

## MIDWIFERY MODELS AND OUTCOMES IN CANADA

### The Canadian Midwifery Model

While midwifery legislation and regulations are specific to each province/territory, the midwifery model of care is essentially the same across the country. Fundamental to the Canadian model is woman and family centred care that meets individual needs, promotes the healthy, normal process of pregnancy and birth, and values the profound meaning of the childbearing experience in women's lives. Other central principles of this model include:

- *Continuity of care:* Midwifery care is provided on a continuum throughout pregnancy, labour, birth and the postpartum period, enabling clients and midwives to build a relationship of mutual understanding and trust. Practices are organized so that a midwife known to the woman is available to attend the birth.
- *Informed choice:* The woman is encouraged to make informed choices about her own care. Midwives contribute their knowledge and evidence-based recommendations in a non-authoritarian manner and support the woman as the primary decision-maker. Midwifery visits allow adequate time for open, interactive discussion and education.
- *Choice of birthplace:* Midwives respect the woman's right to choose where she would like to give birth and are prepared to provide intrapartum care in hospital and out-of-hospital settings, within professional standards and guidelines.

Midwives generally carry caseloads of 40 clients per year and work in partnerships or group practices. Prenatal and postnatal care is provided in midwifery clinics and community health centres and includes home visits; births take place in hospitals, birth centres or at home. Collaboration and consultation with other health care providers is integral to the scope and practice of midwifery.

Unique practice arrangements involving multidisciplinary teams and shared care have also developed in response to population needs, for example in the [South Community Birth Program](#) in Vancouver, [Stony Plain Shared Care Maternity Program](#) near Edmonton, [Thunder Bay Maternity Centre](#), and [La Maison Bleue](#) in Montreal. Other models of collaborative practice are being explored in efforts to help address shortages of maternity care providers and ensure women's access to maternity services, particularly in rural and remote communities.

### Clinical/perinatal outcomes

- A study conducted in British Columbia in 1998-1999 compared perinatal outcomes for planned home births attended by regulated midwives with outcomes for planned hospital births. There was no increased maternal or neonatal risk associated with planned home birth under the care of a regulated midwife. The rates of some adverse outcomes were too low to draw statistical comparisons.<sup>1</sup>
- Evaluation of the Ontario midwifery program by the provincial Ministry of Health and Long-Term Care in 2003 found that midwifery care resulted in fewer obstetrical interventions compared to services provided to low-risk women by family doctors: a 38% lower c-section rate, 62% fewer instrument-assisted births, double the number of women discharged within 48 hours of birth, and lower maternal/newborn hospital readmission rates.<sup>2</sup>
- A British Columbia study compared maternal and newborn outcomes of planned hospital births attended by midwives to hospital births with physicians. Women in both the midwife and physician groups were similar in their low risk status. Results showed that healthy women planning hospital births attended by midwives versus physicians experienced significantly lower rates of obstetric interventions (cesarean section, narcotic analgesia, electronic fetal monitoring, amniotomy and episiotomy) and similar rates of neonatal morbidity.<sup>3</sup>
- A post-census *Maternity Experiences Survey* was conducted in 2006 to provide representative pan-Canadian data on women's experiences during pregnancy, birth and the early postpartum period (n=6421). After controlling for risk factors, the odds that labour was induced was 44% less if the care provider was a midwife compared to an obstetrician. Use of medication-free pain management was 8.9 times greater with midwives.<sup>4</sup>

- Recent research (in press) on 6692 midwife-attended home births in Ontario (2003 to 2006) confirms earlier smaller studies that planned home birth with registered midwives working in an integrated health care service is associated with good outcomes for mothers and babies. The study concludes that home birth provided in these circumstances is a safe choice for selected women. Forthcoming publication of new research on over 5000 midwife-attended births in British Columbia shows similar safe outcomes.<sup>5</sup>

### Cost effectiveness

As midwifery services in the health care system are still relatively new and under analysis, there is currently limited information on the cost-effectiveness of midwifery in Canada. Available information includes:

- A study of Quebec midwifery pilot projects from 1994 to 1999 compared the cost of midwifery services in birth centres to services provided by physicians. Overall, the average cost per client amounted to \$2294 (range: \$2062-2930) in the midwifery group and \$3020 (range: \$3016-3027) in the physician group. The difference was essentially attributable to more frequent use of physician services and longer and more expensive stays in hospitals than in birth centres.<sup>6</sup>
- Evaluation of the Ontario midwifery program by the provincial Ministry of Health and Long-Term Care in 2003 estimated that the cost to the health care system of a midwife-attended birth in hospital was about \$800 less than a birth with a family physician. For a midwife-attended birth at home, the cost was about \$1800 less. Savings were due to lower intervention rates, fewer re-admissions to hospital, and shorter hospital stays.<sup>7</sup>

### Client satisfaction

All available reports indicate that women are highly satisfied with the care they receive from midwives. As pregnant women consistently give high priority to working with “known care providers,” continuity of care with midwives as well as the quality of the care received is a likely factor in satisfaction rates.

- Evaluation of the Ontario midwifery program by the Ministry of Health in 2003 reported a 98.7% satisfaction rate among clients who had used midwifery services.<sup>7</sup>
- The pan-Canadian *Maternity Experiences Survey* reports that women were significantly more likely to evaluate their overall experience of labour and birth as “very positive” when the primary birth attendant was a midwife.<sup>8</sup>

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<sup>1</sup>Janssen P, Lee S K, Ryan E, Etches D, Farquharson D, Peacock D, Klein, M: *Outcomes of planned home births versus planned hospital births after regulation of midwifery in British Columbia*. [Canadian Medical Association Journal 166:3](#) (February 5, 2002)

<sup>2</sup> Association of Ontario Midwives: [Benefits to Women Needing Obstetrical Care](#) (May 2007)

<sup>3</sup> Janssen P, Ryan E, Etches D, Klein M, Reime B: *Outcomes of planned hospital birth attended by midwives compared with physicians in British Columbia*. BIRTH 34:2 (June 2007)

<sup>4</sup> The full report of the [Canadian Maternity Experiences Survey](#) (2009) is available through the Public Health Agency of Canada.

<sup>5</sup> Personal communication with researchers in Ontario and British Columbia.

<sup>6</sup> Reinharz D, Blais R, Fraser W, Contandriopoulos A, L'Equipe d'Evaluation des Projets-Pilotes Sages-Femmes. *Cost-effectiveness of midwifery services vs. medical services in Quebec*. [Canadian Journal of Public Health 91:1](#) (2000)

<sup>7</sup> Association of Ontario Midwives: [Benefits of Midwifery to the Health Care System](#) (May 2007)

<sup>8</sup> Chalmers B, Dzakpasu S, Heaman M, Kaczorowski J, for the Maternity Experiences Study Group of the Canadian Perinatal Surveillance System, Public Health Agency of Canada. *The Canadian Maternity Experiences Survey: An overview of findings*. [Journal of Obstetrics and Gynaecology Canada 30:3](#) (March 2008)