

Racialization, food insecurity, and overall health during pregnancy: New evidence from the Mothers to Babies (M2B) Hamilton study

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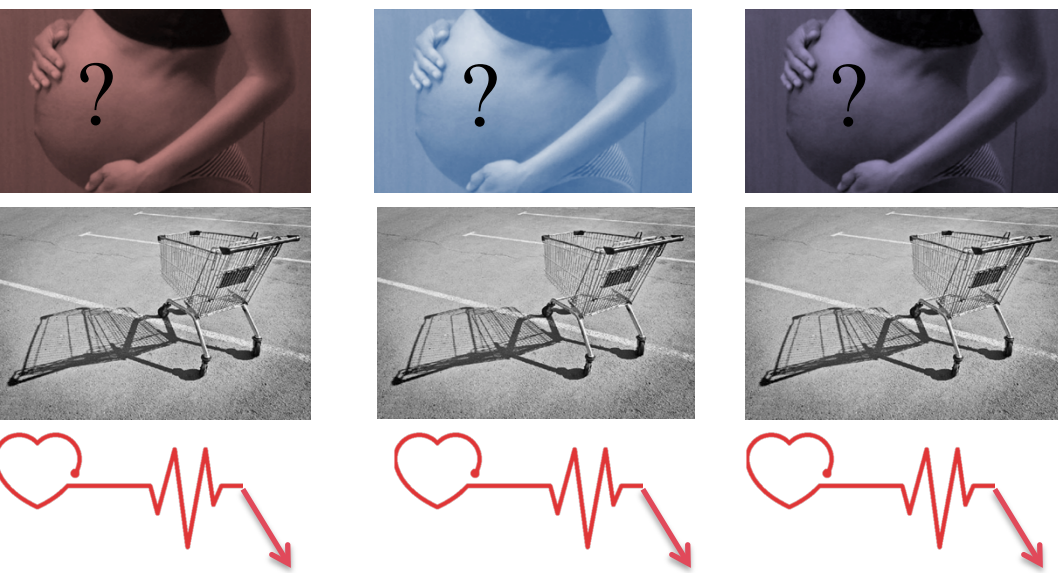
Food insecurity and pregnancy in Canada

-Food insecurity (inability to feed all household members socially appropriate and nutritious foods due to financial barriers)¹ rising in Canada:
→12% of households affected in 2016, up from 8% in 2012.²

-In managing food insecurity, women skip meals, forgo nutritious foods to ensure partner and children eat.
→can impact nutrition and health preconception, through pregnancy, and inter-partum.¹

-Food insecurity associated with increased risks of poorer overall maternal health, maternal obesity, maternal diabetes, pregnancy complications, and sub-optimal birth outcomes.³
→Imperative to identify risk factors (e.g. racialized motherhood) for food insecurity during pregnancy so that nutritious food can be directed to those in greatest need.

Objective: To investigate who in Hamilton, ON is at risk of food insecurity and declining overall health experiences during pregnancy.



Materials: Responses from 271 pregnant women living in Hamilton, ON who completed the M2B survey

