

A CONSENSUS CONFERENCE

Turning the Tide

balancing birth experience
and interventions for best outcomes



CONSENSUS PANEL STATEMENT

May 11-13, 2011
The Morris J. Wosk Centre for Dialogue
Vancouver, BC
Canada

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INTRODUCTION

The 2011 *Turning the Tide: Balancing Birth Experience and Interventions for Best Outcomes* consensus conference brought together a diverse group of relevant stakeholders in maternity care to present and discuss evidence regarding the impact medical interventions, specifically electronic fetal monitoring, induction of labour and epidural anesthesia, have on a woman's experience of labour and birth. The conference was hosted by BC Women's Hospital's Cesarean Task Force and the Power to Push Campaign, the UBC Collaboration for Maternal and Newborn Health, and Perinatal Services BC (PSBC).

In the last decade, several large surveys have been carried out asking women about their labour and birth experience. In Canada, a survey of women's perceptions and experiences of pregnancy, labour, birth, and early postpartum was published in 2009, *What Mothers Say: The Canadian Maternity Experiences Survey*¹. In the US, a similar survey of women's experiences was published in 2002, 2006 and 2008, *Listening to Mothers*². These two landmark surveys raised questions, which we attempted to address at this two and a half day consensus conference.

The presenters, panel members and audience participants were asked to consider the following questions:

- How do we promote women's autonomy and control regardless of risk?
- How do the following interventions impact the birth experience? What is the optimal use of each intervention?
 - > Continuous electronic fetal monitoring
 - > Induction of labour at term
 - > Epidural analgesia
- How do we build partnerships with women and their families to improve delivery of care?
- What support is required from government, hospitals and Perinatal Services BC, to help balance interventions and the birth experience?

The conference provided an opportunity to listen to women and consult with experts, to learn about important factors that contribute to a woman's positive birth experience, and to develop consensus on the most relevant factors.

¹ Public Health Agency of Canada. *What Mothers Say: The Canadian Maternity Experiences Survey*. Ottawa, 2009.

² Declercq ER, Sakala C, Corry MP, Applebaum S. *Listening to Mothers II: Report of the Second National U.S. Survey of Women's Childbearing Experiences*. New York: Childbirth Connection, October 2006.

Audience participants were largely from BC, but also included participants from across Canada and the United States; the care providers attending were practicing in urban centres, small towns and in rural and remote locations. The 166 audience participants were comprised of 22% nurses, 19% midwives, 17% physicians, 7% doulas, 13% students (midwifery, nursing and medicine) and 23% other (educators, researchers, public members). In addition to the above questions, audience members were asked to consider the following questions when addressing the presenters and panel members:

- How can the recommendations be implemented in my institution/region of the province?
- What support at the local, regional, and provincial level is required to balance birth experience and interventions in my institution/region of the province?
- What strategies can be put in place to ensure women have a strong voice about giving birth in BC?
- How can we implement and evaluate these strategies throughout the province?

The 16 member panel (see page 16), included representatives from rural, regional and tertiary centers, and included obstetricians, nurses, family physicians, and midwives, as well as an anesthetist and two consumer representatives.

During and following the conference presentations, panel members convened to discuss the consensus questions and to develop a first draft of the consensus statement. The first draft was presented to the audience participants on Friday, May 13th, 2011. The feedback from the draft and the final panel deliberations were incorporated into this panel consensus statement.

EXECUTIVE SUMMARY

Canada is one of the safest places in the world to give birth and to be born. We recognize that maternity care in BC is excellent and that overall, women are satisfied with their birth experience. While the vast majority of women give birth safely in hospital and at home, the option to give birth in a woman's home community, at hospital or at home is still limited in many areas throughout BC.

It is acknowledged that the birth experience is important to women. Individual women have very different ideas and views of what constitutes a 'normal' birth and these views can differ from what their care providers consider 'normal'. Hence, the concept of an *optimal birth experience* for each individual woman evolved during the conference as we moved away from the indefinable concept of 'normal' birth. An *optimal birth experience* is woman-centered, woman-controlled and woman-directed. It occurs in the absence of suffering and results in a healthy mother and a healthy baby. This is an experience a woman can look back on with dignity and confidence; an experience that allows her to move forward positively into parenting.

Most women will be satisfied with their childbirth experience when their choices are acknowledged and when they are involved in the decision-making process; respecting a woman's autonomy is essential to optimizing their birth outcome. In collaboration with their family and supporters, women must be the primary decision-makers. They have the most invested in the outcome and of course, they all want a safe and satisfying birth experience.

We acknowledge that for the majority of women birth is a natural, physiologic process that deserves our respect and support. Values of individual families, cultures and communities must be reflected in our care models, respecting choice and autonomy. The US Institute of Medicine's³ consensus panel report, *Crossing the Quality Chasm: A New Health System for the 21st Century*, reiterates this sentiment; "*care is customized according to the patient's needs and values; the patient is the source of control; knowledge is shared and information flows freely; transparency is necessary; patient needs are anticipated*".

