

It is no longer a question of treating the patient with drugs or by the regulation of food, clothing or housing... With one million people, palliatives will no longer do... We must begin to promote the advancement of the entire population.

Rudolf Virchow *Report on the Typhus Epidemic in Upper Silesia, 1848*





Policy and action for cancer prevention: *Global, and in Canada*

Geoffrey Cannon

Canadian Partnership Against Cancer
Cancer Care Nova Scotia
Halifax, 29 March - 1 April 2009

World
Cancer
Research Fund



American
Institute for
Cancer Research



Geoffrey Cannon

Director of Science, World Cancer Research Fund, 1990s

Director, first WCRF/AICR report, 1997

Senior Science Advisor, WCRF/AICR, 2000s

Chief editor, second and third WCRF/AICR reports, 2007, 2009

Assistant editor, columnist, *Public Health Nutrition*

Secretary-General, World Health Policy Forum

Co-convenor, *New Nutrition Science project*

Advisor, UN agencies, Brazilian government, industry, civil society

Member, Brazilian national delegation to WHO, 2001

First drafts, *Guia Alimentar Para a População Brasileira*, 2006

UK citizen resident in Brazil

GeoffreyCannon@aol.com

Our 2009 Policy Report



World Cancer
Research Fund
International

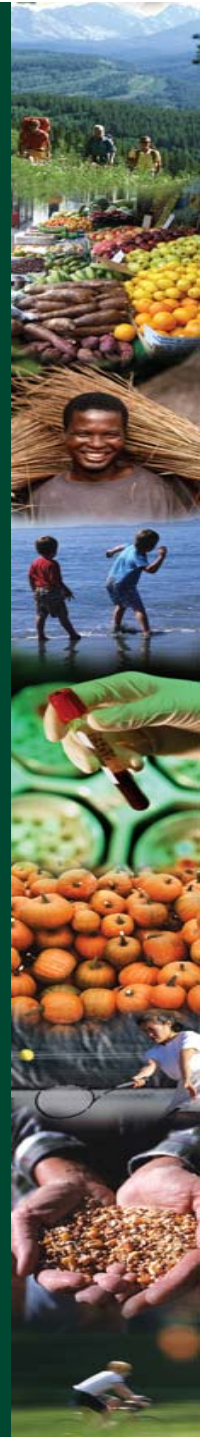
Policy and Action for Cancer Prevention

Food, Nutrition,
and Physical Activity:
a Global Perspective



Why

- Information is necessary but insufficient
- Personal choice has little effect on populations
- Rates of many cancers continue to rise
- Epidemic diseases are public health crises
- Role of government, industry & c is crucial
- Role of civil society, citizens to be determined
- Comprehensive integrated policies needed
- New estimates of preventability needed



Panel

Tola Atinmo

Nigeria

Tim Byers

USA

Nic Cavill

UK

Junshi Chen

China

Tomio Hirohata

Japan

Alan Jackson

UK

Philip James

UK

Laurence Kolonel

USA

Shiriki Kumanyika

USA

Claus Leitzmann

Germany

Jim Mann

New Zealand

Michael Marmot (Chair)

UK

Barry Popkin

USA

Hilary Powers

UK

Srinath Reddy

India

Elio Riboli

Italy/ France

Juan Rivera

Mexico

Jaap Seidell

The Netherlands

David Shuker

UK

Ricardo Uauy

Chile

Jane Wardle

UK

Walter Willett

USA

Steven Zeisel

USA



Process

Findings of the 2007 Diet and Cancer Report



Report structure, conceptual framework ¹



Systematic literature reviews, other evidence ²



Summaries, evaluation of evidence ³

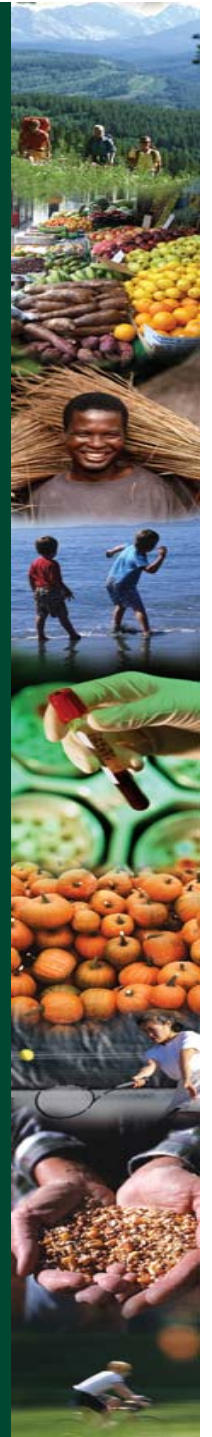


Drafting, revising, peer review, panel meetings



Agreement on principles, recommendations ⁴

Policy Report: ¹ chapter 1, ² www.aicr.org, ³ chapters 3-6, ⁴ chapters 7,8





Principles of prevention: 1

Cancer is mostly a preventable disease.
The most effective protections against most cancers are avoidance of smoking and exposure to tobacco; and healthy diets and body weight, and regular physical activity



