

# Changing Behaviour across Populations and Politicians

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UNIVERSITY OF  
CAMBRIDGE



# Changing Behaviour across Populations and Politicians

- I The Challenge
- II Changing behaviour across populations
- III Changing behaviour across politicians

# The Challenge



## The Vision

Healthy diets for all

Produced within planetary boundaries

## The Prize

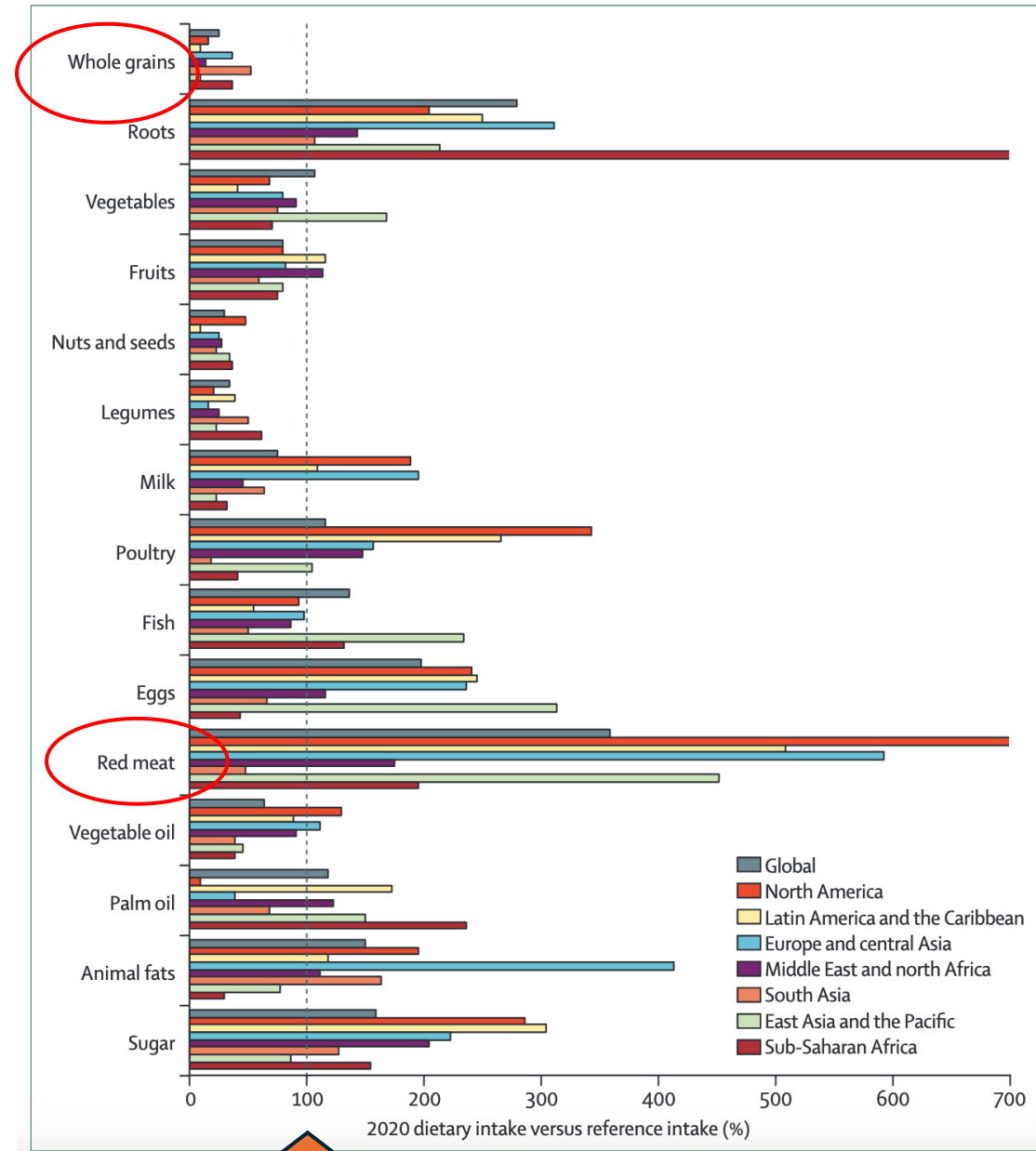
15 million premature deaths averted

15 % green house gas emissions cut

## The Priority

Today, and probably into the future, **dietary change** can deliver environmental benefits on a scale not achievable by producers.

Poore + Nemecek Science 2018



EAT-Lancet Commission 2025

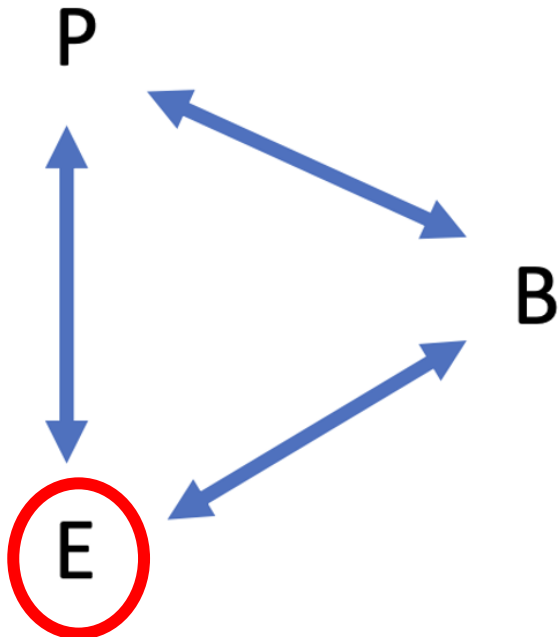
# Changing Behaviour at Scale

## Two Useful Models

### Interactionist Models

**B f P x E**

Any behaviour (**B**) is a function of:  
**the Person (P)** including their history, biology, personality and motivation  
**their Environment (E)** including their physical and social surroundings



Kurt Lewin's Grand Truism 1935

### Dual Process Models

**SYSTEM 1**

Intuition & instinct

95%

Unconscious  
Fast  
Associative  
Automatic pilot

**SYSTEM 2**

Rational thinking

5%

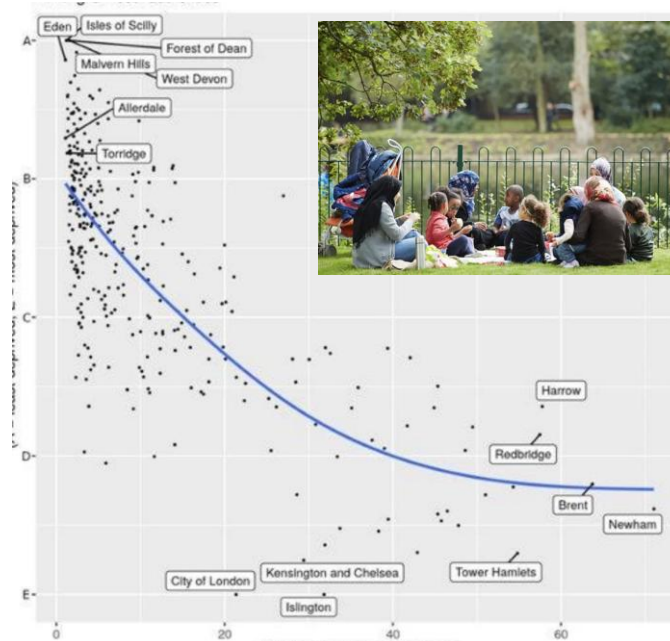
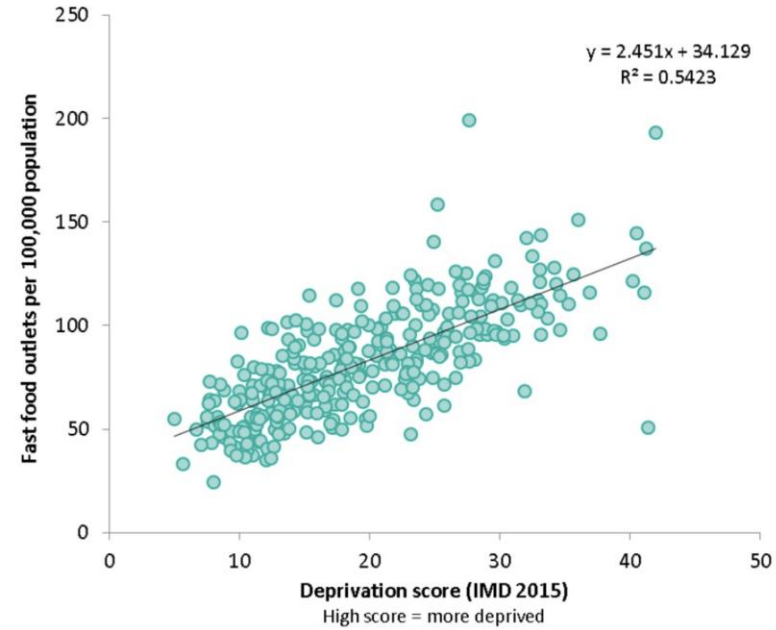
Takes effort  
Slow  
Logical  
Lazy  
Indecisive



