

Socioeconomic inequities in diet quality among a nationally representative sample of adults living in Canada: an analysis of trends between 2004 and 2015; Dana Lee Oltstad; Online Supplementary Material

Supplementary Table 1 Trends in gaps and gradients in HEI-2015 total and component scores by household educational attainment among adults who participated in the Canadian Community Health Survey – Nutrition in 2004 or 2015¹

HEI-2015 scores	Absolute gaps (95% CI)			Relative gaps (95% CI)			Absolute gradients: Slope Index of Inequality (95% CI)			Relative gradients: Relative Index of Inequality (95% CI)		
	2004	2015	P-value for time trend	2004	2015	P-value for time trend	2004	2015	P-value for time trend	2004	2015	P-value for time trend
Total	5.60 (4.22, 6.92)**	8.36 (6.65, 10.22)**	0.010	1.10 (1.07, 1.12)**	1.15 (1.11, 1.18)**	0.020	9.08 (7.83, 10.34)**	9.5 (7.98, 11.15)**	0.160	1.17 (1.15, 1.20)**	1.17 (1.14, 1.20)**	0.375
Total fruits	0.53 (0.32, 0.73)**	0.73 (0.43, 0.99)**	0.305	1.18 (1.10, 1.26)**	1.27 (1.14, 1.39)**	0.262	1.00 (0.80, 1.20)**	0.92 (0.67, 1.17)**	0.833	1.38 (1.30, 1.48)**	1.37 (1.25, 1.49)**	0.738
Whole fruits	0.35 (0.11, 0.58)*	0.91 (0.60, 1.21)**	0.006	1.12 (1.03, 1.21)**	1.35 (1.20, 1.50)**	0.008	0.89 (0.66, 1.11)**	1.19 (0.93, 1.46)**	0.010	1.35 (1.25, 1.45)**	1.48 (1.35, 1.61)**	0.018
Total vegetables	0.16 (-0.01, 0.33)	0.49 (0.24, 0.73)**	0.028	1.04 (0.99, 1.10)**	1.16 (1.07, 1.25)**	0.023	0.40 (0.23, 0.57)**	0.72 (0.51, 0.93)**	0.004	1.12 (1.04, 1.16)**	1.26 (1.17, 1.31)**	0.002
Greens and beans	0.71 (0.47, 0.95)**	1.22 (0.94, 1.50)**	0.005	1.68 (1.40, 1.96)**	2.31 (1.83, 2.79)**	0.015	0.89 (0.67, 1.12)**	1.18 (0.91, 1.45)**	0.029	2.03 (1.70, 2.41)**	2.17 (1.81, 2.60)**	0.332
Whole grains	0.13 (-0.31, 0.55)	0.57 (0.03, 1.09)*	0.217	1.05 (0.87, 1.22)**	1.16 (0.99, 1.33)**	0.369	0.69 (0.31, 1.07)**	1.01 (0.55, 1.47)**	0.159	1.33 (1.15, 1.53)**	1.33 (1.18, 1.50)**	0.349
Total dairy	0.59 (0.21, 0.96)*	0.40 (-0.07, 0.87)	0.529	1.14 (1.04, 1.23)**	1.08 (0.97, 1.18)**	0.386	0.53 (0.17, 0.89)*	0.12 (-0.27, 0.52)	0.224	1.13 (1.04, 1.22)*	1.02 (0.94, 1.11)	0.162
Total protein foods	0.39 (0.17, 0.58)**	0.37 (0.17, 0.57)**	0.951	1.14 (1.06, 1.22)**	1.09 (1.04, 1.15)**	0.385	0.63 (0.44, 0.83)**	0.23 (0.06, 0.39)*	0.027	1.25 (1.16, 1.33)**	1.05 (1.01, 1.10)*	0.002
Seafood and plant proteins	0.72 (0.46, 0.97)**	1.08 (0.77, 1.39)**	0.073	1.48 (1.28, 1.68)**	1.60 (1.36, 1.84)**	0.439	1.05 (0.82, 1.27)**	1.10 (0.83, 1.37)**	0.517	1.86 (1.63, 2.12)**	1.60 (1.42, 1.79)**	0.233
Fatty acids	0.03 (-0.38, 0.44)	0.46 (-0.03, 0.96)	0.182	1.01 (0.92, 1.08)**	1.09 (0.98, 1.20)**	0.173	0.38 (0.01, 0.75)*	0.30 (-0.14, 0.74)	0.886	1.08 (1.00, 1.16)*	1.06 (0.97, 1.15)	0.927
Refined grains	0.17 (-0.14, 0.48)	0.57 (0.11, 0.89)*	0.180	1.02 (0.98, 1.05)**	1.07 (1.01, 1.11)**	0.157	0.10 (0.10, 0.15)	0.61 (0.24, 0.99)*	0.037	1.01 (0.97, 1.04)	1.07 (1.03, 1.13)*	0.032
Sodium	0.55 (0.15, 0.95)*	0.89 (0.40, 1.36)**	0.289	1.10 (1.02, 1.17)**	1.16 (1.06, 1.26)**	0.295	0.60 (0.20, 1.00)*	0.96 (0.53, 1.40)**	0.559	1.11 (1.03, 1.19)*	1.17 (1.09, 1.26)**	0.679
Added sugars	0.72 (0.48, 0.94)**	0.62 (0.26, 0.97)*	0.666	1.08 (1.05, 1.11)**	1.07 (1.03, 1.12)**	0.767	1.09 (0.86, 1.33)**	0.83 (0.50, 1.16)**	0.542	1.13 (1.10, 1.17)**	1.10 (1.06, 1.15)**	0.540
Saturated fats	0.55 (0.14, 0.94)*	0.20 (-0.25, 0.65)	0.243	1.08 (1.01, 1.14)**	1.03 (0.96, 1.10)**	0.254	0.78 (0.40, 1.16)**	0.33 (-0.06, 0.72)	0.085	1.12 (1.06, 1.19)**	1.05 (0.99, 1.12)	0.100

