



ELSEVIER

Contents lists available at ScienceDirect

Appetite

journal homepage: www.elsevier.com/locate/appet

Research review

Promoting consumption of fruit and vegetables for better health. Have campaigns delivered on the goals?

Reetica Rekhy*, Robyn McConchie

Department of Plant and Food Sciences, Faculty of Agriculture and Environment, University of Sydney, NSW 2006, Australia

ARTICLE INFO

Article history:

Received 10 October 2013

Received in revised form 13 February 2014

Accepted 15 April 2014

Available online

Keywords:

Fruit and vegetable consumption

Marketing campaigns

Recommended intake

Consumer behaviour

Health benefits

Serve size

ABSTRACT

Daily intake of fruits and vegetables worldwide remains well below the recommended WHO levels, despite the established health benefits associated with fruit and vegetable consumption. A diversity of policy interventions designed to increase consumption have been conducted in the developed economies around the globe for over a decade, involving significant monetary outlays. The impact of these initiatives remains at best, modest to low, in effecting a significant increase in daily consumption on a sustained basis. Several factors have been identified in both promoting and impeding the increase in fruit and vegetable consumption, including the effects of consumer behaviour. This paper reviews several of the major promotional campaigns from around the world and provides analysis of their level of success, with a view to developing novel approaches for formulating more effective marketing and promotional interventions that will prompt significant change.

© 2014 Published by Elsevier Ltd.

Introduction

Medical and nutritional research has, for decades, emphasised the health benefits from consuming fruits and vegetables which include reduced risk of diseases such as cardiovascular conditions, certain cancers, Type II diabetes and obesity. Such foods are relatively low in calories, nutrient rich and contain fibre to promote health and well-being. The [World Health Organization \(WHO\) \(2013\)](#) estimates that approximately 1.7 million (2.8%) deaths per annum worldwide are linked to low fruit and vegetable consumption and are therefore, important components of a healthy, balanced diet. The WHO recommends a minimum consumption of 400 g of fruit and vegetables per day, excluding potatoes and other starchy tubers, to help prevent chronic disease and nutritional deficiencies. As a result, promoting fruit and vegetable consumption is a key objective of food and nutrition policy interventions conducted around the world by government and non-government stakeholders.

To facilitate change in consumer behaviour for increasing consumption of fruit and vegetables, a wide variety of health, promotional and social marketing interventions have been conducted around the world for more than a decade. However, the success of these initiatives, measured in terms of increase in daily consumption per person per serve, remains modest. This review examines the major campaigns and interventions conducted around the world over the last 10 years and their success in achieving this goal. It also

reviews the literature that explores and investigates the promoters and barriers to growth in fruit and vegetable consumption including consumer psychology and behaviour. Finally, the review highlights some recommendations regarding further research required to make these interventions more effective in bringing about a meaningful increase in fruit and vegetable consumption.

How much fruits and vegetables are consumed?

Recent research conducted by [Reiss, Johnston, Tucker, Desesso, and Keen \(2012\)](#) has concluded that “if one-half of the U.S. population were to increase fruit and vegetable consumption by one serving each per day, an estimated 20,000 cancer cases might be avoided each year.” However, the current average consumption of fruits and vegetables globally is much lower than the WHO recommended intake. In Europe, consumption stands at only 220 g per person per day for adults, which is half the daily recommended quantity ([The Louis Bonduelle Foundation, 2011](#)). In the U.S. only 6–8% of individuals achieve their recommended daily target for vegetables and fruit, with the average American consuming only 1.8 cups of fruits and vegetables per day ([Produce for Better Health Foundation, 2010](#)).

The Australian Health Survey 2011–2012 reported that 48.3% of Australian adults met the recommended guideline for daily fruit intake, while only 8.3% met the guideline for daily vegetable intake ([Australian Bureau of Statistics, 2012](#)). Overall, only 5.6% of Australian adults had an adequate daily consumption of fruit and vegetables in 2011–2012. Furthermore, older Australians, aged

* Corresponding author.

E-mail address: reetica.rekhy@sydney.edu.au (R. Rekhy).

65–74 years, are more likely to meet the recommended guideline with 9.6% of this sector consuming the daily recommended consumption, while only 3% of Australian adults aged 25–34 years met the daily recommended guideline for fruit and vegetables (Australian Bureau of Statistics, 2012).

The Australian Guide to Healthy Eating recommends consumption of two to eight serves of vegetables and legumes and one to five serves of fruit per day, based on age and other factors (Australian Institute of Health and Welfare, 2012). The simplified message to the consumer is two serves of fruit and five serves of vegetables per day. In this context, the definition of a serve of fruit and vegetables is important. One serve of fruit is 150 g and equal to about 1 cup of chopped or canned fruit, while one serve of vegetables is 75 g or about 1 cup of salad vegetables or half a cup cooked vegetables (Australian Institute of Health and Welfare, 2012).

The U.S. ran the “5 A Day for Better Health” programme for 15 years promoting consumption of five or more servings of vegetables and fruit daily for better health. This programme has now been replaced by “Fruits & Veggies – More Matters” (Fruits & Veggies More Matters, 2013a). The U.S. Department of Agriculture (USDA) recommends that Americans fill half their plate with colourful fruits and vegetables for meals and eating occasions under its “My Plate” dietary recommendation (Fruits & Veggies More Matters, 2013b).

