



EVALUATION OF PREGNANCY OUTCOMES AMONG FOOD INSECURE WOMEN ATTENDING THE MONTREAL DIET DISPENSARY PROGRAM

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INTRODUCTION

The Montreal Diet Dispensary is a Canadian Perinatal Nutrition Program (CPNP) funded project in Quebec with a history of leadership and research in nutrition for low-income pregnant women (7; 80). Its objectives are to: reduce the number of disadvantaged low-birth weight (LBW) infants; promote and support breastfeeding; through a social nutrition approach, prepare families to take charge of their physical and mental well-being while at the same time encouraging social integration. The program, which is composed of biweekly nutritional consultation during late gestation, food supplementation (milk, eggs and mineral/vitamin supplements) and social support, was shown to be successful in reducing the rate of low-birth weight as well as preterm births (PTB).

OBJECTIVES

The objective of the study was to compare the proportion of pregnancy complications in the clientele of the Montreal Diet Dispensary against local and national statistics.

METHODS

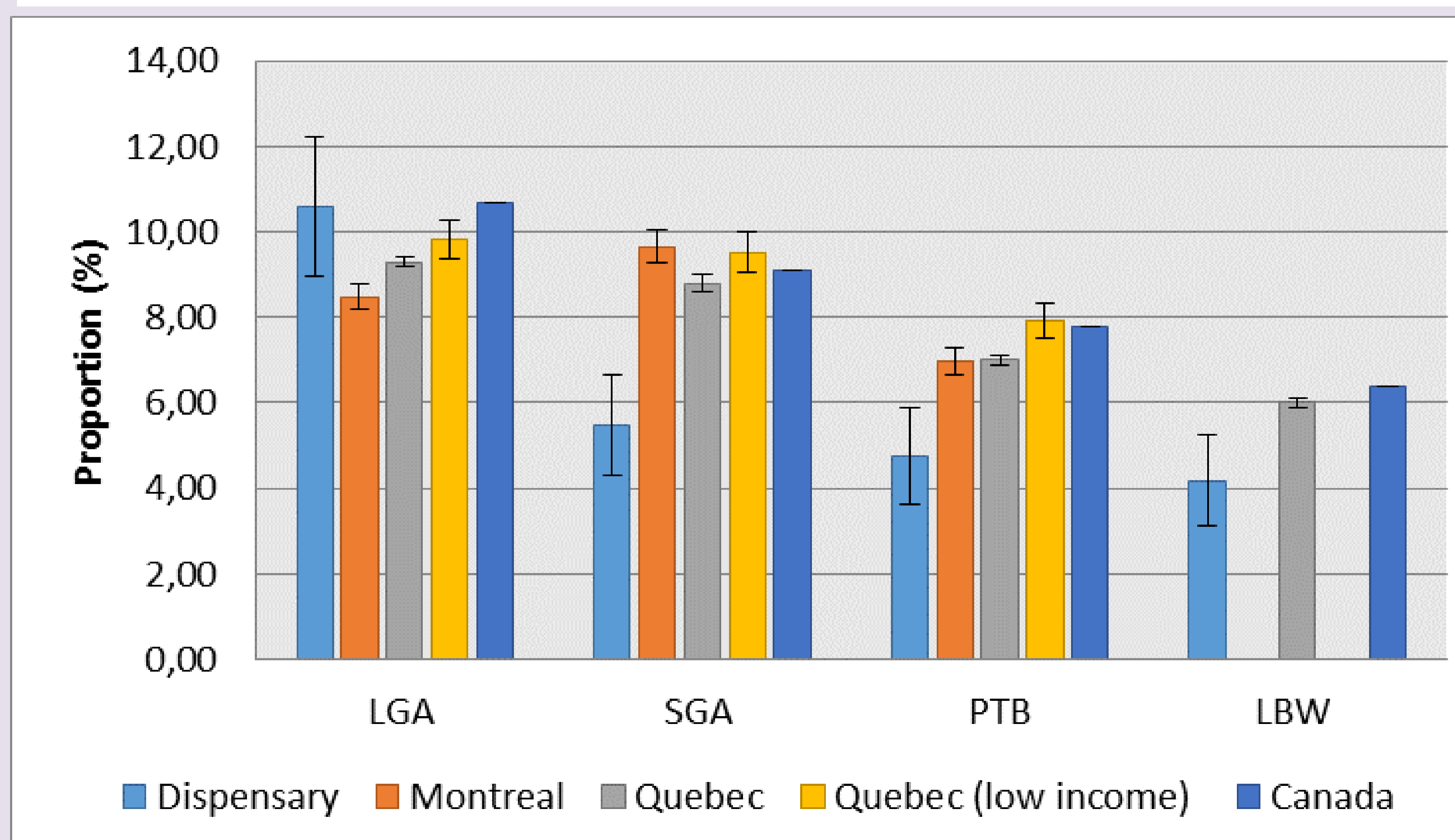
Pregnancy complications were evaluated using an electronic database from June 2013 to December 2015 (n=1387 pregnancies). Demographic information, including country of birth, time of arrival in Canada, marital status and maternal education, were self-reported at patient's registration at 20.4 ± 7.0 weeks gestation. Pregravid weight was self-reported, weight was then measured at biweekly visits until birth. Anemia, gestational diabetes (GDM) and gestational hypertension (HTN) were ascertained using copies of medical reports. Infant birth weight was collected from the vaccination booklet and Kramer's growth

curve reference (Pediatrics, 2001) was used to assess size at birth. Descriptive statistics of the participants were generated for the study group. If 95%CI of complications prevalence did not overlap, values were considered to significantly vary from the Canadian statistics. The study was reviewed and approved by the Faculty of Agricultural and Environmental Sciences Research Ethics Board.

