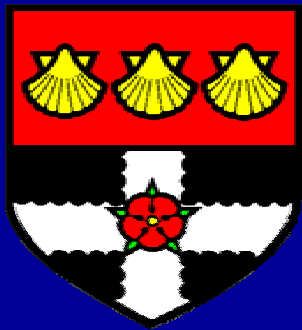
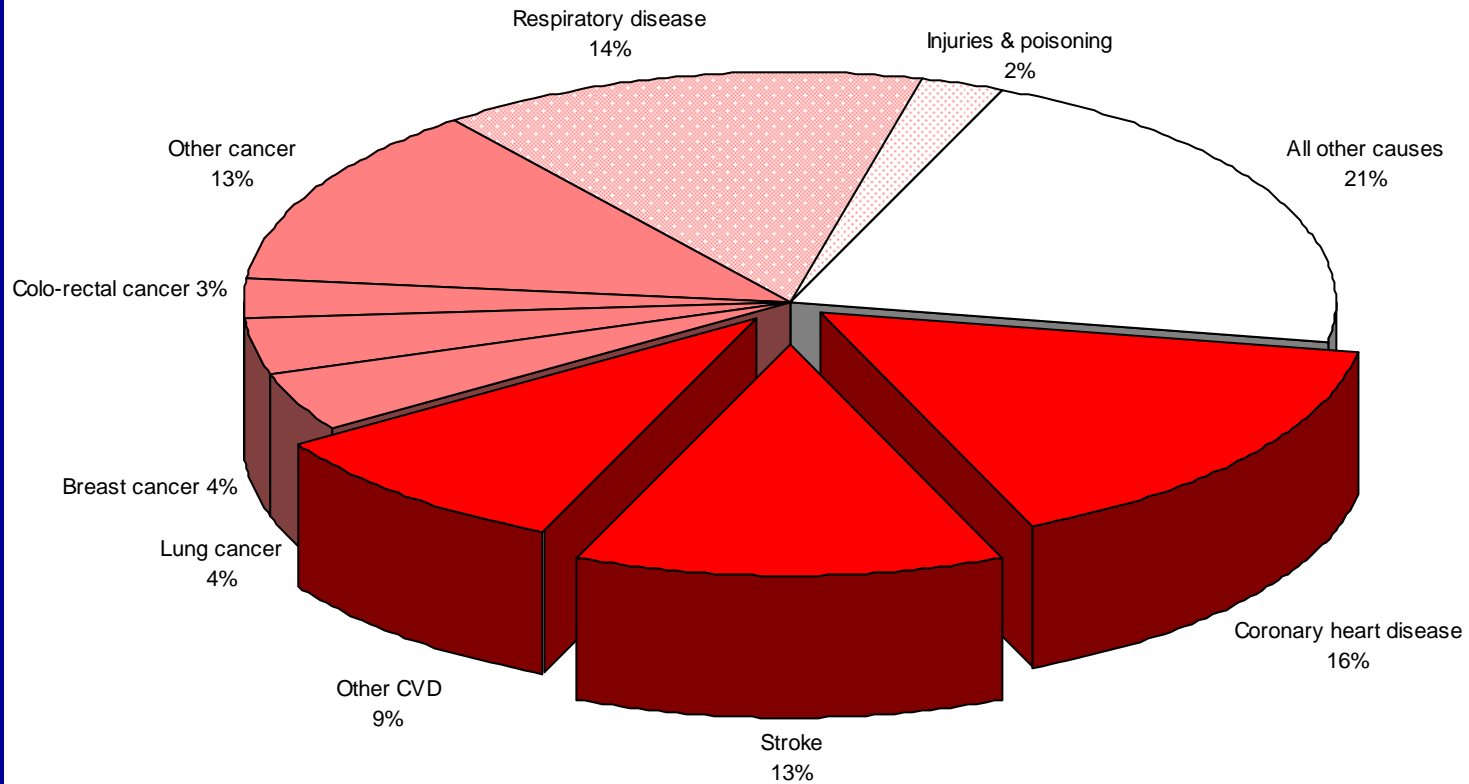


Healthy Diet and Hypertension



Christine M Williams
Hugh Sinclair Unit Human Nutrition
School Food Biosciences

Deaths by cause, women, 2003, United Kingdom

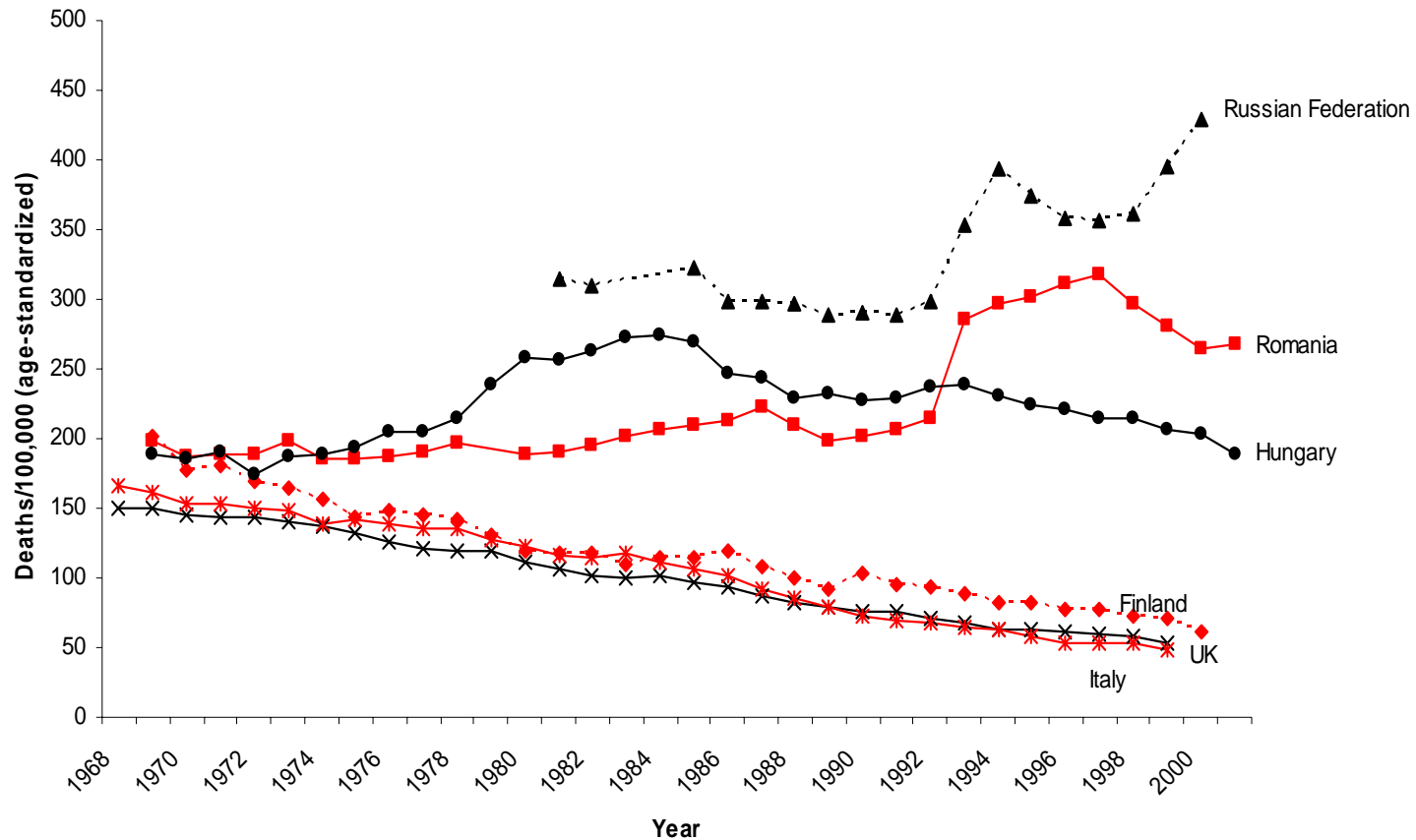


Office of National Statistics (2004)
Scotland, General Register Office (2004)
Northern Ireland, General Register Office (2004)