Source: Daniel Kahneman

Daniel Kahneman's Systems 1 + 2 Model 2012

# Double hit of poverty on healthy behaviour

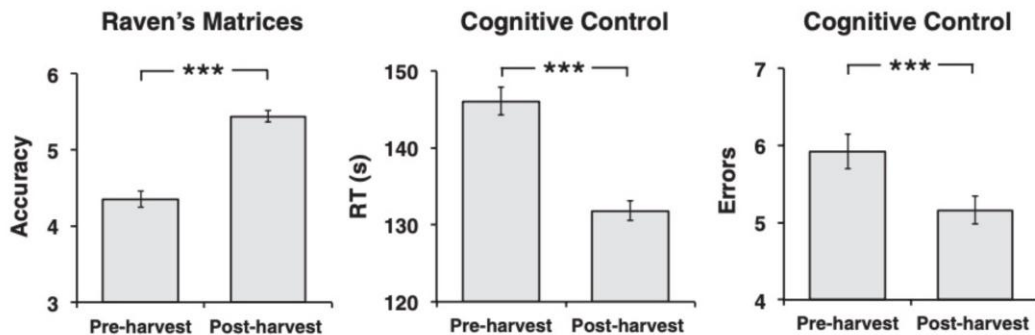


## Environment

- Those living in areas of greater deprivation are surrounded by more cues for unhealthier behaviour eg fast food outlets, and fewer cues for healthier behaviour eg green space<sup>1</sup>.

## Cognitive load of Poverty

- Living with poverty drains cognitive capacity to resist cues in everyday environments. Alleviating poverty restores cognitive capacity<sup>2</sup>.



<sup>1</sup> Marteau, Rutter + Marmot BMJ 2021

<sup>2</sup> Mani et al Science 2013

# Changing Behaviour at Scale – 3 As

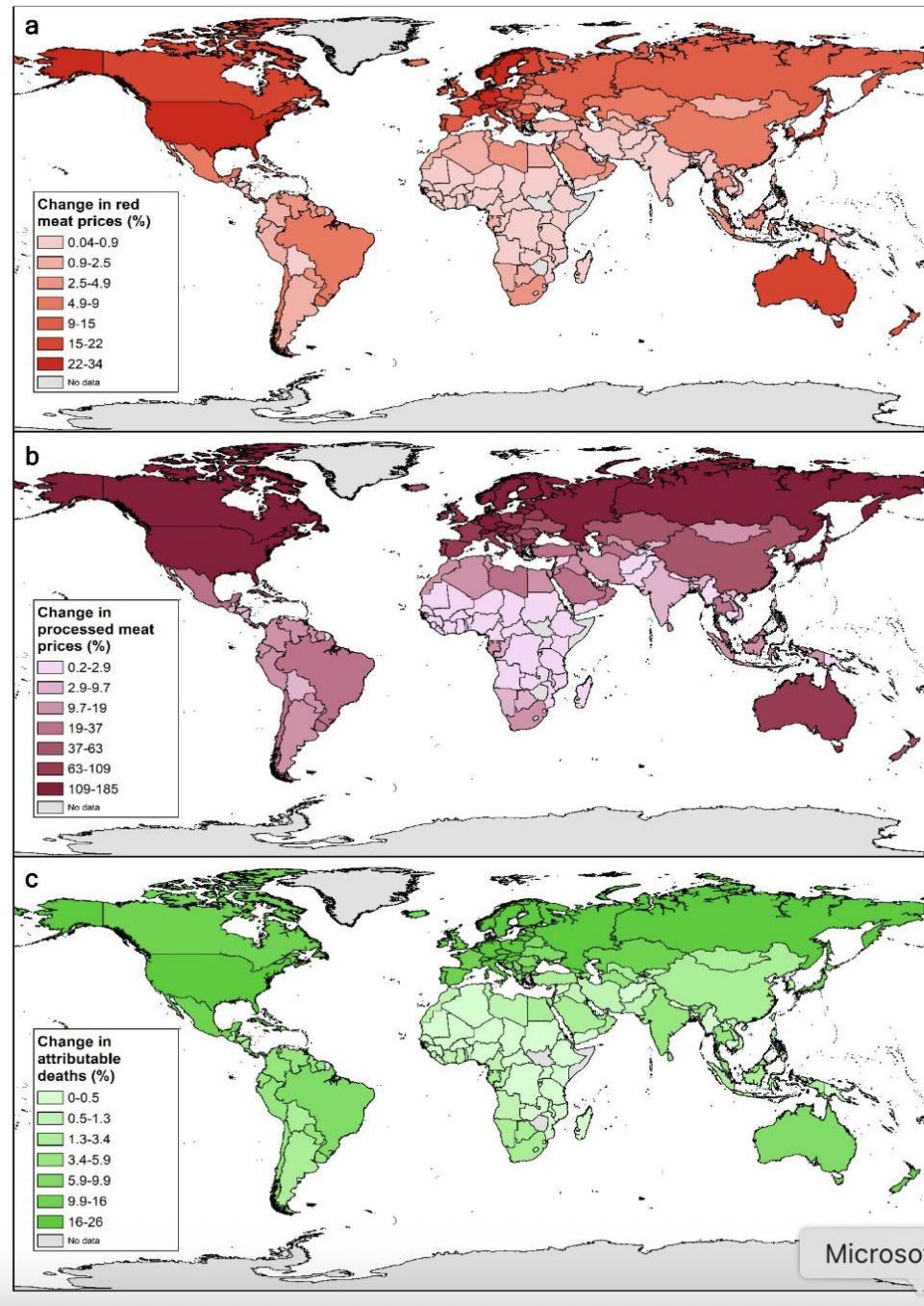
|                   | Affordability      | Availability                     | Advertising                             |
|-------------------|--------------------|----------------------------------|---|
| Tobacco           | Taxes              | Age restriction                  | Ban ads + sponsorship<br>Warning Labels |
| Food              | Taxes<br>Subsidies | Place<br>Size                    | Ban ads + sponsorship<br>Warning Labels |
| Alcohol           | Taxes              | Place<br>Size                    | Ban ads + sponsorship<br>Warning Labels |
| Physical activity | Taxes<br>Subsidies | 15 Minute Cities<br>Green spaces | Ban high carbon ads + sponsorship       |
| Travel            | Taxes<br>Subsidies | Clean energy<br>public transport | Ban high carbon ads + sponsorship       |

# Affordability

Policy levers to reduce meat consumption and production:

- End subsidies for animal agriculture
- Tax environmentally damaging products
- Subsidise plant-based options such that overall food spending would not increase.

Bryant et al Narrative Review  
*Appetite* 2024



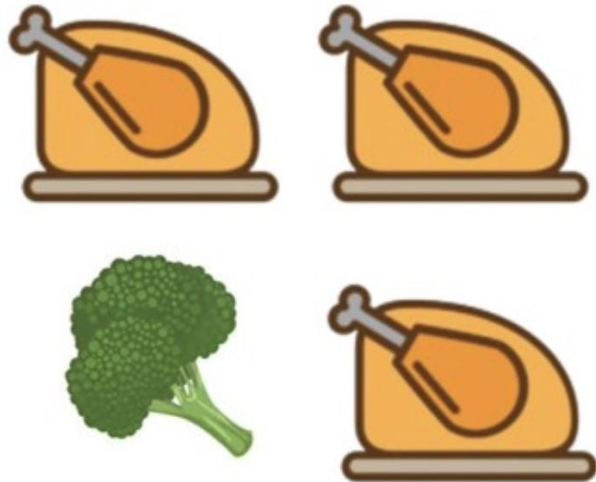
Optimal taxation modelled for red and processed meat.

Deaths cut by 9 % and health costs of by 14 %.

