

# Corrigendum to the First Nations Food, Nutrition and Environment Study (FNFNES): Results from Ontario (2011/2012) Ottawa: University of Ottawa, 2014

Laurie Chan<sup>1</sup>, Olivier Receveur<sup>2</sup>, Malek Batal<sup>2</sup>, William David<sup>3</sup>, Harold Schwartz<sup>4</sup>, Amy Ing<sup>2</sup>, Karen Fediuk<sup>1</sup>, Andrew Black<sup>3</sup> and Constantine Tikhonov<sup>4</sup>

<sup>1</sup> Department of Biology, University of Ottawa, 180 Gendron Hall, 30 Marie Curie, Ottawa, ON, Canada, K1N 6N5

<sup>2</sup> Department of Nutrition, Faculty of Medicine, Université de Montréal, Montreal, QC, Canada

<sup>3</sup> Assembly of First Nations, Ottawa, ON, Canada

<sup>4</sup> Environmental Public Health Division, First Nations and Inuit Health Branch (FNIHB), Indigenous Services Canada, Ottawa, ON, Canada

**The authors regret to inform that some results were incorrect in the printed versions of the report as well as online versions downloaded prior to November 29, 2019.**

Some results concerning Body Mass Index results, rate of diabetes and mercury concentrations in hair for women of childbearing age were not correct.

Changes to the text and the accompanying figures are as follows.

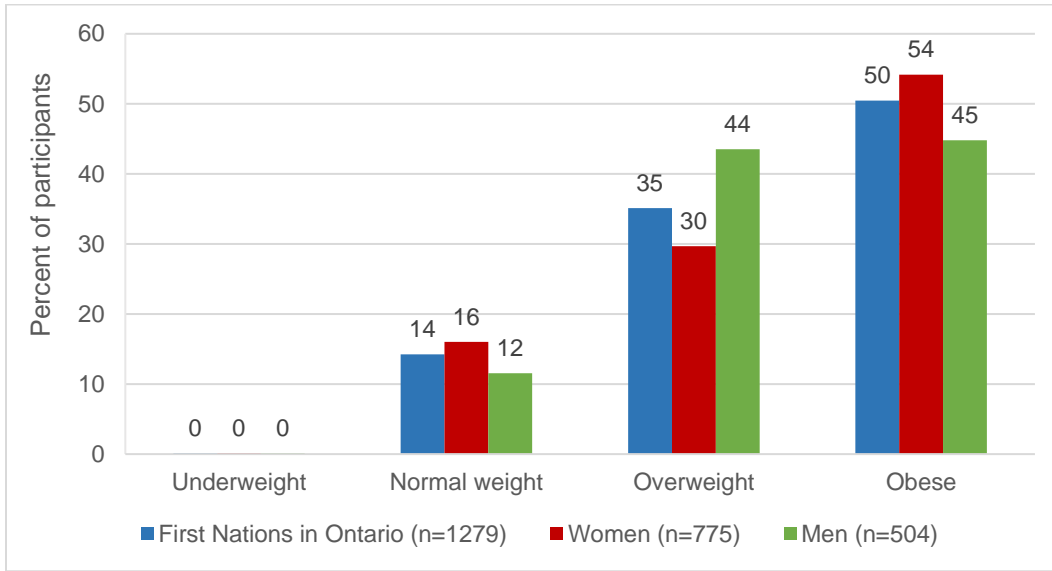
## Executive Summary

**Page xvi:** Based on measured and /or self-reported height and weight data, **35%** of adults were overweight (**30%** of women and **44%** of men) and **50%** were obese (**54%** of women and **45%** of men). **Twenty-six** percent of adults reported that they had diabetes and almost half of all adults (**49%**) were smokers.

