

Angela Mawle Chief Executive



“Public Health and the Natural Environment”

Who we are

The UKPHA is an independent, UK wide voluntary association, which brings together individuals and organisations from all sectors, who share a common commitment to promoting the public's health.

The UKPHA is a membership organisation which aims to promote the development of healthy public policy at all levels of government and across all sectors, and to support those working in public health either professionally or in a voluntary capacity.

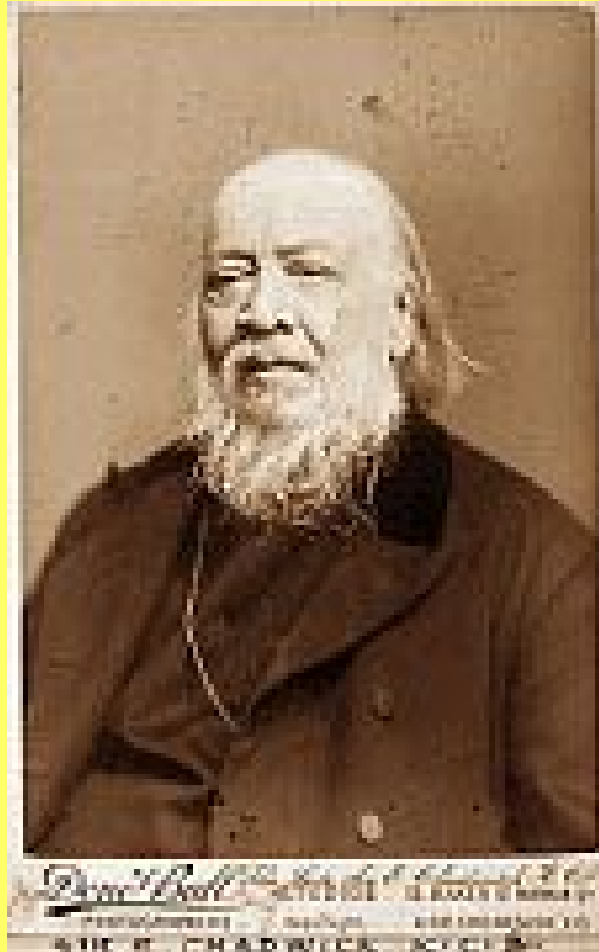
Our priorities

- **Combating health inequalities**
 - Working for a fairer, more equitable and healthier society
- **Promoting sustainable development**
 - ensuring healthy environments for future generations
- **Challenging anti-health forces**
 - Promoting health-sustaining production, consumption and employment

Public Health – as old as civilisation?

- Hippocrates - 460 BC
 - “Airs Waters and Places” essays on the influence of climate water and situation on health
- Aristotle – 384 BC
 - “Eudamonia” wellbeing of the whole person
- Minoan Civilisation – 2,500 – 1,600 BC
 - Environmental and social harmony – in balance with Nature

Victorian Visionaries



Sir Edwin Chadwick
1800-1890

*“Good economics to
prevent the evils”*

Chadwick contributed to a report of 1834 that led to legislation covering the national supervision of health, safety and social problems. He later brought through parliament the Public Health Act of 1848, which enshrined the principle that health care should be administered at a local level.

Victorian Visionaries



- John Snow
- (1813-1854)
- He published *The Mode of Communication of Cholera* in 1849 - but many refused to abandon the 'miasma' (bad air) theory. He proved his theory through the investigation of the Broad street pump in Soho towards the end of August 1854.
- John Snow was a founding member of one of the first professional societies devoted to epidemiology- the London epidemiological society.

Victorian Visionaries



Dr William Henry Duncan
Liverpool's and the country's
first Medical Officer of Health

He helped in creating Liverpool's first
Sanitary Act in 1846 and was
appointed Medical Officer of Health
on 1st January 1847.

He recognised that there was a clear
link between housing conditions and
the outbreak of diseases such as
cholera, smallpox and typhus.