¹ 2004 weighted n=23,682,000; 2015 weighted n=27,566,000. Multivariable linear regression models examined trends in gaps, while generalized linear models examined trends in gradients in HEI-2015 total and component scores between 2004 and 2015. Data are weighted to be nationally representative and are adjusted for age, sex and dietary recall day. Weighted sample sizes are rounded in accordance with Statistics Canada's confidentiality policies. HEI, Healthy Eating Index.

*p<0.05 for within year inequities, **p<0.001 for within year inequities.

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Supplementary Table 2 Trends in gaps and gradients in HEI-2015 total and component scores by household educational attainment among males who participated in the Canadian Community Health Survey – Nutrition in 2004 or 2015¹

HEI-2015 scores	Absolute gaps (95% CI)			Relative gaps (95% CI)			Absolute gradients: Slope Index of Inequality (95% CI)			Relative gradients: Relative Index of Inequality (95% CI)		
	2004	2015	P-value for time trend	2004	2015	P-value for time trend	2004	2015	P-value for time trend	2004	2015	P-value for time trend
Total	5.00 (4.08, 6.42)**	8.30 (6.38, 9.94)**	0.042	1.09 (1.03, 1.11)**	1.15 (1.10, 1.20)**	0.066	7.92 (6.17, 9.68)**	10.76 (8.57, 12.96)**	0.013	1.15 (1.12, 1.19)**	1.20 (1.15, 1.24)**	0.040
Total fruits	0.55 (0.38, 0.77)**	0.91 (0.75, 1.03)**	0.186	1.22 (1.09, 1.38)**	1.38 (1.19, 1.57)**	0.210	0.94 (0.63, 1.25)**	1.18 (0.83, 1.54)**	0.204	1.39 (1.25, 1.56)**	1.53 (1.34, 1.74)**	0.202
Whole fruits	0.38 (0.10, 0.57)*	0.99 (0.56, 1.19)**	0.046	1.16 (1.01, 1.29)**	1.43 (1.26, 1.64)**	0.080	0.68 (0.35, 1.01)**	1.41 (1.02, 1.79)**	0.001	1.28 (1.14, 1.44)**	1.62 (1.42, 1.85)**	0.003
Total vegetables	0.14 (0.08, 0.23)	0.17 (0.10, 0.25)	0.914	1.04 (0.94, 1.14)**	1.05 (0.92, 1.12)**	0.890	0.28 (0.02, 0.54)*	0.59 (0.25, 0.93)*	0.113	1.09 (1.03, 1.17)*	1.21 (1.14, 1.25)**	0.101
Greens and beans	0.63 (0.44, 0.81)**	0.92 (0.83, 1.02)**	0.292	1.66 (1.31, 2.08)**	1.89 (1.54, 2.19)**	0.531	0.78 (0.46, 1.10)**	1.15 (0.78, 1.52)**	0.066	1.97 (1.49, 2.60)**	2.27 (1.74, 2.96)**	0.382
Whole grains	-0.09 (-0.01, 0.15)	1.00 (0.14, 1.29)*	0.029	0.96 (0.74, 1.20)	1.35 (1.18, 1.57)**	0.060	0.47 (-0.06, 1.01)	1.32 (0.65, 1.98)**	0.022	1.23 (0.99, 1.54)	1.47 (1.22, 1.77)**	0.086
Total dairy	0.59 (0.24, 0.99)*	0.51 (0.21, 0.95)	0.863	1.16 (1.04, 1.30)**	1.11 (1.00, 1.26)**	0.686	0.36 (-0.14, 0.87)	0.22 (-0.33, 0.78)	0.829	1.09 (0.96, 1.23)	1.05 (0.93, 1.18)	0.728
Total protein foods	0.32 (0.09, 0.57)*	0.33 (0.11, 0.59)	0.968	1.11 (1.03, 1.23)**	1.08 (1.04, 1.13)**	0.676	0.52 (0.24, 0.80)**	0.22 (-0.01, 0.47)	0.324	1.20 (1.09, 1.33)**	1.05 (0.99, 1.11)	0.108
Seafood and plant proteins	0.55 (0.14, 0.93)*	0.91 (0.62, 1.21)**	0.261	1.34 (1.21, 1.49)**	1.47 (1.29, 1.63)**	0.555	0.91 (0.59, 1.23)**	1.19 (0.79, 1.58)**	0.210	1.74 (1.44, 2.11)**	1.68 (1.41, 2.00)**	0.943
Fatty acids	0.26 (-0.25, 0.65)	0.16 (-0.15, 0.55)	0.837	1.05 (1.02, 1.13)**	1.03 (0.99, 1.10)**	0.860	0.51 (-0.01, 1.05)	0.22 (-0.37, 0.81)	0.543	1.11 (0.99, 1.23)	1.04 (0.93, 1.16)	0.508
Refined grains	-0.14 (-0.57, 0.39)	0.19 (-0.19, 0.57)	0.397	0.98 (0.90, 1.03)**	1.02 (0.97, 1.06)**	0.396	-0.15 (-0.62, 0.31)	0.51 (-0.02, 1.05)	0.074	0.98 (0.92, 1.03)	1.06 (0.99, 1.13)	0.071
Sodium	0.22 (-0.03, 0.50)	1.23 (0.48, 1.67)*	0.025	1.17 (1.09, 1.23)**	1.03 (0.97, 1.10)*	0.026	0.64 (0.06, 1.21)*	1.2 (0.67, 1.90)**	0.233	1.12 (1.01, 1.24)*	1.24 (1.11, 1.37)**	0.281
Added sugars	0.57 (0.11, 1.06)*	0.60 (0.14, 1.09)*	0.916	1.06 (0.99, 1.14)**	1.07 (1.01, 1.16)**	0.863	0.88 (0.54, 1.22)**	1.02 (0.53, 1.50)**	0.435	1.11 (1.06, 1.15)**	1.13 (1.06, 1.19)**	0.436
Saturated fats	1.00 (0.86, 1.12)*	0.46 (-0.14, 1.04)	0.209	1.16 (1.05, 1.25)**	1.07 (1.01, 1.14)**	0.230	1.05 (0.51, 1.59)**	0.40 (-0.12, 0.94)	0.053	1.17 (1.08, 1.27)**	1.06 (0.98, 1.15)	0.065