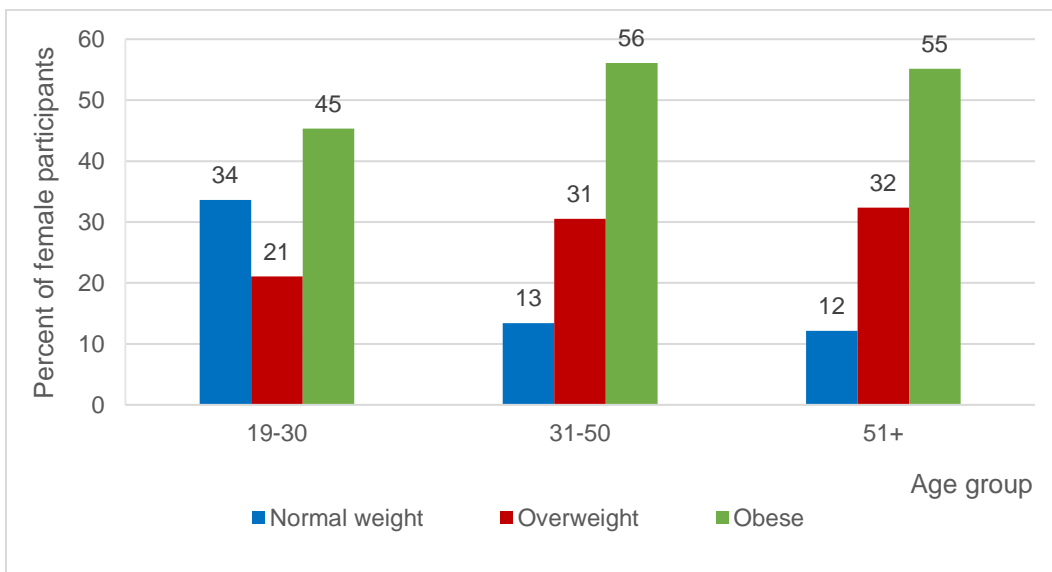
## Results: Body Mass Index and Obesity

**Page 19:** Based on their BMIs, **14%** of adults had a normal or 'healthy weight', **35%** were classified as overweight and **50%** of adults were classified as obese (Figure 8a). Sixty-six percent of women aged 19-30, **87%** of women aged 31-50, and **87%** of women aged 51 and over were overweight or obese (Figure 8b). Seventy-**nine** percent of men aged 19-30, **89%** of men aged 31-50 and **92%** of men aged 51 and over were overweight or obese (Figure 8c).

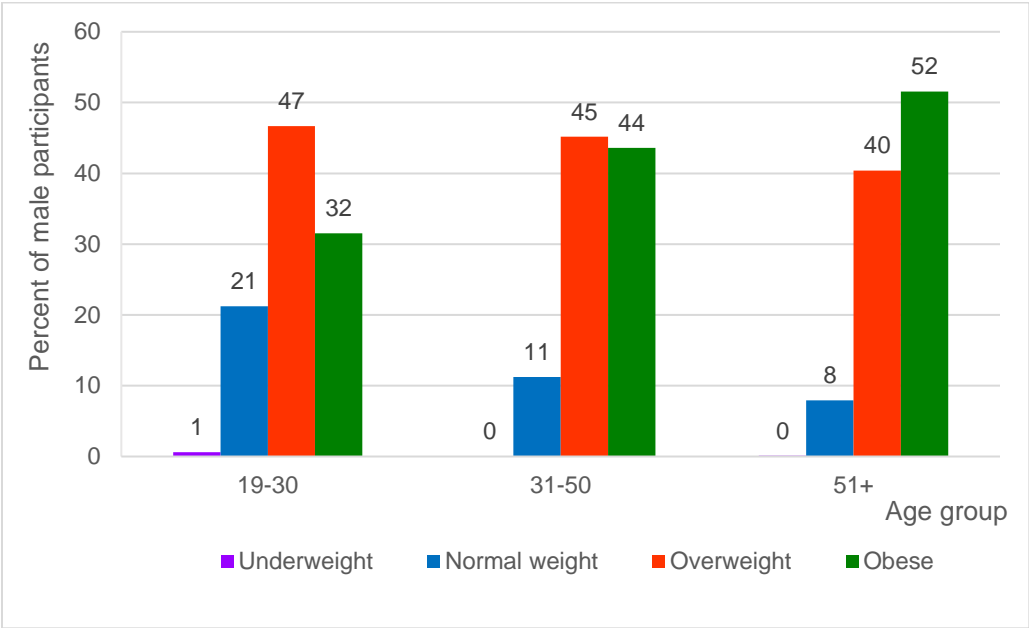
Page 52, Figure 8a. “Overweight and obesity among First Nations adults in Ontario



