Population salt reduction in the UK: history and evaluation

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Disclosures: *Technical Advisor to the World Health Organization, the Pan American Health Organization, Member of C.A.S.H., W.A.S.H., UK Health Forum and Trustee of the Student Heart Health Trust Vice-President, British Hypertension Society – all unpaid.*

Components of a strategy to reduce population salt intake

Communication

- **<u>Public Awareness Campaigns</u>**
- Consumers
- Food industry
- Decision makers
- Media
- Health Professionals

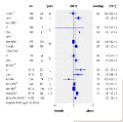
Reformulation

- **<u>Setting Targets</u>**
- Reformulation
- Benchmarking food categories
- Labelling
- **<u>Industry Engagement</u>**
- Motivation
- Costs & Benefits
- Consumer awareness
- Wider support
- Corporate responsibility

- **Voluntary vs Regulatory**

Monitoring

- **<u>Population salt intake</u>**
- Urinary sodium
- Dietary surveys
- **Reformulation progress**
- Salt content of foods (databanks; self-reporting by industry; market surveys)
- **Effectiveness of communication**
- Measuring awareness of campaigns
- Measuring attitudes and behaviour changes



Research

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Cappuccio FP et al. Br Med J 2010;343:402-5

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United Kingdom

Phases 1-3 (2004-8)

- Salt is bad for your health
- Check the labels for salt
- Eat no more than 6g per day
- 75% of salt is hidden in food
- Choose food with lower salt

Phase 4 (October 2009)

- Most of the salt we eat is already in everyday foods
- You can lower your salt intake by checking the labels to compare products, and choosing the options lower in salt
- We should aim to have no more than 6g salt per day, and children under 11 have less than this

CAMPAIGN EFFECTIVENESS

These charts show the results of the salt campaign tracking from 2004-2009

31% INCREASE

Those making a special effort to

Questions were placed on two waves of a UK-wide Omnibus survey in order to test awareness of the Agency's Salt Campaign.

Comparisons were made between the pre and post campaign waves of fieldwork and between the primary target groups for the campaign (women, aged 25-65 years in social classes C1C2D) and the general population.

Campaign awareness

There was an increase amongst all adults, between waves, in awareness of any type of publicity about cutting down on salt (45% to 60%). Awareness of publicity increased from 46% to 68% within the target group (women aged 25-65 in social classes C1C2 or D).

The most frequently seen or heard type of publicity from the campaign:

- TV advert 56%
- Bus advert 20%
- Posters/Press 19%
- Radio advert 16%
- Roadshow 3%

MEDIA COVERAGE & RESULTS

The PR and media coverage was measured using WOTs (Weighted Opportunities To see). During October, salt campaign coverage accounted for 30% of the total FSA media coverage in terms of WOTs, and 29% in terms of number of items. The campaign reached all sections of the media and resulted in an excellent 90% positive Net Effect.

Now

Best

Bella

PRESS
(no. of insertions)

Nationals	18
Regionals	71
Consumer magazines	19
Trade magazines	23

Regional coverage split:

Wales	12
NI	11
Scotland	5
Online	40

TV

BBC Breakfast
GMTV
ITN News
BBC News Channel
Sky News
Five News

RADIO

Radio 5 Live
LBC
BBC regional radio stations including interviews on Wales, Borders, Plymouth, Devon and Suffolk. We also carried out interviews with Reading 107fm, BBC Berkshire, Pulse Radio, BBC Wiltshire, BCB Radio Bradford.

S Magazine, Sunday Express

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World Health Organization

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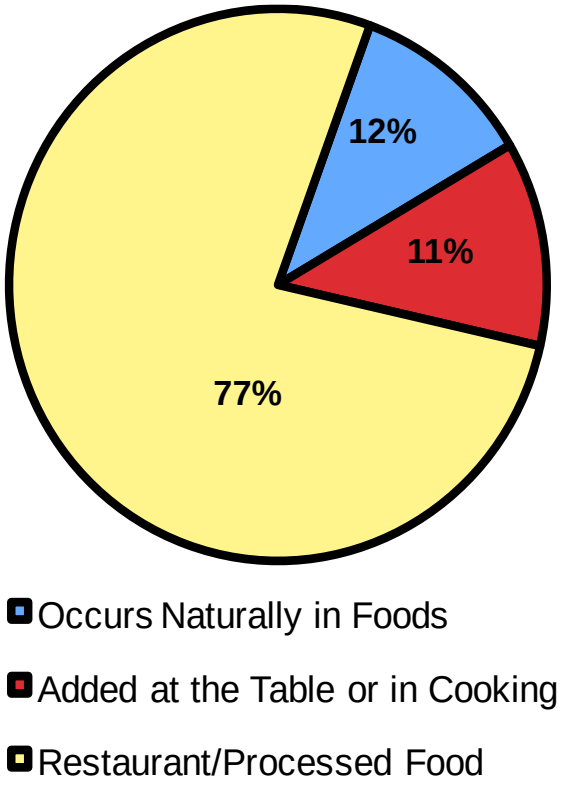
Where in our diet does salt come from?

In regions where most food is processed or eaten in restaurants



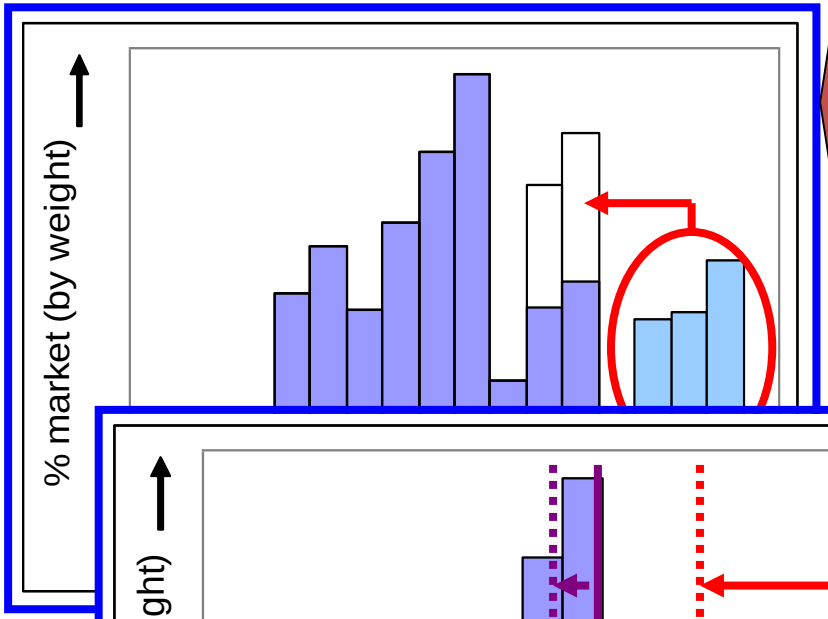
- 12% natural content of foods
- "hidden" salt: 77% from processed food – manufactured and restaurants
- "conscious" salt: 11% added at the table (5%) and in cooking (6%)

