From Evidence to Practice – Opportunities and Challenges in Obesity-related Cancer Prevention

Dr Giota Mitrou, Acting Director of Research and Public Affairs
World Cancer Research Fund International
GLOBAL CANCER DATA 2018

Global cancer incidence

- **The Americas**: 21.0%
  - Number of cases: 3,792,000

- **Europe**: 23.4%
  - Number of cases: 4,230,000

- **Asia**: 48.4%
  - Number of cases: 8,751,000

- **Africa**: 5.8%
  - Number of cases: 1,055,000

- **Oceania**: 1.4%
Global Burden of Obesity

<table>
<thead>
<tr>
<th>Total people living with obesity</th>
<th>1975</th>
<th>2016</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults (&gt;19 years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>31 million</td>
<td>281 million</td>
<td>671 million</td>
</tr>
<tr>
<td>Women</td>
<td>69 million</td>
<td>390 million</td>
<td></td>
</tr>
<tr>
<td>Children (5—19 years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>6 million</td>
<td>74 million</td>
<td>124 million</td>
</tr>
<tr>
<td>Girls</td>
<td>5 million</td>
<td>50 million</td>
<td></td>
</tr>
</tbody>
</table>

Percentage prevalence of people living with obesity, by sex and country

Urgent need to...

Evidence-Based Collaboration For Obesity Cancer Prevention

- Translate the scientific evidence into tangible evidence-based policy recommendations
- Consider the role of science and policy evidence in legal challenges to regulatory measures
- Discuss the role of evidence-informed advocacy to increase public and policy awareness
- Take into account practical interventions working with private sector
Session Outline

• Dr Giota Mitrou (World Cancer Research Fund International) - Key Findings from WCRF International’s Third Expert Report (2018) on Diet, Nutrition, Physical Activity and Cancer: A Global Perspective and updated Cancer Prevention Recommendations-10min

• Ms Louise Meincke (World Cancer Research Fund International) - Policy framework approaches to make tangible policy interventions: Using / Recommendations based on scientific findings-10min

• Ms Daiana Buresova (Pacific McCabe Centre for Law and Cancer) - Pacific insights on the role of evidence in shaping the development and implementation of obesity policy-10min

• Mr Craig Sinclair (Cancer Council Victoria) - Taking a Multi-component Approach to Tacking Obesity-10min

• Ms Gitte Laub Hansen (Danish Cancer Society) - Bringing the gap by working across sectors to tackle obesity-10min

• Ms Abigail Brown (Cancer Research UK) - Working cross-organizationally to create impact: Marketing in a whole system approach to tackling obesity-10min

• Discussion-30min
From Evidence to Practice – Opportunities and Challenges in Obesity-related Cancer Prevention


Dr Giota Mitrou, Acting Director of Research and Public Affairs
World Cancer Research Fund International
History of the expert reports

The Third Expert Report builds on the groundbreaking achievements of the First and Second Expert Reports.
The Third Expert Report: Online access

Diet, Nutrition, Physical Activity and Cancer: a Global Perspective
A summary of the Third Expert Report

dietandcancerreport.org
Continuous Update Project (CUP)

• Rigorous, systematic and ongoing programme
• Trusted, authoritative scientific resource
• Provides the most up-to-date information on reducing cancer risk

wcrf.org/about-the-report
dietandcancerreport.org
Findings – Strong Evidence for Recommendations
Diet, nutrition, physical activity and the cancer process

Potential impact of diet, nutrition, physical activity and height in increasing susceptibility to cancer

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Systemic impact</th>
<th>Cell function</th>
<th>Tissues possibly affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyperinsulinemia</td>
<td>mTOR/PI3K/AKT, MAPK</td>
<td>Reduced apoptosis; increased proliferation, genome instability</td>
<td></td>
</tr>
<tr>
<td>Increased oestradiol</td>
<td>MAPK/ERK/PI3K</td>
<td>Increased proliferation in ER+ tissues; genome instability</td>
<td></td>
</tr>
<tr>
<td>Inflammation</td>
<td>STAT3/NF-κB</td>
<td>Reduced apoptosis, increased cell division, altered macrophage function, etc.; genome instability</td>
<td></td>
</tr>
<tr>
<td>E.g. WNT, P53</td>
<td></td>
<td>E.g. cellular energetics, etc.</td>
<td></td>
</tr>
</tbody>
</table>

