

Select 74 Cheltenham, 2009:

The Health of the Nation: A Perspective of what was, is, and shall be (perhaps!)

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Centre for Psychosocial
and Disability Research



Cheltenham: 21st May, 2009

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Facts, Themes, Clairvoyance and Clair-obscure:

- **Health: 1989-2029**
 - **The “killer diseases”**
 - **Chronic conditions and disability**
 - **Therapeutics, technology and transformation**
 - **Socio-economic and demographic change**
 - **Illness, health and behaviour**
 - **The economic climate**
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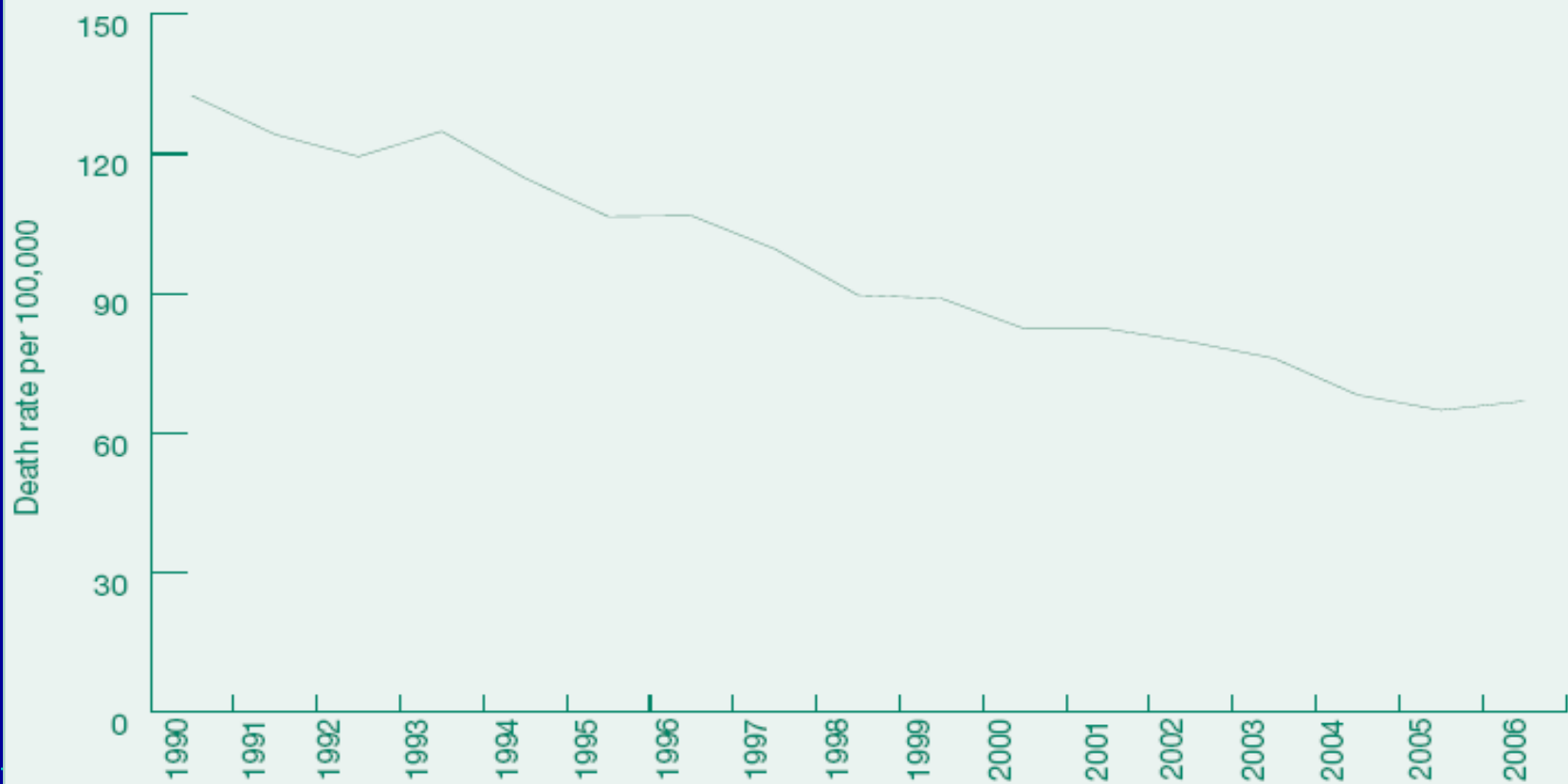
The Other Side of the Hill:

“... all the business of life, is to endeavour to find out what you don't know by what you do; that's what I called “guessing” what was at the other side of the hill.”

Arthur Wellesley, Duke of Wellington, 1816

Dying early: circulatory diseases

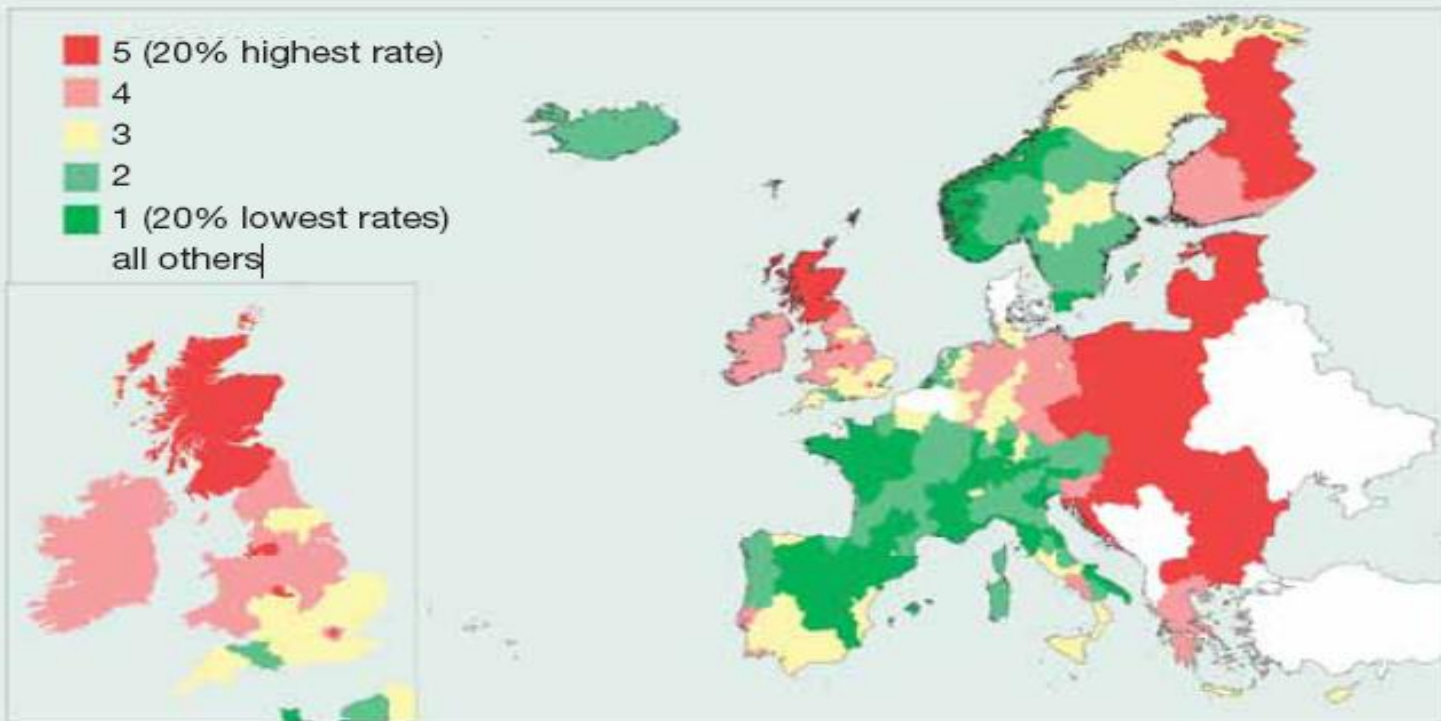
Figure 21: Premature male mortality (under 65) from circulatory disease, 1991-2006