Page 52, Figure 8b. Overweight and obesity among First Nations women in Ontario (n=774)”



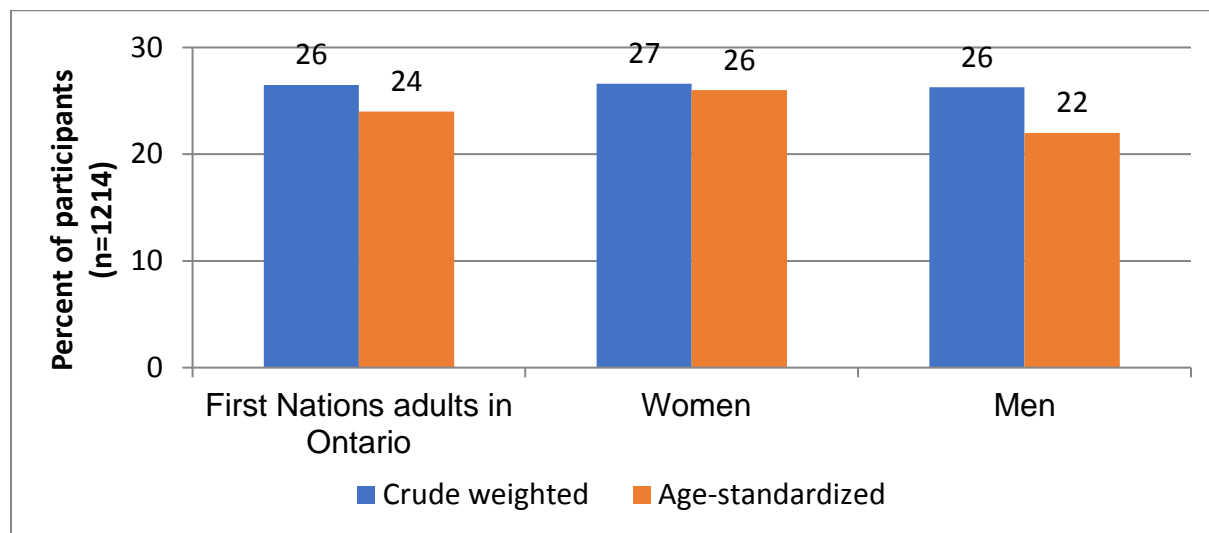
Page 53, Figure 8c Overweight and obesity among First Nations men in Ontario (n=504)



## Results: Diabetes

**Page 19.** One in four First Nations adults in Ontario (26%) reported having been told by a health care provider that they had diabetes (Figure 9).