Preventability of cancer ¹

Mouth, pharynx, larynx	63
Oesophagus	69
Lung ²	36
Stomach	47
Pancreas	39
Colorectum	45
Breast	38
Endometrium	70

All cancers *best estimate* about one third ³

¹ By food, nutrition, physical activity and associated factors. Figures are for the USA and other high-income countries and are approximate percentages

² Paramount cause of lung cancer is smoking and exposure to tobacco

³ High income countries. For lower-income countries, about one quarter

Policy Report chapter 2.3, appendix A



Prevention of cancer: context

Demographic, nutritional, epidemiological shifts:
increasing, urban, ageing, inactive, sick populations

Since 1980s, rapid increases in energy-dense 'fast'
food and sugary drinks, and in overweight and obesity

Corresponding increases in those cancers of
which physical inactivity and body fatness are causes

Global annual cases of cancer projected to rise from
6.3m (1980) and 11.3m (2007) to 15.5 m (2030) ¹

¹ WHO. [http:// www.who.int/features/qa/15/en](http://www.who.int/features/qa/15/en)
Policy Report, chapter 2



Population goals

- ✓ Overweight, obese not to increase in 10 years
- ✓ Sedentary population to be halved every 10 years
- ✓ Sugary drinks to be halved every 10 years
- ✓ Vegetables, pulses, fruits at least 20 ounces daily ¹
- ✓ Red meat no more than 11 ounces weekly ²
- ✓ Alcohol over limits³ cut by a third every 10 years
- ✓ Exclusive breastfeeding for 6 months⁴ in majority

¹ Non-starchy vegetables. Corresponds to personal recommendation of 14+ ounces

² As cooked. Corresponds to personal recommendation of less than 18 ounces

³ No more than 2 drinks a day (men), 1 drink a day (women)

⁴ According to the UN Code on Infant and Young Child Feeding

2007 WCRF/AICR Diet and Cancer Report, chapter 12



Yes, but how?

- ✓ Overweight, obese not to increase in 10 years
- ✓ Sedentary population to be halved every 10 years
- ✓ Sugary drinks to be halved every 10 years
- ✓ Vegetables, pulses, fruits at least 20 ounces daily ¹
- ✓ Red meat no more than 11 ounces weekly ²
- ✓ Alcohol over limits³ cut by a third every 10 years
- ✓ Exclusive breastfeeding for 6 months⁴ in majority

¹ Non-starchy vegetables. Corresponds to personal recommendation of 14+ ounces

² As cooked. Corresponds to personal recommendation of less than 18 ounces

³ No more than 2 drinks a day (men), 1 drink a day (women)

⁴ According to the UN Code on Infant and Young Child Feeding

2007 WCRF/AICR Diet and Cancer Report, chapter 12





Principles of prevention 2

To control and prevent cancer and other epidemic disease in populations, focus not on the biology and pathology of the disease, but on its behavioural, social, economic, and environmental determinants

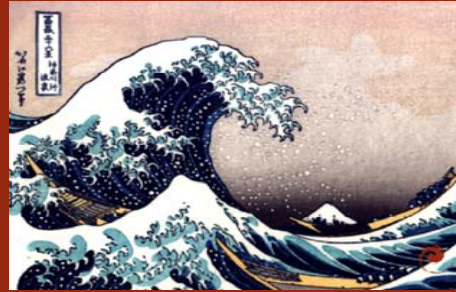




The four dimensions of disease, health, well-being

Biological
Social
Economic
Environmental





Social, economic and environmental crises

- ❖ Widening inequities between and within countries, provinces
- ❖ Nations in the South trapped in poverty through external debt
- ❖ Collapse of banking system and global economic recession
- ❖ Climate change, with its projected impact on food systems
- ❖ Vast worldwide increase in urban and slum populations
- ❖ Possibility of irreversible decline of ocean fish stocks
- ❖ Deterioration, degradation, decline of air, water, soil, energy

Policy Report, chapters 2-6

Many sources – Giessen Declaration, WHO Inequalities report, UNDP, UN-Habitat, IPCC, FAO

<http://foodforethought.org>

The meaning of prevention

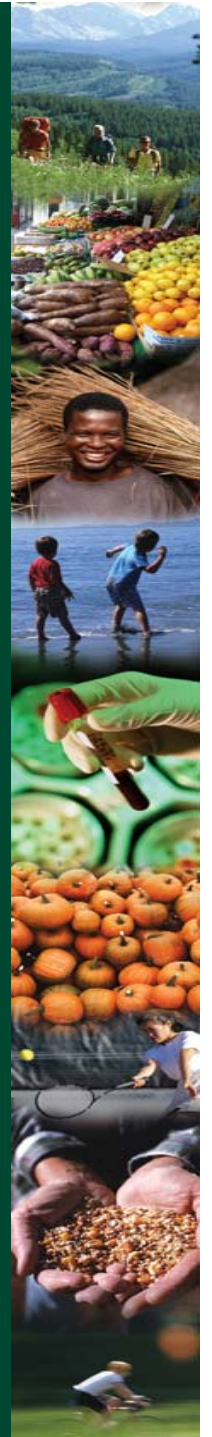
Cancer control by surveillance and screening, and medical and surgical treatment, and care, is essential

