

## Editorial

In 2007 the World Cancer Research Fund (WCRF) and the American Institute for Cancer Research (AICR) published the Second Expert Report, *Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective*. This report is the most current and comprehensive analysis of the literature on diet, physical activity and cancer. It includes 10 recommendations that comprise a blueprint people can follow to help reduce their risk of developing cancer.

But making these recommendations is just the first step. Equally important is understanding how to achieve them. To this end, a companion publication to the Second Expert Report, *Policy and Action for Cancer Prevention*, addresses why people practice particular eating and physical activity habits over a lifetime. It looks at the success of studies that have been designed to change those behaviours and it makes recommendations for policy-makers and decision-takers at international, national and local levels. These recommendations, if implemented, will help influence and change the lifestyle choices that people make, reducing their risk of cancer and other chronic diseases. The overarching message of the Policy Report is that public health is everyone's business and that everyone in society has a role to play.

In this issue, we take a look at the methodology behind the Policy Report, the evidence on the effectiveness of interventions to increase vegetable and fruit consumption, and at some of the recommendations and actor groups involved.

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### The World Cancer Research Fund global network

The World Cancer Research Fund (WCRF) global network is an international alliance of charitable or non-profit organisations, dedicated to the prevention and control of cancer through healthy diets and lifestyles. The network comprises World Cancer Research Fund International (WCRF International: [www.wcrf.org](http://www.wcrf.org)), an umbrella association based in the UK, and its member organisations – national charities based in different countries. Current members operate in the USA, American Institute for Cancer Research (AICR: [www.aicr.org](http://www.aicr.org)); the UK, World Cancer Research Fund (WCRF UK: [wcrf-uk.org](http://wcrf-uk.org)); the Netherlands, Wereld Kanker Onderzoek Fonds (WCRF NL: [www.wcrf.nl](http://www.wcrf.nl)); Asia, World Cancer Research Fund Hong Kong (WCRF HK: [www.wcrf-hk.org](http://www.wcrf-hk.org)); and in France, Fonds Mondial de Recherche contre le Cancer (WCRF FR/FMRC: [www.fmrc.fr](http://www.fmrc.fr)).



# The methodology behind the *Policy and Action for Cancer Prevention Report*

— Rachel Thompson —

WCRF International - Science Programme Manager (Nutrition)

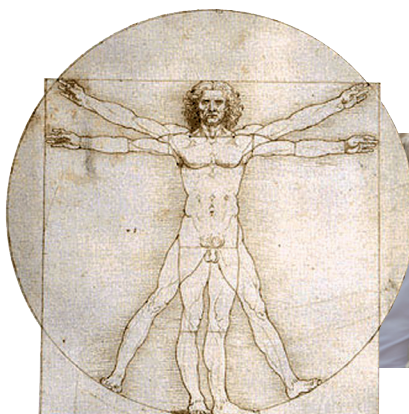
The World Cancer Research Fund (WCRF) and the American Institute for Cancer Research (AICR) Report *Policy and Action for Cancer Prevention* is a companion to the Second Expert Report *Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective* which was published in 2007. The Second Expert Report included a rigorous review of the evidence on food, nutrition (including body fatness) and physical activity, and cancer. Non-starchy vegetables and also fruits were judged to probably protect against cancers of the mouth, pharynx and larynx, the oesophagus, and the stomach. Also, fruits were judged to probably protect against lung cancer. One of the Report's recommendations is that people should eat at least five portions/servings of a variety of non-starchy vegetables and fruits every day. In total there are 10 recommendations; the others include being physically active, maintaining a healthy body weight and limiting alcohol, red meat and salt consumption and avoiding processed meat (<http://www.dietandcancerreport.org>).

The aim of the Policy Report is to make robust evidence-based recommendations for policies and actions that will help achieve the recommendations of the Second Expert Report and thereby help to prevent cancer worldwide (<http://www.dietandcancerreport.org/pr/>). Two systematic literature reviews of the evidence were commissioned from independent research institutions. All types of evidence were reviewed. The first reviewed the evidence about what affects our dietary patterns and the amount of physical activity we do. It also reviewed evidence relating to interventions aimed to change or maintain behaviour (such as studies aiming to increase intake of vegetables and fruits). The second reviewed the effectiveness of population and community interventions to prevent cancer through food, nutrition, or physical activity. Additional information obtained from Panel members, peer reviewers and independent organisations was utilised. The Policy Report also includes new estimates for how much cancer can be prevented by eating a healthy diet, being physically active and maintaining a healthy body weight. If everyone had the same dietary and physical activity patterns as those who have the best diets and

do the most physical activity, then about one third of the most common cancers could be prevented in high-income countries. In low and middle-income countries about one quarter of the most common cancers are preventable.

