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# The National Service Framework for Coronary Heart Disease: Lessons from the UK

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# The English NHS is a large complex system

**Population 51 million**




**1,400,000 employees**  
**1,000,000 patients every 24 hrs**  
**Primary & secondary care**  
**Mental health**  
**Dentists, Opticians, Pharmacies**  
**Ambulance services**

**10 regional Strategic Health Authorities**  
**Each with a population between**  
**2.5 and 7 million**  
**Similar in population to Ireland,**  
**Norway, Finland & Denmark,**

# July 1948

The NHS logo, consisting of the letters "NHS" in white, bold, sans-serif font on a blue rectangular background.

**“It will provide you with all medical, dental and nursing care. Everyone - rich or poor, man, woman or child – can use it. There are no charges... There are no insurance qualifications. But it is not a “charity”. You are all paying for it, mainly as taxpayers, and it will relieve your money worries in time of illness.”**

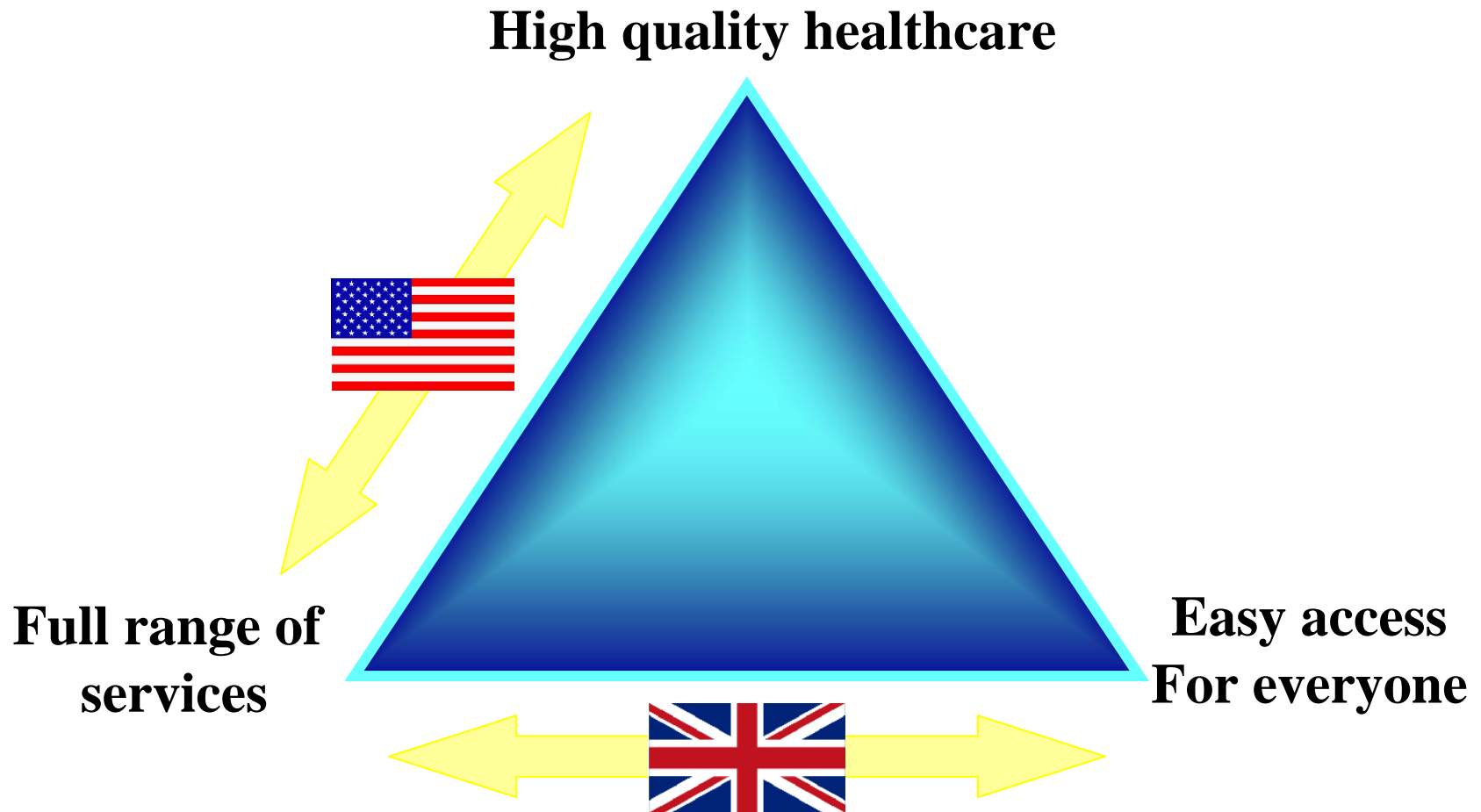
The Royal Coat of Arms of the United Kingdom, featuring a shield supported by a lion and a unicorn, topped with a crown.

THE NEW  
NATIONAL  
HEALTH  
SERVICE

Your new National Health Service begins on 5th July. What is it? How do you get it?

It will provide you with all medical, dental, and nursing care. Everyone—rich or poor, man, woman or child—can use it or any part of it. There are no charges, except for a few special items. There are no insurance qualifications. But it is not a “charity”. You are all paying for it, mainly as taxpayers, and it will relieve your money worries in time of illness.

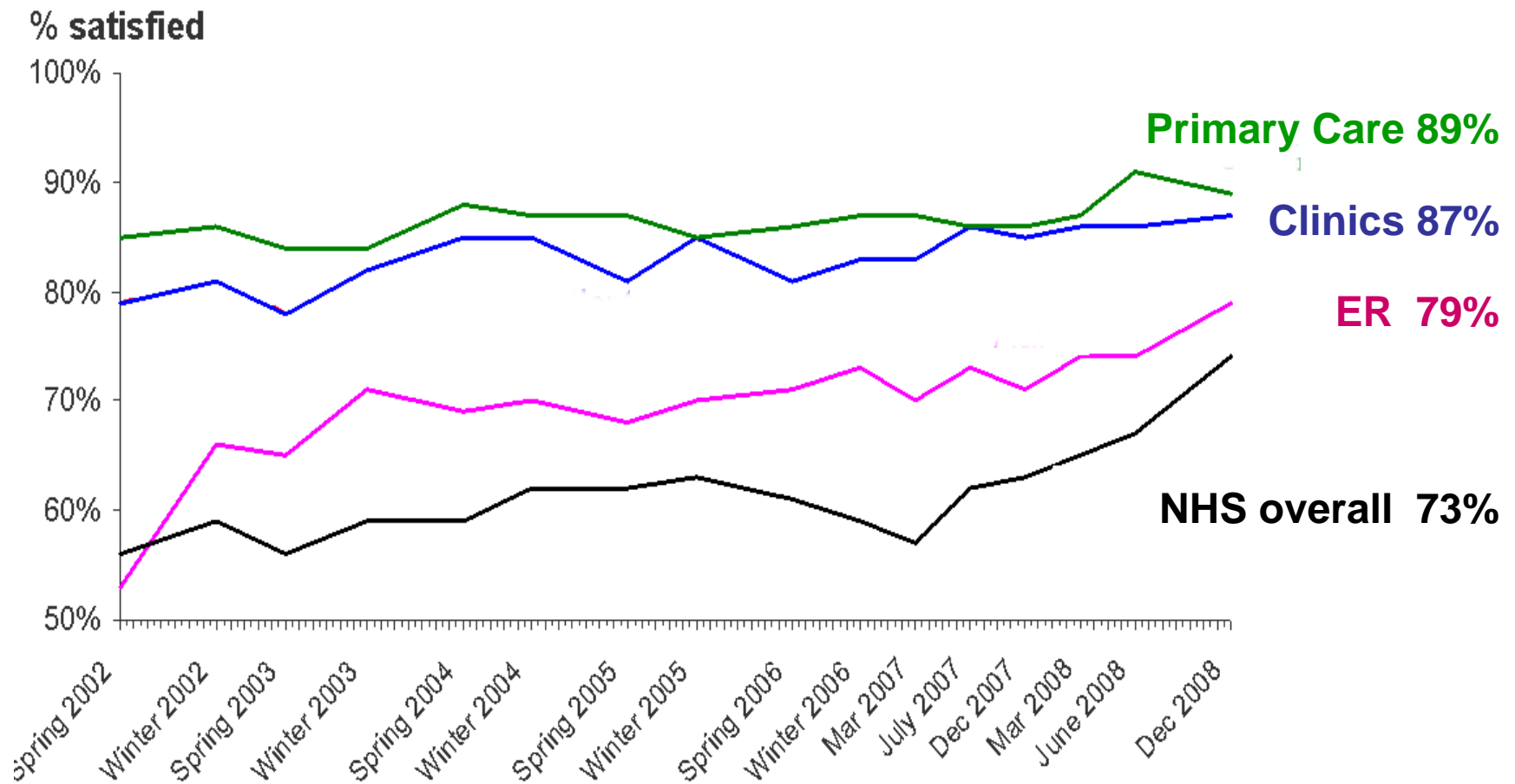
# An inconsistent triad in healthcare



# UK appears to be doing well against other systems

	Australia	Canada	Germany	New Zealand	UK	USA
Overall ranking	3.5	5	2	3.5	1	6
<i>Quality care</i>	4	6	2.5	2.5	1	5
<i>Right care</i>	5	6	3	4	2	1
<i>Safe care</i>	4	5	1	3	2	6
Co-ordinated	3	6	4	2	1	5
Patient centered	3	6	2	1	4	5
Access	3	5	1	2	4	6
Efficiency	4	5	3	2	1	6
Equity	2	5	4	3	1	6
Long, healthy lives	1	3	2	4.5	4.5	6
Per capita cost 2004	\$2,676	\$3,165	\$3,005	\$2,083	\$2,546	\$6,102

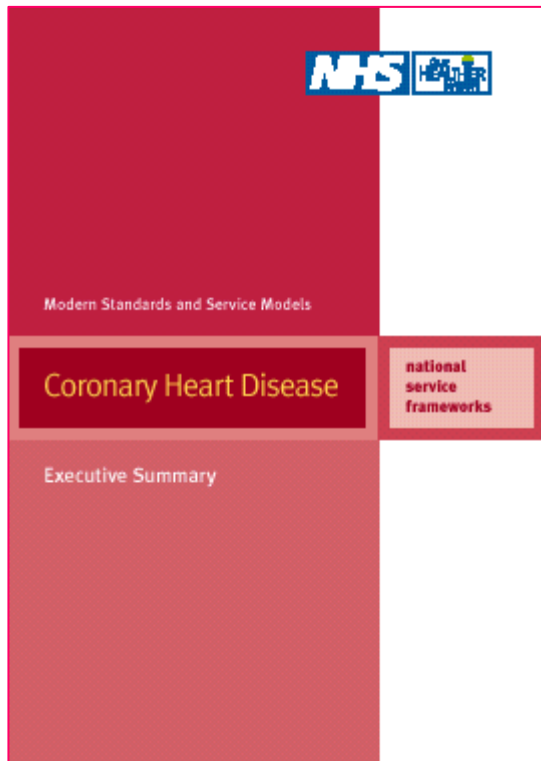
# Satisfaction with the NHS is increasing



# Cardiology in the 1990s in England

- Research output beginning to wane
- Low levels of uptake of effective treatments and technologies
- Only 400 cardiologists and 180 cardiac surgeons for the whole nation (51 million)
- Long waits for treatment
  - One year for a cardiologist, two for CABG
- High mortality rates from cardiovascular disease
- Increasing inequalities
  - Life expectancy
  - Access to care

# National Service Framework for Coronary Heart Disease



This Framework will transform the prevention, diagnosis and treatment of coronary heart disease.

It will help professionals to give better, fairer and faster care everywhere, to everyone who needs it.

We want a service that is amongst the best in the world. Our people deserve nothing less.