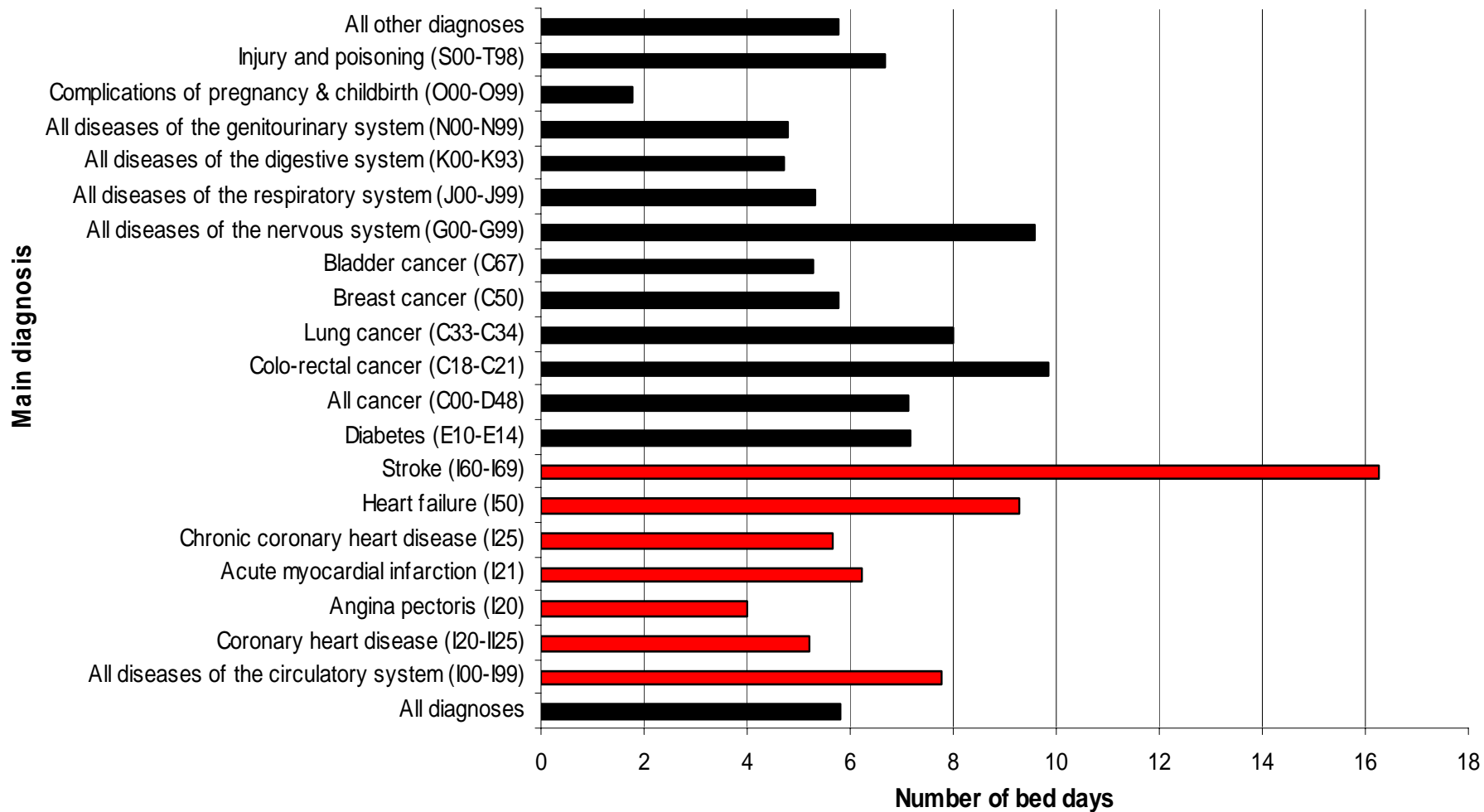
www.heartstats.org



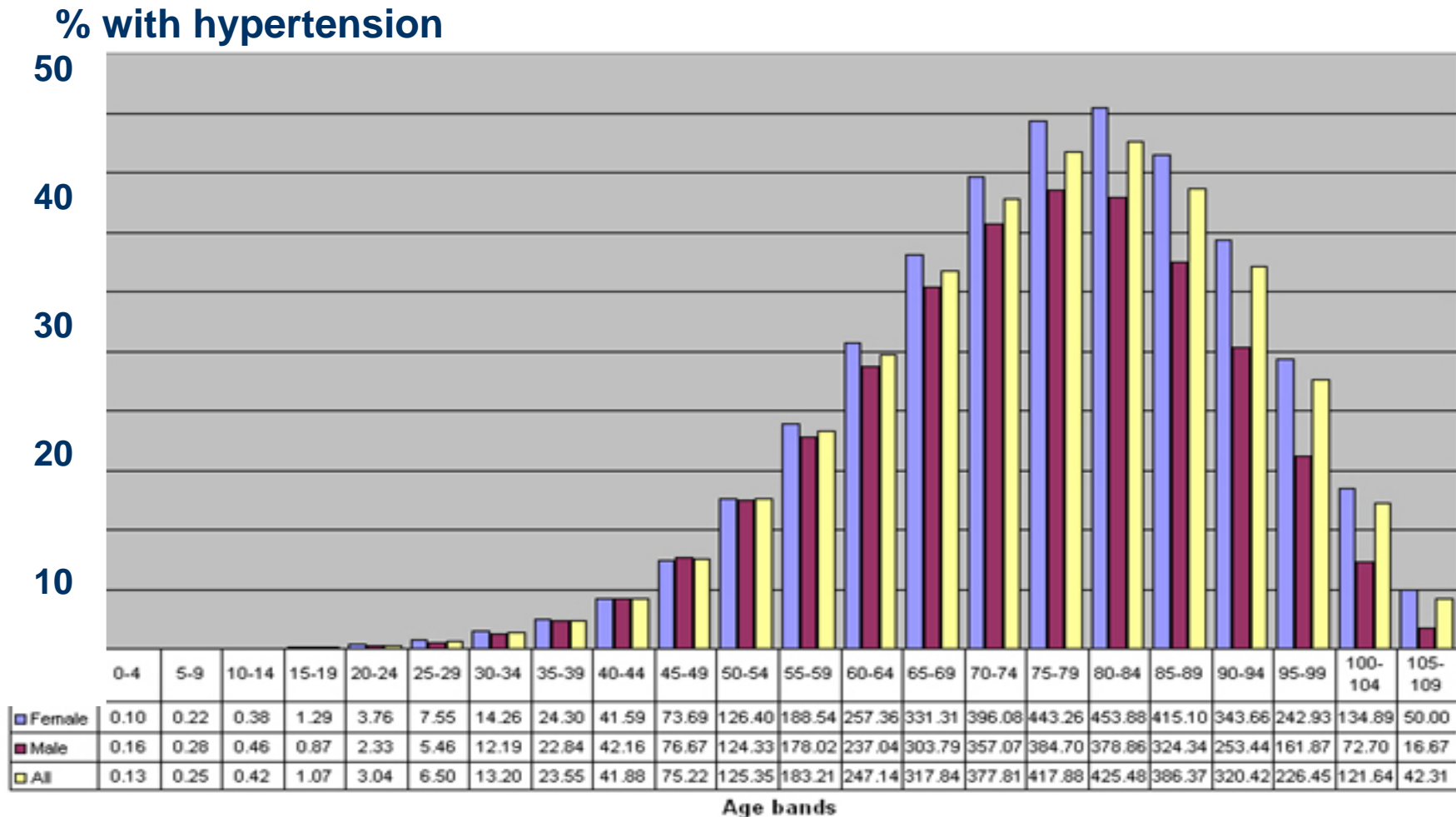
Death rates from stroke, men aged 35-74, 1968-2001, selected European countries



Average length of hospital admission by main diagnosis, National Health Service hospitals, 2002/03, England



Prevalence of hypertension in the UK



Hypertension in the UK

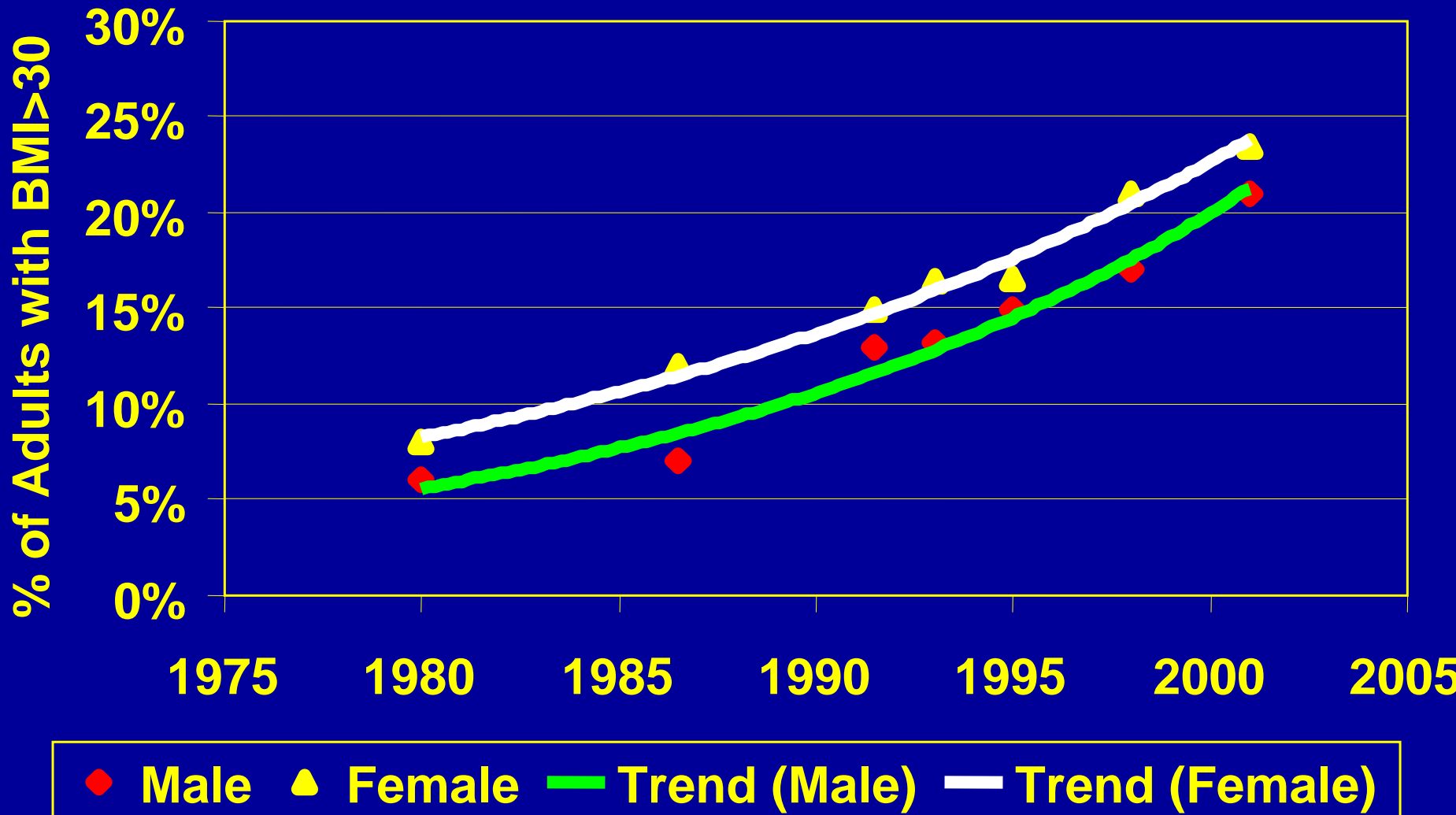
- In England 41% men and 35% women have a BP > 140/90 mm Hg
- 66% adults in England with hypertension were not receiving treatment