As many women choose to optimize their birth experience in settings that are accessible to medical interventions such as epidural anesthesia and induction of labour, these settings should aim to create an environment guided by woman-centered care, best evidence, clinical expertise and collaboration amongst all care providers. The focus should be on providing the best possible care and birth experience, regardless of mode of delivery.

³ Institute of Medicine. Committee on Quality of Health Care in America. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academies Press; 2001.

Additionally, an increasing number of women are choosing to give birth at home or in a rural hospital where they live, which may not have easy access to medical interventions or cesarean section. Women and their care providers in these settings should be respected and supported by a provincial plan that incorporates the needs of giving birth in lower resource environments, whether by necessity or by choice.

Maternity care providers and women have become increasingly accustomed to interventions during labour and birth. The intent of an intervention should be to improve outcomes and decrease risks, based on the best evidence and clinical experience. However, we recognize that some evidence available to maternity care providers is incomplete and limited; women need to be informed of this limitation. We encourage the recognition of equipoise (true uncertainty) where it exists and best practice when the evidence appears to be clear. Particularly in the presence of risk factors, maternity care providers must balance the autonomy of the patient and beneficence.

We must partner with women to create a model of care and education founded on trust and collaboration; a mutually beneficial “therapeutic alliance”. According to the Institute for Healthcare Improvement⁴, patient-centered care,

“considers patients’ cultural traditions, their personal preferences and values, their family situations, and their lifestyles. It makes the patient and their loved ones an integral part of the care team who collaborate with health care professionals in making clinical decisions. Patient-centered care puts responsibility for important aspects of self-care and monitoring in patients’ hands — along with the tools and support they need to carry out that responsibility. Patient-centered care ensures that transitions between providers, departments, and health care settings are respectful, coordinated, and efficient. When care is patient-centered, unneeded and unwanted services can be reduced”.

All available research suggests that the public needs better information about pregnancy, labour and birth. A strategy to engage consumer-oriented media should be central to this work and will contribute to better understanding and decision-making by the public. In order to make decisions, women need access to evidence-based information and must have support in understanding risk factors to facilitate their informed decision-making. Medical information needs to be provided in innovative, accessible ways to reach all women. Care providers need to present women with evidence-based information and be cognizant of their own practice patterns and biases. They must be able to offer informed choice and facilitate decision-making by giving women up-to-date, complete and balanced information.

⁴ Institute for Health Care Improvement. Patient-Centred Care. 2009
<http://www.ihc.org/IHI/Topics/PatientCenteredCare/PatientCenteredCareGeneral>

Changes in maternity care should strive to connect pregnant women with one another. In particular, the expansion of group maternity care can facilitate this peer support. A free prenatal education system should be in place, with an expanded mandate to prepare women to be full participants in their care. Culturally sensitive doula care should be provided free of charge for all first births.

All of the recommendations in this panel statement aim to keep the woman at the center of care and support her optimal birth choices. It is hoped that by discussing these important issues we can, as a provincial community, work together to assure that the women of BC and their families have access to the best and most satisfying maternity care experience.

SUMMARY OF KEY RECOMMENDATIONS

- 1) Support women to be active participants in their care and an integral part of the care team in decision-making and self-care. Develop and maintain true therapeutic alliances with women based on best evidence, clinical expertise and a woman's stated choices and values. Inform the woman of equipoise (true uncertainty) where it exists and best practice when the evidence is clear.
- 2) Develop and implement province-wide strategies for culturally sensitive care and support to foster partnerships with women where language or cultural barriers exist. Ensure equal access and support for women who are marginalized for social, health or geographical reasons. All first births should have the benefit of an "MSP funded" doula to give continuous, culturally sensitive care (preferably in a woman's first language) and support during labour.
- 3) Reinvent prenatal education for both how it is provided and what information is presented. Develop innovative, web-based tools designed to provide easy access to information about childbirth, the process of decision-making, and to help women understand the meaning and magnitude of individual risk factors. Consider group prenatal care to increase opportunities for information sharing and knowledge acquisition and to allow women to form partnerships with one another.
- 4) Redesign the education curriculum for nurses, midwives and physicians and ensure that training of all maternity care providers takes place in an interdisciplinary model that recognizes the value and contribution of each member of the team. Inter-professional education opportunities should begin with all maternity care learners and continue throughout their professional lives.