A Panel of 23 international experts considered the evidence. The Panel comprised experts who examined the evidence for the Second Expert Report and an additional three with specific expertise in policy. Its collective expertise included public policy, economics, psychology, physical activity, nutrition, cancer, obesity, other chronic diseases, epidemiology, biochemistry, statistics, and public health. The Panel included relevant World Health Organization expert consultations, as well as observers from six relevant United Nations and other international organisations.

The Policy Report is divided into three parts. Part one outlines the physical environmental, economic and social determinants of health and disease, including cancer. It also puts forward a 'case for action' that shows that as the size and average age of populations increase, the numbers of cases of cancer are expected to increase. Part two summarises the evidence on determinants of patterns of diet, physical activity and body fatness under four main themes: physical environmental, economic, social, and personal. Promising policy and action options are identified. The Panel's recommendations for policies and actions likely to help prevent cancer can be found in Part three. The Panel considered all the evidence and then made 48 recommendations directed at nine different actor groups, ranging from governments to people. The actors can use the recommendations to make changes that will help to prevent cancer, as well as other chronic diseases such as cardiovascular disease, diabetes and obesity. All the recommendations are important. Some are more ambitious than others. Some can bring quick benefits, while others are likely to be effective in the longer term. The Policy Report emphasises that promoting public health is not just the responsibility of health departments, but is shared by all sections of society. All the actors will need to work together in order for changes in society to happen.



## THE NINE ACTOR GROUPS

- Multinational bodies
- Civil society organisations
- Government
- Industry
- Media
- Schools
- Workplaces and institutions
- Health and other professionals
- People

# Evidence of the effectiveness of approaches to increase vegetable and fruit consumption

— Rachel Thompson —

WCRF International - Science Programme Manager (nutrition)

The evidence presented in *Policy and Action for Cancer Prevention* was evaluated in four dimensions: physical environmental, economic, social and personal. Each dimension is discussed briefly in relation to vegetables and fruits below.

The physical environment includes both the living and built environment. Encouragement of smallholdings and home farms and gardens can increase availability of vegetables and fruits. Schemes in high-income countries to encourage people to grow their own vegetables and fruits are likely to become more attractive as the price of food in shops increases. The location of supermarkets affects availability and accessibility of healthy foods and drinks. Within supermarkets, and other retail and catering outlets, priority to positioning of healthy foods and drinks is important. Finally, climate change could have a substantial effect on global production of vegetables and fruits, but currently it is not clear what the damaging or beneficial effects are likely to be.

Economic factors influence the amount, quality, and types of foods and drinks that people consume. In both the UK and USA, prices of vegetables and fruits have decreased relative to consumer price indices. However, most people in these countries fail to consume 5 servings of vegetables and fruits each day; thus price reduction alone is not sufficient. There is evidence that people with lower incomes consume less vegetables and fruits and that certain interventions can be beneficial. Providing vouchers for

vegetables and fruits to mothers on low income, for example, has been shown to increase consumption of vegetables and fruits. Clear, simple, uniform, and explicit nutrition labelling is important. New schemes are more accepted if accompanied by information and education campaigns (for example the 'traffic light' labels in the UK). There is relatively little advertising and promotion aimed at healthy foods, although there is evidence that promotion of vegetables and fruits in supermarkets can increase consumption. For example, the US national '5 a Day for Better Health' campaign increased consumption by providing information through the media and supermarkets.

The social dimension includes ethnic background, culture, religion, schools, workplaces and family. Schools have been shown to be a good setting for interventions to promote healthy eating. These include school lunches as well as healthy choices in vending machines and tuck shops. Introduction or strengthening of academic and practical nutrition in school curricula is also effective. Workplace based health initiatives can also be effective and lead to increased consumption of vegetables and fruits. Social inequalities are important, and higher socioeconomic status in high-income countries is associated with a higher vegetable and fruit consumption. Reduction in social inequalities requires political will and committed partnership of all actors.