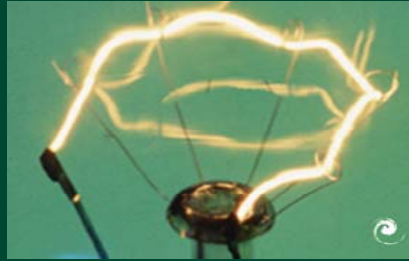
Prevention means stopping cancer before it appears, in the classic tradition of public health

Epidemic diseases are prevented by addressing their 'deep' causes – 'the causes of the causes' ¹

Prevention of disease engages all actors including government, civil society, industry, health professionals

¹ Geoffrey Rose: The Strategy of Preventive Medicine. Oxford, 1992
Policy Report, chapters 2, 7, 8





Evidence-based proposal

At a population level, no lower-income country, and increasingly few of the highest-income countries, have the human or material resources to treat cancer. The most rational and feasible policy is prevention



The example of breastfeeding

Or to be precise, lactation and being breastfed

Evidence on lactation, breastfeeding by the mother, and her risk of breast cancer at all ages thereafter, is strong and consistent. It is supported by strong evidence for plausible biological mechanisms

The epidemiological and mechanistic evidence that being breastfed protects against overweight and obesity is substantial and generally consistent...

Overweight children tend to become obese adults

2007 WCRF/AICR Diet and Cancer Report, chapters 6.3, 8.8.3



Lactation¹, being breastfed², and cancer

Decreases risk

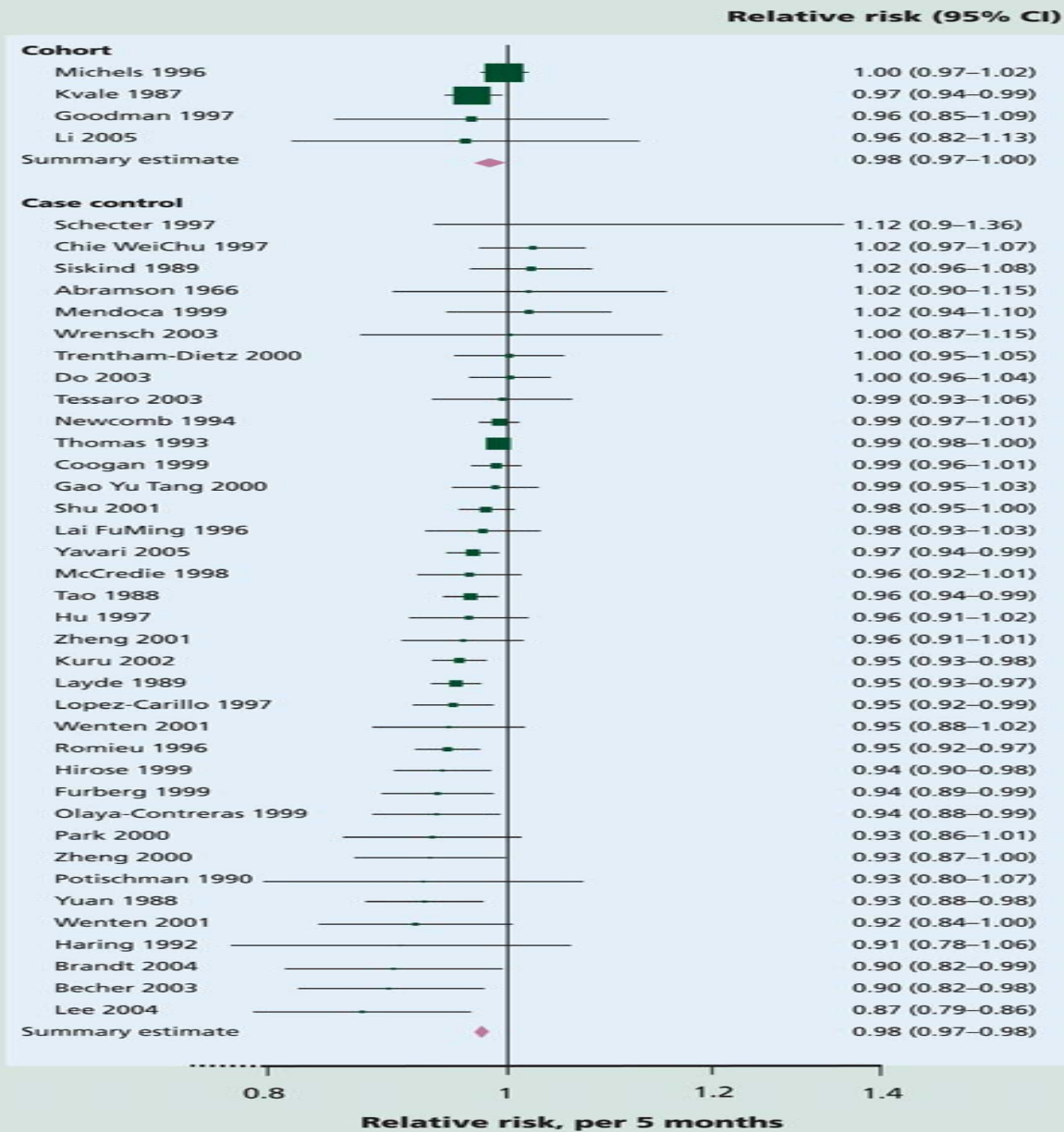
Increases risk

Convincing **Breast cancer¹**
(Pre-, post-menopause)

Probable **Overweight, obesity²**
(and therefore cancers of
colorectum, oesophagus
endometrium, pancreas,
breast (post-menopause),
kidney)



**Total duration of lactation and breast cancer
(age unspecified);
cohort and case-control studies**



Overweight, obesity and cancer

Decreases risk

Increases risk

Convincing Physical activity

Sedentary living

Probable Low energy-dense foods Energy-dense foods

Being breastfed

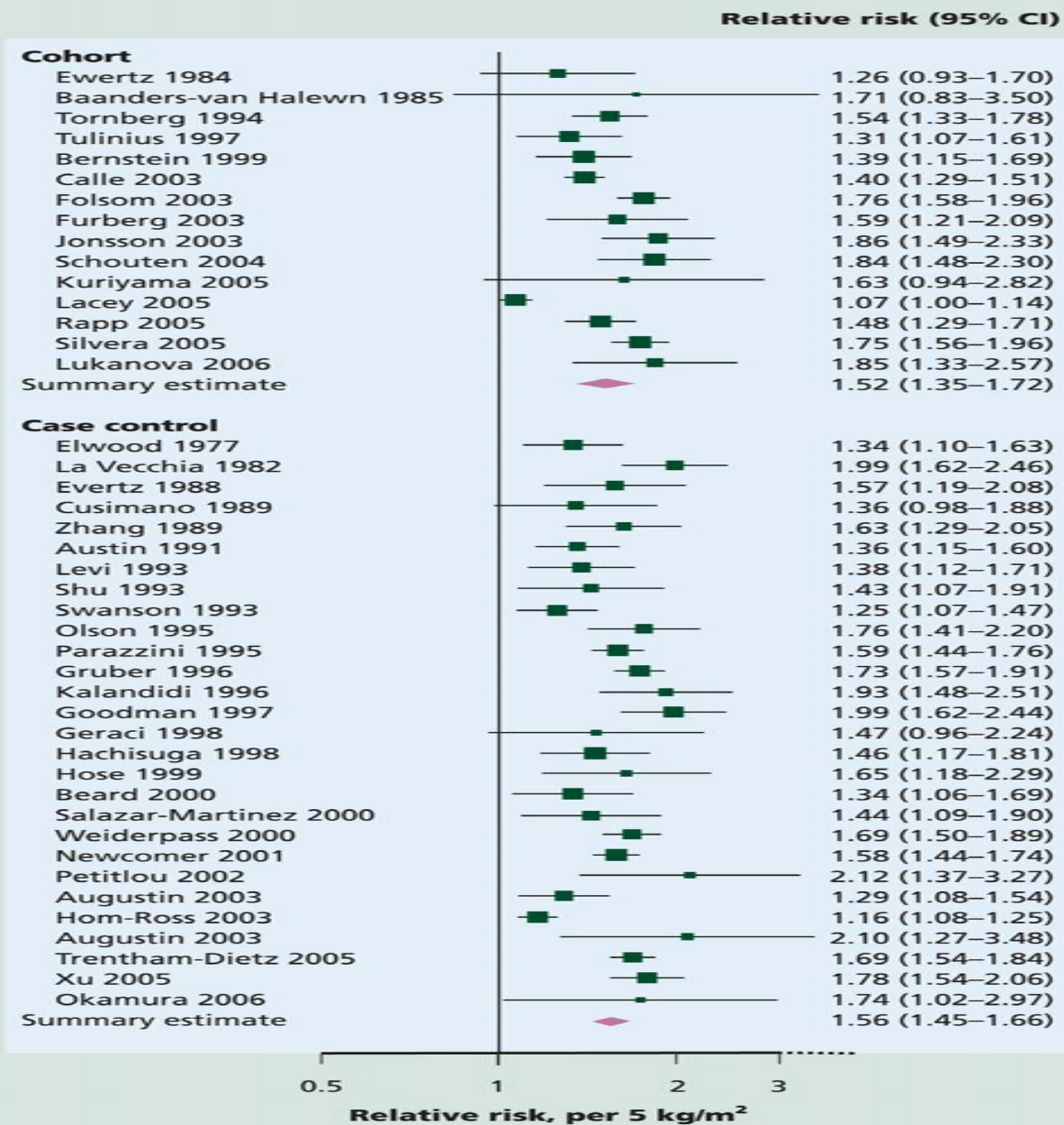
Sugary drinks

'Fast foods'