Risk factors for hypertension

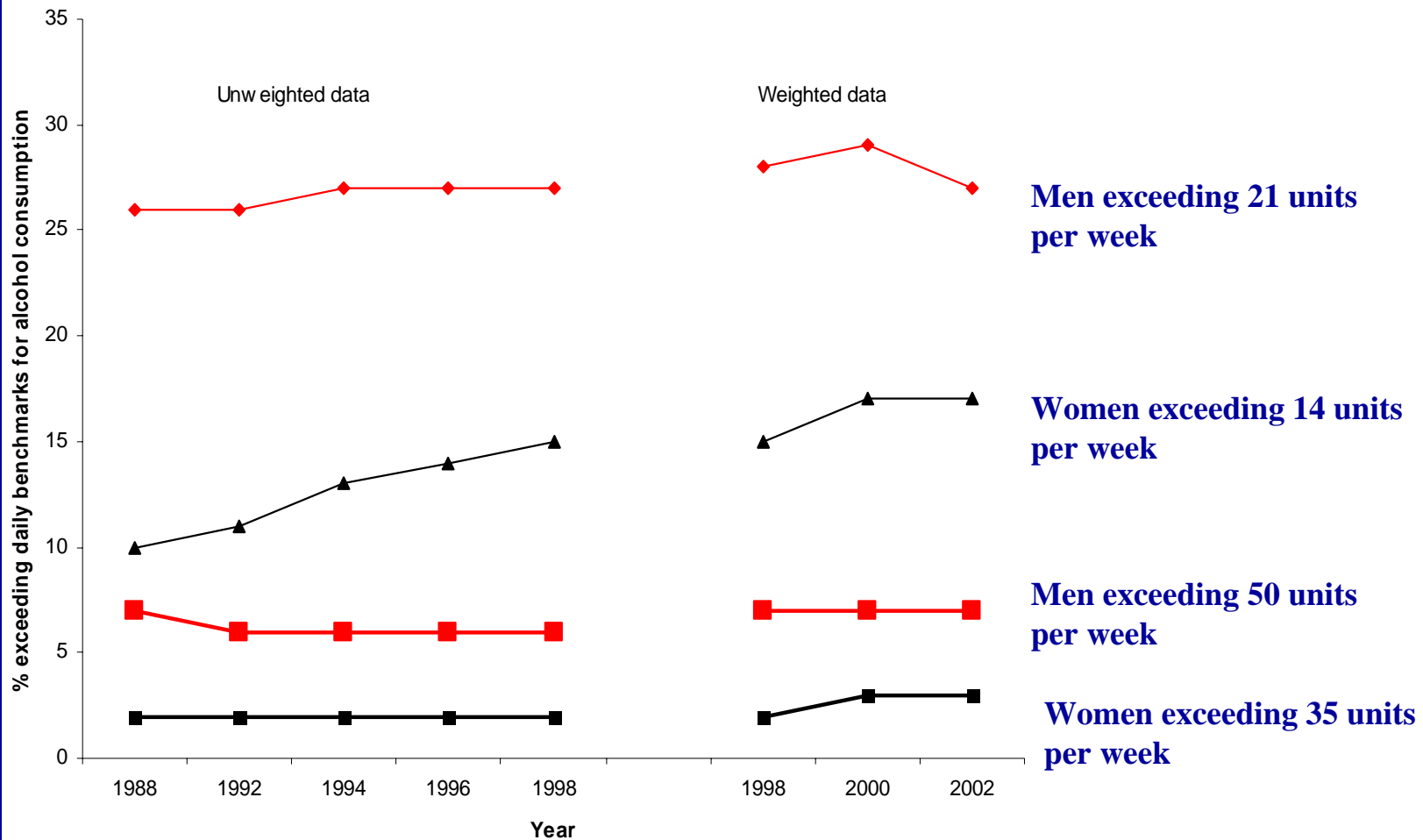
- Overweight
- Excess alcohol
- High salt consumption
- Physical inactivity



Increase in Obesity Among English Adults



Percentage consuming more alcohol than the recommended weekly maximum (21 units for men and 14 units for women), and percentage of weekly heavy drinkers (over 50 units for men and 35 units for women) by sex, 1988-2002, Great Britain



