

The dietary challenge in the Caribbean

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IUNS



IDF



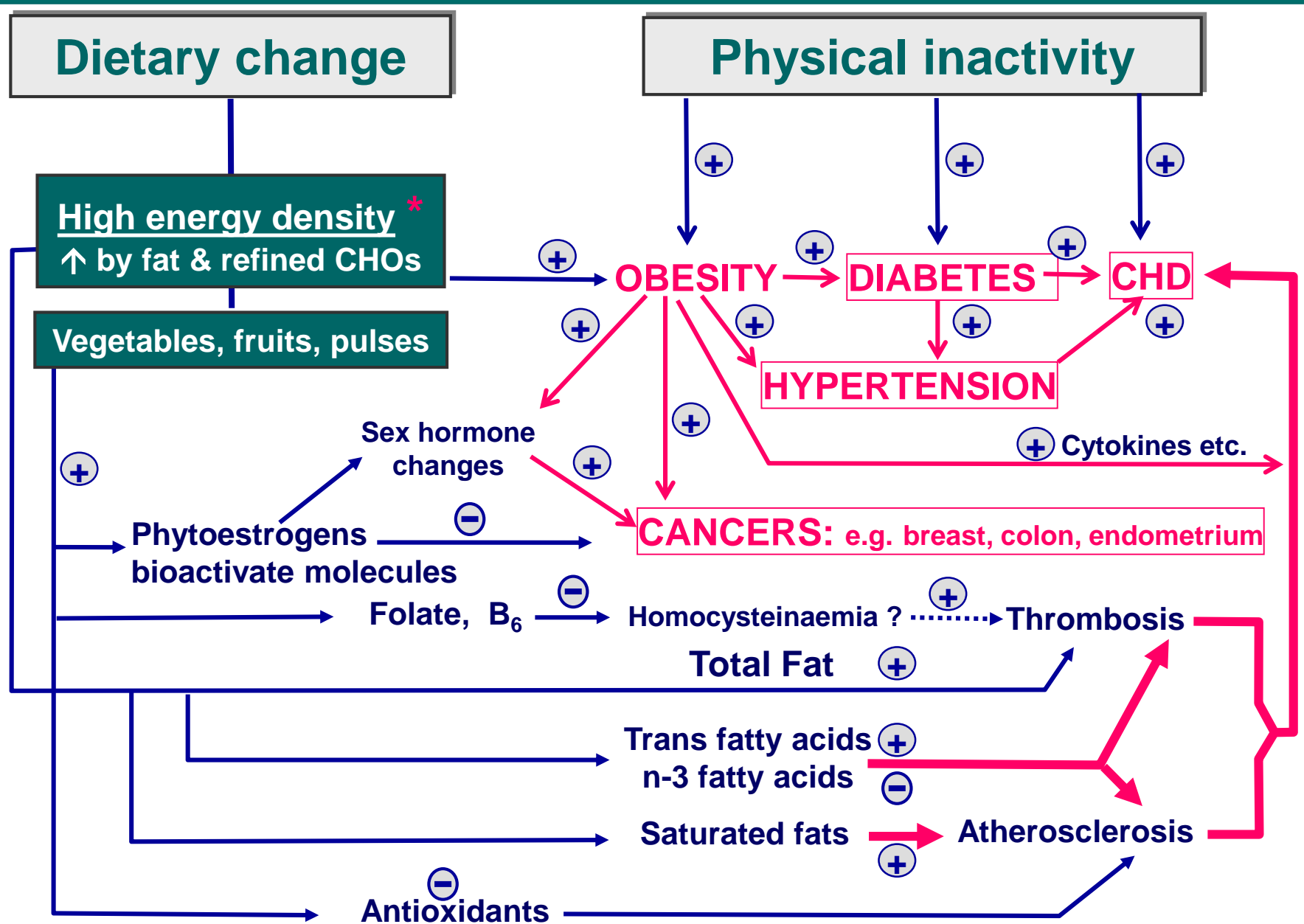
IOTF



IPA







WHF



* Energy density reduced by water-holding, bulky foods, e.g. tubers, cereals, vegetables, fruits, pulses.

A summary of the nutritional problems in the Caribbean

-  **Childhood malnutrition:** dramatic fall
- **Strokes:** caused by high **salt** intakes: amplified  by weight gain, dietary **fat**, **low fruit and vegetable** intakes
- **Coronary heart disease** emerged as **saturated**  **fat** intakes rise
- **Obesity/diabetes:** physical activity falls ; **energy**  **density** from high fat/sugar low F&V diets
- **Huge change needed at multiple levels : personal, family, community and national**

Foci for action in relation to chronic diseases

- Alcohol
- Salt/pres. methods
- Some meats
- **Fats- esp. trans**
- **Sugars**

} → **Obesity**

Energy Density

- **Veg/fruits/cereals (whole grain)**
- **Physical activity**

} ↑



Systematic review of tobacco prevention strategies

US DHSS

- Strong evidence of effectiveness for:
 - increasing the unit price of tobacco products and mass media campaigns run concurrently with other interventions.
- Sufficient evidence of effectiveness for:
 - restricting tobacco product distribution,
 - regulating the mechanisms of sale,
 - enforcing access-to-minors laws,
 - merchant education and training
 - all conducted in conjunction with community mobilization

Ranney et al **Tobacco Use: Prevention, Cessation, and Control *Evidence Report/Technology Assessment***
Number 140 US DHSS 2006

UK British Medical Association proposals to reduce alcohol abuse

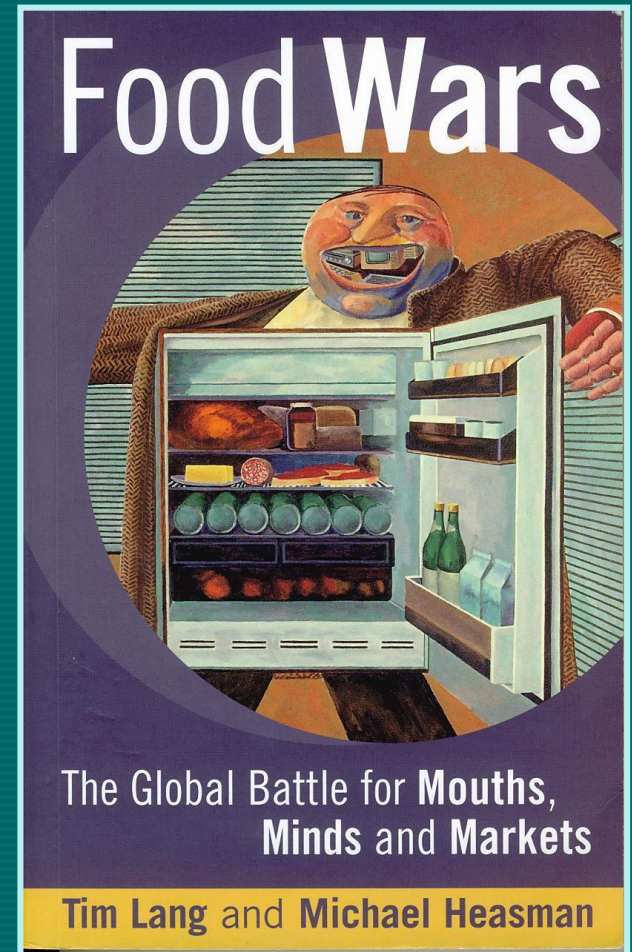
- Increase price
- End sponsorship by alcohol producers of sporting and entertainment events that have a young target audience;
- Legislate on labelling of alcohol products
- Reduce drink driving limit: 80→50mg/dl
- Random breath testing

The keys to success in the food business and in obesity and chronic disease prevention

- **Price**

- **Availability**

- **Marketing**



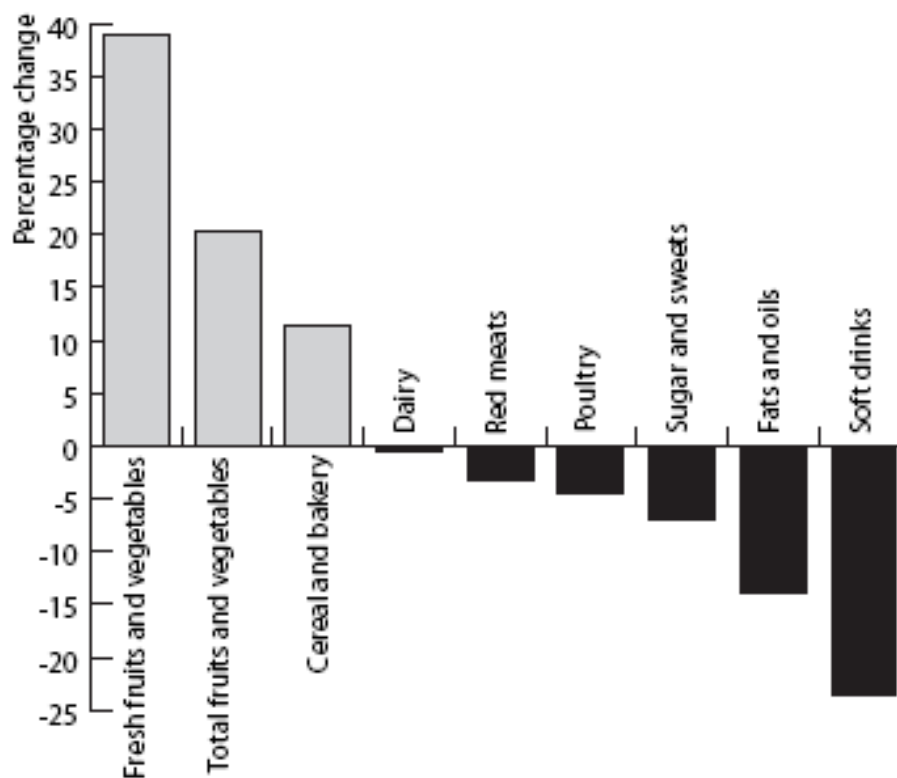
Food without Thought

How U.S. Farm Policy
Contributes to Obesity



Institute for Agriculture and Trade Policy
Environment and Agriculture Program

Change in food prices, 1985–2000
(real dollars)



Source: USDA ERS FoodReview, Vol. 25, Issue 3. Converted to real dollars.

Government support for producing grain and oilseed crops comes in many forms, from money invested in public universities and government agencies to research such crops, to subsidy payments that make up for low prices, to continued promises of increased export markets for these crops.