Springmann et al  
PLOS One 2018

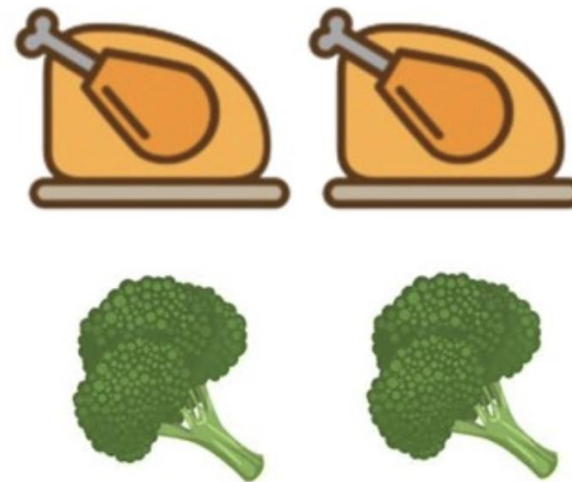
## Relative Availability of Meat-based Meals in a cafeteria

Meat = 3 out of 4 Meals



meat meals selected:  
**81 %**

Meat = 2 out of 4 Meals



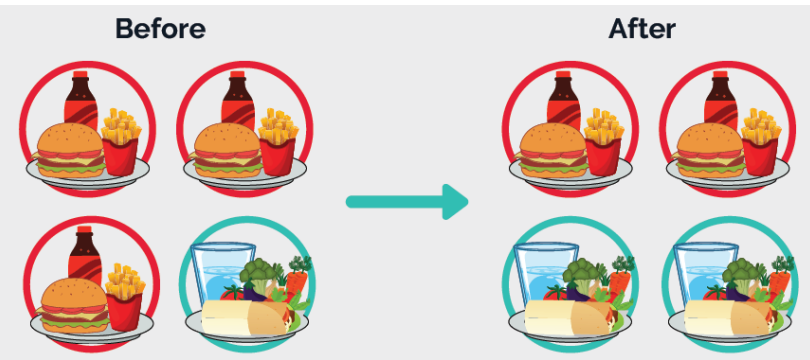
meat meals selected:  
**73 %**

Schaufele-Elber et al J Env Psych 2025 Systematic Review + Meta-analysis

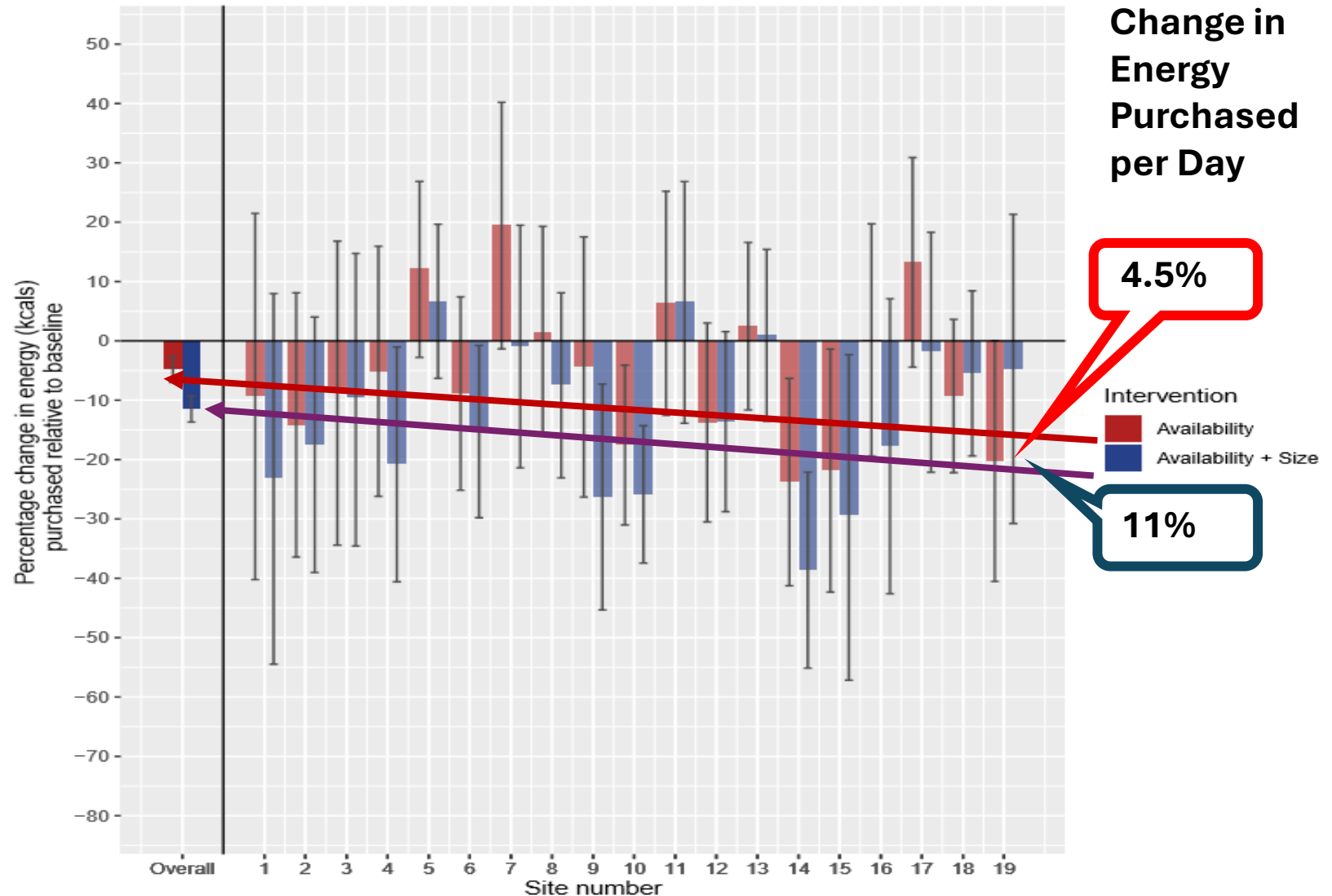
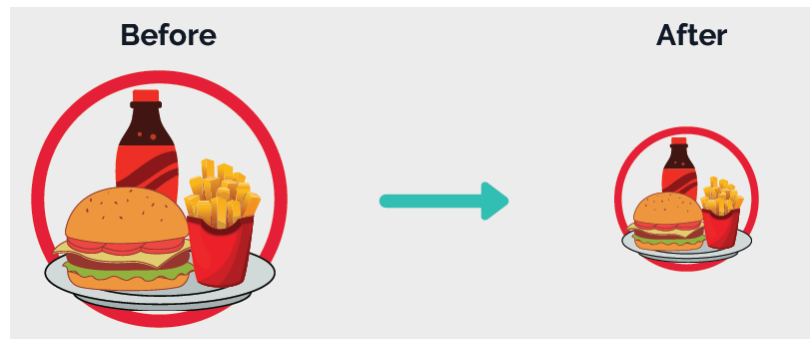
Garnett, Balmford, Sandbrook, Marteau *PNAS* 2019

# Relative Availability & Portion Size of Higher Energy Food

## Availability Intervention



## Portion Size Intervention



# NYC HEALTH+ HOSPITALS Plant-Based Meal Program



## Timeline

- 2019** After taking the **Meatless Mondays** pledge, NYC Health + Hospitals began offering plant-based meals each Monday at its **11 hospitals**. The plant-based meals proved extremely popular, with **97%** of patients sticking with the plant-based option.
- 2022** In March, NYC Health + Hospitals began offering plant-based meals as the **“Chef’s Recommendation”** for lunch daily. Later that year, plant-based defaults expanded to dinner service.
- 2025** In March, NYC Health + Hospitals celebrated its **three-year anniversary** of the program, having served more than **two million plant-based meals**.