¹2004 weighted n=11,846,000; 2015 weighted n=13,788,000. Multivariable linear regression models examined trends in gaps, while generalized linear models examined trends in gradients in HEI-2015 total and component scores between 2004 and 2015. Data are weighted to be nationally representative and are adjusted for age and dietary recall day. Weighted sample sizes are rounded in accordance with Statistics Canada's confidentiality policies. HEI, Healthy Eating Index.

*p<0.05 for within year inequities, **p<0.001 for within year inequities.

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Supplementary Table 3 Trends in gaps and gradients in HEI-2015 total and component scores by household educational attainment among females who participated in the Canadian Community Health Survey-Nutrition in 2004 or 2015¹

HEI-2015 scores	Absolute gaps (95% CI)			Relative gaps (95% CI)			Absolute gradients: Slope Index of Inequality (95% CI)			Relative gradients: Relative Index of Inequality (95% CI)		
	2004	2015	P-value for time trend	2004	2015	P-value for time trend	2004	2015	P-value for time trend	2004	2015	P-value for time trend
Total	6.40 (4.92, 7.54)**	8.40 (7.52, 10.7)**	0.004	1.11 (1.08, 1.14)**	1.14 (1.12, 1.18)**	0.237	10.30 (8.56, 12.03)**	8.33 (6.07, 10.59)**	0.633	1.19 (1.16, 1.23)**	1.14 (1.10, 1.19)**	0.470
Total fruits	0.57 (0.30, 0.78)**	0.52 (0.27, 0.74)*	0.832	1.18 (1.09, 1.26)**	1.17 (1.07, 1.25)**	0.946	1.06 (0.77, 1.34)**	0.65 (0.30, 0.99)**	0.305	1.37 (1.26, 1.49)**	1.24 (1.10, 1.39)**	0.440
Whole fruits	0.39 (0.12, 0.66)*	0.83 (0.58, 1.11)**	0.093	1.13 (1.01, 1.25)**	1.29 (1.19, 1.44)**	0.087	1.09 (0.77, 1.40)**	0.96 (0.61, 1.31)**	0.700	1.39 (1.26, 1.53)**	1.36 (1.22, 1.53)**	0.607
Total vegetables	0.19 (-0.01, 0.36)	0.80 (0.48, 1.10)**	0.001	1.05 (0.95, 1.17)**	1.26 (1.18, 1.38)**	0.001	0.51 (0.28, 0.74)**	0.83 (0.57, 1.09)**	0.009	1.16 (1.05, 1.21)**	1.29 (1.22, 1.37)**	0.005
Greens and beans	0.82 (0.50, 1.17)**	1.53 (1.20, 1.86)**	0.003	1.73 (1.43, 2.05)**	2.86 (2.44, 3.09)**	0.002	0.99 (0.69, 1.29)**	1.19 (0.81, 1.58)**	0.191	2.02 (1.63, 2.51)**	2.08 (1.64, 2.64)**	0.584
