

PROOF

Research to identify policy options
to reduce food insecurity

Household Food Insecurity *a potent determinant of health in Canada*

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Household Food Security Survey Module

(administered on the Canadian Community Health Survey since 2004)

18 questions, differentiating adults' and children's experiences over last 12 months:

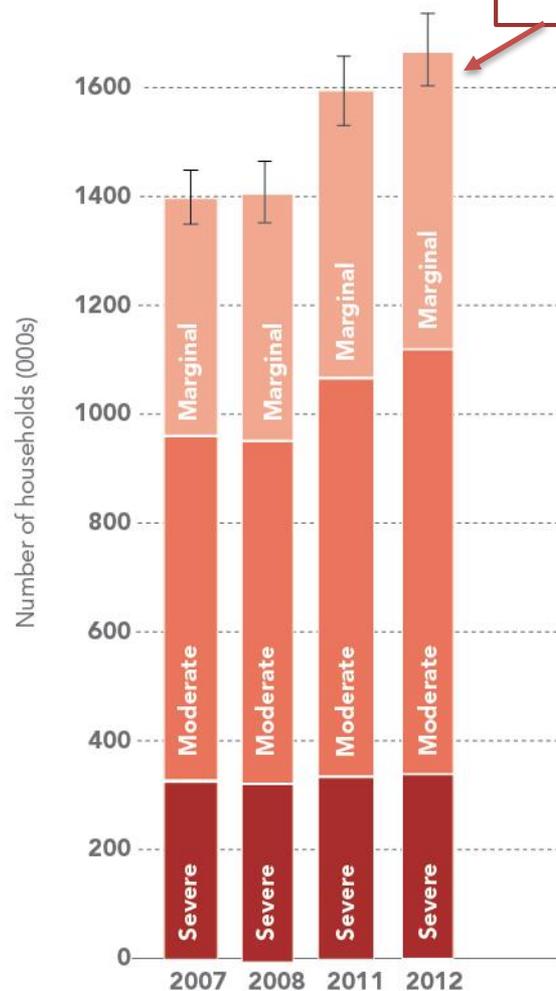
- Worry about not having enough food
- Reliance on low-cost foods
- Not being able to afford balanced meals
- Adults/children skip meals
- Adults/children cut size of meals
- Adults lost weight
- Adults/children not having enough to eat
- Adults/children not eating for whole day



“because there wasn't enough money to buy food?”

Household Food Insecurity in Canada, 2007 - 2012

- 12.6% of households
- over 4 million Canadians
(an increase of > 600,000 since 2007)



Marginal food insecurity

Worry about running out of food and/or limit food selection because of lack of money for food.

Moderate food insecurity

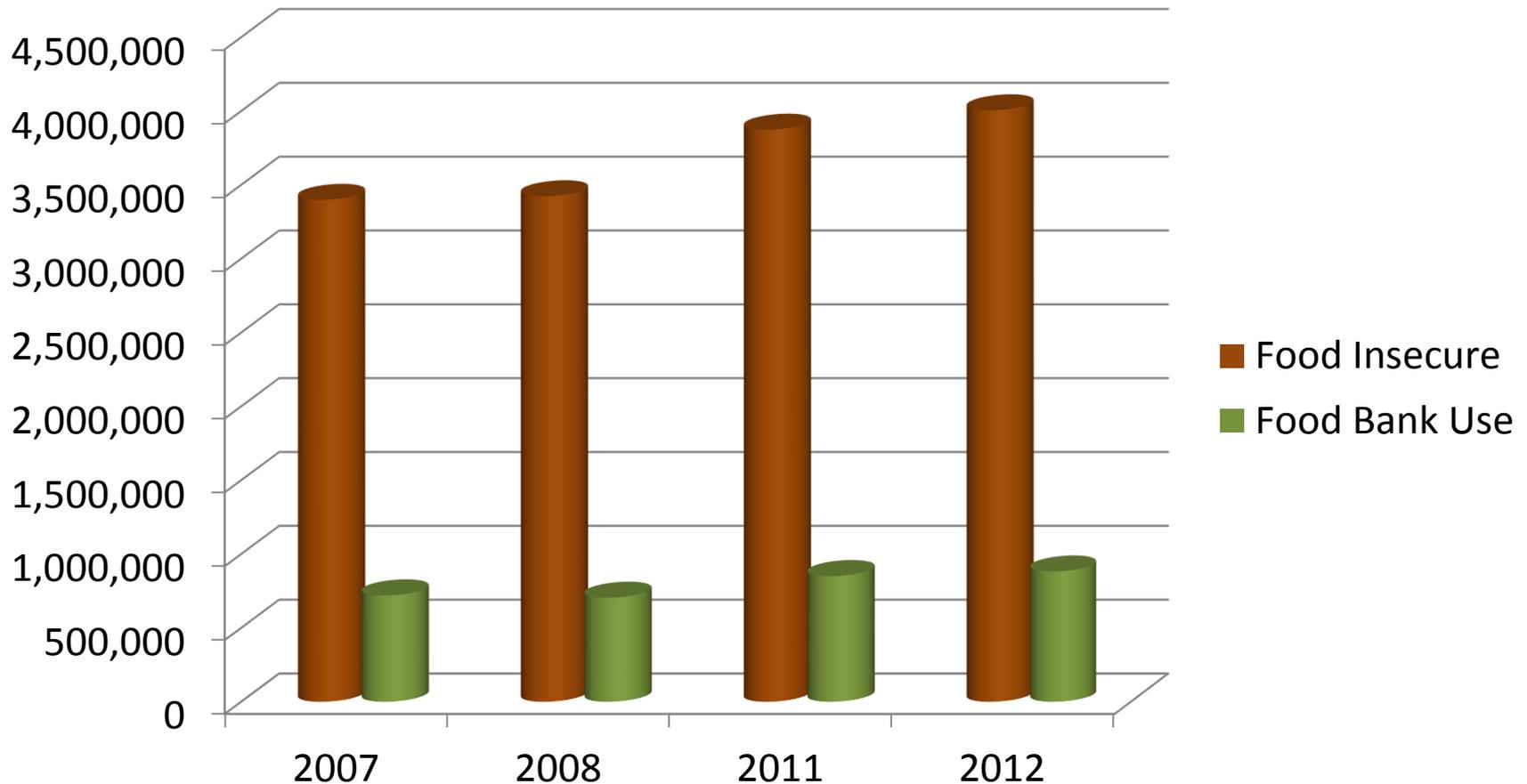
Compromise in quality and/or quantity of food due to a lack of money for food.

Severe food insecurity

Miss meals, reduce food intake and at the most extreme go day(s) without food.