Factors

Greater body fatness

Factors: Nutrients, Energy intake, Phytochemicals, Other food components, Alcohol, Physical activity, Smoking, Other lifestyle factors

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wcrf.org/cancer-process
dietandcancerreport.org
Key findings

• Evidence linking overweight and obesity to cancer has grown stronger over the past decade

• Separate recommendations on:
  - sugar-sweetened drinks
  - fast foods and other processed foods
Factors fueling obesity

- Regularly drinking sugar-sweetened drinks increases cancer risk
- Fast foods and other processed foods also increase cancer risk through causing weight gain, overweight and obesity
Recommendations – an overall package

Not smoking and avoiding other exposure to tobacco and excess sun are also important in reducing cancer risk. Following these Recommendations is likely to reduce intakes of salt, saturated and trans fats, which together will help prevent other non-communicable diseases.
Importance of policy action

• Critical to consider the environment in which people make choices, as behaviour is influenced by environmental, economic and social factors

• Understanding these ‘upstream’ determinants of cancer risk highlight opportunities for policy action

• Public health policies that prioritise prevention, in the form of laws, regulations and guidelines, are critical to preventing cancer and other NCDs
Thank you
Using policy framework approaches to make tangible policy interventions/recommendations based on scientific findings

SESSION: From evidence to practice – opportunities and challenges in obesity-related cancer prevention

Louise Meincke
Head of Policy and Public Affairs
World Cancer Research Fund International
Overview

• Global context
• Using frameworks for policy action – WCRF International examples
• Calls to action
Global targets

By 2025:
• Halt the rise in diabetes and obesity
• A 25% relative reduction in risk of premature mortality from four main NCDs

Target 3.4  By 2030, reduce by one third premature mortality from non-communicable diseases
Action needed across all sectors
Using a policy framework to approach to support action

Policy frameworks can help policymakers to:

- **conceptualise, organise** and **package** policies to address risk factors
- **plan, develop, implement** and **evaluate** policies
- **identify** available **policy levers** and **policy options** that can be used to create health-enhancing environments
- **develop a comprehensive policy approach**, which can be **adapted** to reflect national contexts to achieve system-wide change
# Our NOURISHING framework

| N | Nutrition label standards and regulations on the use of claims and implied claims on food |
| O | Offer healthy food and set standards in public institutions and other specific settings |
| U | Use economic tools to address food affordability and purchase incentives |
| R | Restrict food advertising and other forms of commercial promotion |
| I | Improve nutritional quality of the whole food supply |
| S | Set incentives and rules to create a healthy retail and food service environment |
| H | Harness food supply chain and actions across sectors to ensure coherence with health |
| I | Inform people about food and nutrition through public awareness |
| N | Nutrition advice and counselling in health care settings |
| G | Give nutrition education and skills |

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Our Driving Action framework

- Diet
- Physical activity
- Breastfeeding
- Alcohol consumption
Fiscal policies

**Diet:** Health-related taxes (e.g. sugar sweetened beverages)

**Physical activity:** Incentives, tax deductions and targeted subsidies to support participation in physical activity

**Alcohol:** Excise taxes on alcoholic drinks

**Breastfeeding:** Maternity leave cash benefit
Healthy urban design

**Diet:** Planning restrictions on food outlets

**Physical activity:** Transport planning policies, systems and infrastructure that prioritise walking, cycling and use of public transport

**Alcohol:** Restrictions on density of on-premise and off-premise alcohol outlets and integration of public health considerations into relevant planning laws

**Breastfeeding:** Implement policies that encourage and support women to breastfeed in public
Driving Action – accompanying policy brief

DRIVING ACTION 
TO PREVENT CANCER 
AND OTHER 
NON-COMMUNICABLE 
DISEASES

a new policy framework for promoting 
healthy diets, physical activity, breastfeeding 
and reducing alcohol consumption

www.wcrf.org/drivingaction
More action is urgently needed

• Important policy actions are being taken around the world, but action to date has been insufficient

• More concerted action is needed to achieve the global target of reducing premature deaths from NCDs, including cancer, by 25 per cent by 2025 and to achieve the related Sustainable Development Goals

• Our evidence-based Cancer Prevention Recommendations can help inform policy action to benefit all

• The new policy framework can be used by governments to identify policy actions to help create environments conducive to following the 2018 Cancer Prevention Recommendations
Pacific insights: the role of evidence in shaping the development and implementation of obesity policy

SESSION: From evidence to practice – opportunities and challenges in obesity-related cancer prevention