Television viewing



BMI and endometrial cancer; cohort and case-control studies



SPECIAL RECOMMENDATION 1

BREASTFEEDING

Mothers to breastfeed; children to be breastfed¹

PUBLIC HEALTH GOAL

The majority of mothers to breastfeed exclusively, for six months^{2 3}

PERSONAL RECOMMENDATION

Aim to breastfeed infants exclusively² up to six months and continue with complementary feeding thereafter³

¹ Breastfeeding protects both mother and child

² 'Exclusively' means human milk only, with no other food or drink, including water

³ In accordance with the UN Global Strategy on Infant and Young Child Feeding

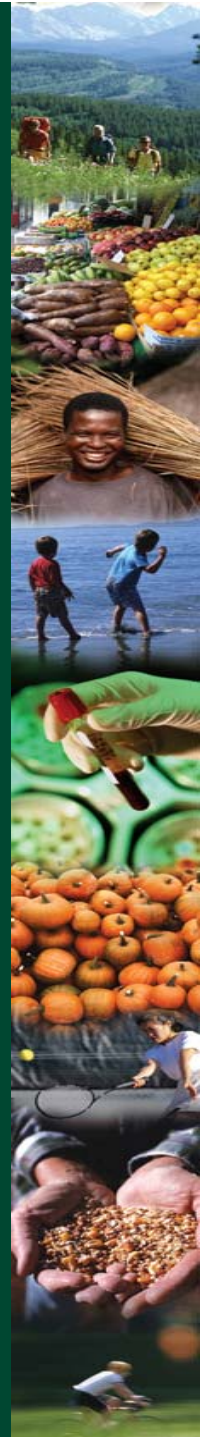


From policy to action: principles

The key to success, in maintaining and improving population health, is integration. All relevant actors, local, regional, national and global, need to work together as partners

Policies and actions designed to prevent cancer will be most effective within a broader context, of prevention of other diseases and promotion of good health and well-being

Policy Report, chapter 7,8



From policy to action: the actors

Multinational bodies

Civil society organisations

Government

Food, drink, associated, other industry

Media

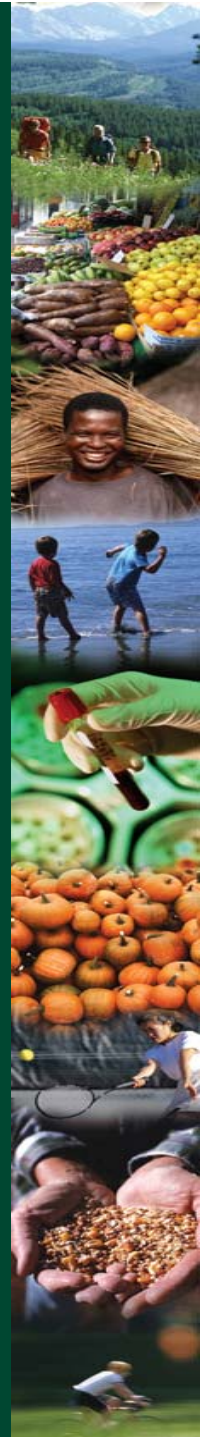
Schools

Workplaces and institutions

Health and other professionals

People (as family and community members)

Policy Report, chapter 8

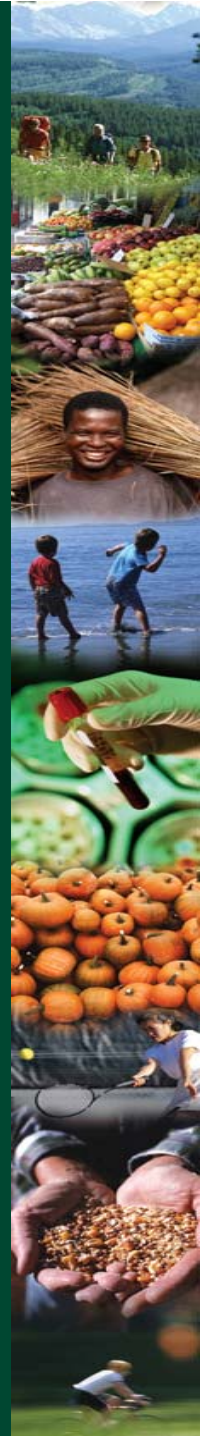


Canadian Partnership Against Cancer

Civil society organisations
Government

Media

Health and other professionals
People (as family and community members)