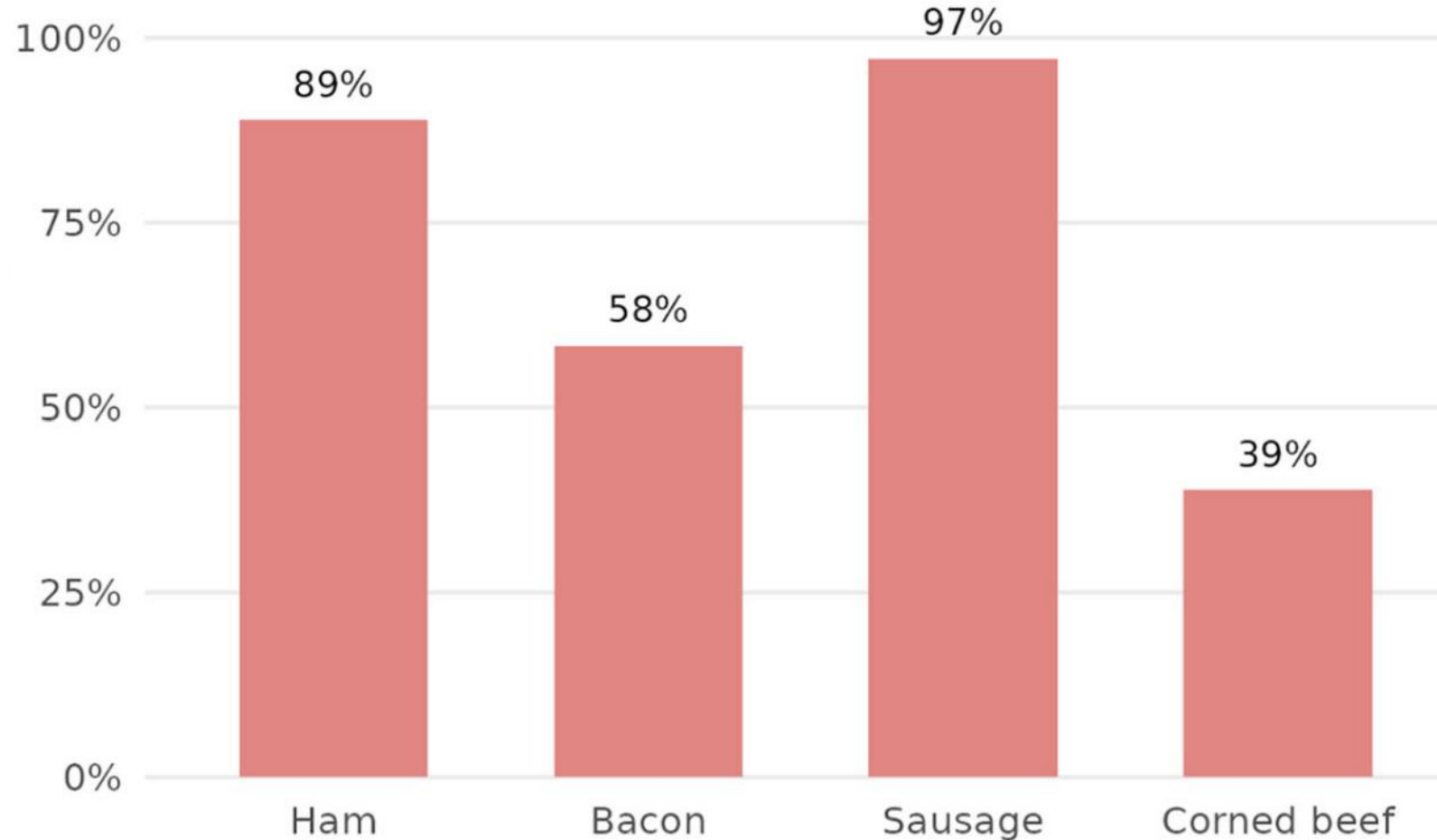
## Impacts

|  |   |  |   |
|--|---|--|---|
|  | <b>Over 2 million</b><br><i>plant-based meals served since March 2022</i> |  | <b>98%</b><br><i>patient satisfaction</i>   |
|  | <b>36%</b><br><i>reduction in food-related carbon emissions</i>           |  | <b>59¢</b><br><i>saved per tray (\$500,000 in the first year of implementation)</i> |

Morgenstern et al  
*Am J Lifestyle Medicine* 2024



# Processed meat on inpatient menus (n= 36 hospitals)

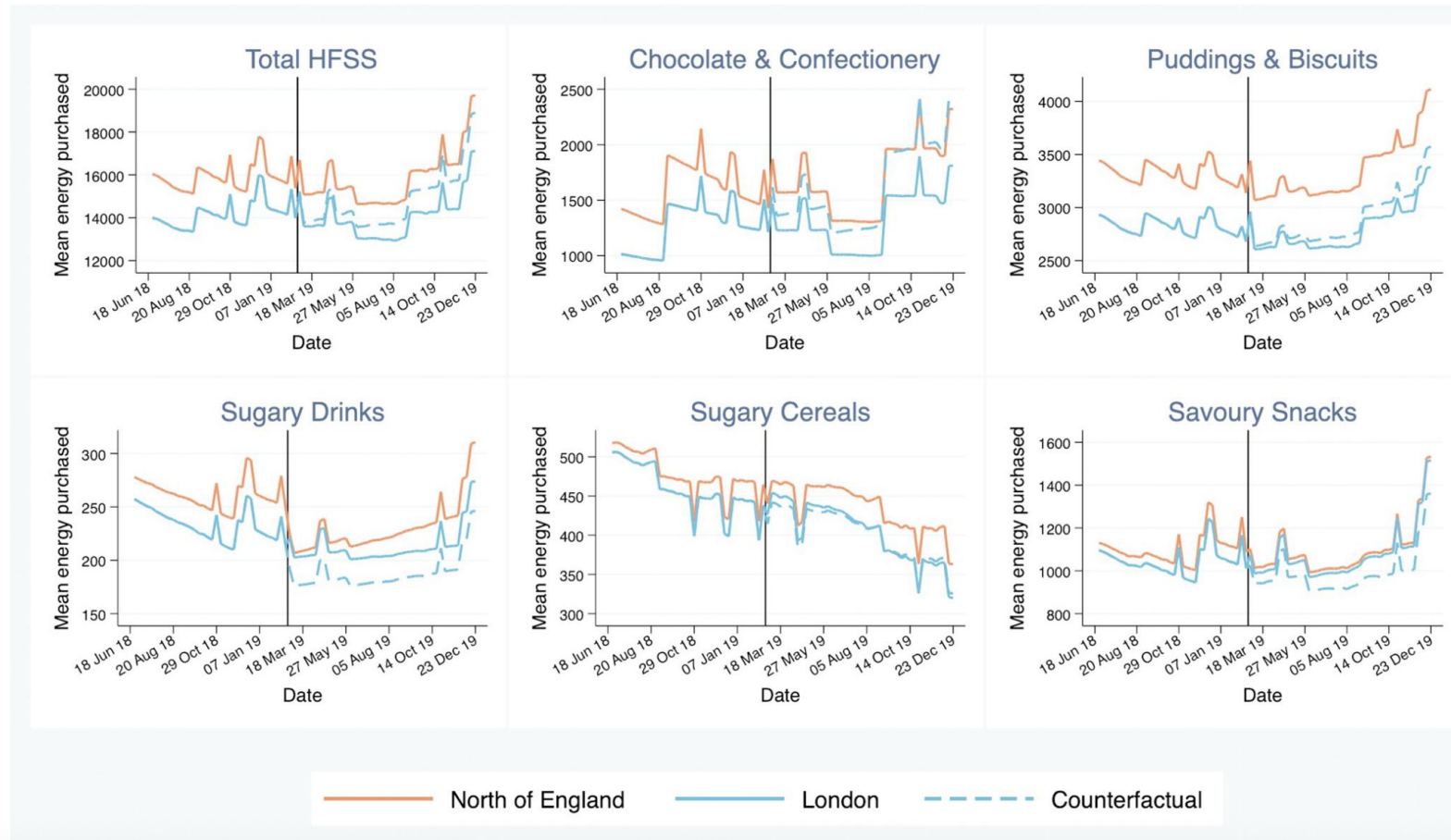


26 October 2015  
Processed meat  
classified as  
*carcinogenic to  
humans (Group 1).*

International  
Agency for Research  
on Cancer WHO

Sadler et al J Human Nutrition and Dietetics 2025

# Advertising: Removing ads for junk food across Transport for London



Energy purchased from HFSS foods

↓

6.7 %

Energy purchased from chocolate + confectionery

↓

19.4 %

# Advertising: Removing ads for meat and other high carbon products and activities

**ADVERTISERS:  
DROP SHELL**

**Amsterdam becomes first capital city to ban fossil fuel and meat advertising in public spaces**

**Amster-ban**

Dutch capital bans fossil fuel adverts, and other updates from Adfree Cities

**Junk food TV and online advert ban comes into force**

**£5 MEAL DEAL**

**DEEP DEBT? Free Bet!**

January 2026

# Changing behaviour requires changing environments.... which needs regulation.

Started in 2007..

## The EU Pledge



A voluntary initiative by 21 leading companies to change food advertising to kids

Companies representing over 80% of food ad spend in the EU

### The pledge covers

No commercial communications in primary schools\*



\*Except when the school specifically requests materials and only for educational purposes

Only advertise products that meet common nutrition criteria to under 13 year olds\*

\*Common nutrition criteria are scientifically grounded and have been scrutinized and welcomed by non-industry experts, NGOs and the European Commission. They were renewed in 2021.

Or not advertise any products at all to under 13 year olds

# Changing behaviour requires changing environments.... which needs regulation.



“With ample evidence that self-regulation is failing to adequately protect children from unhealthy food marketing and advertising, it is high time the EU adopted binding rules..”