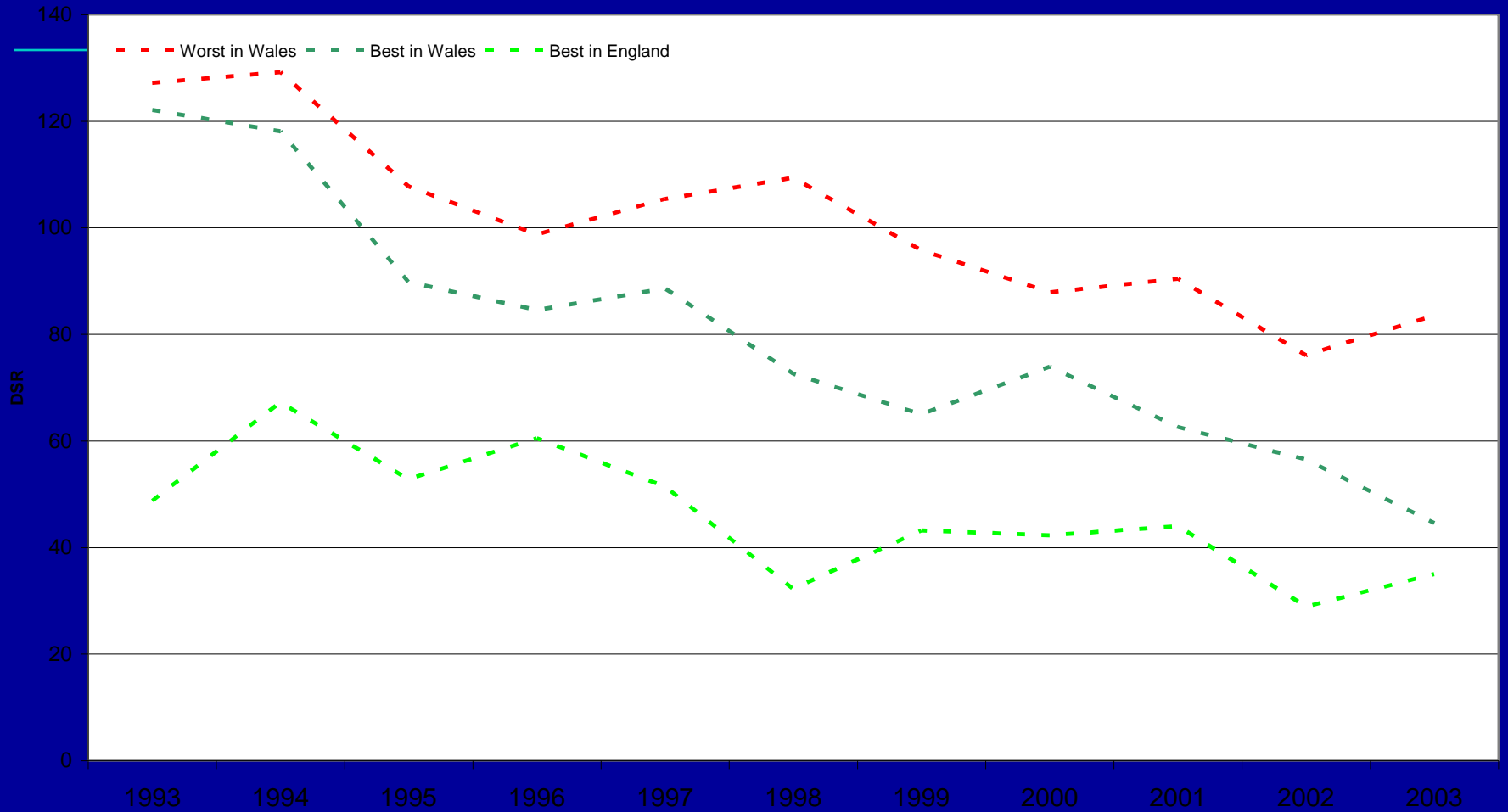
Source: eHealthshow, HSW

UK and Europe: circulatory diseases

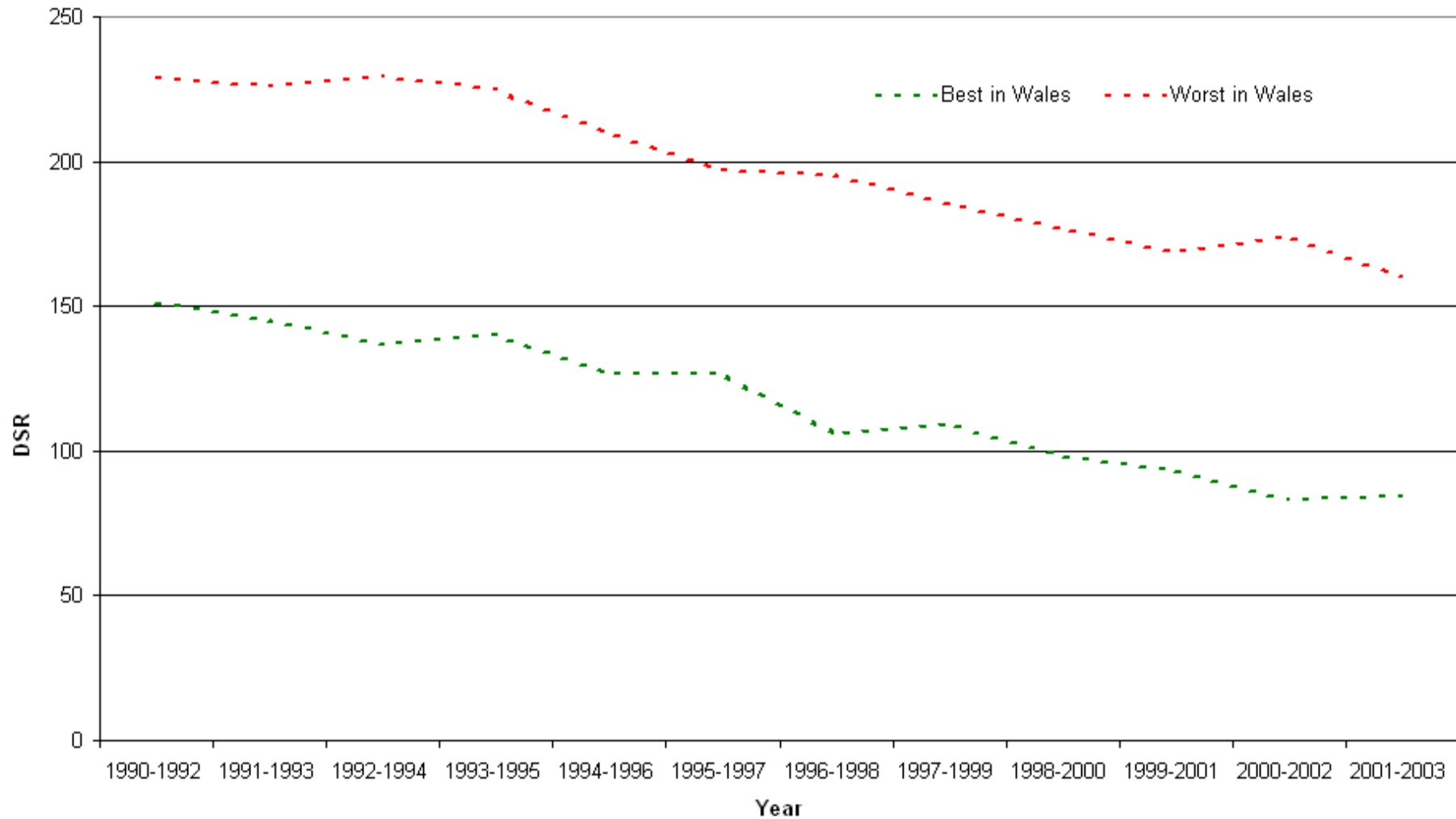
Figure 22: Male premature mortality from circulatory disease by European region, latest data available