Salt consumption in UK



Salt consumption in UK



35%



10%



20%

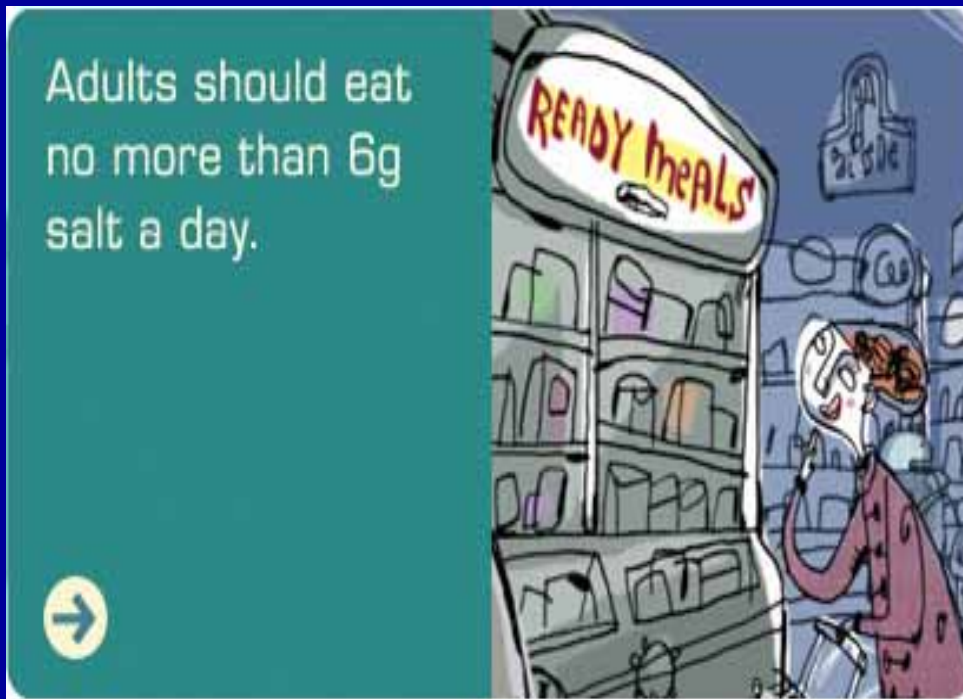


15%



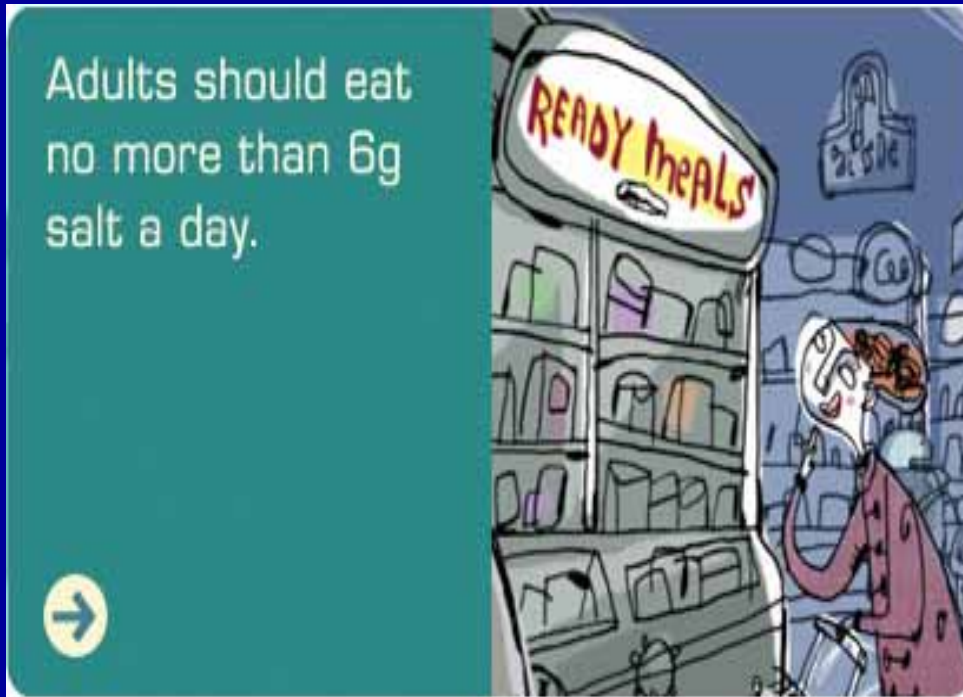
12%

Salt consumption in UK



**Food standards agency salt
campaign October 2005**

Salt consumption in UK

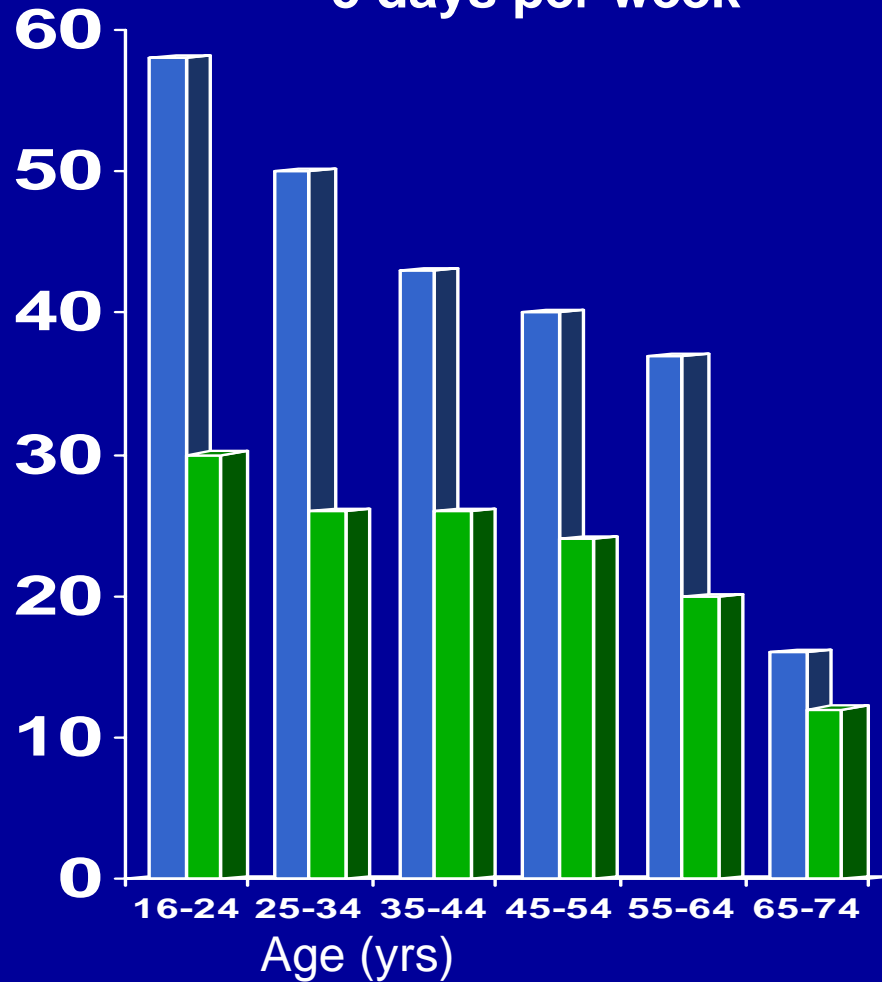


**Current intake
= 9g/d**

**Food standards agency salt
campaign October 2005**

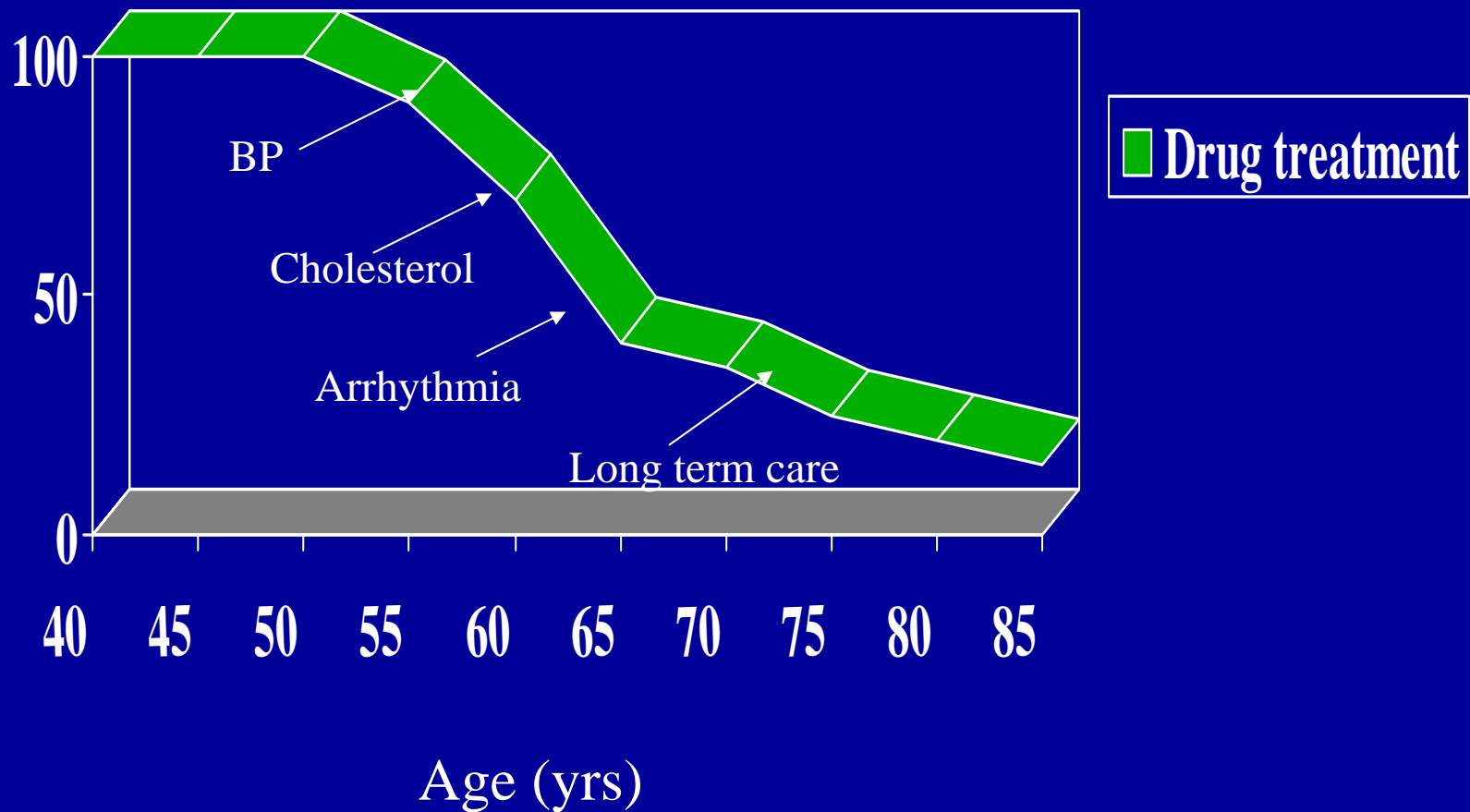
Physical activity levels in UK

% adults achieving 30mins activity
5 days per week



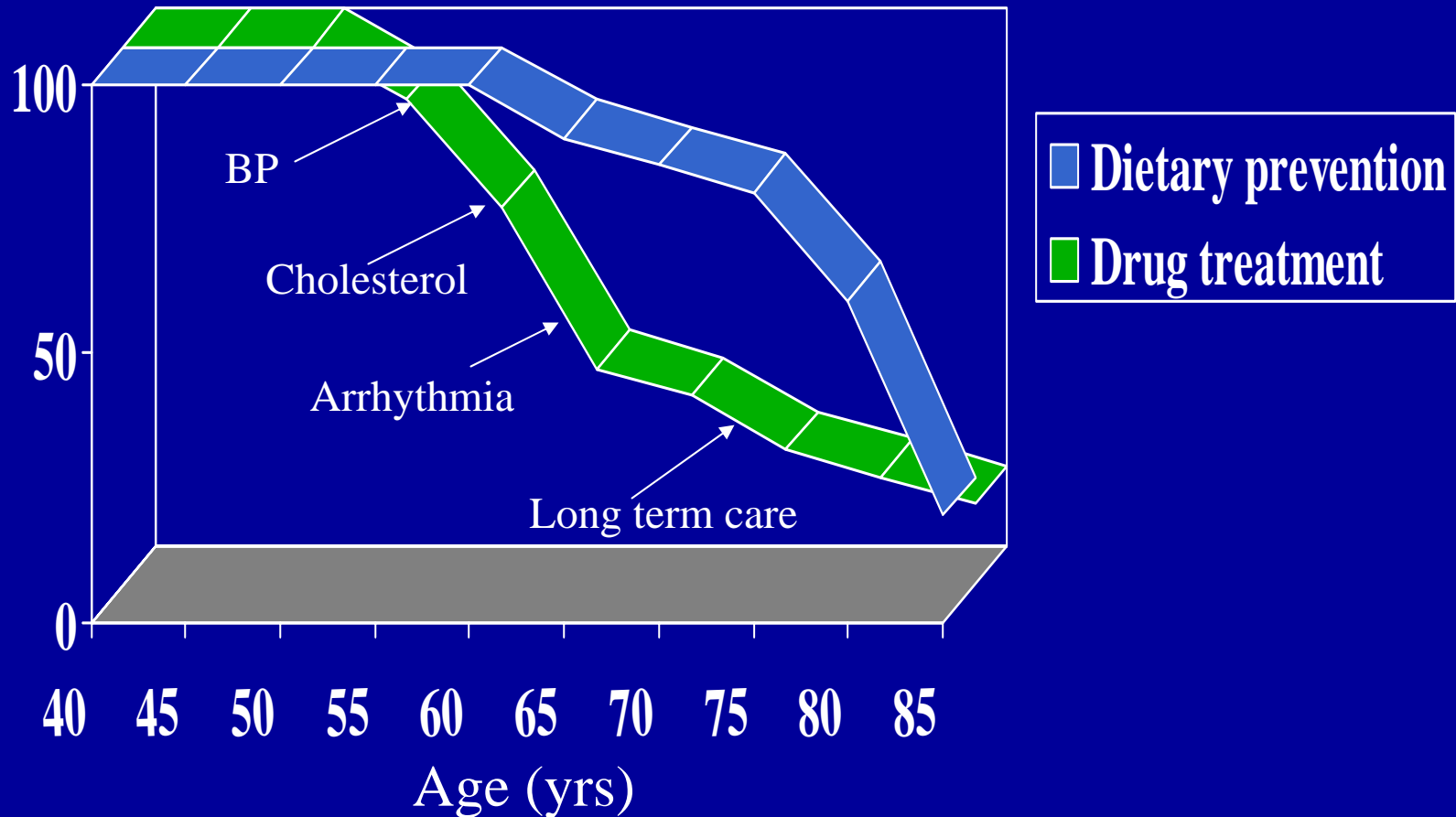
Therapeutic approach to cardiovascular disease