J Am College of Nutrition 1991; 10: 383-93

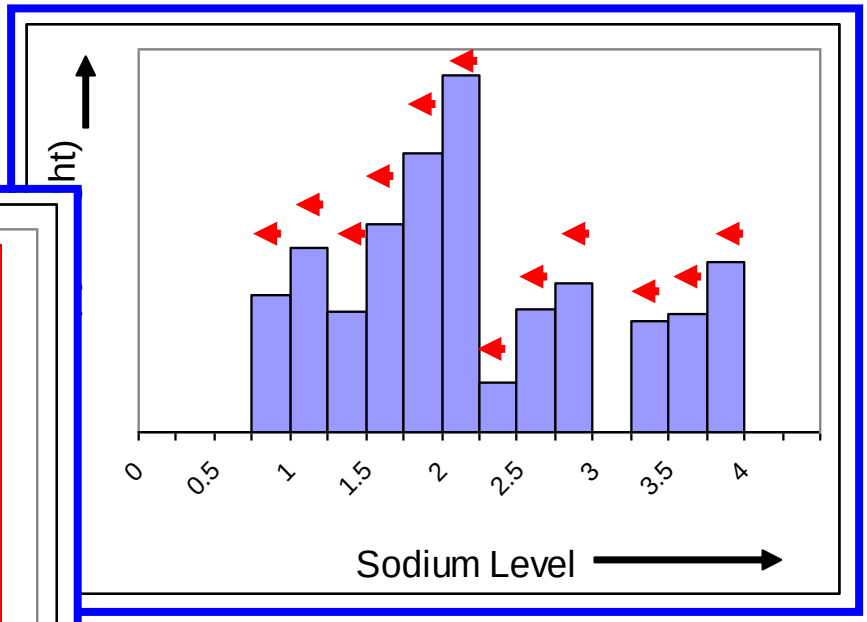
Priority: 12 categories of food

- **Bread**
- **Meat products**
- **Cheeses**
- **Ready meals**
- Soups
- Breakfast cereals
- Fish products
- Crisps, savoury snacks
- Catering meals
- Restaurant meals
- Sauces, condiments and spices
- Potatoes products

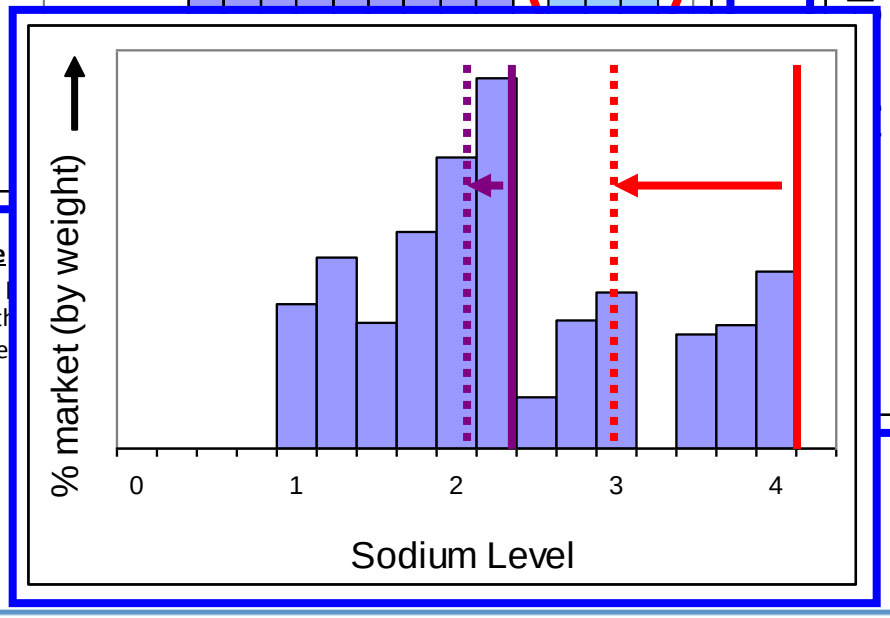
Maximum & Average Targets



If you set a **maximum target**, this will move those products at the high end of the category down. However, these may not be big sellers in the market and, if this is the case, the maximum set will have little impact on reducing intakes. In addition, those companies that do not have products above this level do not have to do any work.