March 2000

**Alan Milburn**

Secretary of State for Health



# Process

- **Setting up of an independent expert group to review the evidence and make recommendations on the basis of best evidence**
- **Included patients and carers as well as various clinicians, public health experts and epidemiologists**

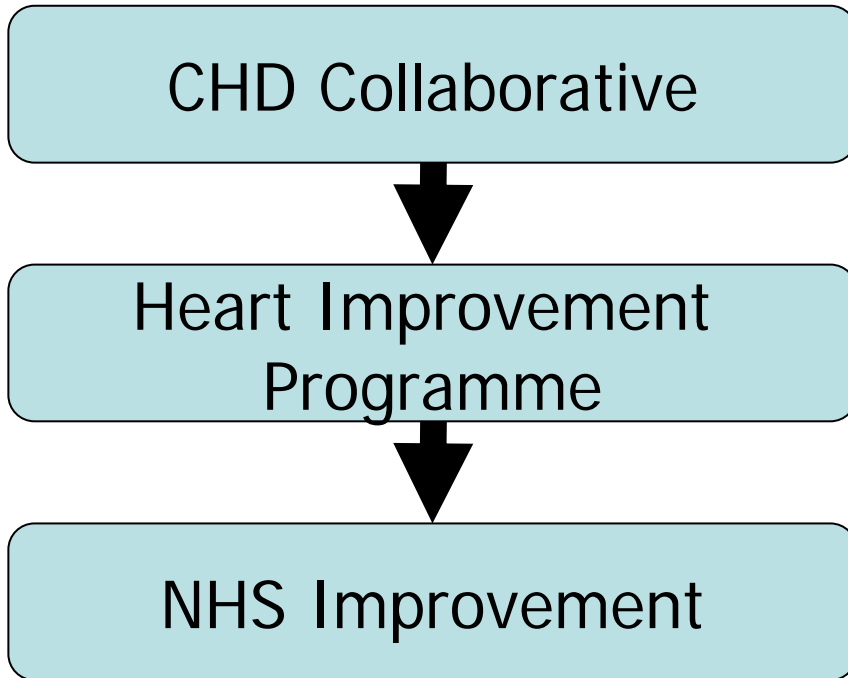
# Launch in March 2000

- **High level interest (Prime Minister)**
- **High level of clinician buy-in as well as the wider NHS**
- **Supported by government finance and a process of prioritisation at national level with national targets leading to:**
- **A very effective coalition**



# Modernising care

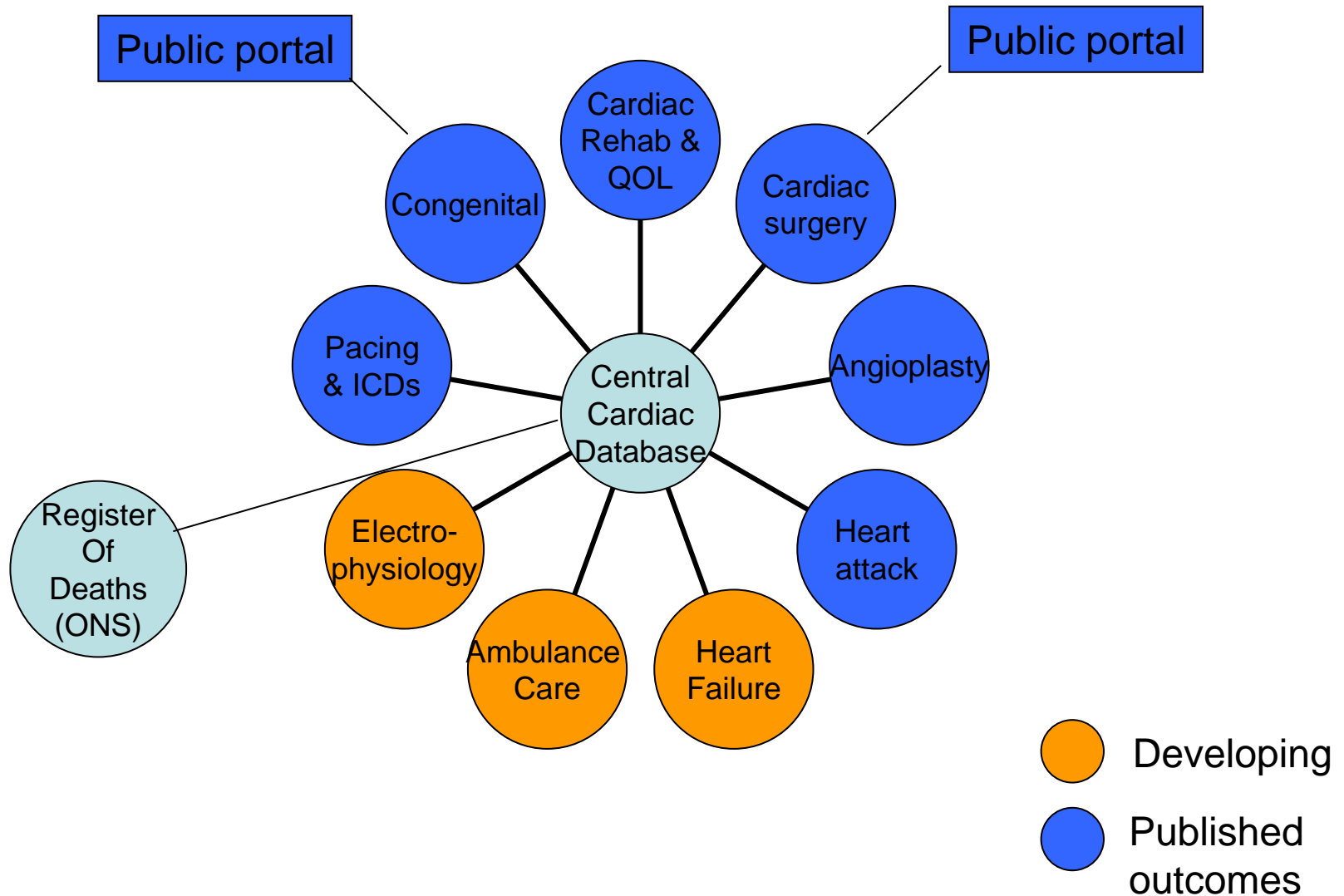
## Clinical networks



# Implementing improvement

- **National Service Frameworks**
  - High level descriptions of service
  - What can the individual expect the service to deliver
- **National Institute for Health and Clinical Excellence (NICE)**
  - Guidelines and technology appraisals
- **Systematic performance management**
  - With clinical targets
- **Care Quality Commission**
  - Independent regulator with right to inspect, review and intervene
- **Measurement and public reporting of clinical outcomes**
  - National clinical audit programmes

# National audits and registries

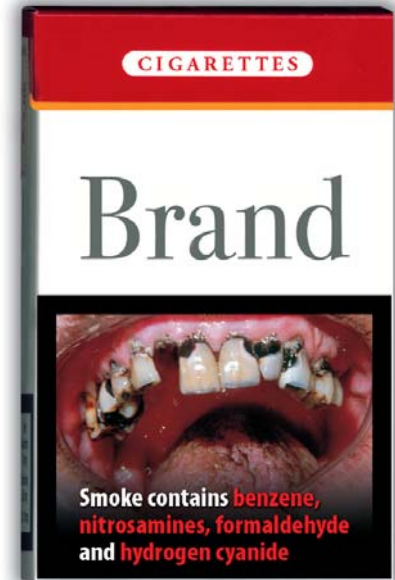


# Heart programme

## Twin track approach

- **Better prevention**
  - **Primary**
  - **Secondary**
- **Better treatment**
  - **Faster**
  - **Better outcomes**
  - **More equity**





1. Ban on advertising
2. Advertising campaigns
3. Pack health warnings
4. Price increases (serial)
5. Smoking cessation clinics
6. Ban on smoking in the workplace & public places
7. Increasing the minimum legal age for buying cigarettes





# Primary prevention



(over 2 million children in 14,000 schools)

# Advertising campaign against fat



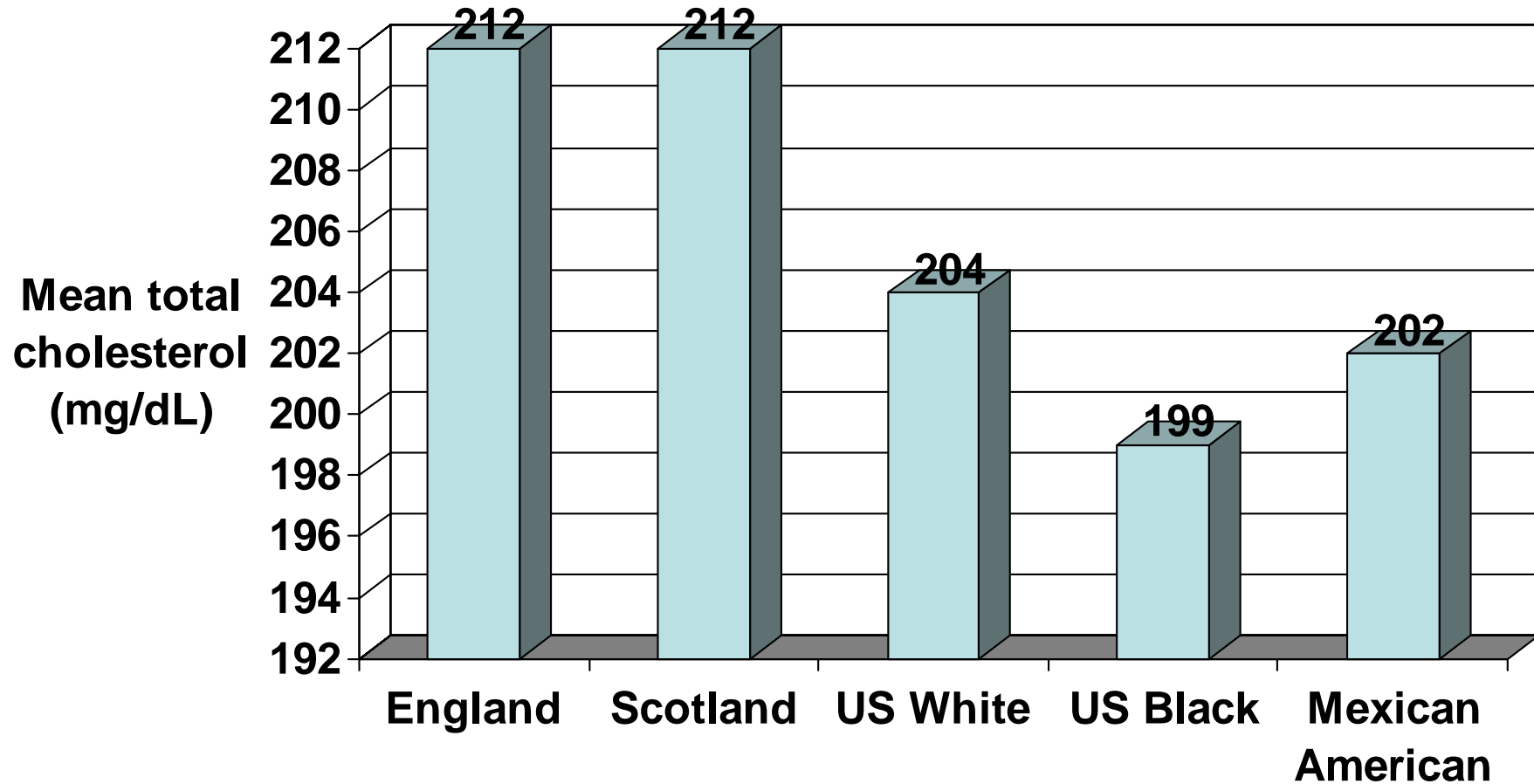
What goes into crisps  
goes into you.

Some crisps contain 33% cooking oil. [bhf.org.uk](http://bhf.org.uk)