Pre-mature deaths from CHD Gap between the best and worse in Wales



Deaths from CHD Wales 1990 - 2003



Inequalities: “Coronary” deaths:

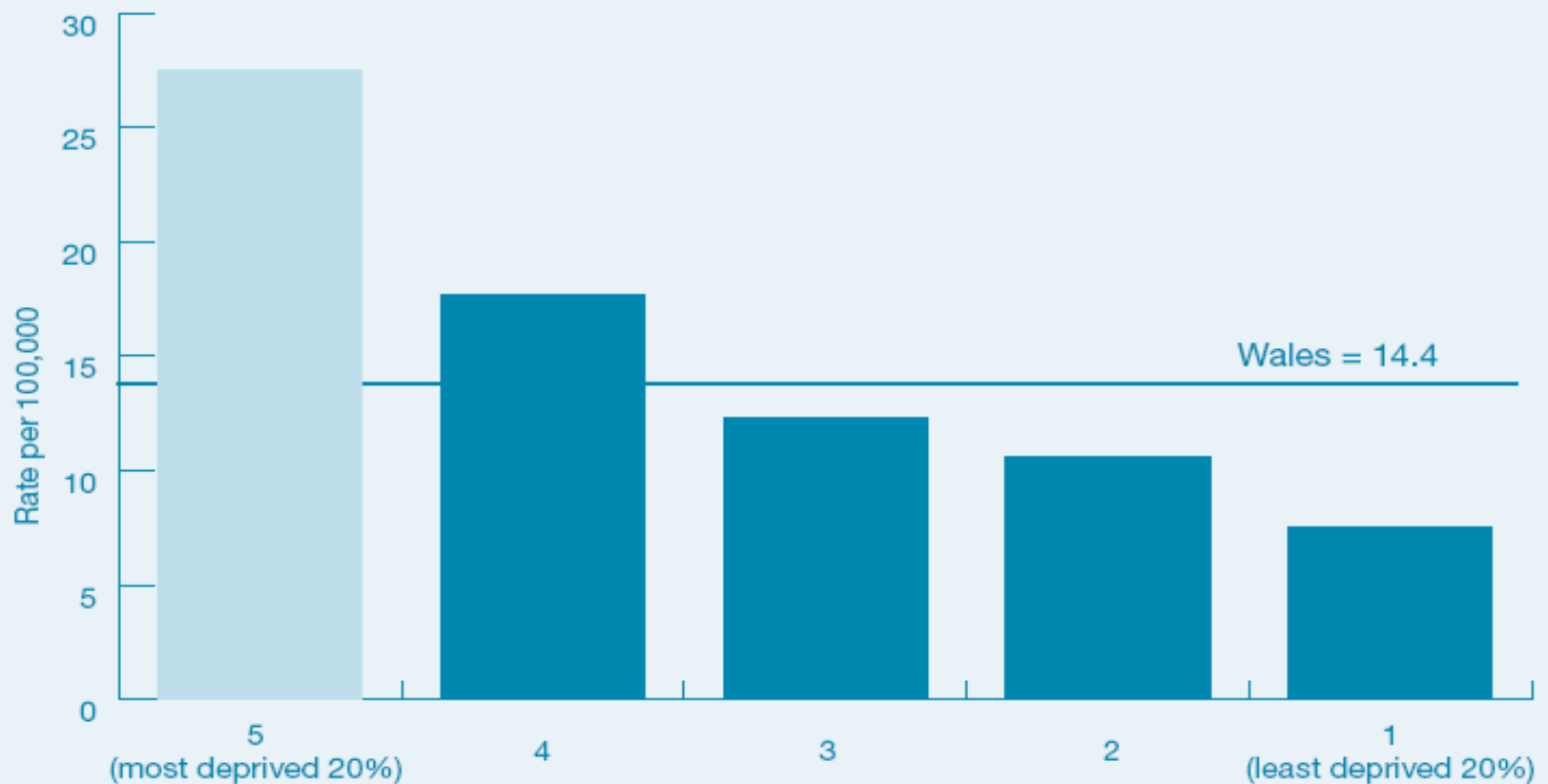
Figure 7: Inequalities in heart disease (deaths from coronary heart disease, 2006, 65-74 years)



