Reduction in salt consumption in Europe: a 'preventive' and 'economic' imperative

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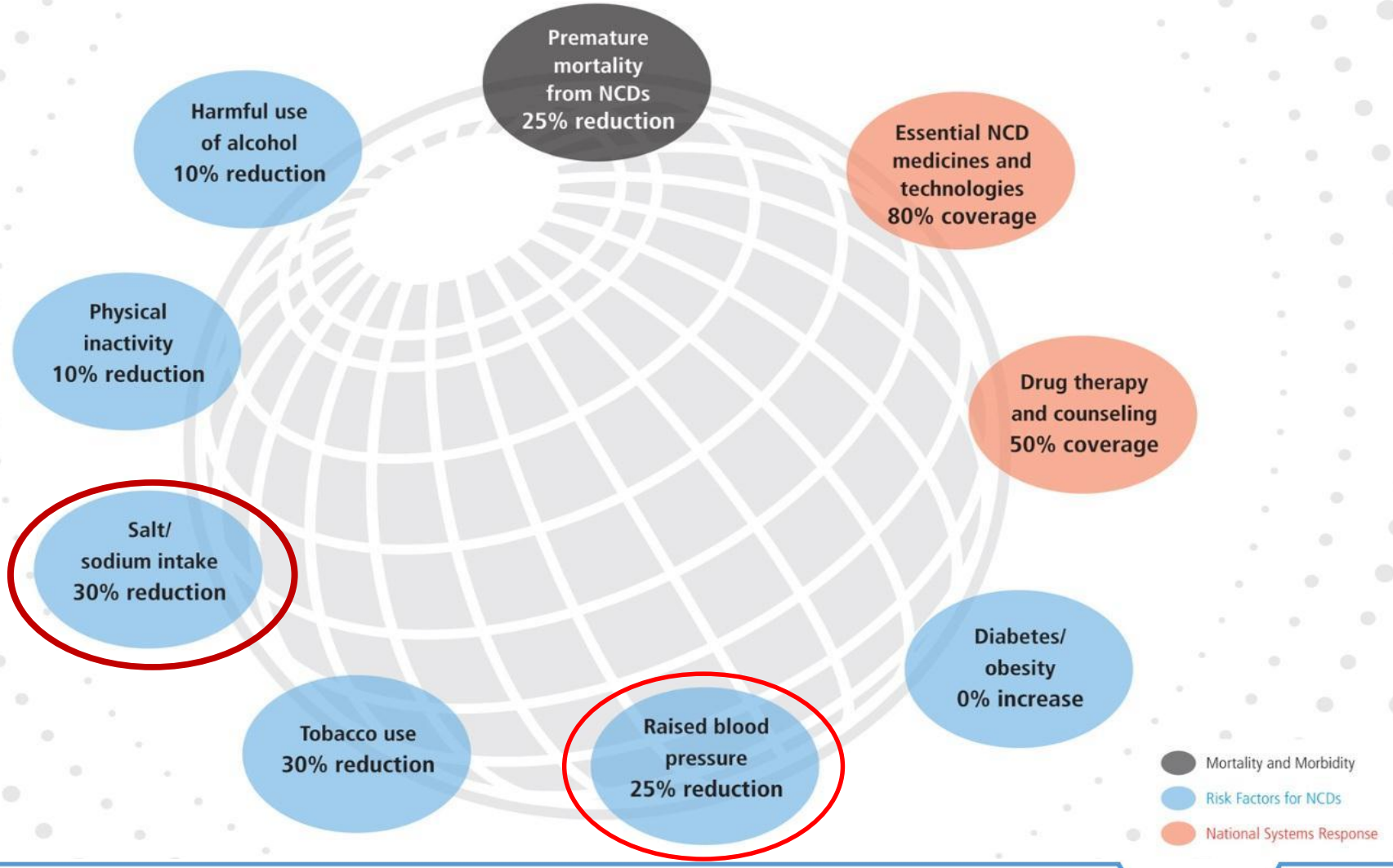
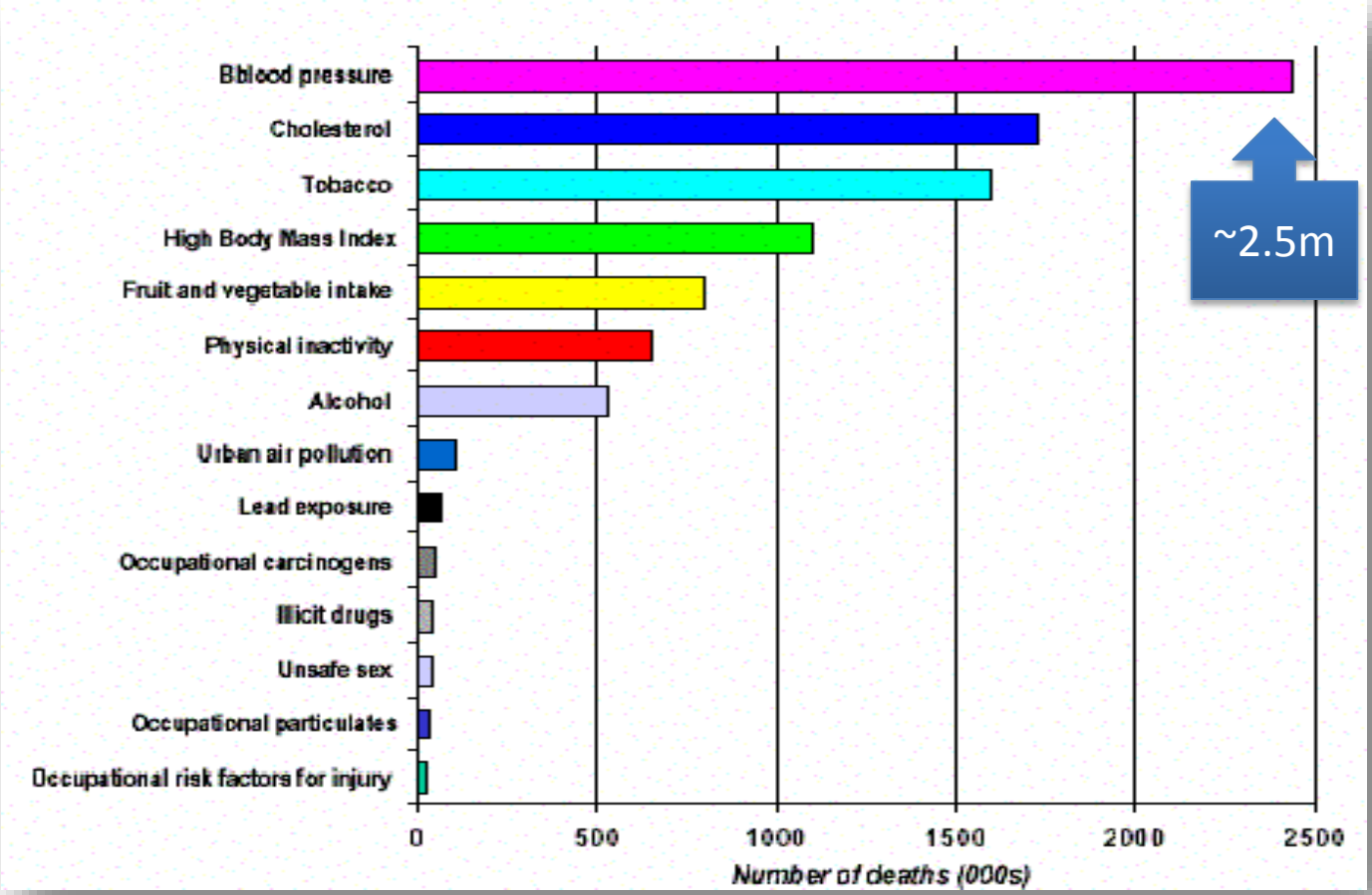
Disclosures: *Technical Advisor to the World Health Organization, the Pan American Health Organization, Member of C.A.S.H., W.A.S.H., UK Health Forum and Trustee of the Student Heart Health Trust – all unpaid.*

Why ‘blood pressure’ and ‘salt intake’ UN-WHO priorities?