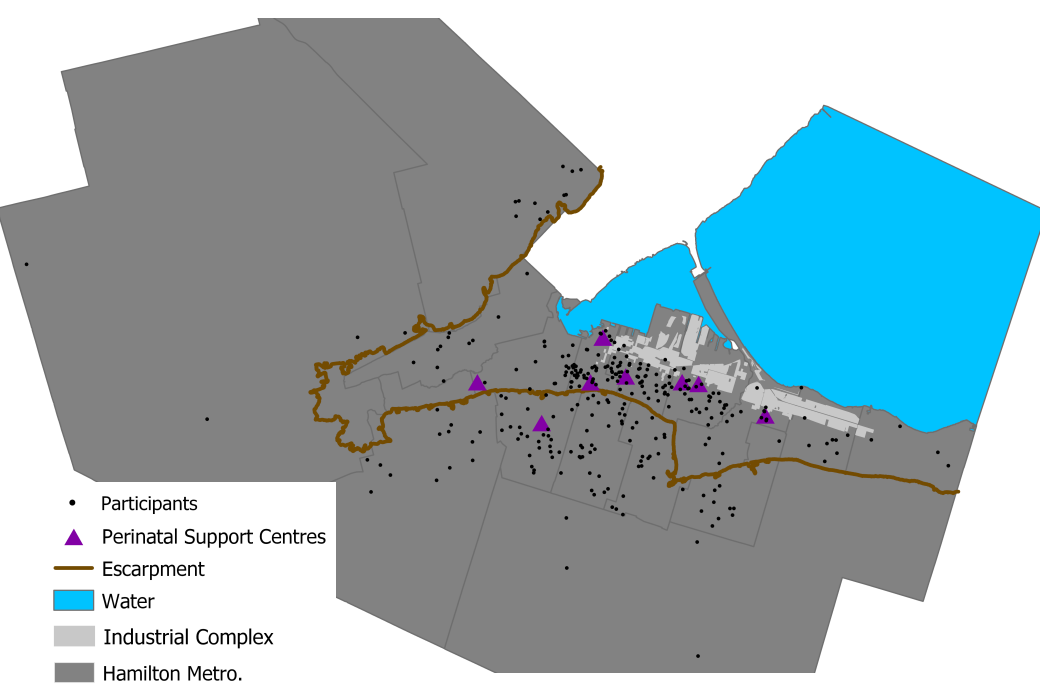


Figure 1. Distribution of respondents (black dots) to the Mothers to Babies pregnancy nutrition and health survey, carried out by the M2B research investigators and partly distributed by public health services centres (purple triangles) between June 2017 and Sept. 2018. Responses were received from all 26 of Hamilton's postal codes. Respondents were disproportionately likely to have received tertiary education, but were otherwise similar to Hamilton's general population in: household income, self-reported ethnicity, marital status, and citizenship status.

Results: Racialized Canadians at twofold increased odds of food insecurity, fivefold increased odds of reporting decline in overall health during pregnancy