- 5) Address barriers to inter-professional practice with the development of alternative funding models for collaborative primary care practice, especially in rural and/or under serviced communities. Encourage dialogue between the professional colleges of nursing, midwifery, and medicine to examine barriers to collaborative practice within existing professional models of care.
- 6) Accelerate the evidence-based use of intermittent auscultation (IA) for fetal monitoring in low-risk pregnancies. Audit and publish induction of labour practices and implement quality improvement initiatives. Implement the use of mobile, low-dose epidural techniques and mobile fetal monitoring telemetry to support physiological birth. Create multi-disciplinary teams mandated to implement quality improvement programs.
- 7) Provide feedback on obstetrical indicators to individual hospitals using Robson's Criteria. All intervention rates and outcomes, specific to each hospital in the province, should be published in the public domain for transparency.

Question 1:

HOW DO WE BUILD PARTNERSHIPS WITH WOMEN AND THEIR FAMILIES TO IMPROVE DELIVERY OF CARE?

All women should have access to comprehensive and culturally sensitive maternity care as close to their home community as possible. Communities must be engaged in discussions about local maternity care services that are appropriate for their needs. Providing women with more options for maternity care will build partnerships and improve care delivery. Physicians, midwives, nurses and other health care providers should be supported to strengthen interprofessional relationships, modeling trust and respect to women.

RECOMMENDATIONS:

Education

➤ Prenatal

- Reinvent prenatal education through a collaboration of women, physicians, midwives, nurses and childbirth educators for both how it is provided and what information is presented.
- Develop and expand provincially supported social media such as blogs and interactive websites, designed to provide information as well as for connecting with and learning from women.
- Consider group prenatal care to increase opportunities for information sharing and knowledge acquisition and to allow women to form partnerships with one another.

➤ Professional

- Ensure that interprofessional education opportunities begin with all maternity care learners and continue throughout their professional lives.

Support

- Explore ways of connecting with women in preconception, perhaps as early as in the secondary school system, as well as in pre-conception clinics.
- Support women to be active participants in their care and an integral part of the care team in decision-making and self-care.
- Increase access to cultural brokers to foster partnerships with women where language and/or cultural barriers exist. This cultural support person may also be a doula.
- Consider home-based prenatal and postnatal support and care when appropriate.

Funding

- To encourage interdisciplinary shared-care practice, support the development of alternative funding models for maternity care providers. This is of particular importance in rural and/or under serviced communities.

Question 2:

HOW DO WE PROMOTE WOMEN'S AUTONOMY AND CONTROL AND PRESERVE IT IN THE PRESENCE OF RISK?

The Provincial Health Services Authority (PHSA) Strategic Plan for 2010-2013⁵ emphasizes that care delivery must be patient-centered:

Patient-centered care is about partnering with patients and families to ensure that their preferences and priorities drive the delivery of health care. It's about working with patients and families rather than doing "to" or "for" them. The Institute of Medicine's rules for health echo this sentiment:

- *Care is customized according to the patients' needs and values*
- *The patient is the source of control*
- *Knowledge is shared and information flows freely*
- *Transparency is necessary*
- *Needs are anticipated*

These patient-centered principles are relevant for all pregnant women, regardless of their risk status.

RECOMMENDATIONS:

Education

- All information given to women, to facilitate their informed choices, should strive to be evidence-based and scientifically validated.
- Provide women with the information they need to facilitate an informed choice for their stated *optimal birth*, such as; home birth, birth in a rural hospital, VBAC, vaginal breech birth, and cesarean section by maternal request.
- Provide innovative, easy access to information about the process of decision-making, in order to help facilitate women's informed decision-making.
- Provide women with web-based interactive tools to help them understand and ask questions about the meaning and magnitude of individual risk factors.
- Develop visual aids that demonstrate adverse outcomes as well as positive outcomes. Visual aids appeal to people of all education levels and language skills and are easily understood.
- Include an additional section in the PSBC *Maternity Care Passport*, which explains different levels of risk and gives everyday examples of risk for comparison.

⁵ Provincial Health Services Authority, (2010) PHSA Strategic Plan 2010-2013.

Professional

- Redesign the education curriculum and provide professional development opportunities for nurses, midwives and physicians on balancing patient-centered care with individual provider beliefs and responsibilities, emphasizing the importance of patient choice as the prime driver of health decisions.
- Develop better models for care providers to use when discussing risk factors for the mother and her baby that clearly explain acute, short term and long term risks of a particular intervention or choice.
- Consider making an experienced midwife, a specialist in normal birth, available for consultation on the labour ward.
- Expand alternative payment models for obstetricians in small towns and rural areas, so that care may continue closer to home when obstetrical risk factors develop.

Question 3:

HOW DO WE OPTIMIZE THE EXPERIENCE AND OUTCOME OF BIRTH IN THE SETTING OF INTERVENTIONS?

Maternity care providers and patients have become increasingly accepting of medical interventions as the standard of care during labour and birth. The 2009, *What Mothers Say: The Canadian Maternity Experiences Survey*¹, reported that 90.8% of laboring women had continuous EFM at some point during early and/or active labour; 44.8% reported an intervention to induce labour; while 57.3% had an epidural for pain relief in labour.

