

Isn't more education a good thing?

I thank Tarasuk and colleagues for contributing further evidence to the body of research linking socioeconomic conditions to health outcomes.¹ The findings stand out from other studies in this area, which often rely solely on self-reported data.

Although I recognize that the primary aim of the study was to examine the association between household food insecurity status and annual health care costs, the relationship between higher education level, food security status and health care costs was unexpected and deserving of further discussion.

When the characteristics of the respondents were stratified by food security status, it was surprising to see that, with respect to education level, the highest percentage of participants who were marginally, moderately and severely food insecure had graduated from postsecondary school. For example, among those with severe food insecurity, 44.6% had graduated from postsecondary school, compared with 25.5% who had graduated from less than secondary school. Because this is not aligned with what is generally known to be true about the social determinants of health, some discussion of this finding may be warranted.

Education is often considered a key indicator of socioeconomic status. It is highly correlated with income, employment security and working conditions, such that higher levels of education help people move up the socioeconomic ladder and allow for better access to societal and economic resources like food.^{2,3} Although it is recognized that upward of 64% of the Canadian population have postsecondary qualifications, and the majority of the respondents in the study have the same, it is still alarming to see that people with higher education make up the majority of those with food insecurity in the study. They also have higher health care costs than those with only secondary schooling or some postsec-

ondary school. Again, these unexpected observations are interesting and worth further discussion, since they challenge what is generally known to be true.

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CMAJ 2016. DOI:10.1503/cmaj.1150098

The author responds

We appreciate Ms. Percy's thoughtful comments¹ on our manuscript.²

Although our finding that 44.6% of adults in severely food-insecure households had completed postsecondary education might seem surprising, this proportion is considerably lower than the 63.0% of adults in food-secure households who reported completing postsecondary education. The difference in adults' education by food security status is even more marked when one considers secondary school completion: 25.5% of adults in severely food-insecure households had not graduated from high school; this proportion fell to 10.0% among those in food-secure households.

At a population level, the prevalence of household food insecurity in Canada falls as the level of educational attainment in the household rises, with even some indication of an advantage associated with a university degree over other postsecondary certification.^{3,4} This is broadly consistent with Ms Percy's comment that higher levels of education help "people move up the socioeconomic ladder." However, the protection against household food insecurity that is afforded by postsecondary education is not absolute. Other household characteristics such as income, employment conditions, home ownership, household

structure and Aboriginal status also influence households' vulnerability to food insecurity.^{3,5-8}

Our results do not show that adults who completed postsecondary education had higher health care costs than those with lower levels of education. The total health care costs per person displayed in Table 3 of our article are presented as unadjusted and adjusted means, with 95% confidence intervals. The only apparent difference in total health care costs by educational attainment is a somewhat higher mean cost for adults without secondary school graduation than for those with higher levels of education.

The results allow us to conclude that household food security status is a strong predictor of health care use and costs, after taking into account adults' level of educational attainment as well as various other sociodemographic characteristics. Further research would be required to see whether having postsecondary education mitigates the effects of household food insecurity on adults' health and use of health care.

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CMAJ 2016. DOI:10.1503/cmaj.1150099