prenatal screening result. PSBC and BC Women's Hospital & Health Centre developed a Trisomy 21 risk calculator to help health care providers understand their patient's modified risk. Providers can enter the patient's screen risk and ultrasound markers to generate a new modified risk.

Newborn Screening Program

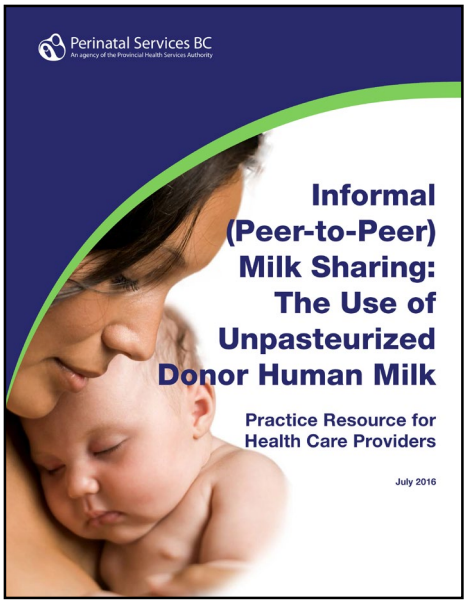
Work continues to develop an online training course for lab technicians, nurses, and midwives to improve the quality of blood collection for the newborn screening card. The course will include a patient family video introduction and will cover topics such as equipment, techniques, timeliness, transport, and supporting families.

Knowledge Transformation & Acute Care

Perinatal Services BC develops, adopts, and approves guidelines and standardized forms that support best practices for maternal and newborn care using a multidisciplinary approach. We collaborate with provincial stakeholders and frontline leaders to promote the application and integration of evidence-based best practices designed to increase the effectiveness, efficiency, accountability, and sustainability of clinical activities in maternal, fetal, and newborn health across BC.

Baby-Friendly Initiative

In Spring 2016, PSBC engaged health care providers who work with breastfeeding women to participate in a survey of the current state in working toward the Baby-Friendly Initiative (BFI) and what breastfeeding resources and programs were being used in BC. The resulting report helps lay the foundation for recommendations and strategies for next steps to support the implementation of BFI at the facility and community levels while considering the individual needs of women in BC. Shared with health authorities, the report also promotes consistent evidence-based breastfeeding messaging and support.



Informal Human Milk Sharing

PSBC launched the practice resource *Informal (Peer-to-Peer) Milk Sharing: The Use of Unpasteurized Donor Human Milk* to equip health care providers with the knowledge and tools needed to facilitate an informed discussion and decision-making process. The practice resource includes sections on:

- ethical and legal considerations;
- risks and benefits of infant supplementation options;
- minimizing risks of informal milk sharing; and
- decision support tools, such as talking points, sample policy, sample acknowledgement of risk form, and family handout.

In addition, PSBC presented the results of a Canadian health care provider opinion survey on informal milk sharing at the 2016 Canadian Association of Perinatal and Women's Health Nurses (CAPWHN) National Conference.

Workshops

PSBC held 35 workshops across BC attended by 495 healthcare providers.

Fetal Health Surveillance Instructor

2 workshops
43 participants

- 2 in Vancouver (43 participants: 19 nurses, 17 educators, 5 midwives, 2 physicians)

Acute Care of At-Risk Newborns (ACoRN)

12 workshops
203 participants

- 6 in Metro Vancouver (97 participants: 66 midwifery students, 28 nurses, 3 physicians)
- 1 in Dawson Creek (14 participants: 10 nurses, 4 physicians)
- 1 in Fernie (17 participants; 9 nurses, 8 physicians)
- 1 in Fort St. John (15 participants: 7 nurses, 1 nursing student, 2 physicians, 5 residents)
- 1 in Powell River (21 participants: 11 nurses, 8 physicians, 2 midwives)
- 1 in Trail (17 participants: 10 nurses, 3 physicians, 4 residents)
- 1 Whitehorse (22 participants: 10 nurses, 11 physicians, 1 paramedic)

Neonatal Resuscitation Program (NRP) Instructor

2 workshops
23 participants

- 1 in Prince George (7 participants: 3 physicians, 2 nurses, 2 other)
- 1 in Vancouver (16 participants: 7 educators, 4 nurses, 2 physicians, 3 other)

