Correspondance

is not possible to delineate the temporal sequence between the onset of smoking and the onset of diabetes. However, the potential link warrants further inquiry.

I would, however, caution against hoping that removing a single factor, be it dietary toxins or tobacco smoke, will vanquish the diabetes problem in Canada's Aboriginal population. Current evidence points to a very complex etiology and to date no magic bullets have been found.

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Reducing the rates of inappropriate labour induction

Susan Harris and colleagues have described a clinical quality improvement (CQI) initiative to reduce the rates of inappropriate induction of labour.[1] They claim that their initiative was associated with a sustained reduction in induction rates and recommend that "similar projects be undertaken at other institutions." We are unconvinced that their data support these conclusions. Specifically, the authors provide only descriptive data without statistical testing. We reanalysed the data using time-series regression models, which allow assessment of and adjustment for preintervention time trends.[2,3] Although our reanalysis has limited statistical power owing to the small number of data points, we found a decreasing trend in induction rates before the intervention (0.45% decrease per 6 months, $p = 0.10$) and no evidence of a continuing trend after the intervention (0.11% decrease, $p = 0.64$). However, there was evidence of an overall shift in pre- to post-intervention rates (absolute reduction of 2.6% in the 6 months following the intervention, $p = 0.06$). This could be due to a small intervention effect, although we are uncertain of its clinical significance. We invite the authors to consider conducting a more powerful time-series analysis by disaggregating their data into shorter intervals that still allow stable point estimates of performance.

The authors state that their CQI initiative was "very time-consuming," representing "a significant cost to the institution." Hospitals have limited resources to spend on quality improvement. There are substantial opportunity costs if hospitals adopt unproven methods. If we are to generate a robust evidence base for quality improvement activities, we should demand that quality improvement strategies be evaluated with the same scientific standards that are used to evaluate any clinical intervention. This paper fails to provide compelling evidence that CQI works or provides good value for money. Further evaluation is required before widespread adoption of CQI can be recommended.

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[Three of the authors respond:]

We appreciate the response to our paper[1] from Craig Ramsay and colleagues; we reached a conclusion similar to theirs when we initially analysed the data, recognizing that induction rates were already declining when we implemented the intervention. We did include statistical testing in early drafts of the paper but this information was omitted at the editors' request. Table 1 shows how logistic regression was used to calculate odds ratios for induction with the first time period (January–June 1994) as the reference category. The odds of having an induction in 1997 and 1998 were significantly less than in the reference time period; in contrast, the odds of having an induction in the time periods before 1997 did not differ from those in the reference time period.

We then created a logistic regression model with time periods 1, 2, … 10 entered as a continuous variable, which allowed us to compare the slope of the change in the induction rate for different groups of time periods. The slope of the change in induction rate

Table 1: Odds ratios expressing changes in the frequency of labour induction at British Columbia's Women's Hospital and Health Centre, 1994–1998

	Odds ratio (and 95% confidence intervals)	*p* value
Jan–Jun 1994*	1.00	
Jul–Dec 1994	1.12 (1.00–1.25)	0.040
Jan–Jun 1995	1.09 (0.98–1.22)	0.113
Jul–Dec 1995	1.03 (0.93–1.22)	0.576
Jan–Jun 1996	0.96 (0.86–1.07)	0.490
Jul–Dec 1996	0.93 (0.83–1.04)	0.219
Jan–Jun 1997	0.82 (0.73–0.92)	0.001
Jul–Dec 1997	0.76 (0.67–0.85)	0.000
Jan–Jun 1998	0.80 (0.71–0.90)	0.000
Jul–Dec 1998	0.78 (0.70–0.88)	0.000

*Reference category

for the period January 1994 to June 1996 is not different from that for July 1996 to December 1998. However, the induction rate appears to have stabilized after December 1997. If the slope for January 1994 to June 1996 is compared with that for July 1996 to December 1997, the *p* value for the difference in slopes is between 0.05 and 0.1. This finding is in agreement with the analysis presented by Ramsay and colleagues. What is perhaps most interesting is that 3 years post-intervention the rate has not returned to pre-intervention levels.

We did not undertake a cost–benefit analysis. We hope that other investigators will build upon our work by mounting a randomized controlled trial of an accelerated quality improvement process to reduce hospital induction rates.[2]

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Corrections

In the third paragraph of their recent research letter, Adam Oster and colleagues used the term "substance-induced psychotic disorder." "Substance-related disorder" is a more accurate term that better reflects the corresponding proportion of the study population.

Reference

1. Oster A, Bernbaum S, Patten S. Determinants of violence in the psychiatric emergency service. *CMAJ* 2001;164(1):32-3.

A recent article by Deepa Francis[1] should have included the following acknowledgement: "The author thanks Dr. Tom Ringrose (preceptor) and Ms. Arty Coppes-Zantinga for their helpful suggestions during the preparation of this article and Dr. William Whitelaw for the support provided through the Calgary History of Medicine Club."

Reference

1. Francis D. Bodysnatching in Canada. *CMAJ* 2001;164(4):530.