RESULTS

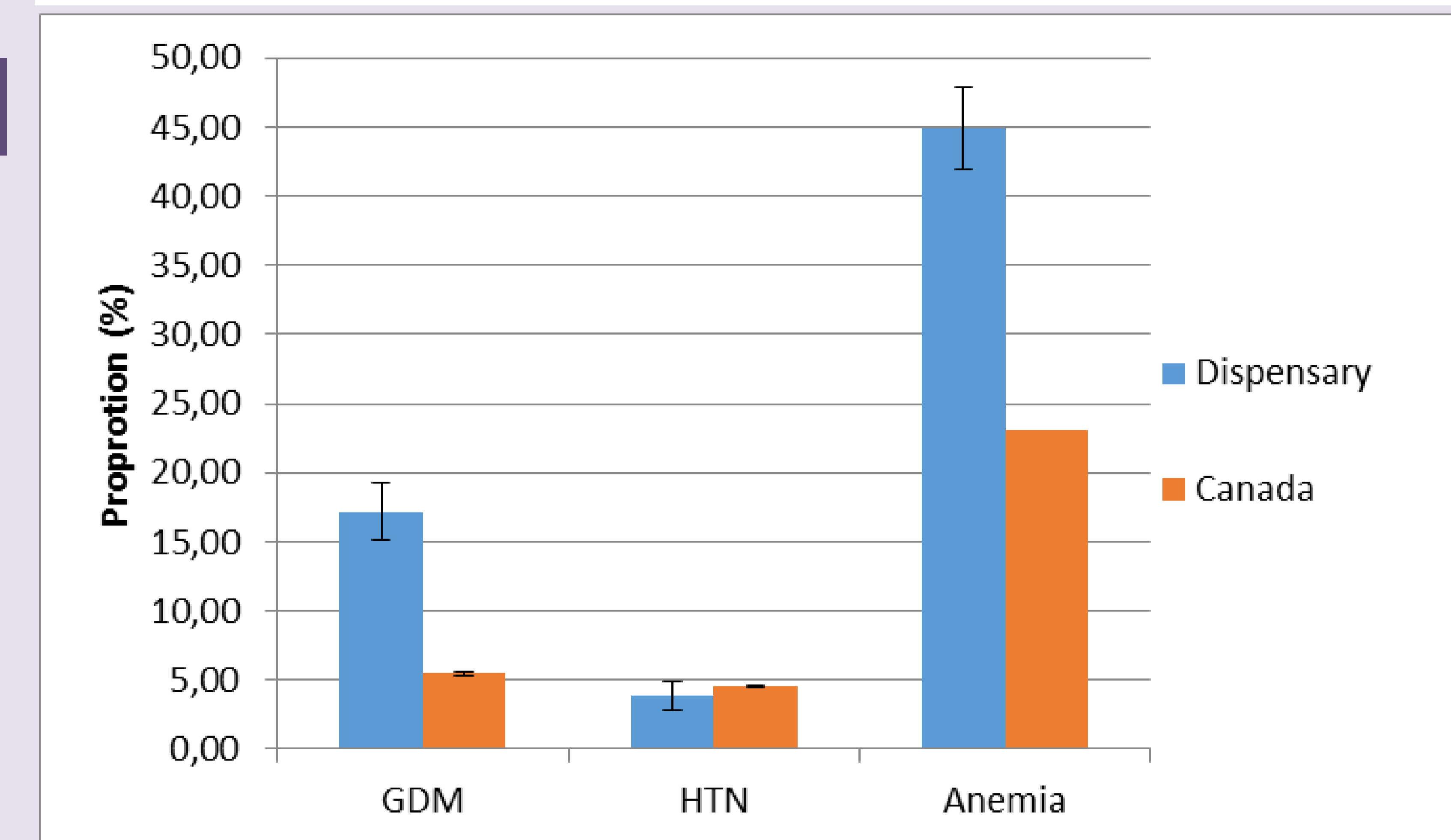
The rate of LBW was 4.18% (95% confidence interval (CI): 3.13, 5.24), small-for-gestational age (SGA) 5.47% (95% CI: 4.28, 6.68) and PTB 4.76% (95%CI: 3.64, 5.88); these were significantly lower than Canadian statistics (Figure 1). Large-for-gestational age (LGA) rate was 10.60% (95%CI: 8.98, 12.22) which was significantly higher than in Montreal, but similar to the Canadian rate. Prevalence of maternal outcomes were 17.15% (95%CI: 15.05, 19.25) for GDM and anemia was 44.88% (95%CI: 41.90, 47.86)

Figure 1. Infant complications of the study population compared to Montreal, Quebec and Canada (with 95%CI)



which both were significantly higher than the Canadian rates (Figure 2). HTN rate was 3.82% (95%CI: 2.81, 4.83) which was similar than Canadian rates.

Figure 2. Maternal pregnancy outcomes of the study population compared to Canada (with 95%CI)



CONCLUSION

This study suggests that the Higgins' intervention contributed to supporting infant health as evidenced by lower infant complications than national statistics. High prevalence of GDM and anemia was observed in the study group. Earlier nutritional intervention, prioritization of high risk groups of women and adaptation of the intervention to better prevent adverse maternal pregnancy outcomes would be needed for this vulnerable population.

REFERENCES

MSSS (2014), PHAC (2013,2014)+ others to add