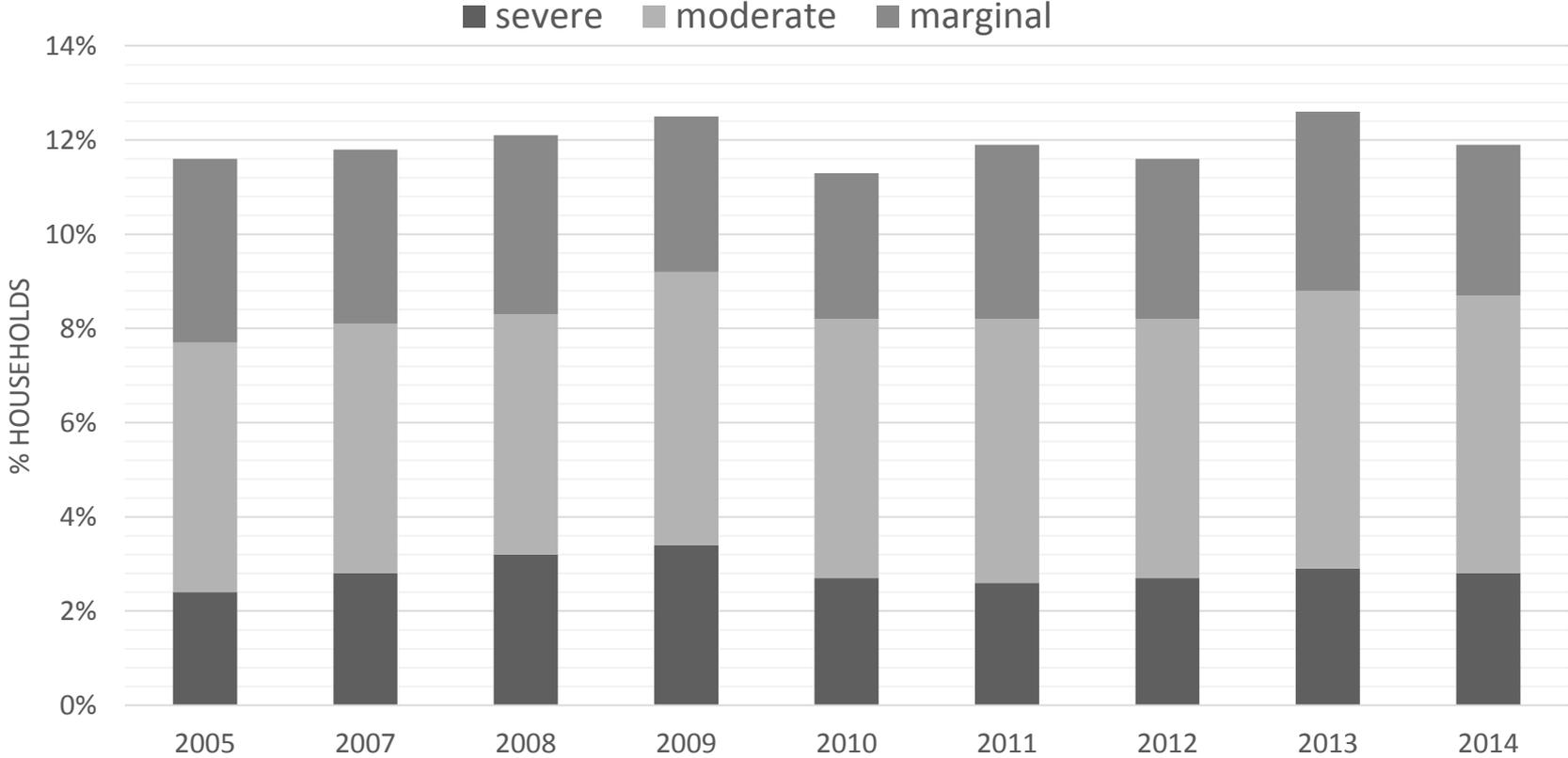
Data Source: Statistics Canada, CCHS, 2007, 2008, 2011, 2012 and 2013.

Number of people living in food-insecure households vs number reported to be helped by food banks in March of respective year.



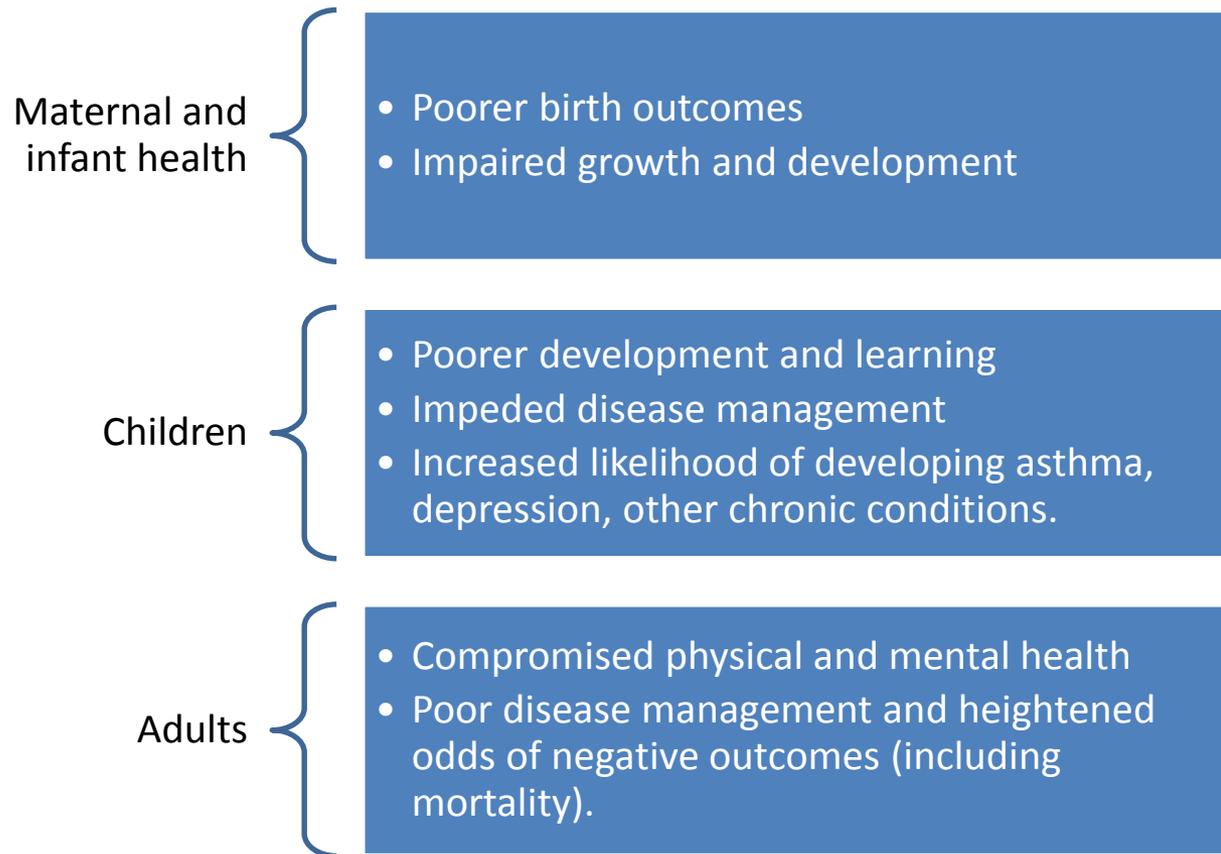
Data Sources: Statistics Canada, Canadian Community Health Survey (CCHS), 2007, 2008, 2011 and 2012, and Food Banks Canada, HungerCount, 2007, 2008, 2011 and 2012.

