

International Perspectives on Cancer Prevention

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Danish National Cancer Conference
Copenhagen
31 Jan 2018.

15/11/2017

OJICE | **THE IRISH Sun** |  **HAVE YOUR SAY AND A CHANCE TO WIN**

DEN AND DUSTED Republic of Ireland 1 Denmark 5: World Cup dream ended by Christian Eriksen's stunning hat-trick



Image: Niall Carson/PA Images

BT SPORTEN

Nu skal den irske VM-drøm begravnes



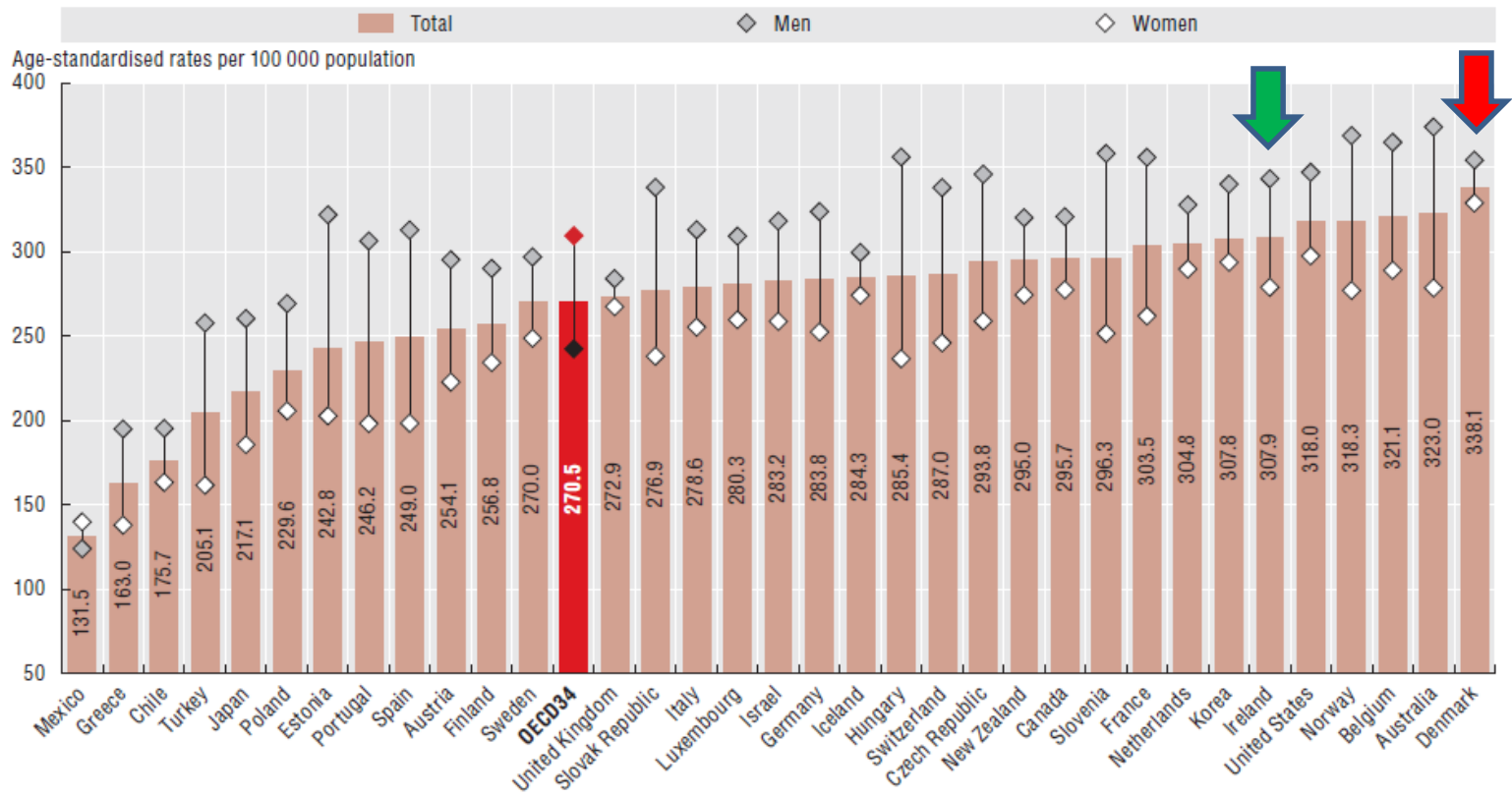
IRISH COFFIN

 **DANMARK**  **IRLAND**

Føttan, kl. 20.45 (Kanal 5)

Incidence of cancer: Denmark

3.20. All cancers incidence by gender, 2012



Source: International Agency for Research on Cancer (IARC), GLOBOCAN 2012.

Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016



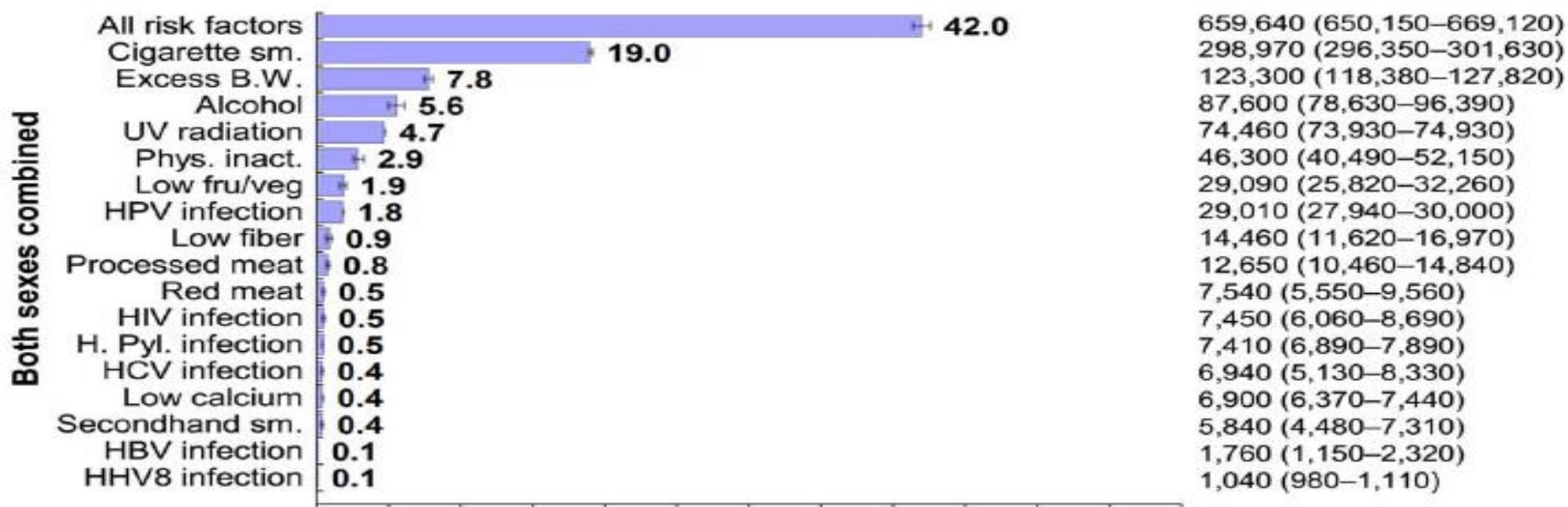
GBD 2016 Risk Factors Collaborators*



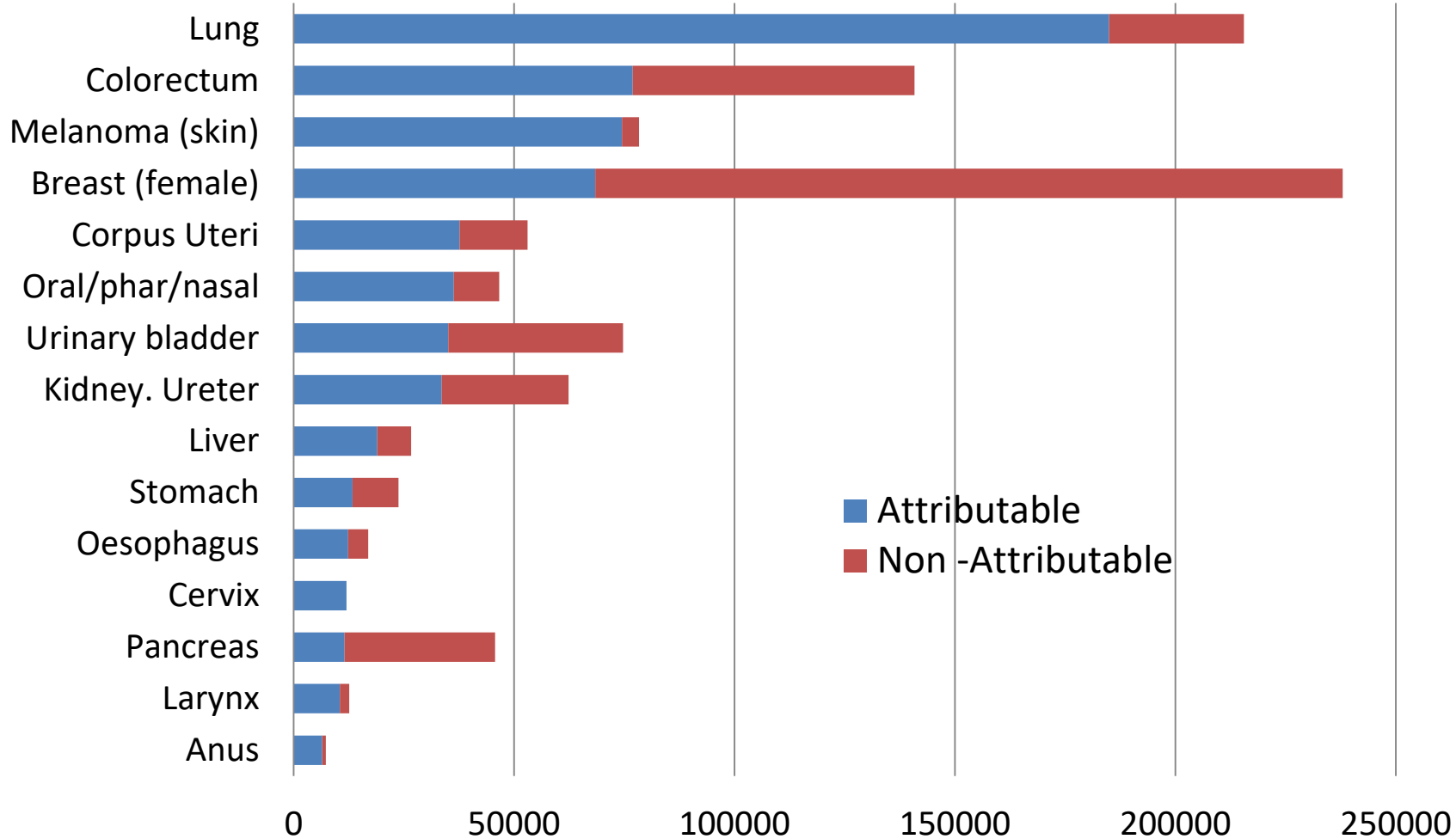
Lancet 2017; 390:1345-422

- 42.1% (38.9 – 45.3) of cancer deaths attributable to measured risk factors
- 39.8% (36.8 – 42.8) of Disability Adjusted Life Years attributable to risk factors
- Overall- why no great progress in reducing risk despite years of knowledge?
 - Low rate of investment in risk reduction compared with curative care, new diagnostics and therapeutics
 - The continuing challenge of changing many risky behaviours
 - Need more than Government action – societal issue