Victorian Visionaries



Joseph Bazalgette
(1819-1891)

The 'Great Stink' of 1858, when the Houses of Parliament became so smelly that the members demanded action, was the starting point of the sewer system as we know it today. Bazalgette built 83 miles of 'interceptory' sewers that prevented raw sewage from running into the Thames and took it to the east of London where it could be put into the river with minimal effect on the population

Victorian Visionaries



Joseph Chamberlain 1836-1906
Mayor of Birmingham

“High rates and a healthy city”

In the 1885 General Election Chamberlain was seen as the leader of the Radicals with his calls for land reform, housing reform and higher taxes on the rich.

Development of the medicalisation of public health

- 1880s the 'Germ theory' – epidemiology and bacteriology
- Medical intervention more scientifically quantifiable than social interventions
- Professionalisation/demarcation:
 - Poor Law Medical Offices not 'joined-up' with Medical Officers of Health (the beginning of the development of 'silos')
 - Underlying determinants of poor public health
 - poverty and disempowerment

Public Health in the 20th Century

- Dominated by technological and curative fixes
- Plethora of allied medical professions (Nurses, Health Visitors, therapists etc)
- Growth of professions within local authorities
- Uncoupling of public health from local authorities
- Silos of operation
- Disengagement from the public

Sir Donald Acheson's Definition of Public Health (1988)

“the science and art of preventing disease, prolonging life and promoting health through the organised efforts of society”

Sir Liam Donaldson - Chief Medical Officer's Definition 2002

- Promotion of health, including tackling health inequalities
- Quality and clinical standards, i.e., clinical governance
- Protection of public health and the management of risk

Sustainable Development in the 20th Century

- 1987 - Dr Gro Harlem Brundtland (the World Commission on Environment and Development) Developed the broad political concept of ***sustainable development***, published its report 'Our Common Future' in April 1987.
- 1992 - UN Conference on Environment and Development (RIO Earth Summit) produced Agenda 21 a 40 chapter blueprint for sustainable development
- 1995 - WHO re-launched the global health policy 'Health For All' in response to accelerated global change and to ensure that individuals, countries and organisations are prepared to meet the challenges of the 21st Century.

Definition of Sustainable Development

"Sustainable development is economic development which actively promotes social equity and social justice and which protects and enhances the natural environment"

A Sustainable community would be one where there is:

- Good local employment
- Pedestrian bicycle and public transport networks
- A pedestrian dominated public realm
- A rich and diverse natural environment
- Local facilities and resources
- Locally produced good wholesome food
- A rich and diverse cultural heritage
- Vibrantly textured social networks
- Informed and empowered individuals