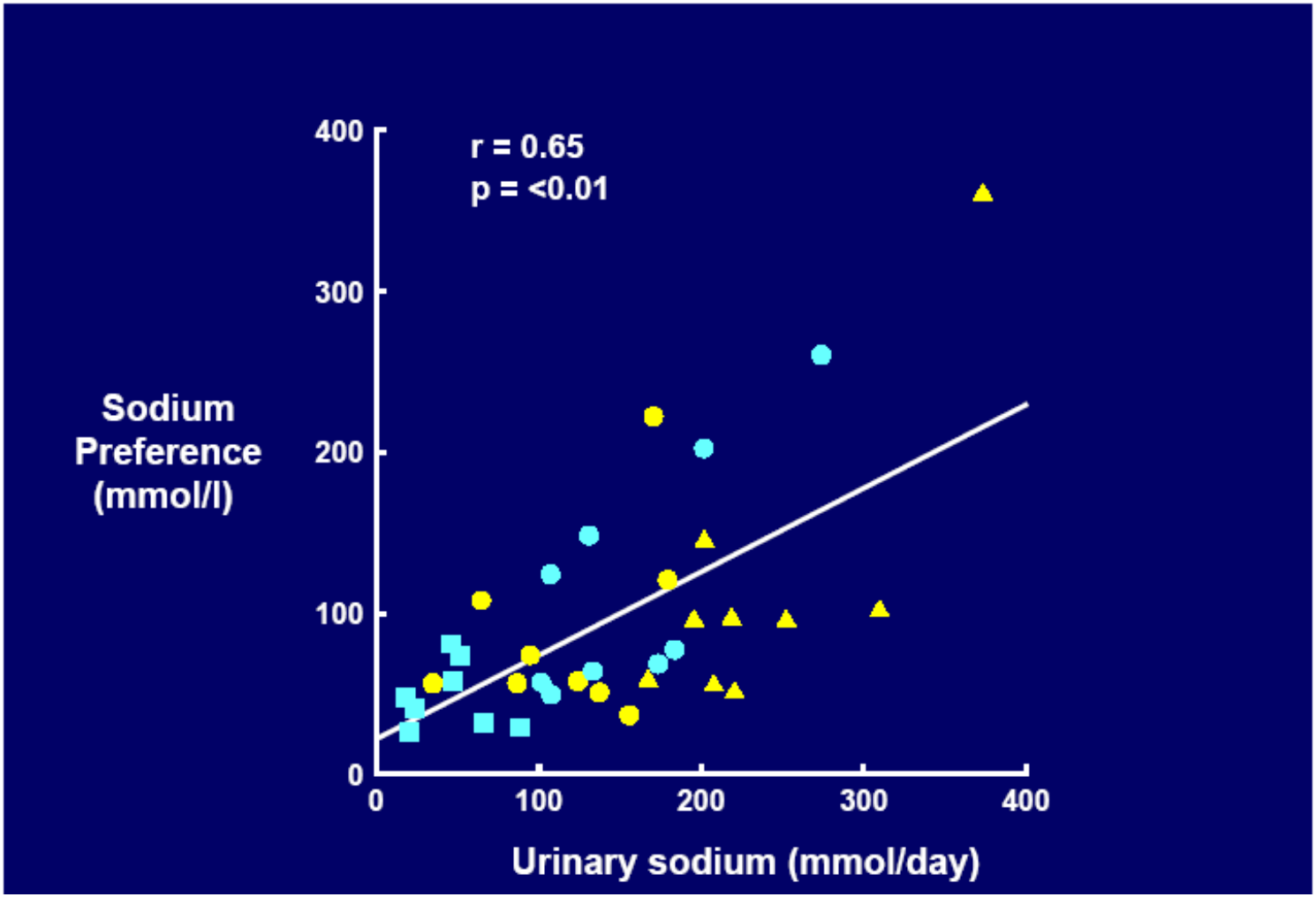


An **average** company's p will mean th reduce leve



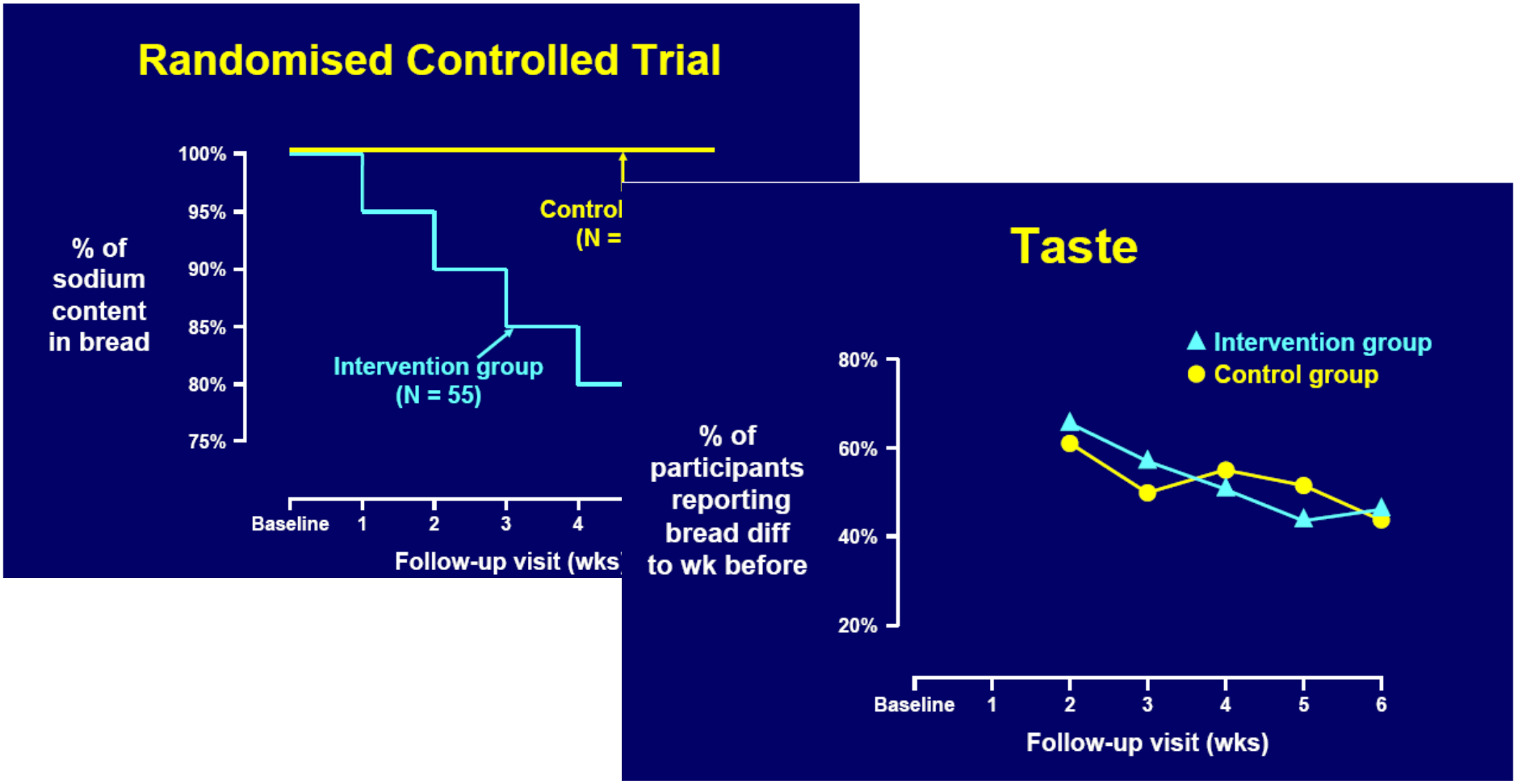
The UK has done some modelling work which shows that to achieve a similar overall reduction in intakes from a food sector an **average target** (in the majority of cases) **needs to be reduced by far less than a maximum.**

The more salt we eat, the more salt we demand!



Teow et al. Clin. Exper. 1986; A7(12):1681-95

Gradual reduction in salt content is not detected by consumers!



