

Readdressing the Balance: The NHS and Health Inequalities:

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1. Purpose

- 1.1 This paper will consider how the English National Health Service, set up to bring health to all in need regardless of the ability to pay, inadvertently continued to perpetuate health inequalities.
- 1.2 Health Inequalities will be placed into a historical context including pre-dating the NHS. We also detail the long journey of increasing realisation that despite national aims of equity and social justice the NHS was not only failing to deliver but structural systems were leading to a worsening of health inequalities.
- 1.3 The development of one of the first national health inequalities targets will be described and how local and national programmes were found to be inadequate in addressing and reversing the inequalities gap.
- 1.4 Subsequent national reviews of progress on the health inequalities target will be described and how a delivery plan was developed with actions that make the achievement of the national target challenging but achievable if prescribed actions are implemented.
- 1.5 Current and future work in development will be described that we believe has the potential for significant impact on addressing health inequalities.

2. Definition of health inequalities

- 2.1 Health inequalities are differences in health status or in the distribution of health determinants between different population groups¹. For example, differences in mortality rates between people from different social classes or differences in life expectancy between people of different ethnic groups. It is important to distinguish between inequality in health and inequity.
- 2.2 Some health inequalities are attributable to biological variations or free choice and others are attributable to the external environment and conditions mainly outside the control of the individuals concerned. In the first case, it may be impossible or ethically or ideologically unacceptable to change the health determinants and so the health inequalities are unavoidable. In the second, the uneven distribution may be unnecessary and avoidable, as well as unjust and unfair, so that the resulting health inequalities also lead to inequity in health.¹

3. Historical Context

- 3.1 An interest with the distribution or inequalities in health is far from a modern concern. Hippocrates, 460- 370 BC, was concerned with why some people and places were healthy whilst others less so and identified wider determinants of place, water and air pollution, which are still recognisable today as causal factors in health inequalities.
- 3.2 The early Victorian pioneers such as John Snow and Edwin Chadwick were similarly concerned with health inequalities. In 1842, Edwin Chadwick published the General Report on the sanitary conditions of the labouring population of Great Britain. This showed that the average age at death in Liverpool at that time was 35 for gentry and professionals but only 15 for labourers, mechanics and servants.²
- 3.3 The continued interest and study of health inequalities, including the first report by Edwin Chadwick, owes much to the work of John Graunt in the 17th Century and subsequent system that was introduced by William Farr in the 1840's that systematically recorded both deaths and occupational class.³
- 3.4 Throughout the 19th and early 20th Century the stark inequalities in health were addressed through actions on the wider determinants of health - the great Victorian projects of sanitation and clean water reduced death rates especially in the overcrowded slums, which became ideal breeding grounds for epidemics of cholera and typhoid.
- 3.5 Much of the official concerns with inequalities in health in the 19th and early 20th Century were concerned with the impact that these had on the ability to recruit large numbers of young men into the army. During the Boer War and First World War, only one in three new recruits were found to be fit enough for war. The effects of malnutrition and childhood illnesses led to the

¹ HIA Glossary. Accessed at <http://www.who.int/hia/about/glos/en/index.html>

² Chadwick E (1842) *The Sanitary Conditions of the Labouring Population*

³ Donaldson L, Donaldson R (2000) *Essential Public Health*. Petroc Press Plymouth

significantly lowering of the initial minimum height regulation of five feet three inches in order sufficient men were able to be dispatched to the front line.

- 3.6 Medicine became increasingly effective throughout the late 19th and 20th Century and with it the ability to access, and pay for such access, became more important in determining health. Although the workhouses of the Poor Laws increasingly set aside wards for the infirm and sick it was not until Local Authorities took over control of the Poor Law Infirmaries in 1929 that an effective hospital system was available for the poor. Similarly, the early 20th Century saw the start of provision of Primary Health Care with free access guaranteed but only for the poorest working man; no provision was made for dependants.

