

Unhealthy Food

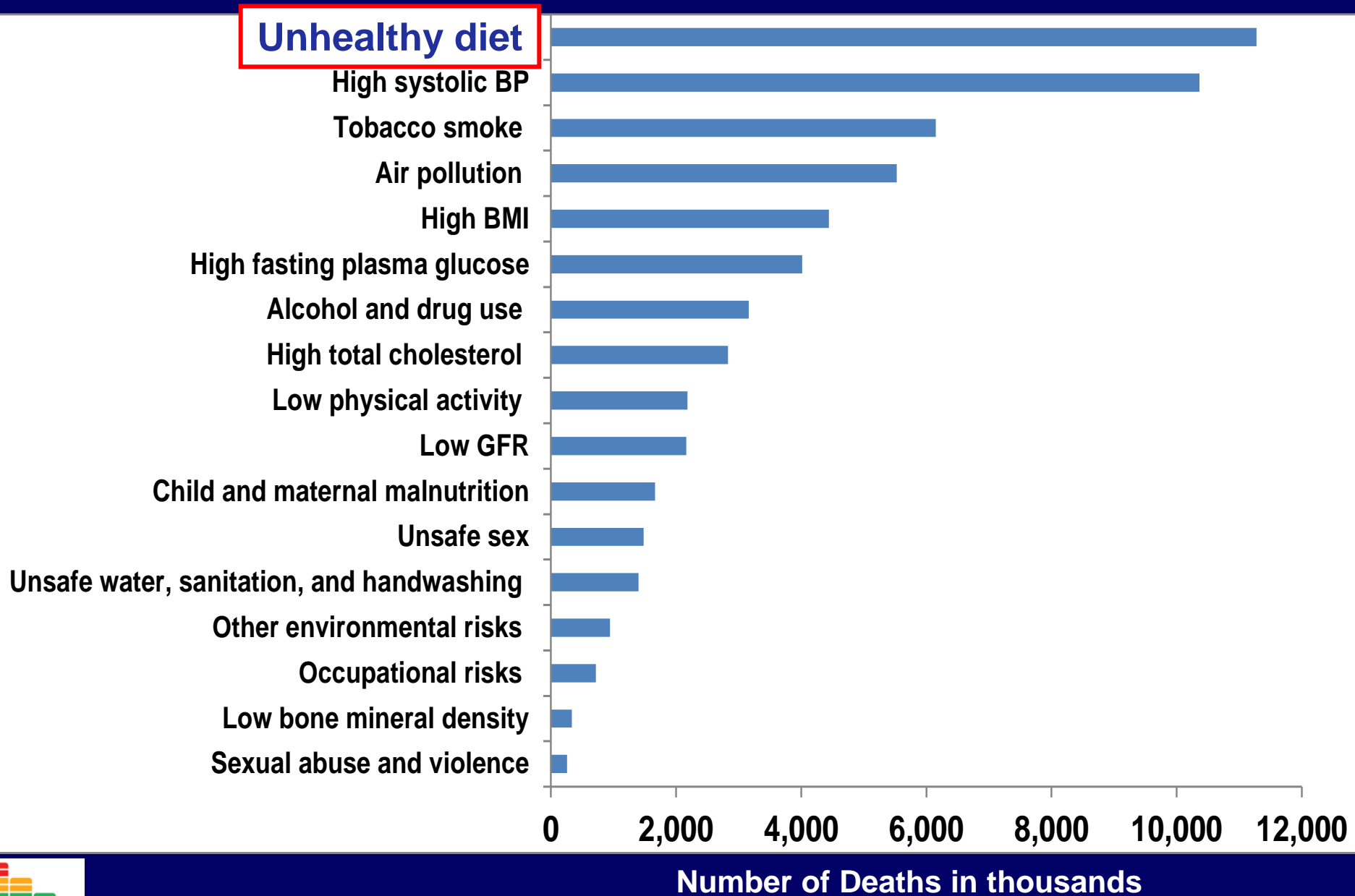
The Biggest Cause of Death

in Australia & UK

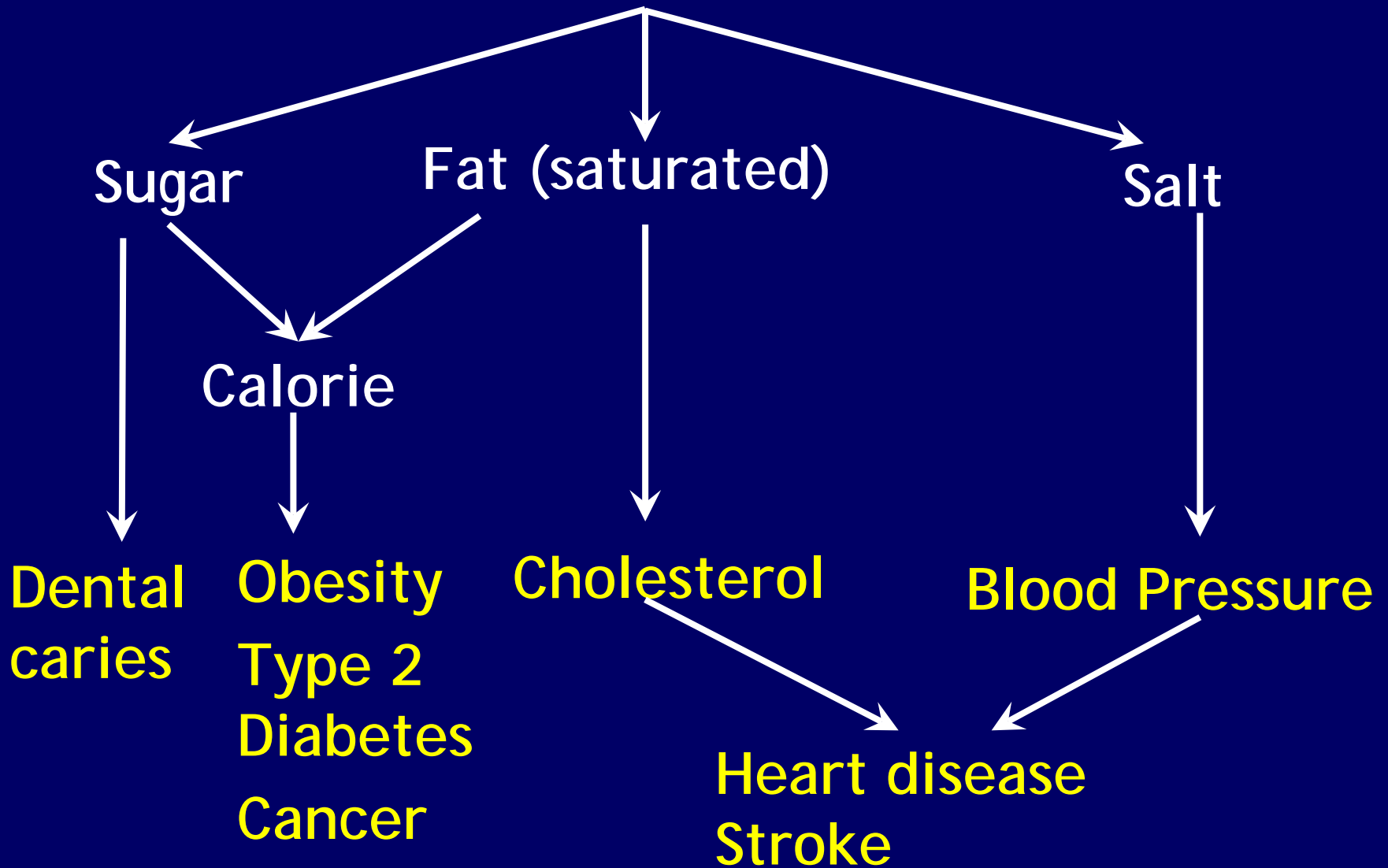
Graham MacGregor
Professor of Cardiovascular Medicine