Daiana Buresova
Regional Coordinator for the Pacific
McCabe Centre for Law and Cancer
NCDs impose a massive burden on the Pacific

- The probability of dying from an NCD in the Pacific is high — 70% for most PICs
- Most deaths are premature

Seven Pacific countries are in the top 10 for the world’s highest diabetes prevalence

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Prevalence of diabetes (as percentage of 20-79 year olds, in 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tokelau</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Nauru</td>
<td>24.1</td>
</tr>
<tr>
<td>3</td>
<td>Mauritius</td>
<td>22.3</td>
</tr>
<tr>
<td>4</td>
<td>Cook Islands</td>
<td>21.5</td>
</tr>
<tr>
<td>5</td>
<td>Marshall Islands</td>
<td>21.3</td>
</tr>
<tr>
<td>6</td>
<td>Palau</td>
<td>20.9</td>
</tr>
<tr>
<td>7</td>
<td>Saudi Arabia</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>Kuwait</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>Qatar</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>New Caledonia</td>
<td>19.6</td>
</tr>
</tbody>
</table>

Source: International Diabetes Federation.
Pacific: high prevalent risk factors

The Pacific has high overweight and obesity levels

The top seven most obese countries in the world are in the Pacific. Tonga (58%) and Samoa (54%) have the highest obesity rates. This is much higher than the 13% global average.
Policy Intervention: Taxation in Tonga on unhealthy food products

- Tonga’s WTO membership saw national customs reform and a simplification of the tariff band structure. Tonga currently has six tariff bands ranging from 0 to 20%.

- The 5% tariff rate was introduced in August 2013 as a reduced tariff rate to encourage the consumption of fish; otherwise the bands have remained unchanged.

- Evaluation of regulatory measures focusing on two NCD risk factors: tobacco and unhealthy diets.

- The Government of Tonga commissioned by FAO from the C-Pond to assess the effectiveness of food taxation in Tonga.

<table>
<thead>
<tr>
<th></th>
<th>OLD RATE</th>
<th>NEW RATE</th>
<th>AVERAGE PRICE (TOP) AS AT MARCH 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey tails</td>
<td>-</td>
<td>$1.50 per kg excise duty</td>
<td>$5.50 per kg</td>
</tr>
<tr>
<td>Chicken leg quarters</td>
<td>-</td>
<td>40 sentil per kg excise duty</td>
<td>$3.50 per kg</td>
</tr>
<tr>
<td>Mutton flaps/lamb breast &amp; flaps</td>
<td>-</td>
<td>15% customs duty</td>
<td>$13 per kg</td>
</tr>
<tr>
<td>Mayonnaise</td>
<td>-</td>
<td>15% customs duty</td>
<td>$15-18 for 500g jar</td>
</tr>
<tr>
<td>Lard/dripping</td>
<td>$1.00 per kg</td>
<td>$2.00 per kg</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Evidence-based evaluation

• It is part of a wider World Bank Group study undertaken in close consultation with a range of stakeholders.

• Assess the impacts of NCD related taxation on price, consumption and government revenue.

**Aim of the study is to:**

(i) strengthen the monitoring of NCD related tax;

(ii) improve the design of future NCD related taxation policy as well as non-taxation policy; and

(iii) share the Tonga experiences with other countries that face similar NCD and obesity burdens.
Preliminary findings: World Bank study in Tonga

- Positive impacts have been observed from the NCD tax policy.
- Food consumers do not always respond to price increase – behaviours depend on food products. E.g. tax on turkey tails and mutton flaps helped reduce consumption, but had limited effects on consumption of chicken leg quarters.
- Lack of affordable healthy food alternatives remain a major issue.
- Comprehensive menu of policy options to address the high prevalence of obesity in Tonga.
Evidence-based collaboration
World Bank and a multi-sectoral approach

- Government of Tonga
- Australian Department of Foreign Affairs and Trade
- New Zealand Ministry of Foreign Affairs and Trade
- The Food and Agriculture Organization (FAO)
- World Health Organization
- Pacific Community (SPC)
- Development partners
- Civil society organisations
- Church groups
- Private sector
Thank you for your attention
Multi-Component Approaches to Tackling Obesity

Adjunct Associate Professor Craig Sinclair
Head, Prevention Division
Cancer Council Victoria
Driving our consumption
Multi-Component Approach to tackle Obesity