Sustainable Development and Health

Green Gym Vs Aerobics

Heart Rate **Comparison of heart-rate response during two sessions of activity**



V Reynolds 1999
OCHRAD

Source - William
Bird

Numbers needed to treat (NNT) to prevent a death over the next 5 years

Exercise

Walking (<1 mile vs >2 miles) **NNT = 11**

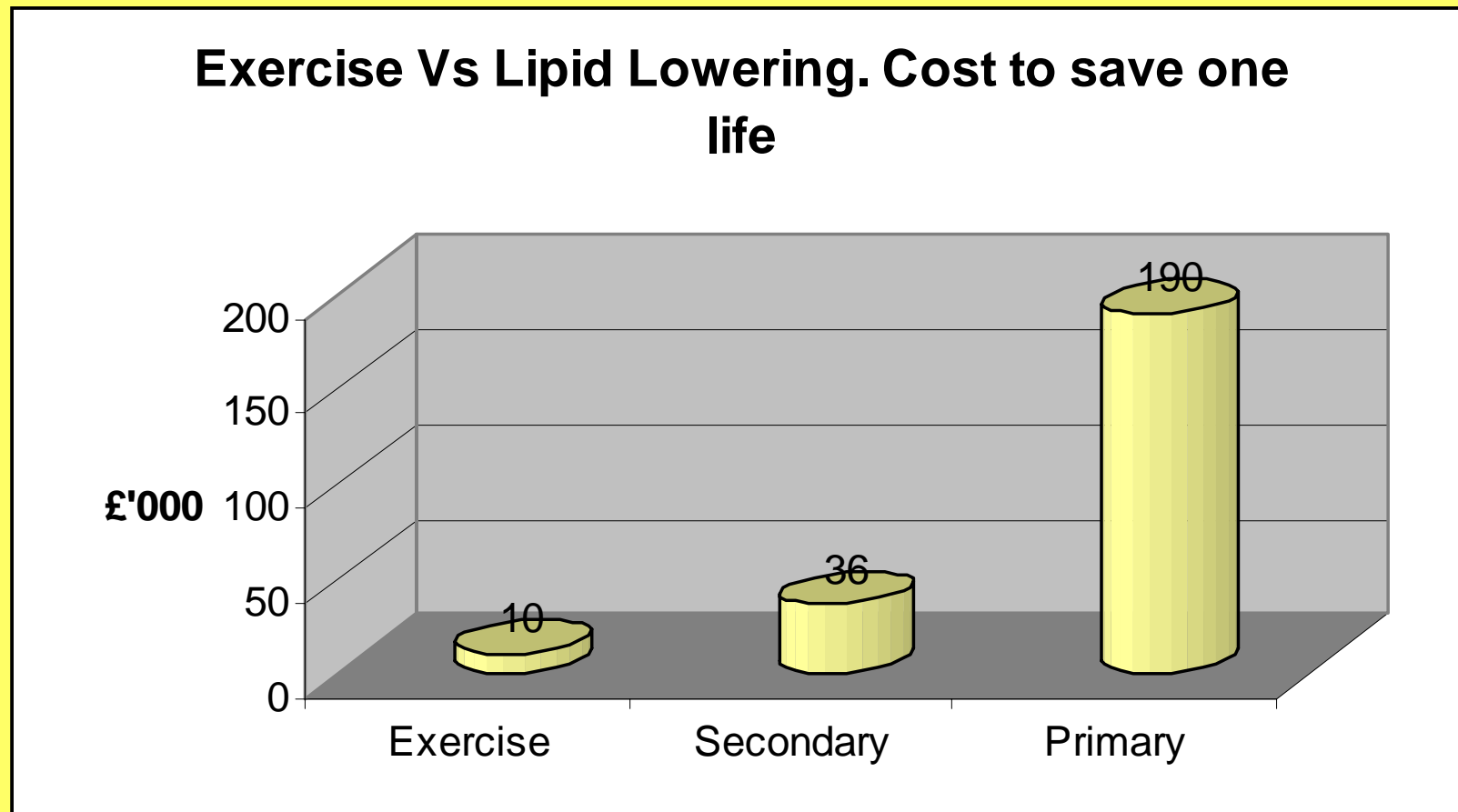
Cholesterol Lowering (all trials)