NRP Instructor Update

17 workshops
212 participants

- 8 in Metro Vancouver (106 participants: 46 nurses, 21 physicians, 20 educators, 11 respiratory therapists, 3 midwifes, 5 other)
- 1 in Cranbrook (9 participants: 4 nurses, 3 physicians, 1 midwife, 1 respiratory therapist)
- 1 in Fort St. John (4 participants: 3 nurses, 1 physician)
- 1 in Kamloops (17 participants: 9 nurses, 4 respiratory therapists, 2 physicians, 1 midwife, 1 educator)
- 2 in Kelowna (24 participants: 11 nurses, 4 respiratory therapists, 4 physicians, 1 midwife, 4 other)
- 1 in Nanaimo (16 participants: 7 nurses, 4 physicians, 2 midwives, 1 respiratory therapist, 1 educator, 1 other)
- 1 in Prince George (8 participants: 4 nurses, 3 educators, 1 respiratory therapist)
- 1 in Terrace (11 participants: 7 nurses, 3 physicians, 1 educator)
- 1 in Victoria (17 participants: 8 nurses, 5 physicians, 2 educators, 1 midwife, 1 other)

NRP Regional Instructor Trainer

2 workshops
14 participants

- 1 in Vancouver (9 participants: 5 nurses, 3 physicians, 1 midwife)
- 1 in Vernon (5 participants: 2 physicians, 2 nurses, 1 educator)

Registry, Surveillance, Performance & Analytics

Perinatal Services BC produces quality perinatal data and information through the Perinatal Data Registry (PDR) to drive knowledge generation and support evidence-based practice in perinatal health. Data from the PDR are widely used for surveillance and research purposes and to support health care providers, researchers, and policymakers in their work to improve maternal, fetal, and neonatal health outcomes and enhance the delivery and quality of perinatal services in British Columbia.

Development of New Perinatal Data Registry

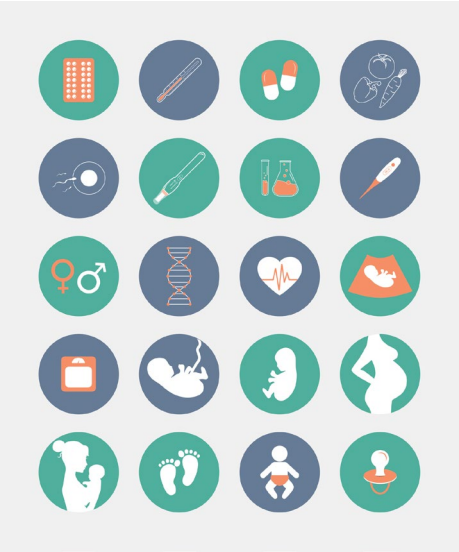
Perinatal Services BC has started developing a new PDR, to be completed by 2019. The new PDR will be a user-friendly, centralized, web-based information system. The new architecture will enable integration with external systems, timely access to data, and scalability in a cost-effective and sustainable manner. There will be substantial benefits from the new PDR, including improved system and data quality, expanded scope, cost efficiencies, increased user productivity and satisfaction, and helping providers improve patient care.

Richmond Uses Indicators to Drive Quality Maternity Care - *Perispectives*, August 11, 2016

Publicly Reported Facility-Level Indicators

Hospitals with planned maternity services and health authorities can use the facility-level maternal and neonatal indicators to identify and monitor quality improvement and safety initiatives. PSBC facilitates this by encouraging knowledge sharing among maternity sites. PSBC reviews indicator data for each facility against peer group and provincial rates and selects the top performing sites to begin the conversation about strategies they have used to produce positive rates. The information is written up as news stories and then published in the PSBC newsletter, *Perispectives* and on the website.

Collaboration and Passion Help Improve Perinatal Care in Langley - *Perispectives*, January 16, 2017



Published Articles

Hanley GE, Hutcheon JA, Kinniburgh BA, Lee L. Interpregnancy Interval and Adverse Pregnancy Outcomes: An Analysis of Successive Pregnancies. Obstet Gynecol. 2017 Mar;129(3):408-415. DOI: 10.1097/AOG.0000000000001891.