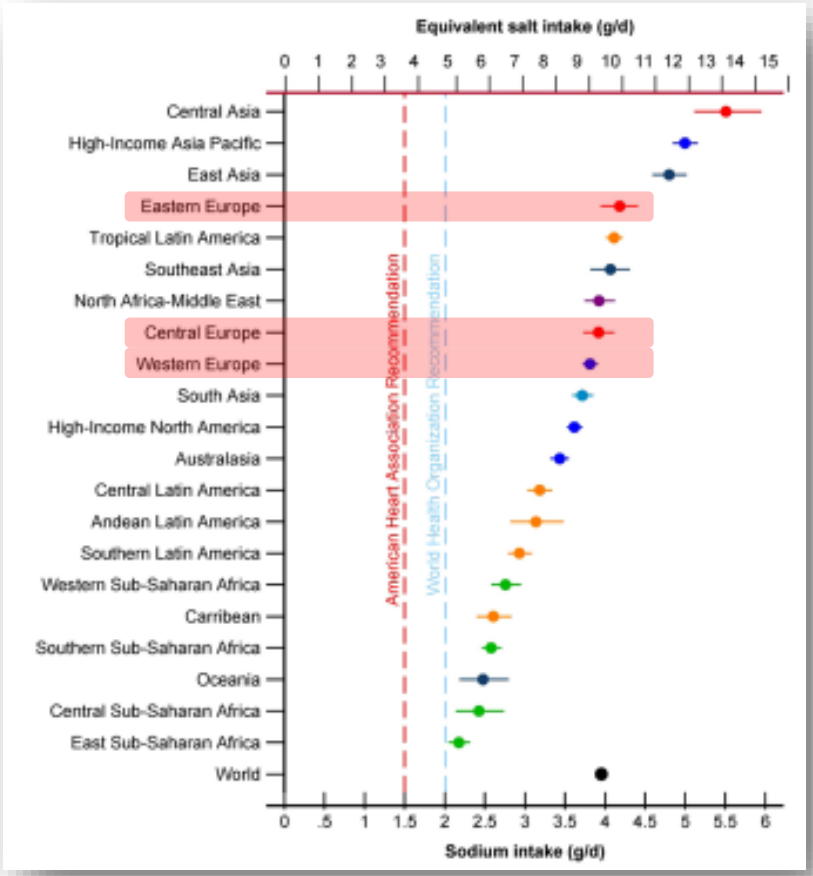


UN-WHO: World Health Assembly, 2010

Proportion of deaths attributable to leading risk factors in Europe (2000)



Salt intake is at least twice the maximum recommended level in most countries of the world



8.5M deaths in LMICs could be prevented over 10 years if sodium intake were reduced by 15%