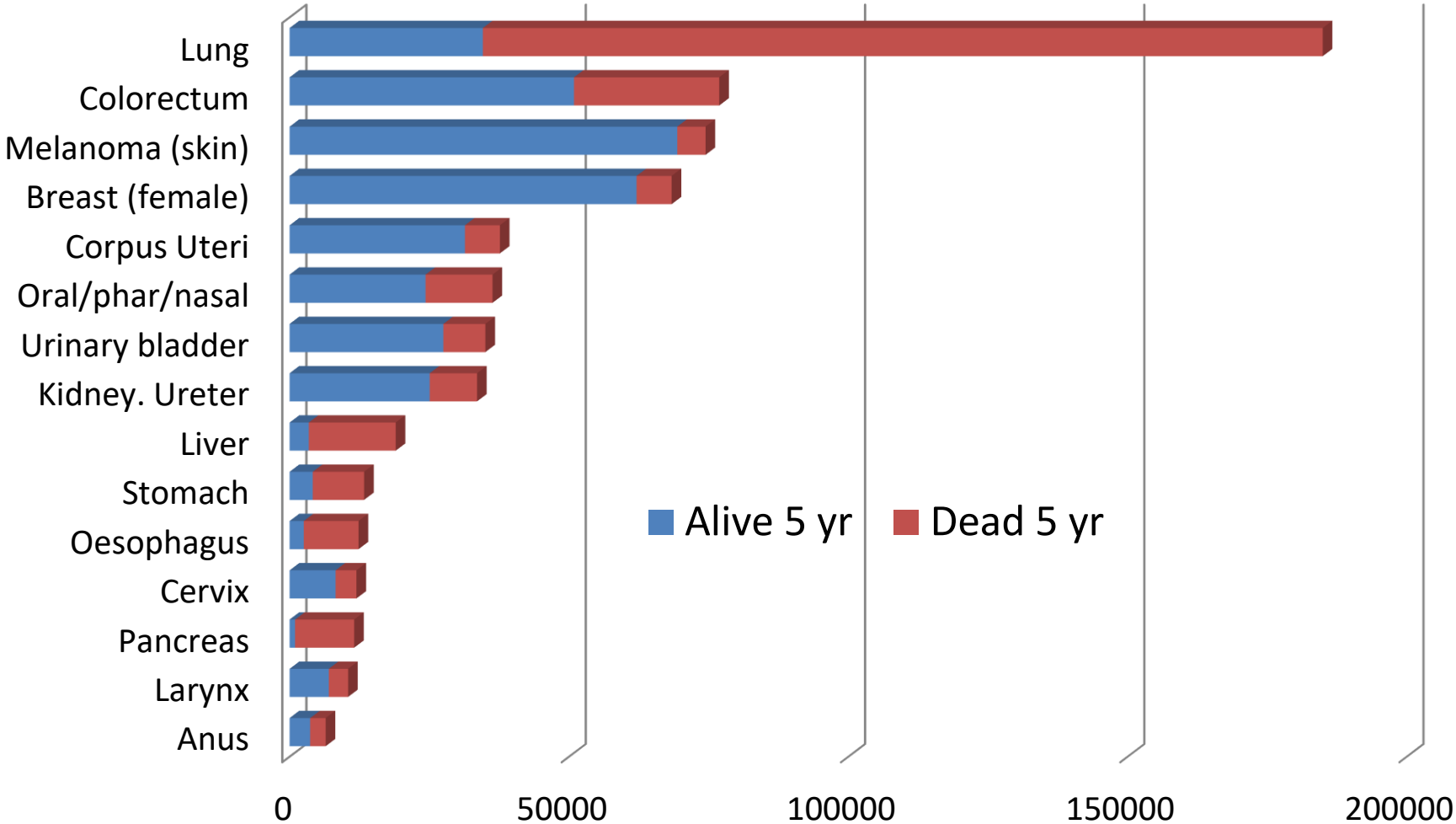
Estimated Proportion and Number of Incident Cancer Cases Attributable to Evaluated Risk Factors in Adults Aged 30 + in the US in 2014,



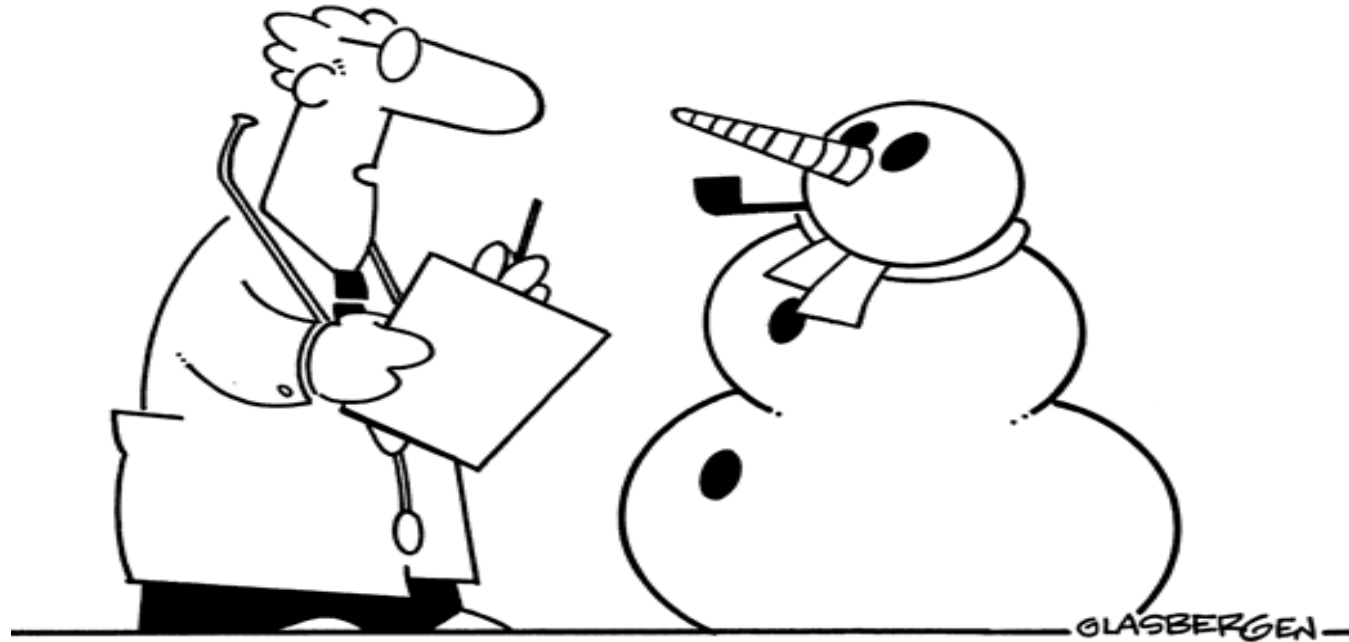
Number of incident cancer cases, top 15, attributable to evaluated risk factors