Hutcheon JA, Riddell, CA, Strumpf, EC, Lee L, Harper S. Safety of Labour and Delivery Following Closures of Obstetric Services in Small Community Hospitals. CMAJ 2016. DOI:10.1503/cmaj.160461.

Joseph KS, Basso M, Davies C, Lee L, Ellwood D, Fell DB, Fowler D, Kinniburgh B, Kramer MS, Lim K, Selke P, Shaw D, Sneddon A, Sprague A, Williams K. Rationale and recommendations for improving definitions, registration requirements and procedures related to fetal death and stillbirth. BJOG 2016; DOI: 10.1111/1471-0528.14242.

Joseph, KS, Lee L, Williams, K. Sex Ratios Among Births in British Columbia, 2000-2013. J Obstet Gynaecol Can 2016; 38(10): 919-925.e2. DOI: 10.1016/j.jogc.2016.06.005.

Lily L, Dy J, Azzam H. Management of Spontaneous Labour at Term in Healthy Women. J Obstet Gynaecol Can 2016;38(9):843-865. DOI: 10.1016/j.jogc.2016.04.093.

Yeung RO, Savu A, Kinniburgh B, Lee L, Dzakpasu S, Nelson C, Johnson JA, Donovan LE, Ryan EA, Kaul P. Prevalence of Gestational Diabetes among Chinese and South Asians: A Canadian population-based analysis. Journal of Diabetes and Its Complications. Published online October 19, 2016. DOI: http://dx.doi.org/10.1016/j.jdiacomp.2016.10.016.

The Numbers

{Data from 2016/17 are preliminary.}

- 44,528 mothers
- 46% first-time mothers
- 34% cesarean deliveries
- 53% by obstetrician
- 31% by family physician
- 14% by midwife
- 45,262 babies
- 11% preterm
- 68% babies exclusively breastfed

System Planning

Perinatal Services BC both leads and collaborates with stakeholders to develop and implement initiatives designed to support planning for perinatal health across the continuum. We are committed to ensuring that our planning initiatives intersect with other services and projects to provide true cross-continuum and cross-sector integration.

Normalizing Birth

Over the last 15 years, BC has had one of the highest cesarean delivery rates in Canada. Mother and baby outcomes can be improved by increasing vaginal birth rates. However, PSBC data show that the vaginal delivery rate for first-time mothers (who account for nearly 40% of all deliveries in BC) has decreased from 73% in 2010/11 to 70% in 2014/15.

The Ministry of Health identified safe vaginal birth as a priority, and Perinatal Services BC engaged with two provincial advisory groups to identify strategies to ensure pregnant women can be supported in normalizing the labour and birth process and experience, thus increasing vaginal birth rates.

Early in 2017, the Normalizing Birth Advisory Committees submitted their recommendations, which were approved by the Perinatal Services BC Steering Committee as follows:

Providing Quality Care

1. Interdisciplinary fetal health surveillance education to become compulsory for all providers as part of privileging and basic competencies requirements.
2. PSBC to support sites to implement documented handover communication tools for maternal and fetal health surveillance.
3. All sites to provide an experienced and trained professional to provide one-to-one support and education to women presenting in early labour prior to discharge home (or admission to site where discharge is not appropriate).
4. PSBC to provide a series of tools to support quality improvement and adherence to existing clinical guidelines for the identification and management of dystocia.
5. PSBC to support sites and health authorities to develop facility- and peer-level audit processes.
6. PSBC to continue to report facility-level vaginal birth rates for eligible nulliparous women.

Vaginal Birth After Cesarean (VBAC)

1. PSBC to report facility-level attempted vaginal birth after cesarean rates for eligible parous women.
2. PSBC to support sites and health authorities to develop facility- and peer-level audit regarding trial of labour for VBAC.
3. PSBC to work with health authorities to support sites self-assessed as providing Tier 1b or higher maternity services to provide VBAC.
4. Shared decision-making and educational resources to be developed and provided to health care providers and to women.

Work on implementing these recommendations began in the spring.