Powles J et al. BMJ Open 2013;3:e003733

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

Components of a strategy to reduce population salt intake

Communication

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

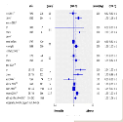
Reformulation

- **<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

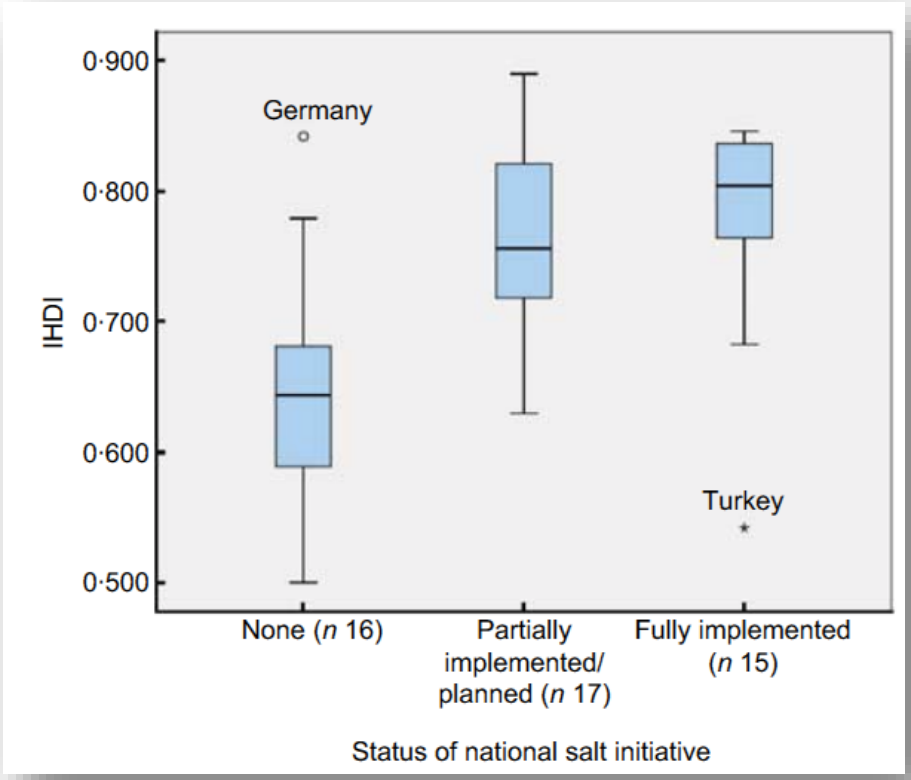


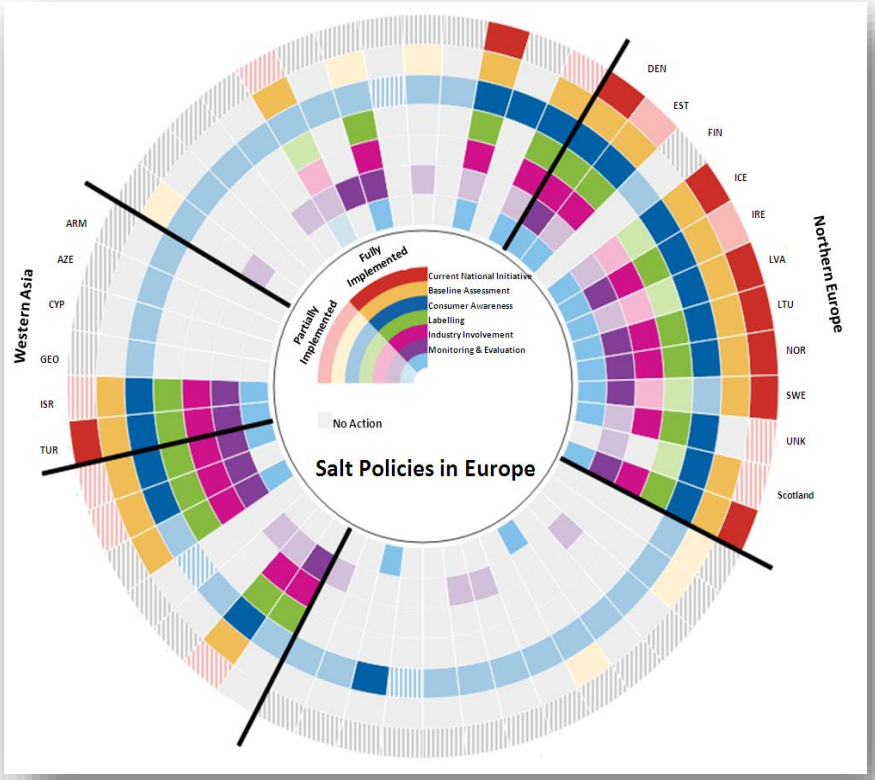
Research

- Epidemiology
- Nutrition
- Public Health
- Food technology
- Behavioural
- Evaluation
- Policy