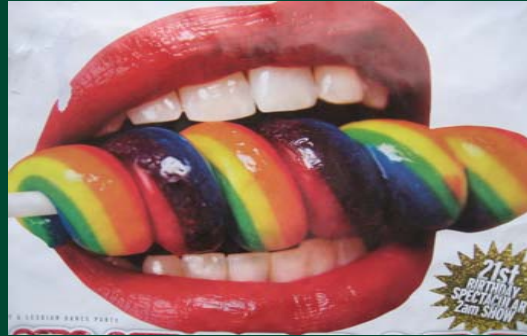




Principles of prevention 3

Citizens have a right to expect that the decisions that determine the availability of foods and drinks and opportunities for physical activity, are taken with protection of public health as an imperative priority





The example of regulation

A prevailing ideology since the 1980s has been that we are all free to make our own individual choices, and that regulations restrict and impede our rights. But most people have continued to see laws that regulate drugs, guns, cars, dogs, alcohol and tobacco, as in the public interest.

Laws and regulations that encourage and enable people to make healthy choices of food, drink and physical activity, for themselves and others, are also in the public interest.



The example of regulation

Market economies are not designed to protect public health, and cannot be relied upon to do so. Regulation needs to be used in the interests of public health.

Thus, physical activity needs to be built into everyday life. This requires regulations that promote the redesign of cities and transportation systems to make walking and cycling safe and pleasant, and that revive and encourage physical activity, active recreation and sport in schools.

Policy recommendations

Government. Examine, audit and revise legislation and regulations so that they protect public health and prevent disease, including cancer

Industry. Ensure that marketing and promotion of breastmilk substitutes and complementary foods follow the terms of UN codes and strategies on infant and young child feeding

Workplaces and Institutions. Encourage sustained breastfeeding with supportive environments and employment contracts, and access to childcare



Ideas for regulation of food and drink...

Abolition of subsidies on imported foods
Price support for horticulture, cooperatives
Statutory nutrition standards for school meals
Prohibition of marketing of food to children
Ban on soft drink vending machines in schools
Prohibition of 'fast' food outlets near schools
Taxes on 'fast' foods to fund public health work
Stronger laws, rules to promote breastfeeding

Discussions in India (Hyderabad PHFI meeting August 2008)
Discussions in Brazil (Porto Alegre World Epidemiology Conference September 2008)
(USP meeting, São Paulo September 2008)
(INCA meeting, Rio de Janeiro March 2009)



and for physical activity, body fatness

Mandatory traffic-light system for nutrition labels

By law schools to have play, sports grounds

By law public buildings to have prominent stairs

Tax breaks for cities to protect cyclists and walkers

Restrictions on private cars within cities

Many inner city, residential streets pedestrian only

Support for employers providing exercise facilities

Zoning laws to ensure shops in walking distance

Discussions in India (Hyderabad PHFI meeting August 2008)
Discussions in Brazil (Porto Alegre World Epidemiology Conference September 2008)
(USP meeting, São Paulo September 2008)
(INCA meeting, Rio de Janeiro March 2009)



Regulation: evidence-based options

Use of global food trade rules to improve public health
Removal of subsidies¹ that damage public health
Imposition or increase of taxes on unhealthy foods²
Imposition or increase of taxes on private vehicles
More taxes and restriction of access to alcoholic drinks
Introduction or strengthening of standard food labelling
Restriction or prohibition of food³ advertising to children
Stricter controls on infant formula and weaning foods
Restriction of access to unhealthy foods in schools⁴
Legislation to promote healthy diets, physical activity⁴

¹ Agricultural and other subsidies. ² Foods and also drinks.

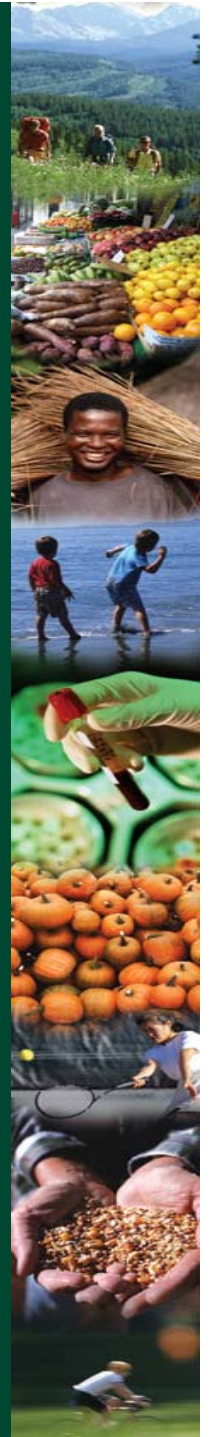
³ Unhealthy foods and drinks ⁴ Emphasis on schools, but also general population
Policy Report, chapters 3-6



Regulation: multinational bodies

Build the protection and maintenance of public health into all relevant agriculture, food, health, economic, trade, environmental and other agreements