Agriculture policy

- Chronic over-production of sugar and butter
- Low cost of calories from oils, sugars, starches



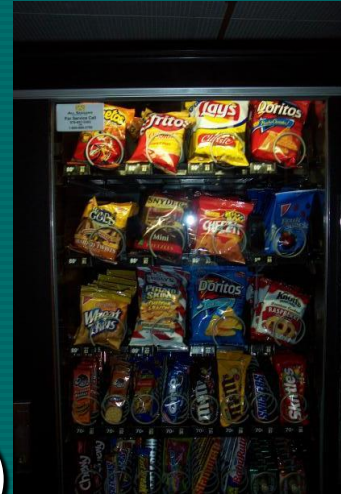
55 cents for 100 kcal

1 cent for 100 kcal



Snack Foods Are Everywhere

- Car washes
- Book stores
- Hardware stores (Home Depot)
- Gas stations
- Office buildings (vending machines)
- Health clubs/gyms
- Video stores
- Car repair shops





Living Life Well

CHIPS ARE IN SEASON!



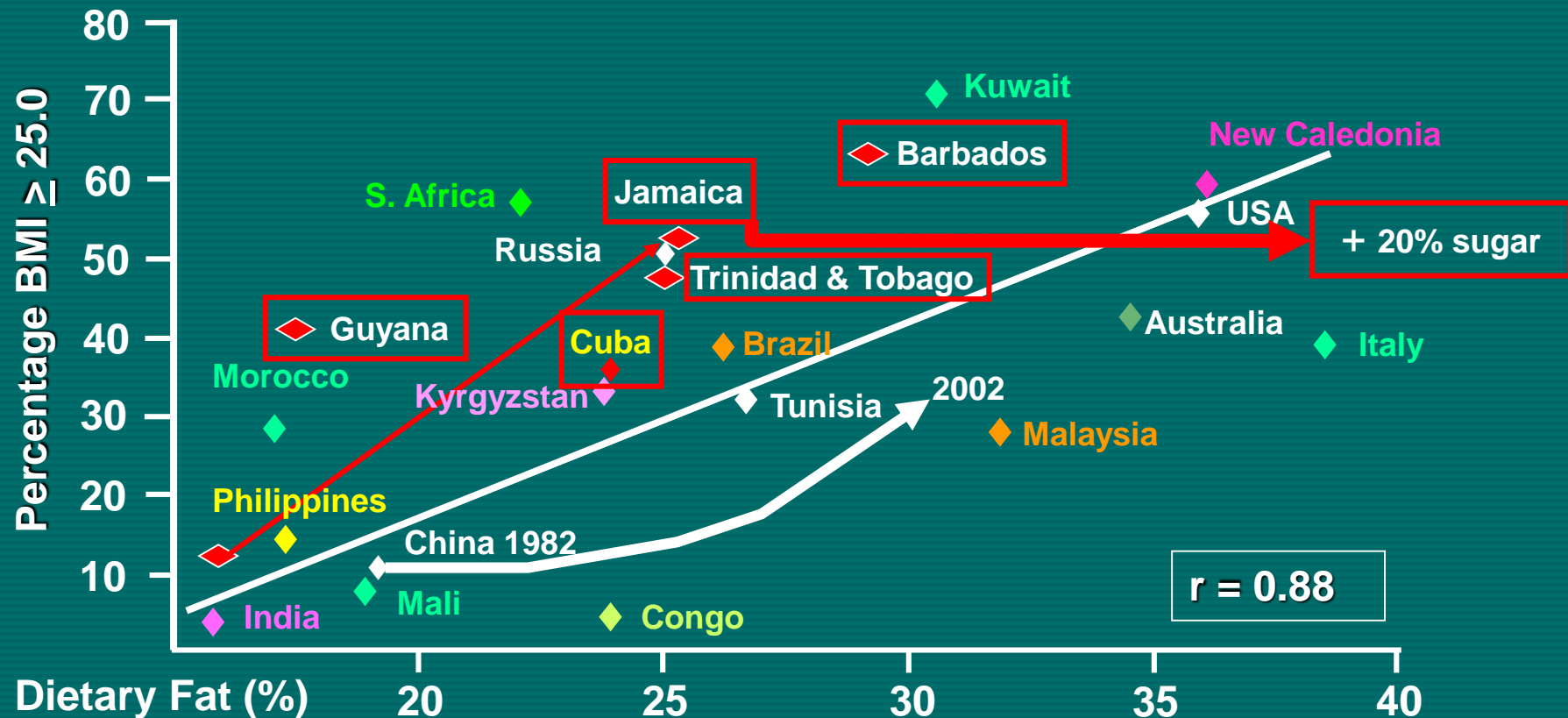
Doubling shelf space increases sales by 40%

**Current eye-tracking technology to detect
unconscious focus on particular images which
then subconsciously affect sales decisions
Still qualifies as "informed free choice"?**



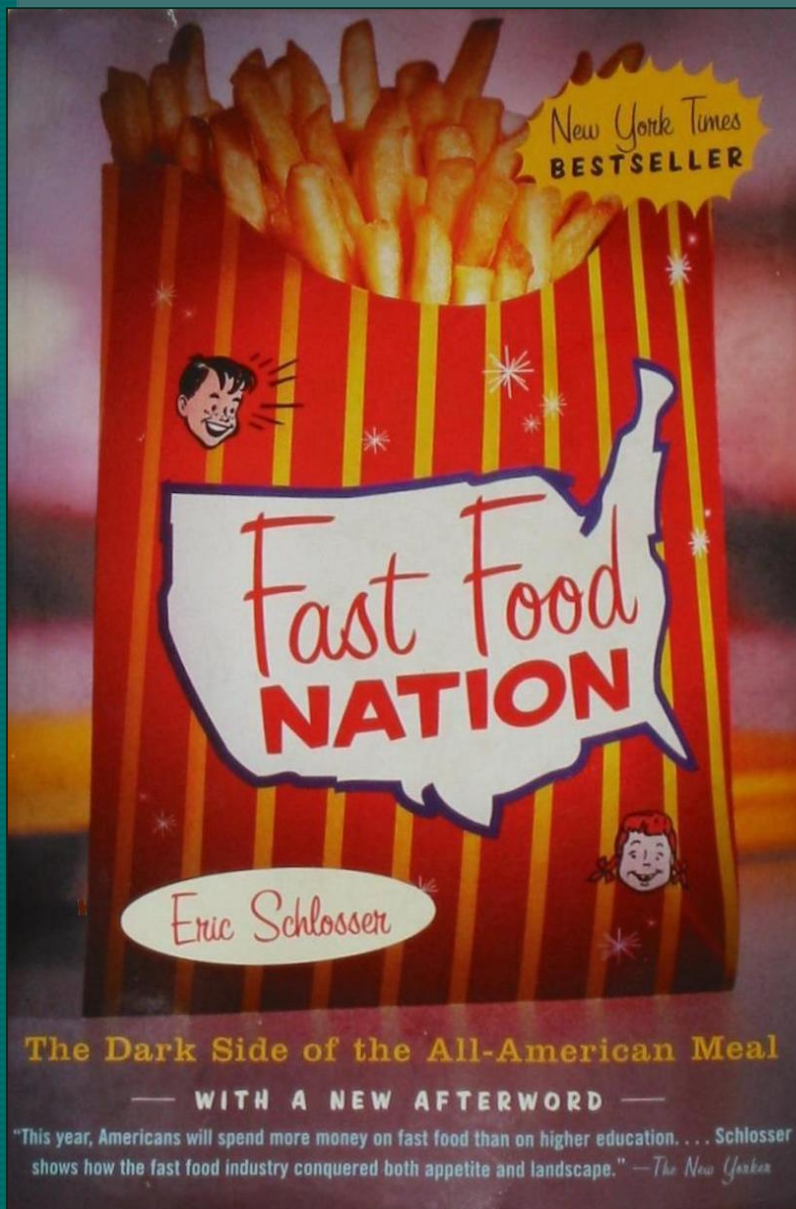
Measures attraction to products

Dietary fat and weight gain : additional effects of high sugar intakes on Caribbean overweight/obesity



Adapted from Bray & Popkin, AJCN 1998; 68: 1157-1173 with data from FAO 2005, CFNI and recent national surveys

Obesity epidemic is inevitable unless policies to reduce intakes substantially from fat & sugar with spontaneous increases in activity are introduced now



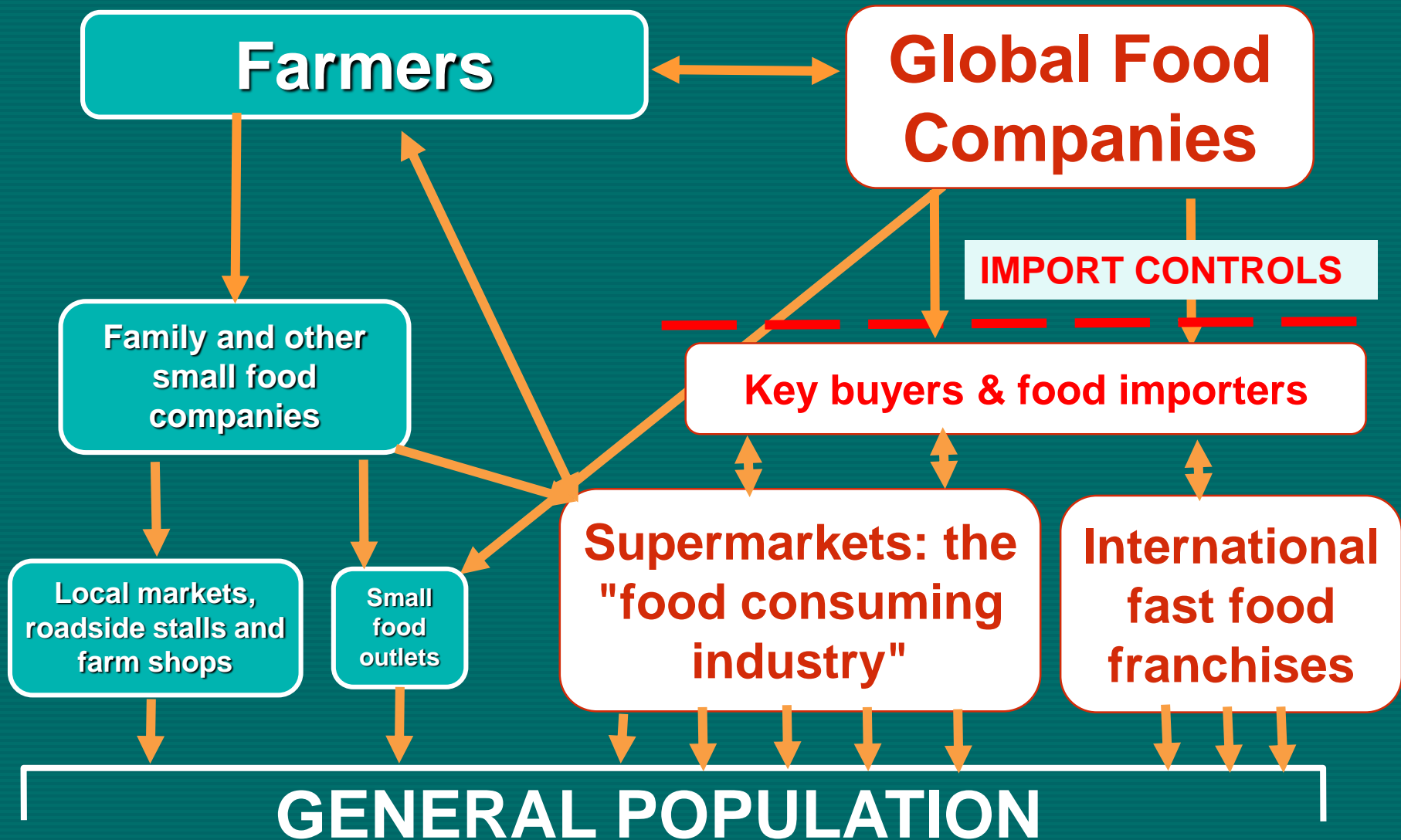
A quarter-pound cheeseburger,
large fries and a 16 oz. soda
provide:

- ➔ **1,166 calories**
- ➔ **51 g fat**
- ➔ **95 mg cholesterol**
- ➔ **1,450 mg sodium**

Eating healthily in different food outlets: how do I tell what I am eating?