Prevalence of household food insecurity in Ontario, 2005-2014



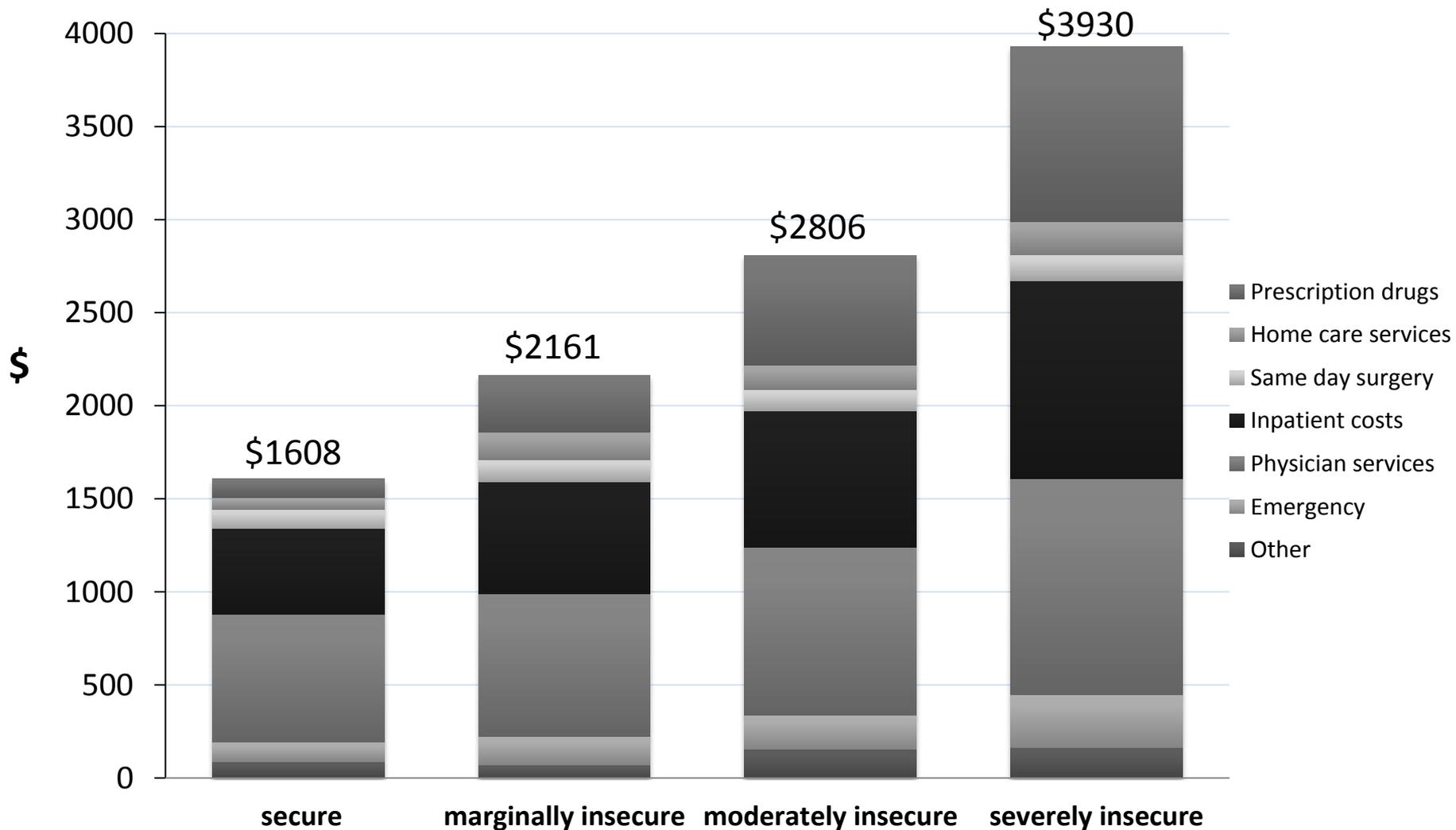
The health effects of food insecurity:

Summary of observed associations, all independent of income, education, race/ethnicity and other social determinants of health:

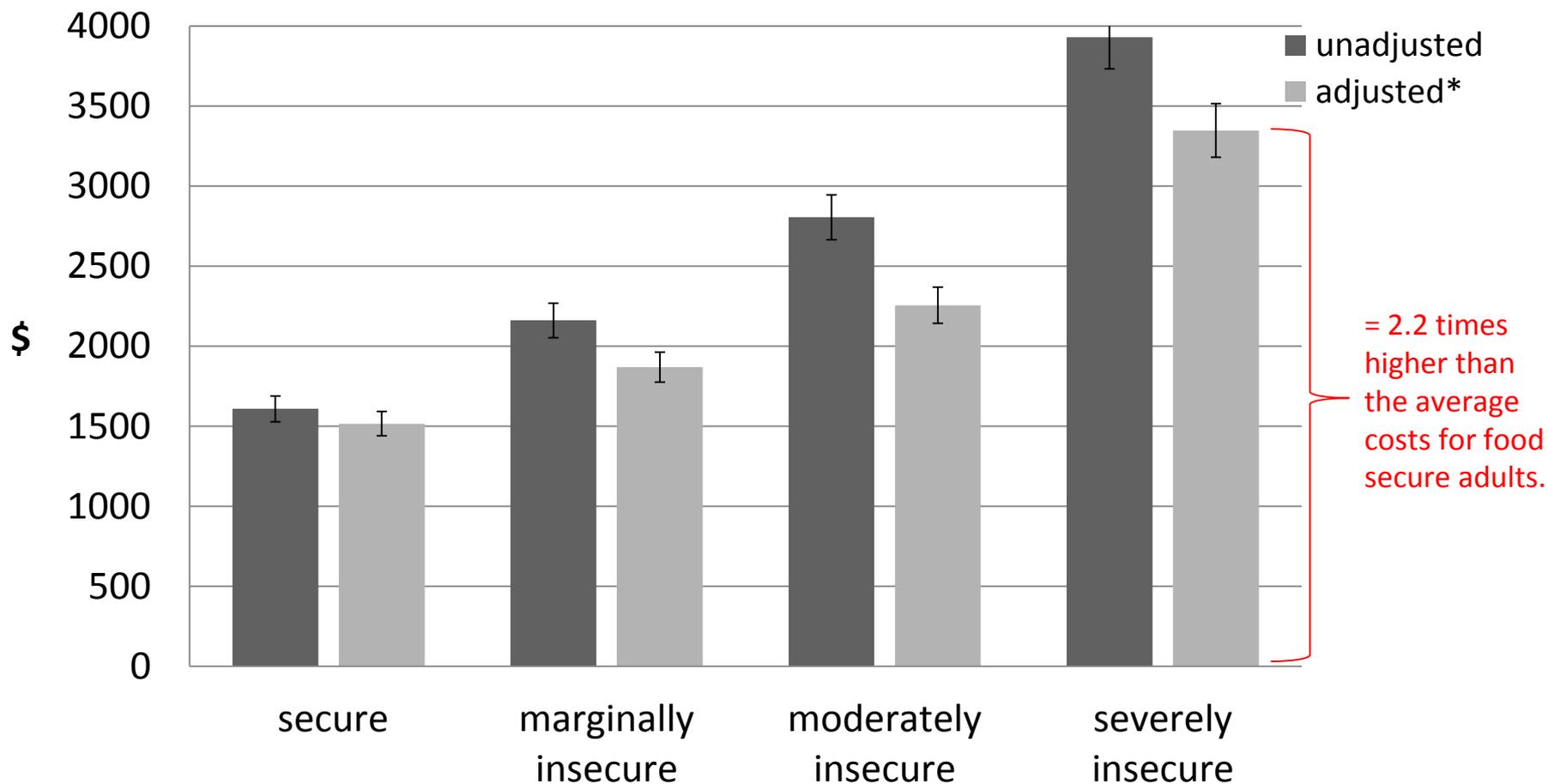


(See review by Gundersen & Ziliak, *Health Affairs*, 2015; 34: 1830-1839)

Average health care costs per person incurred over 12 months for Ontario adults (18-64 years of age), by household food insecurity status:



Average health care costs per adult, by food insecurity status, with and without adjustment for other socio-demographic factors:



*Adjusted for age, sex, respondent's education, number of adults and children in household, homeownership, and neighbourhood income quintile.

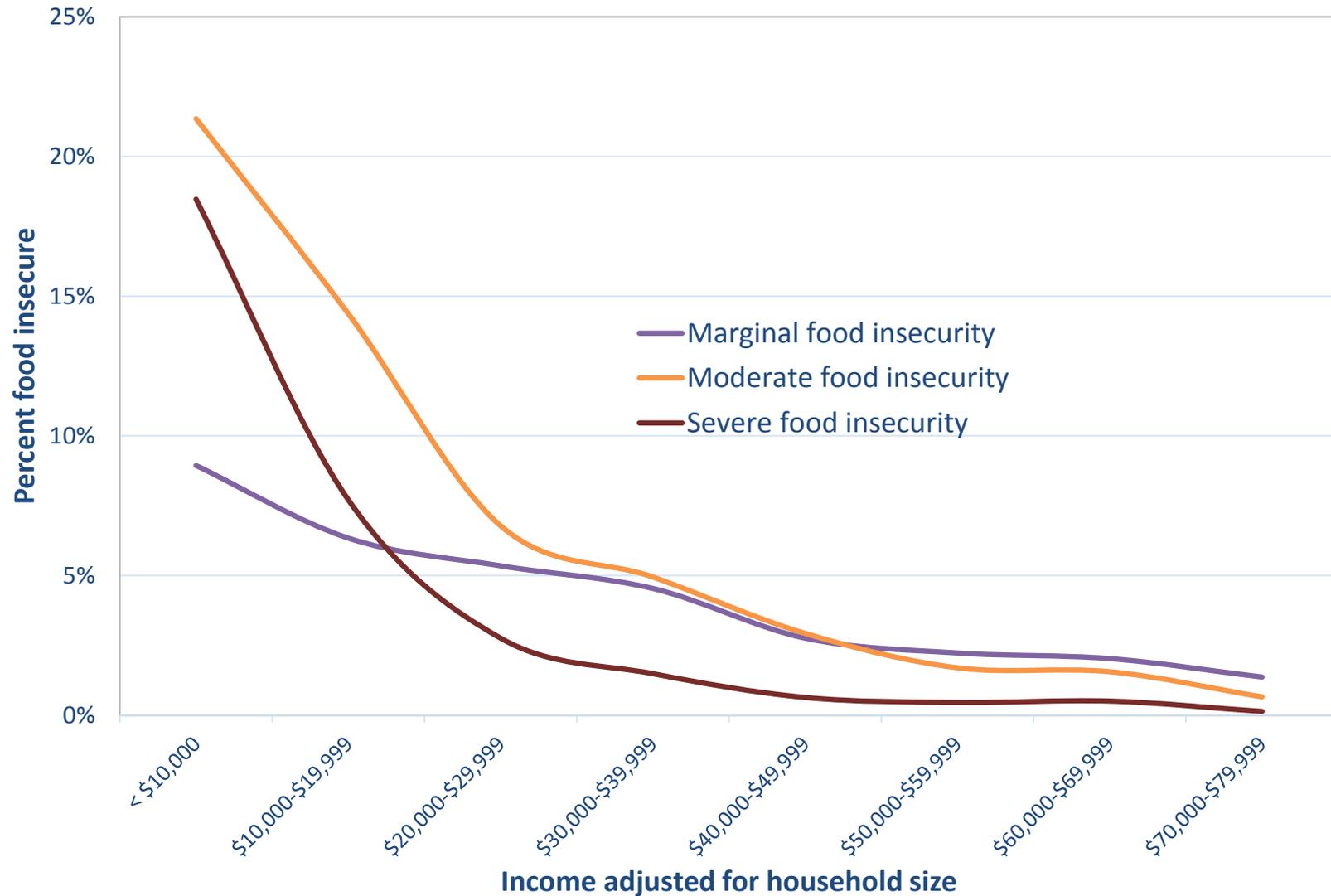
Household food insecurity also relates to the probability of high-cost health care use.