Girgis et al. Eur J Clin Nutr 2003;57:616-620

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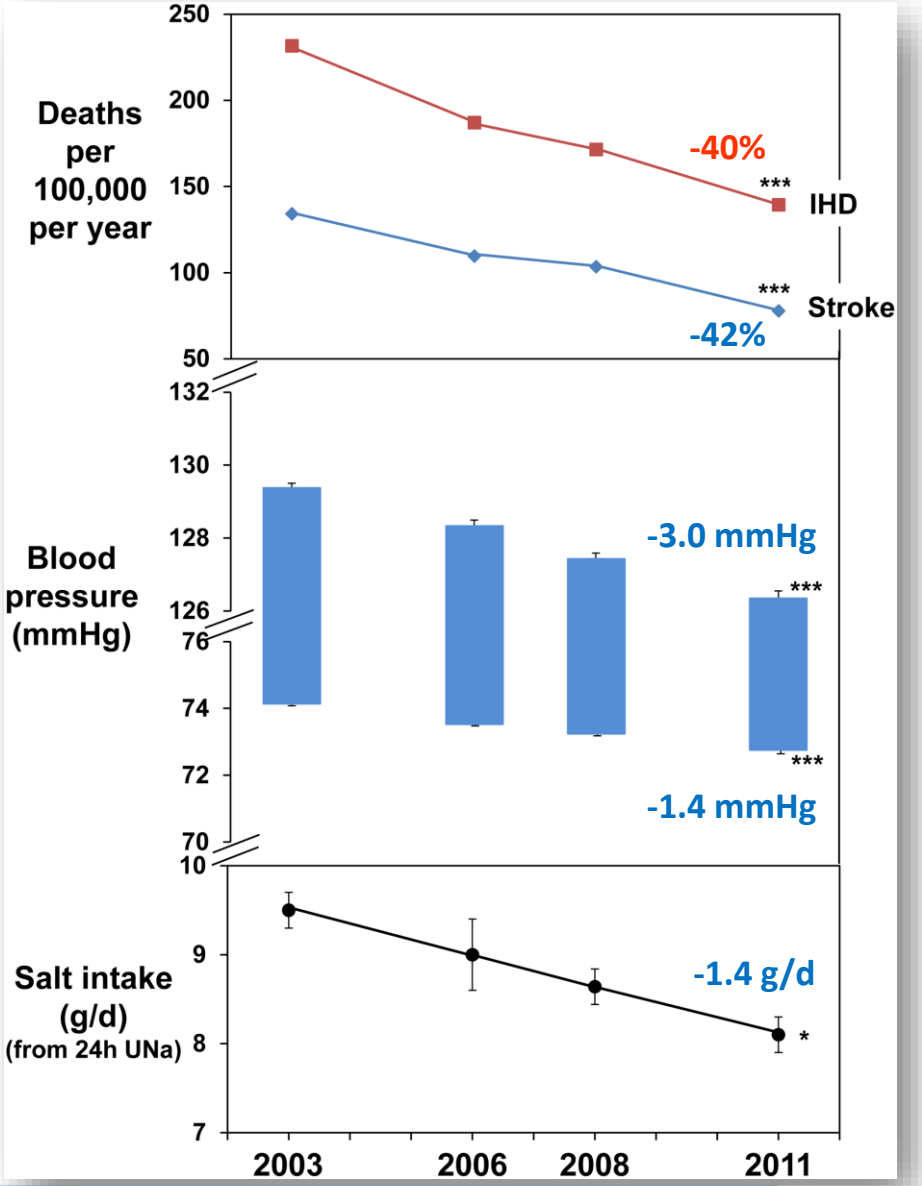
Cappuccio FP et al. Br Med J 2010;343:402-5

Changes in salt intake, blood pressure, stroke and IHD mortality in England from 2003 to 2011

Health Survey for England
aged ≥16 years
2003 N=9183
2006 N=8762
2008 N=8974
2011 N=4753



He FJ et al. BMJ Open 2014; 4: e004549

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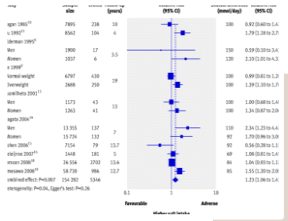

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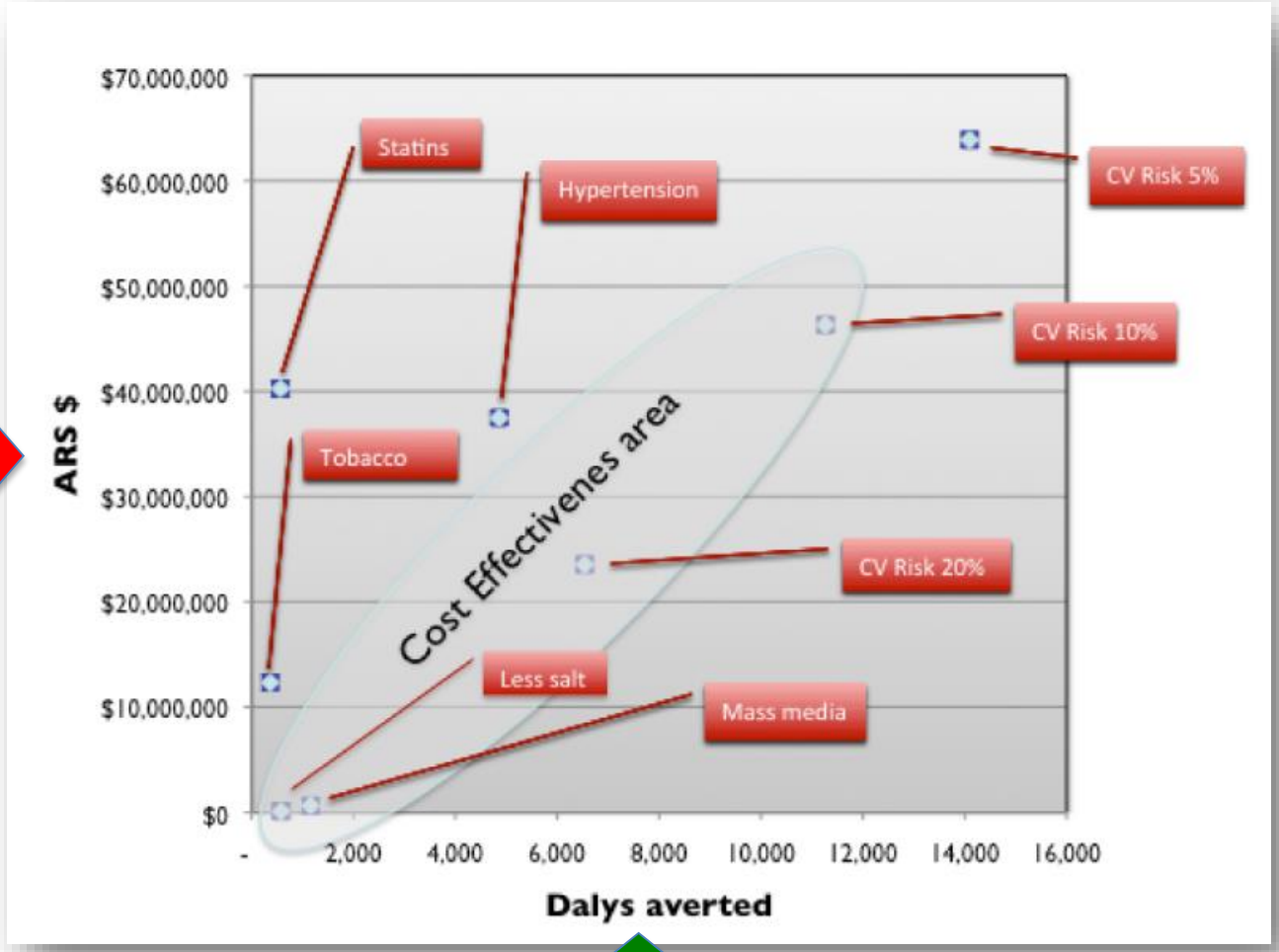
Cost effectiveness of interventions for the prevention of CVD

