

Effective Public Health Practice Project Summary Statement



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: Thomas, B.H., Fitzpatrick-Lewis, D., Rideout, L., & Muresan, J. (2008). What is the effectiveness of community-based/primary care interventions in reducing obesity among adults in the general population? Effective Public Health Practice Project, McMaster University, Hamilton, Ontario.

Issue: The number of Canadians who are overweight and/or obese has risen in recent years. In 2004, the Canadian Community Health Survey: Nutrition (CCHS) (Health Canada, 2007) was completed and for the first time included a direct measurement of height and weight for a subsample of respondents. This is in contrast to past studies which relied on self-reported data from respondents, which is known to result in an underestimate of the prevalence of obesity (Blanger-Ducharme & Tremblay, 2007; Colman, 2001; Starky, 2005). The 2004 CCHS study indicated that 23.1% of Canadian's aged ≥ 18 years had a BMI of 30 or more, indicating that they were obese. This percentage represents an estimated 5.5 million adults within Canadian society. An additional 8.6 million or 36.1% of Canadian adults were overweight (BMI 25-29.9). Under the Chronic Disease Prevention Section of the Mandatory Health Programs Service Guidelines (Ontario Ministry of Health/Public Health Branch, 1997), public health departments are required to assist in community-based strategies aimed at reducing the prevalence of risk factors that lead to chronic diseases by 2010. One stated outcome is to ensure that Ontarians have a BMI within the range of 20.0 to 27.0 kg/m².

Review Content Summary: To be relevant, studies had to meet all six of the following criteria: the primary study involved an intervention relevant to public health practice and/or primary care. Programs implementing pharmaceutical (including herbal remedies) or surgical interventions, very low caloric diets (i.e. < 1000 calories per day) or meal supplements/replacements were NOT relevant; the intervention took place in a country where health practices and standards are similar to those in Canada; the study reported on an intervention targeted at changing behaviour, weight loss maintenance programs were NOT included, the intervention(s) took place in a community-based setting, including weight loss centres or a primary care setting; the population of interest was overweight (BMI 25 to 29.9) or obese (BMI ≥ 30), adult (18 \geq years of age) with no co-morbid conditions (e.g. cardiovascular disease requiring medication, non-insulin dependent diabetes, arthritis, cancer in active treatment, pregnancy or lactating, and psychiatric conditions being treated with prescription medication); outcomes included weight or BMI or other measures related to weight; studies must have included a comparison group (RCT, cohort or prospective before/after design).

Studies excluded on the first criterion were excluded from this review because they required physician or registered dietician supervision and therefore were not considered to be relevant to public health. Exclusion of populations with certain medical conditions (criterion 4) was deemed necessary to ensure that no study participants had a medical condition that would be a barrier to weight loss. Two reviewers independently rated all retrieved articles for relevance. Differences were resolved through review by a third party. Studies focused on the structural and community level characteristics of neighbourhoods/communities were excluded from this review.

Comments on this review's methodology: Eight databases were searched for the period of 1990-2007 to locate relevant primary studies. Peer reviewed journals were hand-searched for the period of January to September 2007. Reference lists of all retrieved articles were searched for relevant studies. Primary studies were assessed for relevance and methodological quality using standardized tools. Two reviewers rated each article independently. Differences were resolved through discussion. Data were extracted from the methodologically strong studies (n = 23) using a standardized instrument. A narrative synthesis was presented.

Evidence and implications for practice and policy

Evidence points ARE NOT weighted or ranked according to strength.

Evidence	Implications
Many of the primary studies had methodological issues.	Methodological issues make the reliability/validity of reported results questionable.
Selection bias occurred due to recruitment practices.	Selection bias can be addressed in large community-based initiatives through implementing several simultaneous recruitment strategies.
There were small sample sizes, a lack of sample size calculations and a lack of intention-to-treat analysis.	Sample size calculations and intent-to-treat analysis are paramount for interpreting results, especially with the apparently high drop-out rates.
There were large numbers of drop-outs.	Understanding the barriers to completing the programs may shed light on drop-out rates and may also reveal barriers to healthy eating and physical activity.
Inadequate reporting of confounders.	Attention should be given to the reporting of confounders as they may reveal some of the social determinants of health that impact obesity.
Funding agencies need to require methodological rigour in the research they support.	
<p>Promising practice:</p> <p>There is some promising practice regarding culturally relevant programs. One successful program incorporated lay facilitators for the cultural community of the participants.</p> <p>Some internet programs showed promising results.</p>	<p>These programs need to be explored, giving emphasis to program development and evaluation in a Canadian context.</p> <p>Use of a variety of forms of social support should be incorporated into weight loss programs.</p> <p>Successful programs need long-term follow-up to determine their effects over time. Investigators should make attempts to gather relevant long-term data from non-completers as well as completers.</p>
Individual level interventions have modest results at best.	<p>Population level interventions should be identified and explored.</p> <p>Public health agencies need to carefully assess the applicability and transferability of any successful programs into their particular context.</p>

Cost Benefit or Cost-Effectiveness Information: No information available.

References Used to Outline Issue:

Blanger-Ducharme, F. & Tremblay, A. (2007). Prevalence of obesity in Canada. *Obesity Reviews*, 6, 183-186.

Health Canada (2007). Canadian community health survey cycle 2.2, nutrition (2004): Income-related household food security in Canada. Ottawa: Authority of the Minister of Health, Office of Nutrition Policy and Promotion, Health Products and Food Branch, Health Canada.

Ontario Ministry of Health/Public Health Branch (1997). Mandatory health programs and service guidelines (Rep. No. Cat. # 2206557).

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