Calvert 2021

The European Consumer Association  
Bureau Européen des Unions de Consommateurs

## FOOD MARKETING TO CHILDREN NEEDS RULES WITH TEETH

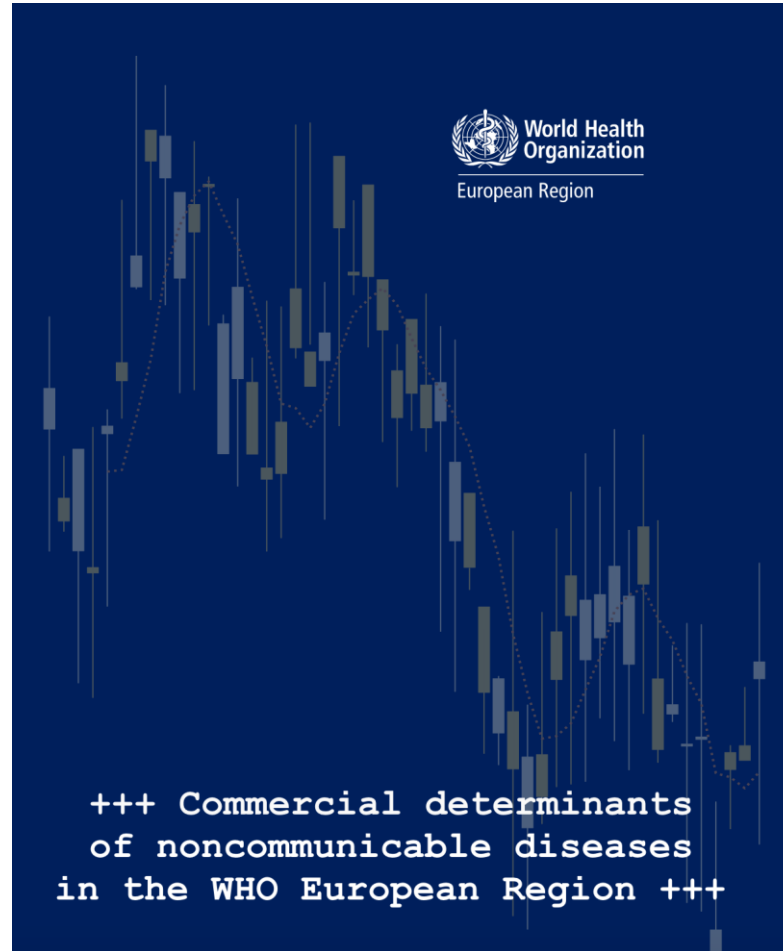
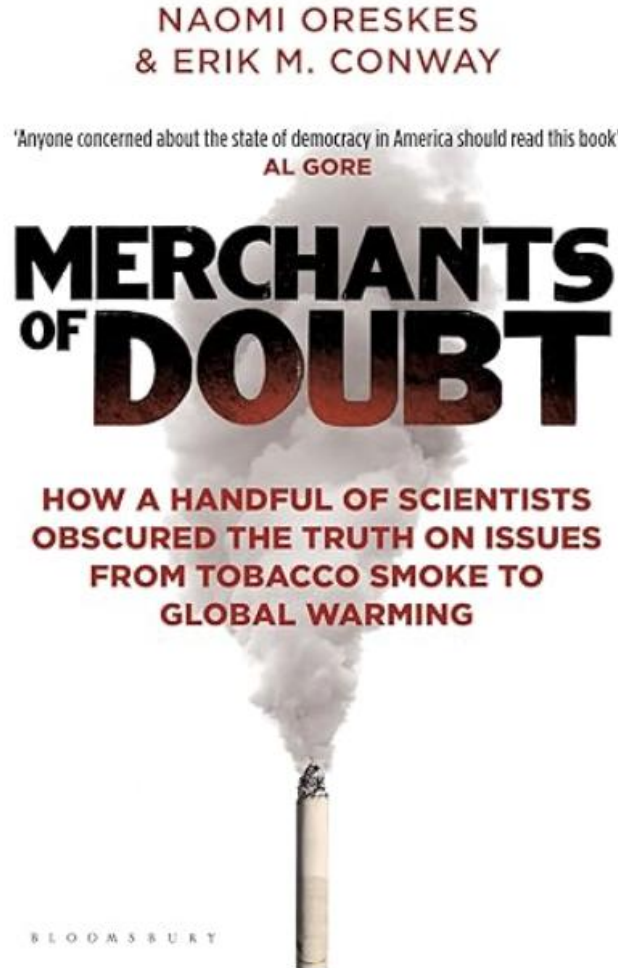
A snapshot report about how self-regulation fails to prevent unhealthy foods to be marketed to children

Emma Calvert

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# Powerful Interests *-serving a powerful few corporations*

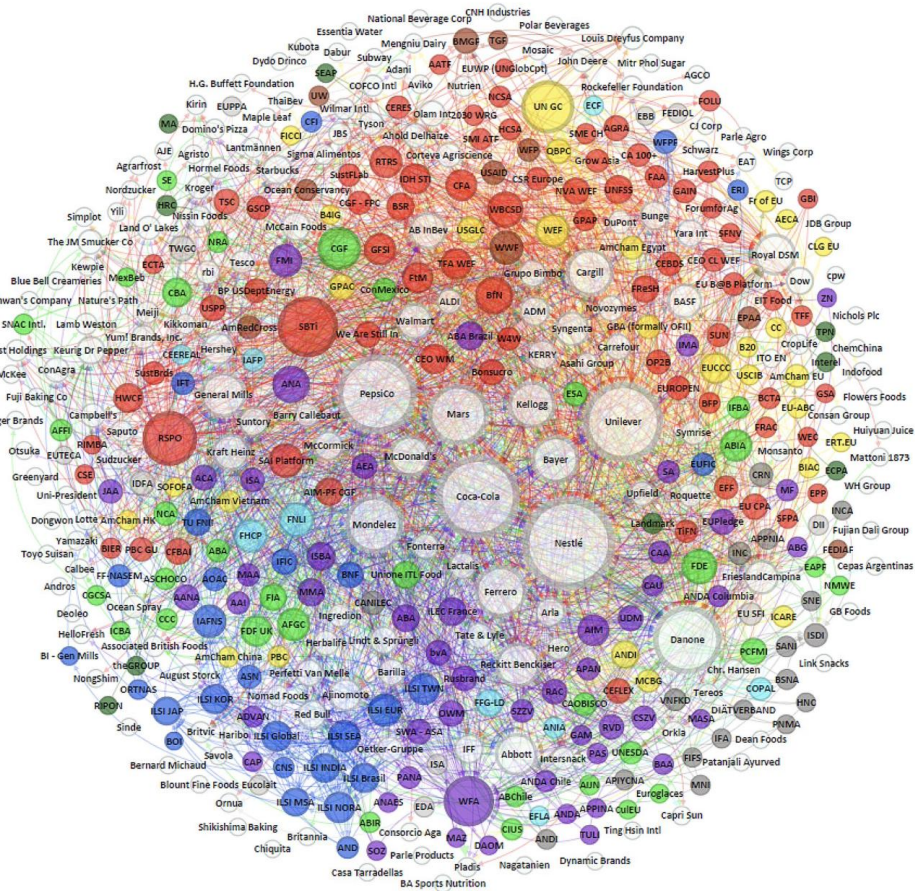


*One major barrier causing delays in implementing NCD-related policies and regulations is the influence of major commercial industries.*

**23 % deaths in European Region annually attributed to four industries:**

- Tobacco**
- Food**
- Alcohol**
- Fossil Fuel**

June 2024



*The food industry bears major responsibility for the obesity public health emergency ....One symptom of the problem is the way that the food industry seeks through sophisticated lobbying strategies to influence both Government policymaking and academic research for its own ends. Evidence suggests that such lobbying has been influential. (p 11)*

House of Lords October 2024

Ultra Processed Food global corporate influence network of corporations, organisations and interest groups

Slater et al *Globalization and Health* 2024

## Mind the gaps

Why restrictions on less healthy food and drink advertising fall short



## UK junk food ad ban so diluted it may be largely ineffective, experts say

Exclusive: Report suggests only 1% of annual spend on food and drink adverts will be affected after industry lobbying



### Most viewed



Peter Mandelson asked Foreign Office for £500k severance payment, files show



**Live** Middle East crisis live: three ships hit in strait of Hormuz as Iran calls US and allied vessels 'legitimate targets'



**Live** Lobbying and access to government will be reviewed in wake of Mandelson scandal, says cabinet minister - UK politics live

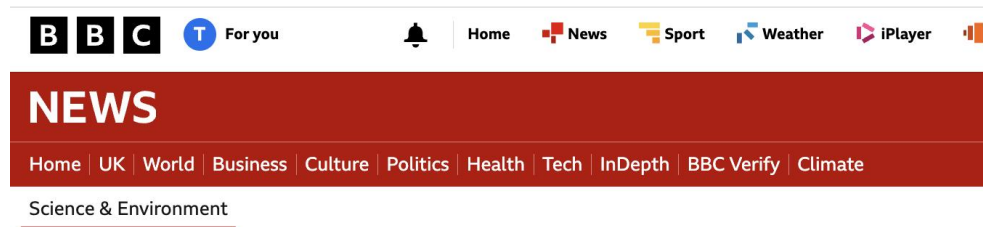


Starmer attacks Badenoch and Farage over Iran war support U-turns at raucous PMQs

Delay = 8 years

Diluted = 8 consultations and additional lobbying

# Politician Fears #1 Overreach = Nanny State



## Is meat's climate impact too hot for politicians?

© 14 October 2018



I like lots of local meat. I don't think we should be in the business of prescribing to people how they should run their diets.

Claire Perry, Climate Minister, Oct 2019



The proposal to make you change your diet – and harm British farmers – by taxing meat, or to create new taxes to discourage flying or going on holiday. I've scrapped those too.

Rishi Sunak, Prime Minister, Sept 2023



# Politicians Fear #2

## Anti-business, anti-growth

*The 10-year health plan will not include a ban on alcohol advertising. We'll always back our food and drinks sector and, in our recent deal with India, slashed tariffs for a variety of iconic products, including whisky and gin.*

*UK Government spokesperson, responding to concerns from The British Beer and Pub Association*

*July 2025*



# Politicians Fear #2

## Anti-business, anti-growth



**THIS**  
LEAN BRITISH  
BEEF

**THAT**  
NATURALLY CONTAINS  
VITAMIN B12


Lean beef contains vitamin B12, which can help reduce tiredness and fatigue as part of a healthy balanced diet and lifestyle.