The personal dimension includes family habits and values, personal knowledge,

attitudes and belief, and health status. There is evidence that involving families, friends or close-knit communities in interventions to encourage healthy ways of life increases the efficacy of the intervention, since people are more likely to eat and drink healthily if they have the support of family and friends. Moreover, the preparation, cooking and sharing of meals, as in families, teach healthy habits early in life. The evidence shows that interventions to change dietary habits are more effective when these include nutrition education components. Increased knowledge of a healthy lifestyle on its own may not necessarily lead to dietary change, however. Attempts to reinforce or change behaviour are most likely to be effective and sustained when supported by health professionals, and other actors including governments. Policy makers and actors will be more likely to succeed in changing dietary habits when they take into account the impact of characteristics such as age and sex, for example Programmes should be tailored to fit people at different stages of life.

In summary, the evidence shows that policies and actions directed at increasing vegetable and fruit consumption can be effective, particularly if they are multi-factorial and involve several actor groups. Programmes that are sustained and have the support of all interested actors, including government, civil society associations, professional organisations, industry, employers and the media are most effective.



# Cancer prevention: Policies and actions to increase vegetable and fruit consumption

— Kirsty Beck —

WCRF International - Science and Policy Manager

The way people live their lives, and in particular their patterns of diet and physical activity, are significantly affected by external factors. Implementing policies and actions that affect these external factors could help prevent cancer by, among other things, increasing consumption of vegetables and fruits. *Policy and Action for Cancer Prevention* provides evidence-based recommendations for policies and actions, involving all actors, that would help achieve the public health goals of the 2007 WCRF/AICR Second Expert Report.

Integrated and coordinated action across actor groups is vital, although some groups will have more relevance for a particular area than others. Some of the recommendations aimed at multinational bodies, civil society organisations (CSOs), government and industry that could increase vegetable and fruit consumption are highlighted below.

Actions taken by multinational bodies (for example the World Trade Organization and United Nations bodies) often do not have public health in mind. But these actions can profoundly affect patterns of diet and other factors that affect cancer risk. Recommendations aimed at multinational bodies are that they should build the protection and maintenance of public health into all relevant agriculture, food, health, economic, trade and environmental agreements. Also, UN bodies should ensure their cancer prevention policies are integrated with strategies designed to prevent and control other diseases. Implementing these recommendations could take the form of using global food trade rules to improve health, and removal of agricultural and other subsidies that damage public health. They could also involve monitoring the impacts of climate change and economic globalisation on all stages of food production.

CSOs (for example charitable foundations, scientific and professional associations) are a vital part of society that can advocate and also develop and sustain public policies, often in association with other actors. They frequently take the initial lead in such work. The recommendations to CSOs include the need for them to press governments to implement effective policies and programmes for nutrition, and to hold other actors accountable. It is also important for CSOs to mobilise the media and public

opinion in support of healthy nutrition (eg a mainly plant based diet), and to advocate traditional ways of life when these generate healthy, sustainable dietary patterns. Additionally, CSOs should form alliances to strengthen their impact.

Governments and their agencies have the central responsibility for protecting and improving public health, including the prevention of diseases such as cancer. Government in this context includes national, state, provincial, municipal, and local levels. Legislation, pricing and other policies can be used to promote healthy diets. Many of the Policy Report recommendations for government could increase vegetable and fruit consumption. For example, in addition to establishing and maintaining public health education programmes, governments should also encourage safe, nutrient-dense, relatively unprocessed foods by other means. This could range from support of horticulture to restricting advertising of 'fast food' and other processed foods to children. Additionally, governments should provide catering that is of high nutritional quality in schools and all government and publicly funded facilities.

Industry (for this article only food and drink industries are considered) is a potential leader and can also be a partner in initiatives designed to improve and protect public health. The Policy Report recommends that industry should make public health a priority during development, reformulation, and promotion of food products. Industry should also ensure that healthy meals, snacks and foods are competitively priced and that accurate information is used in all advertising and on food labels.

This article focuses on a subset of the recommendations that could impact on vegetable and fruit consumption and other patterns of diet and physical activity. There are other recommendations for the actors mentioned above, and also for people (as individuals and members of communities), media, schools, workplaces and institutions, and health and other professionals (see <http://www.dietandcancerreport.org/pr/> for full details). To achieve the greatest results, all actors need to work together to implement policies and actions to prevent cancer and improve public health.



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