**Wolfson Institute of Preventive Medicine,
Barts and The London School of Medicine & Dentistry,
Queen Mary University of London, UK**

Major Underlying Factors Causing Death - Worldwide

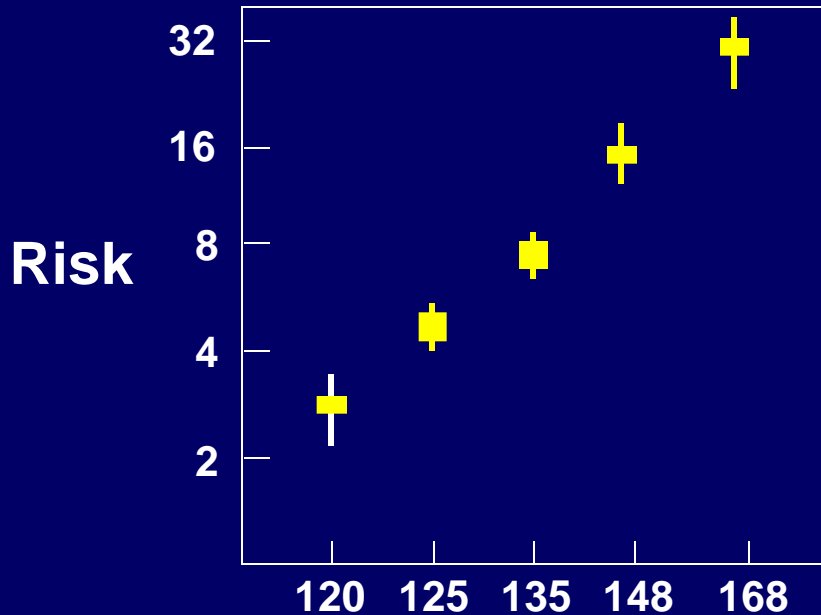


Processed foods and soft drinks

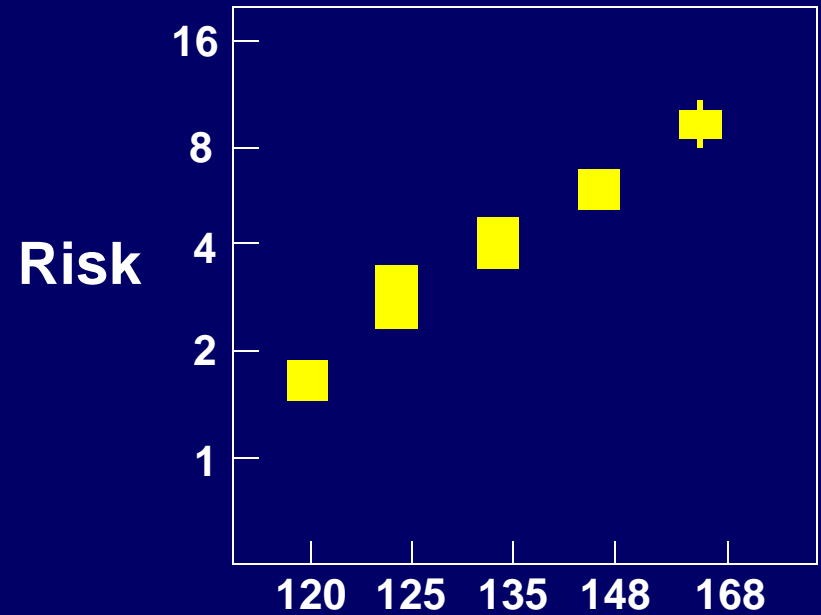


Systolic BP and Risk of Death

Stroke Deaths



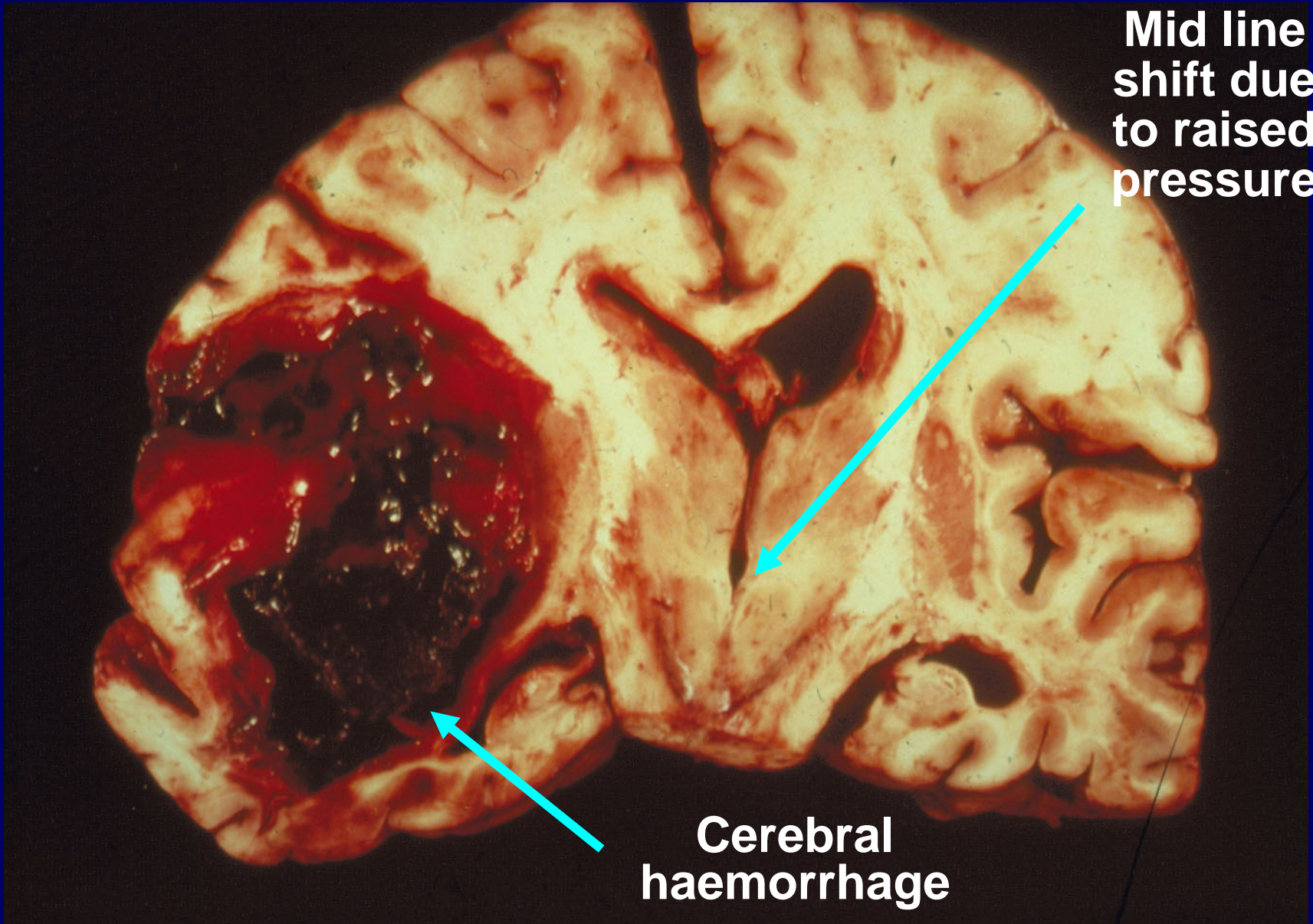
Heart Deaths



Systolic Blood Pressure (mmHg)

The risk starts at systolic 115 mmHg (83% adults)

