



Effective Public Health Practice Project Summary Statement

August 2007

This is a summary statement written to condense the work of the authors of a systematic review. The reference for the full review is below. The intent of this summary is to provide an overview of the findings and implications of the full review. For more information on individual studies included in the review, please see the review itself.

Reference for Review: Mirza, M., Fitzpatrick-Lewis, D., Thomas, H. (2007). Is there a relationship between food insecurity and overweight/obesity? Hamilton, ON: Effective Public Health Practice Project.

Issue: Obesity has been identified as a global population health problem. In Canada between 1979-2004 the prevalence of obesity increased from 14% to 23% of the adult population. Overweight and obesity are linked with many chronic illnesses including cardiovascular disease, cancer and diabetes. Recent research has emerged suggesting a possible relationship between levels of food security and increased levels of overweight and obesity. This review will examine the literature to attempt to determine the relationship between food insecurity and overweight/obesity.

Review Content Summary: To be considered relevant studies had to meet the following criteria: the issue was consistent with the Ontario Mandatory Health Programs and Services Guidelines; the study reported on issues of food security/insecurity and/or food insufficiency AND obesity/body weight; the studies included food insecurity measure (e.g. USDA Household Food Security Scale), poverty and/or SES were not, in and of themselves, adequate for inclusion; obesity was measured through BMI, height/weight, anthropomorphic measures or self-report; and, there was a comparison group. Potentially relevant articles (n=4525) were retrieved. Of those 15 were rated relevant. Data were extracted for all the relevant articles. Fourteen of the articles were cross-sectional studies and one was a case-control study. Four studies examined the relationship of food insecurity and overweight/obesity in adults (mixed genders). Three articles reported on food security status and overweight/obesity in the female population. Two studies examined food security and weight focusing on the older adult population. Six studies examined the issue as it impacts children.

Comments on this Review's Methodology: Relevant studies were assessed for methodological quality using an adapted version of the tool developed and tested by the Effective Public Health Practice Project (Thomas, Ciliska, Dobbins, & Micucci, 2004). Only three out of the six criteria were used. Because most of the studies were cross-sectional surveys, the criterion about allocation was deleted. Blinding was not relevant to these studies so it was also deleted. Because of the study designs, withdrawals and

drop-outs were not relevant so that criterion was also deleted. Global ratings were not calculated because of the small number of remaining criteria (n=3).

Two reviewers independently rated each article for methodological quality according to a predetermined scale outlined in the dictionary (available on the EPHPP website: www.hamilton.ca/ephpp). All criteria were rated as strong, moderate or weak. Discrepancies in quality assessment ratings were resolved by consensus or by a third reviewer.

Evidence and Implications for Practice & Policy

Evidence points ARE NOT weighted or ranked according to strength.

What's the evidence?	Implications for practice and policy
> Many of the studies included in the review were conducted in the United States.	> Given that the healthcare and social services context is different in Canada, studies need to be replicated within the Canadian context.
> There is an inconsistent association between food insecurity and overweight/obesity in the population. The relationship is most consistent for women.	> Practitioners should continue to identify barriers to food security and assist communities to implement and evaluate strategies to reduce them. > Practitioners can take on an advocacy role to be aimed at reducing food insecurity among populations.
> A number of groups among which food insecurity is high have been excluded from the surveys.	> Future surveys need to include marginalized populations (e.g. homeless people, Aboriginal people living on reserves)
> Food insecurity appears to affect children, adults and seniors differently.	> Examine these differences using qualitative methodologies.
> There are a number of inconsistencies/methodological limitations in the reviewed studies.	> These need to be addressed in future work.
> Studies included in the review were cross sectional and observational case/control which did not provide an understanding of the causal relationship between food security status and overweight/obesity.	> Future studies using different study designs may be helpful to address that gap.
<p>General Implications: Given the methodological limitations of the included studies in this review, the inconsistent association between food security status and overweight/obesity needs to be explored more fully within the Canadian context using strategies that address the limitations.</p>	

Cost Benefit or Cost-Effectiveness Information: none available

References Used to Outline Issue

Ministry of Health/Public Health Branch (1997). *Mandatory Health Programs and Services Guideline*.

Thomas, H., Ciliska, D., Dobbins, M., & Micucci, S. (2004). A Process for Systematically Reviewing the Literature: Providing the Research Evidence for Public Health Nursing. *Worldviews on Evidence-Based Nursing*, 1, 176-184.

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