# Provision of intrapartum care by GP/FPs in Canada: an update

**Cheryl Levitt, MB BCh; Janusz Kaczorowski, PhD**

General practitioners and family physicians (GP/FPs) have traditionally provided intrapartum care in Canada as a routine part of their practice. In recent years, however, some GP/FPs have chosen to exclude vaginal deliveries from their core services. The objective of this study was to use billing data for deliveries to describe the provision of intrapartum care by GP/FPs to Canadian women over the last 11 years.

The study was based on fee-for-service billing data from the National Physician Database of the Canadian Institute for Health Information (CIHI). This database includes all direct fee-for-service billings for vaginal and cesarean deliveries (reported separately) in Canada by physician's specialty of practice; we used data for the period 1984/85 to 1994/95. Deliveries attended by physicians paid by alternative forms of reimbursement such as salary, sessional payment or capitation were not included. However, in most provinces intrapartum services are excluded from alternative payment plans. Midwifery-billed deliveries were also excluded. The data were based on gross direct payments, and reciprocal billings were not included. The Yukon and Northwest Territories do not submit their data to the CIHI. Because of these exclusion criteria, the billing data captured — depending on the year — 93.8% to 99.6% of the annual deliveries reported by Statistics Canada[1] over the period studied.

The proportion of vaginal deliveries that were billed by GP/FPs (calculated as the total number of vaginal deliveries billed by GP/FPs divided by the total number of vaginal deliveries) was calculated for each fiscal year of the period studied. The data were analysed with the Durbin–Watson test for serial correlation and Theil–Nagar $Q$ values,[2] but because there was no indication of significant autocorrelation, ordinary least squares regression was used to fit and test the trend. An estimate of the 11-year trend (unstandardized regression coefficient [β]), 95% confidence intervals (CIs) and an $R^2$ statistic were then calculated.

In fiscal year 1984/85, 296 440 vaginal deliveries were captured in the National Physician Database, and GP/FPs billed for 162 505 of them. In fiscal year 1994/95, there were 311 876 vaginal deliveries, of which 140 366 were billed by GP/FPs. The overall proportion of vaginal deliveries billed by GP/FPs during the period studied decreased significantly, from 54.8% in 1984/85 to 45.0% in 1994/95 ($\beta = -1.06$ [95% CI –1.21 to –0.90], $p < 0.001$, $R^2 = 0.96$). The mean annual decrease in deliveries billed by GP/FPs was 1.1% or about 2000 vaginal deliveries, for a cumulative decrease in the number of vaginal deliveries billed by GP/FPs of more than 22 000 over the 11 years studied (Fig. 1).

This decline probably reflects the decreased involvement of GP/FPs in the provision of intrapartum care in Canada. Other health care professionals providing intrapartum services in Canada — obstetricians and midwives — are expected to pick up the slack. Concerns over such developments range from whether it is cost effective to have specialists provide care in low-risk pregnancies to whether there will be enough midwives to pro-

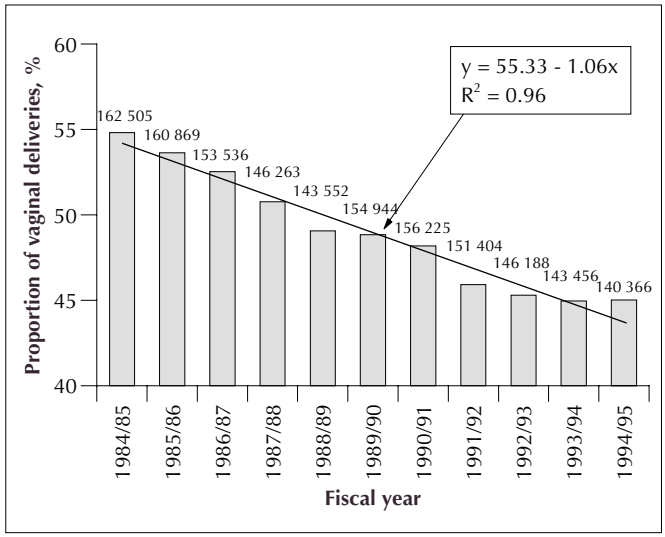


**Fig. 1. Number of vaginal deliveries billed by GP/FPs, presented as percentage of the total number of vaginal deliveries billed in Canada for 1984/85 to 1994/95.**

vide the intrapartum care needed. It is uncertain whether the number of midwives available will be sufficient to meet the shortfall in most provinces for many years to come.[3] This shortage of human resources for obstetric care is already being felt in many rural areas of the US and Canada, where women must travel great distances and be separated from their families when they give birth.[4–6] These trends, if sustained, will have a profound effect on the organization and provision of intrapartum care to Canadian women.