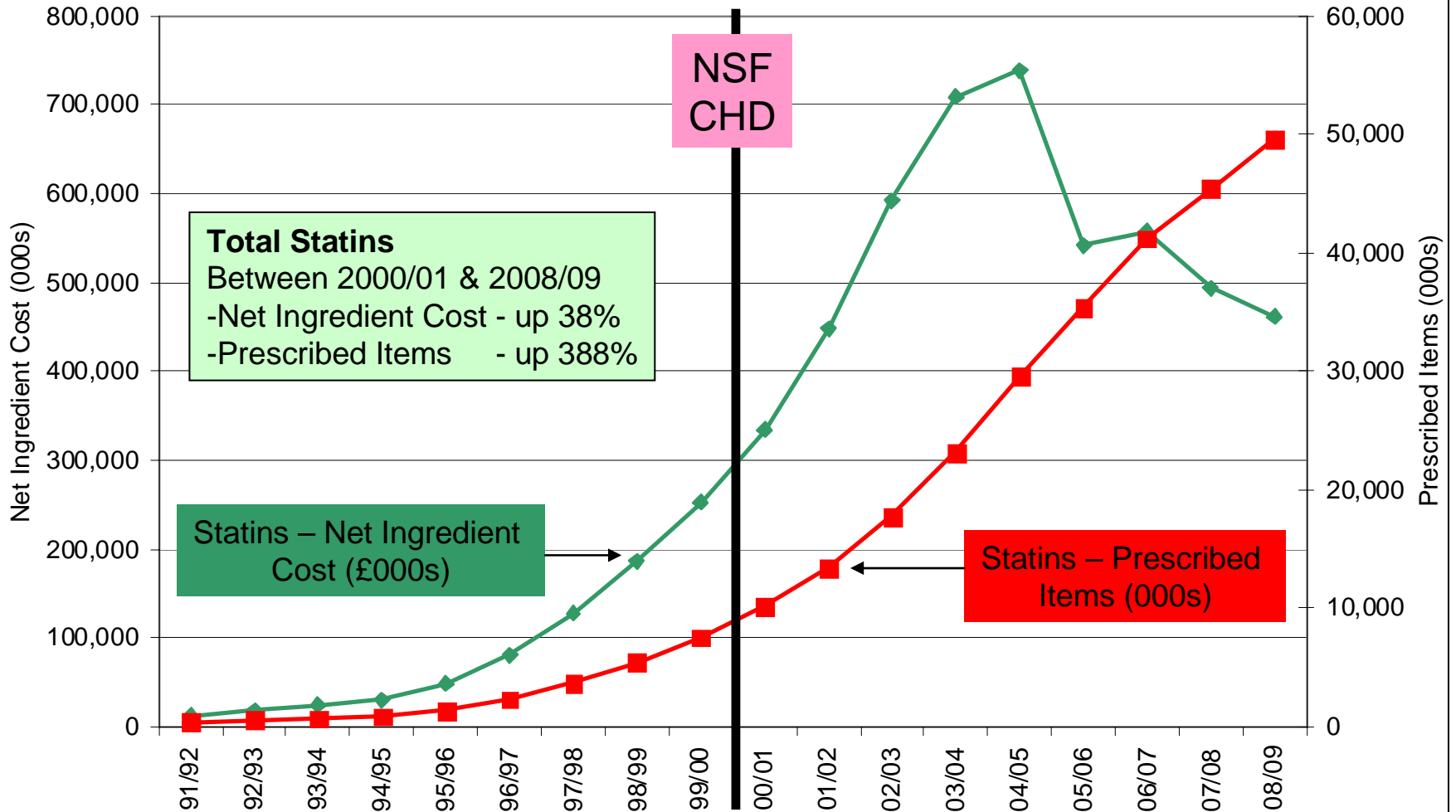
# Cholesterol levels



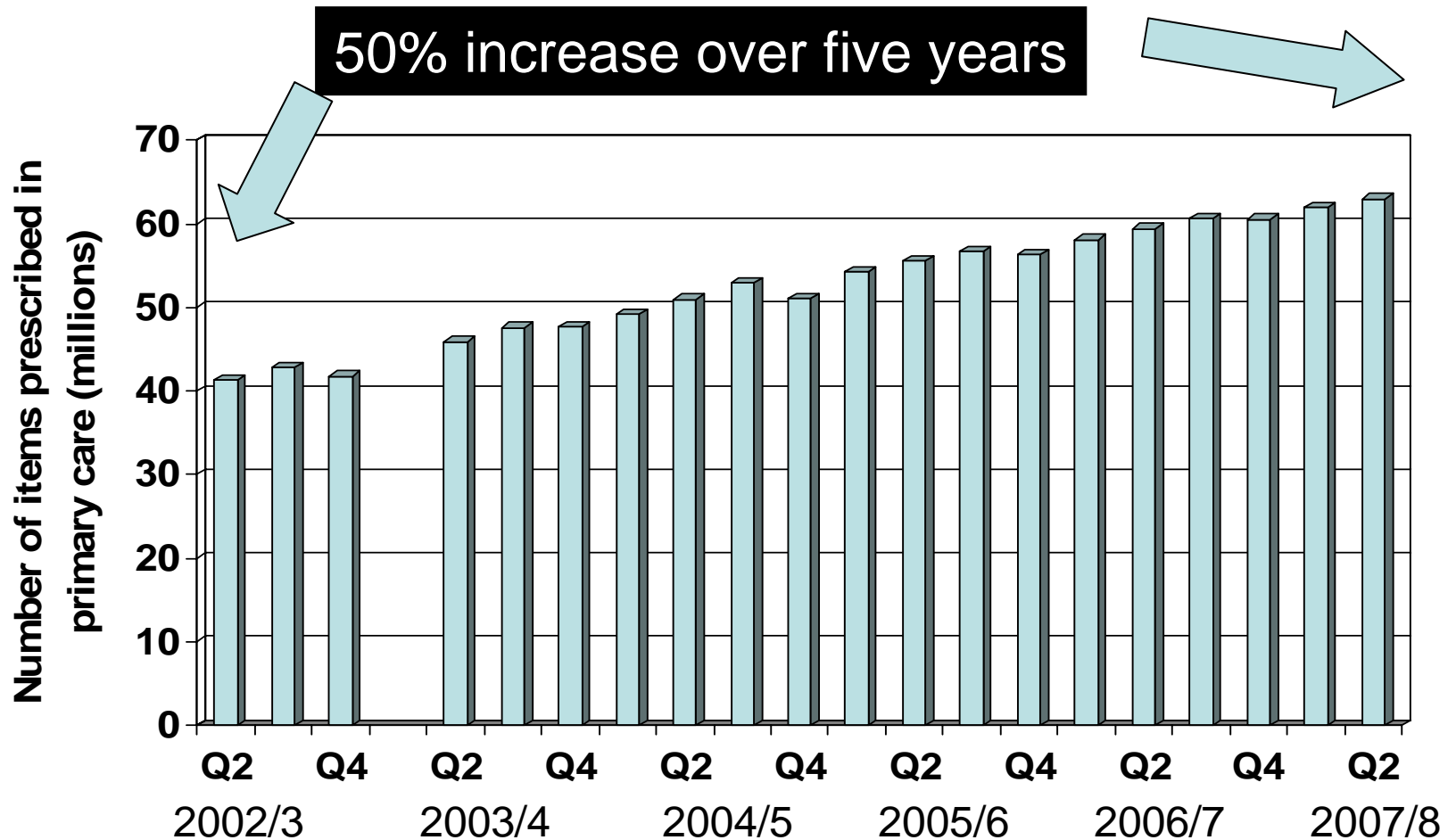
NHANES (1999-2002), Health Surveys of England and Scotland (2003)



# England – Statin Prescribing – Total Statins (Proprietary & Generic) Prescribed Items (000s) & Net Ingredient Costs (£000s)

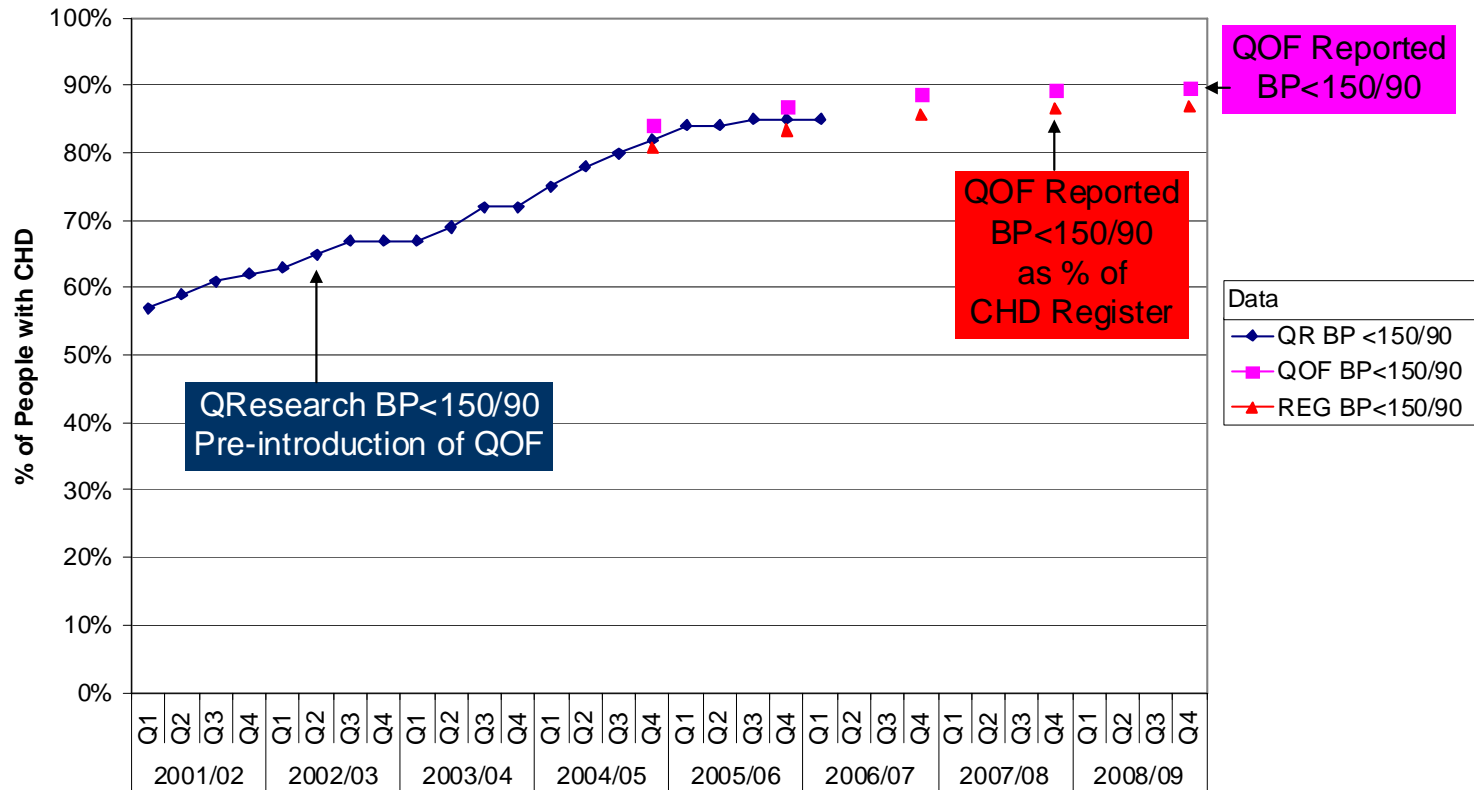


# Trend in prescriptions for CV drugs



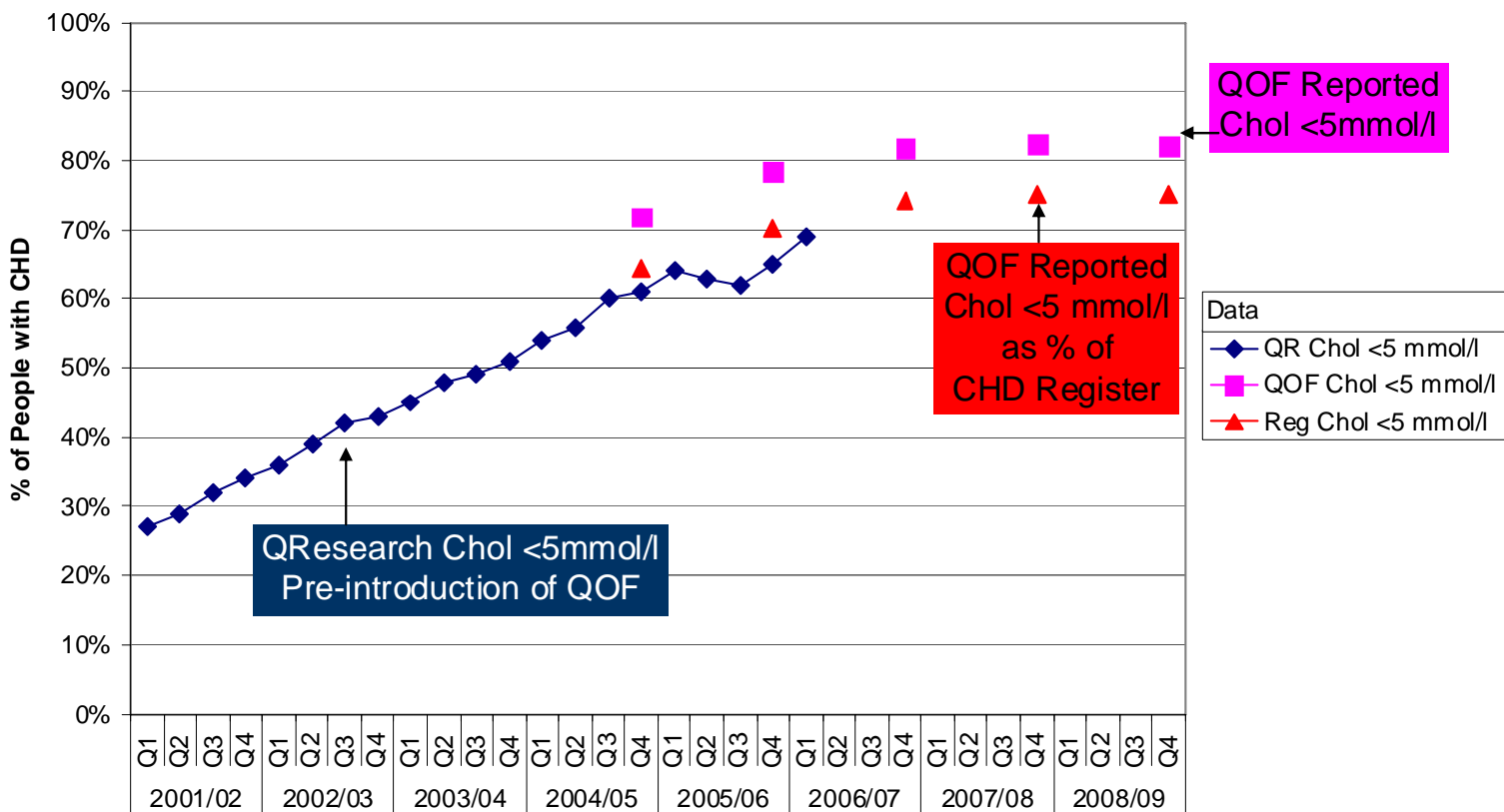
# Percentage of CHD patients achieving blood pressure targets, England general practice, 2001-2008

England – QOF % of People with CHD with BP <150/90 – 2001/02 – 2008/09  
 QResearch Population & National QOF Results