Interprofessional Collaboration Practice

Continuing with *The Art of the Possible* project to explore and enhance interprofessional collaboration in primary maternity care across BC, Perinatal Services BC has partnered with Shared Care to develop a three-part knowledge translation initiative. The initiative begins with the delivery of an interprofessional collaborative practice development workshop for primary maternity care providers in May. The workshop will provide an interactive setting for shared dialogue and learning about interprofessional collaborative primary maternity care in BC. The target audience are care providers who would like to establish an interprofessional collaborative practice in their communities or develop their collaborative knowledge and skills. Following the workshop, and to support the continued spread of an interprofessional collaborative approach to maternity care in BC, a provincial community of practice as well as a process to assist innovative, community-level collaborations will be developed.

Perinatal Tiers of Service

Work on the Perinatal Tiers of Service has continued throughout the year with presentations to many of the regional health authority perinatal teams. Following a presentation of the Tiers of Service reports, including identification of criteria gaps, to the PSBC Steering Committee, it was requested that tier-defining criteria be identified for both maternal/fetal and neonatal services for each of the six tiers. Work is underway to bring together multidisciplinary representatives from each health authority to collaboratively identify the tier-defining criteria.

Rural Maternity and Surgical Services

On behalf of the Western Provinces' Collaborative on Sustainable Rural Maternity and Surgical Services, Perinatal Services BC published a white paper entitled *Patients at the Centre: Sustaining Rural Maternity – It's All About the Surgery!* The paper focuses on putting patients first and fostering healthy rural communities through the collaborative planning, delivery, and evaluation of high-quality rural maternity and surgical services, delivered seamlessly across the continuum in formalized, team-based networks of care.

Rural health service delivery networks have been promoted as an effective and efficient way to improve the quality and sustainability of rural maternity and surgical services. Prioritizing and enabling the development of rural health service delivery networks will enable the provision of sustainable, safe, and high-quality maternity and surgical programs in rural communities. Rural populations will benefit from improved access to care, including maternity services, and the provision of surgical, trauma, emergency, procedural, preventative, and recovery services as close to home as possible.

Formalized interprofessional rural health service delivery networks are poised to deliver optimal care to rural residents while improving both patient and provider experience and satisfaction within a cost-effective framework.

PSBC has been successful in partnering with the Rural Coordination Centre of BC to obtain conditional funding to implement rural surgical and obstetrical networks in select rural communities over the next five years. The networks initiative involves a five-pillar approach, including increased scope and volume, continuous quality improvement, virtual care technology, coaching and mentorship, and overall evaluation.

Identifying Maternal Care Needs Before Delivery

The Maternal/Fetal Classification tool helps care providers identify the level of care and services a woman may require for delivery. It is usually done when a woman presents in labour at an acute care centre. However, determining her care needs before she presents in labour would enable care providers, the woman, and her family to plan and prepare ahead of the delivery date.

PSBC is leading a working group to consider incorporating Maternal/Fetal Classification into primary care. The working group will also revise the tool to better align with the Neonatal Daily Classification tool (which helps classify a newborn based on their acuity, risk, and the services they require while in hospital) and the Perinatal Tiers of Service.

Improving the Perinatal Health Care System in Canada

While Canadians benefit from an excellent perinatal health care system, there are some persistent problems such as regional and other disparities in maternal, fetal, and infant morbidity and mortality. Rates across Canada vary significantly by province/territory, socio-economic status, rural versus urban residence, Aboriginal status, and other factors. A systems approach for evaluating the structure, processes, and outcomes of regionalized perinatal care is required for knowledge-based improvement.

Perinatal Services BC is excited to join a pan-Canadian coalition of 67 researchers, health care providers, decision-makers, and knowledge translation partners in an integrated research program to improve the perinatal health care system in Canada. The coalition includes the Public Health Agency of Canada, Canadian Perinatal Programs Coalition, and various professional organizations, such as the Society of Obstetricians and Gynaecologists of Canada and the Canadian Paediatric Society.

The team has been awarded $1 million by the Canadian Institutes of Health Research to develop a national strategy to improve the perinatal health care system that includes analysis, evidence-based recommendations, and implementation. The team will work closely with perinatal care programs, ministries of health, and other stakeholders in the provinces and territories. The research project began earlier this year and will continue for five years.