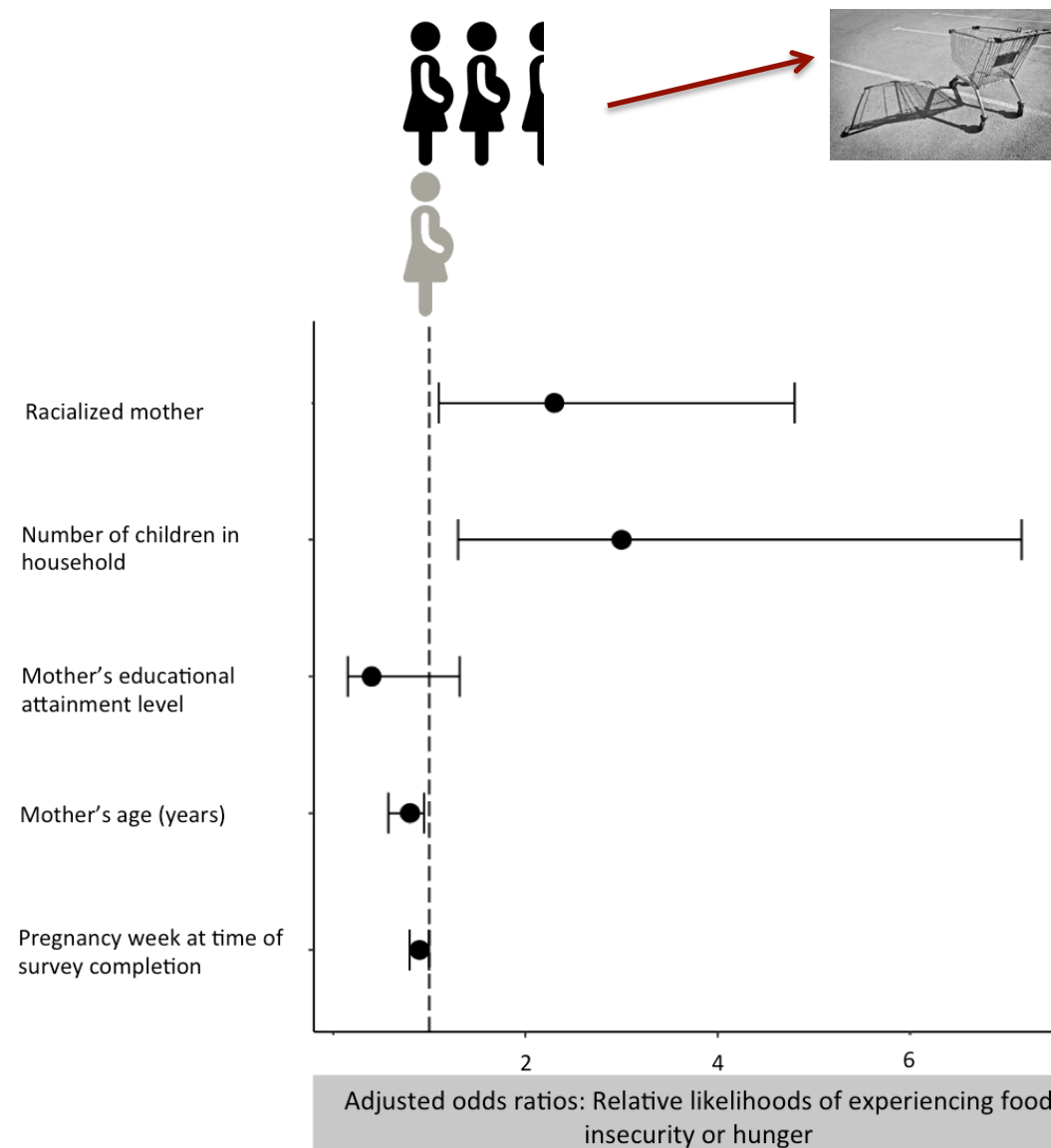


Figure 2. Forest plot showing that racialized mothers were 2.3x more likely to report agreeing or strongly agreeing with at least three out of five statements indicating food insecurity like "Not having enough money is a main barrier to eating healthy during pregnancy" and "Affordability of food affects whether I eat healthy during pregnancy" than women who identified as white. Additionally, mothers who already had children were 2.5x more likely to agree with three or more statements indicating food insecurity than women who were expecting their first children. Adjusted odds ratios and 95% CIs were derived from a multiple logistic regression.