The Institute of Health Improvements⁶ *Creating the Evidence Base for Quality Improvement Collaboratives*, states that quality improvement requires both the collecting and the publishing of data. We recommend that intervention rates and outcomes, specific to each hospital in the province, be published in the public domain for transparency.

RECOMMENDATIONS:

Professional Practice

➤ Fetal Health Surveillance in Labour

- The Society of Obstetricians and Gynecologists of Canada⁷ states, *Intermittent auscultation following an established protocol of surveillance and response is the recommended method of fetal surveillance; compared with electronic fetal monitoring, it has lower intervention rates without evidence of compromising neonatal outcome.* We recommend strategies be implemented to train care providers in the use of intermittent auscultation (IA) as the standard of fetal monitoring for healthy term women in spontaneous labour in the absence of risk factors for adverse perinatal outcome.
- When EFM is required, labour and delivery units should be equipped with mobile fetal monitoring telemetry to allow the mother to remain upright and mobile during labour.

⁶ Mittman, Brian S. "Creating the Evidence Base for Quality Improvement Collaboratives." *Annals of Internal Medicine* 140.11 (2004) : 897-901.

⁷ SOGC (2007) Fetal Health Surveillance: Antepartum and Intrapartum. Clinical Practice Guideline.

➤ **Epidural Anesthesia**

- When appropriate, we recommend that province-wide anesthesia departments implement the use of mobile, low-dose epidural techniques and that ongoing care of women choosing epidurals should support physiological birth.
- When appropriate, inform women of alternatives to epidural anaesthesia such as narcotic modalities, and nitrous oxide.
- When appropriate, inform women of the non-pharmacological alternatives to epidural anesthesia, such as, continuous labour support, hydro-therapy, massage, etc.

➤ **Induction of Labour (IOL)**

- There is good evidence that dating ultrasound in early pregnancy decreases the need for IOL for postdates pregnancy. Practices for postdates IOL vary widely across the province. We therefore recommend province-wide clinical audits of induction of labour with incentives for improvement. Postdates IOL should only occur at or after 41 weeks and 3 days of pregnancy.
- We recognize the influence and pressure of an “expected due date” on IOL, specifically for postdates pregnancy. We advocate engaging women in the concept of term pregnancy being a 5-week period, from 37 to 42 weeks gestation.
- Hospitals should review induction of labour policies and strive to avoid unnecessary induction.
- Support the practice of avoiding admission to hospital in early labour.

Initiatives

- We recommend the development of an initiative similar to the “Mother Friendly Childbirth Initiative”⁸ designation for hospitals in BC.
- The Society of Obstetricians and Gynecologists of Canada⁷ recommends that, *Women in active labour should receive continuous close support from an appropriately trained person*. A Cochrane Collaboration meta-analysis has shown that the presence of a doula can decrease interventions in labour and increase satisfaction⁹. We recommend that all women have a publicly funded doula present at their first birth.

⁸ The Coalition for Improving Maternity Services CIMS, (1996). *The Mother Friendly Childbirth Initiative*. Accessed at http://www.motherfriendly.org/Resources/Documents/MFCI_english.pdf on June 22 2011.

⁹ Hodnett ED, Gates S, Hofmeyr GJ, Sakala C, Weston J. Continuous support for women during childbirth. Cochrane Database of Systematic Reviews 2011, Issue 2. Art. No.: CD003766. DOI: 10.1002/14651858.CD003766.pub3

Question 4:

WHAT SUPPORT IS REQUIRED FROM GOVERNMENT, HOSPITALS, PERINATAL SERVICES BC, MATERNITY CARE PROVIDERS AND RESEARCHERS, TO HELP BALANCE INTERVENTIONS AND THE BIRTH EXPERIENCE?

In preparing the response to this question we make reference to the panel recommendations made at the 2008 *Cesarean Birth Consensus Conference* in Vancouver, BC¹⁰. Many of these recommendations still apply.

GOVERNMENT – PROFESSIONAL SUPPORT

- Develop and implement province-wide strategies for culturally sensitive care and support, to foster partnerships with women where language or cultural barriers exist. Ensure equal access and support for women who are marginalized for social or geographical reasons.
- All first births should have the benefit of a publicly funded doula, to give continuous, culturally sensitive care (preferably in a woman's first language) and support in labour.
- Encourage dialogue between the BC Medical Association, the Midwives Association of BC, the College of Physicians and Surgeons, and the College of Midwives of BC, to examine barriers to collaborative practice within existing professional models of care.
- Support funding models and incentives for obstetrician/gynecologists to provide consultative and/or salaried care in both rural and urban settings.
- Support funding models and incentives that encourage primary care obstetrics by primary care providers, such as midwives and family doctors.
- Support funding models and incentives to recruit and retain midwives in rural and remote areas, on par with incentives for family doctors.
- Address barriers to inter-professional practice with the development of alternative funding models for collaborative practice, especially in rural and/or under serviced communities.
- Support the start-up and expansion of collaborative primary care models (such as the South Community Birth Program in Vancouver, BC), that includes midwives, nurses, family physicians and doulas, through the development and evaluation of demonstration projects.
- Encourage existing efforts to provide access and support for home birth throughout the province.
- Develop funding initiatives to encourage care providers to offer group maternity care.
- Develop a model for management of medical-legal issues that has arbitration and mediation at its core.

