Are home births safe?

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In all industrialized countries, except those in North America, most babies are delivered by professional midwives who are integrated into the health care system. Canada is the last industrialized country to undertake the legal recognition of midwifery. It was only in the middle of the 1990s that the provinces of Ontario and Quebec first regulated this profession and set up midwifery services in response to demands made by women and by midwives themselves. Other provinces followed, so that now only the 4 Atlantic provinces and Saskatchewan have not regulated this practice.[1]

Home birth was widely practised in Canada during the 18th and 19th centuries. It was only in the early part of the 20th century that home birth progressively disappeared in this country and hospital birth became standard practice. Historically, many factors, including the lack of training programs (the first complete training program was established in Ontario in 1993), postponed the development of midwifery in Canada. Then, in the 1980s when a few provincial governments proposed the legal recognition of midwifery, some associations of physicians such as the Canadian Medical Association,[2] the Fédération des médecins omnipraticiens du Québec[3] and the Fédération des médecins spécialistes du Québec[3] expressed their opposition for several reasons, including the assumed danger of home birth (or any out of hospital delivery) practised by midwives at their clients' request. During the 20th century, in other industrialized countries, where most births still occurred in hospitals, midwife-assisted home birth for women with low-risk pregnancies was developed and found to be as safe as hospital birth.[4–6]

Since 1998, women in British Columbia who are considered to have a low-risk pregnancy have had access to midwifery services and the option of giving birth at home or in hospital. Patricia Janssen and colleagues took the opportunity to study the BC experience in order to evaluate the safety of home birth in the Canadian context. They report their results in this issue (page 315).[7] Because women in BC could choose both where to give birth and their caregiver, it was obviously impossible to conduct a randomized controlled trial in which women would have been randomly allocated to hospital or home birth. In a carefully designed prospective matched cohort study, Janssen and coworkers compared outcomes for 862 women who intended to deliver at home with a midwife between Jan. 1, 1998, and Dec. 31, 1999, with those for women of similar obstetric risk status who intended to deliver in hospital with a physician (n = 743) or midwife (n = 571). The home birth group of women were matched with women who had a physician-assisted hospital delivery for certain characteristics known to be associated with particular obstetric outcomes: age, lone parent status, parity and geographic area. There was no matching with the women who had midwife-assisted hospital deliveries because of an insufficient number of subjects. Data came from standard forms used by both midwives and hospitals throughout BC.

The study revealed the following findings for the home birth group: there were fewer interventions during labour, including electronic fetal monitoring, induction of labour, episiotomy and cesarean section; women were more likely to have an intact perineum and fewer maternal infections and were no more likely to have third-degree or fourth-degree tears or postpartum hemorrhage; and there were no significant differences in perinatal mortality, 5-minute Apgar scores and meconium aspiration syndrome, as compared with women intending to deliver in hospital who were assisted by physicians or midwives. We must welcome those positive outcomes, which were quite similar to those obtained in the birthing centres in Quebec.[8] However, Janssen and colleagues acknowledge that there were 3 perinatal deaths in the home birth cohort (compared with one death in the physician-assisted group with hospital births and none in the midwife-assisted group with hospital births) and 5 babies in the home birth group needed assisted ventilation for more than 24 hours (compared with none in either comparison group), although the numbers are too small to reach statistical significance. The authors have rightly examined these cases in detail, without being able to pinpoint any systematic explanation. An expert panel also reviewed all cases of adverse outcomes and made specific recommendations to improve care provided by midwives.[9] Faced with a similar situation of a higher than expected rate of perinatal death in the Quebec birthing centres (stillbirth rate 7.3/1000), although this was not significantly different from the estimated hospital figures that included high-risk cases (stillbirth rate 4.2/1000),[8] the government also appointed an expert panel that identified gaps in the care provided.[10] Several problems were noted including difficulty experienced by midwives in recognizing an abnormal condition or their failure to act appropriately following identification of a problem, delays encountered in accessing specialized care when faced with emergencies, and ambiguous definition of midwives' and physicians' responsibilities when transfer of care and joint follow-up have taken place.

In addition to the results of studies like the ones in BC or Quebec, the recommendations of the expert panels should be disseminated to all provinces considering the implementation of midwifery practice so that concrete steps can be taken to avoid problems before they arise. As Janssen and colleagues recommend, it is also important that adverse outcomes of home birth be closely monitored in the future.

Janssen and coworkers do not make economic comparisons between home birth and hospital care. Although patient safety and well-being should be the most important criteria in any therapeutic decision, cost is an important consideration at a policy level. In Quebec, the costs of midwife services in birthing centres were found to be barely lower than or equal to those of hospital-based physician services.[11] Yet about one-fifth of birthing centre costs and more than half of hospital costs were associated with women and their babies staying in the birthing centre or hospital. This suggests that home birth in BC could be much cheaper than hospital birth. This, of course, would have to be confirmed with BC data.

The mode of delivery, including the setting and the caregiver, is a very personal choice of expectant parents. When a health care system is able to provide various types of quality care at a reasonable cost, choices should be offered to parents. As with all therapeutic decisions, this should be a fully informed choice based on scientific evidence and personal preferences. The study by Janssen and colleagues provides valuable information about the safety of home birth in the Canadian context that should help expectant parents make their choice of place of birth and caregiver.

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