LIVELIGHTER

Obesity Policy Coalition

Rethink Sugary Drink.org.au

Achievement Program

Parents' Voice

Cancer Council Victoria
Multi-Component Approach to tackle Obesity
8 AREAS OF ACTION

- Paid advertising
- Policy related activities
- Health professional training
- Partnership communications
- Stakeholder engagement
- Informative website
- Social media
- Unpaid media / public relations

Grabbable Gut Outside

Means Toxic Fat Inside
Economic modelling by researchers at Deakin University has found a three year campaign funded at $9.8M over 3 years across Victoria would:

- save $51.3M healthcare system costs and 2,743 years of life
- gain 4,546 health adjusted life years over the lifetime of the population.
- Every $1 invested in the campaign will return an estimated $5.22 in healthcare cost savings

Ref: McCaffrey et al – awaiting publication
Sports drinks are gammin! Go for water instead

Think you need a sports drink after exercise? Think again!

Sports drinks are genuine energy drinks. Regular consumption is bad for your teeth and can lead to weight gain, increasing the risk of type 2 diabetes, heart and kidney disease.

So the next time you feel like a sports drink, go for water instead. It’s free, convenient and the best way to hydrate.

Rethink Sugary Drink partner organisations

AP dinata
ADA
Cancer Council
Diabetes Australia
Healthier Workplace WA
Kidney Health
LIVELIGHTER
Obesity Policy Coalition
Parents’ Voice
Public Health Association of Australia
Royal Australasian College of Dental Surgeons
Vacchio
YMCA
Our policy work

The Obesity Policy Coalition advocates to influence change through policy and regulation to improve diets and help prevent obesity, particularly in children.

Our campaigns

Overbranded, Underprotected
A comprehensive analysis on how the food industry is failing to protect children from unhealthy food marketing with its self-regulated codes, and what needs to be done to improve the system.

Media

Tuesday 28 August 2018
OPC welcomes $2.25m fine against Heinz for marketing high sugar toddler snacks as healthy.

Friday 3 August 2018
Public health groups applaud Queensland’s actions to improve diets and address obesity.
Tipping the Scales

8 critical actions Australia must take to tackle obesity

1. Toughen restrictions on TV junk food advertising to kids
2. Set food reformulation targets
3. Make Health Star Ratings mandatory
4. Develop an active transport strategy
5. Fund public health education campaigns
6. Add a 20% health levy to sugary drinks
7. Establish a national obesity taskforce
8. Monitor diet, physical activity, weight guidelines
You may not be able to please all stakeholders....

“......There is NO room for fat phobia in health care, and "health campaigns" - stop pretending you've looked at "unintended consequences" when the only measure you're looking it is stigmatising attitudes? NO NO NO.... I AM FURIOUS.”

Stakeholder participant
20K+ followers
Challenges for Cancer Organisations

• Crowded space with other NGOs; Cancer Organisations need a point of differentiation
• Hard to measure impact unless you focus on very specific behavioural outcomes, eg reducing SSBs
• Extremely difficult to reduce weight gain at a population level
• Fighting the ultra-processed food industry is an up-hill battle
• Counter efforts by those working in the body image arena can undermine efforts and need careful management
Opportunities

• Explaining the relationship between obesity and cancer provides new information to the general public

• Delivering public education legitimises cancer organisations having a role in advocating for policy changes

• We need to see our engagement working in the obesity area as we have with tobacco and UV – over the long term.
Bridging the gap by working across sectors to tackle obesity

SESSION: From evidence to practice - opportunities and challenges in obesity-related cancer prevention

Gitte Laub Hansen
Danish Cancer Society
“In 2015 customers in a large Danish retail chain bought 5% less calories, that equals 3.800 tons of butter”

– Gitte Laub Hansen
Calorie Accounting
## Interventions

- Reformulation
- Supermarket brochures (special offers)
- Shelf space management
- Downsizing

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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<tbody>
<tr>
<td>Index for Kcal turnover</td>
<td>100</td>
<td>110</td>
<td>120</td>
<td>131</td>
</tr>
<tr>
<td>Index for Dkr. turnover</td>
<td>100</td>
<td>114</td>
<td>126</td>
<td>137</td>
</tr>
<tr>
<td>% calorie reduction</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Kcal reduction Billion Kcal</td>
<td>0</td>
<td>16.7</td>
<td>24.6</td>
<td>27.3</td>
</tr>
</tbody>
</table>
Cornerstones in the success of the Danish Wholegrain Partnership