Policy Report, chapter 8



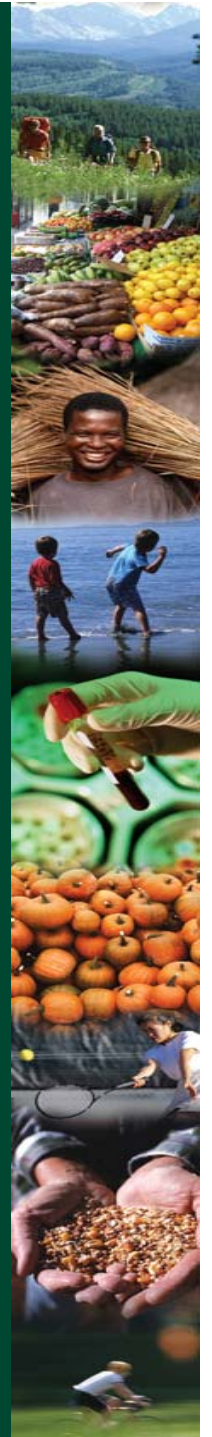
Regulation: government

Overall aim

Use legislation, pricing and other policies at all levels of government to promote healthy patterns of diet and physical activity

Examine, audit and revise legislation and regulations so that they protect public health and prevent disease, including cancer

Ensure that built and external environments are designed and maintained in ways that facilitate physical activity and other healthy behaviour

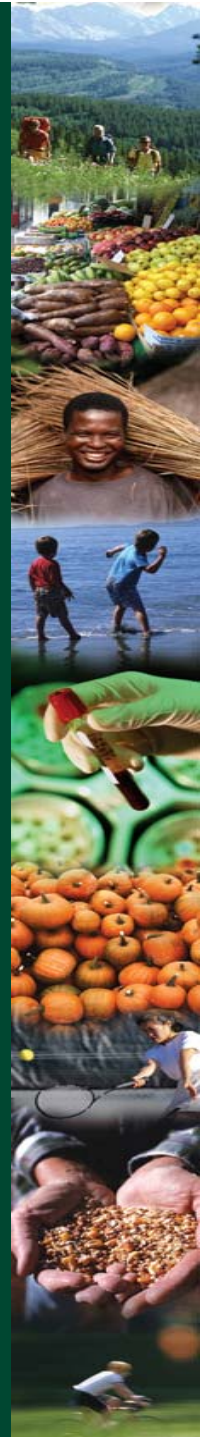


Regulation: government

Require schools to provide meals to high nutritional standards, and facilities for recreation and sports, and to include nutrition and physical activity in core curricula

Require all government and publicly funded facilities that provide catering to ensure that their meals, foods and drinks are of high nutritional quality

Require widespread dedicated walking and cycling facilities throughout built and external environments

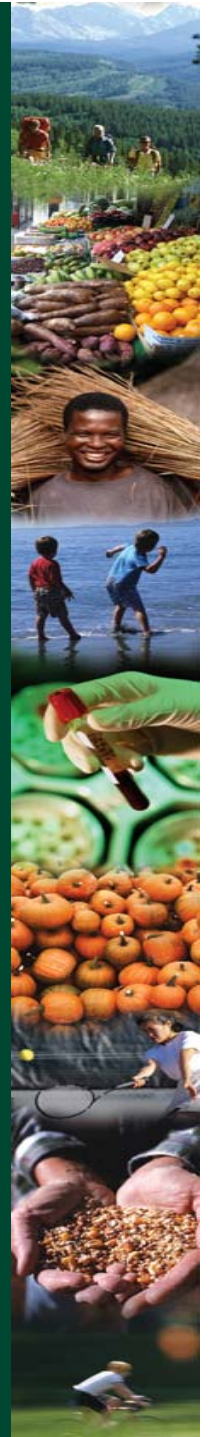


Regulation: government

Restrict advertising and marketing of 'fast food' and other processed foods and drinks to children. on television, in other media, and in supermarkets

Incorporate UN recommendations on breastfeeding into law or appropriate public health and consumer protection rules

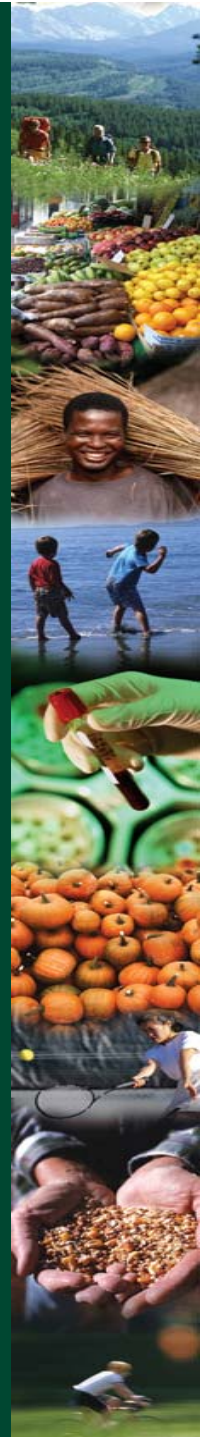
Ensure that international food aid and trade sustains future health as well as providing immediate relief for populations in recipient countries