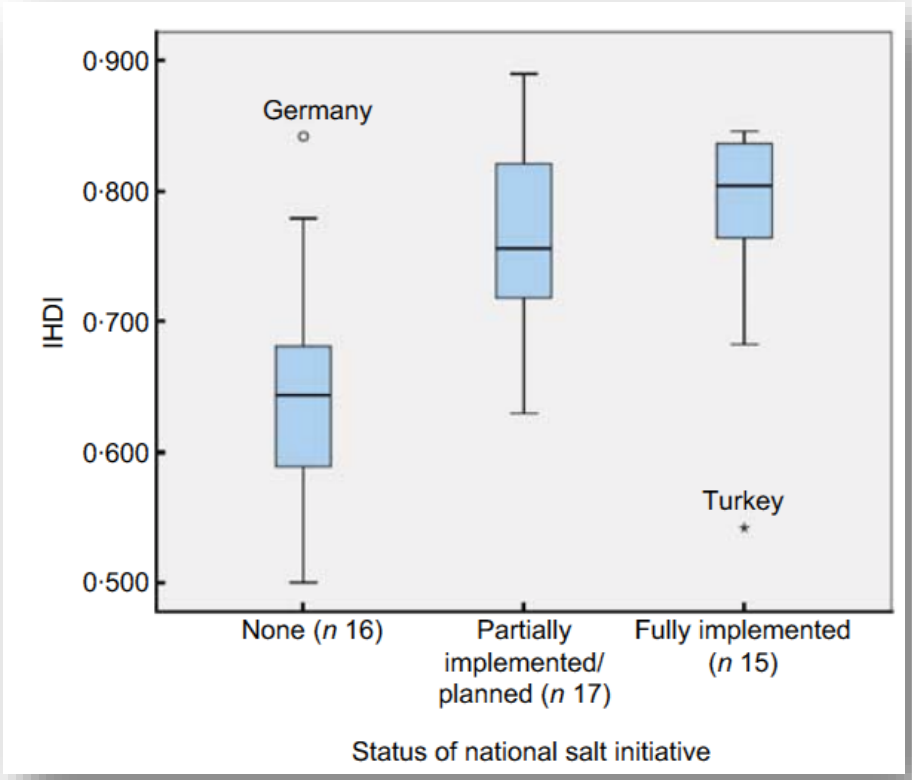
COST

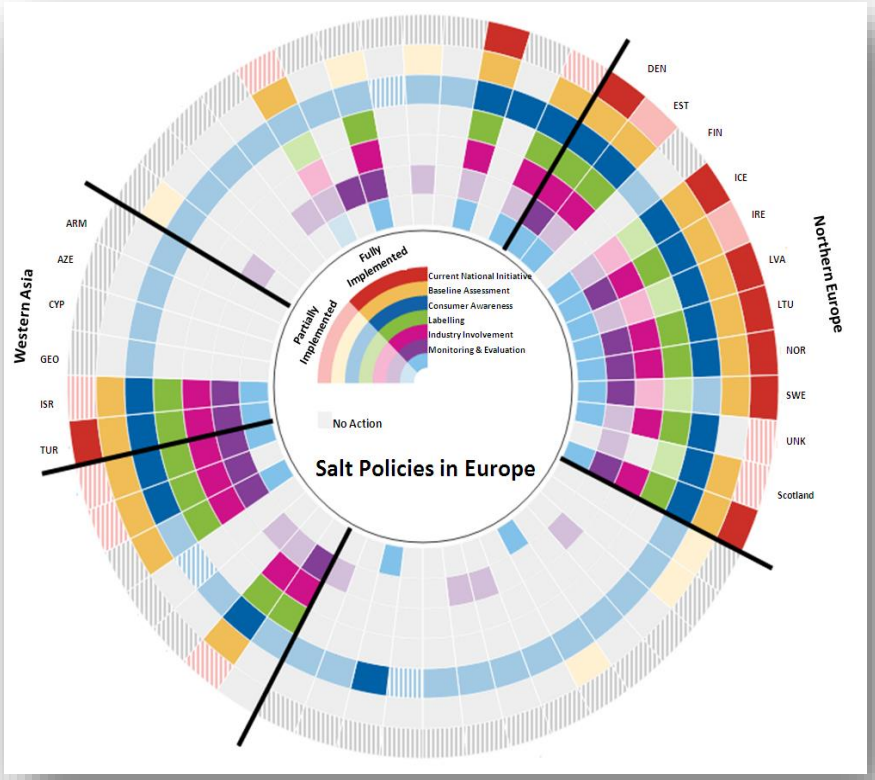


BENEFIT

Rubinstein A et al. Cost Effect Resource Alloc 2009; 7: 10

Inequalities in salt reduction policies in WHO Region for Europe

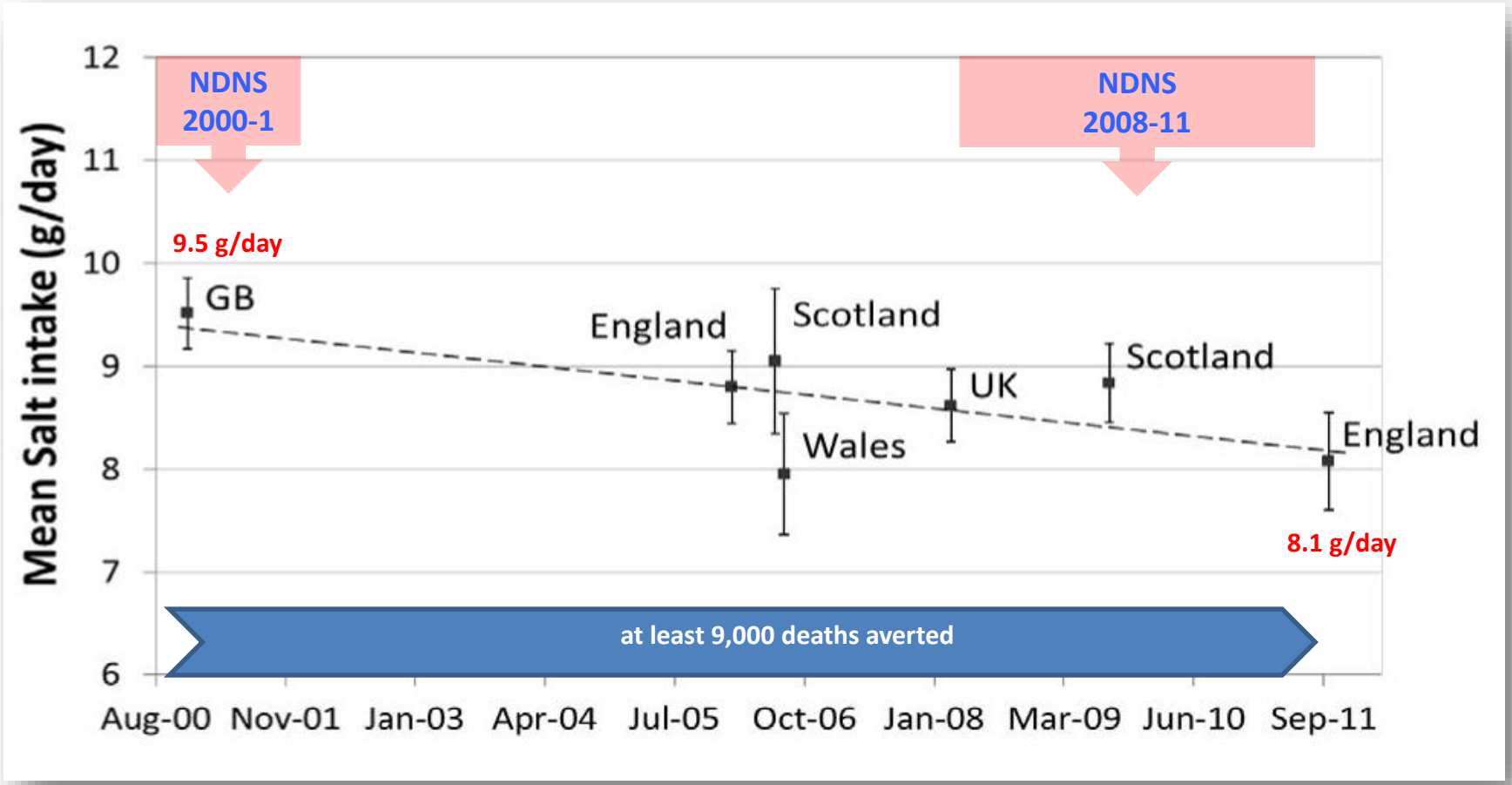




IHDI=Inequality-adjusted Human Development Index

Rodriguez-Fernandez R et al. Public Health Nutr 2014;17:1894-1904

Salt intake reduced by 1.4 g/day in the UK between 2000 and 2011



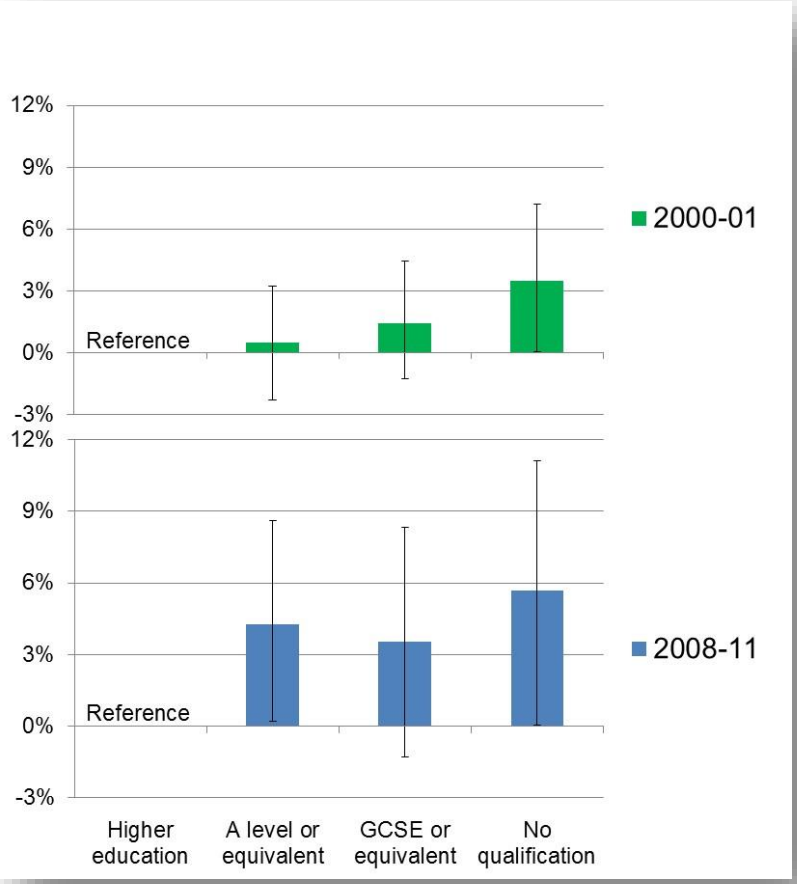
ANALYSIS

Food and the responsibility deal: how the salt reduction strategy was derailed by Andrew Lansley and the coalition government

The food we eat is now the biggest cause of death and ill health in the UK, owing to the large amounts of salt, saturated fat, and sugars added by the food industry. **Graham MacGregor**, **Feng He**, and **Sonia Pombo-Rodrigues** discuss the Food Standards Agency's successful salt reduction strategy and how the responsibility deal has stalled its progress. They call for urgent action to protect and improve our nation's health

MacGregor GA et al. Br Med J 2015; 350: h1936

Social inequalities in salt intake in Britain before and after a national salt reduction programme



NDNS 2000-1 (n=2,105)

All whites

Dietary Na: 7-day food records

Urinary Na: 24h urine collections

Ji C et al. BMJ Open 2013; 3: e002246

NDNS 2008-11 (n=1,027)