Communications & Engagement

Stakeholder Engagement

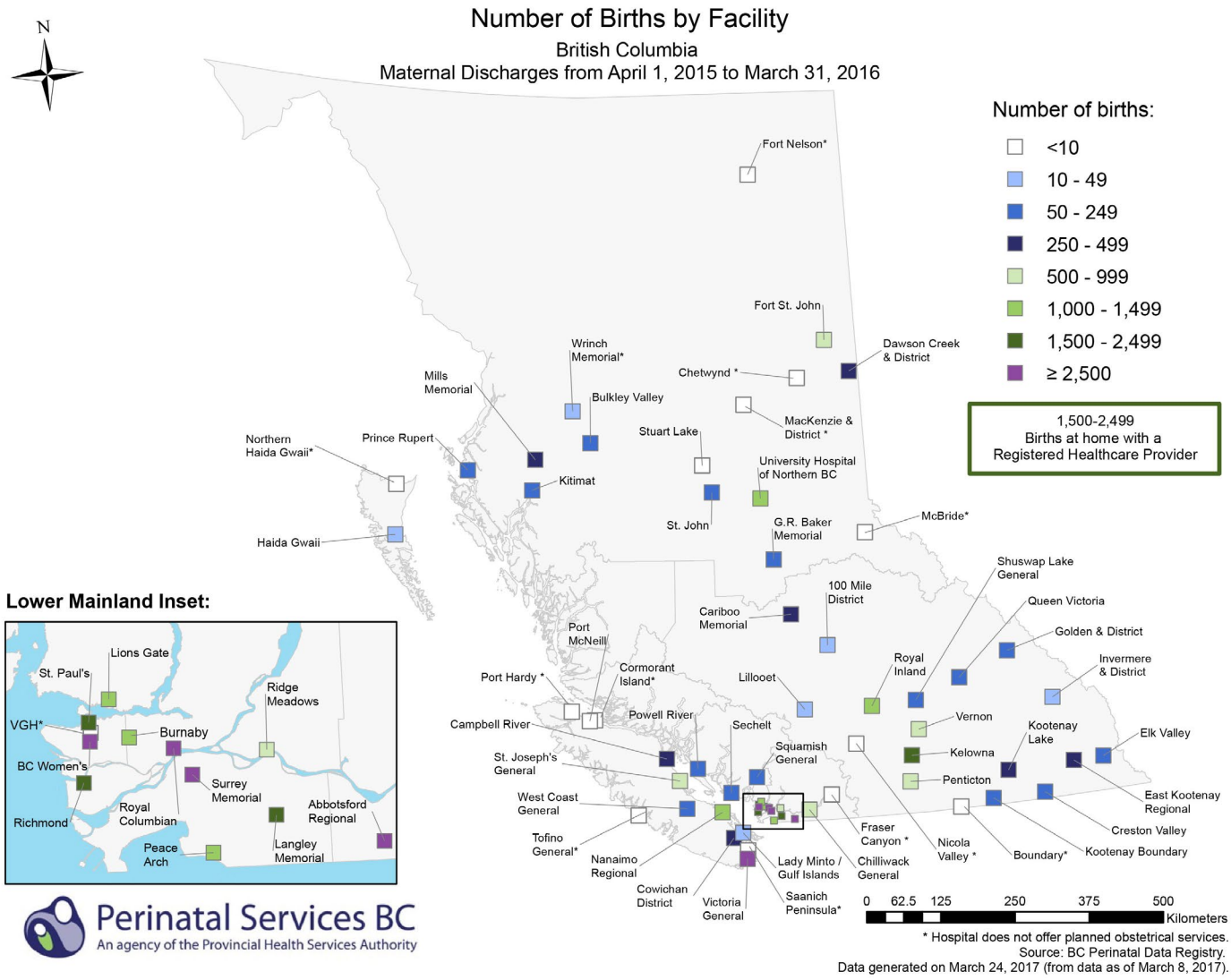
Perinatal Services BC aims to provide our health system stakeholders with opportunities to contribute to the development of our initiatives and projects. In 2016, PSBC conducted an online survey to assess the communication and engagement needs and priorities of stakeholders. As a result, PSBC created a new stakeholder engagement section on the website which lists opportunities available for stakeholder involvement.