Source: Welsh Index of Multiple Deprivation, e-Healthshow, Health Solution Wales

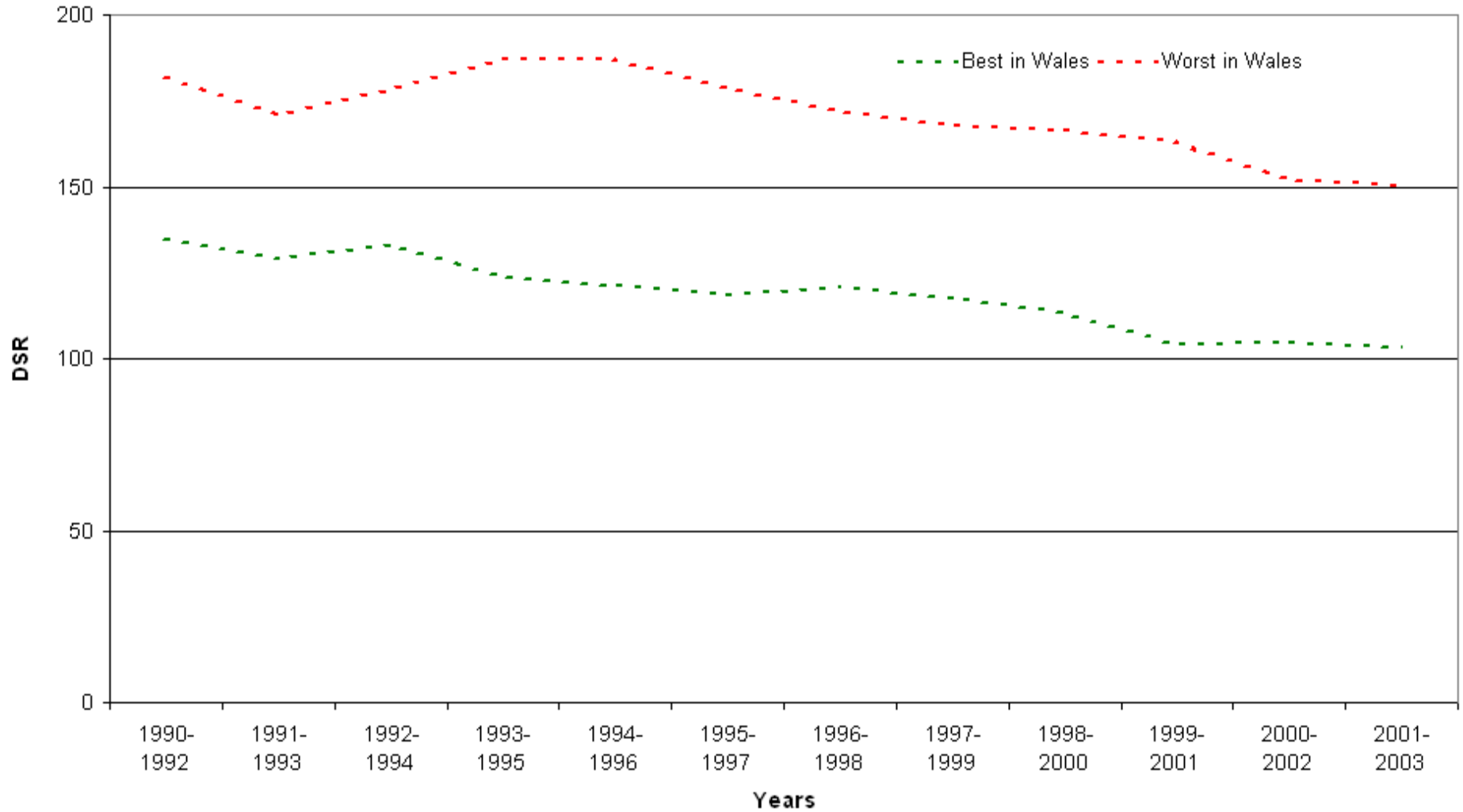
Inequalities: Alcohol Abuse

Figure 10: Alcohol-related deaths in Wales