# Percentage of CHD patients achieving cholesterol targets, England general practice, 2001-2008

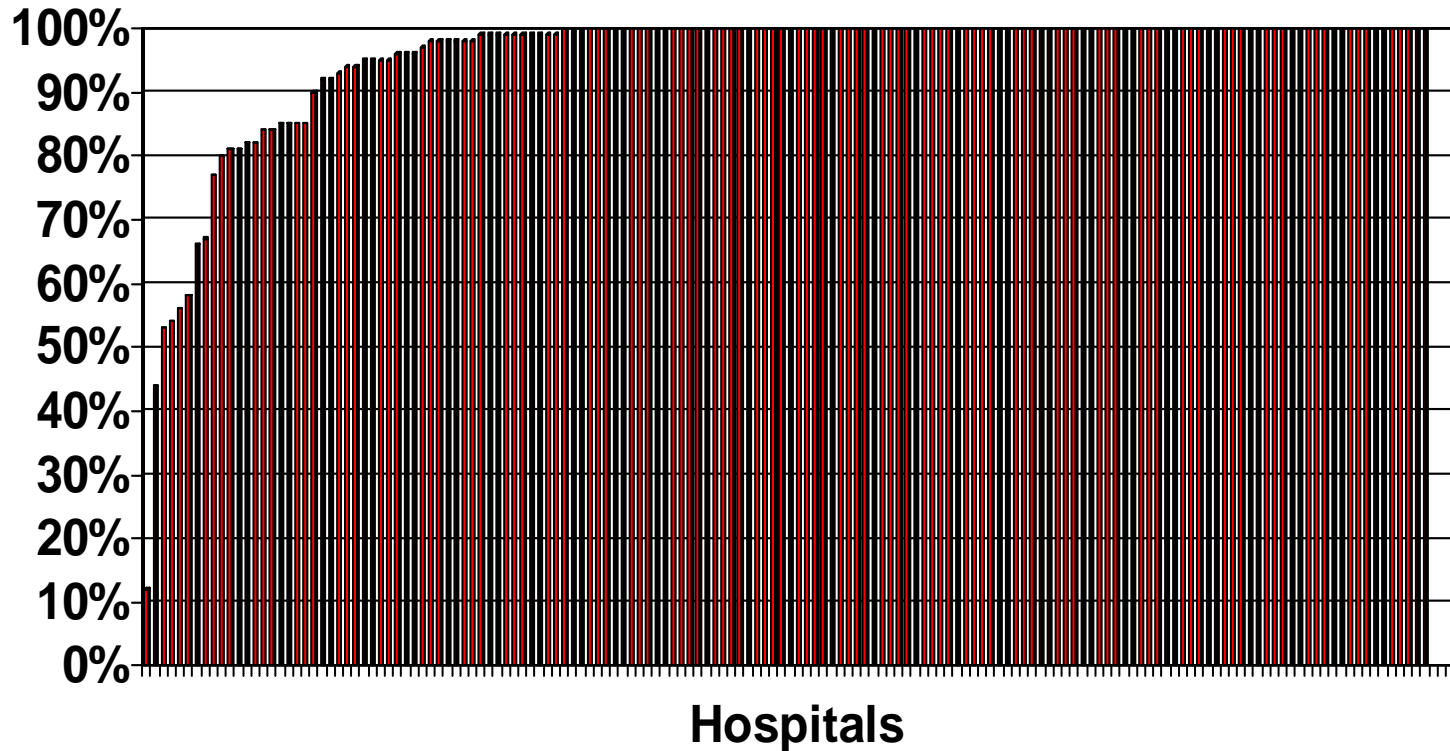
England – QOF % of People with CHD with Cholesterol 5mmol/l or less – 2001/02 – 2008/09 - QResearch Population & National QOF Results





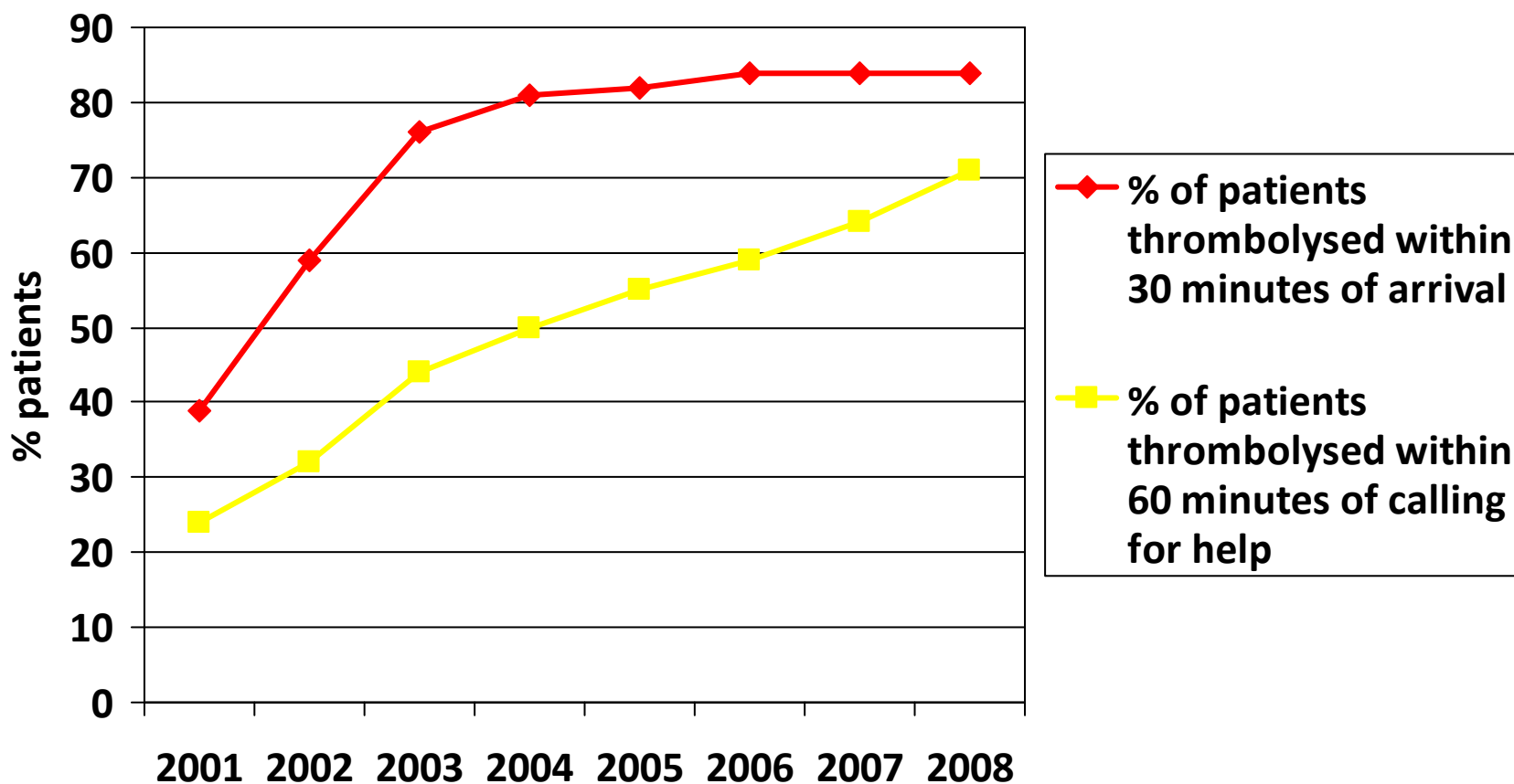
# Rapid access chest pain clinics (National network – every hospital)