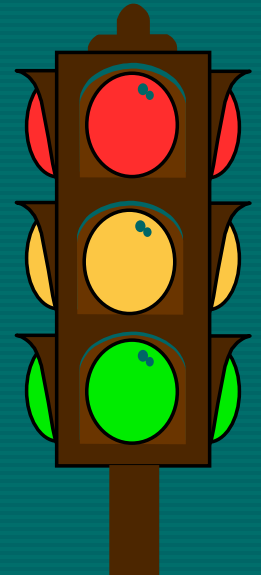
- Home
- School/work
- Friends
- Canteens/ Restaurants/ fast food outlets
- Street foods
- Vending machines
- Cafés

Who controls the food chain in the Caribbean? Not the people!

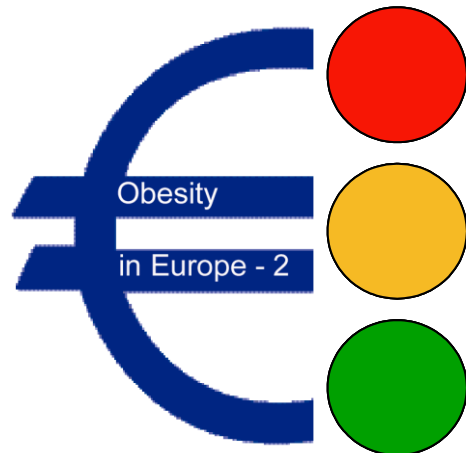


Central policies affecting the general population

- **Nutritional Profiling of foods: new UK policy being extended to Europe & Asia: applicable to school food**
- **Labelling with consumer relevant symbols, e.g. traffic lights with nutritional profiling: dramatic impact on sales – understandably resisted by vulnerable business interests.**



Food labelling schemes based on nutritional profiling tested by the UK Consumers' Organisation - "Which"



Waiting for a green light for health?

Europe at the crossroads for diet and disease

IOTF Position Paper - September 2003

UK Food
Standards
Agency
scheme

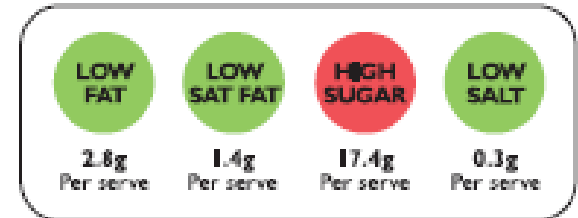
Tesco
Supermarket
GDA labelling
with a different
colour for each
nutrient

GDA
system

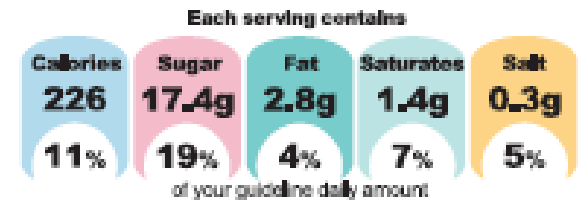
Tesco: GDA +
traffic lights

The different schemes mocked up
and presented in the research

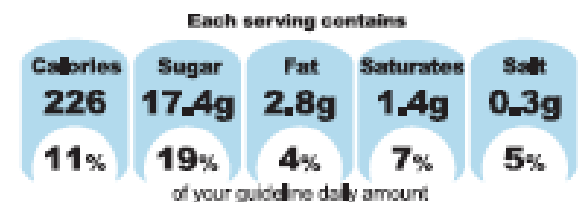
FSA



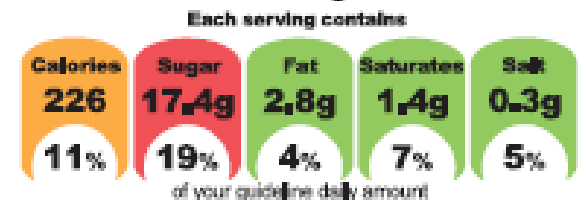
Tesco



Other Manufacturers



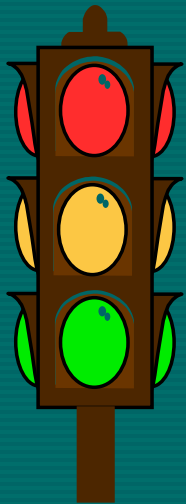
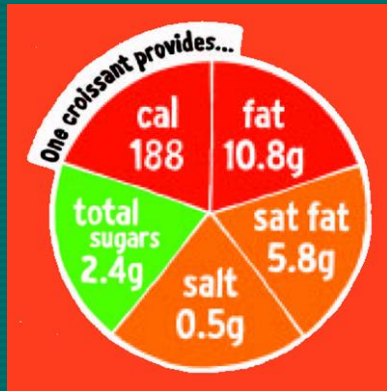
Tesco with traffic lights



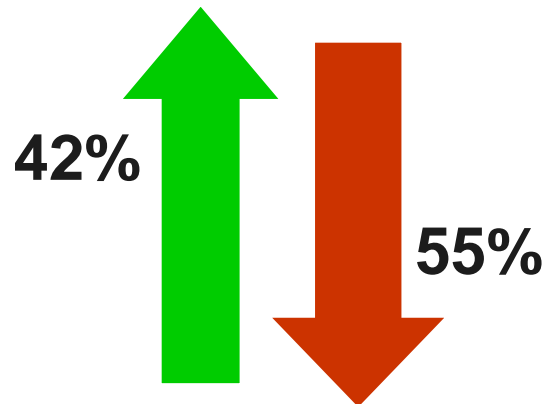
IOTF demand for EU action

Consumer purchases with traffic light food labelling of nutrients as proposed by UK's Food Standards Agency. Healthy (green), reasonable (yellow), or unhealthy (red)

Wheel of Health (WoH)



JS Ham and Pineapple
Pizzeria 356
all **5 GREEN** on WoH

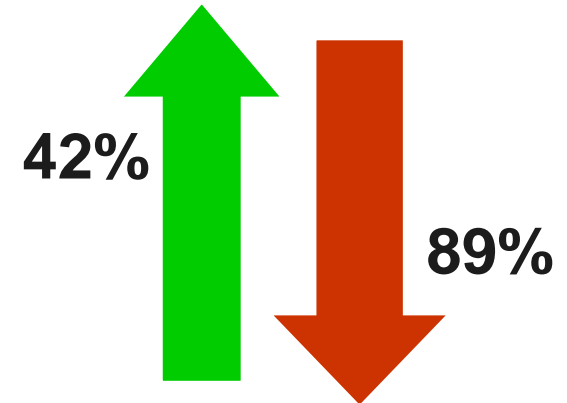


JS Ham & Pineapple Thin &
Crispy Pizza 335g
1 red 2 amber 2 green

Sainsbury's Supermarket
presentation to The National
Heart Forum, UK., 2006.

'Be Good to Yourself'
Chocolate sponge
puddings

4 Green 1 amber

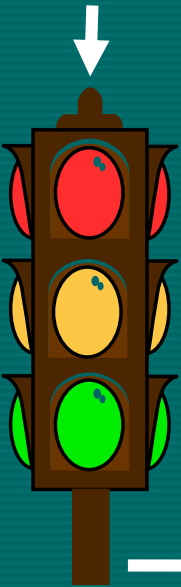


'Taste the Difference'
Melting Middle Chocolate
puddings

4 red 1 amber

Who controls the food chain in the Caribbean? Not the people!

Nutritional
profiling
determining
government
policies
throughout
the food
chain



Farmers

**Global Food
Companies**

Family and other
small food
companies

IMPORT CONTROLS

Key buyers & food importers

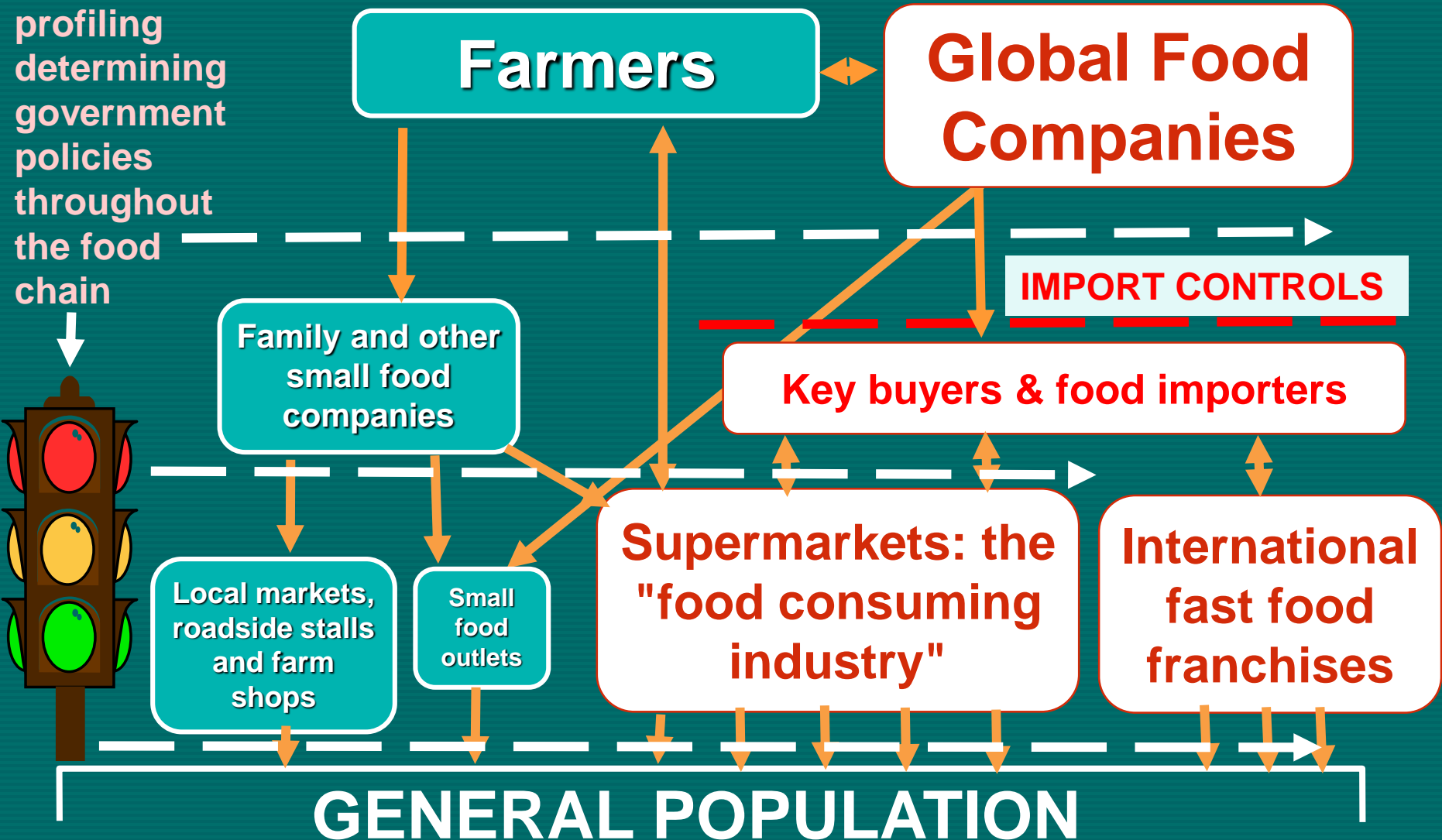
Local markets,
roadside stalls
and farm
shops