¹⁰ Cesarean Birth Consensus Conference Panel, (2008) Cesarean Birth in BC: Trends, Perspectives & Future Strategies Consensus Panel Statement. Accessed at <http://cmnh.ca/cmnh-conferences/>

GOVERNMENT – EDUCATION SUPPORT

- Continue to support and encourage new inter-professional collaborative education initiatives such as the University of British Columbia’s Collaboration for Maternal and Newborn Health (CMNH).
- Support dialogue between the Ministry of Advanced Education and the University of BC’s Medical, Midwifery and Nursing Schools, with the goal of expanding interdisciplinary learning and clinical placements.
- Ensure that training of all maternity care providers takes place in an interdisciplinary model that places the woman at the center and recognizes the value and contribution of each member of the team.
- Create a prenatal education system that is free of charge and incorporates a variety of formats, allowing access for all women.
- Support the creation of interactive on-line/web-based resources for women of childbearing age that encourage well-informed decision-making on the following topics:
 - Preconception information
 - Prenatal education and preparation for birth
 - Choice of care provider
 - Choice of place and mode of birth
 - Information on decision-making processes
 - Visual pictograms explaining risks in pregnancy and birth
- Condense the above information into brochures that can easily be accessed from midwives and doctors offices, drop-in clinics, pharmacies, community centers, public health units, and hospitals.

PERINATAL SERVICES of BRITISH COLUMBIA

- Implement a “Mother Friendly”⁸ designation for maternity hospitals in BC.
- Support province-wide group prenatal care by providing training and educational materials for care providers.
- Provide feedback on obstetrical indicators to individual hospitals using Robson’s Criteria.¹¹

¹¹Robson, M.S., (2001) Classification of caesarean sections. *Fetal and Maternal Medicine Review*. 12(1):p. 23-39.

HOSPITALS

- Ensure that inter-professional education opportunities begin with all maternity care learners and continue throughout their professional lives.
- Accelerate the evidence-based use of intermittent auscultation for fetal monitoring in low-risk pregnancies.
- Audit and publish induction of labour practices and implement quality improvement initiatives.
- Create multi-disciplinary teams mandated to implement quality improvement programs
- Increase training opportunities for staff in the use of mobile and low-dose epidural, as well as non-pharmaceutical pain relief methods.
- Provide education and mentoring opportunities for experience in breech delivery and operative vaginal delivery.

CARE PROVIDERS

- Partner with women to be active participants in their care.
- Develop and maintain true therapeutic alliances with women based on best evidence, clinical expertise and a woman's stated choices and values.
- Inform the woman of equipoise (true uncertainty) where it exists and best practice when the evidence is clear.
- Particularly in the presence of risk, maternity care providers must balance autonomy and beneficence.
- Recognize and value each member of the maternity care team and model inter-professional collaboration for the woman at the center of the team.

RESEARCH

- Interview and survey women on a regular basis to elicit their feedback about their maternity care. Act on their recommendations for improvement.
- Increase research into normal birth and the ways in which to keep birth normal as defined by The Society of Obstetricians and Gynaecologists of Canada; *normal birth is spontaneous in onset, is low-risk at the start of labour and remains so throughout labour and birth.*¹²
- Conduct ongoing research into the long-term effects of interventions such as induction of labour, epidural anesthesia, etc.
- Investigate how group maternity care can be implemented in rural settings.
- Evaluate changes to practice as a result of providing patient-centered care.
- Evaluate prenatal education outcomes from both care providers and consumers perspectives.

¹² Joint Policy Statement on Normal Childbirth, J Obstet Gynaecol Can 2008; 30(12): 1163-1165

PANEL MEMBERS:

Nardia Strydom—MB, ChB

Chair of the Panel

Nardia trained and worked as a family physician in South Africa before immigrating to Canada in 1991. She has practiced family medicine and provided maternity care in both rural and urban settings. She is currently a member of the Family Practice Maternity Service at BC Women's Hospital & Health Centre and is part of the Perinatal Addictions Service. From 2006 to 2007 she was the Vice-Chair of the Medical Advisory Committee (MAC) of BC Children's and Women's Hospitals, and since 2007 she has been the Chair of the MAC. She has been involved in Quality & Risk Management and the development of a Physician Compact at BC Women's Hospital. She is the Western Canada representative for Canadian ALSO and regularly organizes and teaches ALSO for family practice residents. Nardia is a Clinical Assistant Professor at UBC and loves teaching and learning new things.