Percentage seen within two weeks



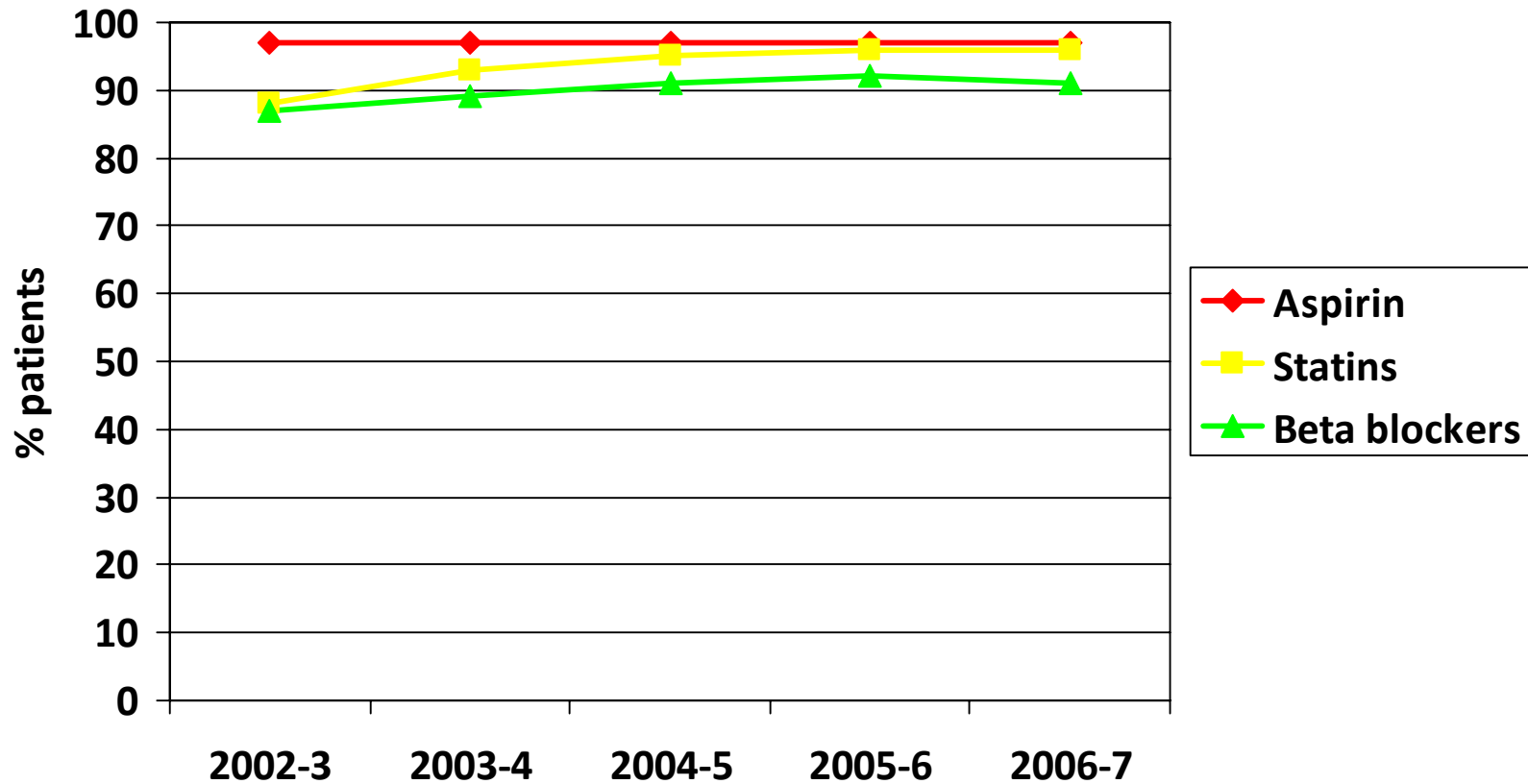
New onset, stable angina

# Thrombolysis rates for acute myocardial infarction, England 2001-2008



Source: Royal College of Physicians, MINAP

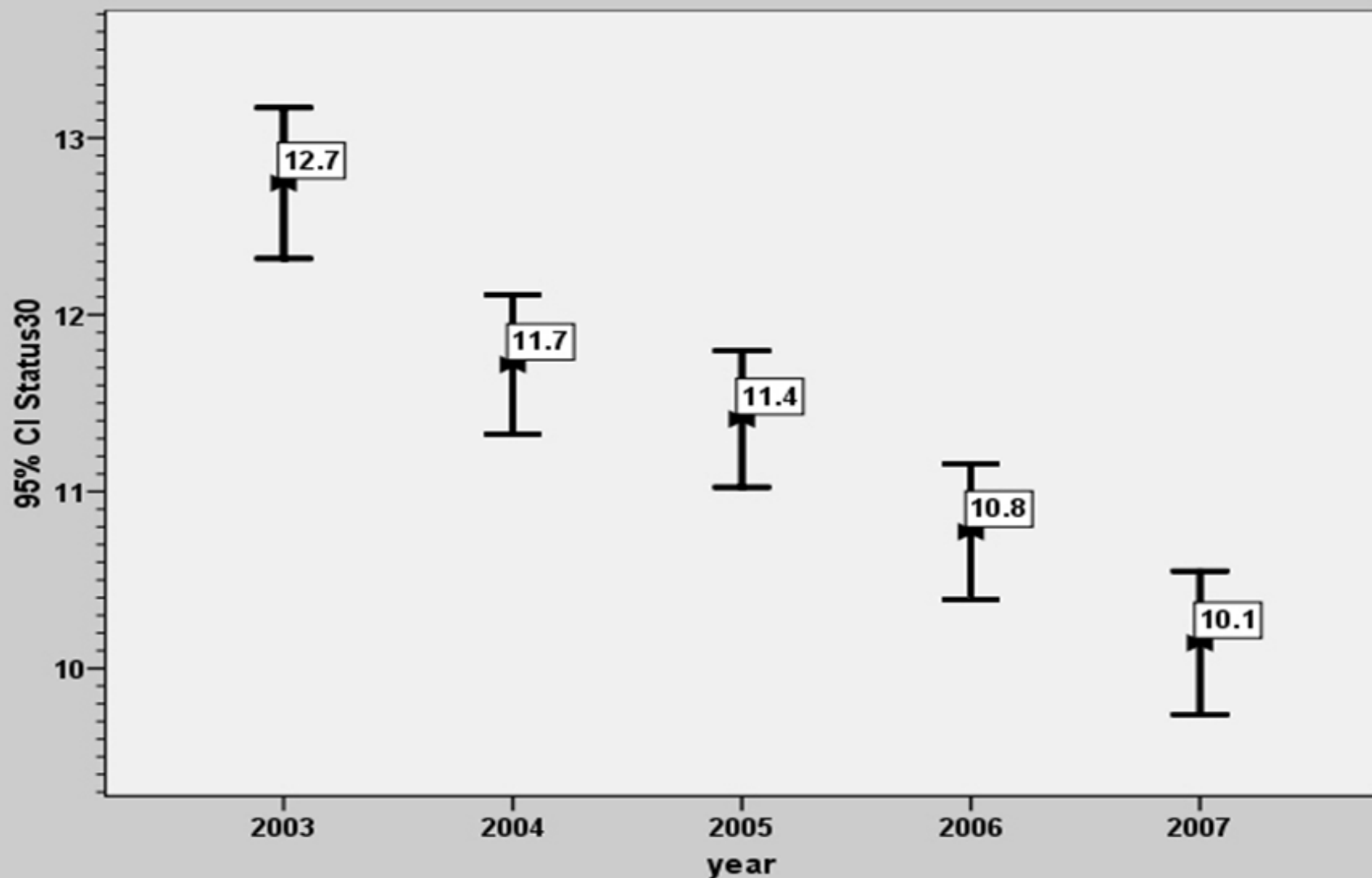
# Proportion of patients discharged on secondary prevention medication, 2002 -2007



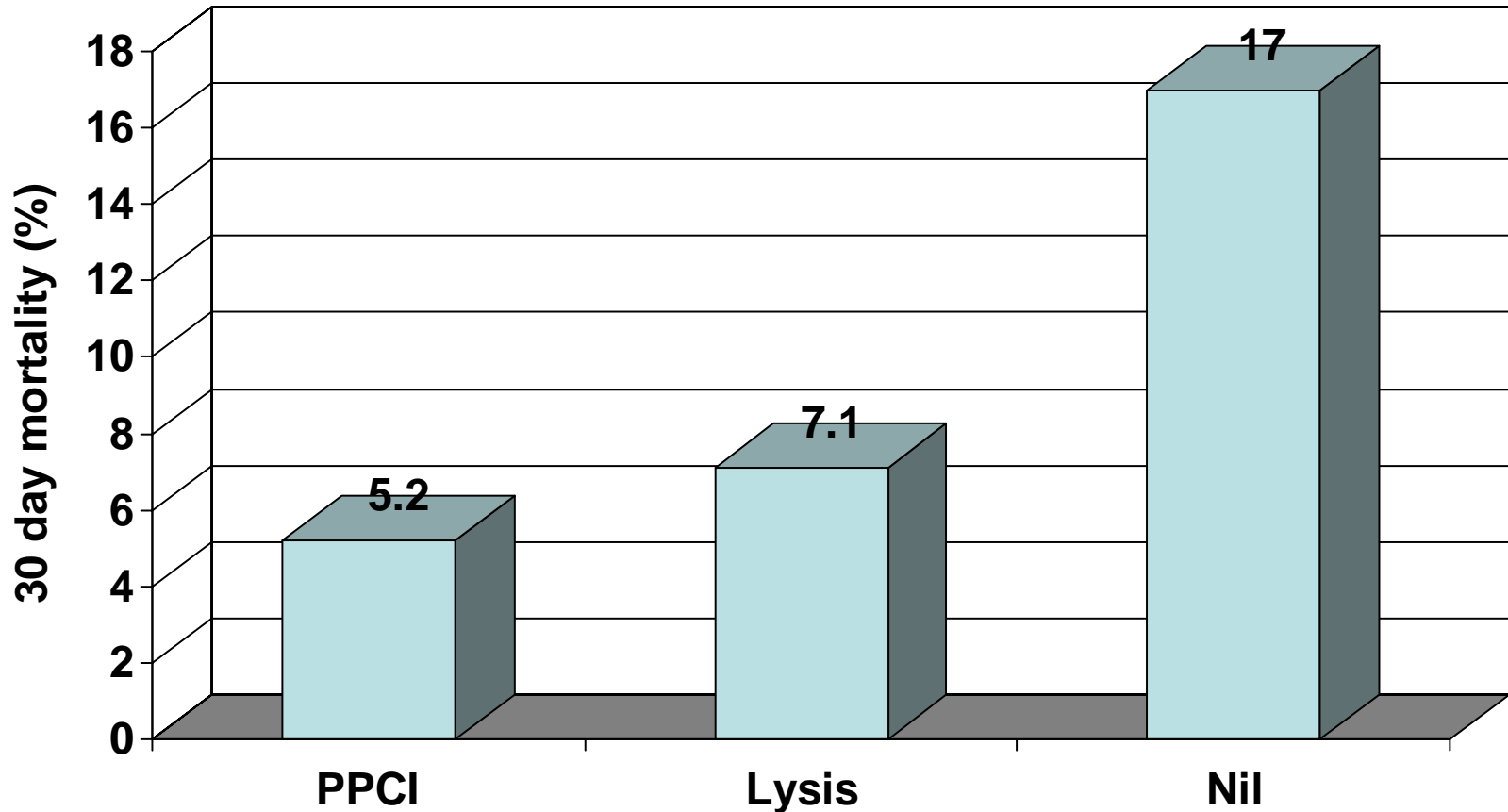
Source: Royal College of Physicians, MINAP

# 30 day mortality for STE MI England and Wales 2003 - 2007

MINAP data

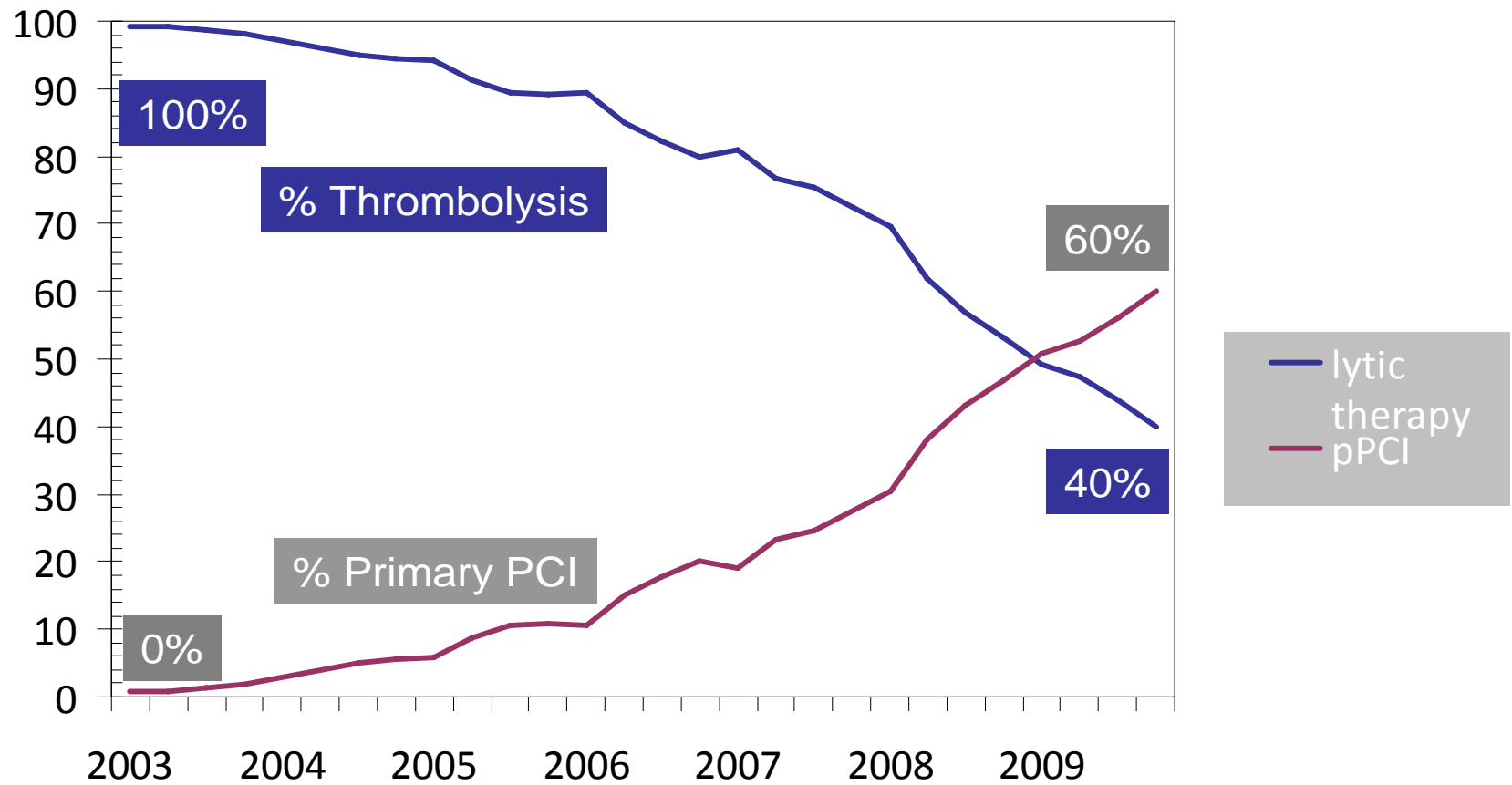


# National Infarct Angioplasty Project



Cohort of 1,460 patients across 10 centres

## Acute Myocardial Infarction - STEMI -Thrombolysis Shift from Thrombolysis to Primary PCI



# PPCI in England

- **Two thirds of all STEMIs treated by PPCI**
- **Door to balloon time**
  - **Mean of 54 minutes**
  - **81% treated in less than 90 minutes**
- **Call to balloon times**
  - **Mean of 117 minutes**
  - **79% treated in less than 150 minutes**