Number of incident cancer cases, top 15, attributable to evaluated risk factors, alive at 5 yrs.



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**“Lose some weight, quit smoking, move
around more, and eat the carrot.”**



Original Research

Why is changing health-related behaviour so difficult?

Michael P. Kelly ^{a,*}, Mary Barker ^b

^a Primary Care Unit, Institute of Public Health, Forvie Site, University of Cambridge, CB2 0SR, UK

^b MRC Lifecourse Epidemiology Unit, University of Southampton, Southampton General Hospital, Southampton, SO16 6YD, UK

Answer: Because policy makers make it so

Seek simple non-scientific-answers to complex problems

6 Common errors:

- It is just common sense
- It is about getting the message across
- Knowledge and information drive behaviour
- People act rationally
- People act irrationally
- It is possible to predict accurately

The Key to Changing Individual Health Behaviors: Change the Environments That Give Rise to Them

Brad Stulberg works for Kaiser Permanente and is also a freelance health writer. Opinions expressed are his own.

- Adopt a regressive inference approach
- Understand automatic and reflective behaviour
- Alter “choice architecture” NUDGE
- “Make Every Contact Count”
- No one size fits all
- Multilevel, multipronged
- Harness advances in behavioural science.



OPEN ACCESS

Return on investment of public health interventions: a systematic review

Rebecca Masters,^{1,2} Elspeth Anwar,^{2,3,4} Brendan Collins,^{2,4} Richard Cookson,⁵
Simon Capewell² Masters R, et al. *J Epidemiol Community Health* 2017;**71**:827–834. doi:10.1136/jech-2016-208141

	Median ROI	Range	Median CBR	Range
Overall	14.3	-21.3 to 221	8.3	0.7 to 29.4
Local	4.1	0.9 to 19.3	10.3	0.9 to 23.6
National	27.2	-21.3 to 221	17	0.7 to 29.4

ROI= Return on investment, CBR- Cost-benefit ratio



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS


SUSTAINABLE DEVELOPMENT GOALS

GLOBAL ACTION PLAN

FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

2013-2020



9 voluntary global NCD targets for 2025

- 25% ↓ Mortality from NCDs
- 10% ↓ in harmful use of alcohol
- 10% ↓ in physical inactivity
- 30% ↓ in tobacco use
- 0% ↑ in obesity
- 30% ↓ in salt intake
- 25% ↓ in raised Blood pressure
- 50% coverage drugs/counselling
- 80% coverage essential meds/technologies



ELSEVIER

Contents lists available at ScienceDirect

Cancer Epidemiology

The International Journal of Cancer Epidemiology, Detection, and Prevention

journal homepage: www.cancerepidemiology.net

European Code against Cancer 4th Edition: 12 ways to reduce your cancer risk[☆]

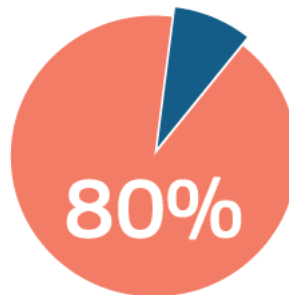


CHAPTER 1.

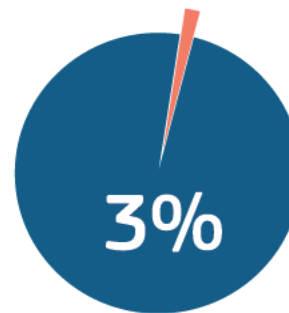
Switching the focus to prevention and the social determinants of health



“Health promotion and disease prevention are the key to enable people to live and age in good health.”



Non-communicable diseases account for up to 80% of HEALTH CARE COSTS



Yet only around 3% of health budgets are spent on PREVENTION



Prevention tackles non-communicable diseases effectively and efficiently

Healthy Ireland Framework



Government Ministers meeting Feb 2013

- Recognition of determinants of health and societal issues
- Health sector alone cannot address/solve the problems
- Requirement for inter-sectoral approach
- Shift emphasis from disease to health and wellbeing
- Essential for economic and social recovery and development



Jan 18th, 2018

Members of the Task Force for Fiscal Policy:

- **Michael R. Bloomberg**, Co-Chair
- **Lawrence H. Summers**, Co-Chair
- **Masood Ahmed**, President, Center for Global Development
- **Zeti Akhtar Aziz**, Former Central Bank Governor
- **Kaushik Basu**, Professor of Economics, Cornell University
- **Helen Clark**, Former UNDP Administrator; Former Prime Minister of New Zealand
- **Margaret Chan**, Former Director General, WHO
- **Bent Høie**, Minister of Health and Care Services, Norway
- **Ngozi Okonjo-Iweala**, Former Minister of Finance, Nigeria
- **Zhu Min**, Director, National Institute of Financial Research, Tsinghua University, China
- **Mauricio Cardenas**, Minister of Finance, Colombia
- **Minouche Shafik**, Director, London School of Economics
- **Nicola Sturgeon**, First Minister of Scotland
- **Tabaré Vázquez**, President of Uruguay