Whole grains	0.34 (0.12, 0.54)	0.11 (-0.09, 0.27)	0.632	1.13 (1.02, 1.25)**	1.02 (0.95, 1.08)**	0.484	0.90 (0.41, 1.39)**	0.74 (0.09, 1.39)*	0.722	1.40 (1.17, 1.66)**	1.23 (1.04, 1.45)*	0.694
Total dairy	0.67 (0.28, 1.10)*	0.28 (0.12, 0.41)	0.357	1.15 (0.98, 1.30)**	1.05 (0.94, 1.16)**	0.291	0.72 (0.23, 1.21)*	0.03 (-0.53, 0.61)	0.150	1.16 (1.05, 1.29)*	1.01 (0.90, 1.13)	0.134
Total protein foods	0.44 (0.18, 0.71)*	0.43 (0.21, 0.69)*	0.919	1.16 (1.02, 1.32)**	1.11 (1.07, 1.14)**	0.449	0.75 (0.49, 1.01)**	0.23 (0.01, 0.45)*	0.035	1.29 (1.18, 1.41)**	1.06 (1.00, 1.12)*	0.008
Seafood and plant proteins	0.87 (0.62, 1.14)**	1.26 (0.93, 1.41)**	0.120	1.62 (1.33, 1.97)**	1.75 (1.41, 2.03)**	0.540	1.17 (0.85, 1.49)**	1.01 (0.63, 1.39)**	0.651	1.94 (1.62, 2.32)**	1.51 (1.29, 1.77)**	0.081
Fatty acids	-0.19 (-0.47, 0.21)	0.76 (0.37, 1.06)*	0.037	0.96 (0.88, 1.04)**	1.16 (1.03, 1.32)**	0.037	0.24 (-0.31, 0.79)	0.36 (-0.23, 0.97)	0.446	1.04 (0.93, 1.17)	1.07 (0.95, 1.21)	0.457
Refined grains	0.47 (0.03, 0.92)*	0.81 (0.53, 1.11)*	0.276	1.05 (1.02, 1.11)**	1.10 (1.07, 1.15)**	0.225	0.39 (0.01, 0.77)*	0.73 (0.24, 1.21)*	0.274	1.04 (1.00, 1.09)*	1.09 (1.03, 1.16)*	0.241
Sodium	0.86 (0.50, 1.17)*	0.54 (0.14, 1.02)	0.483	1.16 (1.06, 1.27)**	1.09 (1.02, 1.17)**	0.483	0.59 (0.09, 1.09)*	0.65 (0.01, 1.29)*	0.729	1.11 (1.01, 1.21)*	1.11 (1.00, 1.23)*	0.648
Added sugars	0.86 (0.39, 1.37)**	0.63 (0.33, 0.96)*	0.417	1.10 (1.05, 1.14)**	1.07 (1.00, 1.13)**	0.499	1.30 (1.00, 1.61)**	0.64 (0.21, 1.07)*	0.063	1.16 (1.12, 1.20)**	1.08 (1.02, 1.13)*	0.066
Saturated fats	0.13 (-0.23, 0.54)	-0.06 (-0.51, 0.48)	0.644	1.01 (0.94, 1.08)**	0.99 (0.95, 1.04)**	0.645	0.54 (0.03, 1.05)*	0.25 (-0.28, 0.80)	0.597	1.08 (1.00, .17)*	1.04 (0.95, 1.13)	0.618

¹2004 weighted n=11,836,000; 2015 weighted n=13,778,000. Multivariable linear regression models examined trends in gaps, while generalized linear models examined trends in gradients in HEI-2015 total and component scores between 2004 and 2015. Data are weighted to be nationally representative and are adjusted for age and dietary recall day. Weighted sample sizes are rounded in accordance with Statistics Canada's confidentiality policies. HEI, Healthy Eating Index.

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