Cardiovascular function with age



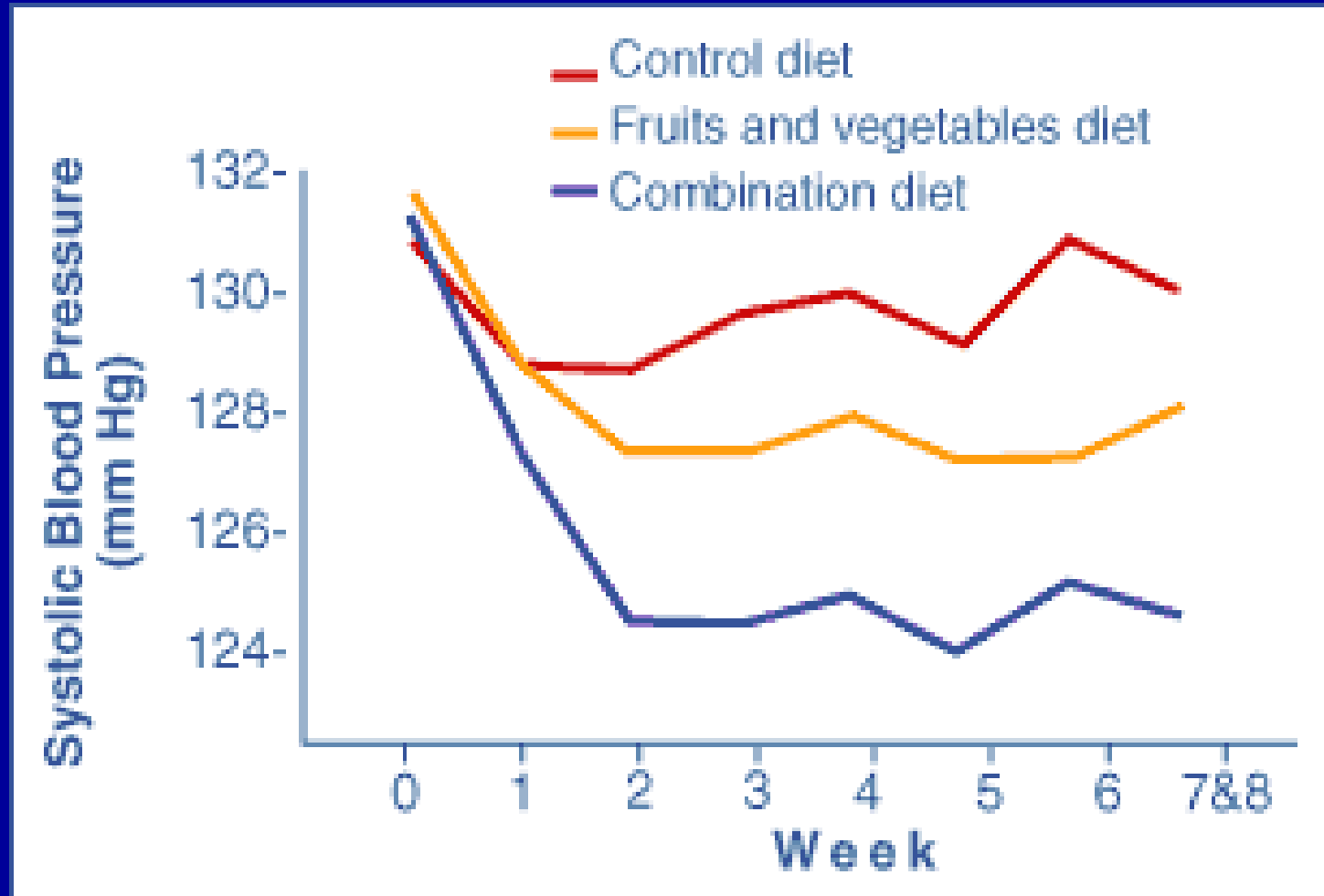
Application of preventative dietary approach?

Cardiovascular function with age



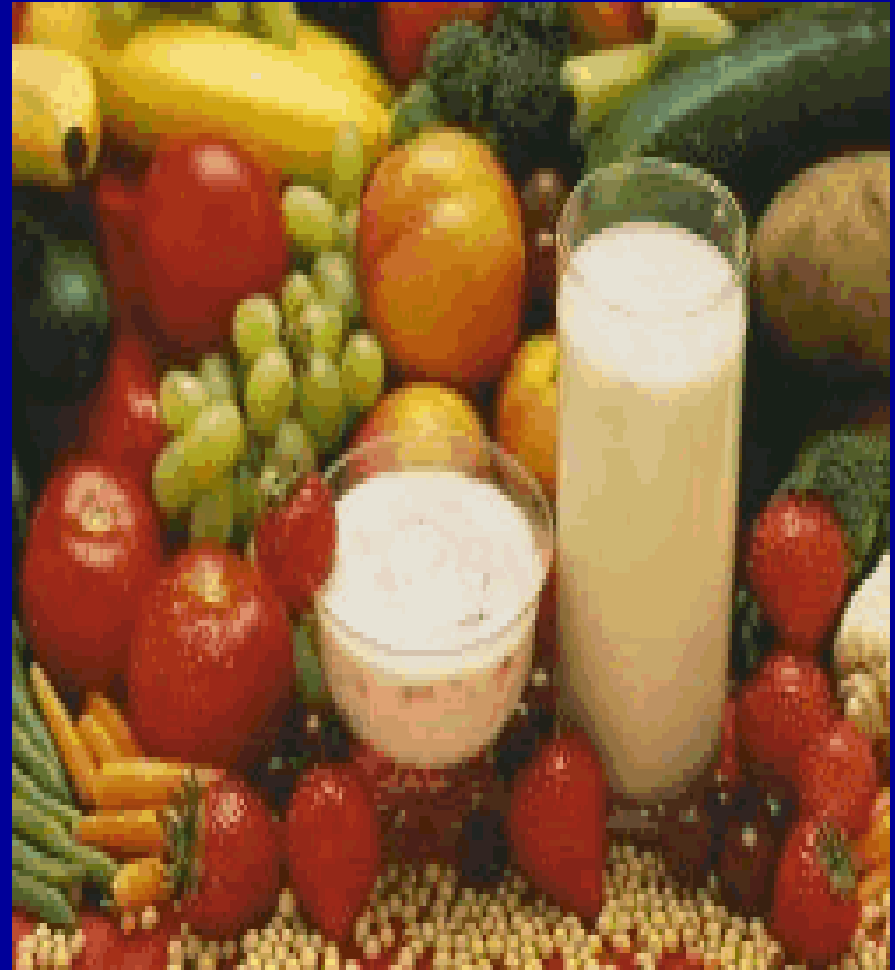
**Can diet reduce blood pressure
independently of body weight?**

Combination of high fruits and vegetables and low salt diet (DASH) on blood pressure