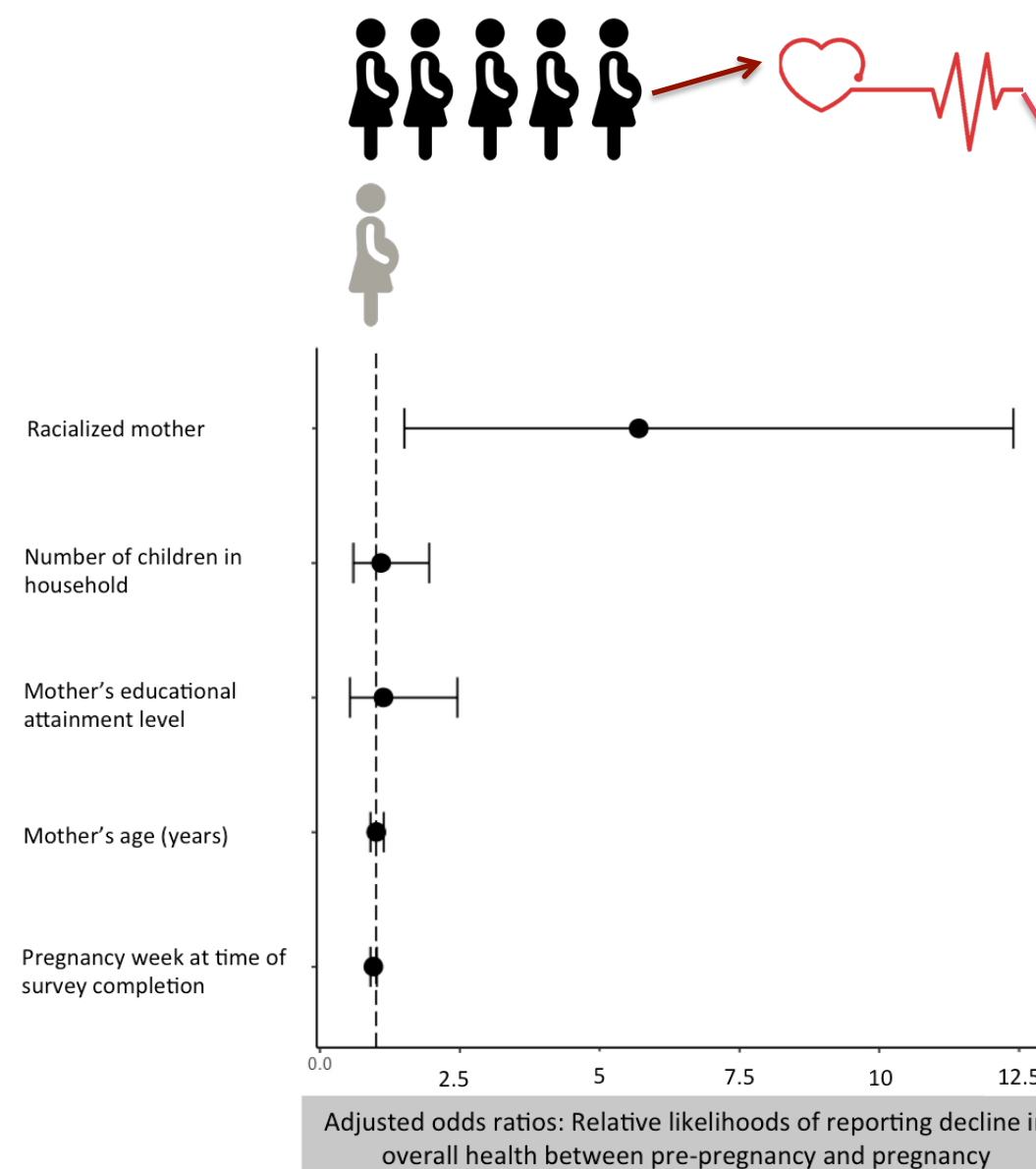


Figure 3. Forest plot showing that racialized mothers were 5.1x more likely to report an overall health score (5=Excellent, 4=Very Good, 3=Good, 2=Fair, 1=Poor) during pregnancy that was lower than their (recalled) pre-pregnancy overall health score, when compared to women who identified as white. No other factors predicted increased odds of reporting a decline in overall health between pre-pregnancy and pregnancy. Adjusted odds ratios and 95% CIs were derived from a multiple logistic regression.

-8.1% of respondents to M2B survey reported agreeing or strongly agreeing with three or more statements indicating food insecurity; an additional 17% could be classed as only marginally food secure.

→Respondents who identified as being from a racialized population and/or having older children to support were overrepresented among the food insecure (Fig. 1) and marginally food secure (Data not shown).

-31% of respondents reported being in worse overall health during pregnancy as compared to pre-pregnancy.

→Respondents who identified as being from a racialized population were overrepresented among those with worse overall health during pregnancy (Fig. 2)



Implications

-Food insecurity affects the pregnancy health and nutrition experiences of a large fraction of the women in Hamilton.

-Racialized mothers hit especially hard by this major barrier to eating nutritious food during pregnancy.

→Likely leads to poorer health outcomes for mothers and babies; affects mothers' perceptions of overall health

→These mothers probably need additional support and resources to prevent or at least more effectively manage food insecurity.

Acknowledgements

Funding for this work was provided by the Canadian Institutes for Health Research, the Women's College Hospital, and McMaster University.

We also gratefully acknowledge the logistical, practical, and intellectual support we received from Hamilton Public Health Services.

Lastly, we owe our deepest thanks to the hundreds of pregnant women in Hamilton who took 20 minutes out of their busy days to complete the M2B survey.

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