Primary Prevention **NNT= 107**

Secondary Prevention **NNT= 20**

Source - William Bird

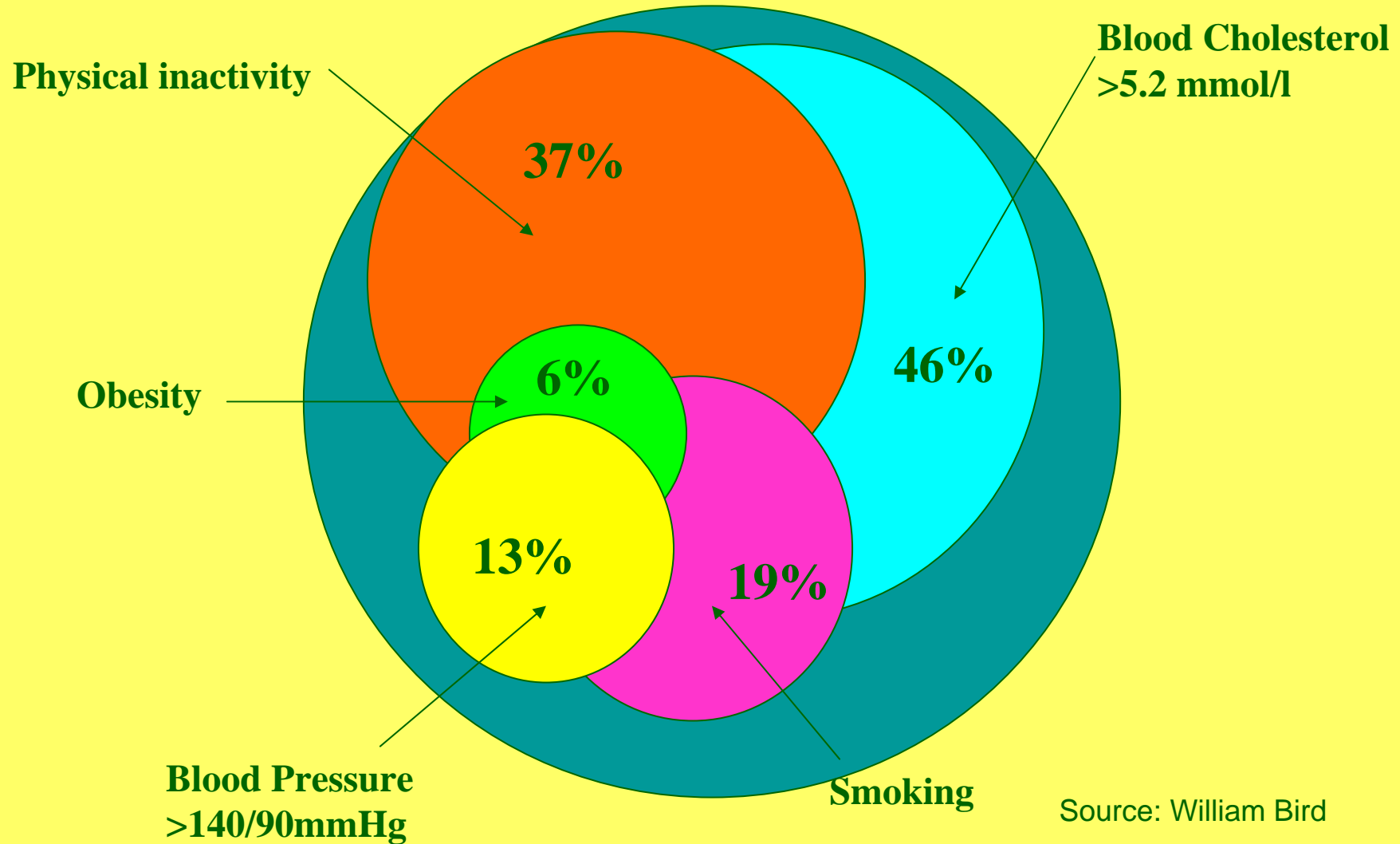
Cost of Saving a Life



Source - William Bird

What's the Evidence?

Attributable risk for CHD



Sustainable Development & Health

Pollution and Pesticides

- Most humans have around 500 persistent organic pollutants (POP's) stored in their body fat that have been created since the chemical revolution of the 1920's.
- Pesticides are the key route for POP's , notably through aldrin, chlordane, DDT, dieldrin, endrin and heptachlor.

Source: Lang, T. & Heasman, M. 2004. 'Food Wars. The Global Battle for Mouths, Minds and Markets.' Earthscan, London.