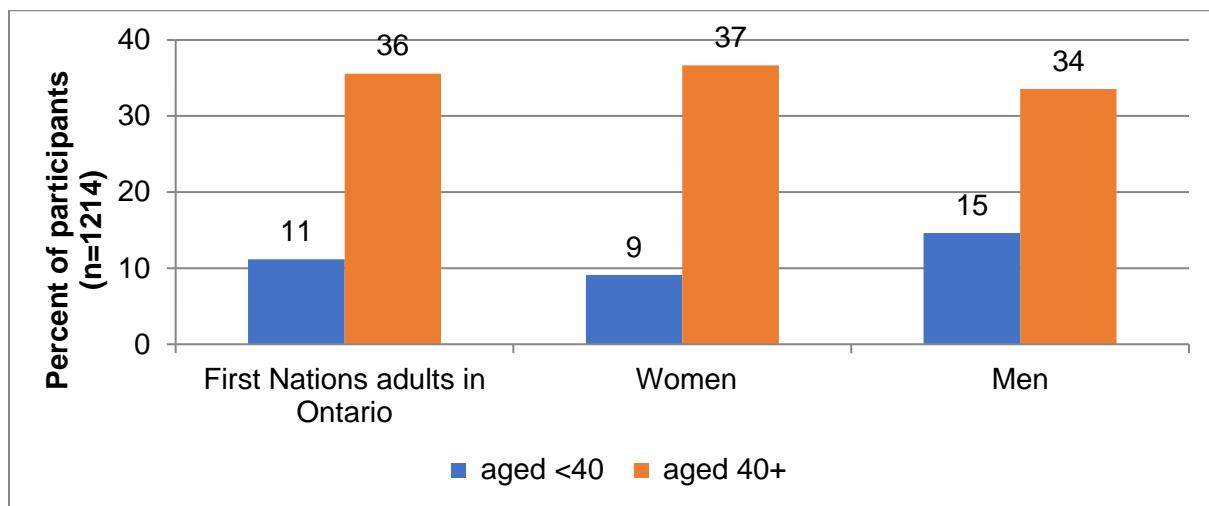
**Page 53, Figure 9. Prevalence of self-reported diabetes<sup>1</sup> in First Nations adults in Ontario, total and by gender (weighted and age-standardized rates<sup>2</sup>)”**



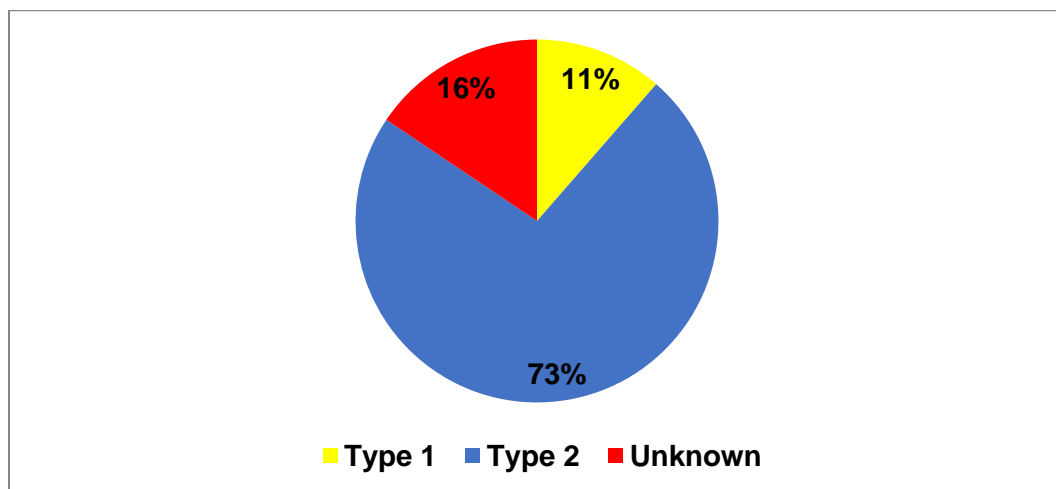
<sup>1</sup> Excludes gestational diabetes

<sup>2</sup> Age-standardized to the 1991 population.

Page 54, Figure 10. Prevalence of diabetes in First Nations adults in Ontario by gender and age group”



Page 54, Figure 11. Type of diabetes reported by First Nations adults in Ontario diabetic participants (n=324)



Page 55: The changes to Table 5 are as follows:

- Crude prevalence rate for Manitoba First Nations (on-reserve) should read **24.4** instead of 23.3.
- Crude prevalence rate for First Nations in Ontario (on-reserve) should read **26.5** instead of 30.0.