Small
food
outlets

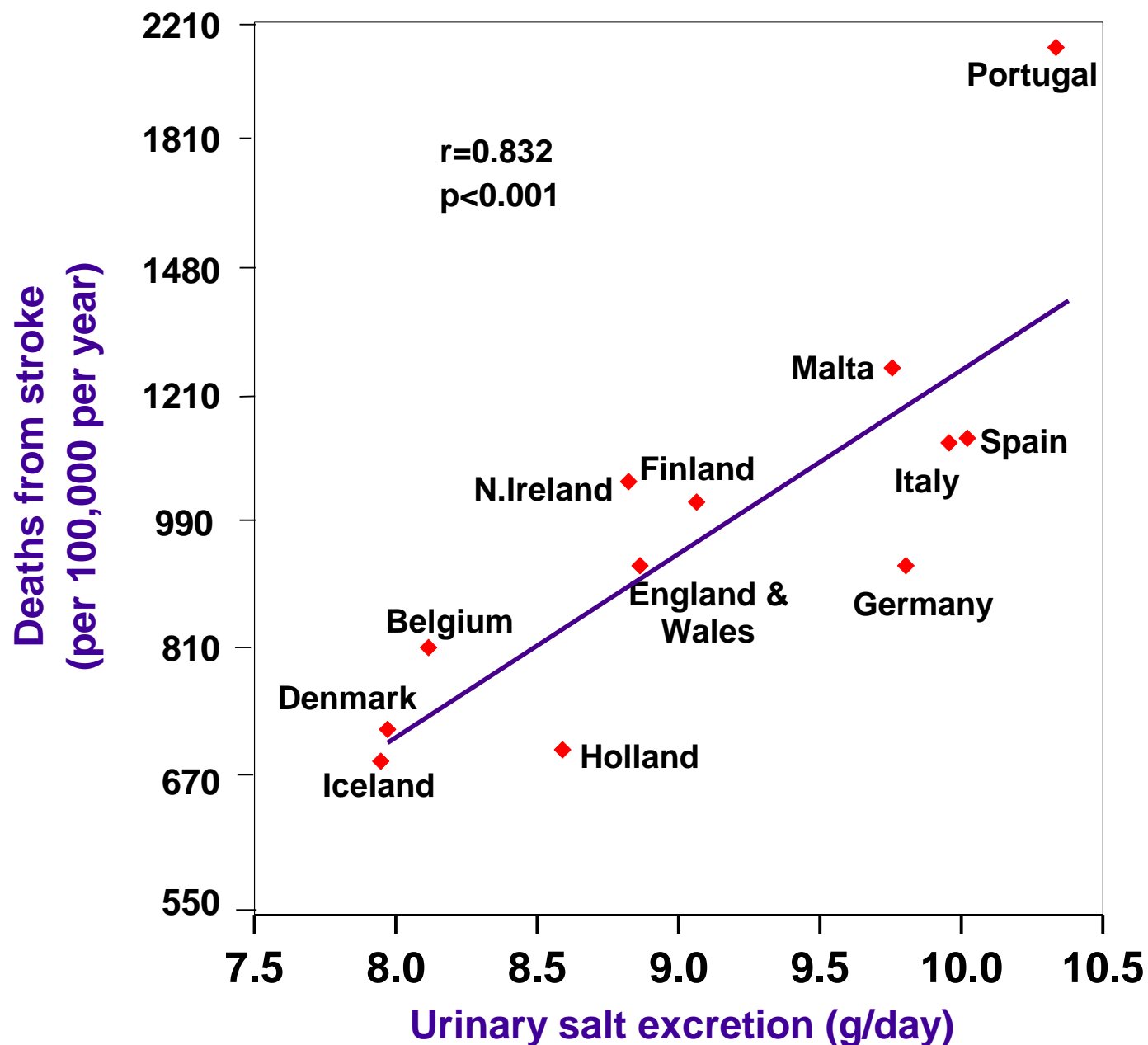
**Supermarkets: the
"food consuming
industry"**

**International
fast food
franchises**

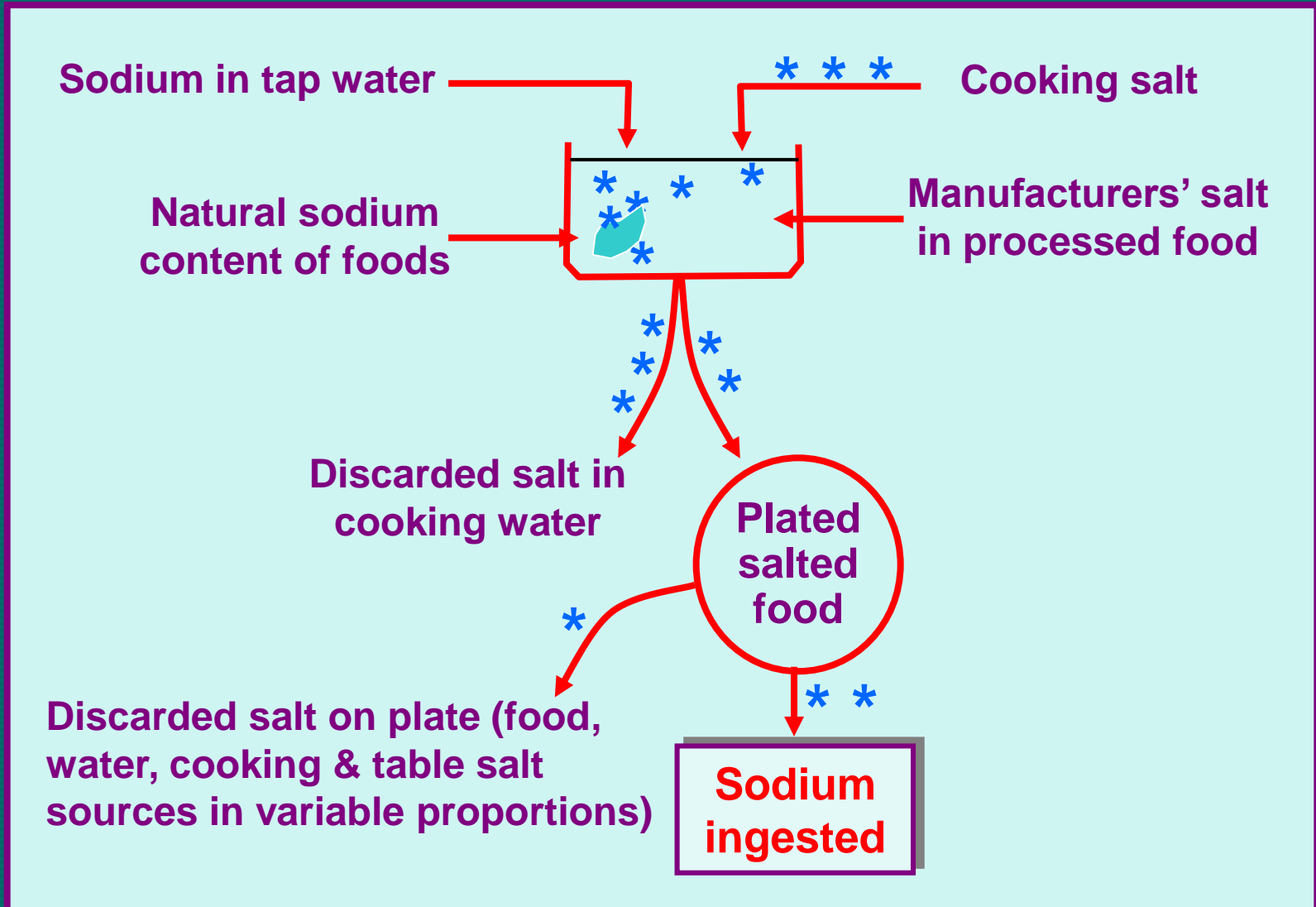
GENERAL POPULATION



Deaths from stroke in different European countries, plotted against urinary salt excretion, derived from the INTERSALT data