- Top 5% of health care users account for 2/3 of total health care expenditures.

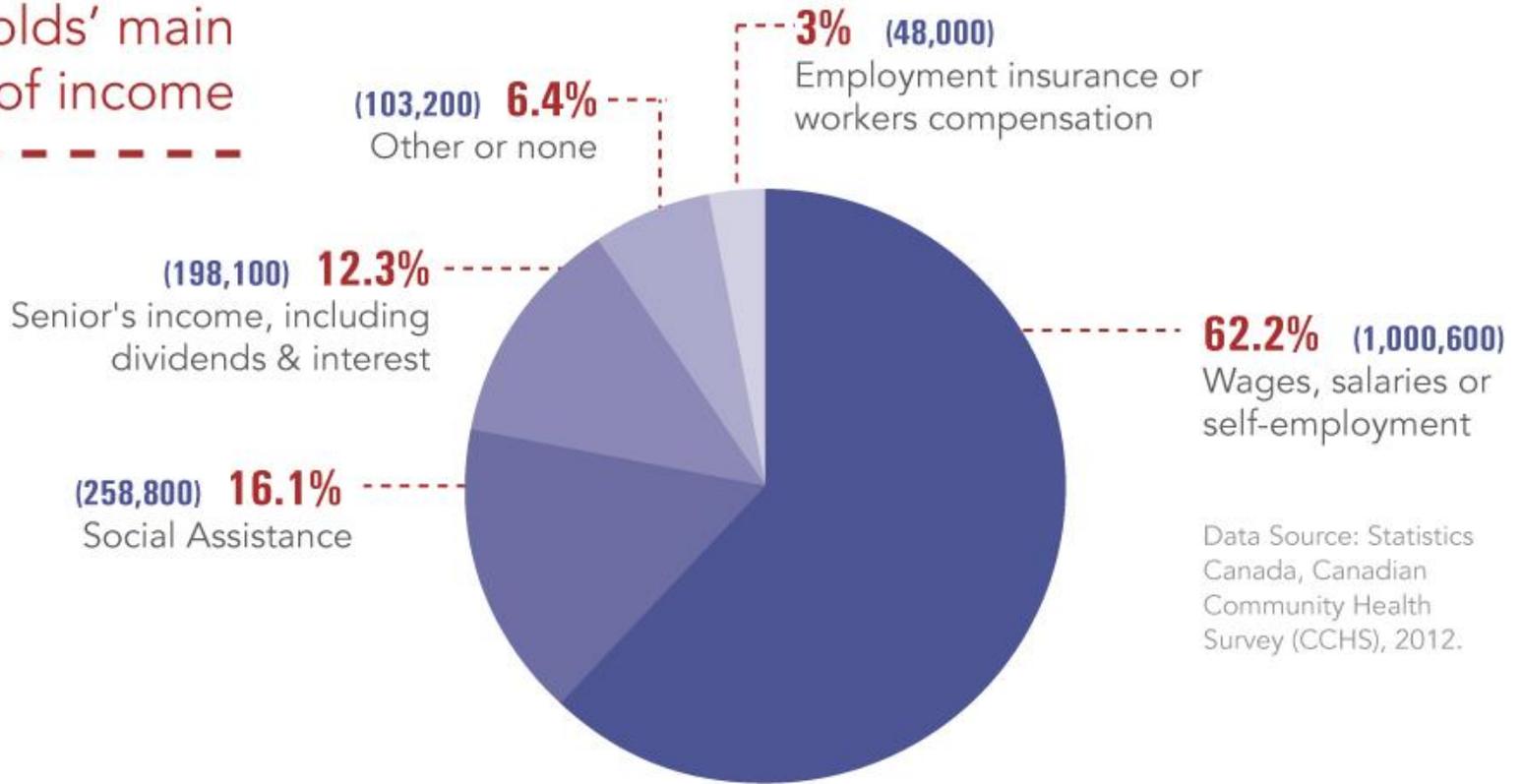
Analysis of relation between food insecurity status and health care use in following 5 years, among cohort of Ontario adults:

- Food-insecurity → 46% greater odds of high-cost health care use in next 5 years, after taking into account baseline morbidity and other socio-demographic risk factors.
- Food insecurity = single strongest predictor of high-cost health care use.

Relationship between food insecurity and household income:

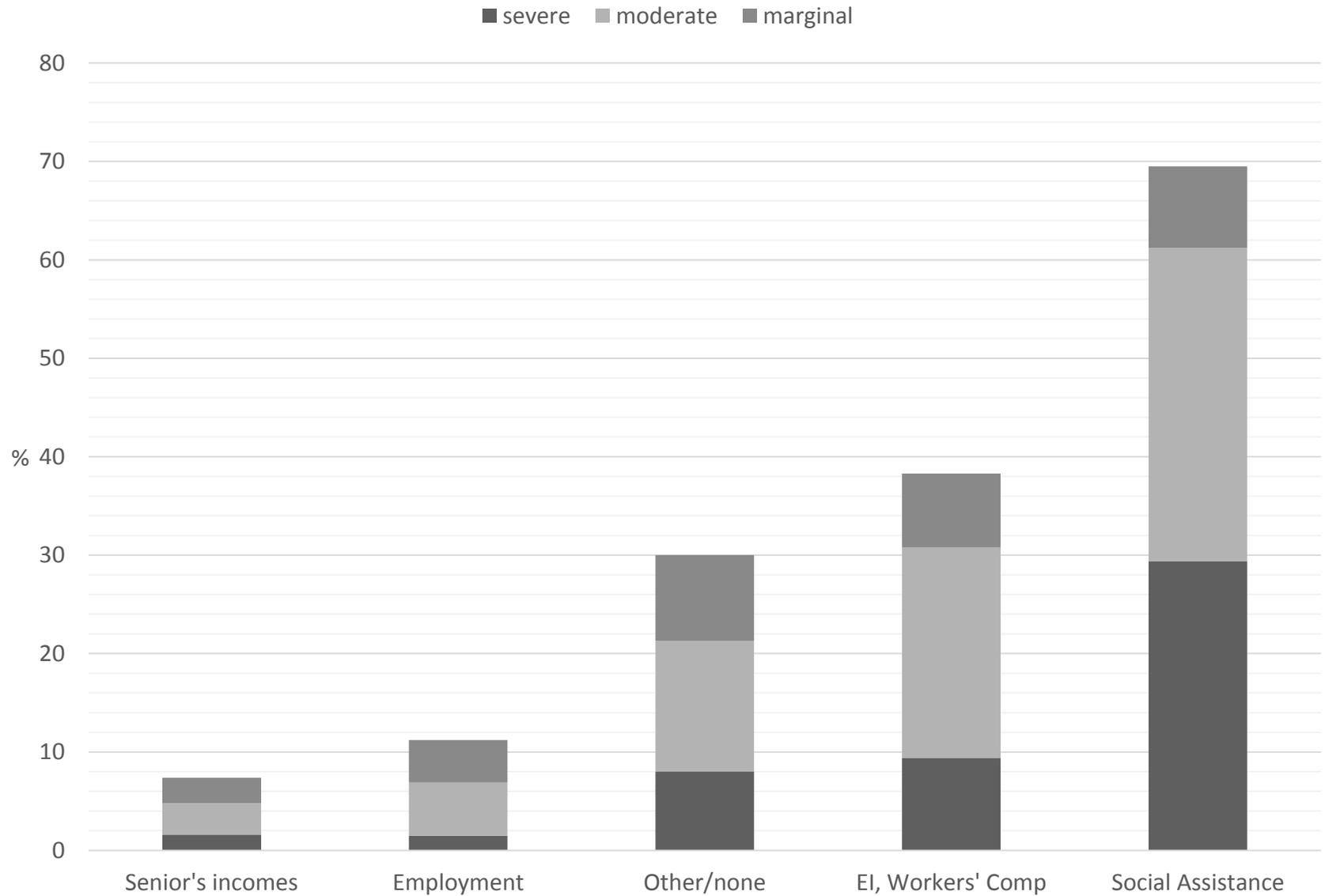


Food insecure households' main source of income



Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2012.

Prevalence of food insecurity by main source of income, 2012



Adjusted odds of household food insecurity by main source of income CCHS 2011-12

Main source of income	Odds Ratio (95% CI)	Adjusted Odds Ratio* (95% CI)
Employment	1.0	1.0
Social assistance	16.19 (14.74, 18.90)	3.17 (2.71 – 3.71)
El, Worker's Compensation	4.93 (3.99, 6.08)	2.15 (1.68 – 2.75)
Other, none [¥]	3.39 (2.87, 4.01)	1.27 (1.04 – 1.54)
Pensions	0.63 (0.58, 0.63)	0.41 (0.37 – 0.46)

*Adjusted for income (adjusted for household size), household composition, education, home ownership, immigrant status, cultural/racial identity, urban/rural, and province/territory.

¥`Other or none` includes child benefits, child support and alimony.

Other household characteristics/conditions examined in multivariate analyses predicting household food insecurity status:

Increased odds:

- Renting vs owning one's dwelling
- Presence of children under 18 yr (vs couple without children)
- Lone-parent female-led households
- Aboriginal or black respondent
- Lower levels of education

Decreased odds:

- Immigrant vs Canadian born

No evidence of association:

- Food skills
- Use of home or community garden for food
- Proximity to food retail (*only small-scale studies*)

Evidence that increasing incomes will reduce food insecurity?

2 direct assessments of change in food insecurity within households in Canada:

Loopstra & Tarasuk, 2013

Study: 331 low-income tenant families in Toronto, interviewed twice, 12 months apart.

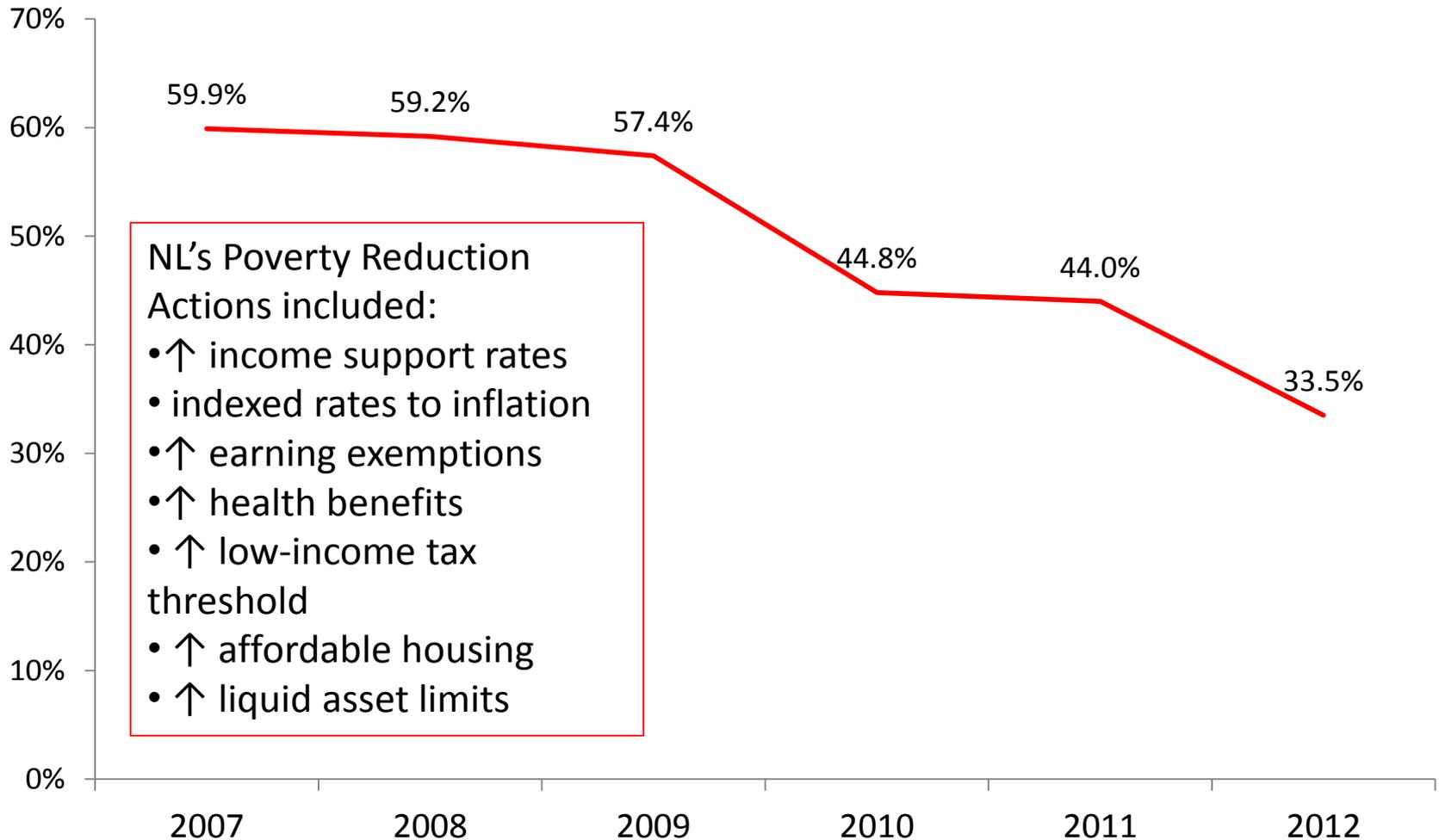
Results: Only significant predictors of change in food insecurity score were increases in income and gains in full-time employment.