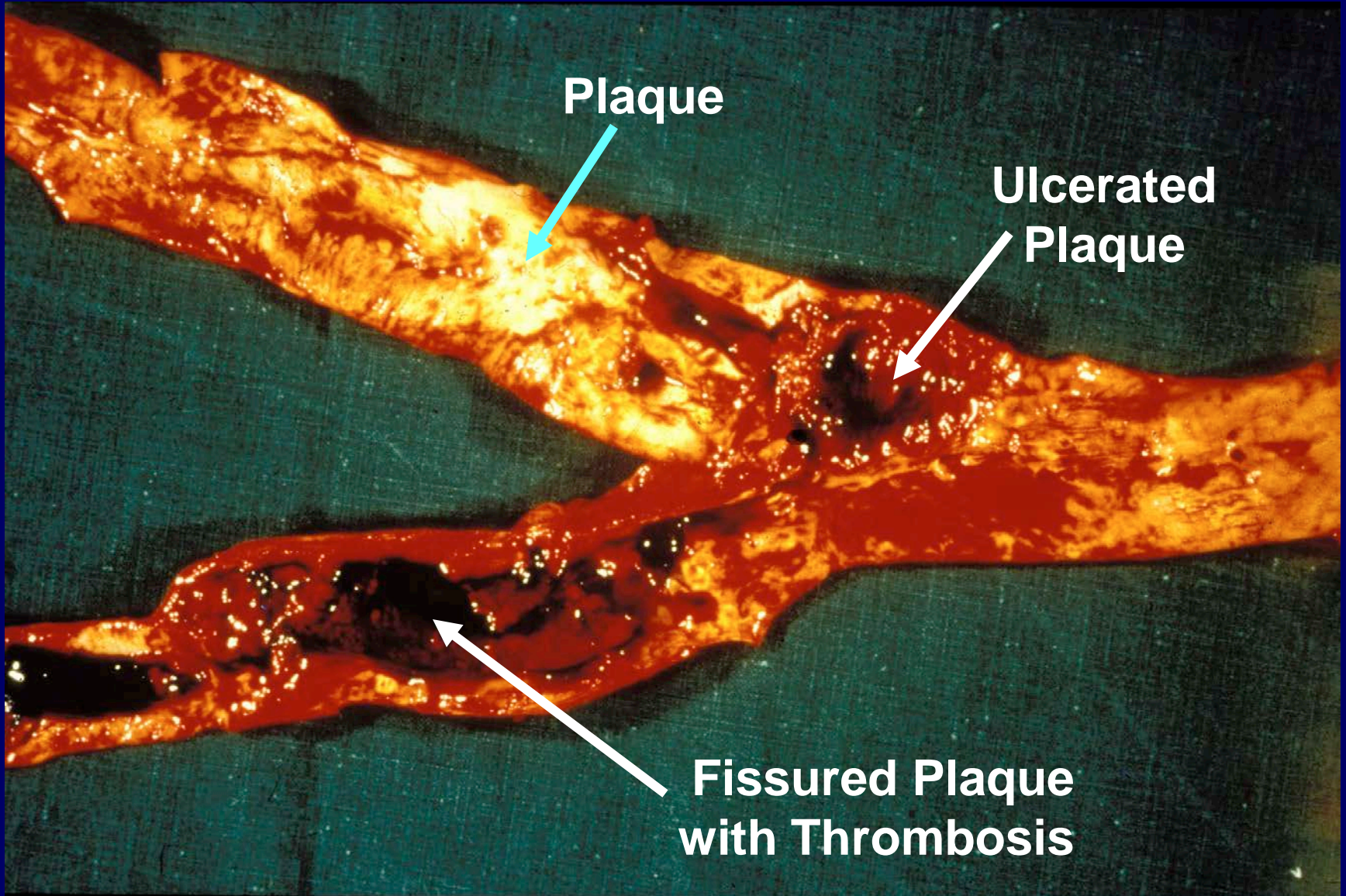
Brain (cross section)



Mid line
shift due
to raised
pressure

Cerebral
haemorrhage

Atheroma in carotid artery



What puts up BP?

- **Salt intake**
- **Potassium (lack of fruit and Veg)**
- **Weight**
- **Lack of Exercise**
- **Alcohol excess (transient)**

Salt

Current intake (9–15 g/d)

- ↑ Population BP, rise in BP with age, hypertension
- Other effects e.g. stomach cancer, stroke, LVH, kidney disease, osteoporosis etc