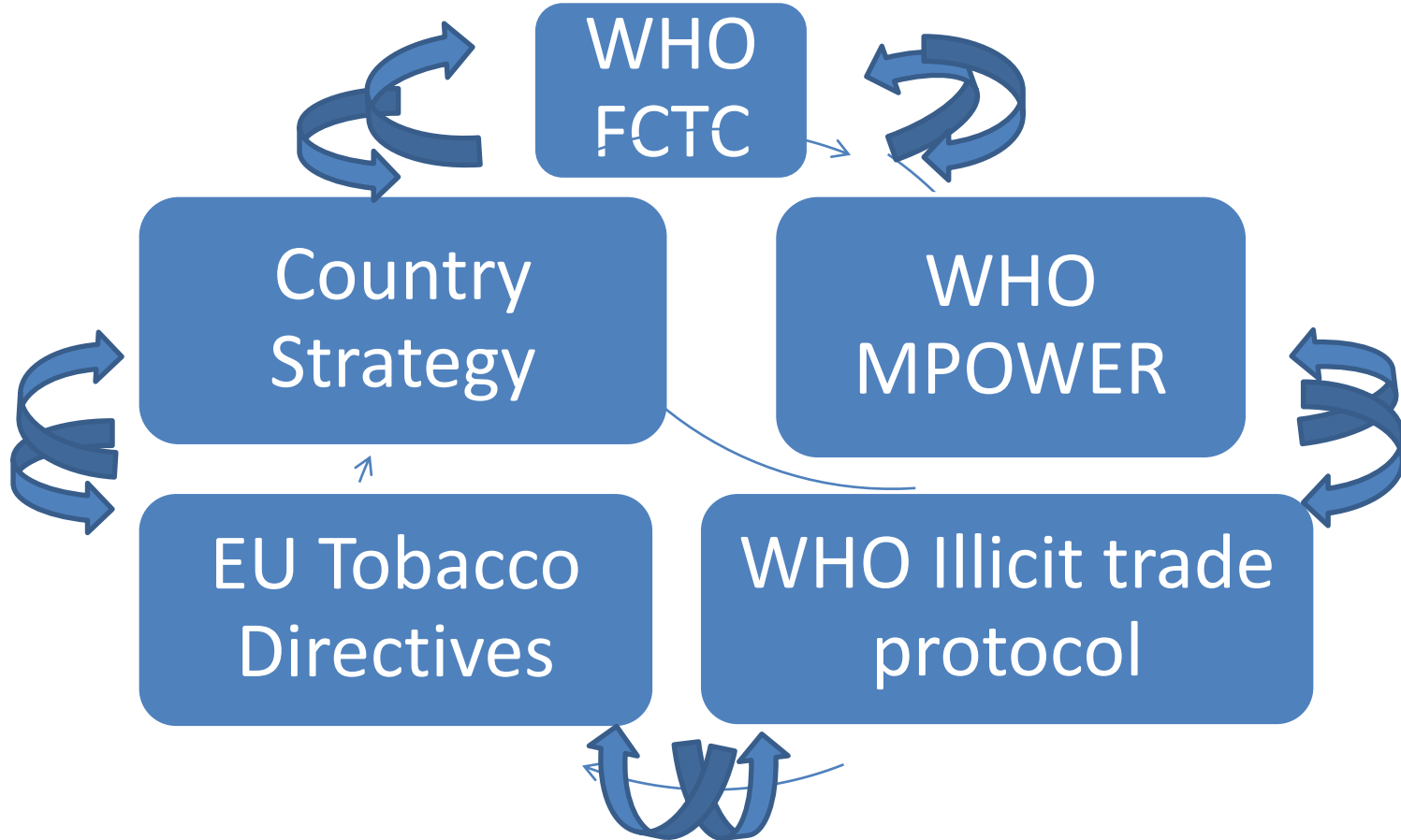
“Noncommunicable diseases are a growing global crisis, especially in low-and-middle income countries. There’s substantial evidence that taxes and fiscal policies are essential to confronting this health threat. This Task Force will explore which policies can make the biggest difference and help them spread, saving millions of lives.”

MIKE BLOOMBERG

“We have strong evidence from around the world that raising taxes on products like tobacco, sugar sweetened beverages and alcohol is highly effective at reducing harmful consumption and saving lives. I’m grateful for the commitment of this impressive group of leaders, whose expertise and experience will help the Task Force bring attention to the enormous potential of fiscal policies for health.”

LARRY SUMMERS

Tobacco Control



WHO Best Buys Oct 2017

Tobacco

'Best buys': effective interventions with cost effectiveness analysis (CEA) \leq I\$100 per DALY averted in LMICs,



- Increase excise taxes and prices on tobacco products
- Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages⁵
- Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship⁵
- Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places, public transport⁵
- Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second hand smoke⁵

Effective interventions with CEA $>$ I\$100 per DALY averted in LMICs,



- Provide cost-covered, effective and population-wide support (including brief advice, national toll-free quit line services) for tobacco cessation to all those who want to quit⁶

Other recommended interventions from WHO guidance (CEA not available)



- Implement measures to minimize illicit trade in tobacco products
- Ban cross-border advertising, including using modern means of communication
- Provide mobile phone based tobacco cessation services for all those who want to quit.



The Tobacco Industry's Challenge to the United Kingdom's Standardised Packaging Legislation – Global Lessons for Tobacco Control Policy?

Special Issue of the Queensland University of Technology Law Review on Plain Packaging, Forthcoming

21 Pages • Posted: 4 Aug 2017

[Jonathan Griffiths](#)

Queen Mary University of London, School of Law

Key tobacco industry challenges:

- The strength of the tobacco industry's evidence – ***was found to be below best scientific practice.***
- The proportionality of the measure – ***public health interest trumps the profit motive***
- Fundamental right of property – ***does not allow them to facilitate a health epidemic***
- Trade mark law and the right to use – ***you cannot let the “trade mark tail wag the health dog”***
- Legislative competence of MS to introduce such a measure – ***found to be compatible with TRIPS and aligned with FCTC***

Smoking cessation

- Co-ordinate smoking cessation
- Evidence based guidelines
- Target key risk groups
- Train frontline health care workers in smoking cessation
- Regulatory framework for nicotine products
- Invest in mass/social media

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“My doctor told me to stop smoking cold turkey. That was easy, because I never smoked cold turkey in the first place!”