Nadine Bartlett—RN

Nadine has been in the maternity care field since 1979 when she first trained as a midwife in South Africa, working in Johannesburg and Saudi Arabia before moving to Canada with her family in 2002.

Her practice has encompassed all aspects of maternity care with experience in prenatal, labour and delivery, and postpartum units. Since Nadine's commencement at BC Women's Hospital as an obstetric nurse she has also worked in the Assessment Room and OR with regular In Charge responsibility for the Labour and Delivery Unit.

Nadine has been instrumental in developing a recent program within the Single Care Maternity Unit at BCWH aimed at providing new parents with the knowledge and skills to help them cope with the needs of their new baby. She has a particular interest in enabling women to experience labour and birth in a positive and fulfilling way through the use of Hypnobirthing.

Nadine believes that an encouraging and constructive approach to pregnancy, birth and parenting is an essential component for an optimal birth and parenting experience.

Susan E. Bright—MD, FRCP(C)

Dr. Su Bright received her Medical Education at the University of Western Ontario in London Ontario. Internship and first year anesthesia were at Dalhousie University in Halifax N.S. She completed anesthesia residency back in London, FRCP©, 1979.

She worked at St Joseph's Hospital in London, York County Hospital in Newmarket, Chilliwack Hospital and 20 years at BC Women's Hospital, Vancouver. She has done obstetric anesthesia at a university teaching hospital as well as in several smaller general hospitals. Su enjoys working with moms and families at BC Women's along with colleagues in medicine, nursing and midwifery.

Jan Christilaw—MD, FRCSC, MHSc

Dr. Jan Christilaw was appointed President of BC Women's Hospital & Health Centre in April 2009 having served as Interim President since December 2008. Dr. Christilaw has over 25 years of experience in women's health and extensive experience at BC Women's, including Aboriginal women's health, the Oak Tree Clinic for HIV positive women, and all Specialized Women's Health programs. Since coming to BC Women's in 2002, she served in various capacities including Vice President, Medical Affairs; Head, Department of Specialized Women's Health; Senior Medical Director, Provincial Women's Health Team; and Co-Leader, Provincial Women's Health Network. Since starting medical school in 1978, and throughout her career, Dr. Christilaw has had an unwavering commitment to Women's health, which has continued unabated to the present.

She graduated from McMaster Medical School in 1981, and completed her residency in Obstetrics-Gynecology at UBC in 1986, and following that, worked in White Rock as a general Obstetrician-Gynecologist for many years. During that time, she served Peace Arch Hospital in many capacities, including Head of Obstetrics-Gynecology, Chair of the Audit Committee, Co-Chair of Professional Practice, and a Board Member for the Peace Arch Foundation.

In 2003, Dr. Christilaw completed a Masters of Health Care and Epidemiology at UBC, with an emphasis on Health Administration and Ethics. She remains a guest lecturer in several streams within the Department of Epidemiology, including Ethics, Decision-making and International Health. She is a Clinical Professor in the Department of Obstetrics-Gynecology at UBC. She serves as consultant Gynecologist to the Oak Tree Clinic for HIV positive women at BC Women's, as well as to the ACCESS Clinic for women with disabilities. She is also a provincial Colposcopist in the BC program.

Dr. Christilaw is the Past President of the Society of Obstetricians-Gynecologists of Canada. She has served the Society in many capacities over the last 15 years, including many years on Council, as Co-Chair of the Women's Health Task Force, on the JOGC Editorial Board, as chair of the Ethics Committee, and as a speaker at many meetings regionally, nationally, and internationally. She remains a principle advisor on many matters to the Society.

Dr. Christilaw is a longstanding member of the Federation of Medical Women of Canada, and won their national leadership award in 2007.

She has served on the Expert Advisory panel of CIHI (Canadian Institute for Health Information) for maternity, and the steering committee of the Collaboration for Maternal and Newborn Health. She chaired the BC Women's Task Force on Cesarean Section on Demand, was founding chair of the newly formed Aboriginal Maternity Committee of the B.C. Perinatal Health Program.

She was a member of the Cesarean Birth Task Force of the BCPHP, and remains a member of the Expert Panel for Implementation. She also chaired the Consensus Conference on Cesarean Section in January 2008, which now forms the basis of planning for many obstetrical services in BC, and was principle author of the Consensus Statement that arose from the Conference.