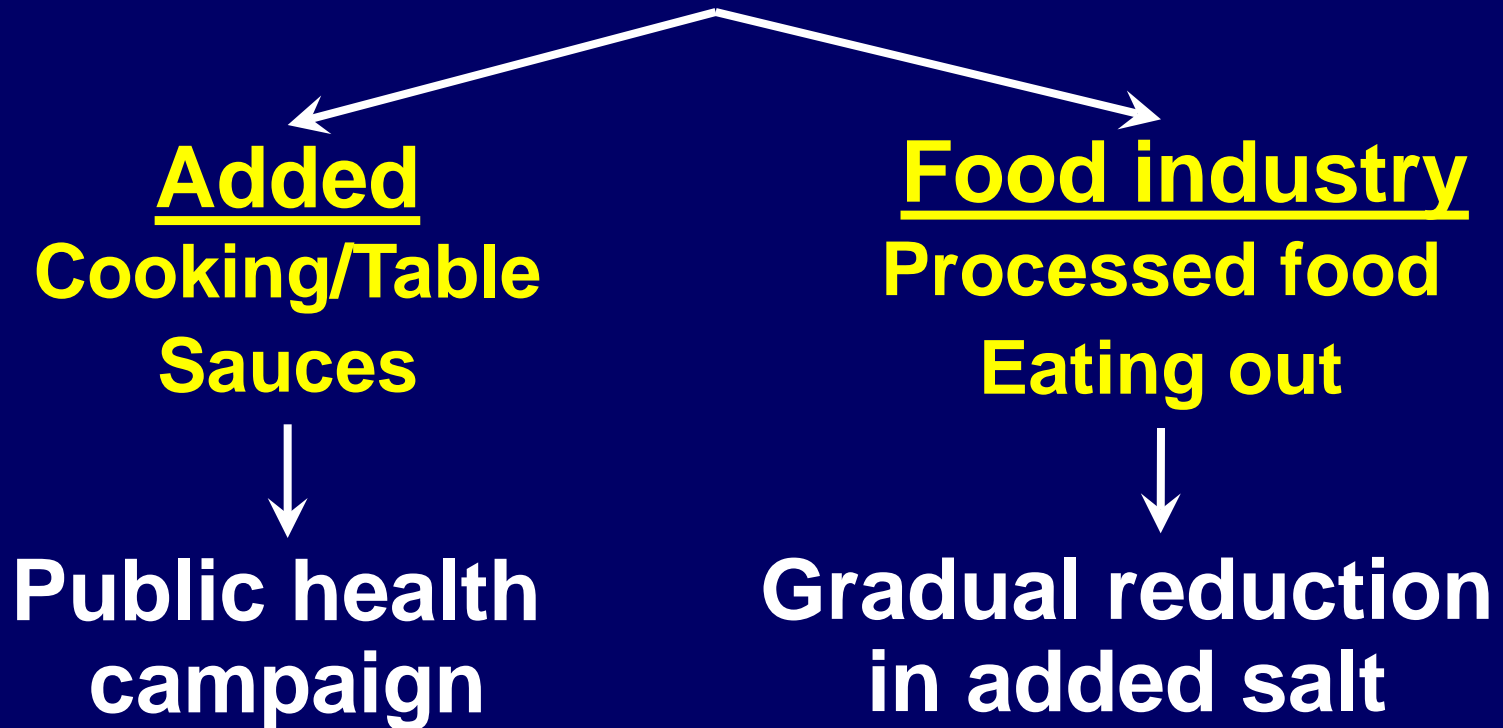
∴ ↓ Salt from 9–15 to 5 g/d

How ?

How to ↓ Salt Intake

Measure amount (24h UNa)

Sources of salt (dietary method)



Salt added by Industry

- Incremental reformulation of all foods (**Most effective**)
- Labelling + public education (**Not effective**)
- Specific lower salt foods (**Not effective**)
- Avoid processed foods and eating out (**Not practical**)
- Tax on salt

Reducing salt intake - who is responsible?

- Public
- Government
- Food industry

Developed countries 60-80% salt passive

∴ Food industry is responsible & must take it out

HIDDEN SALT KILLING 40,000 A YEAR

HIGH levels of salt added to everyday By Victoria Fletcher Health Editor

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BTU

The hidden salt that could ruin your child's life



HOW A SINGLE MEAL CAN SMASH THE DAILY LIMIT

Product name	Amount	Average salt per portion (g)	Salt per portion	Percentage of daily 5g limit for child aged 4-6
Batchelors Super Noodles to Go	1 pot made up with water	4.05g	4.05g	135%
Morrison's Southern Fried Chicken Portions	217g (1 drumstick and 1 thigh)	2.8g	2.8g	93%
Morrison's Baked Beans in tomato sauce	Half a can (210g)	2.8g	2.8g	93%
Tesco Thick Pork Sausages	2 sausages (grilled)	2.0g	2.0g	67%
Marks & Spencer Potata Croquettes	3	1.9g	1.9g	63%
Somerfield Spaghetti in tomato sauce	Half a can (205g)	1.9g	1.9g	63%
Kraft DairyVita Lunchables Ham 'n' Cheese Crackers	101.9g	1.8g	1.8g	60%
Chicago Town Triple Cheese Individual small pizza	170g	1.8g	1.8g	60%
Golden Vale Attack A Snack Ham	100g	1.77g	1.77g	59%
Tesco quarterpounder beefburgers	1 burger	1.4g	1.4g	47%
Morrison's salt and vinegar flavoured sticks	30g	1.3g	1.3g	45%
Sainsbury's pork sausage rolls	1	1.2g	1.2g	40%
Kingsmill Great Everyday Thick White Bread	2 slices	1.06g	1.06g	35%
Sweet foods				
Butterkist 'The Simpsons' Honey Nut Popcorn	100g	1.25g	1.25g	42%
Asda Boly Poly Pudding (fresh)	114g (1 pudding)	1.1g	1.1g	36%
Tesco Banana Flavour Delight	Half pack	1.0g	1.0g	33%
Heinz Treacle Sponge Pudding (tinned)	Quarter of tin	0.8g	0.8g	27%
Kellogg's Rice Krispies	30g serving	0.65g	0.65g	22%
Tesco and Sainsbury's Blueberry Muffin	1 muffin	0.6g	0.6g	20%

By Sean Poulter
Consumer Affairs Editor

CHILDREN are being put at risk of suffering high blood pressure and strokes in later life by the hidden salt content of many popular foods.

Some brands of baked beans, sausages, breaded chicken and noodles have been labelled potential health hazards.

Some desserts also contain alarmingly high levels of salt.

Certain products contain virtually the entire daily limit for salt for a six-year-old in a single serving, according to research published today by campaign group Consensus Action on Salt and Health.

The Department of Health recommends an upper limit of 5g of salt per day for a child aged seven to ten; 3g for those aged four to six and just 2g for those aged one to three.

A portion of Morrison's Southern Fried chicken - one drumstick and one thigh - contains 2.8g of salt, 80 per cent of the maximum amount for a six-year-old for an entire day, as does half a can of the supermarket's own label baked beans.

Three Marks & Spencer potato cut higher salt diets have higher

catons director at the Food & Drink per instead, Professor Martin Wise

Salty bread 'risking 7,000 lives'

By Sean Poulter
Consumer Affairs Correspondent

HIGH levels of salt in supermarket bread are putting up to 7,000 lives a year at risk, claims a damning study by health campaigners.

Bread is the largest source of salt in the UK diet and excessive consumption can lead to increased blood pressure and

total of 15 out of 18 Warburton products had a salt content higher than the Government's target, but all the Sainsbury's and Waitrose breads surveyed were below.

The highest level was in Morrison's The Best Farmhouse Malted Bread, which had 1.5g per 100g or 0.7g per slice.

Professor Graham MacGregor, chairman of Cash and an expert on cardiovascular medi-

O'Connor, said: 'The BHF would like all breads to contain as little salt as possible. People who are at risk of heart disease caused by high blood pressure need to be able to quickly and accurately choose lower salt options when shopping.'