Sustainable Development & Health

Pesticides and childhood cancer

Malignancies linked to pesticides in case reports or case-control studies include leukaemia, neuroblastoma, Wilms' tumour, soft-tissue sarcoma, Ewing's sarcoma, non-Hodgkin's lymphoma, and cancers of the brain, colorectum and testes.

Source: Environmental Health Perspectives 106, supp.3, June 1998

Pesticides and adult malignancies

People with high levels of pesticides (DDT) and chemicals (PCBs) are far more likely to develop genetic mutations linked to cancer of the pancreas.

Source: Prof. Miguel Porta et al. 1999. Municipal Institute of Medical Research, University of Barcelona. Reported in The Lancet, December 1999

Sustainable Development & Health

Antibiotics in food

- To reduce the threat of disease among intensively reared animals, cocktails of veterinary products are injected or added to feed routinely – including antibiotics.
- In 20 years, some forms of salmonella have developed multiple drug resistance, the number increasing from 5% to 95 % today. MRSA has grown from 2 % to 40 % in just one decade

Source: Young, R, Cowe, A, Nunan, C, Harvey, J and Mason, L (1999) *The Use and Misuse of Antibiotics in UK Agriculture: Part 2: Antibiotic Resistance and Human Health*, Bristol: Soil Association.

Health in the 21st Century

Donald Acheson

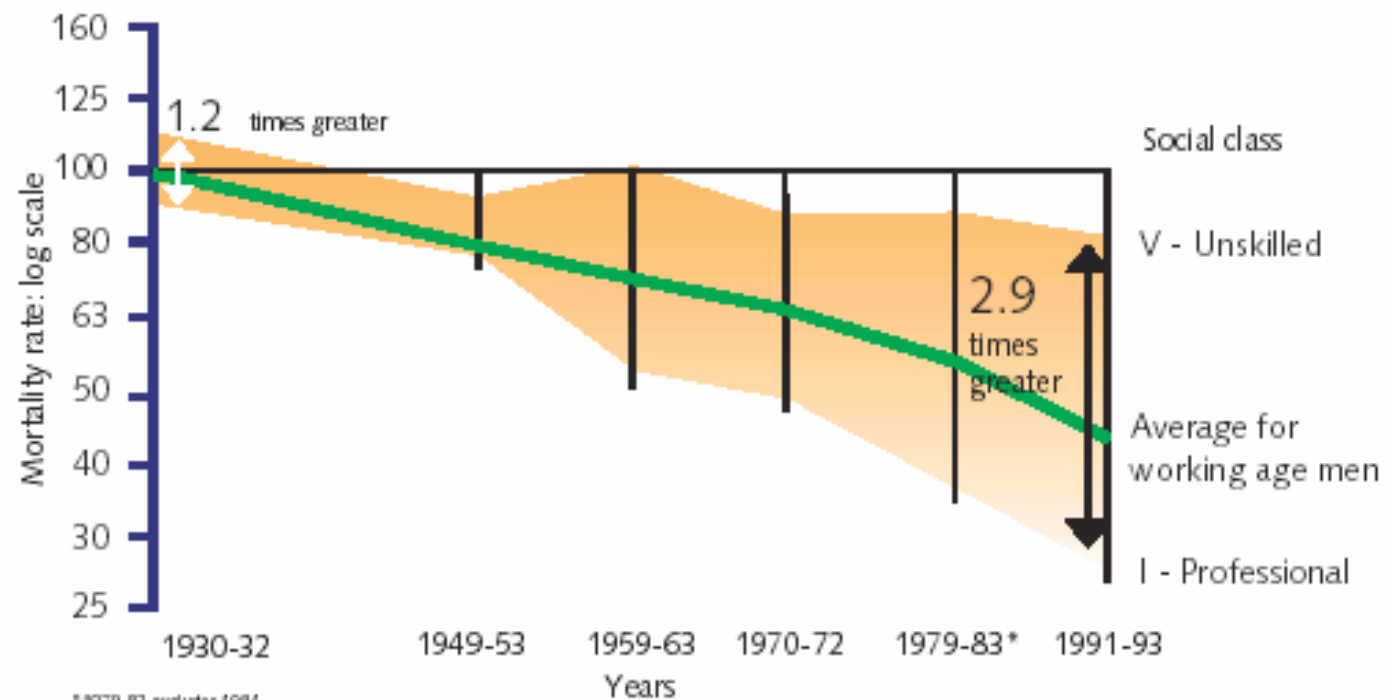
- The Acheson Report concluded that the "weight of scientific evidence supports a socio-economic explanation of health inequalities."
- *'Poverty, low wages and occupational stress, unemployment, poor housing, environmental pollution, poor education, limited access to transport and shops, crime and disorder, and a lack of recreational facilities all have had an impact on people's health'*