McIntyre et al, 2014

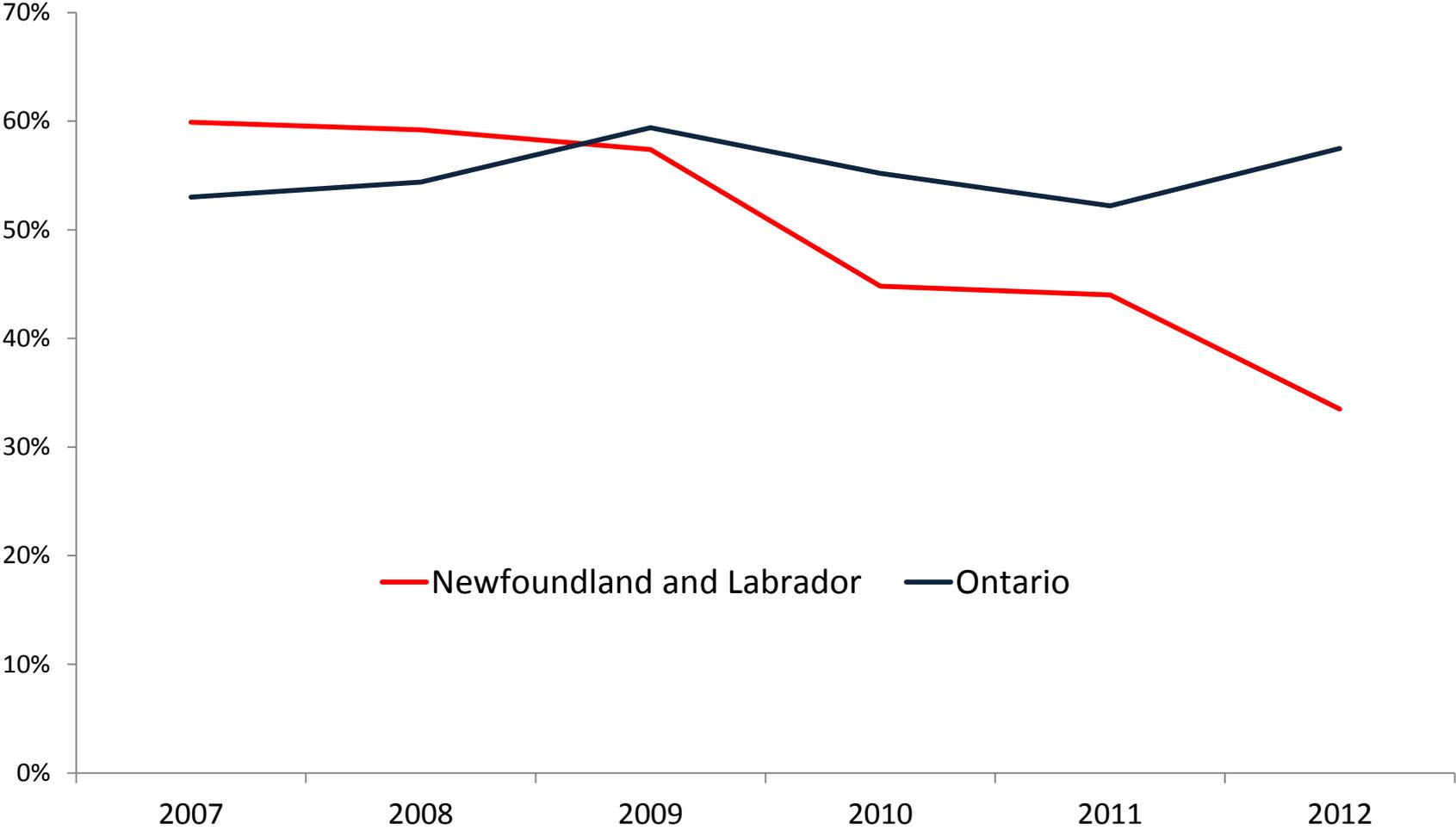
Study: 985 adults in longitudinal panel of National Population Health Survey, food insecure at baseline.

Results: Those who exited food insecurity had higher incomes (change not analyzed). Other predictors: employment and health status.

Prevalence of food insecurity among households in Newfoundland and Labrador reporting any income from social assistance.