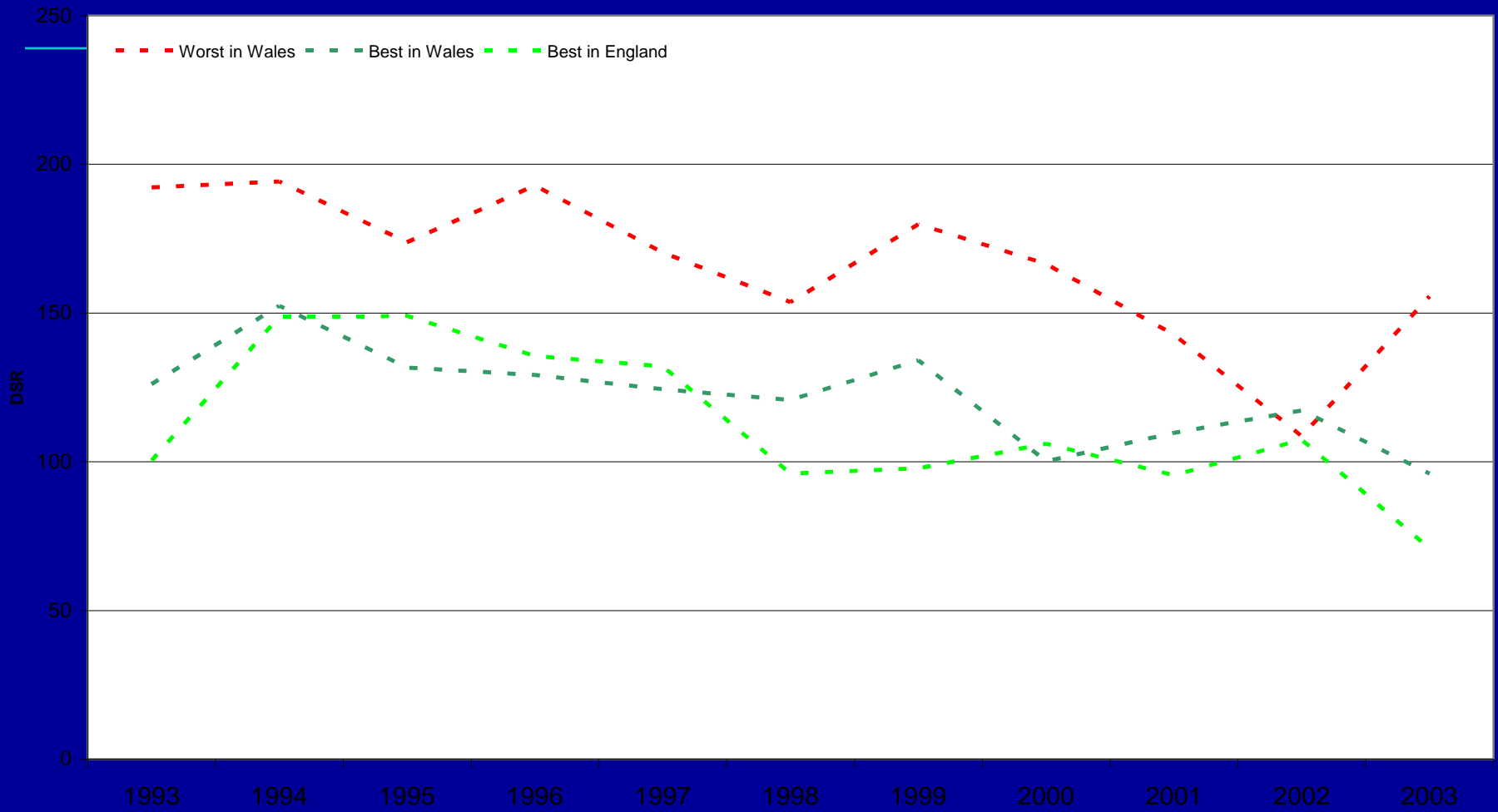


Source: Office for National Statistics

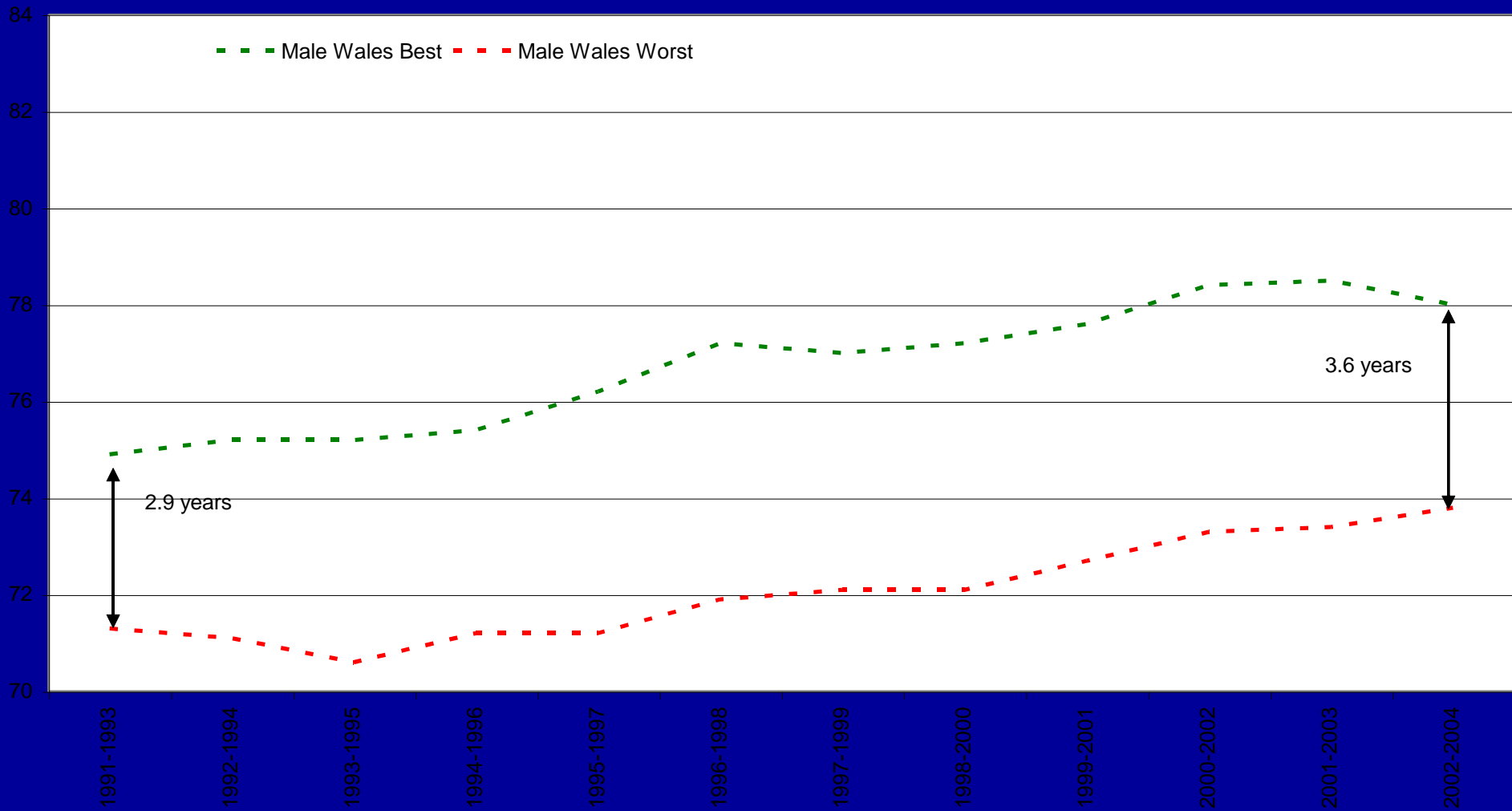
Premature Mortality from Cancers Wales 1990 - 2003