(Acheson 1998a)

The widening mortality gap between the social classes

Figure 1: The Widening Mortality Gap Between the Social Classes



* 1979-83 excludes 1981

England and Wales Men of working age (varies according to year, either aged 15 or 20 to age 64 or 65)

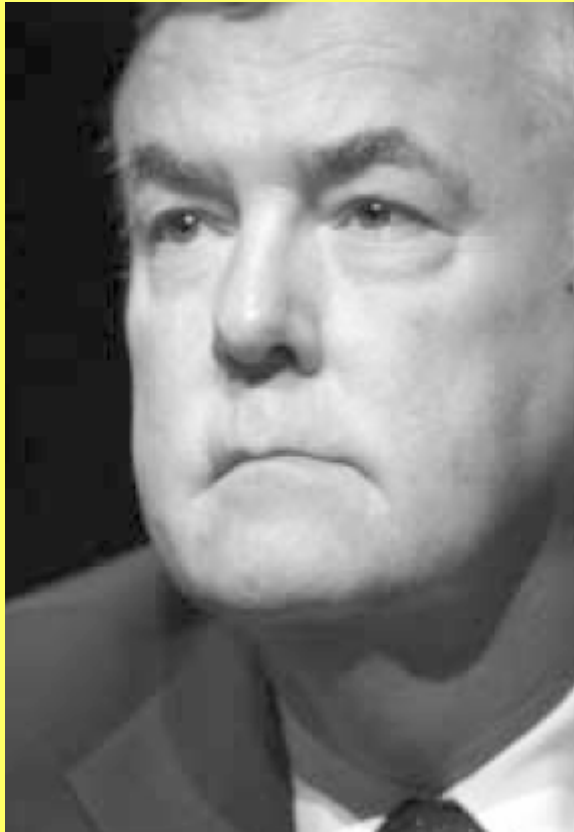
Source: Office for National Statistics, Decennial Supplements, analysis by DH Statistics Division

(Tackling Health Inequalities – A Programme for Action –DOH
June 2003)

- In 1999/2001, the difference between areas with the highest (North Dorset) and lowest (Manchester) life expectancy at birth was 9.5 years for boys and 6.9 years for girls.
- The highest life expectancy for girls was in West Somerset and the lowest was in Manchester.

(Tackling Health Inequalities – A Programme for Action –DOH June 2003)

Derek Wanless



Derek Wanless

“Securing our Future Health” 2002

An economic analysis which showed the burden of ill health on the Exchequer and the impacts on the quality of life of the UK population in 2020

- **Positive result:**
 - Public health has shot up the government’s agenda
- **Negative result**
 - A distraction on to the subject of lifestyle change and choice

Securing Our Future Health

- Concluded that the UK must devote a significantly larger share of its national income to health care over the next 20 years
- Fully Engaged Scenario led to the best health outcomes at least cost – by 2022 cost £30bn less than the *slow uptake* scenario