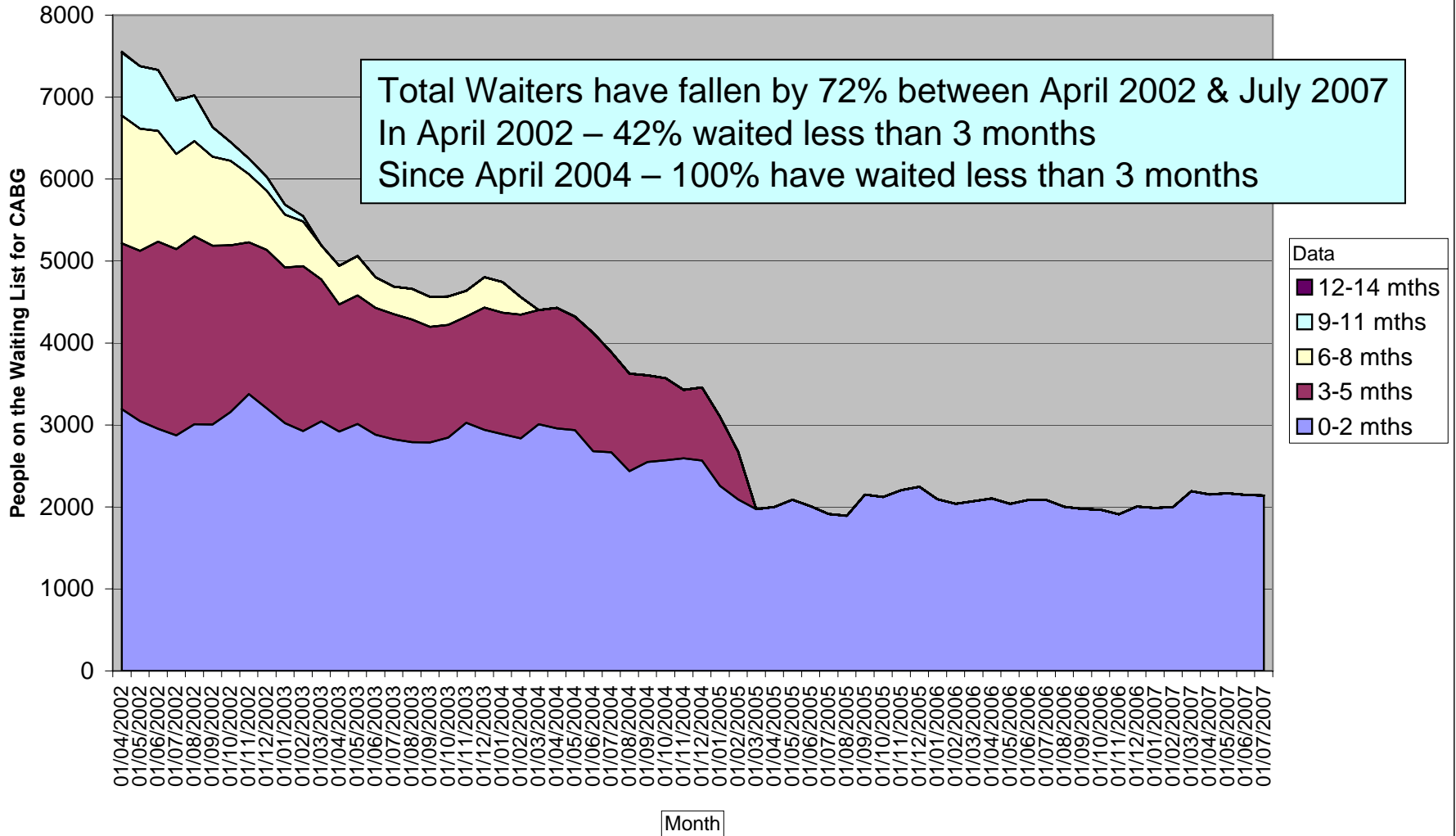


# National Defibrillator Programme





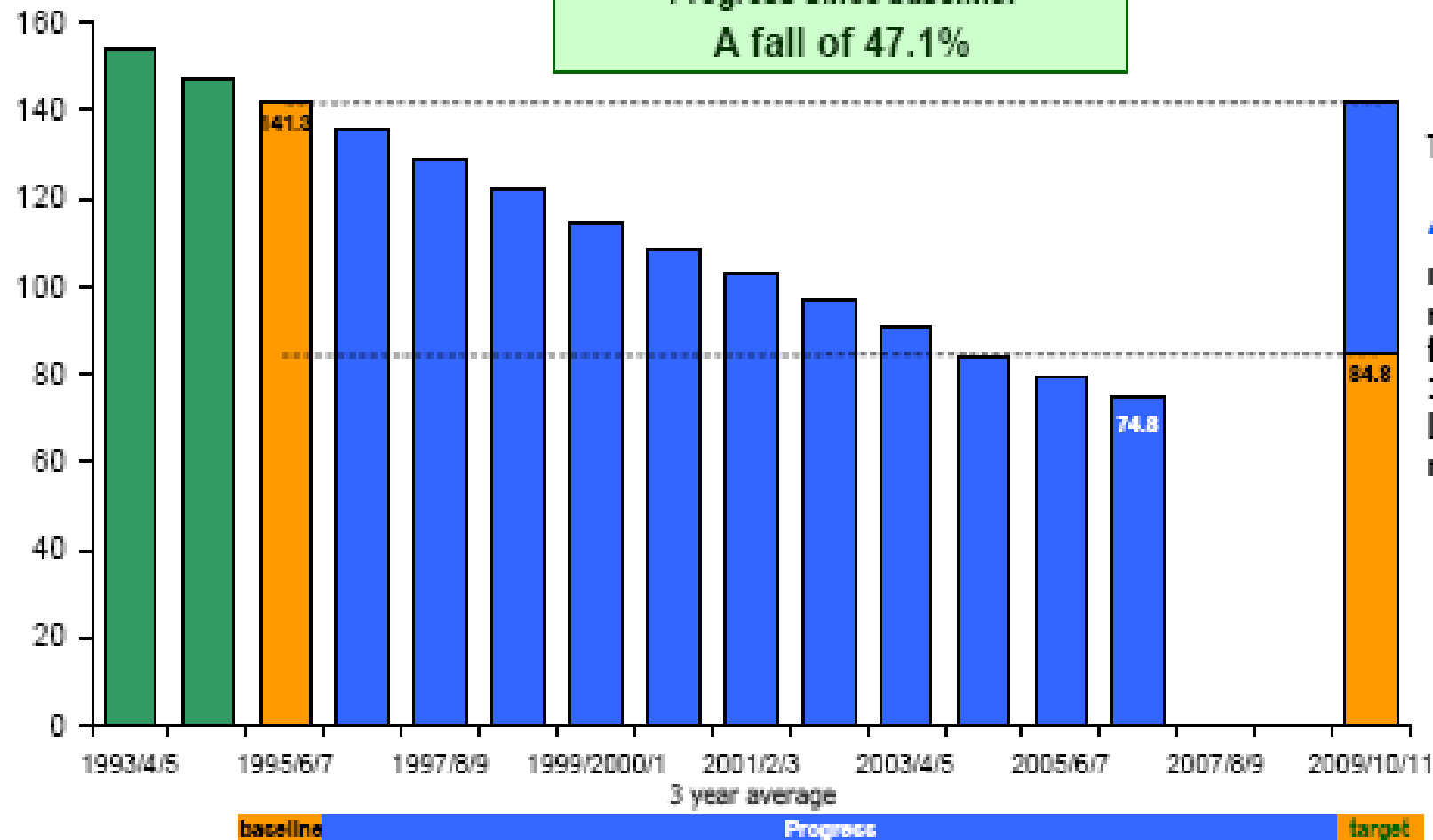
# England – People on the Waiting List for CABG by No. of Months on the List – April 2002 – July 2007



# Circulatory Disease Mortality Target

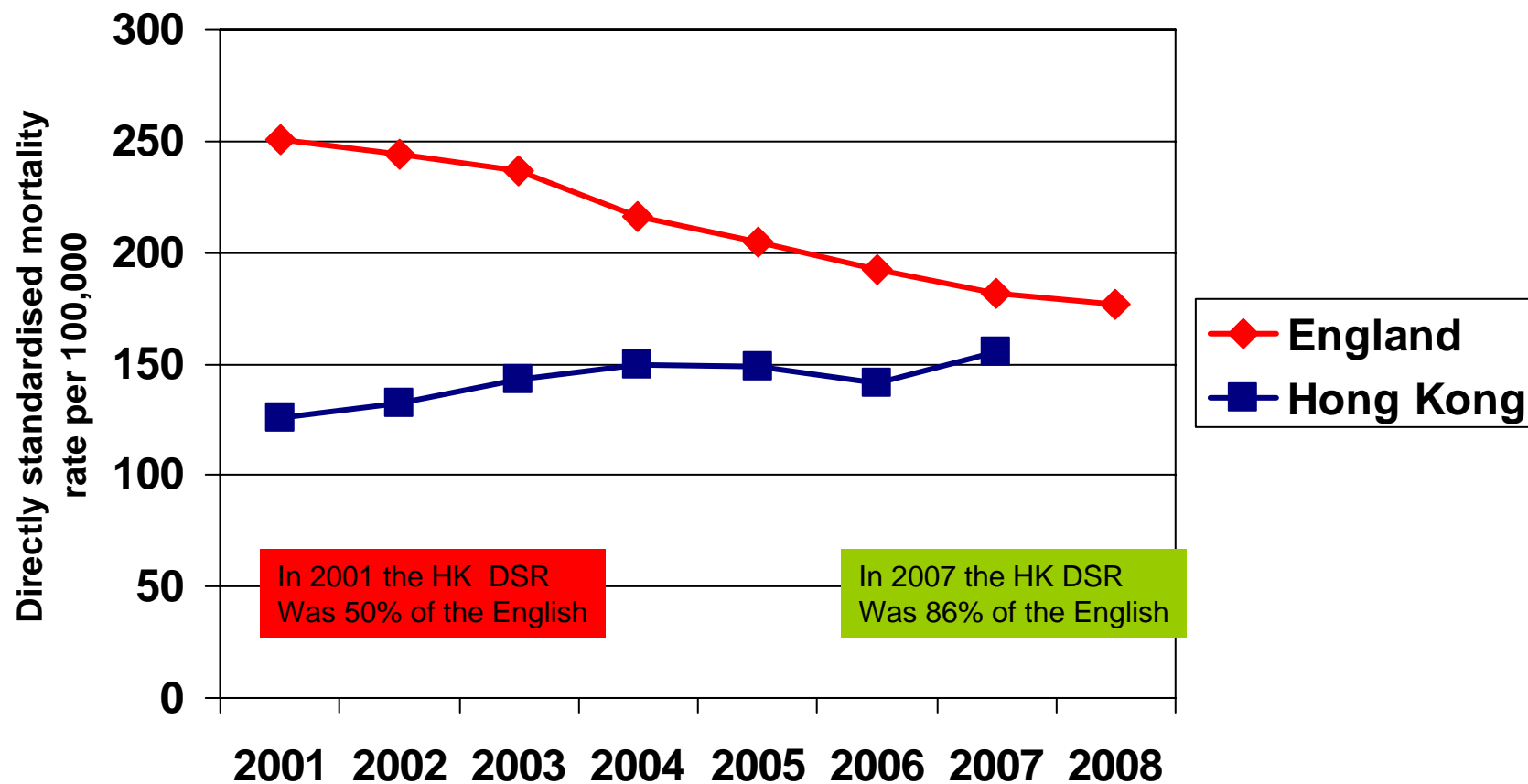
Death rates from All Circulatory Disease in England 1993-2008 and target  
Persons under 75

Death rate per 100,000 population

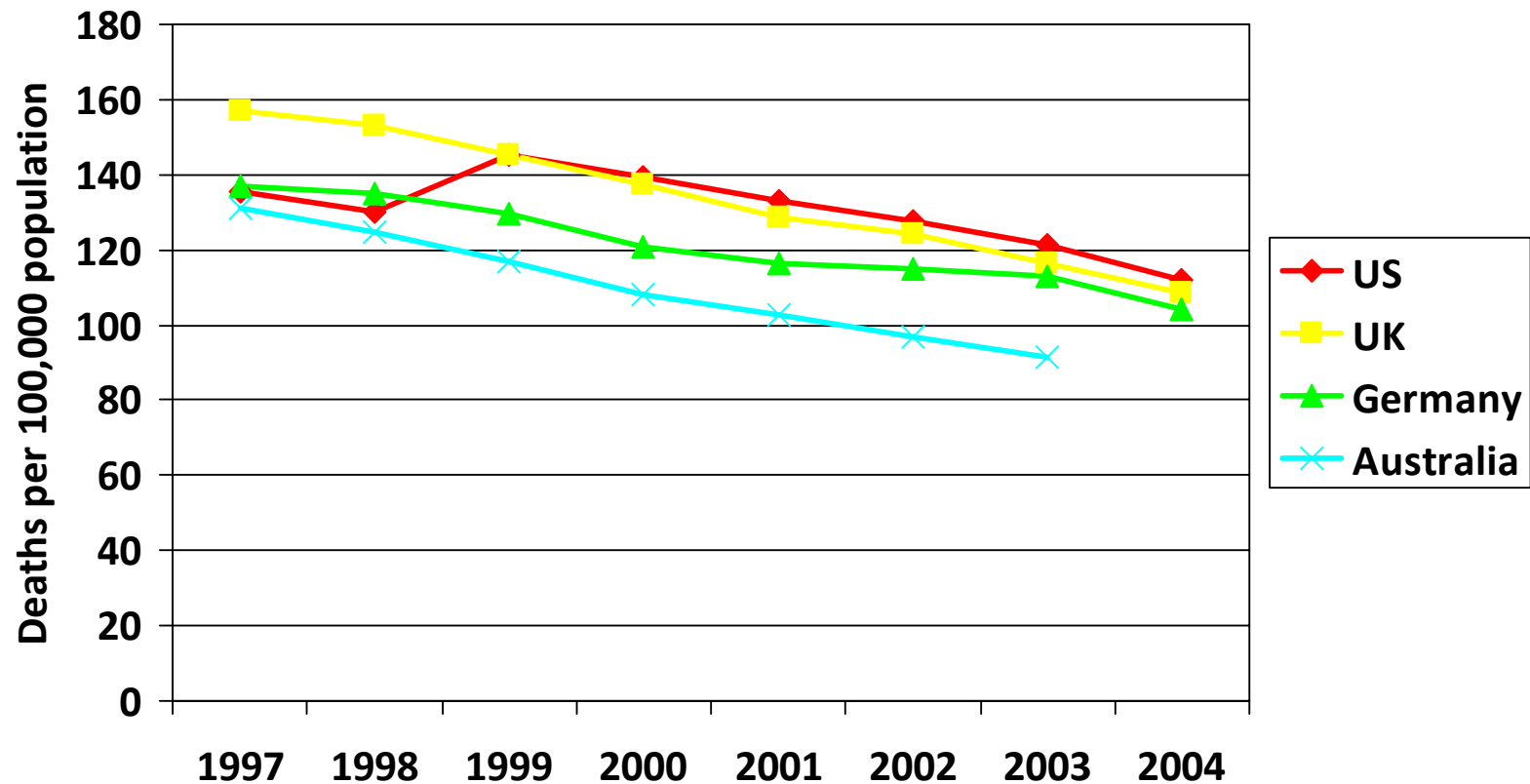


Rates are calculated using the European Standard Population to take account of differences in age structure.  
ICD9 data for 1993 to 1998 and 2000 have been adjusted to be comparable with ICD10 data for 1999 and 2001 onwards.  
Percentage change since baseline is calculated based on unrounded rates.  
Source: ONS (ICD9 390-459; ICD10 I00-I99)

# Circulatory Disease Mortality - Directly Standardised rate per 100,000 England (Persons) 2001-2008, Hong Kong (Persons) 2001-2007