LET'S EAT  
BALANCED  
FROM AHDB

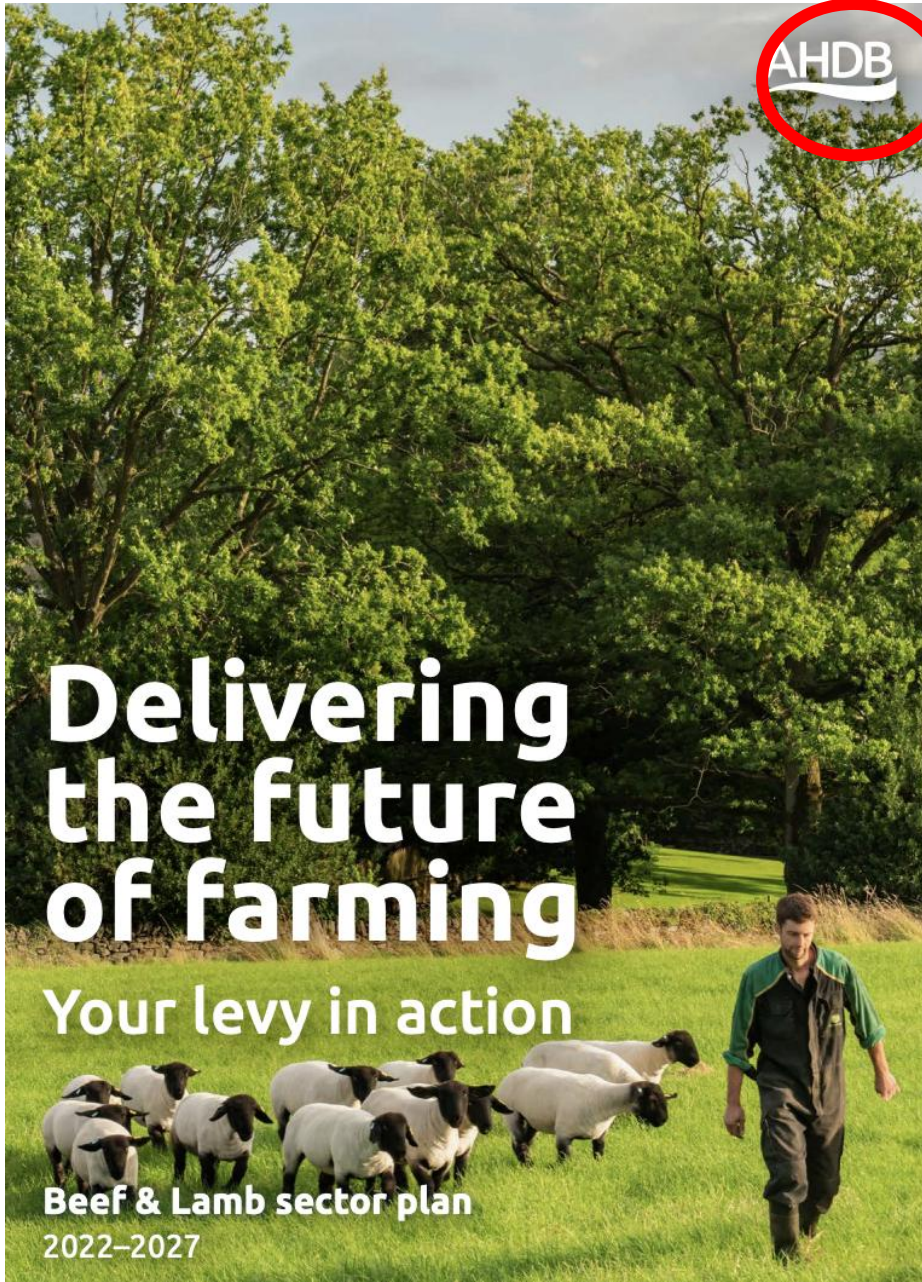


July 2024

Progress in reducing emissions  
2024 Report to Parliament



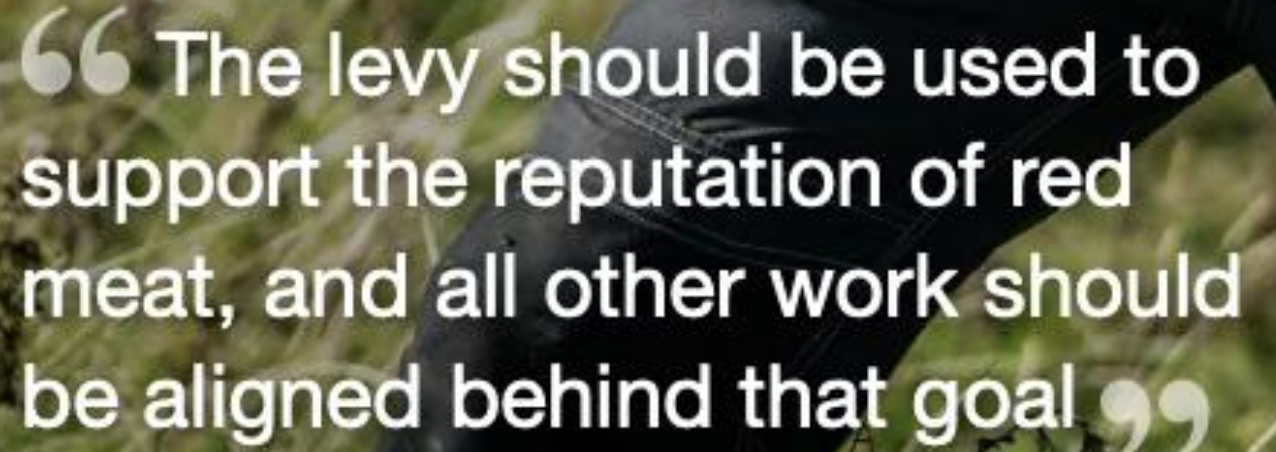
“The Agriculture and Horticulture Development Board, an arm’s length body of the Government, continues to invest in proactive marketing campaigns to encourage meat and dairy consumption, despite the evidence showing that a reduction in meat and dairy consumption supports a shift towards low-carbon, sustainable and healthy diets.”



# Delivering the future of farming

Your levy in action

Beef & Lamb sector plan  
2022-2027



“ The levy should be used to support the reputation of red meat, and all other work should be aligned behind that goal ”

Colin Bateman

# Protect Policymaking from Corporate Influence

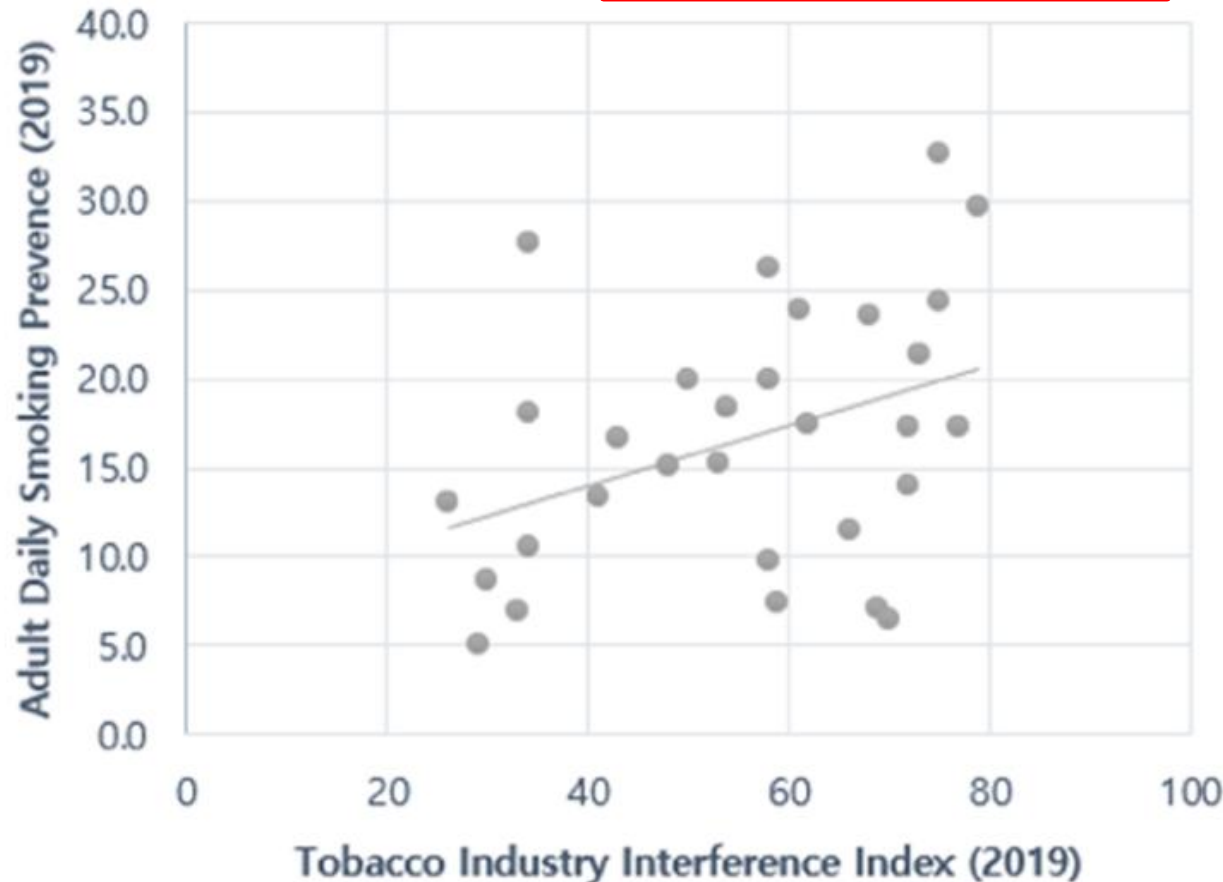


**FCTC**

WHO FRAMEWORK CONVENTION  
ON TOBACCO CONTROL

Greater adherence to  
Article 5.3, lower  
smoking prevalence

**Extend Article 5.3 to all areas of  
policymaking including UN  
meetings**



Lee et al *Globalisation and Health* 2024

## **Article 5.3 Guiding Principle**

There is a fundamental and irreconcilable conflict between the tobacco industry interests and public health policy interests.