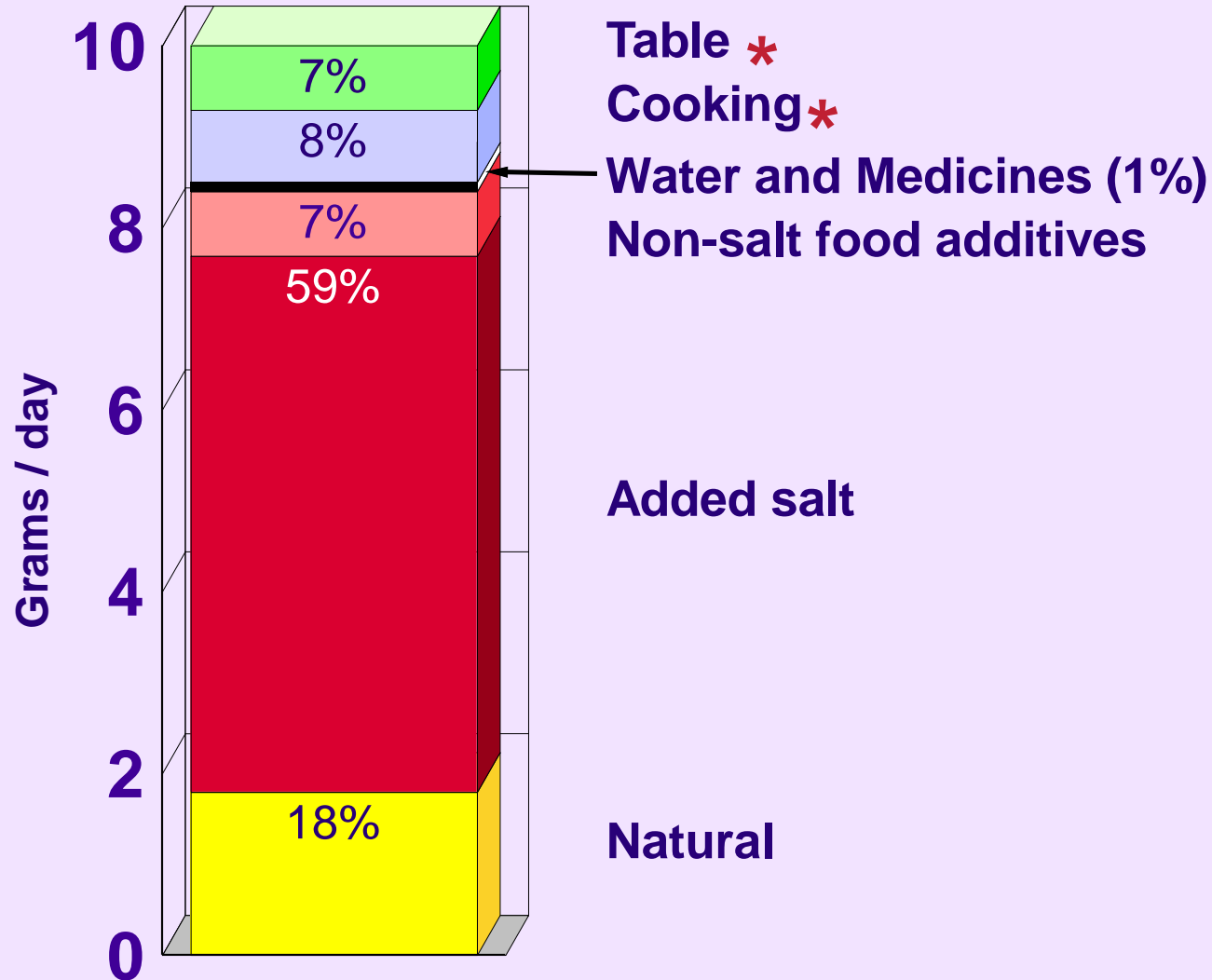


The tracking of cooking salt consumption



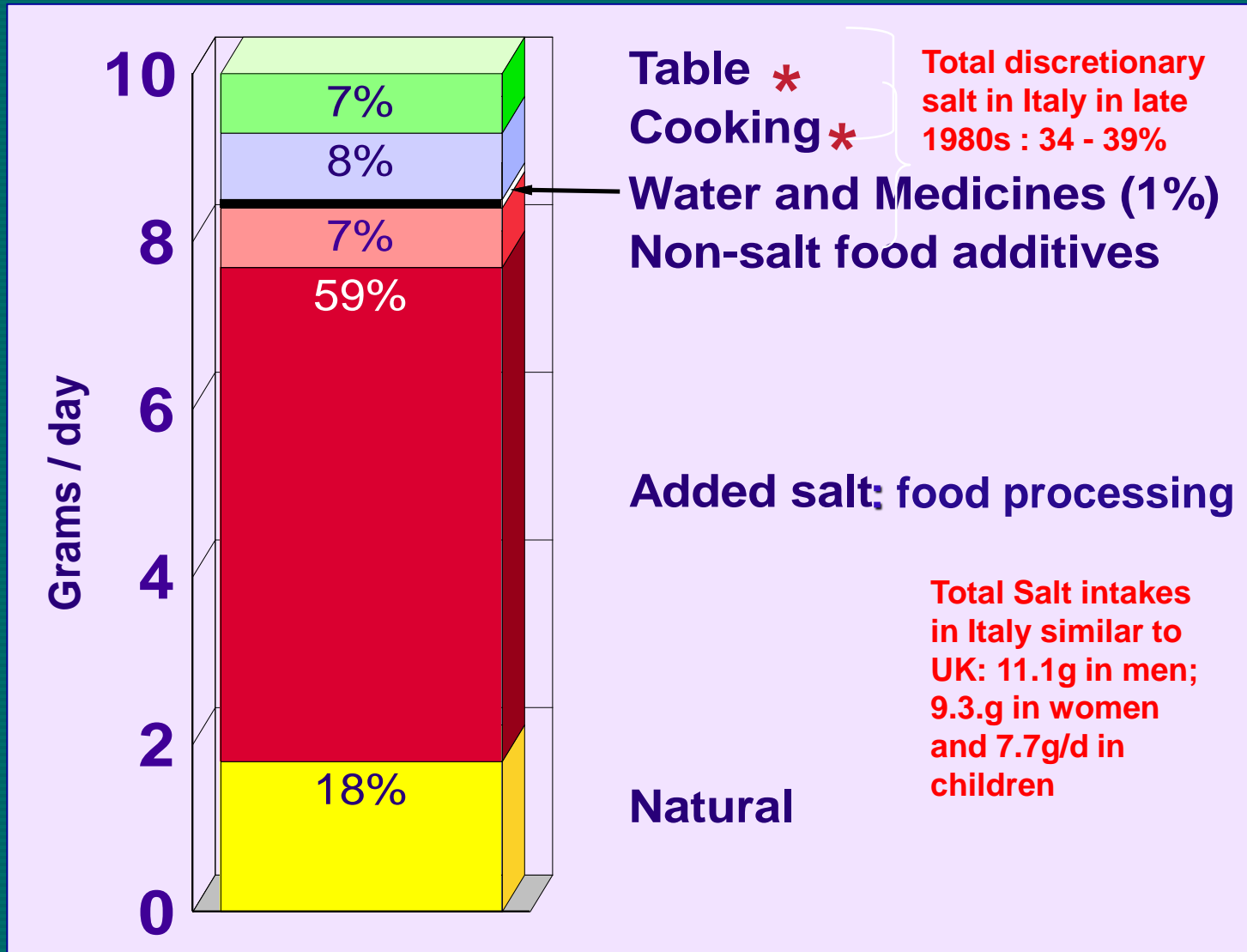
Defining cooking salt intakes for patient counselling and policy making.
Sanchez-Castillo & James. 1995.

Salt sources in a Western diet



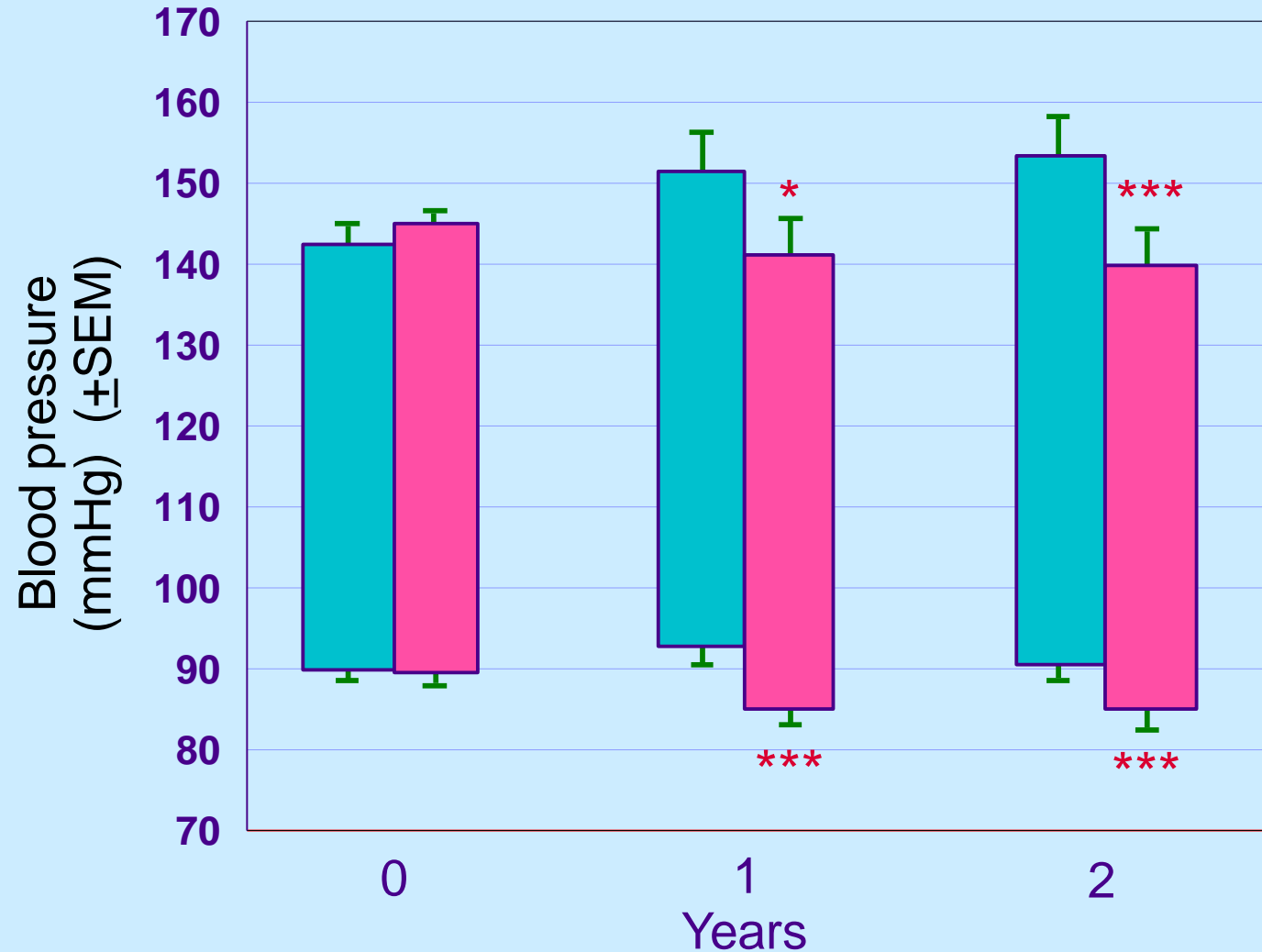
* Derived by the lithium technique: James et al., Lancet, 1987; 1: 426-429.
Edwards et al. Eur J Clin Nutr 1989 43:855-61