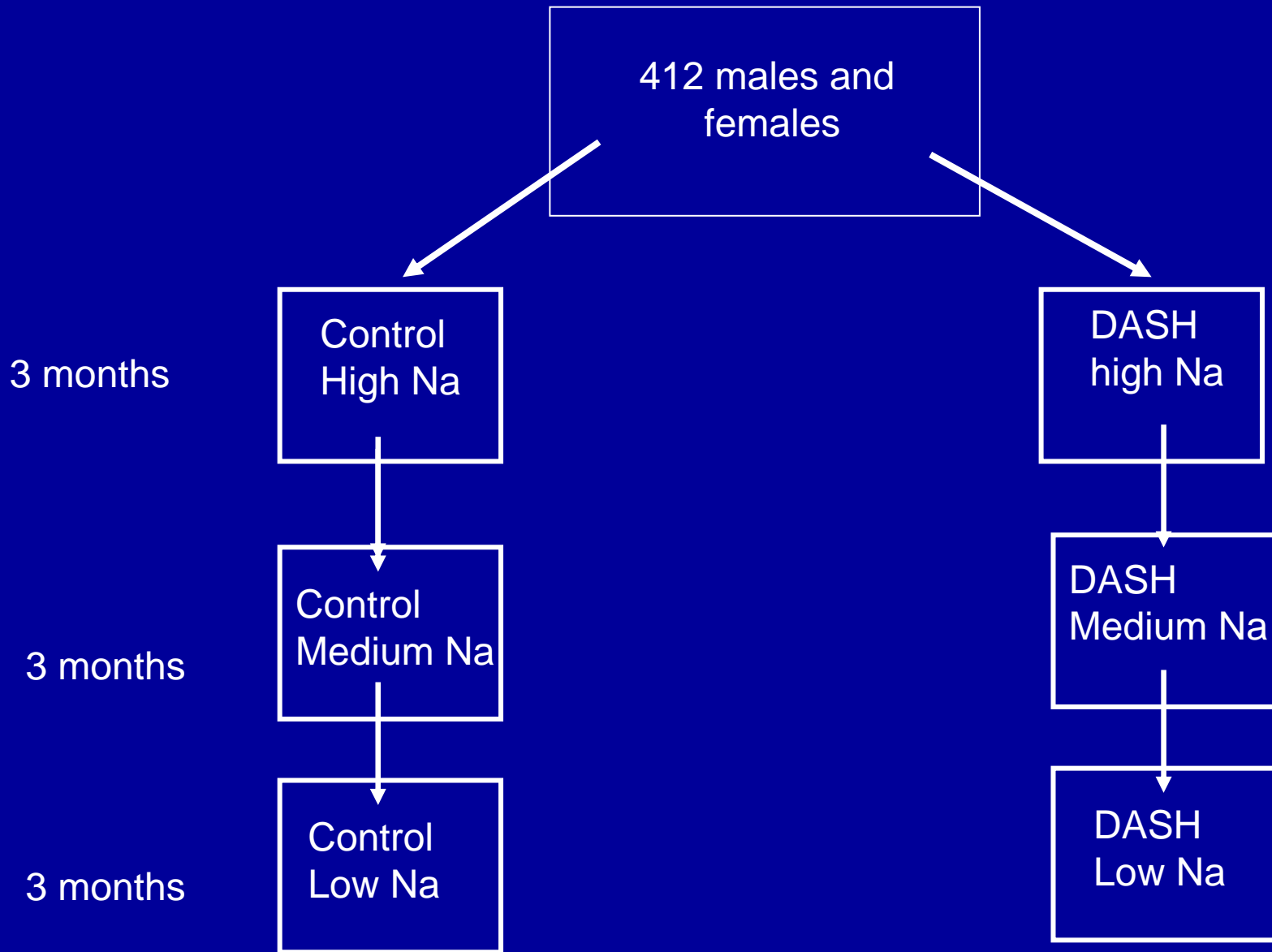


Dietary Approaches to Stop Hypertension (DASH study)

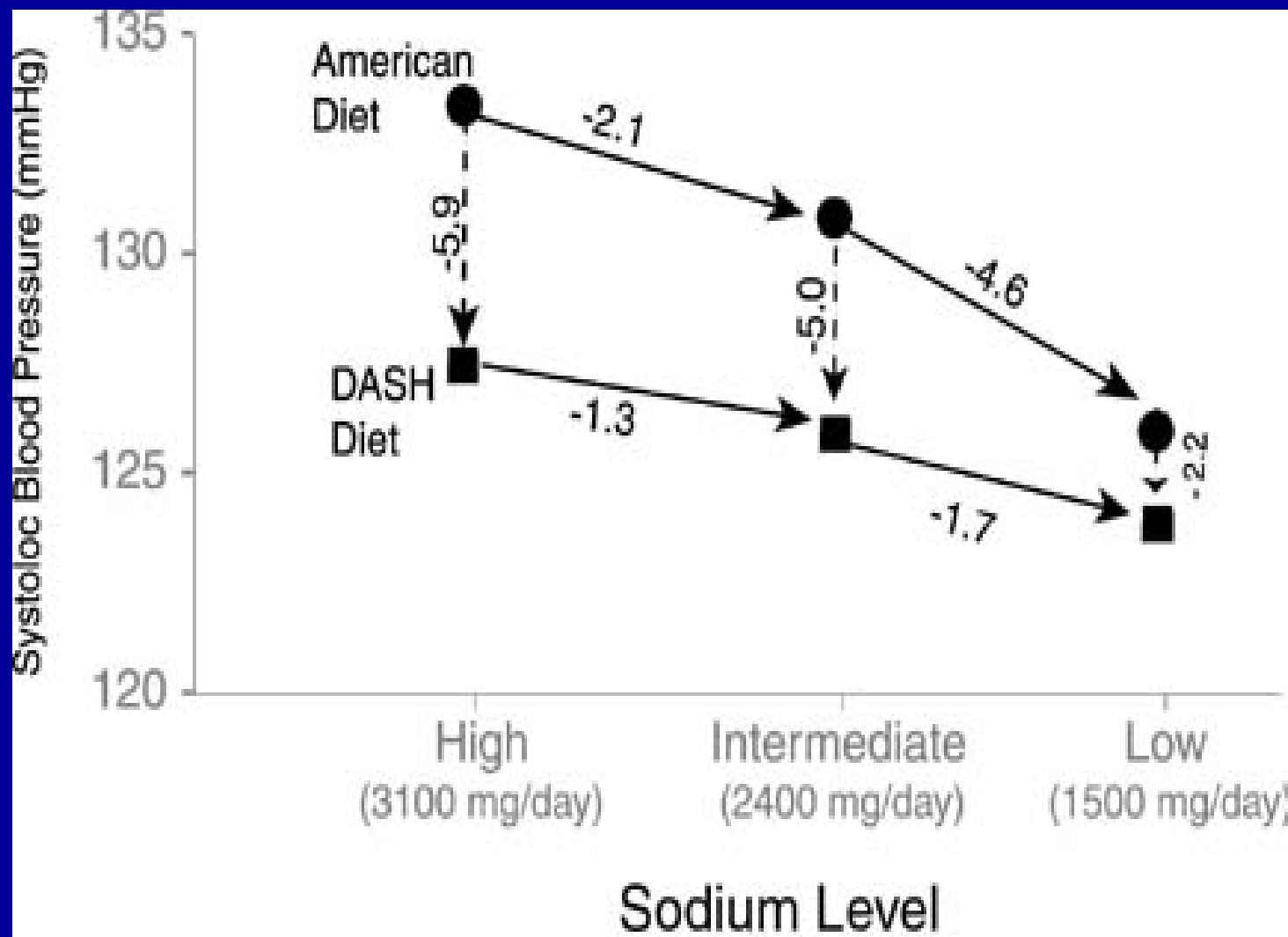
- 412 adults randomised to control or DASH diet and at high, medium, low sodium each for 3 months