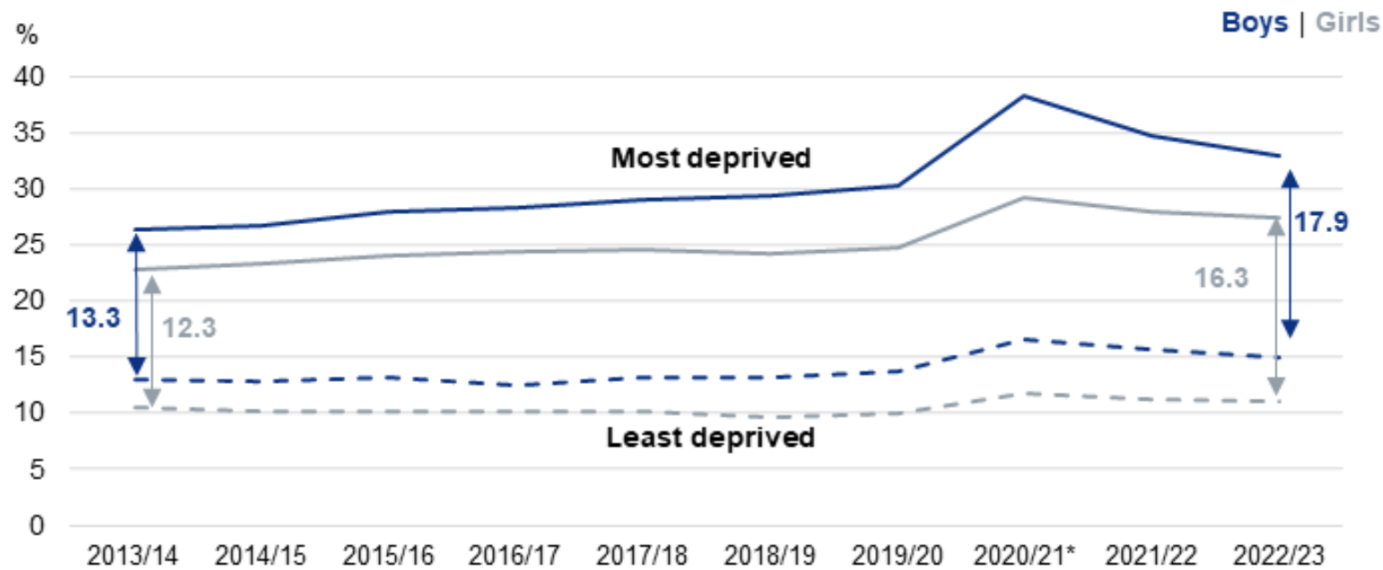
Signatories to UN FCTC agree to **restrict interactions** with the tobacco industry to **only those judged strictly necessary**, and keeping detailed records to allow public scrutiny.

# Evidence-Policy Gap

## Halve Childhood Obesity by 2030

2018 Ambition, affirmed in 2022

Rates of Obesity in 10-year-olds by deprivation



<https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2022-23-school-year/deprivation-based-on-postcode-of-the-child>

## Childhood Obesity Plan Aug 2016

| Health Select Committee recommendation   | Childhood obesity plan   | RAG rating |
|--|--|------------|
| Strong controls on price promotions of unhealthy food and drinks   | No mention of price promotions   | Red        |
| Tougher controls on marketing and advertising of unhealthy food and drink  | No mention of marketing and advertising  | Red        |
| A centrally led reformulation programme to reduce sugar in food and drink  | Targets in nine categories of food contributing most to children's sugar intake, but action is voluntary until 2020 and no mention of penalties or sanctions | Yellow     |
| A sugary drinks tax on full sugar soft drinks, with all proceeds targeted to help those children at greatest risk of obesity | Benefit of the doubt but devil is in the detail - proceeds to go to school sports and unclear whether targeted on those at greatest risk                     | Green      |
| Labelling of single portions of products with added sugar to show sugar content in teaspoons                                 | Labelling mentioned, in context of Brexit and greater flexibility, but no details or commitments   | Red        |
| Improved education and information about diet  | No mention of education and information about diet   | Red        |
| Stronger powers for local authorities to tackle the environment leading to obesity   | No mention of stronger powers for local authorities  | Red        |
| Early intervention to offer help to families affected by obesity   | 'Recommitting' to Healthy Start voucher scheme; income from sugar levy to schools including an incentive premium   | Yellow     |

David Buck, Kings Fund 2016

# Publish evidence underpinning policies and track outcomes in real time and change if off-track

e.g. UK Climate Change Act 2008

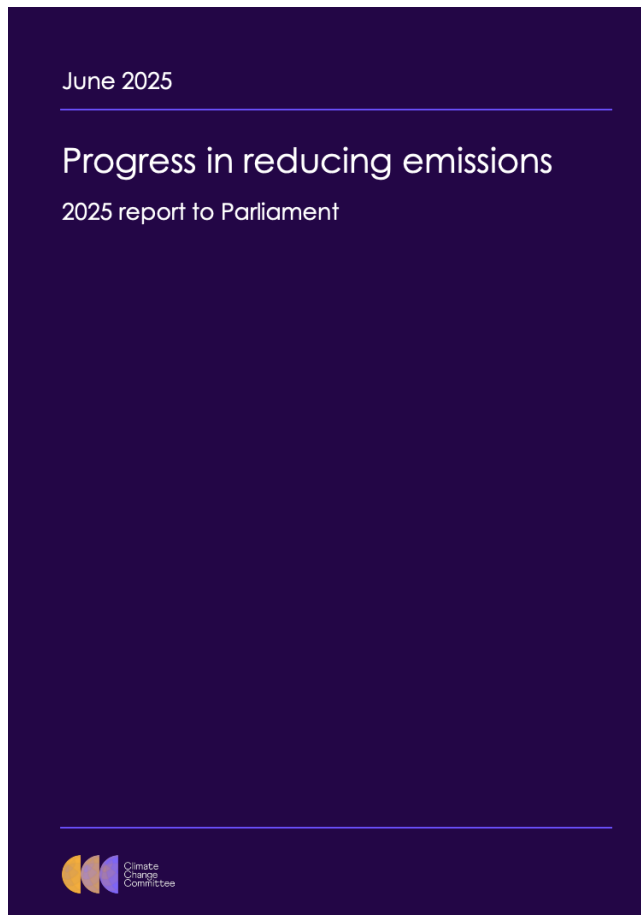
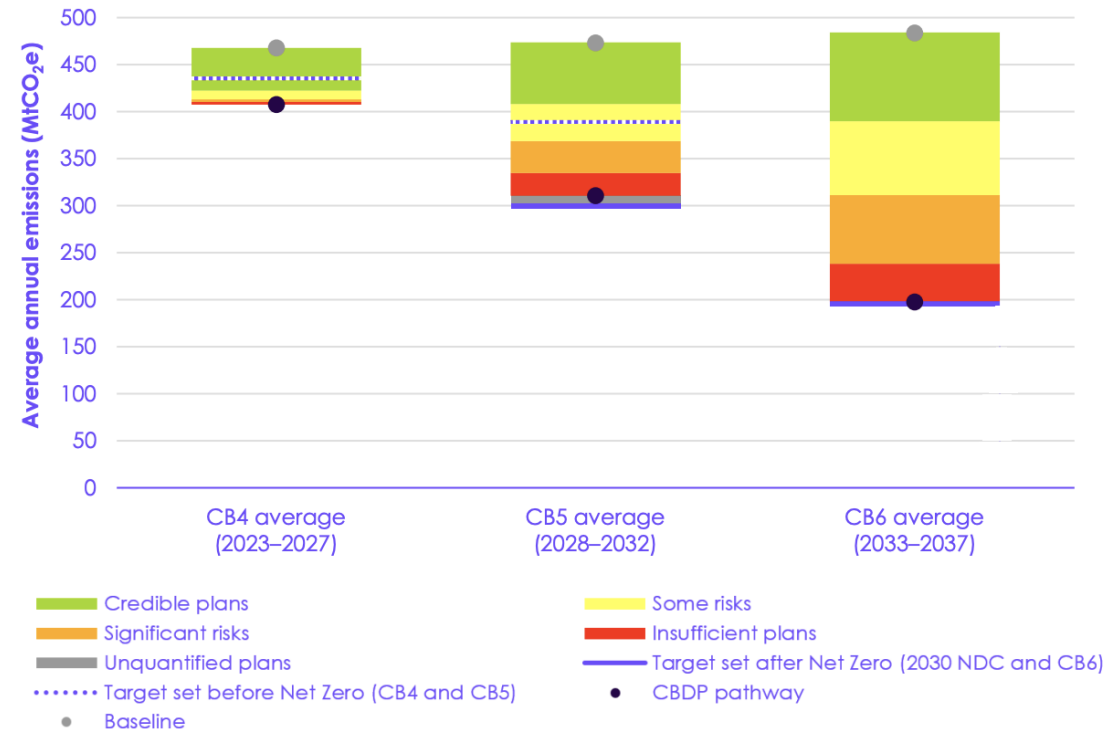