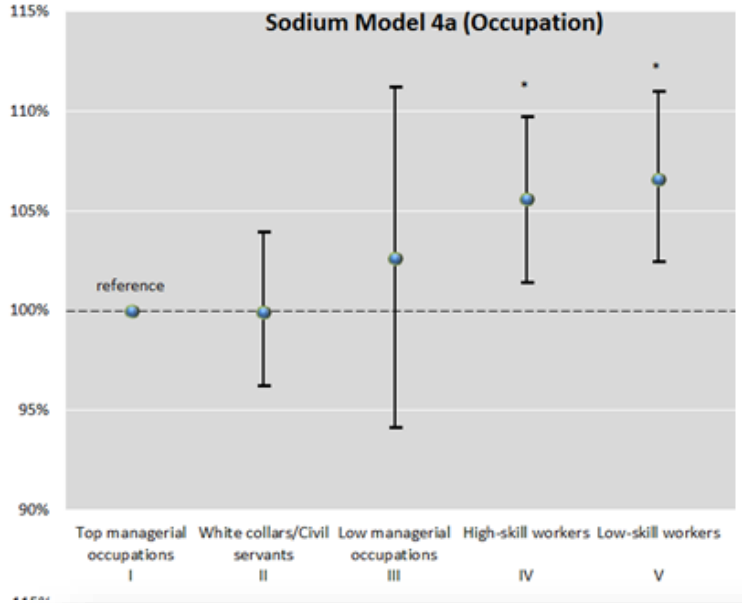
All whites

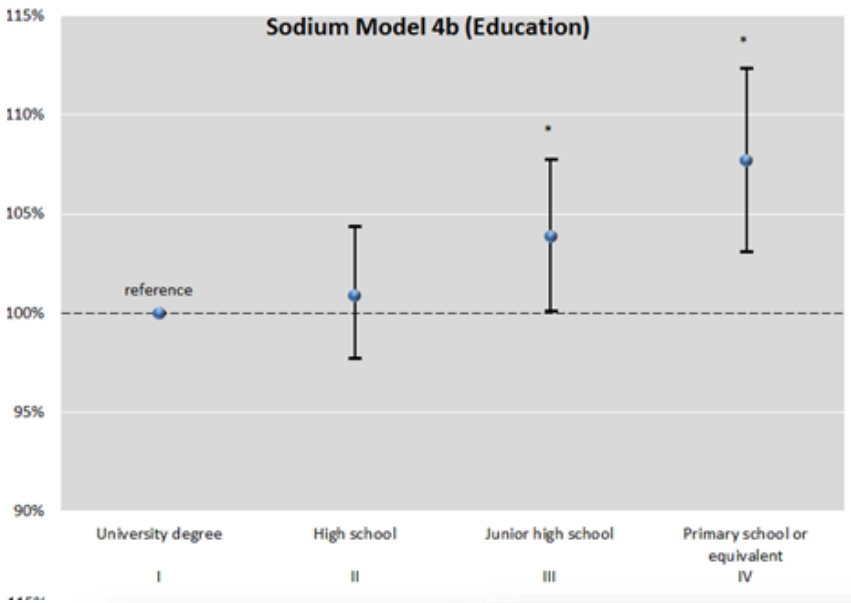
Dietary Na: 4-day food diary

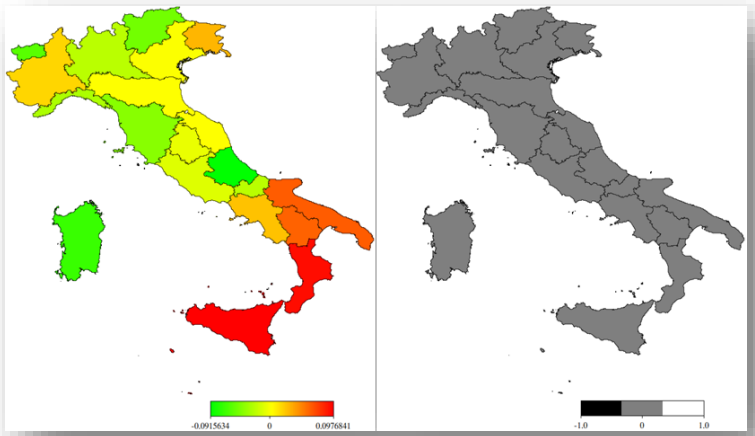
Na reduction: 366mg (0.9g salt) from food sources (non-discretionary)

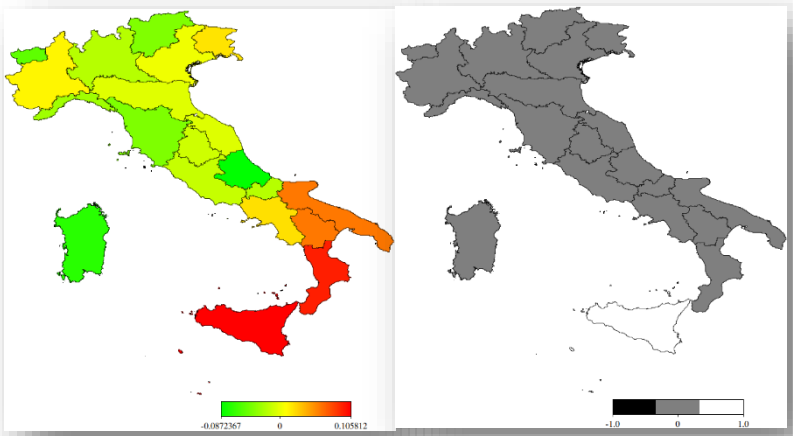
Ji C & Cappuccio FP. BMJ Open 2014; 4: e005683

Effects of SES by occupation (L) and education (R)





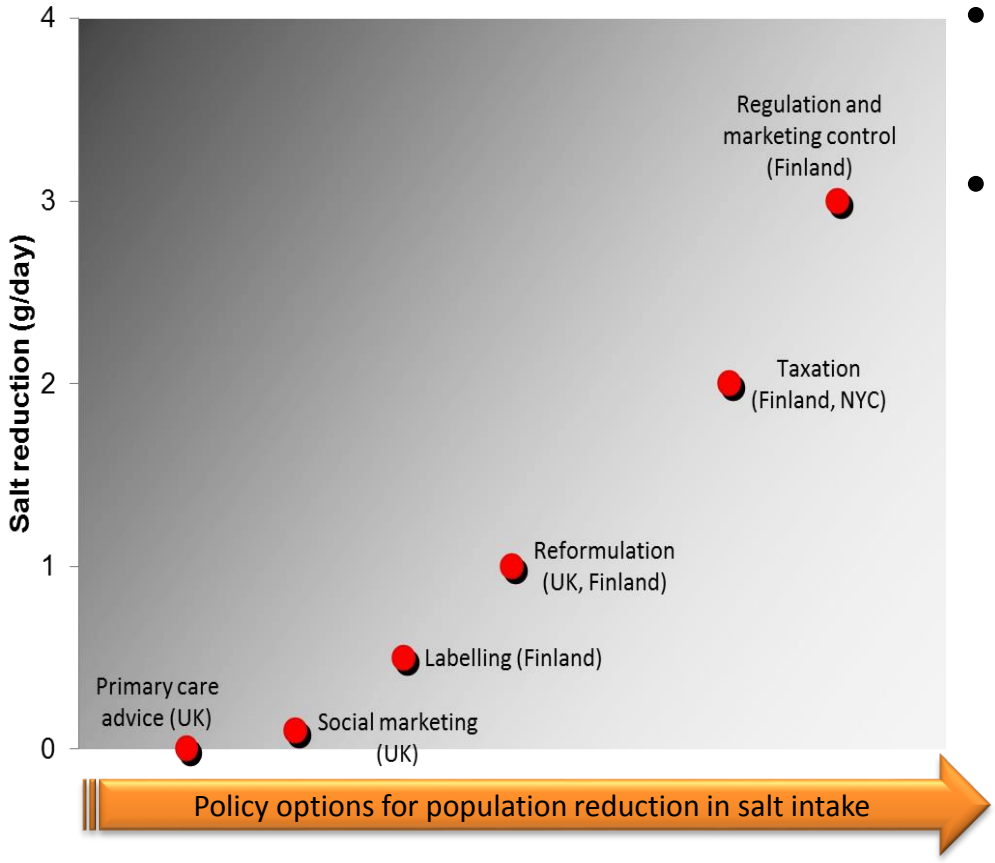




Cappuccio FP et al. BMJ Open 2015;5:e007

After adjustments for age, sex, BMI, smoking, marital status, SES, physical activity, hypertension **and geographic location**