*Dr. Levitt is Chair and Associate Professor and Dr. Kaczorowski is Research Associate and Coordinator with the Department of Family Medicine, McMaster University, Hamilton, Ont.*

Competing interests: None declared.

## References

1. Annual number of births, Canada, provinces and territories, for the year ending June 30. In: *CANSIM — the Canadian Socio-Economic Information Management System matrix 5772*. Ottawa: Statistics Canada. Available: www.statcan.ca:80/cgi-bin/Cansim/cansim.cgi (accessed 1999 Feb 19).
2. Ostrom CW. *Time series analysis: regression techniques*. Sage University Papers on Quantitative Applications in the Social Sciences, no 07-009. Beverly Hills (CA) and London: Sage Publications; 1978. p. 31-44.
3. Lofsky S. Obstetric human resources in Ontario, 1996–97: changing realities, changing resources. *Ont Med Rev* 1998;65(10):24-9.
4. Nesbitt TS, Connell FA, Hart LG, Rosenblatt RA. Access to obstetric care in rural areas: effect on birth outcomes. *Am J Public Health* 1990;80(7):814-8.
5. Nesbitt TS, Baldwin LM. Access to obstetric care. *Obstetrics* 1993;20(3):509-22.
6. Hutten-Czapski P. Life on Mars — practising obstetrics without an obstetrician. *Can J Rural Med* 1998;3(2):69-71.

***Reprint requests to:*** *Dr. Cheryl Levitt, Department of Family Medicine, Faculty of Health Sciences, McMaster University, 1200 Main St. W, Hamilton ON L8N 3Z5; fax 905 528-5337; clevitt@fhs.McMaster.ca*

# Alternative and complementary medicine in Canadian medical schools: a survey

**John Ruedy, MD, CM; David M. Kaufman, EdD; Heather MacLeod, MA**

In spring 1998 we undertook a survey of all 16 Canadian medical schools to determine what education is being provided in the area of complementary and alternative medicine in the undergraduate medical curriculum.

A questionnaire was sent by fax to the deans and associate deans of the 16 medical schools. Each dean was asked to identify, within several days, which faculty member could best respond to questions about the teaching of complementary and alternative medicine at the medical school. Representatives of all 16 schools responded to the survey: 10 associate deans and 6 other faculty members who were knowledgeable about educational initiatives on this subject. A follow-up telephone interview lasting approximately 30 minutes was conducted with most respondents. The questions asked are listed in Table 1. The survey covered 18 complementary therapies selected from the list of the Office of Alternative Medicine, National Institutes of Health, in Washington,[1] ranging from acupuncture to reflexology, and sought to identify whether medical education about these therapies focused on the basic principles and philosophy of the technique or on experience with its practice.

Most schools reported that they include complementary and alternative medicine in their curricula, usually as part of a required course (Table 1). Lectures constitute the most frequent method of information delivery, and this is done predominantly during the preclinical years.

Acupuncture (in 10 schools) and homeopathic medicine (in 9 schools) were the interventions most often included in such course material; the others, in descending order, were herbal medicine (in 8 schools); chiropractic medicine (in 6); naturopathic medicine, traditional Chinese medicine and biofeedback (in 5 each); osteopathy (in 4); shamanism, massage therapy and therapeutic touch (in 3 each); yoga, aromatherapy, reflexology and native traditional healing (in 2 each); and bioelectromagnetic therapy, spiritual healing and a holistic approach (in 1 each).

Only 2 schools reported that they provide instruction on the actual practice of one or more complementary therapies: biofeedback, yoga, chiropractic medicine and massage therapy at one school and massage therapy at the other. Most of the respondents believed that more specific training is the prerogative and responsibility of the students, who can seek outside electives or training schools related to specific alternative medical therapies.