The charity is calling for the industry to adopt the health-

Scientists prove that salty diet costs lives

- 15-year study shows link to heart disease
- Calls grow louder for nationwide campaign

Nigel Hawkes Health Editor

Eating less salt reduces the chances of suffering a heart attack or stroke, the first long-term study of salt's impact on health confirms today.

The findings, from a 15-year study, offer the clearest evidence yet that cutting salt consumption saves lives by reducing the risks of cardiovascular disease. People who ate less salty food were found to have a 25 per cent lower risk of cardiac arrest or stroke, and a 20 per cent lower risk of premature death. The results, published in the *British Medical Journal*, underline the need for population-wide salt reductions in the diet, the scientists conclude. Despite campaigns to reduce salt



Salt gives 4-year-olds high blood pressure

By Sean Poulter
Consumer Affairs Editor

CHILDREN as young as four are suffering from raised blood pressure because they are eating too many salty processed foods, researchers say.

Campaigners claim this puts youngsters at increased risk of hypertension in later life - potentially leading to heart disease, strokes and an early death.

The study, by St George's University Hospital in London, drew a direct correlation between the level of salt in the diet of children aged between four and 18 and high blood pressure.

The findings will heap pressure on the manufacturers of children's snacks and ready meals to reduce the salt levels in their

recipes. A single packet of instant noodles can contain more than the recommended daily maximum salt intake for a child aged four to six. A pack of salt and vinegar crisps is likely to have more than a quarter of a child's salt quota.

The study looked at the salt intake of more than 1,600 children and teenagers over a seven-day period and then measured their blood pressure.

The authors, writing in *The Journal of Human Hypertension* today, found that for each extra gram of salt eaten there was a

related 0.4mmHg increase in systolic blood pressure. This is a small but significant increase, according to health campaigners.

Government experts recommend that children aged four to six should not be eating more than 3g of salt a day, while the figure for youngsters aged seven to ten is 5g. However, many children are thought to be regularly consuming 9-10g of salt a day, which is up to three times the recommended maximum.

Nutritionist Jo Butten said: 'It may be difficult for parents to tell their children they can't have crisps every day, or that they need to eat a different breakfast cereal, but surely it's a small price to pay to reduce their risk of a heart attack or stroke when they are older.'

READY MEAL
ROASTS ARE
TOO SALT
They're same as 2

THE SALAD AS SALTY
AS 7 BAGG OF

SALT SHAKER
Restaurant meals 'have danger levels

PITAL
D IS A
ENER
kids' meals

's as
Mac

ink
t still
gates

Jamie Oliver feels the heat over salt levels in meatballs



SHOPS'
SALT KID

MEALS

Rosemary Bennett Social Affairs Correspondent
Published at 12:01AM, March 11 2013

Jamie Oliver: he has
disputed the findings

Strategy for Reducing Salt

Source	Salt intake g/day	Reduction needed	Target intake g/day
Table/Cooking (15%)	1.5 g	50% reduction	0.75 g
Natural (5%)	0.5 g	No reduction	0.5 g
Food industry (80%)	8.0 g	53% reduction	3.75 g
Total 10 g			Target 5 g

∴ The food industry & government need to slowly reduce salt content of all foods by over 50% by setting incremental target

Reformulation of unhealthy food

e.g. processed, fast, takeaway, restaurant food

**Food industry slowly reduce salt, sugar & fat
- No rejection by public**

Fantastic for Public Health

**Very little
cost**

**↓ BP, obesity
& cholesterol**

**No need to
change diet**

Incremental reformulation (Example from UK)

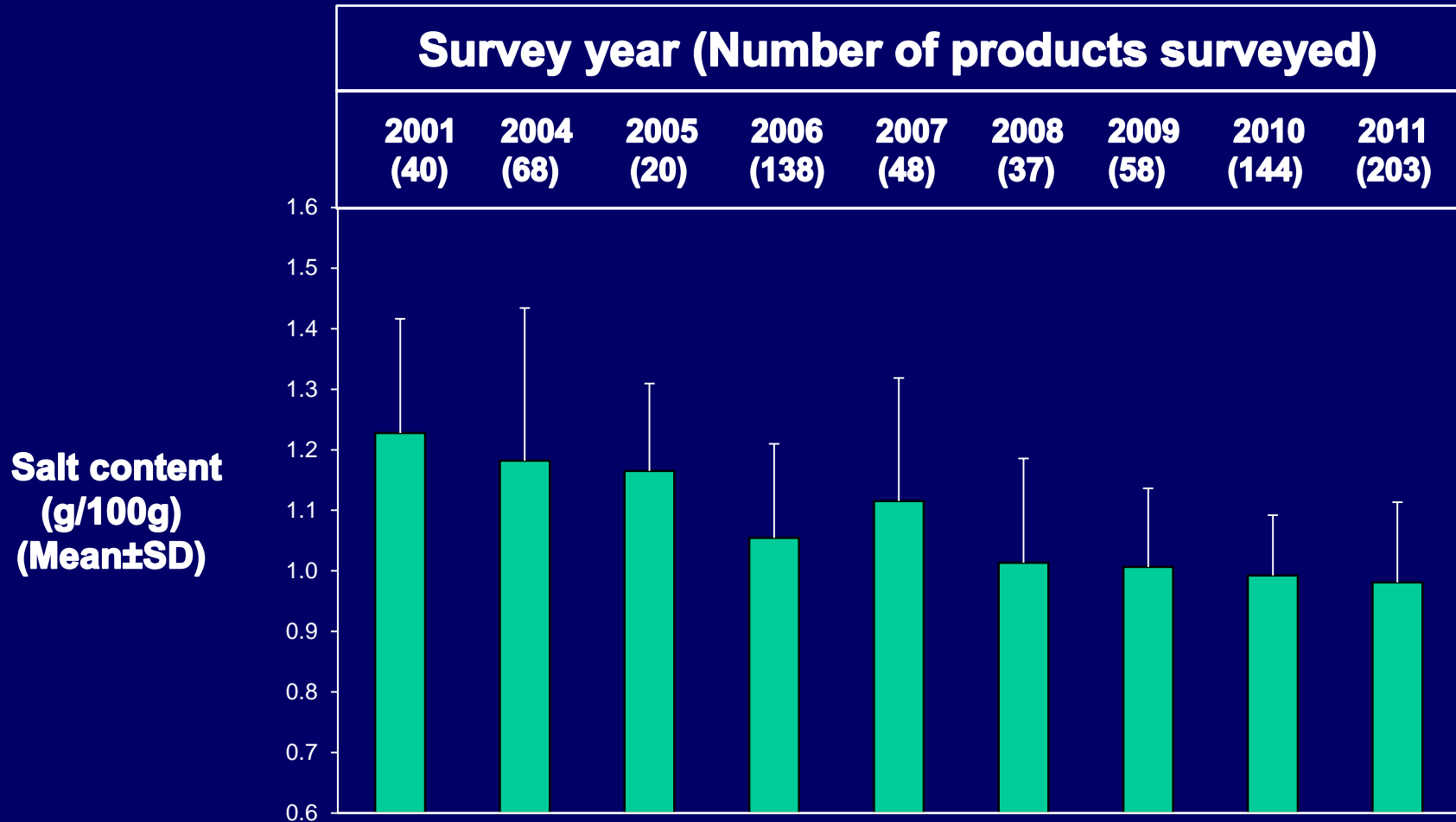
- **Progressive salt reduction targets have been set, i.e. 2005, 2008, 2014 for over 80 categories of food**
- **Gradual reduction, 10-20% a year. No rejection by public, i.e. progressive gradual reformulation**