She has also been interested in International Women's health for many years, with a special interest in international maternal mortality, and has worked internationally on a number of projects, including an emerging partnership between C&W/UBC and Makerere University in Uganda for services in maternal and child health. In that capacity, she authored the *Structured Operative Obstetric* manual series, and has traveled to Africa 5 times in recent years to deliver this and related curricula.

She is married to Dr Warren Bourgeois, who is a Professor of Philosophy and Bioethics at Kwantlen College, with whom she has collaborated on several projects. She has two sons - David aged 23 and Tim, aged 16.

Leslie Clough—RN, BSN, MSN

Leslie has her Bachelor's and Masters in Nursing. Her focus in nursing has been patient learning and education both in BC hospitals and in BC community health settings. It is her privilege to have supported women and their partners with perinatal learning since 1979. Prevention and education has been the focus throughout her career. Currently she is Manager of Patient and Family Education, at BC Women's and BC Children's Hospitals. This includes managing the BC Women's Prenatal Classes and Connecting Group Prenatal Care, a collaborative initiative between doctors from Family Practice Maternity Service and childbirth educators from the BC Women's Prenatal Education. She uses the lens of health literacy so families can access, understand, and ask questions about health information. She is also involved with research and coaching.

Meghan Donaldson— PhD

Meghan Donaldson completed her PhD in Epidemiology at the University of British Columbia in 2007. She moved to San Francisco in the fall of 2007 to complete a three year fellowship at the San Francisco Coordinating Center/UC San Francisco. Meghan is currently the Associate Research Director for the Bone Health Research Group at the Centre for Hip Health and Mobility (UBC/VCHRI). Meghan lives in Vancouver with her husband and daughter.

Duncan Etches— MD, DipObs (Auckland), MCISc, FCFP

Duncan is a UBC Medical School graduate and completed a two year internship in New Zealand with a Diploma of Obstetrics from Auckland University. Duncan practiced remote rural medicine for 15 years in northern BC, including maternity care and surgeries such as Cesarean Delivery. Since 1992 Duncan has practiced in the Family Practice teaching unit at BC Women's Hospital. He is the author of the original SOGC guideline on Postpartum Hemorrhage, and of the Post partum Hemorrhage chapter of the ALSO manual. Duncan was an ALSO and ALARM instructor since near the onset of both courses. He has an extensive international practice and teaches on all continents.

Asheya Hennessey—BEd

Asheya Hennessey is the Founder & Executive Director of Mothers of Change for Maternity Care, a Canadian, non-profit, consumer advocacy group enabling women's voices about maternity care. Mothers of Change is working to advance evidence-based practices and women-centered care in support of safe, healthy, physiological birth. Asheya is currently working with Dr. Michael Klein of the Child and Family Research Institute, UBC, designing innovative, online childbirth education materials as part of a knowledge translation project. Asheya is the mother of three children, and has given birth at the hospital and at home.

Asheya holds a Bachelor of Education with concentrations in Biology and English. She is the Founder of Yukoners for Funded Midwifery, a Yukon consumer group working to get midwifery services funded by the Yukon government. Asheya has independently designed Connected Childbirth, a prenatal education course offered both in-person and online, has attended a few births as a doula, and has taken a Lactation Management course through INFACT Canada. Asheya is a contributing author in a book for students of midwifery, *Promoting Normal Birth: Research, Reflections, and Guidelines*, published by Fresh Heart Publishing June 2011. Asheya is passionate about supporting physiological birth, and believes that birth belongs in the hands of mothers.

Linda Knox—RM

Linda Knox is a Registered Midwife and is the Acting Department Head for the Department of Midwifery for Children's & Women's Health Centre and Providence Healthcare (St. Paul's Hospital). She is also an Assistant Clinical Professor in the Division of Midwifery, Department of Family Practice at the University of British Columbia.

Linda is a Past President of the Midwives Association of B.C. and was involved in the work of establishing midwifery as a recognized profession within our healthcare system in British Columbia. She has been a practicing midwife in the Vancouver Lower Mainland area for more than 20 years and is currently working as a care provider in the South Community Birth Program (SCBP), a collaborative maternity care program.

The SCBP team consists of midwives and family practice physicians who share a caseload and work closely with community health nurses and doulas. They offer a Connecting Pregnancy model where women receive both prenatal care and education in a group setting and every woman is supported by a doula during her labor and delivery. SCBP offers care to a highly diverse ethnic population of women and families.

Linda is the mother of three grown children, two daughters and a son, and also has two beautiful grandsons.

Lily Lee—RN, BN, MSN, MPH

Lily Lee is the Provincial Leader, Surveillance at Perinatal Services BC. She chaired the BCPHP Cesarean Birth Task Force and is responsible for providing strategic leadership in the ongoing development, coordination, monitoring, and analysis of data for Perinatal Services BC.