Harm reduction

Annual Review of Public Health

Harm Minimization and Tobacco Control: Reframing Societal Views of Nicotine Use to Rapidly Save Lives

David B. Abrams,¹ Allison M. Glasser,² Jennifer L. Pearson,³ Andrea C. Villanti,⁴ Lauren K. Collins,² and Raymond S. Niaura¹

¹College of Global Public Health, New York University, New York, NY 10012, USA; email: David.B.Abrams@nyu.edu, niaura@nyu.edu

²Schroeder Institute for Tobacco Research and Policy Studies, Truth Initiative, Washington, DC 20001, USA; email: ag6507@nyu.edu, katz.laurenk@gmail.com

³School of Community Health Sciences, University of Nevada, Reno, Nevada 89557, USA;

⁴ *Annu. Rev. Public Health* 2018. 39:28.1–28.21

⁴Vermont Center on Behavior and Health, University of Vermont, Burlington, Vermont 05401, USA; email: andrea.villanti@uvm.edu

Annu. Rev. Public Health 2018. 39:14.1-14.21

Annual Review of Public Health

E-Cigarettes: Use, Effects on Smoking, Risks, and Policy Implications

Stanton A. Glantz¹ and David W. Bareham²

¹Center for Tobacco Control Research and Education and Department of Medicine, University of California, San Francisco, California 94143, USA; email: Stanton.Glantz@ucsf.edu

²Lincolnshire Community Health Services NHS Trust, Louth, LN11 0EU, United Kingdom; email: david.bareham@live.co.uk

Annu. Rev. Public Health 2018. 39:28.1-28.21

New Zealand Ministry of Health position statement – E-cigarettes 11 Oct 2017

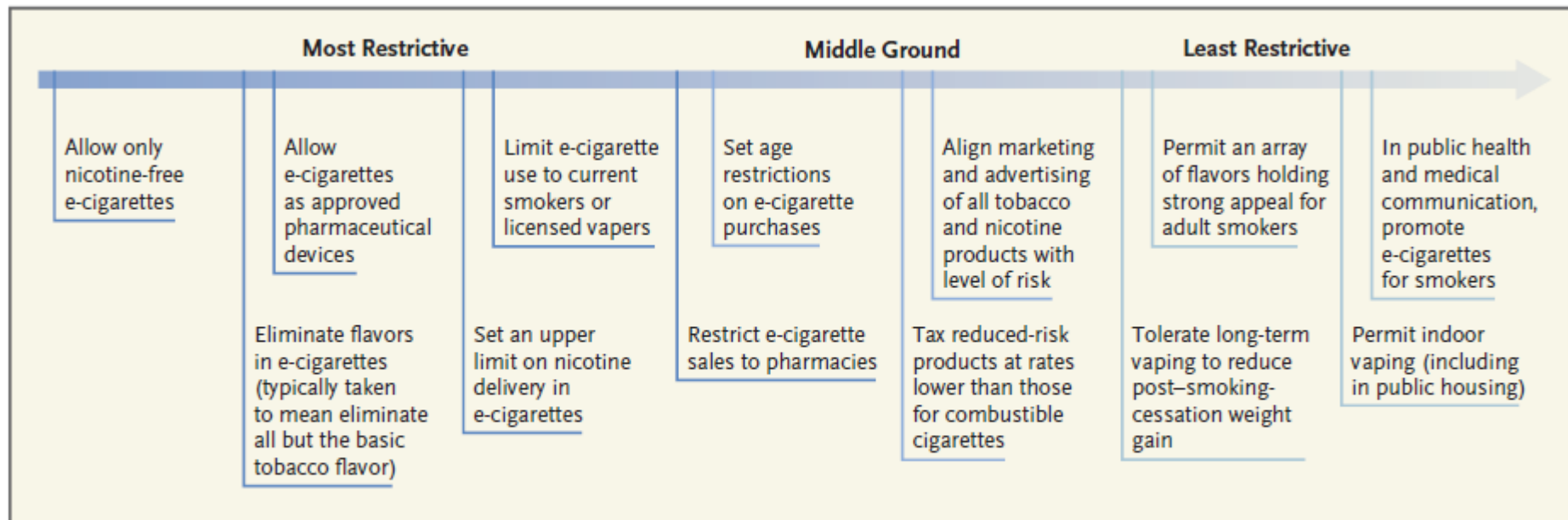
.....e-cigarettes have the potential to make a contribution to the Smokefree 2025 goal and could disrupt the significant inequities that are present

Australia Ministry of Health position statement –E-cigarettes 11 Jan 2018

...evidence supports maintaining and, where appropriate, strengthening the current controls that apply to the marketing and use of e-cigarettes in Australia.