Canada’s Food Guide to Healthy Eating recommends between five and 10 servings of fruit and vegetables everyday while the Danish “6 om dagen” or six a day campaign promotes six a day or 600 g of fruit and vegetables daily (The International Fruit and Vegetable Alliance, 2013; Uetrecht, Greenberg, Dwyer, Sutherland, & Tobin, 1999). The New Zealand “5+ A Day” initiative promotes consumption of five or more servings of fruit and vegetables a day. Given there is consensus among the developed world about the recommended daily intake of fruit and vegetables, there needs to be a unified message promoted to the consumer around the world (World Health Organization, 2013).

Fruit and vegetable interventions promoting consumption

In the developed world, various promotional interventions have been initiated by the government, industry and not-for-profit organisations promoting consumption of fruits and vegetables, to help reduce the risk of disease and promote well-being. Over the past decade, Australia, USA, Canada, New Zealand and several countries in the European Union have conducted informational and educational campaigns, costing millions of dollars, to promote increased consumption without significant and sustained success. For example, it is estimated that approximately DKK 4 million (USD 0.73 million) per annum is the current cost of the Danish “6 a day” campaign (S. W. Johannessen, personal communication, January 7, 2014). The national “Go for 2&5” campaign conducted between 2005 and 2007 in Australia cost AUD 4.76 million (USD 4.17 million) (Rowley, 2006), while in the U.S., approximately USD 3–5 million per annum has been outlayed for the “Fruits & Veggies – More Matters” campaign since its launch in 2007 (E. Pivonka, personal communication, January 8, 2014). Another example is the “Food Dudes” programme in the U.K., which has cost more than GBP 10 million (USD 16.58 million) since its inception in 1992 (C. F. Lowe, personal communication, December 22, 2013). The aims and strategies of several key promotional programmes are discussed below and the evaluations of the campaigns are listed in Table 1.

Australian “Go for 2&5” campaign

In 2002 the Western Australian (WA) Department of Health launched a multi-strategy social marketing campaign, targeted at adults, to promote knowledge of recommended daily intakes

and consumption of fruit and vegetables. This campaign, known as “Go for 2&5”, had three main communication objectives: increasing awareness; building positive attitudes towards consuming more fruit and vegetables; and creating intention among adults to consume two serves of fruit and five serves of vegetables daily (Woolcott Research Pty Ltd, 2007). Analysis of the campaign after 3 years showed that there was an average net increase of 0.8 serves per day for overall consumption of fruits and vegetables (Table 1) or 11.4% increase of the total recommended intake of fruits and vegetables (Pollard et al., 2008b). This included a 0.2 serve increase for fruit (10% of recommended fruit intake) and 0.6 serve increase for vegetables (12% of recommended vegetable intake) during this period, demonstrating only a modest impact on the consumption behaviour over the long term among the target group (Pollard et al., 2008b).

After the introduction of the WA campaign, the “Go for 2&5” campaign was launched nationally in April 2005 and was initially run as a collaborative effort between the Commonwealth and all state and territory health departments, except in Victoria, and not-for-profit organisations such as the Cancer Institute and the fruit and vegetable industry (Australian Institute of Health and Welfare, 2012; Morgan, 2009). The \$4.76 million national intervention was managed by the fruit and vegetable industry body, Horticulture Australia Ltd (HAL) and used television (TV), radio, print media, point-of-sale advertising, a range of publications, branded merchandise, editorials and a well-tailored website to promote the message. The campaign was aimed at a specific segment of the market which was defined by the following characteristics: the primary shopper and meal preparer at home, who wanted to provide their family with a healthy diet, was busy or short of time, and had exposure to health and nutrition promotional messages (Rowley, 2006, 2009).

The national campaign was evaluated by two telephone follow-up surveys which were conducted between mid-July and early September 2005. The target audience for these surveys were parents of children aged 0–17 years and children themselves aged 9–12 years (Woolcott Research Pty Ltd, 2007). The findings indicated that a high proportion of parents (60%) already consumed the recommended two serves of fruit daily and the campaign only resulted in an increased awareness and knowledge among both parents and children about the recommended daily intake of vegetables (Table 1). The report suggests that knowledge of optimum vegetable consumption could possibly bring about behavioural change among the targeted groups in the longer term, but there was no detectable change in the proportion of parents consuming the recommended five daily serves of vegetables, reported over the survey period (Australian Institute of Health and Welfare, 2012; Woolcott Research Pty Ltd, 2007).

The national “Go for 2&5” campaign supported by the Commonwealth Government of Australia ended in 2007 due to withdrawal of federal government funding and subsequent exit of HAL from the co-ordinating role. It continued in some states in subsequent years, supported by the respective state departments of health and the not-for-profit organisations with an interest in public health; however, it was not backed by support from the fruit and vegetable industry. Lack of industry participation is purported to be attributed to the highly fragmented nature of the fruit and vegetable sector; the non-existence of a vegetable marketing levy to support a generic promotional campaign; licencing issues related to the use of “Go for 2&5” brand; the health driven focus as opposed to a consumption driven initiative; and insufficient involvement of the retail sector (a significant stakeholder group in the value chain) in the programme. State government health sector resource allocations and priorities also changed over time and as a result new programmes were rolled out at national and state levels. Given that only 5.6% of Australian adults met the daily recommended intake for fruit and vegetable consumption in 2011–2012, the campaign has fallen short of its targeted goal.

Download English Version:

<https://daneshyari.com/en/article/7309920>

Download Persian Version:

<https://daneshyari.com/article/7309920>

[Daneshyari.com](https://daneshyari.com)