

## **Food Insecurity During Pregnancy in Canada**

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**Introduction:** Despite programs to support low-income pregnant women in Canada, little is known about food insecurity during this critical period of development. As evidence from the US and UK suggests food insecurity compromises maternal health, investigation into this experience in Canada is needed.

**Objectives:** Amongst pregnant women in Canada, to characterize the relationship between household-economic circumstances and food insecurity; and to identify associations between food insecurity during pregnancy and measures of health.

**Methods:** The 2005-2014 Canadian Community Health Surveys were used to determine the food insecurity status of pregnant adults (secure, moderately insecure, moderate-severely insecure). A multinomial multivariable logistic regression model was used to determine the relationship between household-economic circumstances and food insecurity status, adjusting for age, indigeneity, education, geographic region and survey year. Additional multivariable logistic regression models were used to compare measures of health by food insecurity status adjusting for age, indigeneity, education, and survey year.

**Results:** 12.6% of the sample of pregnant women experienced food insecurity. Odds of experiencing food insecurity was greatest in the lowest household income quintile vs the highest (marginal insecurity aOR:13.1, 95%CI:5.3,32.6; moderate-severe insecurity aOR:5.8, 95%CI:1.8,18.9). Odds of moderate-severe food insecurity was lower amongst women without children (aOR:0.7, 95%CI:0.5,1.0); and higher amongst women reliant on social assistance (aOR:3.9, 95%CI:1.8,8.6) and those renting their dwelling (aOR:2.9 95%CI:1.8,4.5). Moderate-severe food insecurity was associated with poorer mental health (aOR:3.8, 95%CI:1.5,9.5), higher life stress (aOR:2.9, 95%CI:1.9,4.4), mood disorders (aOR:5.0 95%CI:2.9,8.8) and anxiety disorders (aOR:3.3, 95%CI:1.9,5.7).

**Conclusions:** Food insecurity during pregnancy is independently associated with household-economic factors and poorer mental health. Further studies on policies supporting low-income women are needed to prevent food insecurity during a critical period of development.

**Significance to the Field of Dietetics:** Dietitians play a role in advocating for effective policies to address food insecurity. Professionals working with food-insecure pregnant women should be mindful of poorer mental health amongst their clients when providing intervention.

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