E-Cigarettes and the Harm-Reduction Continuum

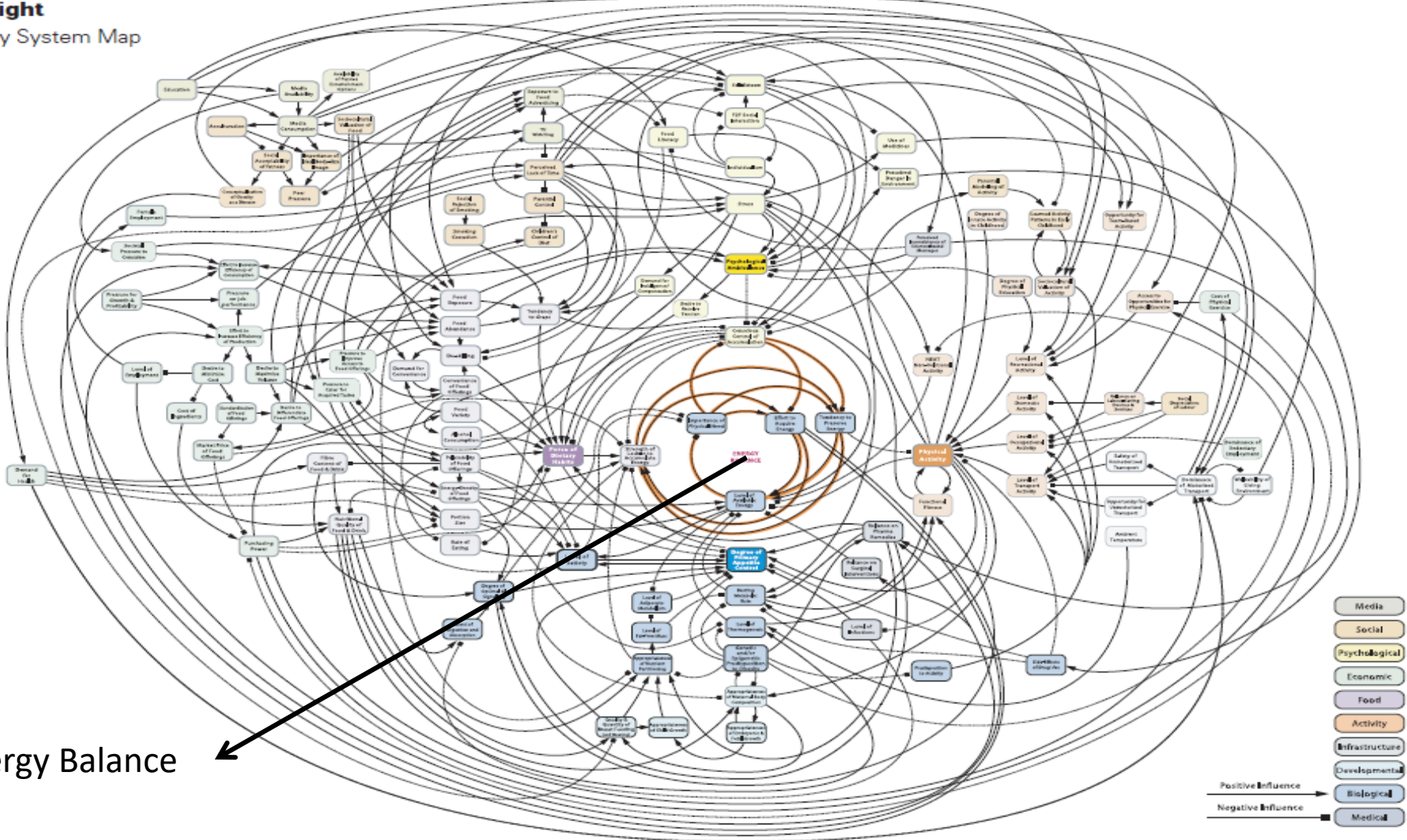
Amy L. Fairchild, Ph.D., M.P.H., Ju Sung Lee, M.H.A., Ronald Bayer, Ph.D., and James Curran, M.D., M.P.H.



Continuum of Proposed Harm-Reduction Policies for E-Cigarettes.

Information is from Medline (PubMed and ProQuest) and Factiva.

Obesity System Map



Energy Balance



WHO Best Buys Oct 2017

Diet

'Best buys': effective interventions with cost effectiveness analysis (CEA) \leq \$100 per DALY averted in LMICs



Reduce salt intake through the reformulation of food products to contain less salt and the setting of target levels for the amount of salt in foods and meals¹²

Reduce salt intake through the establishment of a supportive environment in public institutions such as hospitals, schools, workplaces and nursing homes, to enable lower sodium options to be provided

Reduce salt intake through a behaviour change communication and mass media campaign

Reduce salt intake through the implementation of front-of-pack labelling¹³

Effective interventions with CEA $>$ \$100 per DALY averted in LMICs



Eliminate industrial trans-fats through the development of legislation to ban their use in the food chain¹³

Reduce sugar consumption through effective taxation on sugar-sweetened beverages

Other recommended interventions from WHO guidance (CEA not available)

Promote and support exclusive breastfeeding for the first 6 months of life, including promotion of breastfeeding

Implement subsidies to increase the intake of fruits and vegetables

Replace trans-fats and saturated fats with unsaturated fats through reformulation, labelling, fiscal policies or agricultural policies

Limiting portion and package size to reduce energy intake and the risk of overweight/obesity

Implement nutrition education and counselling in different settings (for example, in preschools, schools, workplaces and hospitals) to increase the intake of fruits and vegetables

Implement nutrition labelling to reduce total energy intake (kcal), sugars, sodium and fats

Implement mass media campaign on healthy diets, including social marketing to reduce the intake of total fat, saturated fats, sugars and salt, and promote the intake of fruits and vegetables



I am only having one!

Published jco.org Nov 9th 2017

Alcohol and Cancer: A Statement of the American Society of Clinical Oncology

Noelle K. LoConte, Abenaa M. Brewster, Judith S. Kaur, Janette K. Merrill, and Anthony J. Alberg

Table 1. Summary of Relative Risks From a Meta-Analysis for the Association Between Amount of Alcohol Drinking and Risk of Cancer

Type of Cancer	Relative Risk (95% CI)			
	Nondrinker	Light Drinker	Moderate Drinker	Heavy Drinker
Oral cavity and pharynx	1.0 (referent)	1.13 (1.0 to 1.26)	1.83 (1.62 to 2.07)	5.13 (4.31 to 6.10)
Esophageal squamous cell carcinoma	1.0 (referent)	1.26 (1.06 to 1.50)	2.23 (1.87 to 2.65)	4.95 (3.86 to 6.34)
Larynx	1.0 (referent)	0.87 (0.68 to 1.11)	1.44 (1.25 to 1.66)	2.65 (2.19 to 3.19)
Liver	1.0 (referent)	1.00 (0.85 to 1.18)	1.08 (0.97 to 1.20)	2.07 (1.66 to 2.58)
Female breast	1.0 (referent)	1.04 (1.01 to 1.07)	1.23 (1.19 to 1.28)	1.61 (1.33 to 1.94)
Colorectum	1.0 (referent)	0.99 (0.95 to 1.04)	1.17 (1.11 to 1.24)	1.44 (1.25 to 1.65)