Incremental salt targets (UK) re-set every 2-3 years

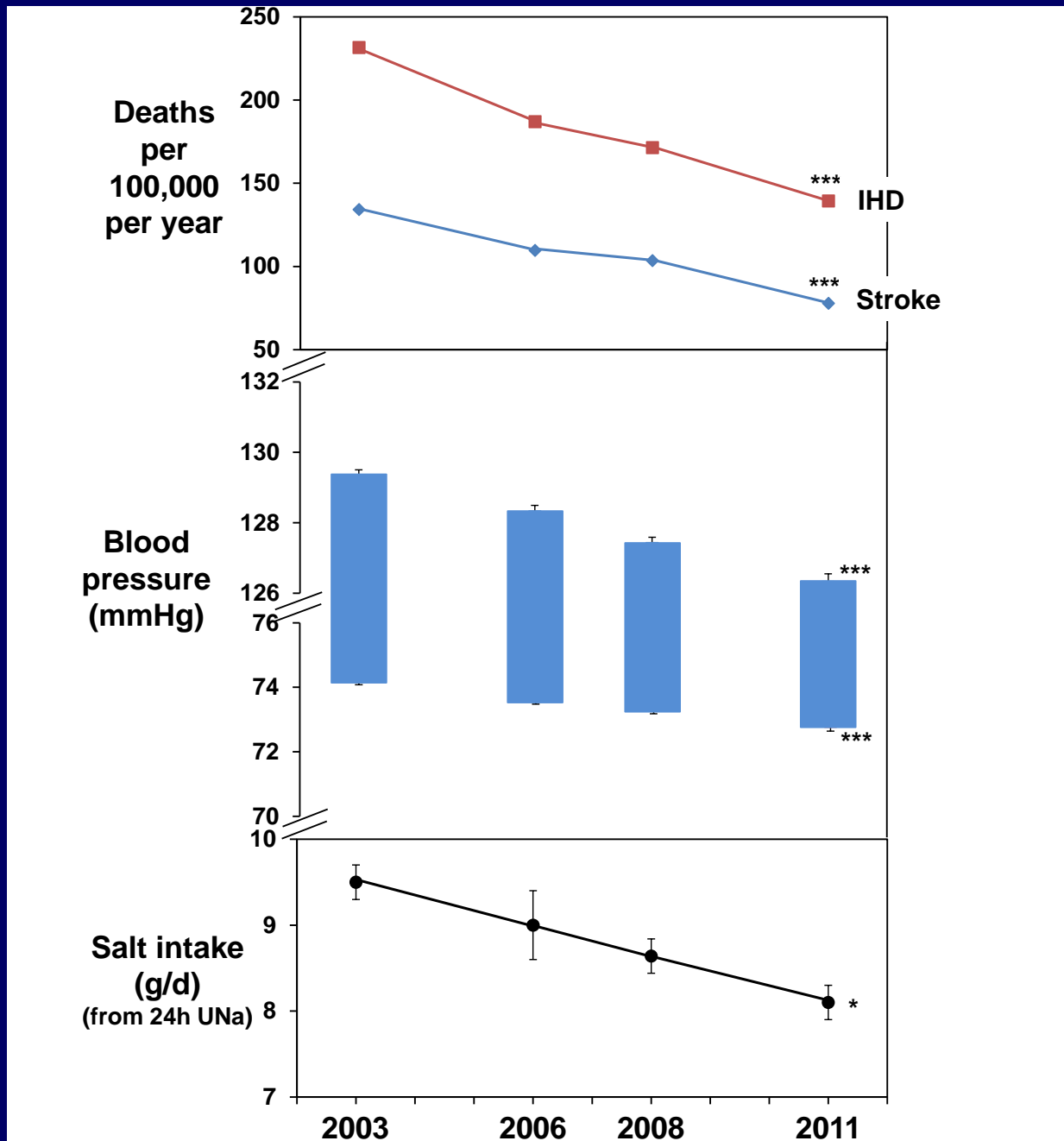
Main Product Category	FSA	FSA	DoH
	2010 Targets (g salt or mg sodium per 100g)	2012 Targets (g salt or mg sodium per 100g)	2017 Targets (g salt or mg sodium per 100g)
Bread	1.1g salt or 440mg sodium (average)	1.0g salt or 400mg sodium (average)	0.9g salt or 360mg sodium (average) 1.13g salt or 450mg sodium (maximum)