Regulation: schools

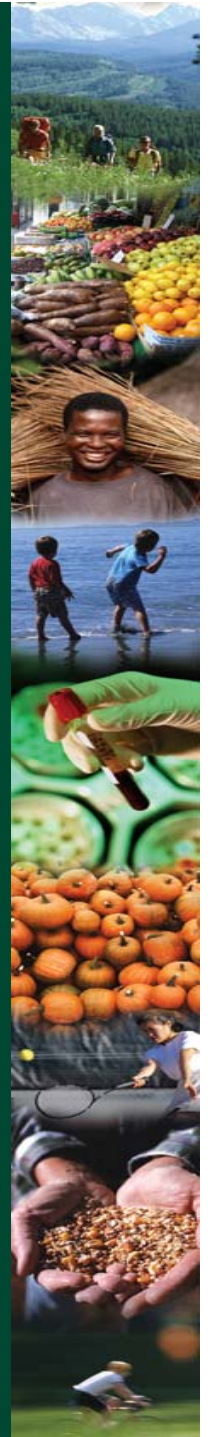
Do not allow vending machines that offer snacks high in sugar, fat or salt, or sugary drinks, and withdraw such 'fast foods' and drinks from school canteens

Policy Report, chapter 8



Regulation: workplaces

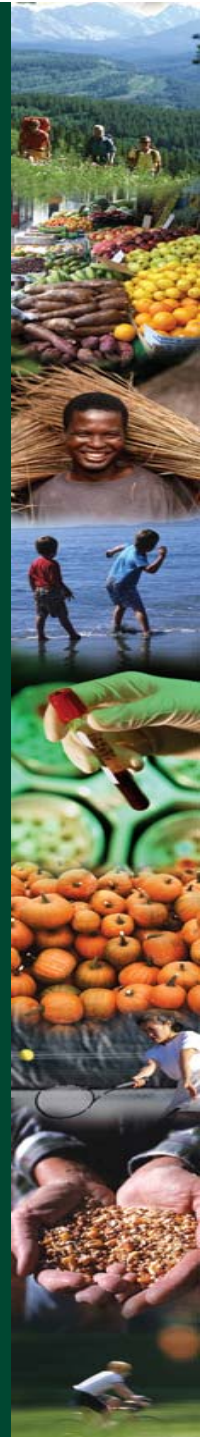
Do not allow vending machines that offer snacks high in sugar, fat or salt, or sugary drinks, and withdraw such 'fast foods' and drinks from canteens



Regulation: professionals

Include food, nutrition, physical activity and cancer prevention in core professional training and continuing development

Policy Report, chapter 8



Prevention in Canada: a Top Ten ¹

- ? Harmonise prevention of all chronic diseases
- ? National action to check overweight and obesity
- ? Celebrate the cuisines of immigrant communities
- ? Work with environmental movement on local food
- ? Increase production of vegetables, legumes, fruits
- ? Insist on school meals of high nutritional standards
- ? Increase breastfeeding by 50% in 10 years
- ? Prohibit food advertising and marketing to children
- ? Impose or raise taxes on 'fast' foods, alcoholic drinks
- ? Make shared meals a centre of daily family life

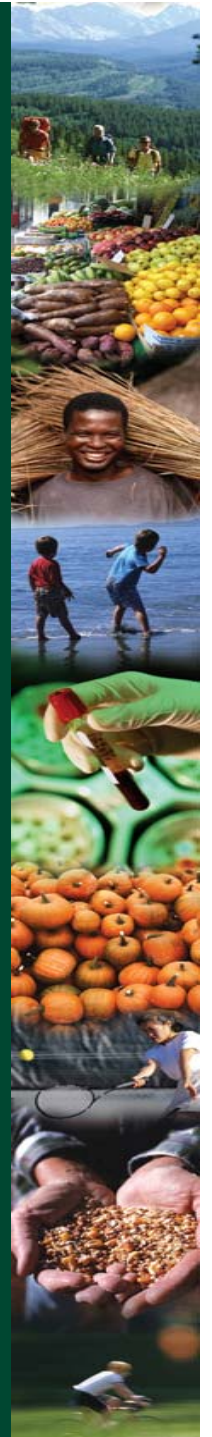
¹ Ideas for discussion. Are these the first priorities?



Prevention in Canada: your Top Ten ¹

- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓

¹ Now it's your turn





The World Cancer Research Fund Global Network

www.aicr.org

www.wcrf.org

Thanks

Chris Jones, Deirdre McGinley-Gieser, Fabio Gomes, Glen Weldon, Kate Allen,
Mark Fletcher, Martin Wiseman, Richard Evans, Susan Higginbotham

The 2009 WCRF/AICR Policy Report Panel

Marilyn Gentry and the AICR and WCRF Boards and Executive



OUR MISSION IS TO LEAVE A GOOD HERITAGE
Children playing in the jungle outside Belém, Pará