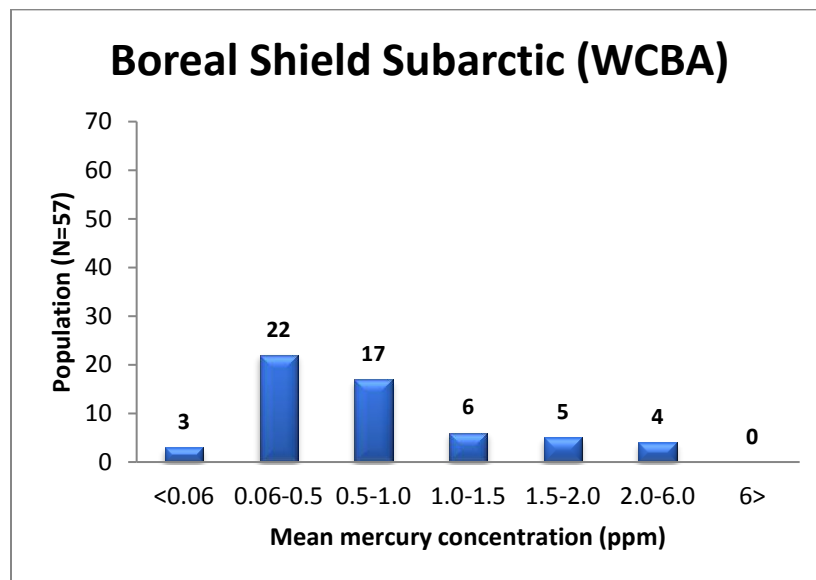
## Results: Mercury in Hair Results

### Page 160.

In Figure 42a, which presents mercury concentration in hair for women of childbearing age living in Ecozone 1 - Boreal Shield/Subarctic, 4 women of childbearing age (instead of 17) had mercury concentrations in hair ranging from 2.0µg/g to 6µg/g, and none (instead of 1) of the women of childbearing age had mercury concentrations exceeding 6µg/g (ppm).

The changes to Figure 42a are as follows:

**Figure 42a. Mercury concentration in hair for women of childbearing age (WCBA) living in Ecozone 1-Boreal Shield/Subarctic Shield/Subarctic**



### Page 36

The second paragraph has been replaced by the following three paragraphs:

The arithmetic mean (average) of mercury concentration in hair among the adult First Nations population living on-reserve in Ontario was 0.64µg/g, while the geometric mean was at 0.27 µg/g (sample data unweighted). For women of childbearing age (19-50 age category), the arithmetic mean of mercury was 0.40 µg/g and geometric mean 0.21µg/g (unweighted). The distribution of mercury in hair among the 90th and 95th percentile of First Nations living on-reserves in Ontario, presented in Table 26, indicate that mercury body burden is below the established Health Canada mercury guideline of 6 µg/g in hair for the general population (the 95th percentile (with 95% confidence) for Ontario First Nations living on-reserves is 1.35 µg/g +/- 0.86) (sample data weighted).

In total, 8 participants (three women over 50 years of age and five men over 19 years of age) had hair mercury values above 6µg/g (including 2 exceedances in at least one hair segment

sampled) which represented 1.1% of the total First Nations population in Ontario. Among women of childbearing age, there were 10 exceedances of Health Canada mercury biomonitoring guidelines (2µg/g) including 6 exceedances in at least one hair segment sampled which represented 3.3% of the total sample of women of childbearing age in Ontario.

The entirety of the weighted data is characterized by very high variability and would be generally considered as unreliable in representing the entire population. This level of variability suggests the existence of sub-groups within the First Nations population that are exposed to higher levels of mercury than Table 26 suggests. Further analysis by ecozone (Figures 41a-41d and 42a-42d) provided a vivid illustration of this point through a notable difference in the profiles of mercury exposure among the study participants from Ecozone 1-Boreal Shield/Subarctic, as compared to all other ecozones. In particular, the majority of exceedances for women of childbearing age were observed in Ecozone 1- Boreal Shield/Subarctic with 7% of First Nation women of childbearing age exceeding the 2 µg/g (based on the mean of three samples). However, when exceedances in at least one hair segment sampled were considered, 12.3% women of childbearing age exceeded Health Canada mercury guideline. These findings suggest that First Nations residing in Ecozone 1 - Boreal Shield/Subarctic should be the primary focus of the future health promotion and risk communication efforts by public health professionals in order to decrease the levels of mercury exposure among women of childbearing age.

## Appendix L Summary of Results for Ontario

### Page 225

54% of women and 45% of men are obese

26% of adults reported having diabetes

The authors would like to apologise for any inconvenience caused.