# Mortality from coronary heart disease, international comparison 1997-2004

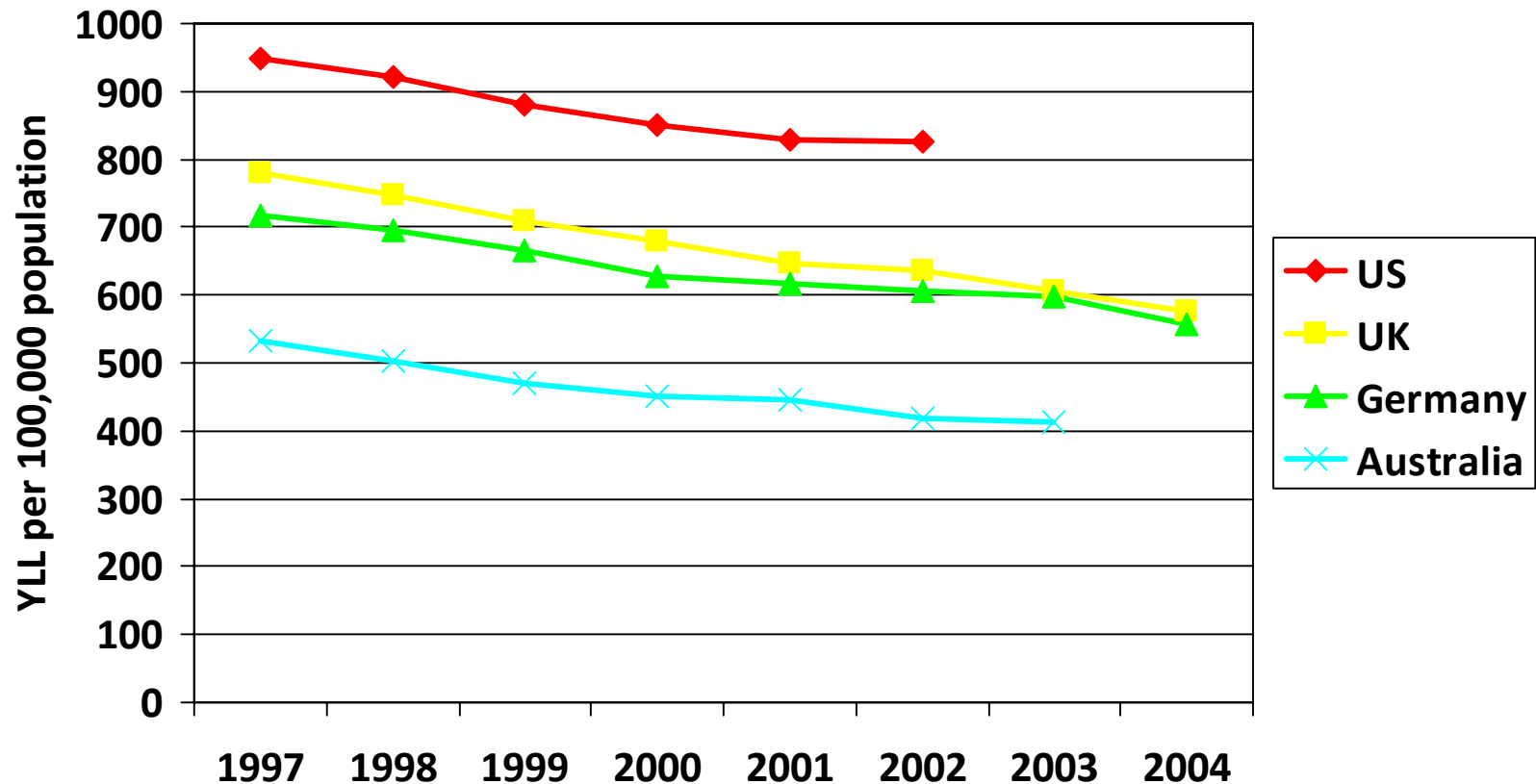


US – 17.2% decrease

UK – 30.8% decrease

Source OECD

# Years of life lost due to circulatory disease, international comparison 1997-2004

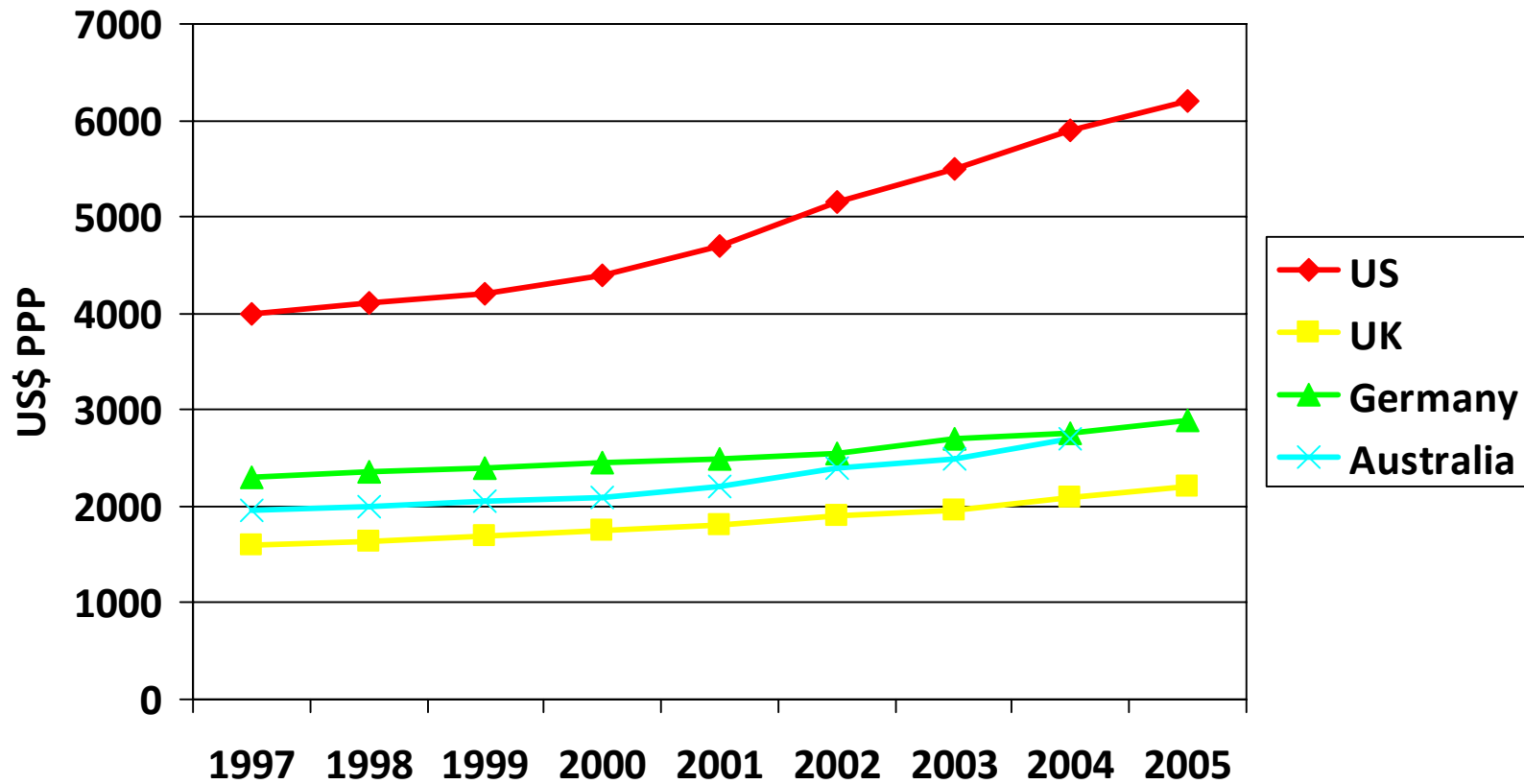


US – 13% decrease

UK – 24% decrease

Source OECD

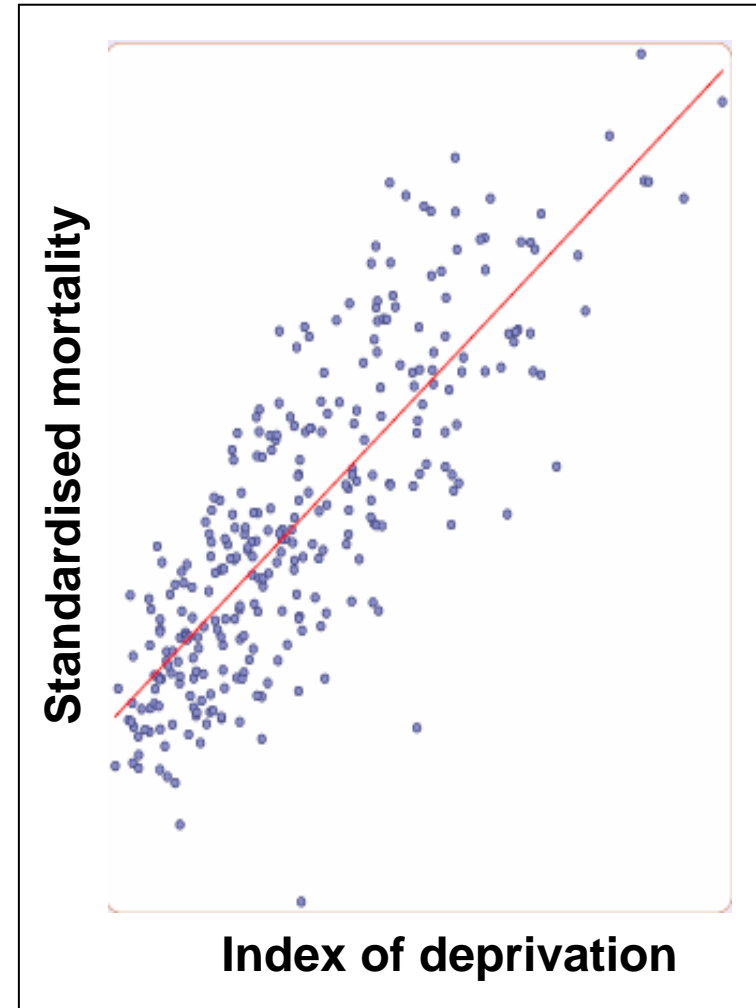
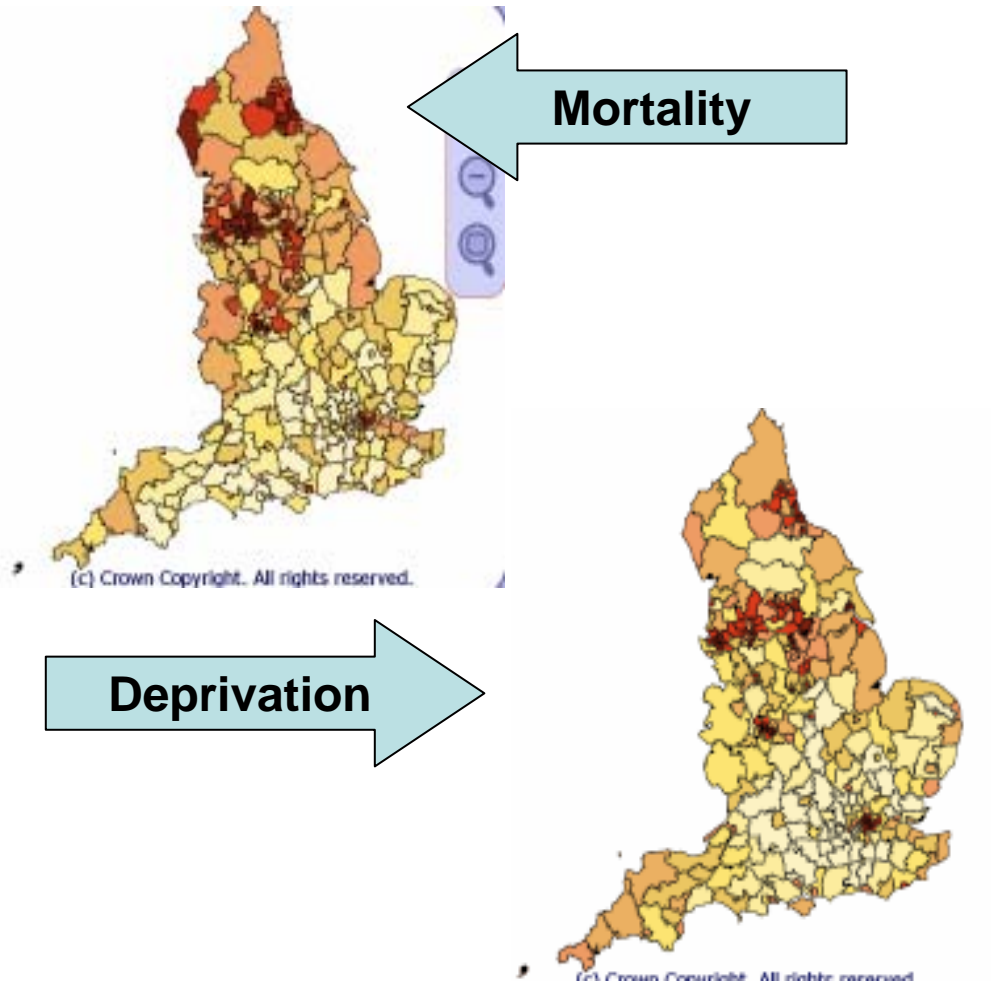
# Total expenditure on health per capita, 1997-2005



