# Financial Incentives for Weight Loss and Healthy Behaviours

# Incitatifs financiers pour favoriser la perte de poids et des comportements sains



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#### Abstract

Rising rates of overweight and obesity are of serious concern in Canada. Until recently, discussion of policy options to promote healthier lifestyles has ignored the topic of direct financial incentives. The idea of paying people to lose weight or adopt healthier behaviours is now attracting study and debate. Some governments and companies are already experimenting with reward programs.

Available evidence indicates that financial incentives help promote short-term change, but there is a dearth of evidence on longer-term programs and outcomes. Targeted incentives for specific risk groups have shown more success. With creative design, targeted use and evaluation, financial incentives for weight loss and healthy behaviour may be a useful addition to the health policy toolkit.

#### Résumé

La hausse des taux de surpoids et d'obésité constitue une grande préoccupation au Canada. Jusqu'à récemment, les discussions politiques entourant la promotion de styles de vie plus sains ont évité d'aborder la question des incitatifs financiers directs. L'idée de payer les gens pour qu'ils perdent du poids et adoptent des comportements plus sains fait de plus en plus l'objet d'études et de débats. Certains gouvernements et compagnies en font l'expérience à l'aide de programmes de récompense.

Les données disponibles indiquent que les incitatifs financiers aident à favoriser des changements à court terme, mais pour les programmes et les résultats à plus long terme, il y a un manque flagrant de données. Les mesures incitatives ciblées sur des groupes à risque précis connaissent un plus grand succès. S'ils sont conçus de façon créative, s'ils sont utilisés de façon ciblée et s'ils font l'objet d'évaluation, les incitatifs financiers qui visent la perte de poids et des comportements sains pourraient servir d'outils supplémentaires aux politiques de santé.

"Nothing but money is sweeter than honey." Benjamin Franklin

ANADIANS OF ALL AGES ARE TOO SEDENTARY, EAT AN UNBALANCED DIET AND continue to gain weight. The morbidity and mortality costs of overweight and obesity in Canada are reportedly as high as \$30 billion annually (Society of Actuaries 2010). Until recently, discussion of policy options to promote healthier lifestyles among Canadians has ignored the topic of direct incentives. This idea is now attracting attention. In January 2011, the Globe and Mail ran a feature story headlined, "How to get dieters to lose weight? You pay them, obviously" (Sung 2011; see also Anderssen 2011), and a commentary in the Canadian Medical Association Journal argued, "To change behaviour we need to reward individuals financially for sustained and earnest attempts to manage their weight loss with their primary care provider over the long term" (Seeman 2011: 152).

Are financial incentives a way to help control the rising rates of overweight and obesity among Canadians? Can Canadian governments, employers and other organizations look to examples of financial incentive programs elsewhere? What is the available evidence about using financial incentives to encourage people to achieve and maintain a healthy body weight?

### Interest in Financial Incentives to Improve Health

Key stakeholders in healthcare, including governments, insurers and employers, are showing increasing interest in the use of financial incentives for health-related behavioural change. In addition, a variety of creative initiatives allow individuals to join healthy-living reward programs or use their own money as an incentive to achieve health goals.

To control costs of lifestyle-related diseases, governments are interested in ways to motivate citizens to be healthier. The United Kingdom has established a "nudge unit," formally known as the Behavioural Insights Unit, within its Cabinet Office to "develop and apply lessons from behavioural economics and behavioural science to public policy making" (Cabinet Office 2010). The UK National Health Service partnered with a weight loss incentive firm,

Weight Wins, to trial the Pounds for Pounds program, where participants who achieve and maintain weight-loss targets under medical supervision receive payments up to £425. Six hundred obese participants, with an average starting weight of 218 pounds, lost an average of 14 pounds in six months and 29 pounds over 12 months if they stayed active in the program (Weight Wins Fact Sheet 2009).

In Germany, health insurers permit individuals to accumulate points for healthy behaviour, such as participating in nutrition classes, fitness programs or tests of endurance, strength and coordination (Schmidt et al. 2009). Points are redeemable for rewards such as bicycle helmets, sports watches or Wii Fit consoles. People can qualify for cash payments if they meet body mass index, blood pressure and cholesterol targets. The largest national health insurer in South Africa, Discovery Health, offers a health promotion program in which members are eligible for discounted gym memberships and accumulate points for engaging in fitness activities. This tier-based incentive program - with bronze, silver, gold and diamond status categories – entitles the member to discounts on products and services from nationally participating businesses (see www.discovery.co.za for details). A study analyzing five years of data from the program revealed that "engagement in fitness-related activity increases with continued membership [in] an incentives and rewards-based health promotion program" (Patel et al. 2011). Additionally, members with higher levels of physical activity had fewer health insurance claims and lower hospital admission rates for cardiovascular, endocrine and metabolic diseases and cancers (Patel et al. 2010).