Cappuccio FP et al. BMJ 2010;343:402-5

Inequalities in salt reduction policies in WHO Region for Europe

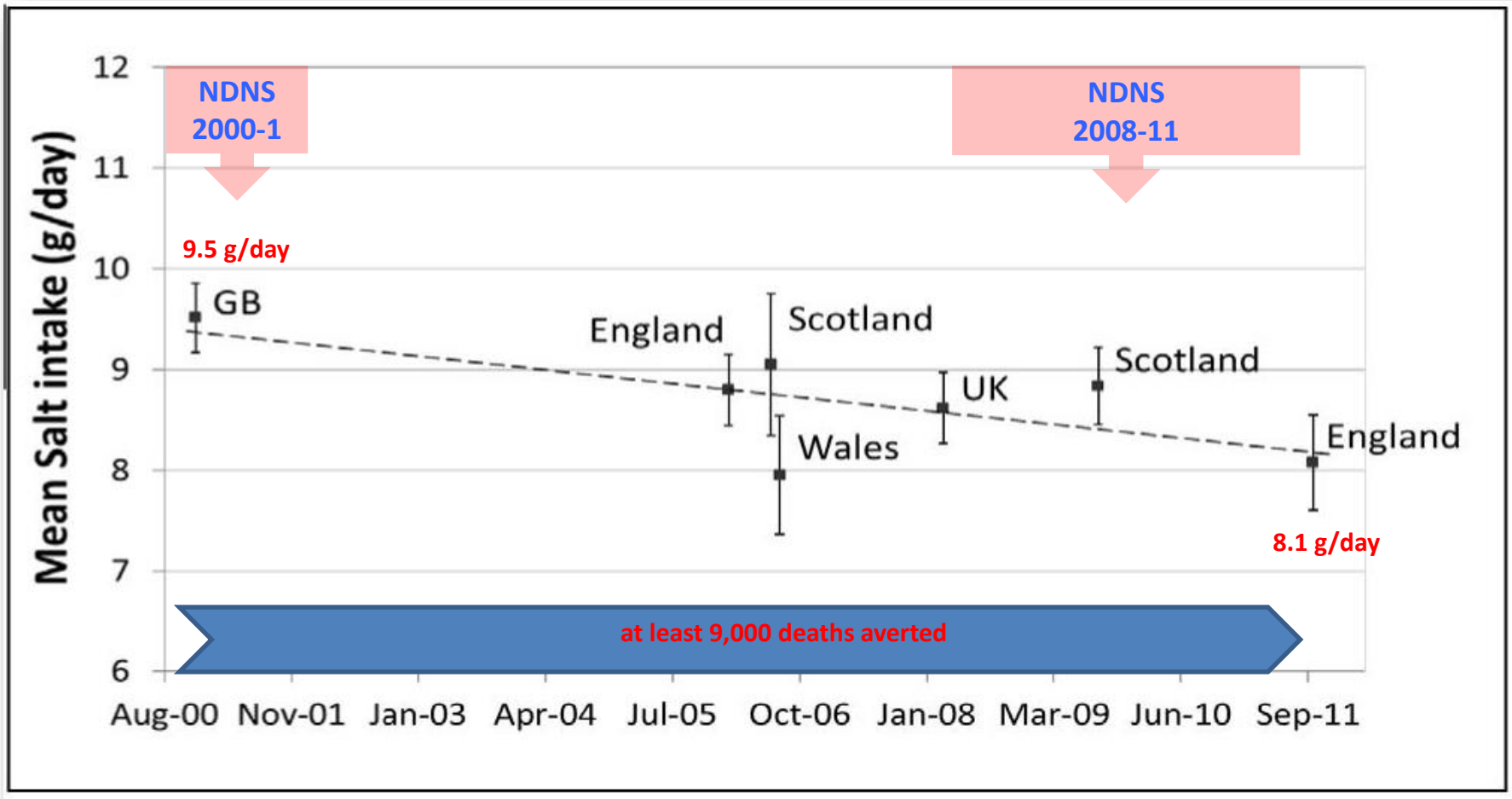




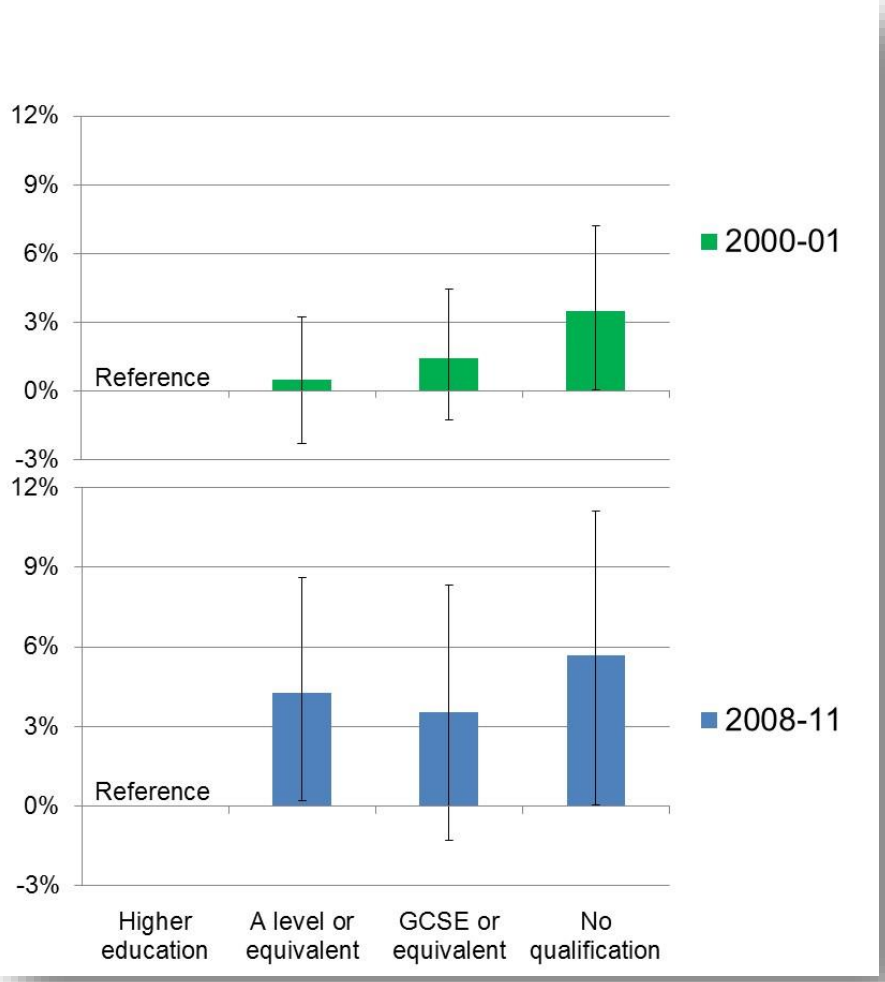
IHDI=Inequality-adjusted Human Development Index

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



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

BMJ Open 2013; 3: e002246

NDNS 2008-11 (n=1,027)