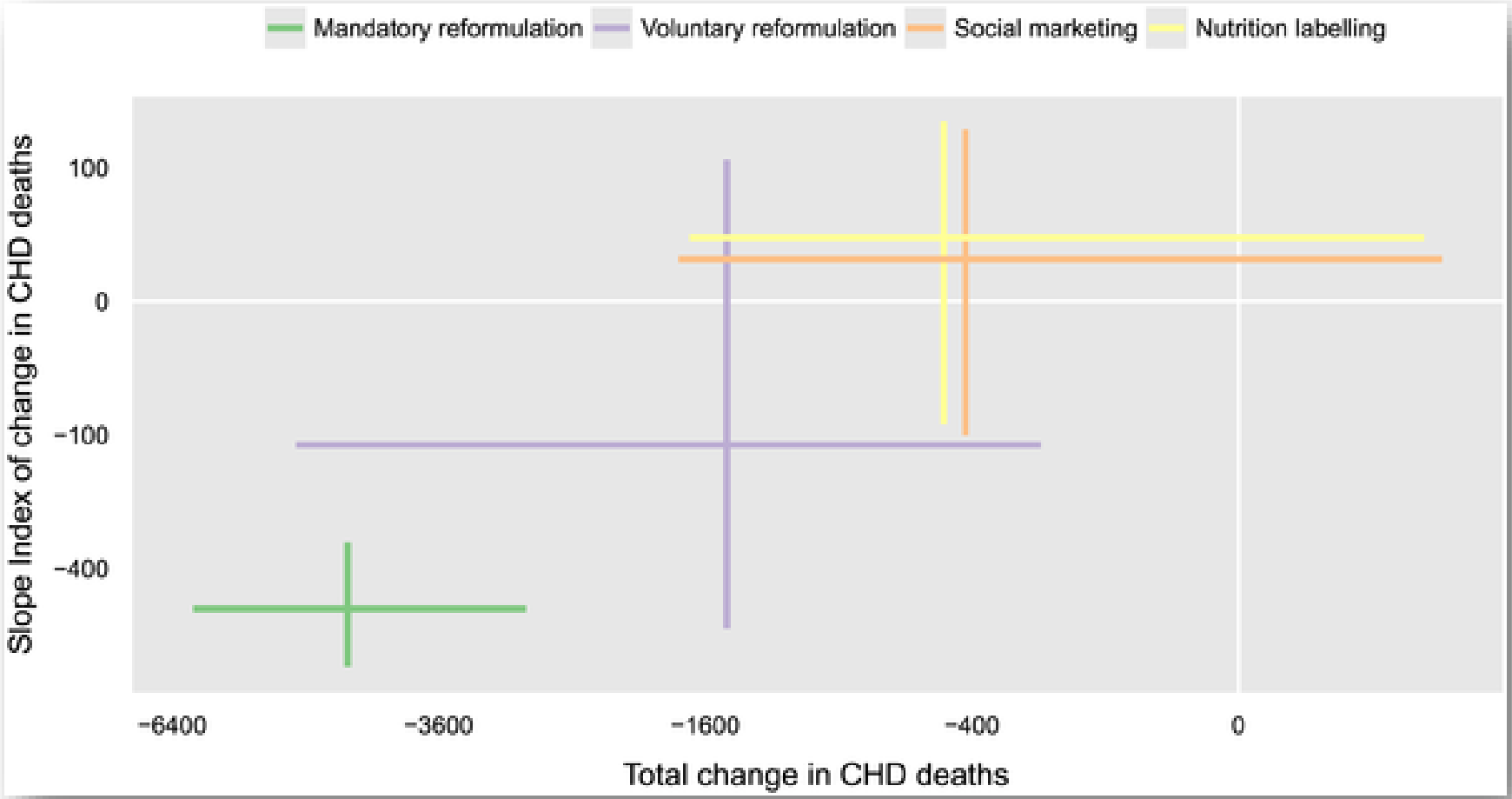
Policy options: health equity and effectiveness



- Set in Marmot Reviews (UK and WHO, 2010)
- Policy interventions:
  - Structural ('upstream' affecting food environment) – e.g. legislative and fiscal changes, mandatory reformulation – effective and reducing inequalities
  - Agentic ('downstream' reliance on individual choice) – e.g. social marketing, awareness, health promotion, behavioural – politically more likely but fewer benefits and potentially widen inequalities.

Cappuccio FP et al. Br Med J 2010;343:402-5

Policy forecast for England up to 2025:
health equity and effectiveness



Gillespie DOS et al. PLoS ONE 2015; 10: e0127927

Population salt reduction for the prevention of cardiovascular disease

- A reduction in salt intake reduces BP
- A reduction of 5g per day may reduce strokes by as much as 23% (i.e. 1.25M deaths worldwide)
- Evidence of benefits as low as 3g salt per day
- Effective in both genders, any age, ethnic group, high, medium and low-income countries
- Population salt reduction programs are both feasible and effective (preventive imperative)
- Salt reduction programs are cost-saving (*US:* $6-12 saved for every $ spent; *UK:* £40m a year saved for 3g/d population salt reduction) (economic imperative)
- Policies are powerful, rapid, equitable, cost-saving (political imperative)

Conclusions

- Salt intake is too high.
- Cause of avoidable ill-health and costs.
- A reduction is feasible, achievable and cost-effective (saving).
- Strategies include public awareness campaigns, comprehensive reformulation programmes and surveillance of salt intake and food salt content.
- The food manufacturing and retail industries have the capability and the responsibility to contribute substantially to these aims.
- Effective '*voluntary*' food reformulation has been the preferred choice.
- Where ineffective, '*mandatory*' actions and state-led market interventions are available and being used.
- Policies should narrow the social inequalities in salt consumption.