

Culturally meaningful programs that value traditional Cree concepts, yet take into consideration the realities of contemporary life, might be a useful strategy for interventions. We suggest emphasizing the cultural importance that Cree Elders place on eating well to encourage women to eat quality foods during their pregnancy. While breastfeeding, women should be encouraged to include traditional foods and to exercise regularly. The establishment of community cooking networks, where individuals come together on a regular basis to share cooking skills (including Cree food preparation) and learn from each other and from Elders, is one example of how this could be done. Such events would help to address the time, energy and knowledge constraints discussed by the young Cree mothers, while helping them to build social support networks.

Health is determined by the interactions between individual characteristics and behaviours, social and economic factors, and physical environments. The Cree women who participated in this study identified many of the determinants of health related to weight gain during pregnancy and postpartum weight retention. Strategies to improve their health must therefore address the entire range of factors. Addressing the obesity problem among Cree women of childbearing age requires a multi-pronged approach that is initiated from within the community, and that involves changes at the individual, community and societal levels. The development of culturally meaningful and effective health programs for young mothers can occur only through the inclusion of Cree voices, including those of Elders, healers and the young mothers themselves.

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REFERENCES

- Adelson, N. (2000). *"Being alive well": Health and the politics of Cree well-being*. Toronto, ON: University of Toronto Press.
- Armstrong, I. E., Robinson, E. J., & Gray-Donald, K. (1998). Prevalence of low and high birthweight among the James Bay Cree of northern Quebec. *Canadian Journal of Public Health, 89*, 419–420.
- Benjamin, E., Winters, D., Mayfield, J., & Gohdes, D. (1993). Diabetes in pregnancy in Zuni Indian women: Prevalence and subsequent development of clinical diabetes after gestational diabetes. *Diabetes Care, 16*, 1231–1235.
- Borré, K. (1991). Seal blood, Inuit blood, and diet: A biocultural model of physiology and cultural identity. *Medical Anthropology Quarterly, 5*, 48–62.
- Brennand, E. A., Dannenbaum, D., & Willows, N. D. (2005). Pregnancy outcomes of First Nations women in relation to pregravid weight and pregnancy weight gain. *Journal of Obstetrics and Gynaecology Canada, 27*, 936–944.
- Caulfield, L. E., Harris, S. B., Whalen, E. A., & Sugamori, M. E. (1998). Maternal nutritional status, diabetes and risk of macrosomia among Native Canadian women. *Early Human Development, 50*, 293–303.
- Clark, M., & Ogden, J. (1999). The impact of pregnancy on eating behaviour and aspects of weight concern. *International Journal of Obesity, 23*, 18–24.
- Davis-Floyd, R. E. (1992). *Birth as an American rite of passage*. Berkeley, CA: University of California Press.
- Davis-Floyd, R. E., & Sargent, C. F. (Eds.). (1997). *Childbirth and authoritative knowledge*. Berkeley, CA: University of California Press.
- DeVault, M. (1990). Talking and listening from women's standpoints: Feminist strategies for interviewing and analysis. *Social Problems, 37*, 96–116.
- Dyck, R., Klomp, H., Tan, L. K., Turnell, R. W., & Doctor, M. A. (2002). A comparison of rates, risk factors, and outcomes of gestational diabetes between Aboriginal and non-Aboriginal women in the Saskatoon health district. *Diabetes Care, 25*, 487–493.



- Fairburn, C. G., & Welch, S. L. (1990). The impact of pregnancy on eating habits and attitudes to shape and weight. *International Journal of Eating Disorders, 9*, 153–160.
- Farmer, P. (1999). *Infections and inequalities: The modern plagues*. (Rev. ed.). Berkeley, CA: University of California Press.
- First Nations Centre (2005). *First Nations Regional Longitudinal Health Survey 2002/03*. Results for adults, youth and children living in First Nations communities. Ottawa, ON: National Aboriginal Health Organization.
- Freeman, M. M. R. (1988). Environment, society and health. *Arctic Medical Research, 47*, Suppl. 1, 53–59.
- Galtier-Dereure, F., Boegner, C., & Bringer, J. (2001). Obesity and pregnancy: complications and cost. *American Journal of Clinical Nutrition, 71*, 1242S–1248S.
- Gilmore, J. (1999). Body mass index and health. *Health Reports, 11*, 31–43.
- Godwin, M., Muirhead, M., Huynh, J., Helt, B., & Grimmer, J. (1999). Prevalence of gestational diabetes mellitus among Swampy Cree women in Moose Factory, James Bay. *Canadian Medical Association Journal, 160*, 1299–1302.
- Health Canada (2003). *Canadian guidelines for body weight classification in adults*. Ottawa, ON: Health Canada.
- Jordan, B. (1993). *Birth in four cultures*. (4th ed.). Long Grove, IL: Waveland Press.
- Kaufert, P. A., & O'Neil, J. D. (1990). Cooptation and control: The reconstruction of Inuit birth. *Medical Anthropology Quarterly, 4*, 427–442.
- McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly, 15*, 351–377.
- Moffitt, P. M. (2004). Colonialization: A health determinant for pregnant Dogrib women. *Journal of Transcultural Nursing, 15*, 323–330.
- National Task Force on the Prevention and Treatment of Obesity (2000). Overweight, obesity, and health risk. *Archives of Internal Medicine, 160*, 898–904.
- Preston, R. J. (2002). *Cree narrative*. (2nd ed.). Montreal, QC & Kingston, ON: McGill-Queen's University Press.
- Rodrigues, S., Robinson, E., & Gray-Donald, K. (1999). Prevalence of gestational diabetes mellitus among James Bay Cree women in northern Quebec. *Canadian Medical Association Journal, 160*, 1293–1297.
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health, 23*, 334–340.
- Special Working Group of the Cree Regional Child and Family Services Committee (2000). Planning research for greater community involvement and long-term benefit. *Canadian Medical Association Journal, 163*, 1273–1274.
- Tjepkema, M. (2005). *Adult obesity in Canada: Measured height and weight*. Ottawa, ON: Statistics Canada.
- Vallianatos, H., Brennand, E. A., Raine, K., Stephen, Q., Petawabano, B., Dannenbaum, D., et al. (2006). First Nations women's beliefs and practices concerning weight gain in pregnancy and lactation: Implications for women's health. *Canadian Journal of Nursing Research, 38*, 102–119.
- Walker, L. O., Cooney, A. T., & Riggs, M. W. (1999). Psychosocial and demographic factors related to health behaviors in the first trimester. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 28*, 606–614.
- Wein, E. E., Freeman, M. M. R., & Makus, J. C. (1996). Use and preference for traditional foods among the Belcher Island Inuit. *Arctic, 49*, 256–264.

END NOTES

1. Both GDM and high birth weight babies are more common among obese women.
2. It is important to note that the concept of “bad” food can vary by culture. Furthermore, certain eating patterns may be labeled “bad” in particular contexts and not in others, which is why we put the word “bad” in quotation marks.