A level playing field - all companies work to the same target

Change in salt content in UK bread from 2001 to 2011



Changes in Salt Intake, BP and CVD Mortality in England 2003 - 2011



* P<0.05
*** P<0.001

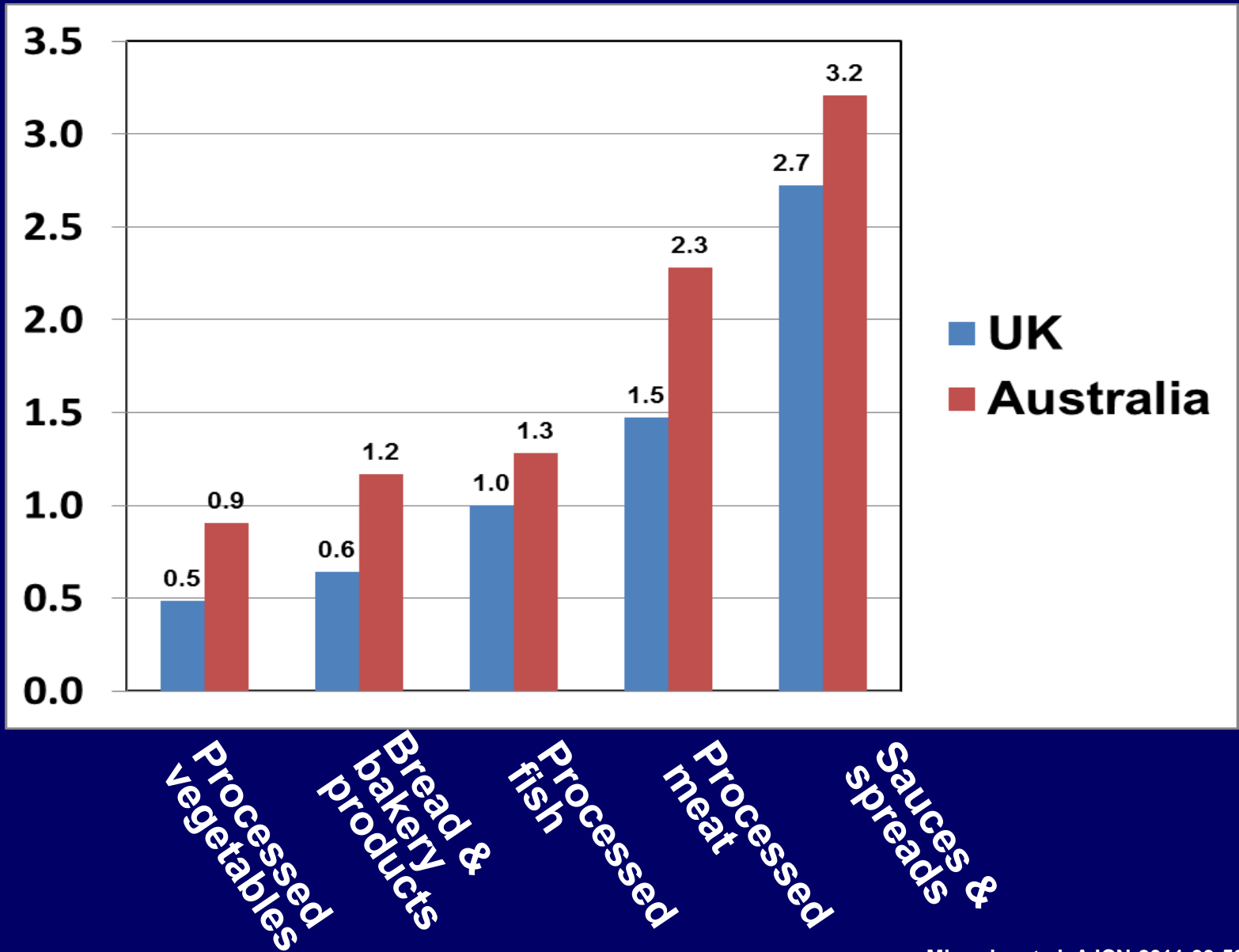
Cost-effective Analysis UK (NICE)

Cost of salt campaign \approx £5 million per year

Healthcare savings \approx £1.5 billion per year

Australia vs UK

Salt
(g/100g)



Added Sugar Similar to Salt

- **Pure, white**
- **Makes inedible food palatable**
- **Only recently part of human diet**
- **Sensitivity of taste receptor depends on intake**
- **Hidden**

Sugar- Impact on health

- **The only cause of dental decay (caries)**
- **Major source of hidden calories**
- **Leads to obesity & diabetes**



Why are we getting so fat?



**A Big Mac, large _____ 11 bananas or 18 oranges
chips and coca cola _____ or half a marathon**

Food/soft drink industry

Calorie-dense
Cheap
Profitable

Transient
satiation/
fullness

“Brilliant” marketing
Any time
Everywhere


Eat more

Calorie intake ↑

Obesity/type 2 diabetes ↑


Portion size increase over time

1954
Burger King



2.8 oz
202 calories

2004




4.3 oz
310 calories

1900
Hershey's



2 oz
297 calories



7 oz
1,000 calories

1916
Coca-Cola



6.5 fluid oz
79 calories



16 fluid oz
194 calories

1955
McDonald's



2.4 oz
210 calories



7 oz
610 calories

1950s
Movie popcorn



3 cups
174 calories



21 cups (buttered)
1,700 calories

What can we do?

- Tax - High salt, sugar, fat foods
- Subsidise healthy food, e.g. fruit & veg
- Ban unhealthy food advertising
- Restrict availability
- Reduce portion size
- Reformulation

What is practical?

- **Big food – very powerful**
- **Biggest industry & employer**
- **Strong ties to & influence on government**
- **Similar to tobacco (took 50 yrs)**

Hidden Sugar (tsp)



Starbucks caramel Frappuccino with whipped cream and skimmed milk (Tall)



Mars Bar (51g)



Cadbury Hot Drinking Chocolate with semi-skimmed milk (200ml)



Coca-Cola Original (330ml)



Sharwood's Sweet & Sour Chicken with Rice (375g)



Yeo Valley Family Farm 0% Fat Vanilla Yogurt (150g)



Heinz Classic Tomato Soup (300g)



Kellogg's Frosties with semi-skimmed milk (30g)

Incremental sugar targets like salt

- Sugar-sweetened soft drinks **immediately**
- Foods with added sugar (NB: No replacement.
Solid foods ↓portion size)
- Incremental targets, i.e. 10% reduction per year
(50% reduction within 5 yrs)
- Reduce artificial sweeteners, i.e. ↓sweetness

This will → ↓calorie intake by 100 Kcal per day

For sugar reduction to work (like salt)

1. Must provide level playing field
2. Slow & unobtrusive reformulation so no rejection by public. Taste receptor adjusts.
3. Mandatory policy with strong enforcement & clear & transparent monitoring programme
4. Continuous media exposure

SUGAR ON TRIAL

What you really need to know about the white stuff

SPECIAL REPORT STEM CELL REVOLUTION

The breakthrough the world has been waiting for

HYBRID HUMANS The bits of Neanderthal that live on inside us
ENERGY TELEPORTER A quantum leap across the universe
MIND MELD The surprising power of collective thinking

SHOCK TRUTH ABOUT OUR FOOD



HIDE & SWEET

Obesity experts are launching a campaign to put pressure on the government and industry to cut the sugar content of food and drinks by up to 30%.

The high-profile scientists and doctors behind Action on Sugar say that gradual cuts in the amount of sugar in ready meals, cereals, sweets and soft drinks will not be noticed by the public, but will result in a reduction in the calories we all consume.

A 20-30% reduction in sugar over time will cut our calorie intake by about 1000cal/day. That is enough to halt or even reverse the obesity epidemic and reduce our risk of heart disease, diabetes, stroke and cancer.

Parents beware - this 300ml bottle of Dr Pepper is, of course, full of sugar, but do you really get how much?

The same amount of Lucozade Energy drink, often used by athletes, has only marginally less sugar.

Do ahead and label a 100g Sn Apple Yogurt Smoothie - if you don't mind the ten spoonfuls!

This 250ml glass of cranberry juice seems like a healthy option but drinking it regularly could be dangerous.

A 200ml bottle of investment Special Smoothie may have loads of fruit, but it's loaded with high levels of sugar, too.

Obesity experts launch campaign to cut sugar in food by 30%

National

Sarah Boseley Health editor

The toll of diabetes and other disease, say the doctors, who include Robert Lustig, author of *The Big Sugar*; The Robert Truth About Sugar; and Professor John Blau, academic vice-president of the Royal College of Physicians, Philip James of the International Association for the Study of Obesity and Dr Nicholas Wald of the Wellcome Institute of Preventive Medicine.

Action on Sugar aims to do what a similar campaign launched in the 1990s called CASH (Common Sense Action on Salt and Health) successfully did for salt levels in our food: it is chaired by Professor Graham MacGregor, who also heads CASH.