Companies are also offering incentives for employees to adopt healthier lifestyles. A major US healthcare company, Indiana University Health (formerly Clarian Health) offers a bonus of up to \$30 each pay period for employees who meet specified health targets. IBM created a childhood obesity prevention initiative that offers parents up to \$150 for completing a 12-week program aimed at improving nutrition and physical activity in families with children.

In Canada, a private company is partnering with organizations like the Canadian Obesity Network and Dietitians of Canada to offer the Best Life Rewarded program. Launched in late 2010, members earn points for healthier behaviours and redeem points for rewards, including fitness equipment, consultations with professionals such as kinesiologists and dietitians, and healthy-living magazines and books. The company receives funding "from health interest brands such as healthy food brands, vitamins, pharmaceutical products, employer groups, fitness centres, diagnostic companies, etc." (See Frequently Asked Questions at www.bestliferewarded.com.)

Some private fitness centres allow people to invest their own money in weight-loss incentives, for example, by putting in \$200 and receiving a portion back as they achieve incremental weight-loss goals. Websites like stickK.com operate on the same basis in the online environment.

#### Do Financial Incentives Work?

Advocates contend that direct rewards provide an incentive for people to resist the obesogenic lures of modern environments in ways that other measures - such as health education campaigns - have failed. Studies of shorter duration - one to eight months - show that economic incentives result in significantly better outcomes in goals such as weight loss (Volpp et al. 2008; John et al. 2011), physical activity (Finkelstein et al. 2008; Charness and Gneezy 2009) and healthier food and activity choices in families with children (Sepúlveda et al. 2010). Follow-up studies reveal, however, that people who receive short-term incentives typically fare no better a year or more later in sustaining weight loss than those who did not receive payments (Paul-Ebhohimhen and Avenell 2007; John et al. 2011).

Yet, it is an overbroad conclusion to say that "[c]ompelling evidence exists to demonstrate that financial reward strategies are not effective" (Spahn et al. 2010) in influencing nutrition and health behavioural changes. There is a dearth of evidence on programs that offer longer-term incentives. Paying someone to lose 30 pounds in 16 weeks likely will not help that person keep off the weight over the next year. But offering rewards over longer periods may provide a more compelling incentive to maintain healthier behaviours. The UK Weight Wins program now offers cash for keeping weight off for a year or more, and the company says this approach has resulted in greater success (of course, the company has an interest in reporting positive results, and independent audit of longer-term outcomes will be important). The Discovery Health program in South Africa has shown sustained success in promoting physical activity over a five-year period; subsidized gym memberships and an accumulative reward points program seem to be an effective combination.

Many weight-loss/healthy-lifestyle incentive programs that have had weak long-term success involved participants who self-selected to participate, for example, by responding to media ads (Spahn et al. 2010). Because targeted financial incentive programs offered to specific risk groups have shown more success (Sutherland et al. 2008; Marteau et al. 2009), it may be advantageous to offer incentives for weight loss or maintenance of healthy body weight to high-risk groups in contact with the healthcare system. For example, excessive weight gain during pregnancy is unhealthy for the mother and the baby (Davis and Olson 2009), so financial incentives could be offered to women to meet recommended weight-gain guidelines during pregnancy. This approach has the benefit of being a time-limited, preventive incentive that may provide long-term health advantages for children born to mothers of healthier weight. While one recent study found low support among pregnant women for cash rewards for smoking cessation, pregnant smokers were more likely to support such a program (Lynagh et al. 2011). Incentives could also be targeted to individuals of higher BMI who are at a stage where lifestyle changes and reduction of body weight could help control conditions such as diabetes or high blood pressure before patients become reliant on pharmaceutical management.

## Adding Incentives to the Policy Toolkit

There is growing interest in the use of direct incentives to promote healthier behaviours, including weight loss for persons facing obesity-related health risks. Available evidence suggests that short-term incentives will not sustain enduring outcomes, but targeted and longer-term incentive programs may be more effective. A promising finding of some studies is that people who receive incentives for weight loss shed pounds without additional assistance, such

as personalized fitness training and nutrition counselling. Incentive recipients report that they achieved weight loss by modifying their diet (97%) and getting more exercise (86%) (Volpp 2009; Kavanagh et al. 2010). Sixty per cent made changes on their own, while 40% took additional steps such as joining a gym or participating in a weight-loss group. This finding suggests that people know what to do to lose weight; they just need an incentive to make changes.

Economic models can help quantify the costs and benefits of various incentive options to show where there is greatest value in offering incentives to specific groups to achieve and sustain healthy behaviours and weight loss. The use of sound theory and current evidence can help inform the development, implementation and evaluation of incentive programs as an addition to the health promotion toolkit for Canadian public and private sector organizations.

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