Salt sources in UK and Italian diets



* Derived by the lithium technique: James et al., Lancet, 1987; 1: 426-429.
Edwards et al. Eur J Clin Nutr 1989 43:855-61; Italian data: Leclercq & Ferro-Luzzi
Eur J Clin Nutr 1991, 3, 151-159

Intervention trial in two Portuguese villages



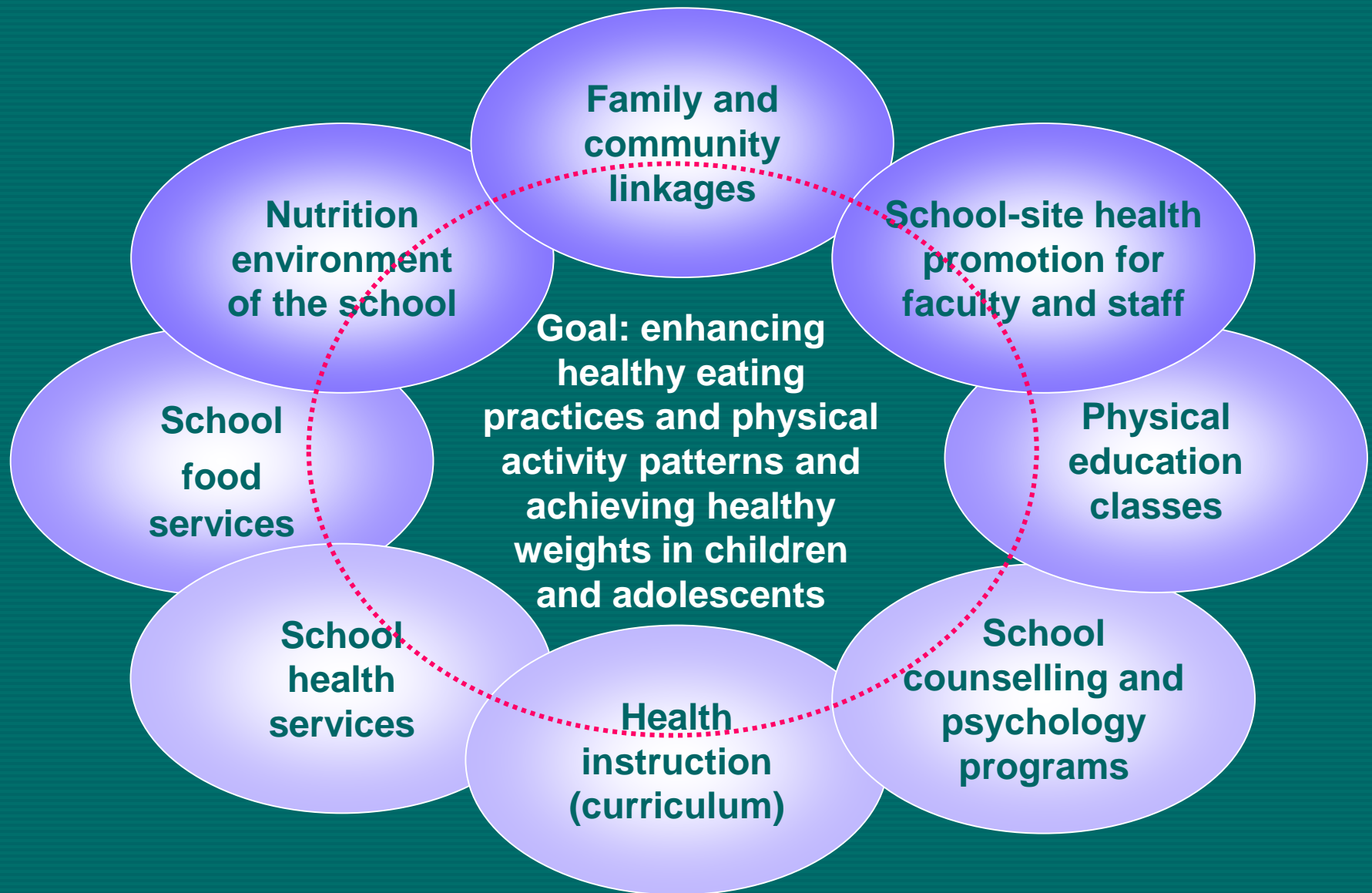
*p<0.05, ***p<0.001 compared to control group

Forte et al. (1989) J Human Hypertension, 3, 179-184.

Control

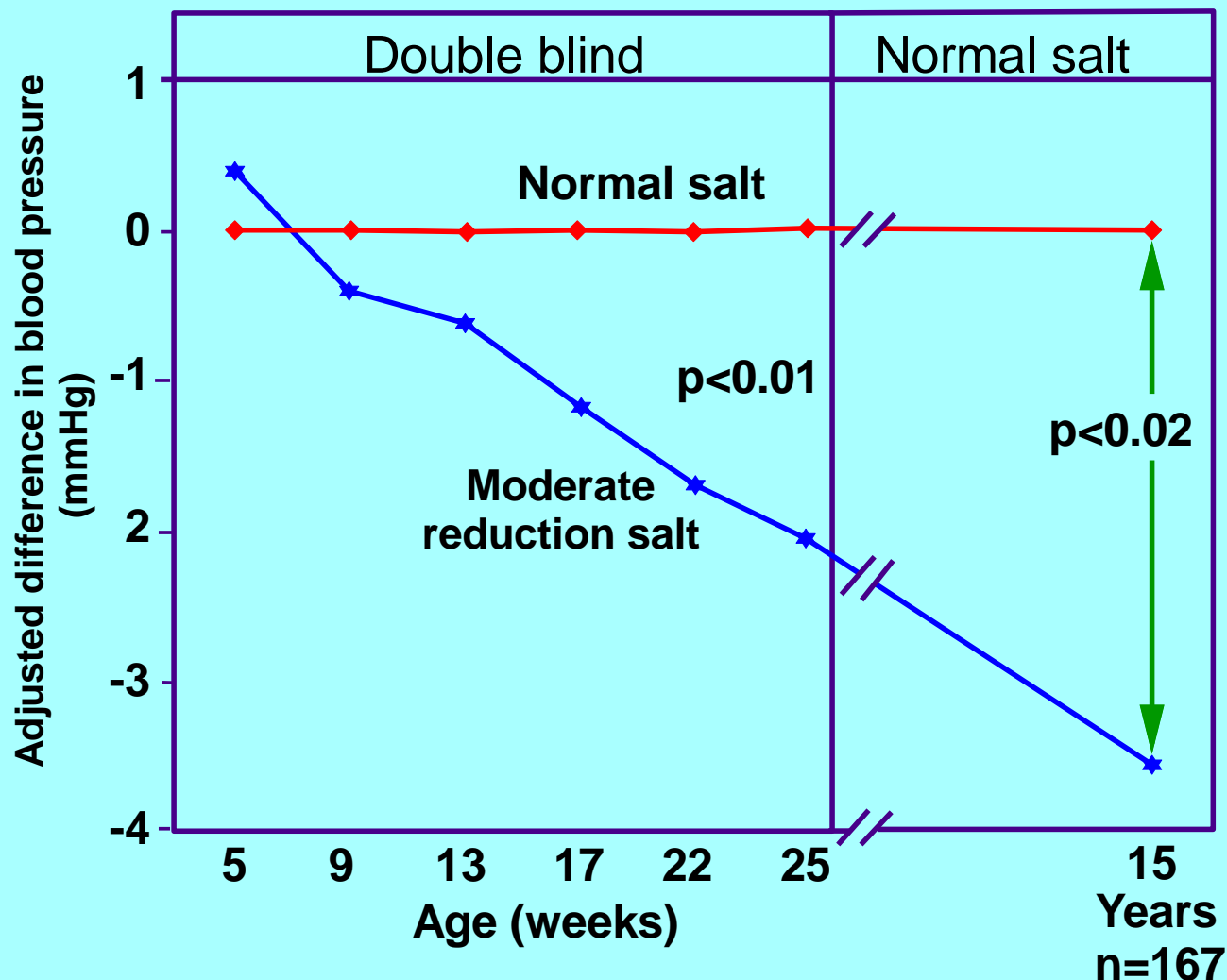
Moderate salt restriction

Components of an integrated comprehensive model for school-based obesity prevention.

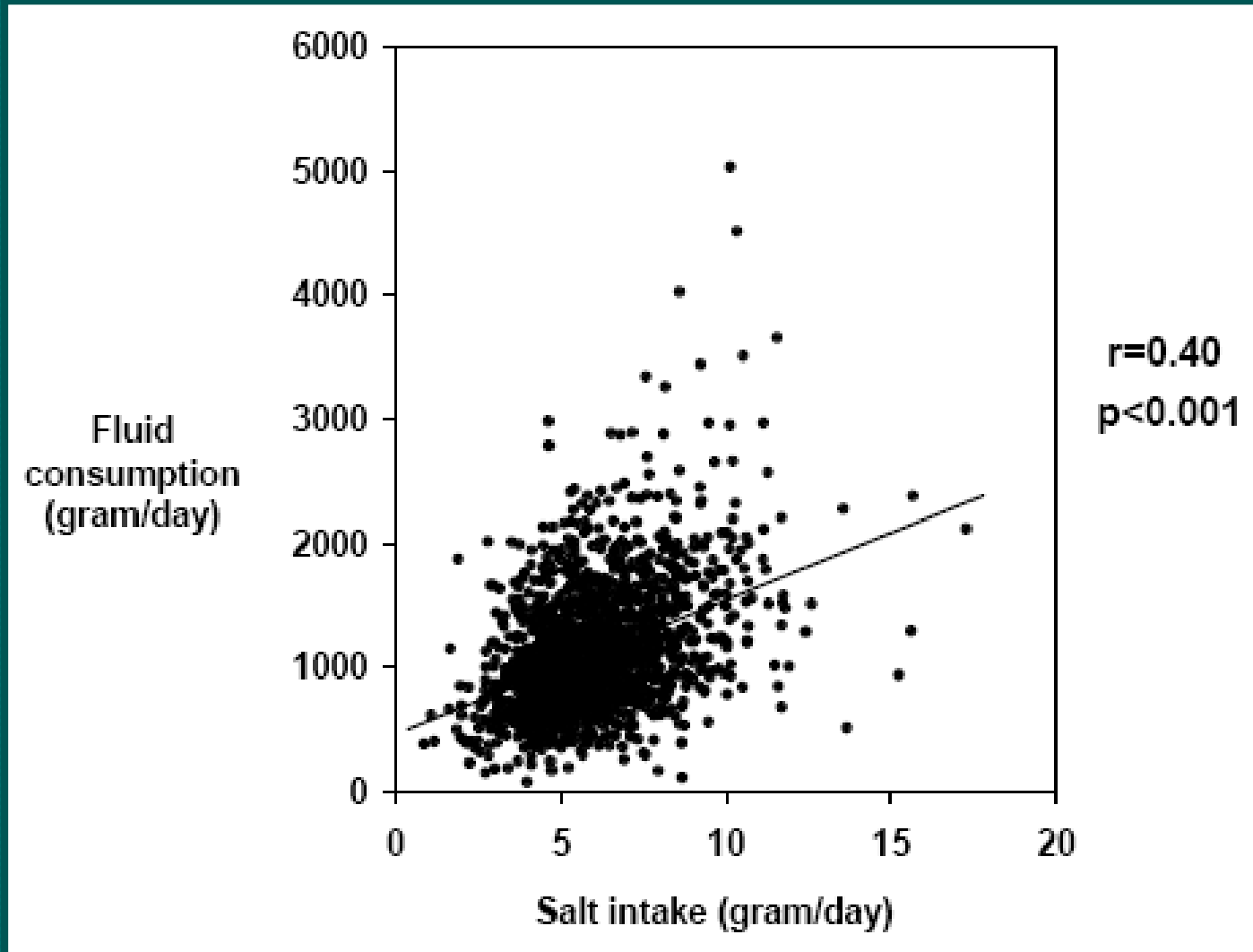


Salt restriction for six months in newborn babies

Difference in blood pressure in newborn babies, randomised to either a normal salt intake or a moderate reduction in salt intake over the first six months of life. At six months, the study was discontinued, with all participants resuming a normal salt intake. Fifteen years later, a subgroup of those in the study had blood pressure re-measured.