Pre-mature deaths from all cancers Gap between the best and worse in Wales



Life expectancy Gap between best and worst in Wales



Life expectancy Gap between best and worst in Wales



Life expectancy Gap between best and worst in Wales

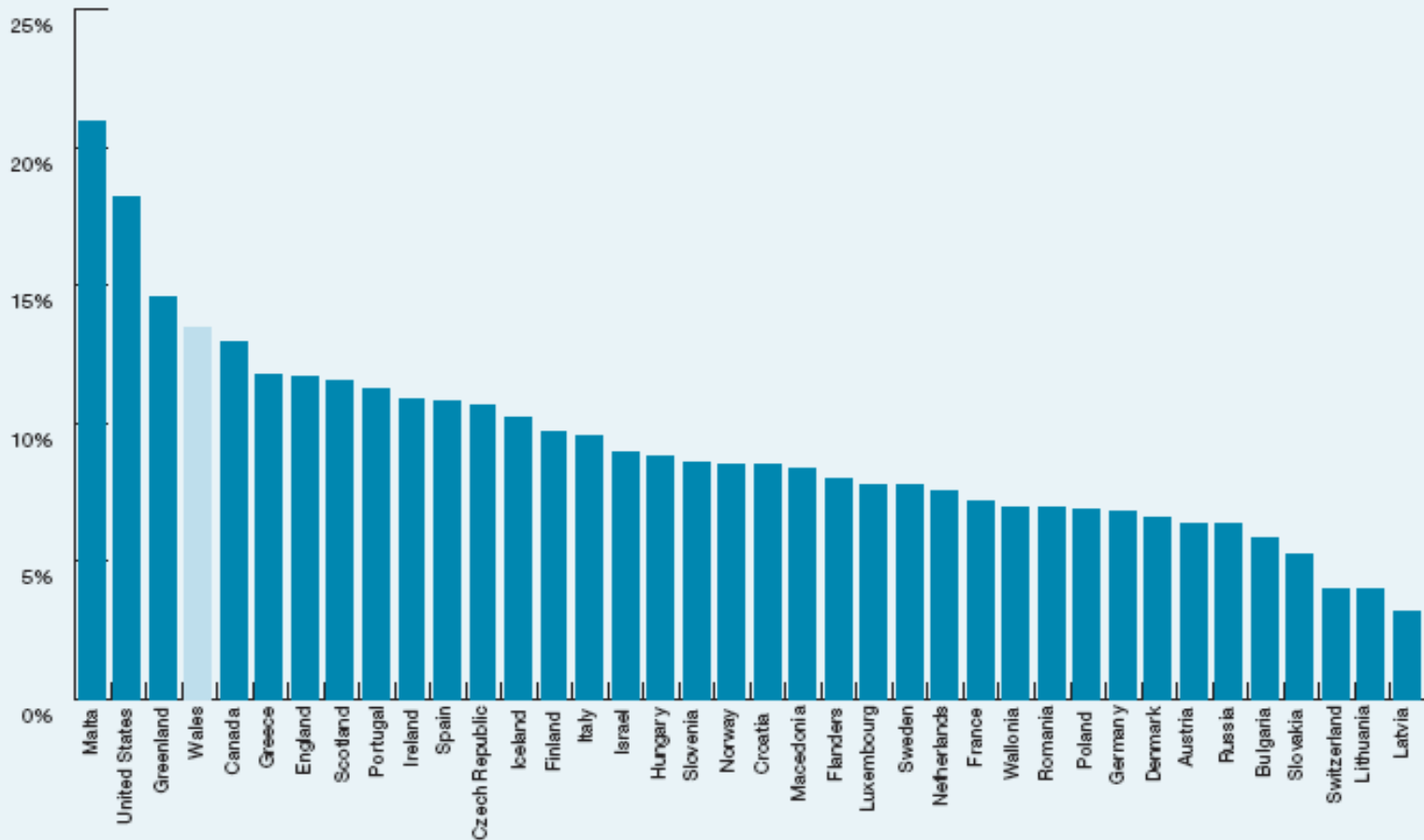


Life expectancy Gap between best and worst in Wales



The Obesity Time-bomb:

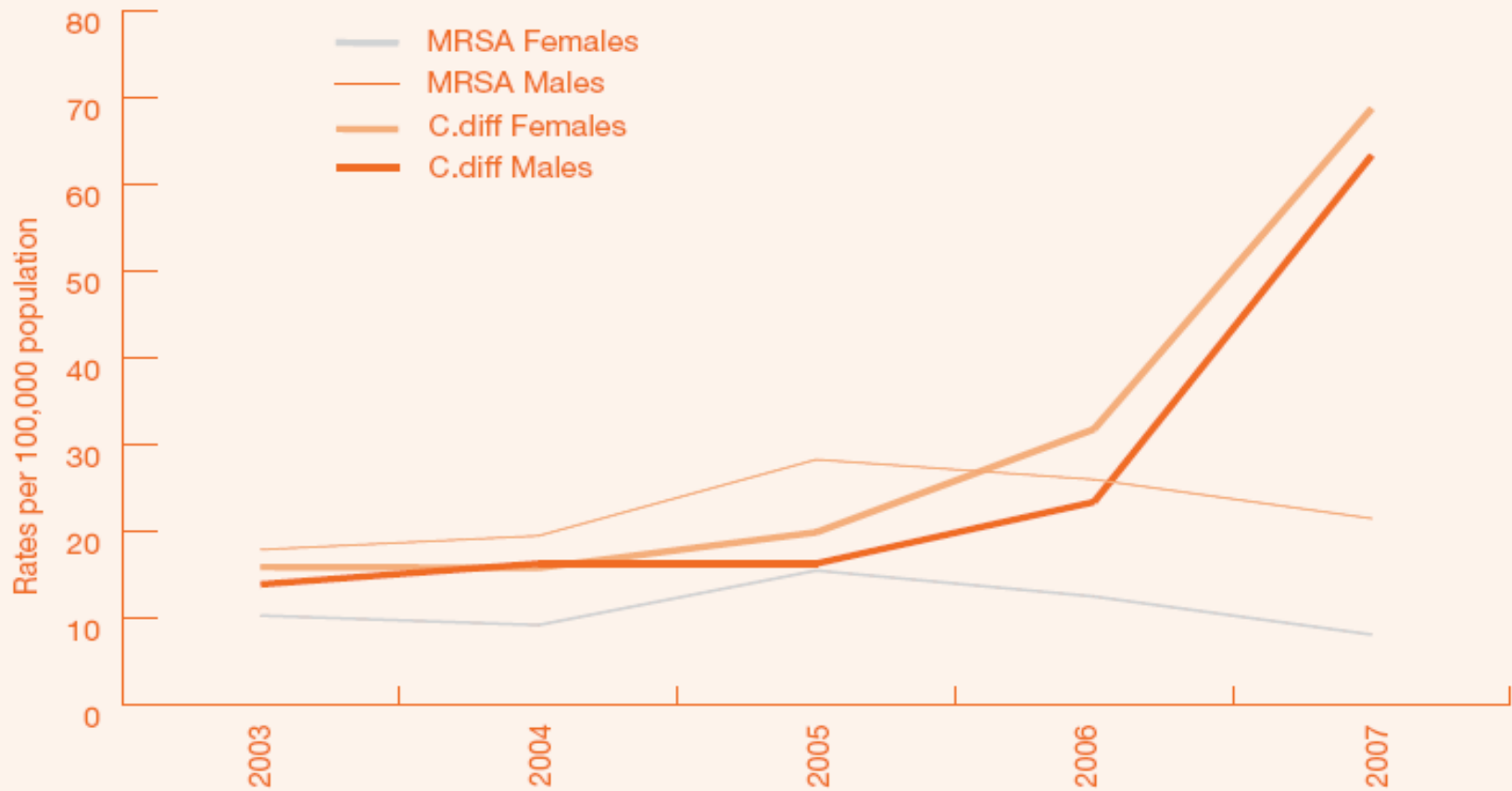
Figure 12: Percentage of 13 year olds overweight



Source: HBSG International report 2005/6

Resistant Bugs:

