

MIDWIFERY MODELS AND OUTCOMES IN CANADA

The Canadian Midwifery Model

While midwifery legislation and regulations are specific to each province and 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 to build a relationship of mutual understanding and trust with their midwife or midwives. 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 support the woman as the primary decision-maker and contribute their knowledge and evidence-based recommendations in a non-authoritarian manner. 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, in accordance with 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. Midwife-attended 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. Midwives, along with physicians and nurses, are actively exploring collaborative models of care and multidisciplinary practice to help address shortages of care providers and ensure women's access to maternity services, particularly in rural and remote communities.

Clinical/perinatal outcomes

- An Ontario research study examined the rates of maternal and perinatal/neonatal mortality and morbidity and intrapartum intervention in 6692 midwife-attended planned home births between 2003 and 2006, comparing these outcomes with outcomes for similar low-risk midwife-attended births in hospitals. The study concluded that care provided by registered midwives who are well integrated into the health care system resulted in favorable outcomes for women planning either home or hospital births; and that home birth in these circumstances is a safe choice for selected women.ⁱ
- Research in British Columbia concluded that planned home birth attended by a registered midwife was associated with very low, comparable rates of perinatal death and reduced rates of obstetric interventions and other adverse outcomes, compared with planned hospital birth attended by a midwife or physician. All planned home births with registered midwives in B.C. from January 2000 to December 2004 (n=2889) and all planned low-risk hospital births attended by the same cohort of midwives (n=4752) were included, as was a matched sample of physician-attended planned hospital births (n=5331).ⁱⁱ
- 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.ⁱⁱⁱ
- 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.^{iv}
- 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 and newborn hospital readmission rates.^v

Cost effectiveness

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

- A recent pilot study comparing Alberta Health and Wellness cost data between participants in a midwifery integration project and individually matched women who received standard perinatal care during the same time period found that midwifery care resulted in an average saving of \$1172 per course of care, without adversely affecting maternal or neonatal outcomes. Cost reductions were partially attributable to the provision of out-of-hospital health services. The study concluded that, when compared with existing care, autonomous care by newly integrated midwives does not increase health care costs.^{vi}
- 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.^{vii}
- 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.^{viii}

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.^{ix}
- 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.^x

ⁱ Hutton E, Reitsma A, Kaufman K: *Outcomes Associated with Planned Home and Planned Hospital Births in Low-Risk Women Attended by Midwives in Ontario, Canada, 2003–2006: A Retrospective Cohort Study*. BIRTH 36:3 (September 2009)

ⁱⁱ Janssen P, Saxell L, Page L, Klein M, Liston R, Lee S: *Outcomes of planned home birth with registered midwife versus planned hospital birth with midwife or physician*. [Canadian Medical Association Journal 181: 377-383](#) (September 15, 2009)

ⁱⁱⁱ The full report of the [Canadian Maternity Experiences Survey](#) (2009) is available through the Public Health Agency of Canada.

^{iv} 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)

^v Association of Ontario Midwives: [Benefits to Women Needing Obstetrical Care](#) (May 2007)

^{vi} O'Brien B, Harvey S, Somerfeldt S, Beischel S, Newburn-Cook C, Schopflocher D: *Comparison of Costs and Associated Outcomes Between Women Choosing Newly Integrated Autonomous Midwifery Care and Matched Controls: a Pilot Study*. Journal of Obstetrics and Gynaecology Canada 32:7 (July 2010)

^{vii} Association of Ontario Midwives: [Benefits of Midwifery to the Health Care System](#) (May 2007)

^{viii} 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)

^{ix} Association of Ontario Midwives: [Benefits to Women Needing Obstetrical Care](#) (May 2007)

^x 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)