1g extra salt: soft drinks \uparrow 27 ml/d and water 100 ml/d in British children aged 4-18 yrs



Salt intake is related to soft drink consumption in children & adolescents: a link to obesity? He, Marrero & MacGregor. Hypertension. 2008 Mar;51(3):629-34

- Restrict promotion of energy-dense, nutrient poor foods and beverageswhile allowing the promotion of foods .. in line with the WHO dietary recommendations *
- Imperative to protect all children
- Incorporate all forms of marketing

* IMPLIES NEED FOR
NUTRIENT
PROFILING



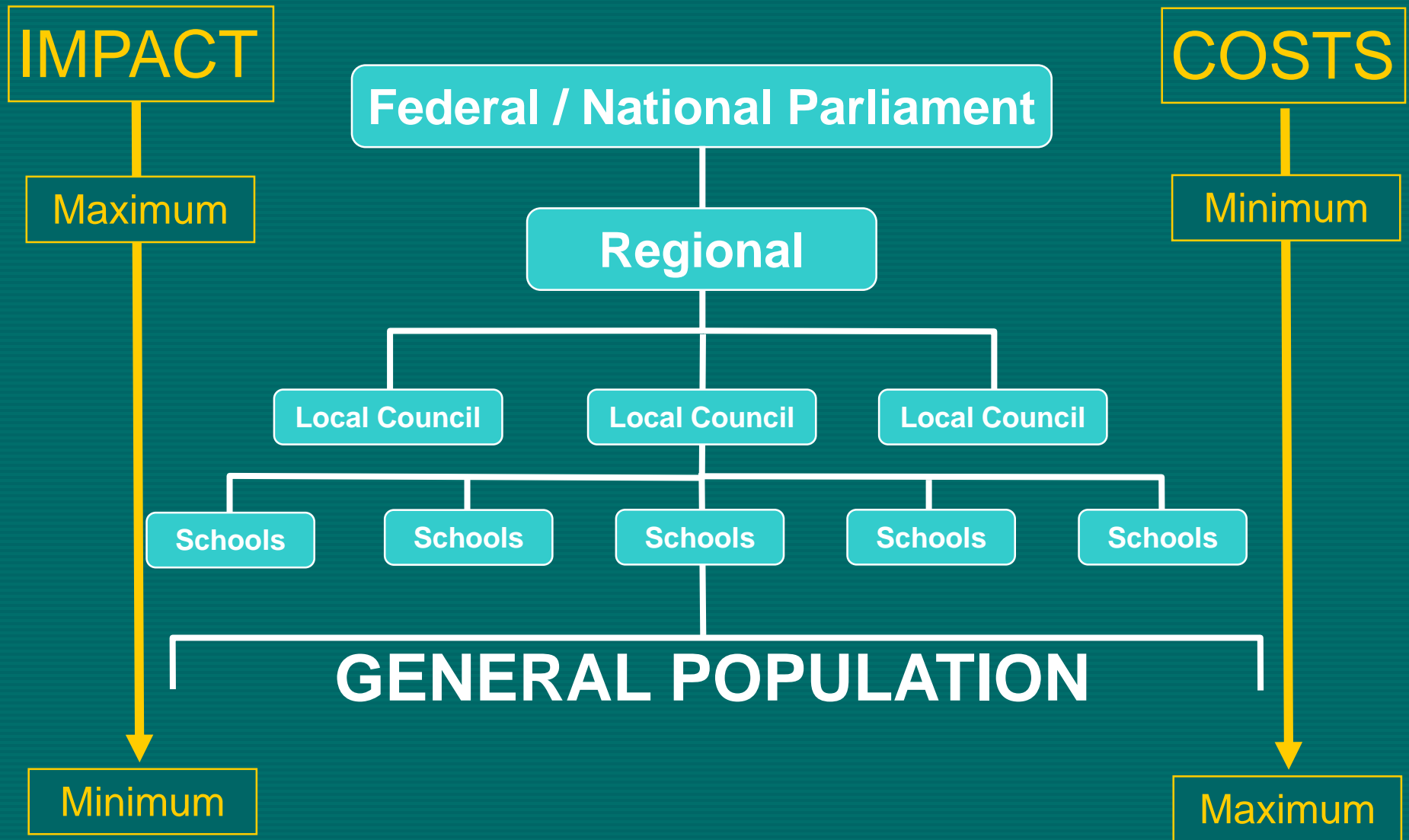
5 Practical Priorities: local activism by business and NGOs leads to major changes

- **Major drive to increase/ sustain breast feeding:** facilities at work important; maternal leave + cultural change
- **Marketing restrictions** (not just TV advertising) - statutory for children & adolescents: rights of child extend to 18 yrs
- **Control of food** in nurseries, all school facilities and school environment: avoid choice - all foods of high nutritional quality + facilities to allow spontaneous play - not TV; most measures apply to all public/private facilities
- **Fruit and vegetable availability** within main cost in canteens and restaurants - government + local action
- **Transformation of physical facilities for spontaneous & leisure time activity:** urban design changes with novel traffic policies; pedestrian only areas immediately adjacent to houses/apartments

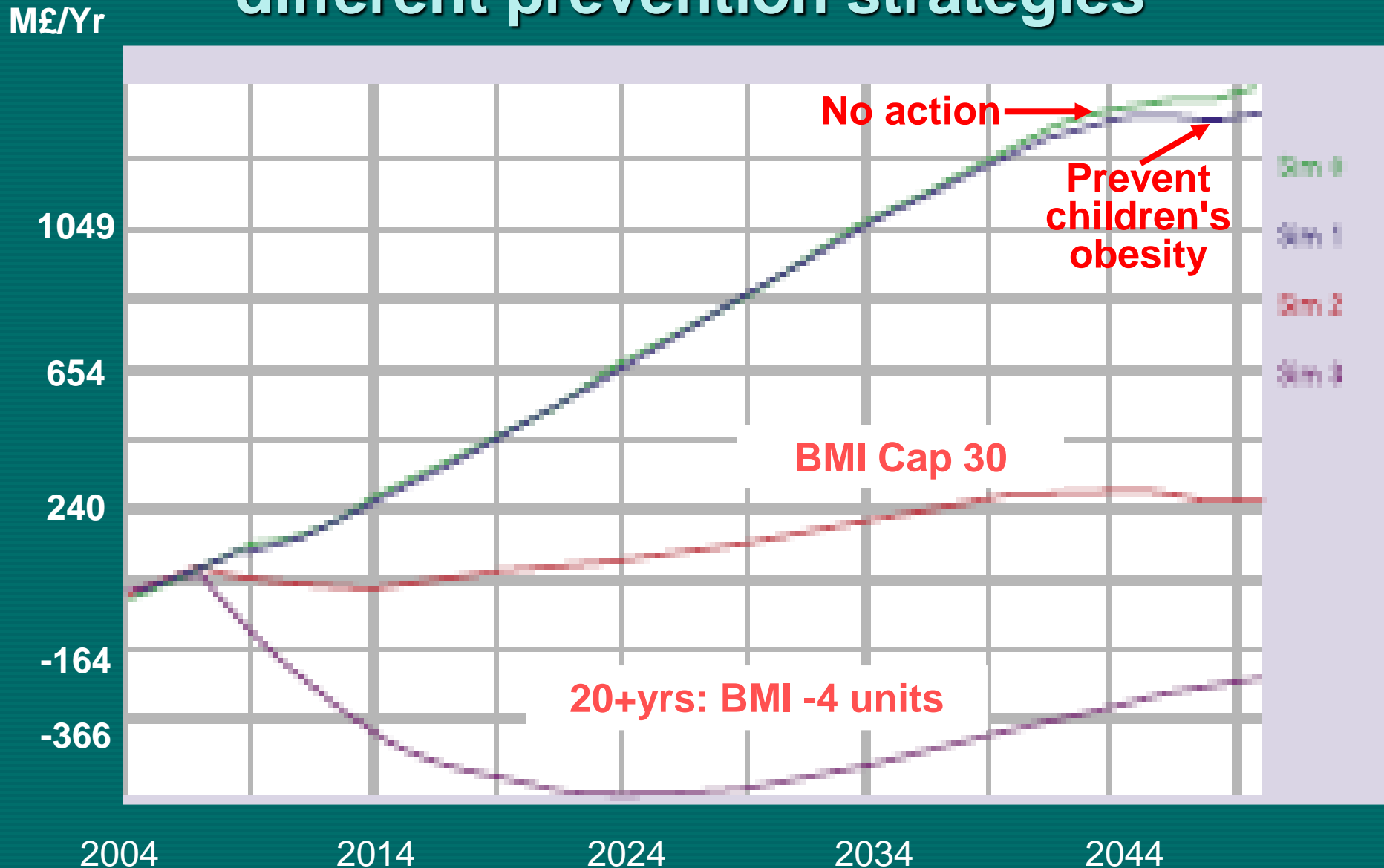
The most cost-effective community (not national) interventions in Australia

Intervention	Cost in Australian \$ for each DALY saved
Restrict TV advertising	4
Soft drink intervention at school	3,000
Walking buses to school	770,000
Cycling (travel SMART schools)	260,000
After-school community programmes.	90,000
Doctors targeting the overweight children	32,000
School multiple interventions, but no physical education	14,000
<i>Add Physical Education</i>	7,000
School education to reduce TV viewing	3,000
Family-based program for obese child	4,000
School program targeting overweight & obese children	3,000
Medical treatment with drugs, e.g. Orlistat	14,000