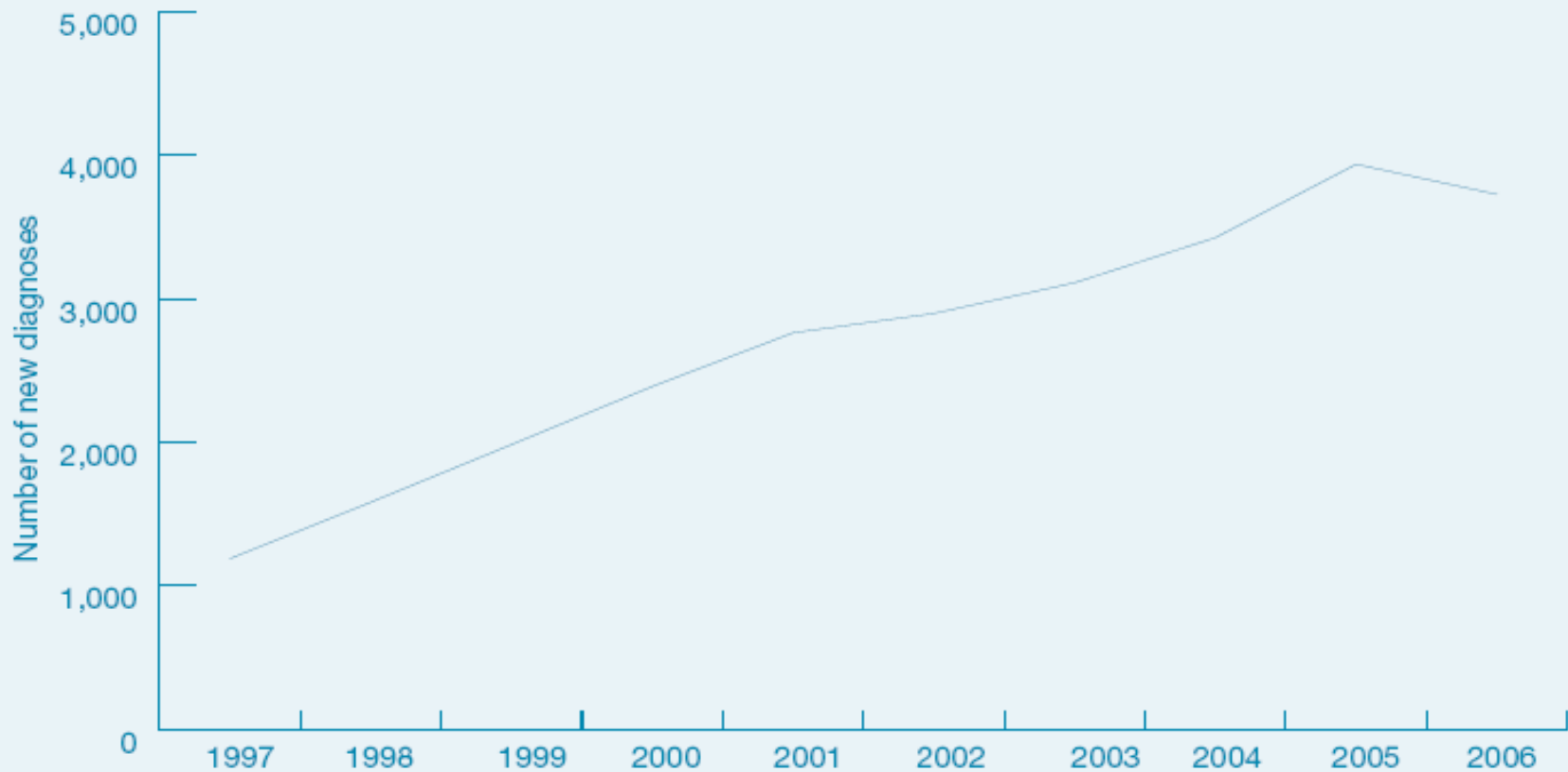
Figure 15: Deaths where MRSA or C.difficile are recorded on the death certificate



Source: ONS

Infection and Behaviour:

Figure 11: Numbers of new chlamydia diagnoses in Wales from laboratory tests



Source: Health Statistics Wales 2008, Statistical Directorate, NPHS, HPA, HBSC

Cancer: Here and Now

- **Only 30 % of cancer patients survive beyond 5 years**
 - **People with cancer set to double worldwide in next 20 years**
(20 million deaths per year; 75% in developing world)
 - **In UK high cancer rates due primarily to longevity**
(64% over 65)
 - **Mortality rates are falling**
 - **5 years survival increases on average 4% every 5 years**
 - **Causes now known for 80% all cancers**
-

Cancer and Society:

Causes and Prevention:

- **Tobacco:** (30% all cancers deaths)- public health success?
 - **Diet:** Second major cause of cancer (esp. colon, breast, stomach, liver)
 - high fibre, low fat, high fruit and veg-protective
 - low fibre, high fat-significant risks
 - organic/vegetarian-not protective
 - **Infection:**
 - Cervical Cancer (papilloma virus)
 - Hepatoma (hepatitis virus)
 - Lymphoma (Epstein virus)
 - Childhood vaccination- most promising
-

Cancer, noxious chemicals and radiation:

- **Alcohol consumption**
 - **Environment:**
 - UV radiation (skin cancers)
 - Asbestos (mesothelioma & lung cancer)
 - Ionizing radiation (all organs and tissues)
 - Industrial exposures (nasopharynx, kidney, bladder, etc)
-

Diabetes Mellitus

- 1 million people undiagnosed in UK
 - Current rise in obesity predicts 16 % increase in Type 2 by 2010 (? underestimate)
 - Concomitant increase in “Metabolic Syndrome”
 - Good control = decreased morbidity
 - Childhood Obesity: 13% risk for type 2
(8 % risk for cancer)
 - Frightening lack of awareness among parents:
 - physical inactivity (cf: heart disease)
 - unhealthy diet (cf: heart disease and cancer)
-

Health: Where are we now?

- **Despite its critics the NHS is delivering a good service which, by and large, meets its founding principles:**
 - **But delivery of the desired best possible healthcare is not enough to meet comprehensively the challenge of illness and disease in the UK; most of the determinants of health lie outside that which can be resolved with “world-class healthcare”.**
 - **Namely: the socio-economic gap in health, well-being and disadvantage.**
-

Health: Where are we now?

- Cancer: mortality rates falling; new approaches promising
 - Diabetes Type 2: rising, linked to obesity and greater longevity
 - Respiratory disease:
 - 44 % deaths linked with health inequalities
 - 80% COPD linked to smoking
 - Cardiovascular disease:
 - rates falling for mortality; ? Morbidity
 - socio-economic gap increasing
 - diabetes type 2 increasing risk of CVS disease by 50% by 2020
 - Musculo-skeletal disorders:
 - total hip and knee replacements rising by 63% and 22% by 2020
 - morbidity rising (cf subjective complaints) – Social security benefits; income protection
-

Ageing and Chronic Disease:

- Percent increase by 2030:60-74yrs- 35%
75+ yrs- 80%
- Dependency Ratio: 1951-6
2009-3
2041-2
- Growing burden of chronic conditions, injuries and disabilities:
 - Chronic Conditions: increase by 2029
All adults-20%
Over 65s-35%
 - Prevalence among 65+
one chronic condition -80%
2 +chronic conditions -50%
Diabetes Type 2 -18% (30% 2029)
Alzheimer's – 10% (30% 2029)

Cancer becomes a Chronic Condition:

- **By 2029 cancer will be a chronic condition 70% of patients will survive**
- **Costs of cancer care will rise dramatically: who should pay?**
- **Challenges and Opportunities:**
 - **technology: nanosurgery; radiotherapy; new “target” drugs; stemcells; vaccines**
 - **diagnostics: screening; DNA-sequencing; imaging; biomarkers**
 - **genomic monitoring**
- **By 2029 cancer will be part of everyday life**
 - **under control**
 - **managed at home**

Diabetes Mellitus Type 2-the future:

- **Tackling current levels of obesity (difficult):**
 - Health promotion, health literacy and behaviour change
 - The Socio-economic gap and autonomy
 - New drugs
- **Avoiding childhood obesity at an early age (easier):**
 - Parent education and behaviour
 - Societal and cultural change
- Improved monitoring and case management
- Islet cell transplantation
- Genetic screening
- Pharmacological agents enhancing insulin production

Key influences on future in trends in health and healthcare:

- **Advances in technology:**

“It is unlikely that increasing public expectations about what the NHS can deliver will be effectively managed until somehow is found to include public views about how to rank the importance of different kinds of medical benefits with the context of relative scarcity (of resources)” Rossiter, 2007

- **E health and IT networks:**

- information paradox/ “infomediaries”
- cyber physicians/SMART cards (digitisation)
- mathematical model

- **Miniaturisation of diagnostic and monitoring tools**

Key influences on future trends

- **Genetics:**

- 6 In 10 people will develop disease partially genetically determined by the age of 60 yrs
- increasingly sensitive, but expensive, early diagnostic tests
- pharmacogenetics (tailoring)

- **Stem cell technology:**

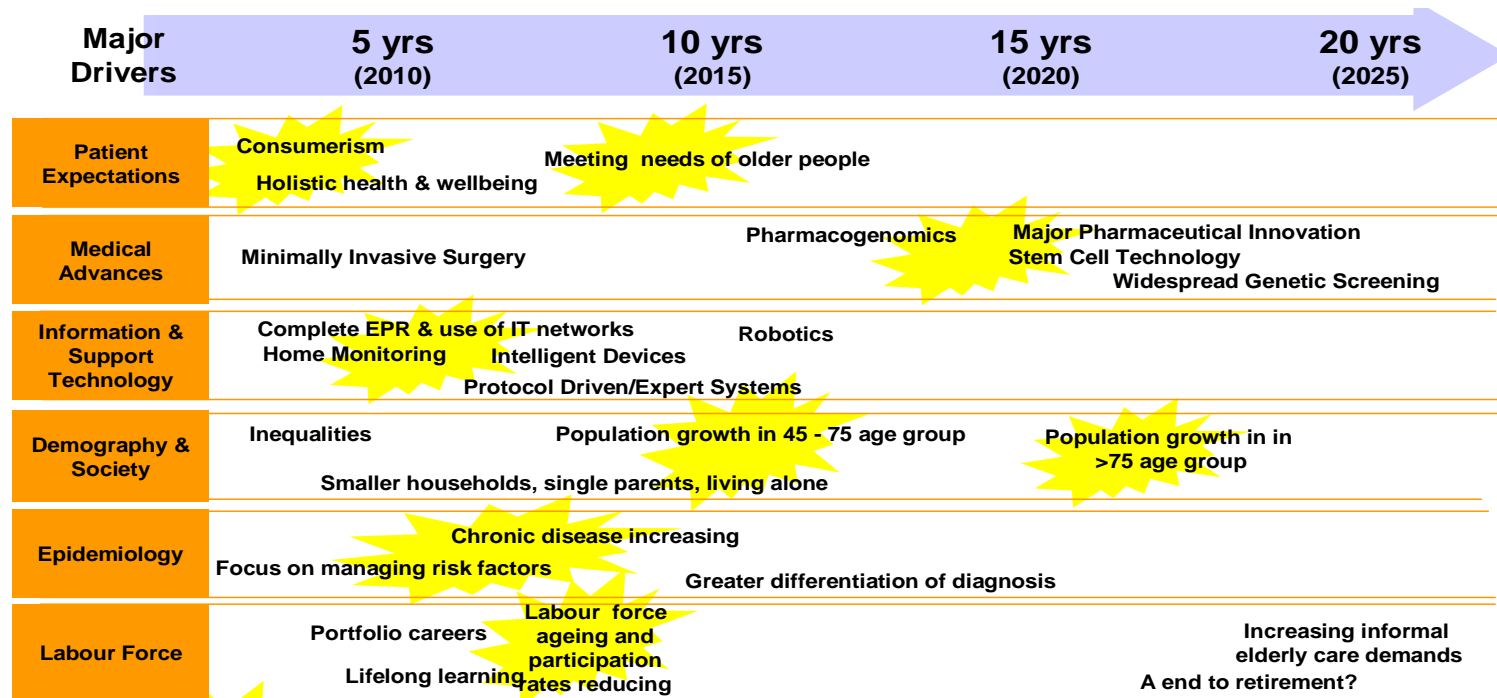
- regrow body parts/repair injury
- genetic engineering
- cybernetic “symbiosis”

- **Settings for care:**

- integrated pathways of care
- home rather than hospital
- fusion of primary, public health and community services

Key Trends-Timelines:

The time at which key trends will have the greatest impact



Time when we **predict** that a major change may be seen in this dimension

The other side of the hill: some further features of the 2029 landscape

- Migration
 - New types of jobs/ways of working
 - Meeting the Public's expectations
 - Rights and responsibilities
 - Economy and employment
 - Illness rather than diseases
-

The other side of the hill (2029):

- Psychosocial influences and “stress”
 - Old hazards manifesting as new hazards
 - Pandemics, terrorism and war
 - Political Will
 - Health, work and well- being
-

The Economic Downturn and Health:

- Men (40-59 yrs): mortality doubled in five years after redundancy in late 1970s¹

(unrelated to socio-economic status, health behaviours and other health indices)
- Redundancy: associated with increased risk of heart disease, stroke, diabetes²
- Unemployment:
 - increased risks of depression, parasuicide and suicide

(especially in the young)³
 - greater health risk than most dangerous jobs
- Youth opportunity schemes just as detrimental to psychological health as unemployment⁴

1: Morris JK et al (1994)

2: Harvard School of Public Health (2008)

3: Bartley M et al (2004)

4: Morrell SL et al (1998)

The Economic Downturn and Health

- Presenteeism/sickness presence more prevalent
 - People in work with health conditions more at risk
 - Industry and business: reduce costs and increase productivity
 - Risk of loss of focus on health, work, safety and well-being:
 - Government
 - Employers
 - Society
-

Economic downturn: paradoxical effects on health and well-being:

- **Greater resilience in mental and physical health**
 - **The socio-economic divide**
 - **Enhanced physical activity**
 - **Expectations less**
 - **Something else to worry about**
 - **More healthy eating habits**
 - **Less alcohol and tobacco consumption**
 - **Less hazardous pursuits**
 - **Less injuries and pollution**
 - **Greater social cohesion and human capital**
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Economic Downturn: Social Exclusion and Disadvantage:

- **Initial buffering of benefit dependency and worklessness**
- **Acceleration on the pathways to deprivation, disadvantage and ill-health:**
 - **social exclusion**
 - **income poverty**
 - **withdrawal of support mechanisms**
 - **increased crime**
 - **increased risk of physical and mental illness**
 - **loss of confidence and self-esteem**
 - **More limited focus of control/autonomy**
 - **the “hopeless” become “helpless”.**

Accentuate the positive; eliminate the negative.

There's no room for Mr In-between...

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