Source: Derek Wanless

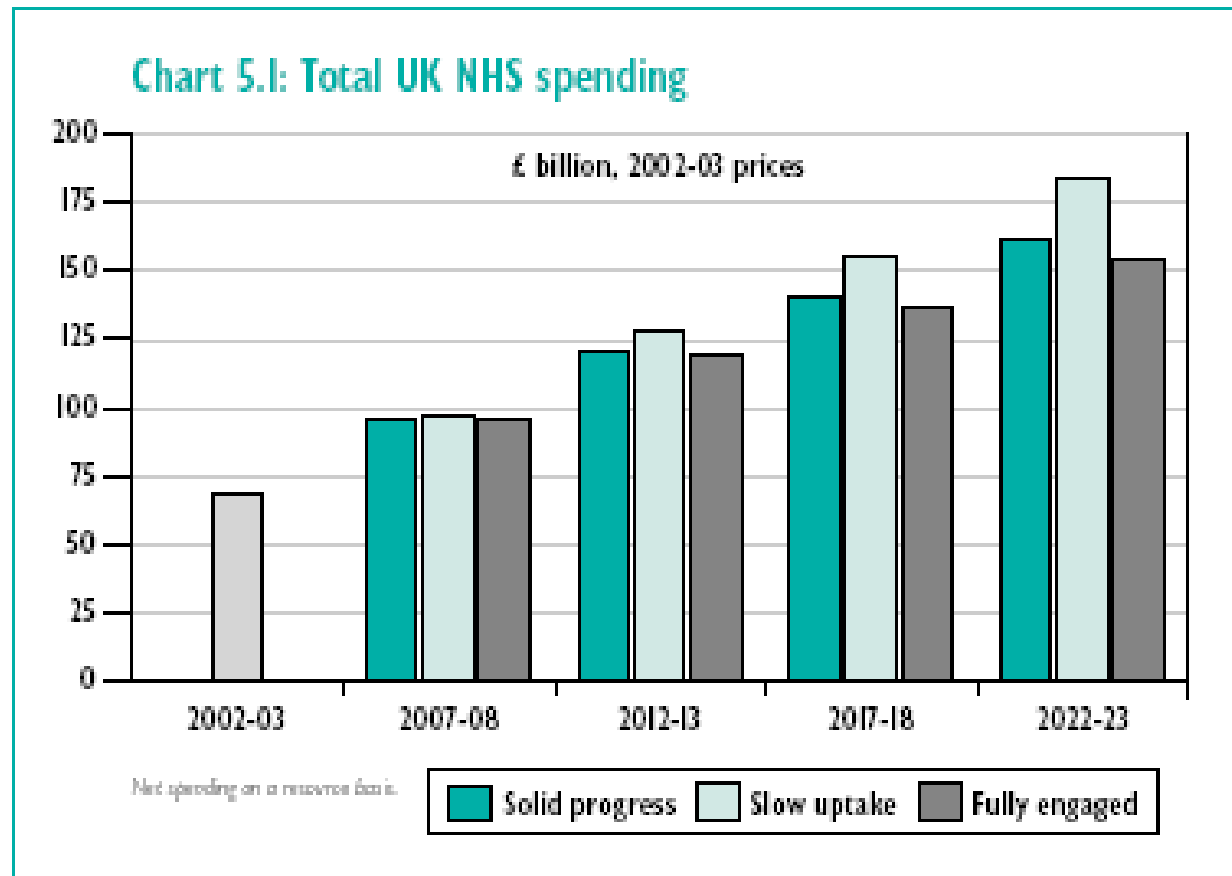
Fully engaged scenario

- Levels of public engagement in relation to their health are high;
- Life expectancy increases beyond current forecasts;
- Health status improves dramatically;
- People are confident in the health system and demand high quality care;
- The health service is responsive with high rates of technology uptake, particularly in relation to disease prevention; and
- Use of resources is more efficient.