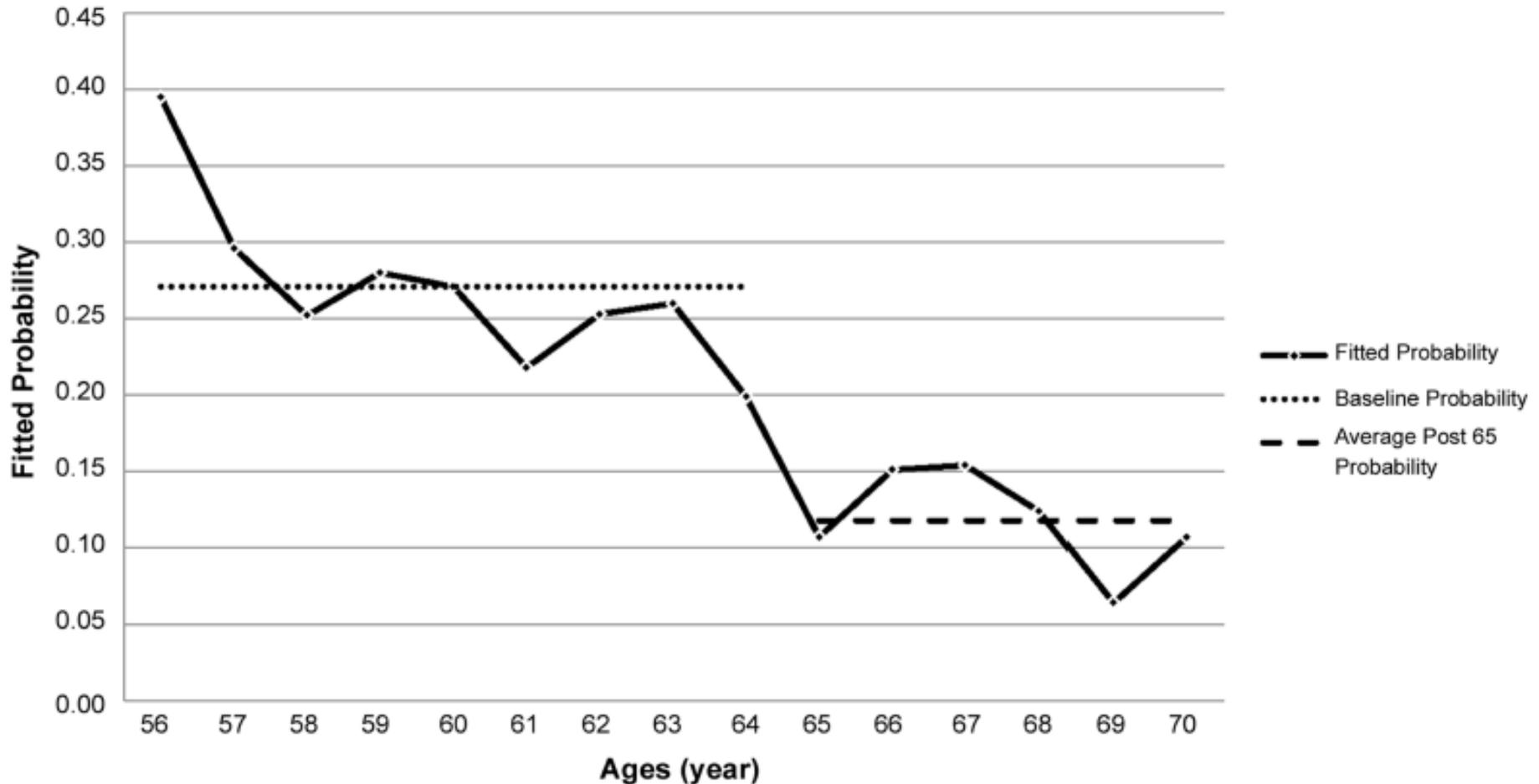


Prevalence of food insecurity among households reporting any income from social assistance: Newfoundland and Labrador vs Ontario.



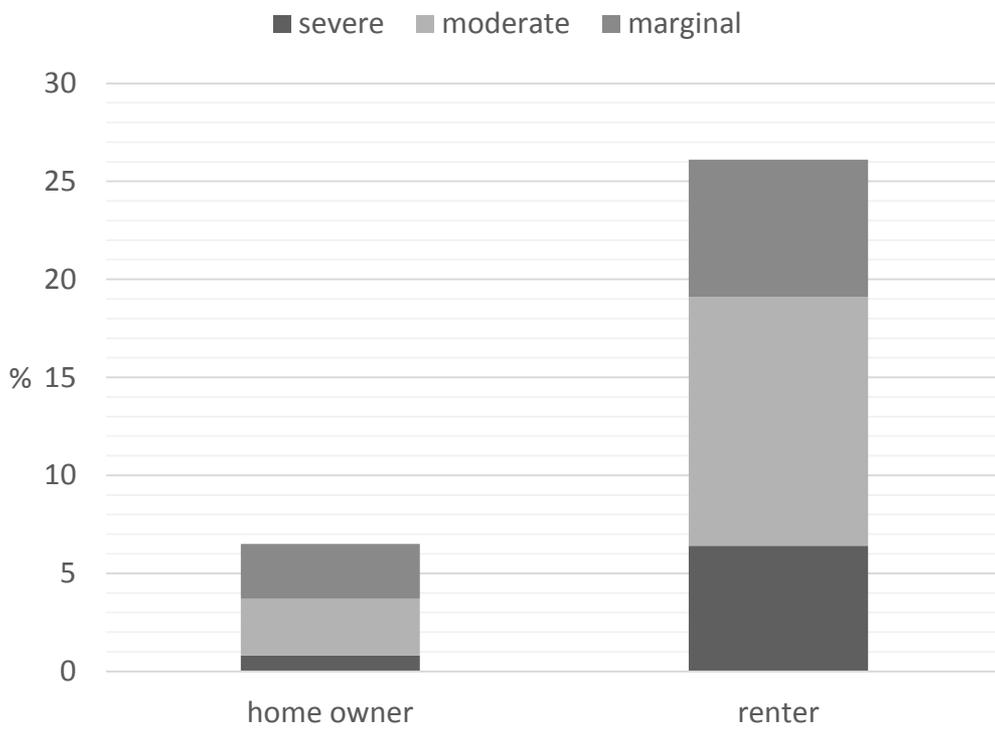
Fitted probability of moderate and severe food insecurity by age among low-income unattached adults, from probit regression

Canadian Community Health Survey pooled data, 2007-2013.



Impact of in-kind supports on food insecurity?

Food insecurity among home owners and renters, CCHS 2012



- 65% of food insecure households are renters.
- After adjustment for income and socio-demographic characteristics, renters still have 2-3 times the odds of food insecurity.

Publicly-funded food assistance?

e.g., 'food stamps'

Ontario PC Caucus White Paper, 2013

- a food benefit for social assistance recipients, delivered on a debit card, only usable at designated food outlets
- “to ensure that the portion of monthly benefits intended for essential food items is set aside and cannot be used on other expenses”

US Supplemental Nutrition Assistance Program (SNAP – formerly Food Stamps) :

- Entitlement program, means-tested
- Monthly benefit allotments in form of electronic debit cards that can be used in authorized food retailers.

2013

- average benefit: \$133/month.
- 48 million served (*1 in 7 Americans*)
- \$80 billion cost
- Food insecurity rate among participants \approx 50%

(Source: <http://www.ers.usda.gov/>)

Modelling impact of implementing SNAP on food insecurity rates in Canada:

- Sample: households with children < 18 and before-tax incomes < 130% LICO, drawn from CCHS 2009-10.

32.9% moderately or severely food insecure.

- *Adding SNAP-like benefit, assuming*
 - all eligible households participate
 - no change in any existing programs and benefits
 - effects similar to those observed in US



20.3% -27.1% moderately or severely food insecure.

Income vs benefit tied to food?

Schmidt et al, 2013. *The Effects of Safety Net Programs on Food Insecurity*. NBER Working Paper No. 19558

- Analysis of US data, 2001-09, considering 5 major safety net programs (TANF, SSI, EITC, food assistance, and Medicaid)
- Evidence that safety net programs reduce low food insecurity.
- No indication of significant difference in effects of cash benefits vs food assistance.

Income versus food or housing benefits?

- Observed reductions in food insecurity following receipt of old-age pension and improvements in social assistance indicate that households are spending additional income on essentials.
- No evidence that housing subsidies are offsetting need for adequate incomes to ensure food security.
- US 'food stamp' design stems from historical precedent, not evidence of need for restrictions on spending.

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