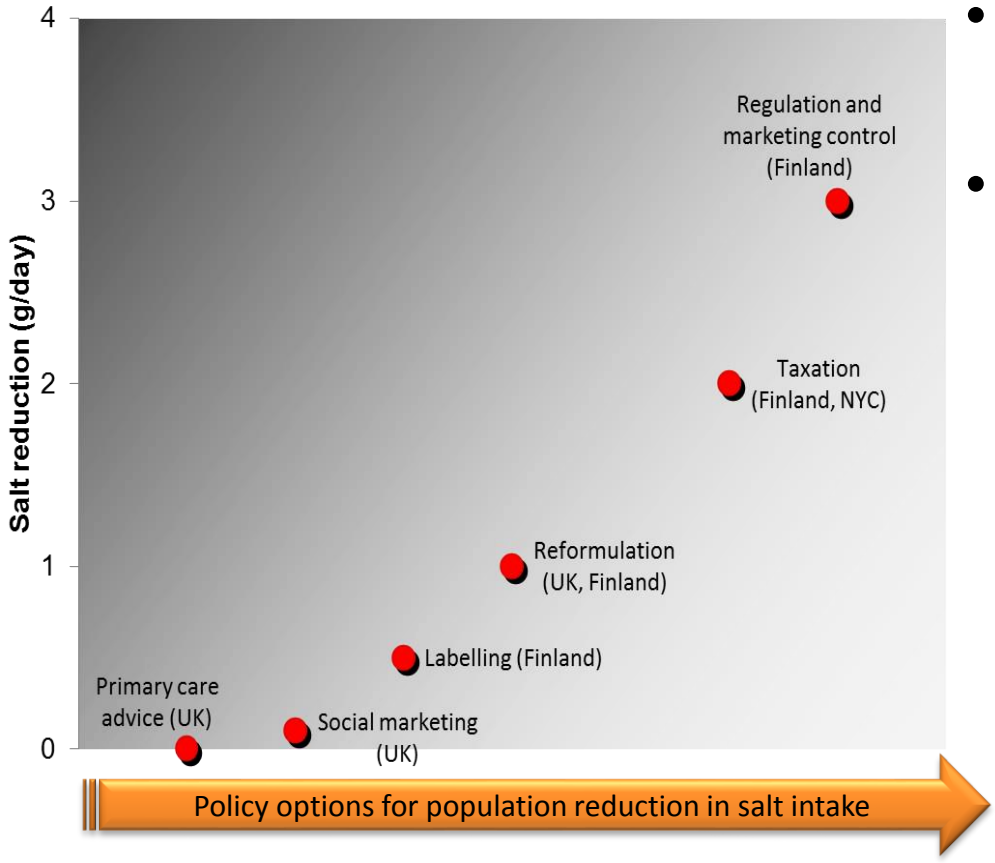
All whites

Dietary Na: 4-day food diary

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

BMJ Open 2014; 4: e005683

Policy options: health equity and effectiveness



- Set in Marmot Reviews (UK and WHO, 2010)
- Policy interventions:
  - Structural ('downstream' affecting food environment) – e.g. legislative and fiscal changes, mandatory reformulation – effective and reducing inequalities
  - Agentic ('upstream' 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. BMJ 2010;343:402-5

Policy forecast for England up to 2025:
health equity and effectiveness expressed as relative socio-economic differentials

Intervention	Salt intake	Systolic BP	Premature CHD postponed	Life years gained
Mandatory reformulation	1.14 (1.08-1.21)	1.14 (1.05-1.23)	4.41 (3.58-5.44)	2.75 (2.31-3.28)
Voluntary reformulation	0.90 (0.21-1.78)	0.90 (0.22-1.76)	3.51 (0.75-9.26)	2.19 (0.56-4.73)
Social marketing	0.45 (0.15-0.89)	0.46 (0.15-0.90)	1.42 (0.53-2.92)	1.08 (0.43-2.13)
Nutrition labelling	0.46 (0.08-1.12)	0.47 (0.09-1.12)	1.48 (0.39-3.82)	1.11 (0.31-2.69)

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

Conclusions

- Salt intake is too high.
- Cause of avoidable ill-health and associated healthcare and social costs.
- A moderate reduction is feasible, achievable and cost-effective (saving).
- Different economies have different sources of dietary salt (from processed food and industrial food production to social and cultural behaviour in salt use).
- 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 given their outreach.
- Voluntary and effective food reformulation has been the preferred choice.
- Mandatory actions and state-led market interventions are available and being used (e.g. South Africa for mandatory reformulation, Belgium for salt in bread).
- Policies should be set to narrow the social inequalities in salt consumption.