Lily has over 30 years experience in perinatal care and has held many leadership roles in advanced practice, education, management, and policy & program development. Lily is active in provincial and national perinatal organizations and is a member of the leadership committee of the Canadian Perinatal Surveillance System (a multidisciplinary group of doctors, midwives, nurses, and researchers working with the Maternal and Infant Health section of the Public Health Agency of Canada in the surveillance of maternal and perinatal health).

Lily completed her Baccalaureate Nursing degree from the University of Manitoba, a Master Degree in Nursing from the University of Texas at Austin and a Master of Public Health degree from the University of Washington. Lily is an Adjunct Professor at the UBC School of Nursing.

Shiraz Moola—MD, FRCSC

Shiraz Moola is currently one of two rural Obstetrician/Gynaecologists practicing in Nelson, British Columbia. After completing an undergraduate medical degree at Queen's University, he completed a postgraduate residency at the University of Toronto. During that time he had the opportunity to train and perform research in rural Zimbabwe and in urban South Africa. Following his residency he provided consultant care in the Yukon, Northwest Territories and Nunavut. He then worked as a surgical associate in the Division of Gynaecologic Oncology at the University of Western Ontario before returning to the Arctic. Serendipity brought him to the Kootenays to take up his current post. He continues to pursue research as a co-investigator with the Rural Maternity Care New Emerging Team (RM-NET). His research interests include critical care obstetrics, health outcomes research and rural maternity care. Current projects include the RED (Rural Emergency Delivery) Tent, a novel operative obstetrical technology in rural Africa. His clinical interests include ultrasound, minimally invasive surgery and oncology. He has three children, Rohan, Khalil and Celeste that remain happily going concerns.

Jim Noiles—BA, MD, CCFP, FCFP

Jim Noiles completed both his undergraduate degree and his medical school education at Queens University in Kingston, Ontario – MD 1978. He completed a family medicine residency in Calgary, Alberta as well as GP anaesthesia training and a six month obstetrical residency at the Foothills Hospital in Calgary.

Since 1981, he has been practicing in a full service family practice including anaesthesia and obstetric/maternity care in beautiful Nelson, B.C.

Shannon Norberg—RM, BGS

Shannon Norberg is a Registered Midwife in Vancouver who has worked out of the Pacific Midwifery Practice and BC Women's Hospital since 2003. She is a member of the Department of Midwifery at BC Women's and St. Paul's hospitals.

Shannon was born and raised in British Columbia but completed her midwifery training within the US health care system, in Seattle, and spent time studying maternal health in developing countries. These experiences created a great appreciation for the Canadian model of health care and a desire to contribute to its evolution and sustainability. Aiming for a balance between clinical and political work, Shannon joined the board of the Midwives Association of BC shortly after beginning practice. She has been President of the MABC since 2009. Her work with the association has focused on increasing accessibility to midwifery care across the province and examining the issues facing this 'new' and growing profession as it has integrated itself into the existing health care system in BC.

Kellie Whitehill—MD, FRCSC

Dr. Whitehill completed her medical school training at the University of Manitoba and moved to Vancouver in 2004 for her residency training in Obstetrics and Gynecology at the University of British Columbia.

She has worked at various hospitals throughout the province, and in 2010 was appointed Clinical Instructor of Obstetrics and Gynecology by the Department of Obstetrics and Gynecology at UBC. She has a full time general Ob/Gyn practice in Vancouver with special interests in teaching and reproductive and contraceptive education and choices. She practices out of BC Women's Hospital, Vancouver General Hospital and UBC Hospital.

Lori Wolfe—RN, MSN

Lori Wolfe received her RN and MSN (Community Health) from the University of Texas at Austin in 1995. She has worked in NICU's at BC Women's Hospital, Surrey Memorial Hospital and Lion's Gate Hospital. Lori was faculty in the Neonatal Nursing Specialty at BCIT from 1995-2008.

Since 2008, Lori has worked at the South Community Birth Program, providing breastfeeding and postpartum care to families in clinic and Connecting Pregnancy group sessions.

Leanne Yeates—RM, BA (Hons), BHSc

Leanne Yeates has been involved with women's reproductive health for over twenty years, the last eight of which she has practiced as a Registered Midwife in both Toronto and Vancouver. Since 2009, she has been the Director of Open Door Midwifery at the multidisciplinary Crossroads Clinics.

In addition to her busy clinical and teaching practice, Leanne is the Vice-President of the College of Midwives of BC. She sits on the Perinatal Services BC Oversight Council and serves on the Executive for the Department of Midwifery in Vancouver. She is an Assistant Clinical Professor in the University of British Columbia's Division of Midwifery and values her teaching role with nursing, medical and midwifery students.

Most importantly, Leanne is an advocate for normal birth. She strives to create and be part of an environment that fosters respect for the contributions of all disciplines and works toward the provision of quality care for women and their newborns.