"Provided the sugar reductions are done slowly, people won't notice," he said. "In most products in the supermarket, the salt has come down by between 25% and 40%." People had not noticed the difference, because CASH's salt-tasters taste 60% less salt than they used to.

The government's strategy against obesity has been to agree voluntary codes on marketing to children and calorie reduction through public health "responsibility deals", but MacGregor and others say it is not working and has had no effect on calorie intake. "The most start to slowly reduce the amount of calories people consume by slowly taking out added sugar from foods and soft drinks," he said.

The industry argues that we should cut calories by eating less, but there is no specific research to target sugar. "Sugar, in any other context for that matter, consumed as part of a varied and balanced diet are not a cause of obesity, to which there is no simple or simple solution," said the Food and Drink Federation.

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20 NEWS

Food crusaders' new challenge: cut sugar to save NHS £50bn a year

The campaigners who helped reduce salt intake in British diets by 15% in seven years have a fresh target in sight. But they fear this struggle will be much tougher - and talks with the health secretary this week could be crucial.

THE SUGAR METRIC: SUGAR LEVELS IN EVERY DAY FOODS

How many spoons of sugar in...

Fast food nations

Number of fast food chains in each country

Country	1999	2006	2009	2010
America	105.4	183.1	275	28.3
New Zealand	37.9	45.6	39.5	32.6
Australia	43.9	64.6	35	32.2
West	34.3	19.6	26.2	27.2
Czech Republic	11.3	10.1	10.9	12.1
Britain	13.2	39.8	26.3	23.1
Ireland	5.1	66.6	21.9	21.1
Canada	10.1	126.1	21.9	21.1
Spain	0.6	1.9	26.2	26.6
Slovak Republic	6.5	18.4	28.2	26.6
Hungary	6.9	12.3	15.3	26.5
Germany	11.6	21.1	26	26.4
Portugal	3.3	12.1	15.3	26.4
Norway	18.4	22.4	26.5	26.4
Poland	32.3	16.7	25.7	26.2
France	24.5	10.7	25.6	26.3
Belgium	10.7	12.8	25.6	26.9
Italy	21.6	22.7	25.7	26.7
Holland	21.1	13.7	25.7	26.7
Sweden	23.5	28	25.2	26.7
Denmark	19.4	16.3	24.9	26.2
Slovenia	18.4	30.3	25.1	26.8
Italy	11.3	11.8	25.1	26.6
Switzerland	5.1	11	24.9	26.3
Switzerland	13.1	18.3	24.8	26.1

Obesity link to fast food 'free-for-all'

OBESITY is a bigger problem in countries with a hands-off approach to regulating fast food, a UN report reveals. Spending on fast food over ten years increased most in nations with fewer rules, it claims. One extra fast food meal a year was linked to a 0.02% increase in body mass index. Canada saw the sharpest increase, followed by Australia and Ireland. Britain was sixth with an extra six meals each. Italy, the Netherlands and Greece changed the least. Dr Roberto Di Nardo, leader of the UN study, said the "invisible hand of the market will continue to promote obesity worldwide with disastrous consequences". Here, the department for health said it was "taking action to make it easier for people to make 'better choices'". More than 70 per cent of fast food and takeaway meals clearly display calories, it added.

The Telegraph

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Low fat foods stuffed with 'harmful' levels of sugar

Telegraph analysis finds many food and drink products marketed as 'low fat' and scientists warn are too high. Hover over the bars in the charts to see preview

the guardian

News Sport Comment Culture Business Money Life & style Life & style Nutrition

Messages about reducing sugar intake unclear, say campaigners

New WHO guidelines must be translated into something meaningful to consumers, says director of Action on Sugar

Sarah Boseley health editor
The Guardian, Thursday 6 March 2014 20:53 GMT

The Telegraph

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New sugar limits: 26 'mini health time bombs'

Following the World Health Organisation's warning that adults should daily sugar intake to six teaspoons, here are 26 food and drink products that exceed the limit, says Action on Sugar, a campaign group, as 'mini health time bombs'

Sugar is the 'new tobacco', warn doctors

Action on Sugar

SUGAR IS 'THE NEW TOBACCO'

Health chiefs tell food giants to slash levels by a third

2000 plants are being held out the amount of sugar in the beverage. It has become the 'new tobacco', warn doctors. The report is the first to be produced by a global body.

By Susan Preston Consumer Affairs

SUGAR: THE HIDDEN MENACE

Continued from page 10

The 2000 plants are being held out the amount of sugar in the beverage. It has become the 'new tobacco', warn doctors. The report is the first to be produced by a global body.

THE INDEPENDENT MONDAY 17 MARCH 2014

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Is sugar the new evil? Arguments for and against the grain

"Cameron's obesity plan"

5 essential actions from Action on Sugar

1. Incremental reduction*

Sugar (free) 50% ↓
Fat (Sat) 20% ↓

→ in 5 yrs

2. Only healthy foods to be promoted and/or advertised*

3. 20% sugar duty — soft drinks ✓ & confectionery

4. All public sector food must meet strict guidelines*

5. Uniform colour-coded labelling*

*Enforced by independent nutrition agency eg FSA

Summary

Reduction in calorie intake per person per day

Sugar 100 Kcal

Fat 100 Kcal

Other 50-100 Kcal
(↓marketing, portion size, tax, etc)

Total ≈250 Kcal

This will prevent obesity & type II diabetes

Conclusion

- **↓ Salt – very cost-effective in preventing CVD**
- **Australia needs a comprehensive and effective strategy to ↓ salt & sugar**
- **Many thousands of strokes & heart disease will be prevented**



World Action on Salt & Health

www.worldactionsalt.com

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@washsalt



Consensus Action on Salt & Health

www.actiononsalt.org.uk/

cash@qmul.ac.uk

@cashsalt

Perceived Barriers

1. Taste
2. Food technology
3. Safety
4. Commercial

Why was it successful?

a. **FSA** (2000-2010 Food Standards Agency)

1. Independent scientific board, not subject to political/food industry pressure
2. Transparent effective monitoring

b. **CASH** (1996-)

Forceful scientific advocacy

DoH (2010-2015 Department of Health)

'Responsibility Deal'

1. Subject to political and food industry pressure
2. Industry responsible to themselves! (Mad)
3. No effective monitoring
4. No transparency
5. Most companies refused to sign up

FSA v DoH

- 1. FSA - voluntary policy worked, but slow and constant reinforcement by CASH**
- 2. Responsibility Deal, no level playing field. Did not work. Rejected by industry, closed**
- 3. The body representing supermarket (BRC) has called for targets to be regulated**
- 4. Cameron in his obesity plan will include sugar, fat and salt reformulation**

Voluntary

Quicker

Continuous media pressure

Acceptable to government

Big reduction - difficult

Regulation/legislation

Slower

No need for media pressure

Party in power may change

Big reduction - possible

Food industry needs “level playing field”

How to sustain salt reduction

- **Independent agency with government support**
- **Mandated/regulated targets**
- **Independent expertise in food technology**
- **Persistency (bloody mindedness) with powerful NGO**