Social Media

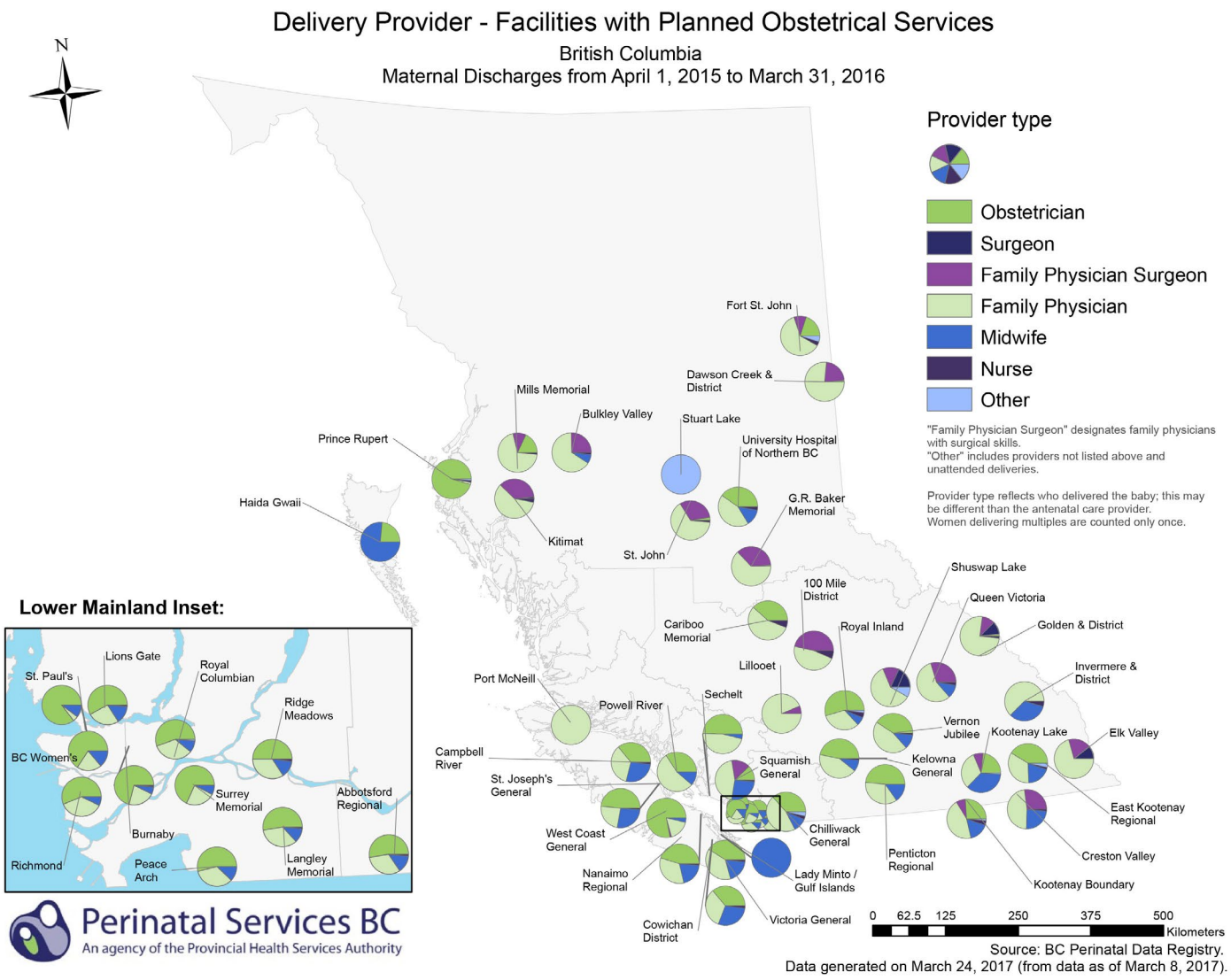
In October 2016 during Breastfeeding Week, Perinatal Services BC joined Michael Garron Hospital (Toronto), Provincial Council for Maternal and Child Health (Ontario), and the New Brunswick Department of Health to host the second annual Baby-Friendly tweet chat to raise awareness about the Baby-Friendly Initiative as a best practice and encourage organizations to adopt BFI. In the week leading up to the tweet chat on October 4, there were 266 Twitter users and 445 tweets. During the tweet chat, there were 100 uses and 479 posts, making #BabyFriendlyChat a trending topic in Canada.

