

ates is intriguing, we should gather more evidence before changing policy.

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### References

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Although Joel Ray and associates<sup>1</sup> may have adequately controlled for confounding in their study of neural tube defects among children born in Ontario, the study may suffer from bias in data collection, analysis and interpretation, and the conclusions drawn may therefore be premature.

The study included Ontario women who underwent antenatal maternal serum screening at 15 to 20 weeks' gestation over the period 1994 to 2000, with an uptake rate of about 70%.<sup>1</sup> The proportion of First Nations women in the study (1551/403 915, 0.38%) was much lower than the proportion of First Nations women in Ontario, as estimated by the 2001 Census (92 050 or 1.9% of the total female population).<sup>2</sup> Because First Nations women tend to have a higher fertility rate, the true proportion of pregnant women of First Nations origin in Ontario is likely at least 5 times the proportion reported in the study. As reported by others<sup>3</sup> and in our previous analysis,<sup>4</sup> First Nations women are less likely to access prenatal care and more likely to access it at a later stage of pregnancy than women in the general population. Therefore, Ray and associates probably missed a large number of First Nations women in Ontario who did not access maternal serum screening before 20 weeks' gestation. Failure to include all pregnant First Nations women in this study, particularly in the denominator for a risk calculation, could lead to overestima-

tion of the risk for neural tube defects among pregnant First Nations women in Ontario.

Using population-based registry data from the Alberta Congenital Anomalies Surveillance System combined with data from the Alberta Health Care Insurance Plan, which captures nearly all First Nations persons in Alberta with treaty status under the *Indian Act* of Canada, we examined the live-birth prevalence of congenital anomalies in 268 167 newborns, including 16 986 First Nations children, from 1995 to 2001.<sup>5</sup> We found 4 cases of neural tube defects, a rate of 0.24 per 1000 First Nations newborns (95% confidence interval [CI] 0.01-0.47). This result was similar to the rate for other Alberta newborns (0.33 per 1000, 95% CI 0.25-0.40). Thus, we did not witness a greater risk of neural tube defects for First Nations newborns. Our finding is consistent with that of an earlier report with a much larger sample size in British Columbia.<sup>6</sup>

Our data show that pregnancy terminations and stillbirths account for about 50% of all cases of neural tube defects registered in Alberta between 1997 and 2001. However, data on ethnicity are currently unavailable for cases of termination and stillbirth. Future collection of such data will allow a better estimation of the risk for neural tube defects among First Nations people and people of other ethnic origins.

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The population-based study of neural tube defects by Joel Ray and associates<sup>1</sup> raises 2 important concerns. First, as noted by the authors in their discussion of study limitations, ethnicity may simply be a confounding factor in neural tube defects caused by poor folic acid intake. Second, perhaps the maternal serum screening form should be used to obtain additional information on risk factors for neural tube defects, to allow researchers to study this rare public health issue. Even a crude measure of folic acid intake (e.g., as low, medium or high) would be more helpful than no information at all.

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Joel Ray and associates<sup>1</sup> found that in Ontario the risk of neural tube defects was higher among First Nations