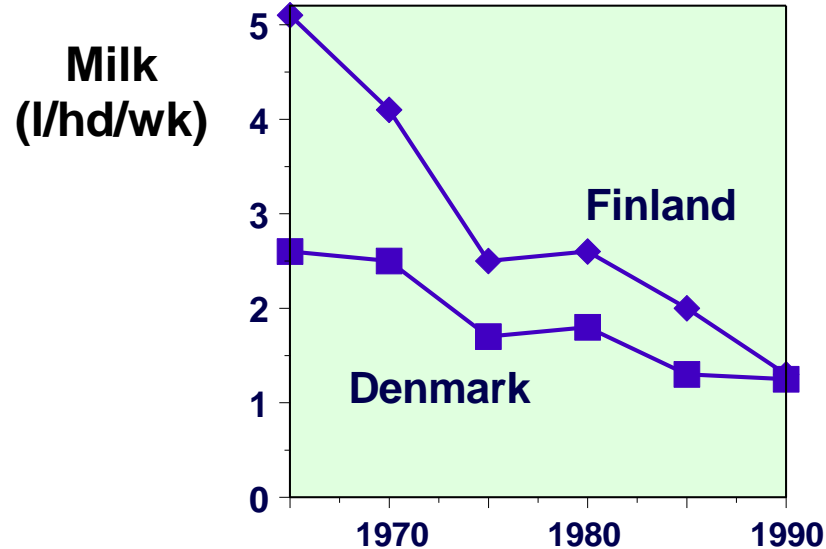
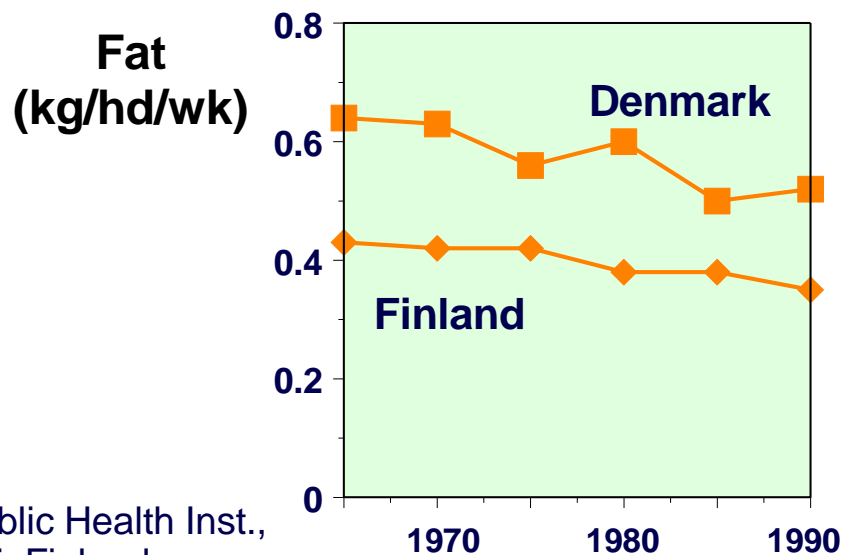
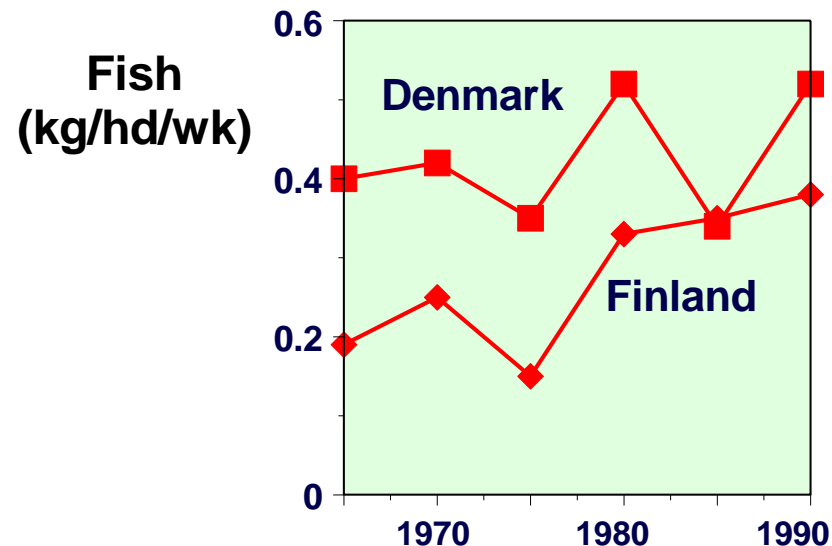
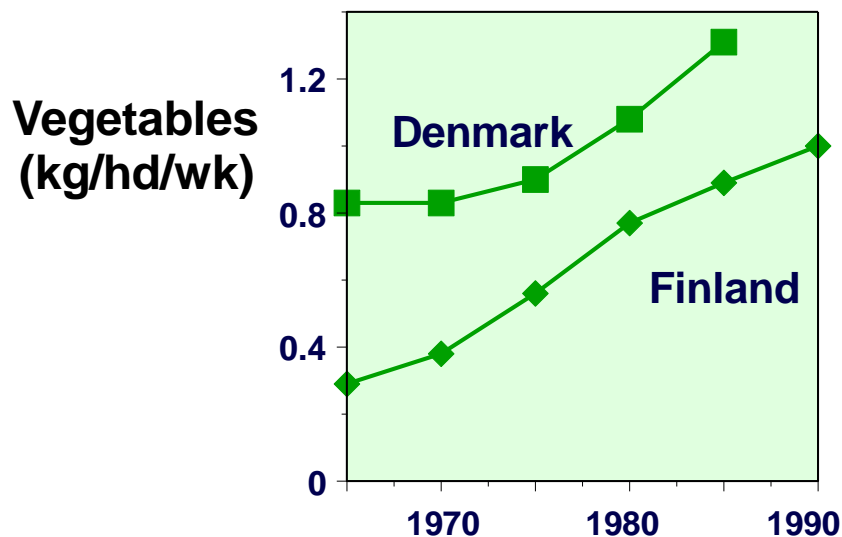
Governmental/community initiatives are the most cost-effective



Foresight: predicted diabetes costs with different prevention strategies



CHANGING DIETARY PATTERNS IN SCANDINAVIA 1965 - 1990



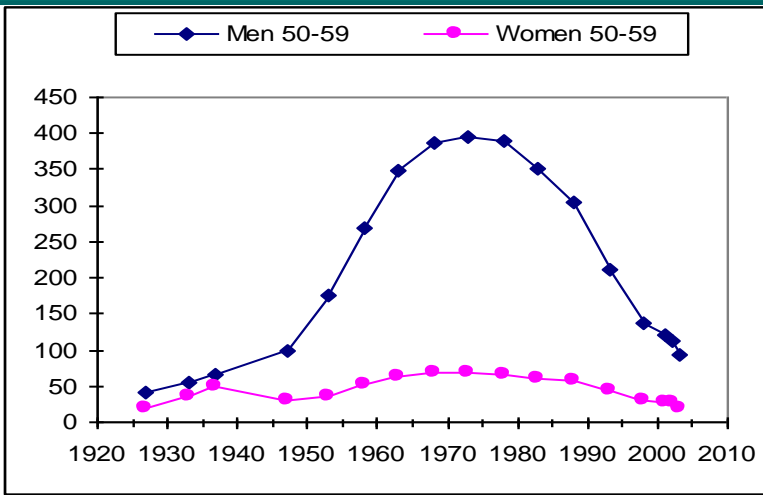
Nat. Public Health Inst.,
Helsinki, Finland.

The biggest change in diet ever seen other than in war and famine

Nutritionists advocate a "balanced diet": the emergence of coronary heart disease in the Western world. Its reversal by coherent multiple level actions involving regulatory measures.

Annual mortality per 100.000

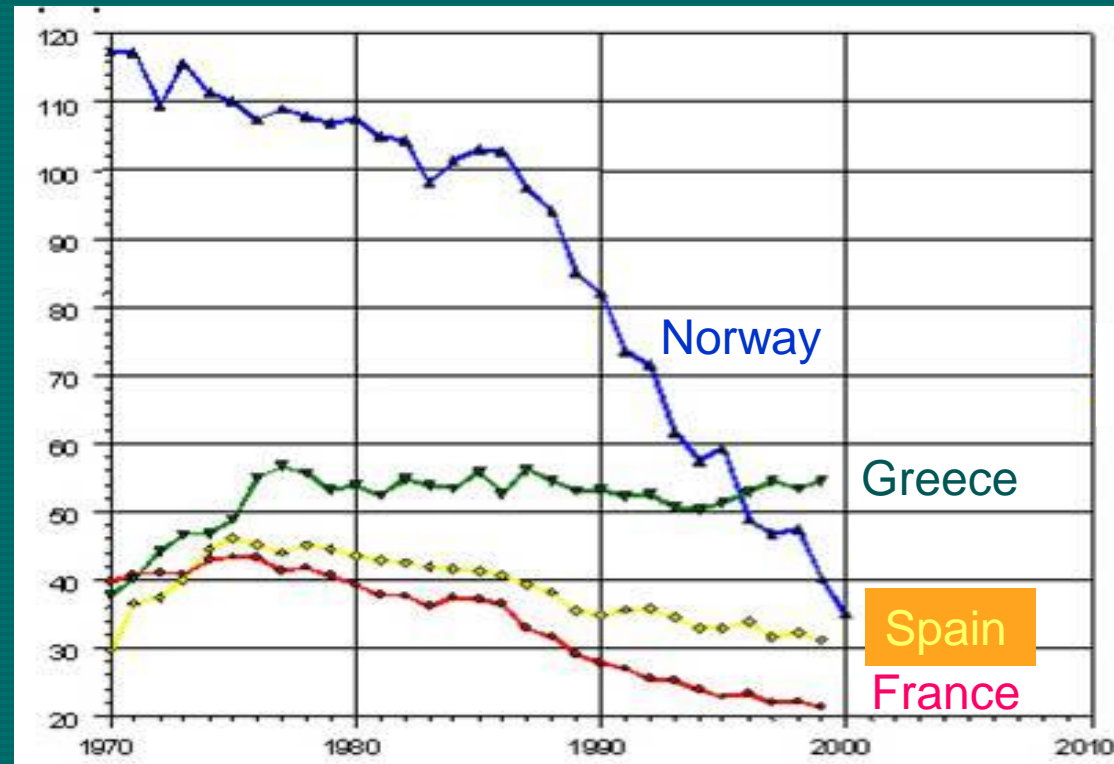
Norway
Adults 50-59yrs



↑
1925

↑
2005

National Comparisons Males 0-64yrs



Year