Source OECD

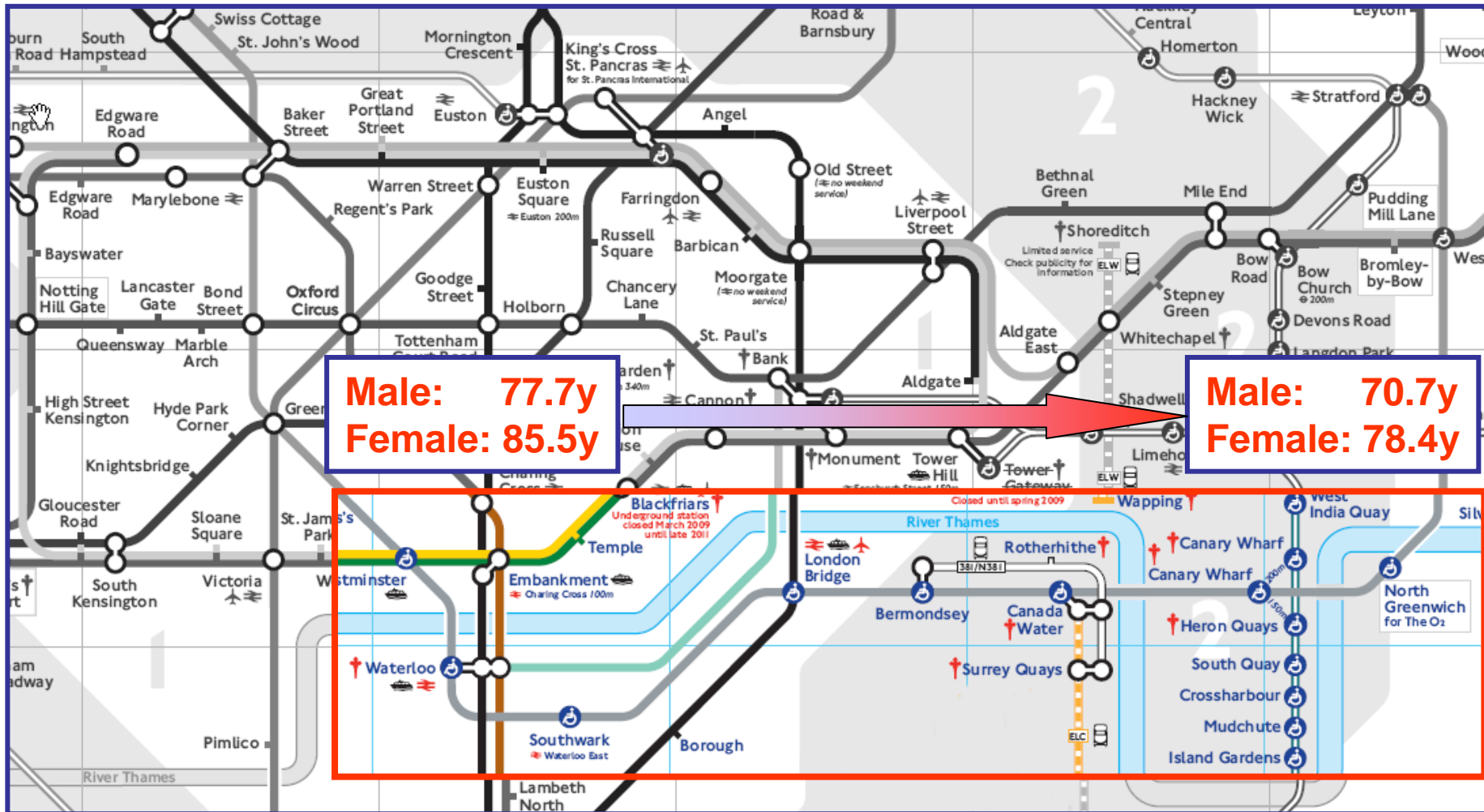
**What are the challenges for the future?**

# Mortality from all circulatory diseases 2002- 4 according to social deprivation

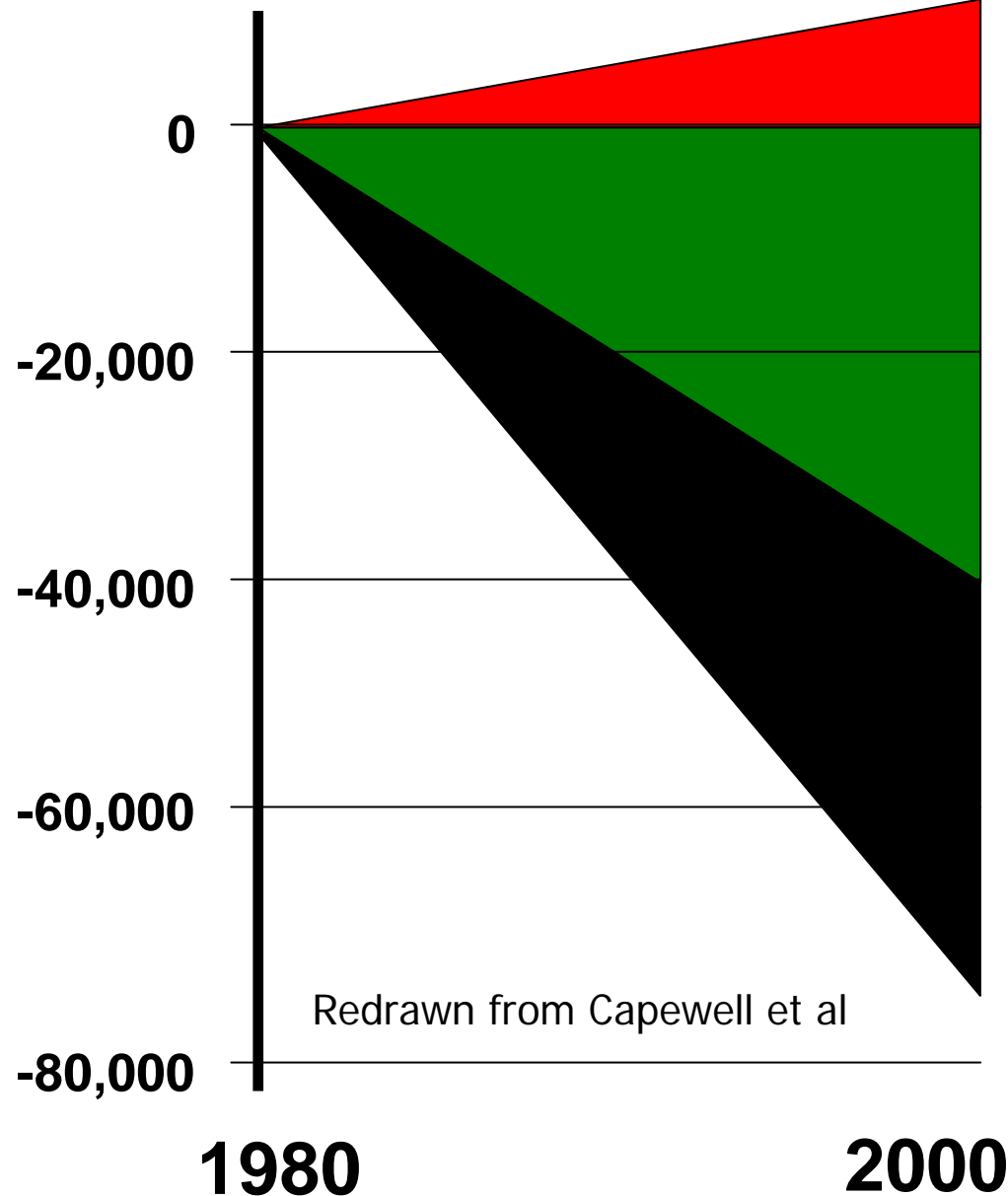




# Travelling east from Westminster, each tube stop represents nearly one year of life expectancy lost



# CV Deaths averted

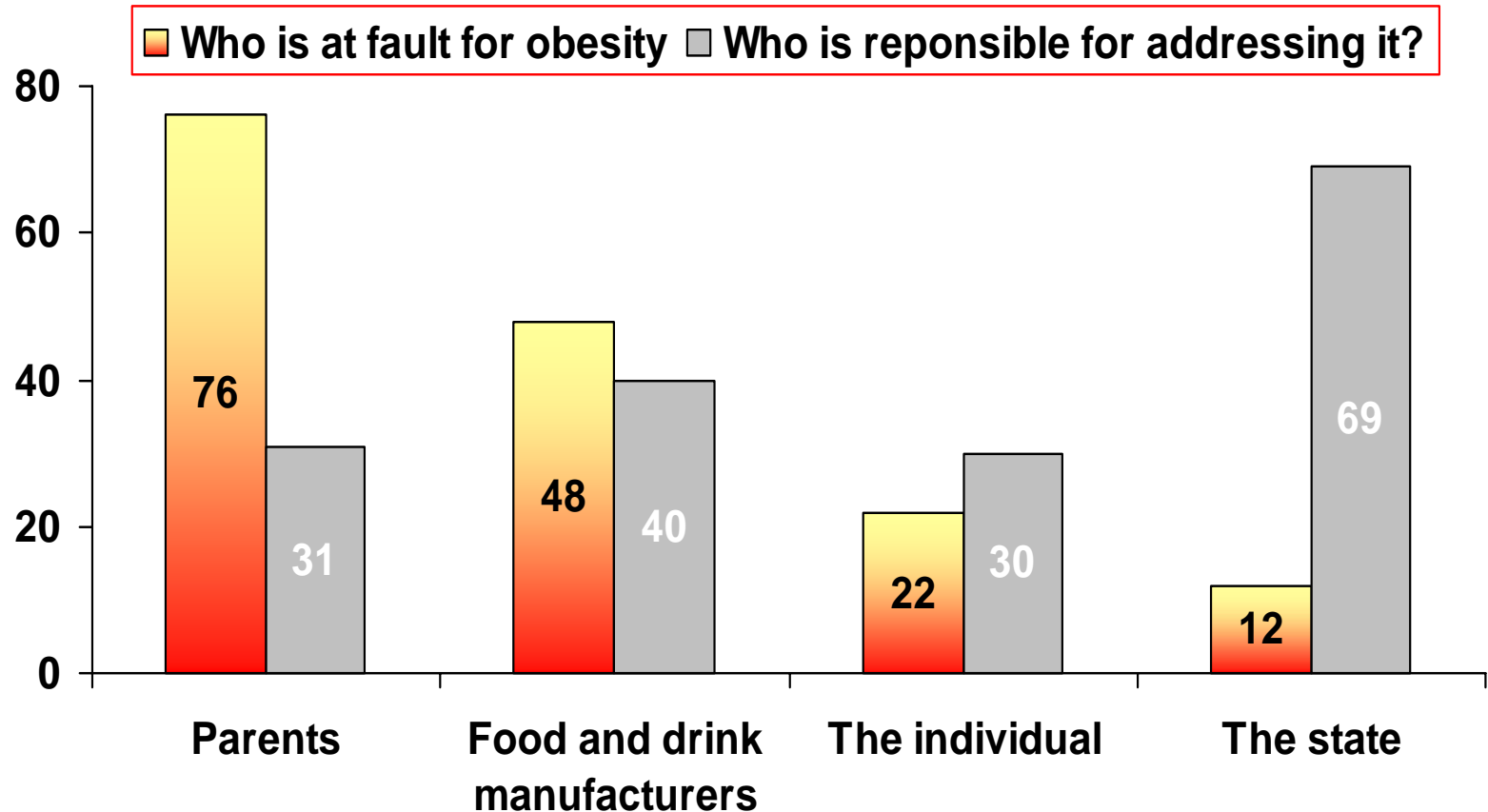


<b>Risk factors worse</b>	<b>+13%</b>
Obesity	+3.5%
Diabetes	+4.8%
Less physical activity	+4.4%

<b>Risk factors better</b>	<b>-71%</b>
Smoking	-41%
Cholesterol	-9%
Popul'n BP fall	-9%
Deprivation	-3%
Other factors	-8%

<b>Treatments</b>	<b>-42%</b>
AMI treatments	-8%
Secondary prevention	-11%
Heart failure	-12%
Angina: CABG/PCI	-4%
Angina: drugs	-5%
BP treatment	-3%

# We say we take responsibility...



Henley Centre (2007)

# Vascular checks

- **A single, universal, integrated check for all aged 40 – 74**
  - **Measure risk of CV disease, diabetes and chronic kidney disease**
  - **Set out how to reduce risk/maintain low risk**
  - **Offer a standard package of prevention**
- **Evidence confirms this to be clinically and cost effective**

THE BEST THING YOU CAN  
DO IS GIVE UP SMOKING,  
DRINKING AND FRIED FOOD

WHAT'S THE  
SECOND BEST?



# Conclusion

- **Our systems are different**
  - **Different funding mechanisms**
  - **Different starting positions**
- **Our solutions will be different**
- **Nationalised systems are difficult to manage because of scale**
- **But not impossible!**

**Thank you**