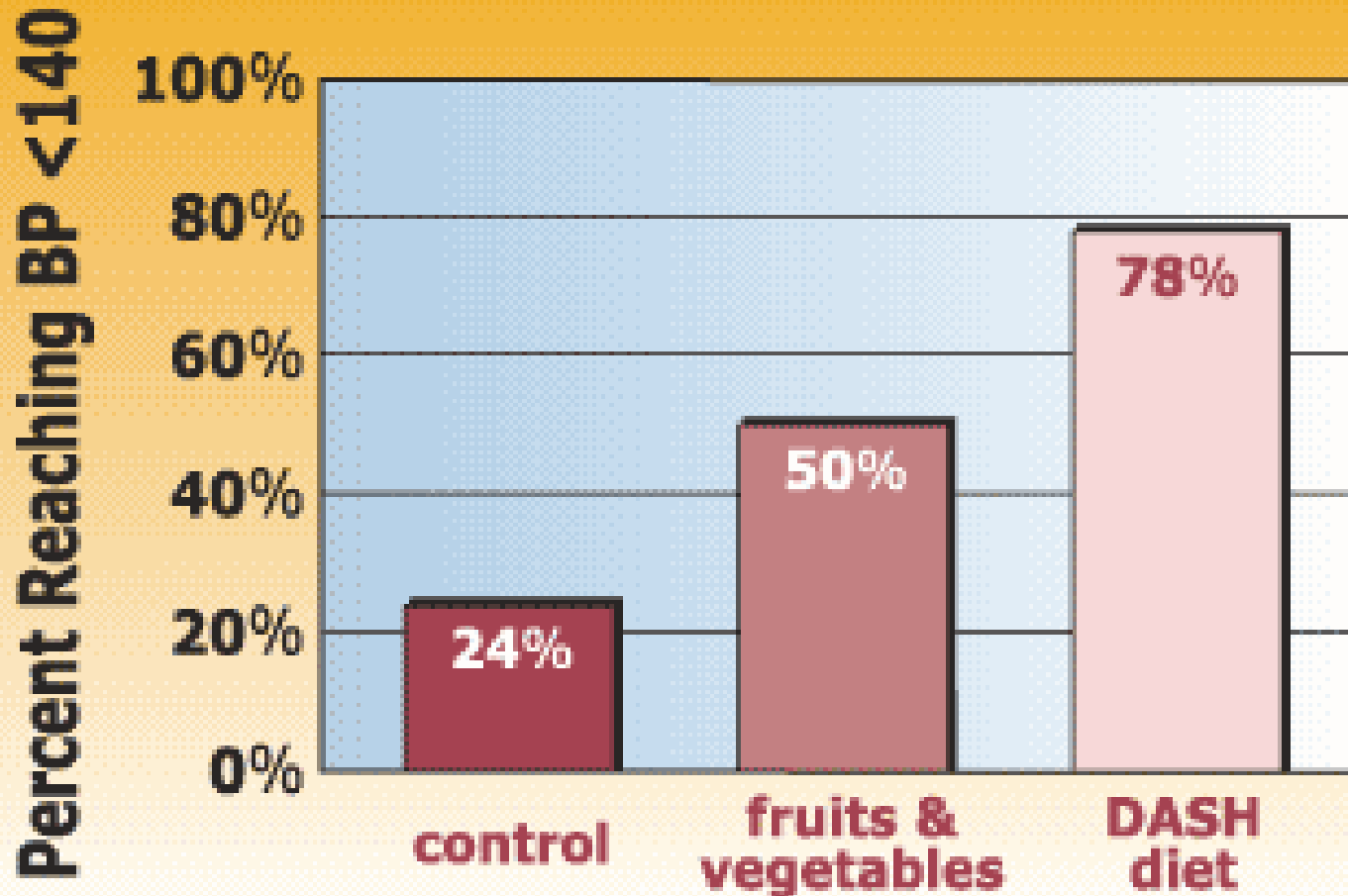
Sacks et al 2001



Influence of diet on blood pressure – randomised controlled trial



Diet and Blood Pressure

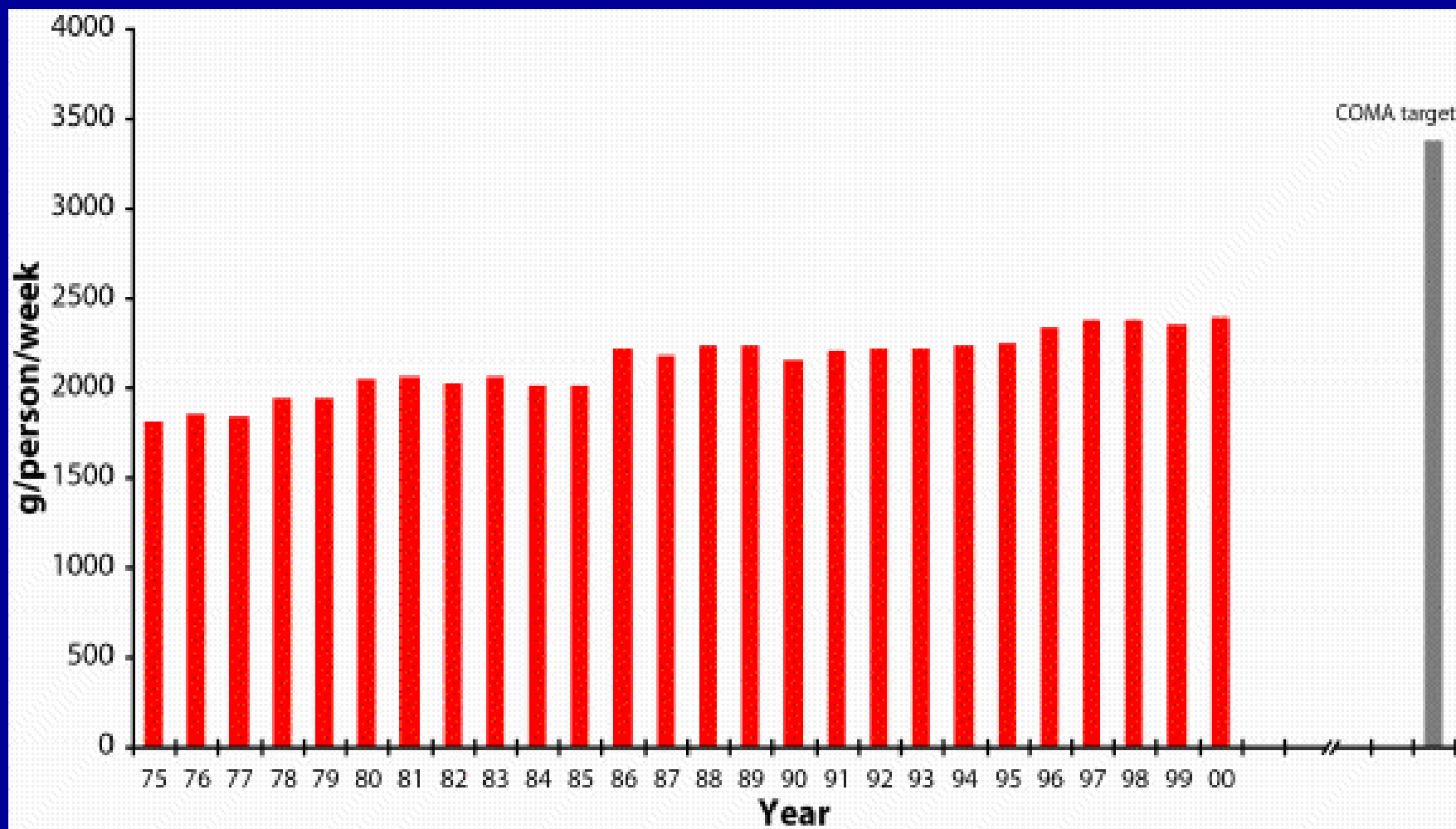


Impact of population reductions in blood pressure on stroke?

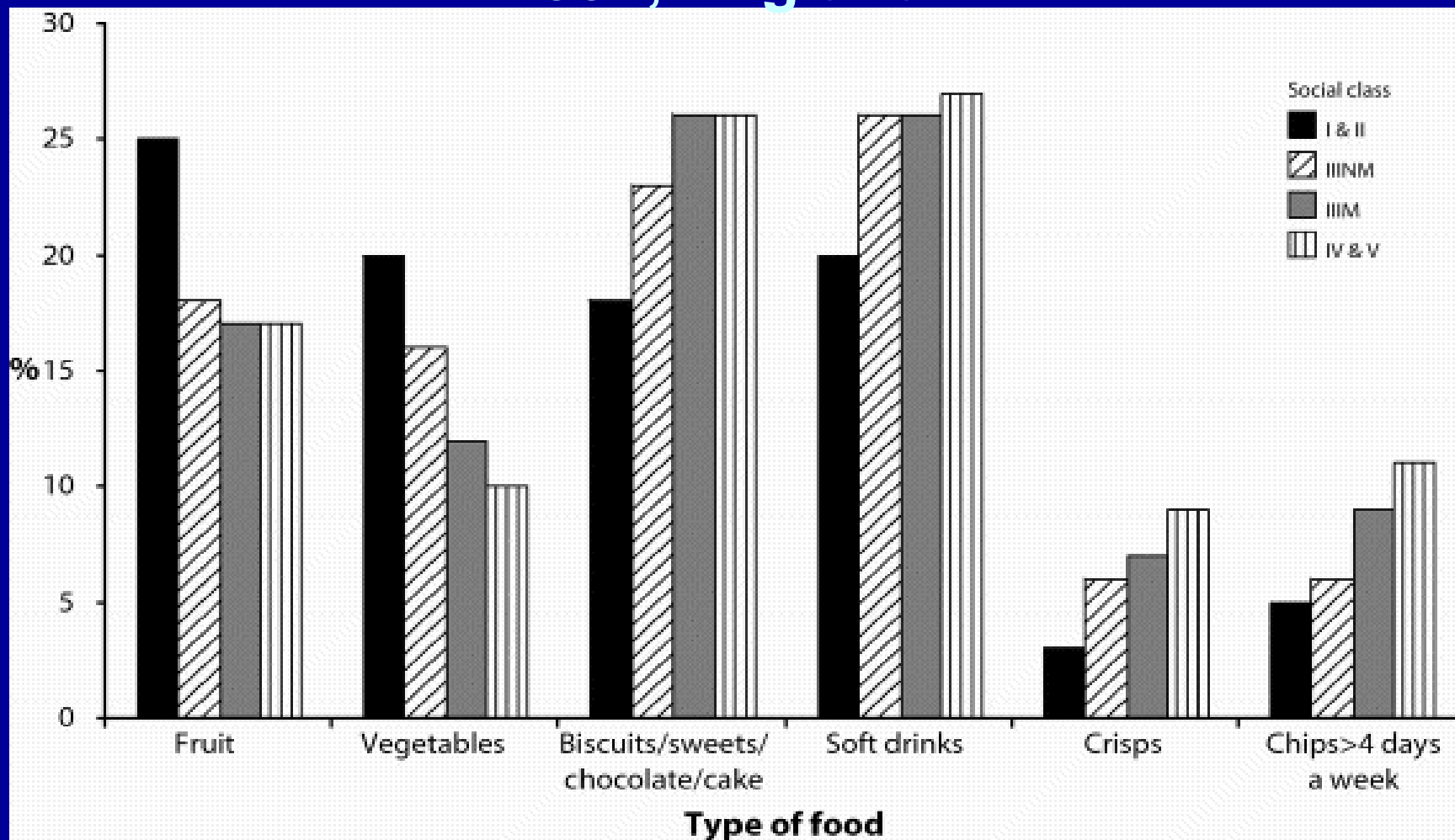
A 2 mm Hg reduction in diastolic BP across the adult population would reduce risk of stroke by 15%