Source: Derek Wanless

Derek Wanless April 2002

Health care spending



Wanless findings 2004

- Numerous policy statements and initiatives in the field of public health have not resulted on a rebalancing of policy away from health care (a “national sickness service”) to health (a “national health service”).
- There must be a realignment of incentives in the system to focus on reducing the burden of disease and tackling the key lifestyle and environmental risks.
- Recognising the NHS is only one contributor to delivering the public health agenda, there needs to be an alignment of targets between the Planning and Priorities Framework for the NHS and the Comprehensive Performance Assessment for local government.

“Securing Good health for the Whole Population” D Wanless Feb 2004

Wanless and Health Inequalities

Securing Good health for the Whole Population 2004

- Persistent socio-economic inequalities in the UK, combined with a greater severity of market failures affecting lower socio-economic groups, seem to have contributed to significant inequalities in health outcomes which, unless tackled, will present a significant barrier to many in society becoming “fully engaged”.

“Securing Good health for the Whole Population” D Wanless Feb 2004

Choosing Health – Making healthy choices easier

published 16th November 2004

What about Sustainable Development?

Chapter 3

Children

- Independent initiatives centred around children's Centres and Schools (food initiatives; cycle training; PE) and 'Personal Health Guides'.
- No acknowledgement of the infrastructural systems needed to sustain children's good health (safe and sustainable transport systems; safe and accessible local green space; warm safe housing and adequate family income levels)

Chapter 4

Communities

- Communities for Health initiatives – local health challenges identified by local partners working cross sectorally to achieve action on health inequalities
- Sustainable communities (parks cycling etc. but no infrastructural changes, guidance only and even this is not yet developed.

Chapter 5

Health as a way of life

- Health trainers
 - who are they?
 - Where are they coming from?
 - How do you access them?

Chapter 7

Work and Health

- Cycling incentives
- Healthy business assessment to be included in liP

Chapter 8

Making it happen

Finishes by reiterating that the “commitments in the White Paper are designed to ensure more healthy choices are available and to shape the environment so that these choices are readily available to those who would otherwise be disadvantaged”.

Provocative Points?

CHOICE AND PUBLIC HEALTH

Nanny State or Public Good?

State influences health in:

- **Health & safety issues**
- **Food, air water and soil quality**
- **Transport (including seat belts and helmets)**
- **Drinking and driving**
- **Legislation against dangerous and addictive drugs**
- **Need to distinguish between NHS *service* delivery and Public Health**
- **“The public need the opportunity to choose health rather than what happens to them when they become ill”**
(Kings Fund Discussion paper 2004)

Provocative Points?

Do we have an individual choice in:

- **The polluted air we breathe?**
- **The effects of climate change?**
- **Access to a safe and resourcing environment?**
- **The effects of poverty and social degradation?**
- **The unacknowledged pollutants that lodge in our bodies?**

Provocative Points?
Obesity and Governmental failures

**Select Committee on Health Obesity
Report 2003-2004**

“Scandalous failure” of governments in

- implementing walking strategy**
- promoting Cycling**
- Expanding physical activity in schools**

Provocative Points?

To realise the potential in partnership working there is a need to:

- challenge existing services
- coordinate actions and to engage different voices in decision making
- understand that partnerships operate within settings dominated by hierarchies and markets
- Acknowledge that seating different people around a table without understanding these other pressures on their behaviour does not necessarily constitute a new way of working.

Without such changes

“partnerships represent little more than the key players suppressing mutual loathing in the interests of mutual greed.”

The Third Act

- 1851 Public Health act ensuring water was clean. Waterborne infectious diseases were immediately reduced.
- 1956. Clean Air Act. Law passed to reduce emissions resulting in less respiratory infections.
- When will the Green Space act be passed?

Source: William Bird

So where now

- All organisations delivering the same message must work together.
- Collect further evidence strengthening the relationship between green space biodiversity and health
- Believe in a vision of bringing safe open green space to where people live and bring people to the green open space.

“Walking is a man’s best
medicine”

Hippocrates

born 460 BC

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