NOTE. Adapted from results of Bagnardi et al (2015).²⁸

WHO
Best Buys
Oct 2017
Alcohol

'Best buys': effective interventions with cost effectiveness analysis (CEA) \leq \leq \$100 per DALY averted in LMICs



Increase excise taxes on alcoholic beverages⁷

Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)⁸

Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)⁹

Effective interventions with CEA $>$ \$100 per DALY averted in LMICs



Enact and enforce drink-driving laws and blood alcohol concentration limits via sobriety checkpoints¹⁰

Provide brief psychosocial intervention for persons with hazardous and harmful alcohol use¹¹

Other recommended interventions from WHO guidance (CEA not available)



Carry out regular reviews of prices in relation to level of inflation and income

Establish minimum prices for alcohol where applicable

Enact and enforce an appropriate minimum age for purchase or consumption of alcoholic beverages and reduce density of retail outlets

Restrict or ban promotions of alcoholic beverages in connection with sponsorships and activities targeting young people

Provide prevention, treatment and care for alcohol use disorders and comorbid conditions in health and social services

Provide consumer information about, and label, alcoholic beverages to indicate, the harm related to alcohol

Effectiveness of mass media campaigns to reduce alcohol consumption and harm: a systematic review

Ben Young, Sarah Lewis, Srinivasa Vittal Katikireddi, Linda Bauld, Martine Stead, Kathryn Angus, Mhairi Campbell, Shona Hilton, James Thomas, Kate Hinds, Adela Ashie, Tessa Langlely

Interpretation Mass media can improve alcohol-related knowledge and awareness but according to the available evidence does not appear to reduce consumption. Campaigns may have an indirect effect on behaviour by providing support for other policies more likely to reduce alcohol consumption.

Alcohol and Alcoholism, 2018, 1-15

WHO

Best Buys

Oct 2017

Physical Activity

'Best buys': effective interventions with cost effectiveness analysis (CEA) \leq I\$100 per DALY averted in LMICs



Implement community wide public education and awareness campaign for physical activity which includes a mass media campaign combined with other community based education, motivational and environmental programmes aimed at supporting behavioural change of physical activity levels*

Effective interventions with CEA $>$ I\$100 per DALY averted in LMICs



Provide physical activity counselling and referral as part of routine primary health care services through the use of a brief intervention¹⁴

Other recommended interventions from WHO guidance (CEA not available)



Ensure that macro-level urban design incorporates the core elements of residential density, connected street networks that include sidewalks, easy access to a diversity of destinations and access to public transport¹⁵

Implement whole-of-school programme that includes quality physical education, availability of adequate facilities and programs to support physical activity for all children

Provide convenient and safe access to quality public open space and adequate infrastructure to support walking and cycling

Implement multi-component workplace physical activity programmes

Promotion of physical activity through organized sport groups and clubs, programmes and events

Slip

Slop

Slap

Seek

Slide

Smut

Slask

Smæk

Søg

Sæt



Fem måder du kan beskytte dig selv for hudcancer på

Sunlight exposure: risks and benefits

NICE guideline

Published: 9 February 2016

[nice.org.uk/guidance/ng34](https://www.nice.org.uk/guidance/ng34)

WHO Best Buys Oct 2017

Immunisation – infectious diseases

'Best buys': effective interventions with cost effectiveness analysis (CEA) \leq I\$100 per DALY averted in LMICs Vaccination against human papillomavirus (2 doses) of 9–13 year old girls



Other recommended interventions from WHO guidance (CEA not available) Prevention of liver cancer through hepatitis B immunization



Treating *Helicobacter pylori* infection

HOW IRELAND RESCUED FALLING HPV VACCINATION RATES

Editorial Team
January 24th, 2018



<https://www.vaccinestoday.eu/stories/ireland-rescued-falling-hpv-vaccination-rates/>

@vaccinesToday

Jan 2015	87%
Aug 2016	70%
Jan 2017	50%
Dec 2017	61%



Simon Harris TD ✓
@SimonHarrisTD

Really great news -big increase in uptake of life saving HPV vaccination! Proud to work with many dedicated people in @HSELive & HPV Alliance to bring this about. No room for complacency. Must continue to debunk myths. Thanks @susmitchellSBP for highlighting importance of this twitter.com/susmitchellsbp...

10:10 AM - Dec 3, 2017

21 165 601

- HSE National Immunisation Office created a HPV specific microsite on own website
- Redesigned materials for parents/schools to address concerns
- Factsheets developed for teachers, schools, GPs and pharmacists
- Radio and TV ads encouraged vaccination for HPV
- Social media friendly supportive videos
- Effective Twitter and Facebook campaigns to reach target audiences
- HPV Vaccination Alliance involving 40+NGOs – health, children and women’s groups.
- Message simple – women will die needlessly from cervical cancer
- Politicians and high profile health advocates supportive

International Perspectives on Cancer Prevention

- Need to focus on primary prevention in cancer control,
- Cancer prevention has a strong supportive evidence base,
- Cancer prevention is highly cost effective,
- Cancer prevention requires strong public health systems,
- Cancer prevention requires effective public policy interventions,
- Cancer prevention requires societal and political engagement,
- Cancer prevention requires strong public health advocacy,
- Cancer prevention – succeeds when nothing happens, the beneficiaries of prevention are statistical non-victims,
- Cancer prevention requires teamwork between and across Government, the administrative system and civil society,
- Cancer prevention **is** a **Political/political** issue.