Appendices

Appendix 1
Number of Births



Appendix 2
Delivery Providers



Lower Mainland Inset:

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Appendix 3
Organizational Chart

Perinatal Services BC
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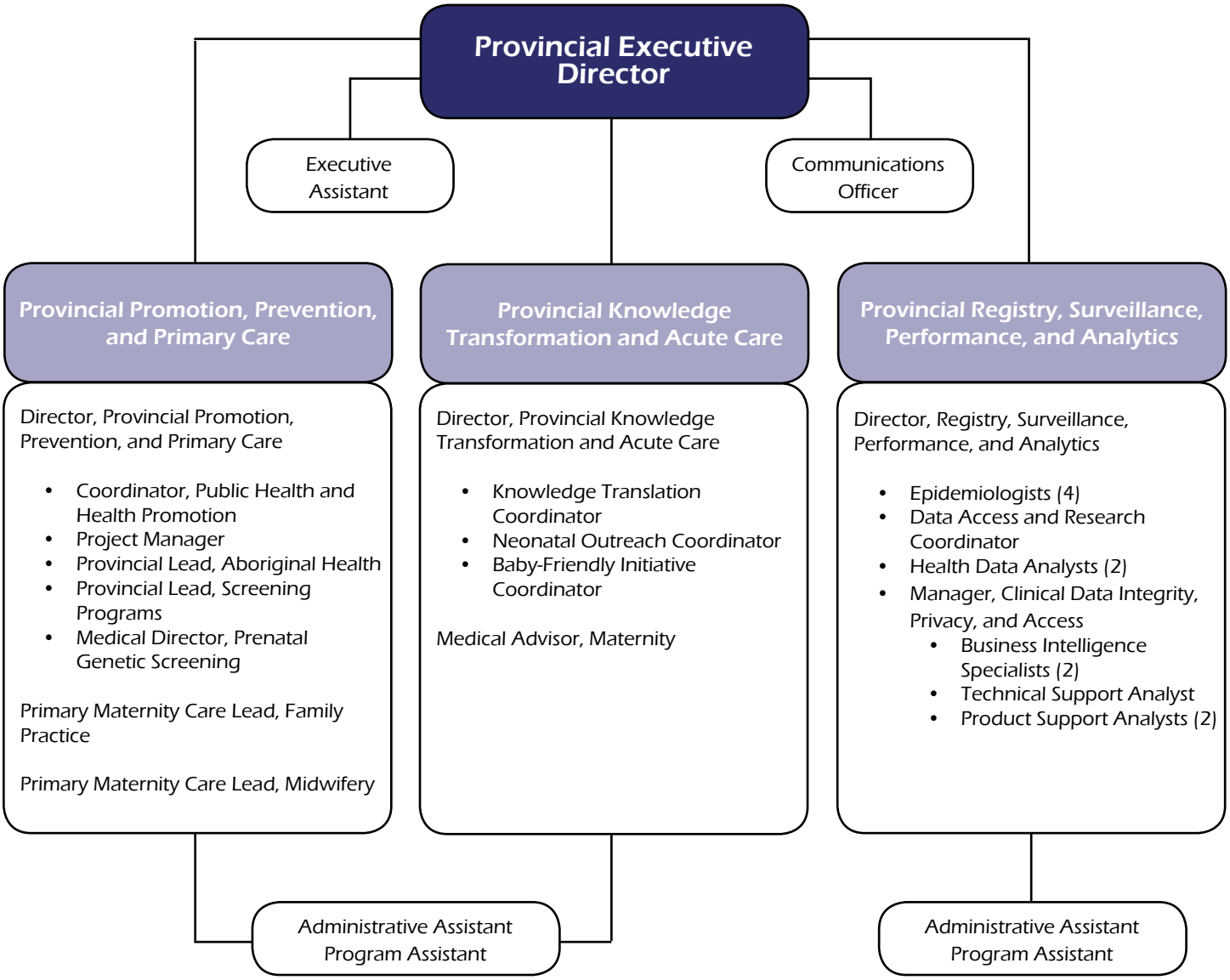

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