Cook et al 1995

Consumption of fruit and vegetables, adults aged 16 and above, 1975-2000, Great Britain,



Percentage of girls (2-15yrs) eating different types of food more than once a day by social class, 1997, England



Changing trends in food and fats:

1960-70s



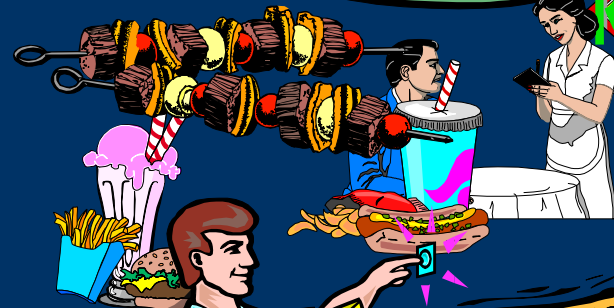
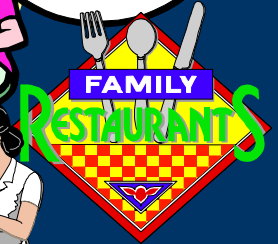
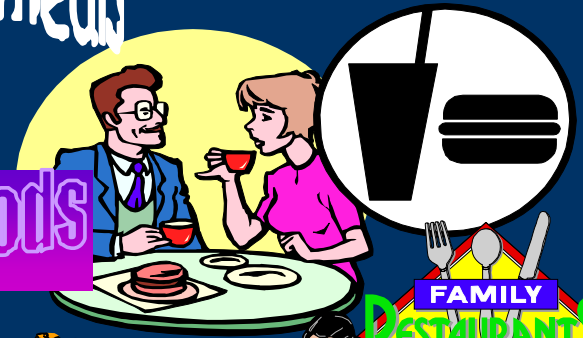
Changing trends in food and fats: 1990-2000s

1960-70s

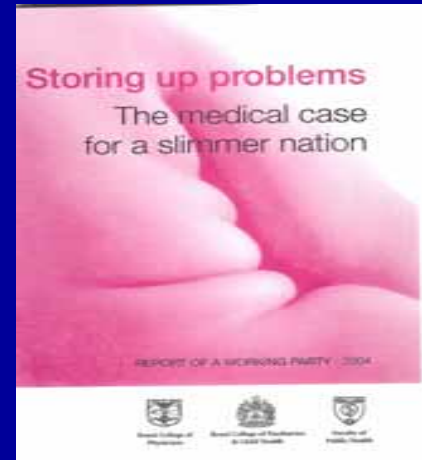


Ready meals

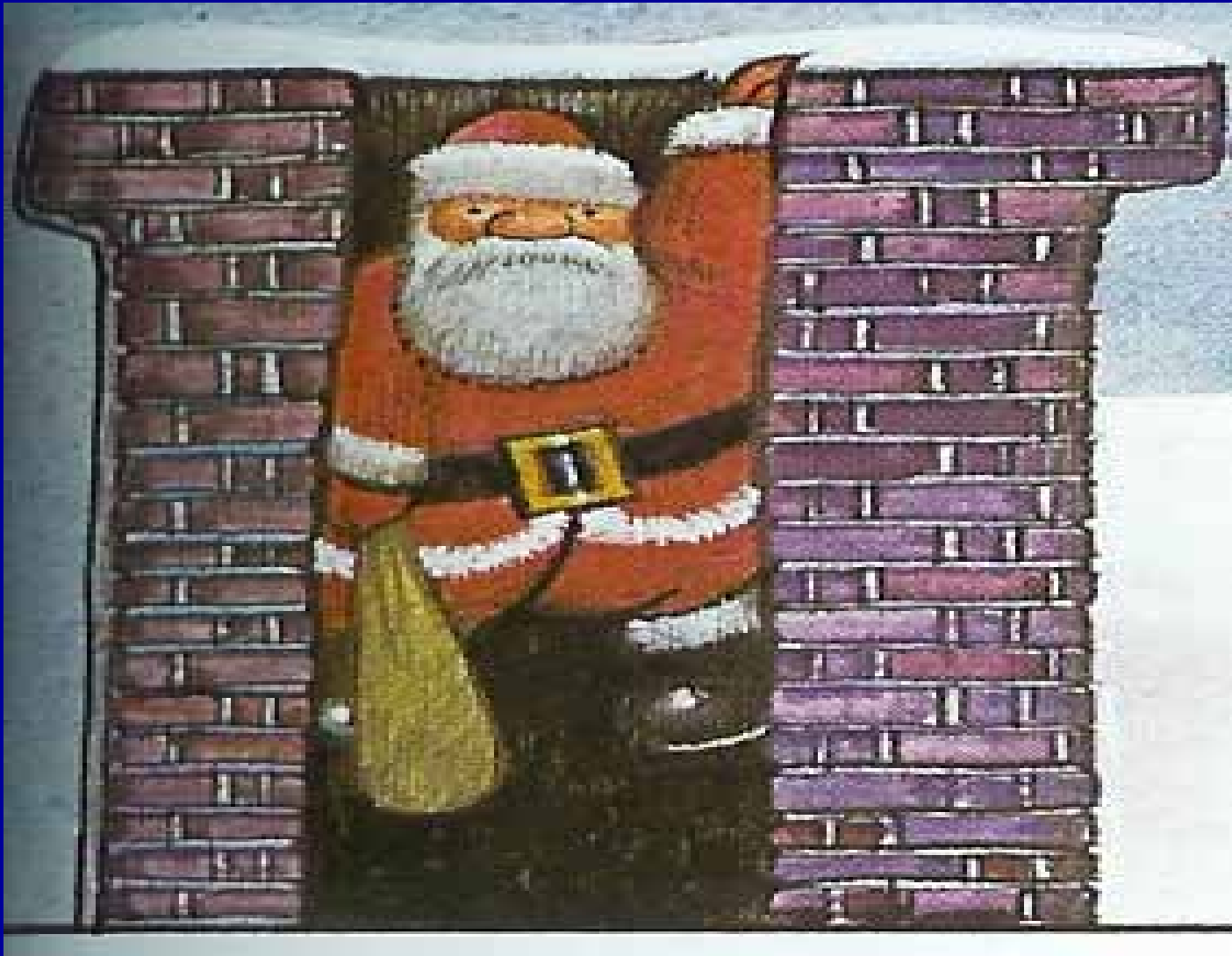
Low fat foods



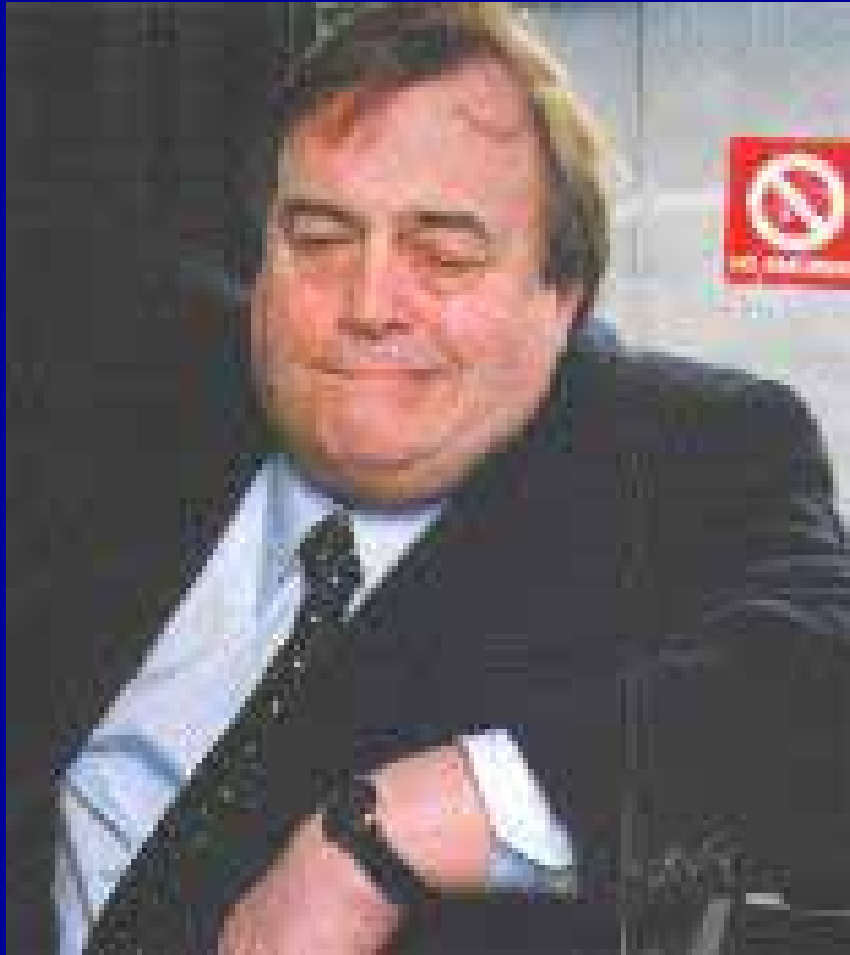
Obesity and overweight - epidemic



Hazards of Obesity and overweight.....?



Major societal concern.....



Major societal concern.....