1. Documentation
2. Organization
3. Campaign
4. Availability
1. Documentation

EVIDENCE BASE – MONITORING EFFECT

- **Mean intake g WG per day**
  - Children (4-14)
  - Adults

- **Number of logo labelled WG products**
  - 2009: 150
  - 2010: 190
  - 2011: 310
  - 2012: 557
  - 2013: 604
  - 2014: 661
  - 2015: 681
  - 2016: 684
  - 2017: 800
2. Organization
DIFFERENT PARTNER ROLES

Business

Commercial partners
- Millers
- Bread, rice, pasta producers
- Retailers
- Craft bakeries
- Cereal producers

The Danish Whole Grain Partnership
Secretariat

Health

Credibility, dietary guideline

Research, PR, knowledge

New Norms

Danish Food Administration and Health NGO’s
- Danish Cancer Society
- The Danish Heart Foundation
- The Danish Diabetes Association

Availability

Product development

On pack communication
4. Availability
SUPPLY AND DEMAND

Business
Incentives for reformulation new products with good taste

Supply

Consumers
Identification Trustworthy brand with health benefits

Demand

- Logo manual
- Category specific criteria
- Exclusion of unhealthy products
- Membership fee

- Communication of the dietary guidelines
- Link to the Keyhole labelling
- National Food Agency control use
From evidence to practice - when should you collaborate with food industry?

**IMPLICATIONS**

- When regulation of the market is not an option
- When improving knowledge of a healthy diet is not effective
- You can agree common goals
- You can exploit industry incentives to change
- You are willing to work long term and share legitimacy
- You continuously work evidence based and document progress
Thank you for your attention

Gitte Laub Hansen
Danish Cancer Society
glh@cancer.dk
From evidence to practice – opportunities and challenges in obesity-related cancer prevention

Working cross-organizationally to create impact:
Marketing in a whole system approach to tackling obesity

Abigail Brown, Head of Health Campaigns and Marketing, Cancer Research UK

Effective public health policy = behaviour change

Create policy-genic environment

Raise Awareness
Awareness of overweight/obesity as a risk factor is low

- Smoking: 82%
- Alcohol: 54%
- Sunburn: 25%
- Overweight: 15%

Cancer Research UK Cancer Awareness Measure, ONS, 2017
Obesity Milestones

**2016**
- **July**: CRUK study on influence of Junk Food Marketing on kids launches Public Affairs Junk Free TV campaign
- **September**: CRUK Obesity awareness study (3 in 4 unaware obesity is a cause of cancer)

**2017**
- **October**: SCOTTISH Govt consultation on new diet & obesity strategy
- **April**: Sugary drinks tax passed
- **Autumn**: Public Affairs team push Govt to commit to tougher Childhood Obesity Plan

**2018**
- **April**: Sugary drinks tax introduced
- **March**: National advertising live
- **July onwards**: Childhood Obesity Plan 2 consultation (inc ban on Junk Food Marketing post 9pm on TV)
- **October**: National advertising live

**Jan – March**: Link between Junk Food Marketing, consumption and obesity in young people published
Objective: To raise awareness of the link between obesity and cancer

Audience: UK-wide adults age 30-60

Media: Multi-channel: Outdoor, Radio, Digital, Social Media, Press & PR. Piloted in 1 region, then rolled-out nationally

Insight: Important message needs to be clear and strong. Comparing obesity to smoking as the second biggest preventable cause of cancer, stops people in their tracks
OB_S__Y is a cause of cancer

Guess what is the biggest preventable cause of cancer after smoking.
55% had seen the campaign
37% recognised the poster
Campaign impact: We asked the public, ‘what things affect a person’s chance of getting cancer?’

PRE CAMPAIGN

POST CAMPAIGN

Awareness increased by 26% pnts

% mentioned overweight/obesity spontaneously
Campaign impact: Alongside lobbying, the campaign positioned CRUK as an established voice on obesity

Positive comment from Members of Parliament including Sharon Hodgson, shadow Public Health Minister

Launch story mentioned as ‘must read’ in the Times Red Box (brief for MPs)

96% MPs agreed it was important message

82% MPs felt campaign was relevant to them
The campaign controversy ultimately got the issue talked about so overall it was a positive outcome.
Big Mac anyone?
3 key learnings

• Be prepared to defend the evidence base
• Establish clear roles and responsibilities
• Max out press opportunities
THANK YOU

Together we will beat cancer