Figure 4 Assessment of policy and plans

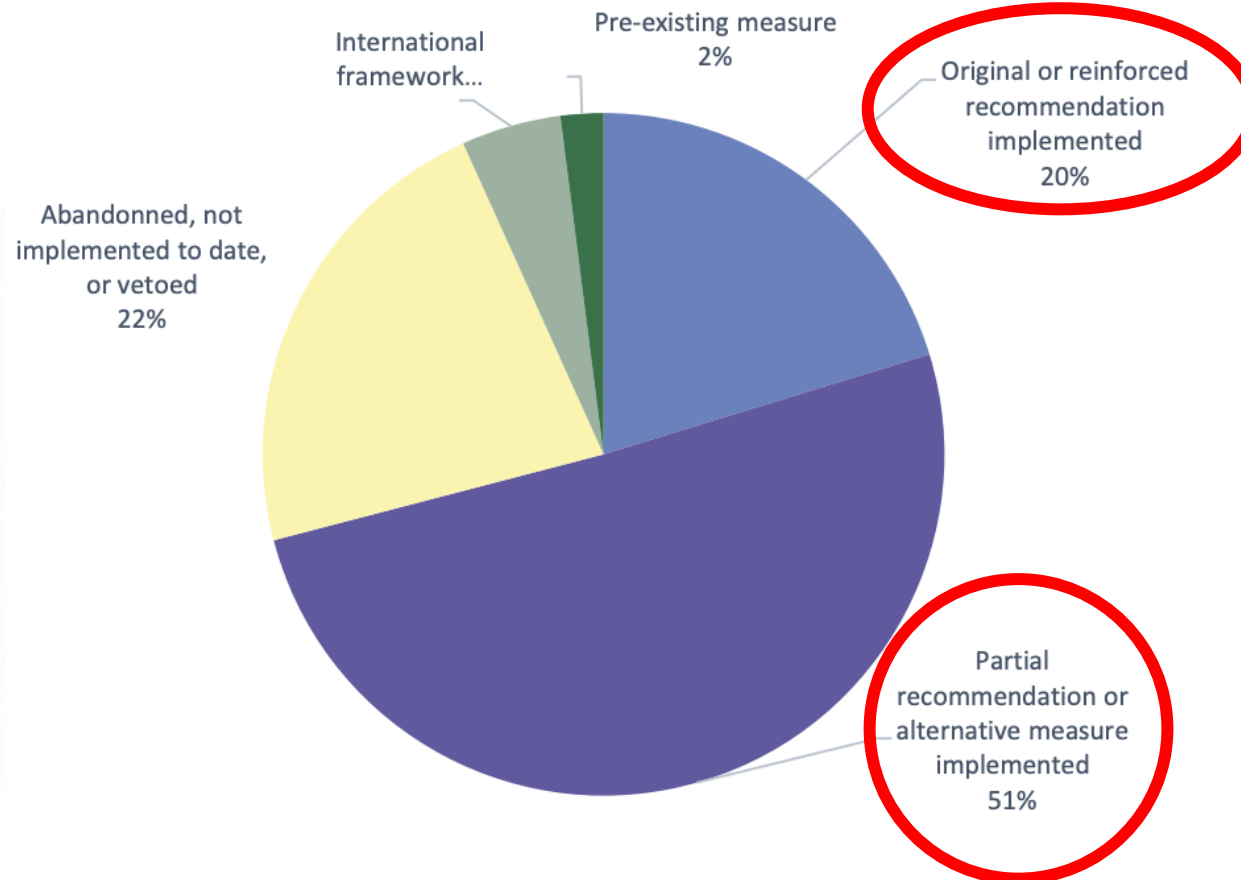


# Participatory Policymaking

## Convention Citoyenne pour le Climat

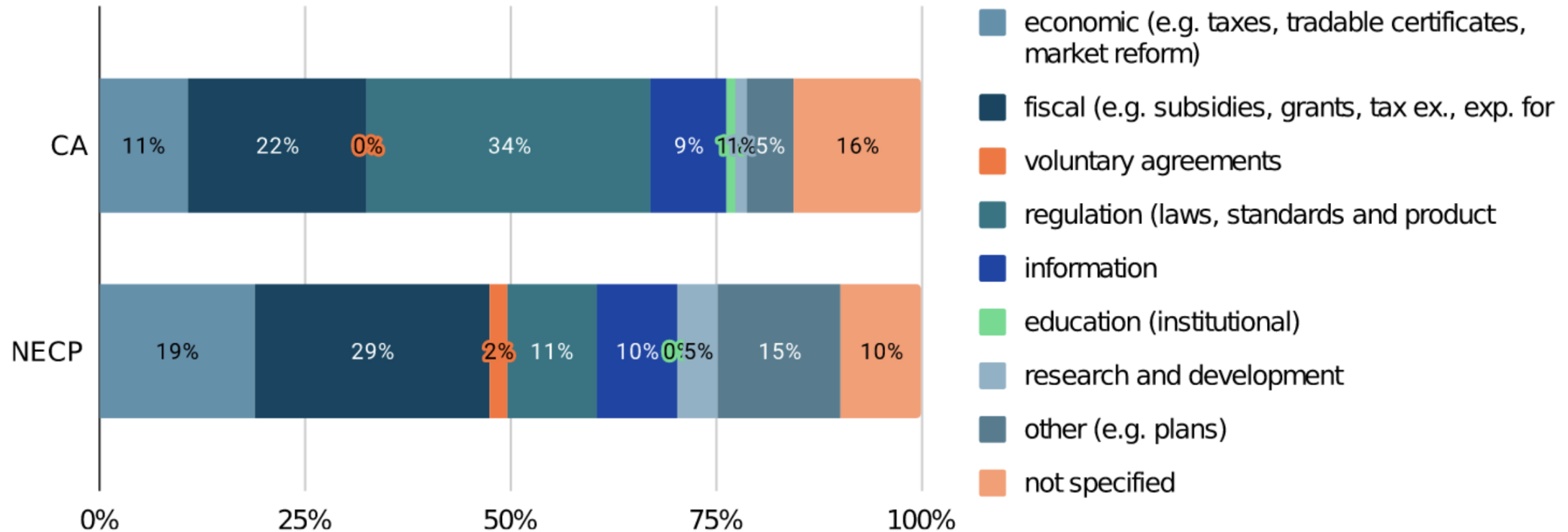


**Innovative Citizen Participation and New Democratic Institutions**  
CATCHING THE DELIBERATIVE WAVE



# Citizens' Preference for Regulation

## Citizens' Assemblies vs National Energy and Climate Policies Policy instrument type included in recommendations



Lage et al  
*Energy Research and Social Science* 2023

# Changing Behaviour across Populations and Politicians

## I The Challenge

Big Huge Prize Terrible Costs of Failure Potentially Achievable

## II Changing behaviour across populations

Changing food environments = Affordability Availability Advertising

## III Changing behaviour across politicians

Reform policymaking so evidence + citizens' interests are primary:

(a) Protect from corporate influence

(b) Publish evidence-base + real time monitoring and optimization

(c) Participatory-policymaking embedded into existing systems

# Change Can Happen

## Evidence + Policymaking Reform



Abolition of  
Slavery

Votes for Women



International Courts rule  
on Evidenced Action





# Transforming UK Food Systems Conference, 23-24 March 2026



#TUKFS26



# Panel discussion

## Evidence and the future of the UK food system



**Guy Poppy**  
TUKFS  
Programme  
Director



**Tom George**  
DEFRA



**Anna Taylor**  
Food Foundation



**Rob Kidd**  
Rubikon  
Consulting



**Jenny  
Rosborough**  
DHSC



**Rick Mumford**  
FSA



# Transforming UK Food Systems Conference, 23-24 March 2026



#TUKFS26

