

A Nationally Representative Analysis of Trends in Socioeconomic Inequities in Diet Quality Between 2004 and 2015 Among Adults Living in Canada

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Objectives: Diet quality is a key determinant of chronic disease and shares a similar socioeconomic patterning. Inequities in diet quality are stable or widening in the US, however these trends have not been examined in other nations. Moreover, prior US studies only examined differences in diet quality between the most and least disadvantaged groups in absolute terms. Quantifying trends in relative terms and along the full socioeconomic gradient according to multiple indicators of socioeconomic position (SEP) can provide a more comprehensive perspective to inform optimal points of intervention. The purpose of this study was to quantify nationally representative trends in absolute and relative gaps and gradients in diet quality between 2004 and 2015 according to three indicators of SEP among adults living in Canada.

Methods: Adults (≥ 18 years) who participated in the nationally representative, cross-sectional Canadian Community Health Survey - Nutrition in 2004 ($n = 20,880$) or 2015 ($n = 13,970$) were included.

SEP was classified based on annual gross household income (quintiles), education (5 categories) and neighborhood deprivation (quintiles). Dietary intake data from interviewer-administered 24-hour recalls were used to derive Healthy Eating Index-2015 scores. Dietary inequities were quantified using four indices: absolute gaps, relative gaps, absolute gradients (slope index of inequality) and relative gradients (relative index of inequality). Sex-stratified multivariable linear regression models examined trends in HEI-2015 scores between 2004 and 2015.

Results: Mean HEI-2015 scores improved significantly from 55.3 in 2004 to 59.0 in 2015 (maximum 100 points); however these trends were not consistently equitable. While inequities in HEI-2015 scores were stable in females, the absolute gap and gradient in HEI-2015 scores according to household income increased in males, as did the absolute gradient according to education.

Conclusions: Absolute and relative gaps and gradients in diet quality remained stable or widened between 2004 and 2015 in Canada. Novel policies are needed to tackle these avoidable inequities. Providing universal access to resources with a scale and intensity proportionate to need (i.e., proportionate universalism) may reduce inequities in diet quality and thus, chronic disease risk.

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