4. Contemporary Health Inequalities

- 4.1 The Beveridge report of 1942 laid the foundations for not only the creation of the National Health Service in 1948 but also the Welfare State - for the first time the state guaranteed a minimum level of health and social services⁴.
- 4.2 Since 1948, there have been huge changes to both the organisation and structure of the NHS, yet the fundamental questions of how best to fund, organise, manage and balance the conflicting demands and expectations of patients, staff and taxpayers continue to challenge the system.
- 4.3 An increasing concern with full employment, better health and welfare lead to massive structural changes in post war Britain with increasing nationalisation of industries that historically employed the poorest sections of society in coal mining, steel production and transport. Alongside such structural changes in society can be set increasing migration from the former Colonial Countries of the Afro-Caribbean, South East Asia to take up low paid, low status positions.
- 4.4 The ethnic make up of England changed radically from a few thousand non-white residents in 1945 to 1.3 million in 1970 with a third of these children born in the UK. Distinct concentrations of black and minority ethnic groups in the most deprived areas of England's cities came to national attention through a series of riots in cities including London, Liverpool and Birmingham⁵.
- 4.5 An awareness of any ethnic variations in health throughout the 1980's and 1990's was hampered by both partial recording of ethnicity in routine health service utilisation data and no recording on death certificates. Although the national census collected ethnicity data throughout this period the ability to meaningfully cross reference this to information on health was limited.
- 4.6 It was not until the publication of the Black Report in 1980 that the true nature of England's increase health inequalities was fully exposed⁶. Despite a continued improvement in health across all the classes during the first 35 years

⁴ Beveridge W *Social insurance and allied services*. London 1942.

⁵ Jacobs B. Riots in Britain and the United States: The Bureau-Politics of Crisis Management and Urban Policy. *Journal of Contingencies and Crisis Management* 1993 1(3), 152-163.

⁶ DHSS. *Inequalities in Health Report of a Research Working Group*. London 1980

of the NHS there was still a relationship between social class, (as measured by the old Registrar General's scale) and infant mortality rates, life expectancy and inequalities in the use of medical services.

- 4.7 The Black Report not only identified issues that made uncomfortable reading for the then Thatcher Government, who preferred to talk about variations in health ostensibly caused by personal choice rather societal structures, but also called for remedies of wealth distribution and greater state intervention in the provision of welfare services.

5. Health Inequalities since 1997

- 5.1 The incoming Labour Government of 1997 made tackling health inequalities a national priority commissioning the former Chief Medical Officer Donald Acheson to head an independent enquiry.
- 5.2 The Acheson report, published in 1997⁷, greatly influenced the White Paper: Saving Lives our Healthier Nation- setting national targets for disease reduction and requiring health improvement plans to be developed by local health authorities⁸.
- 5.3 Although local areas were required to address health inequalities in local plans it was not until 2001 that national targets were set with a Public Service Agreement (PSA) target, *to reduce inequalities in health outcomes by 10% by 2010 as measured by infant mortality and life expectancy at birth*, and developing a national strategy with a cross government focus.
- 5.4 This target is underpinned by the following objectives on infant mortality and life expectancy.

Starting with children under one year, by 2010 to reduce by at least 10% the gap in mortality between the routine and manual group and the population as a whole

Starting with local authorities, by 2010 to reduce by at least 10% the gap between the fifth of areas with the lowest life expectancy at birth and the population as a whole

- 5.5 The areas covered by the life expectancy target are known as the Spearhead areas. The Spearhead Group is made up of 70 local authority districts (LADs), defined as those that are in the bottom fifth of districts nationally for three or more of the following five indicators:
- male life expectancy at birth;
 - female life expectancy at birth;
 - cancer mortality rate in under-75s;
 - cardiovascular disease mortality rate in under-75s; and

⁷ Acheson D (1997) *Independent Inquiry into Inequalities in Health Report*
<http://www.archive.official-documents.co.uk/document/doh/ih/contents.htm>

⁸ Department of Health (1999) *Saving Lives Our Healthier Nation*.

- Index of Multiple Deprivation 2004 (local authority summary) average score.

- 5.6 In addition to national targets set in 2001 in 2004 an inequalities element was added to national targets set in 2000 as part of the NHS Plan⁹.

By 2010, to have reduced the inequalities gap in mortality rates for heart disease and stroke between the fifth of areas with the worst health and deprivation indicators and the population as a whole by 40 per cent, and the gap for cancer by six per cent.

6. Health inequalities in different population groups

- 6.1 Since the setting of the PSA target in 2001 there has been increasing interest in and monitoring of health inequalities at a national level. A Programme for Action was first published in 2003 containing planned action and analysis and subsequently updated through Status Reports¹⁰.

Causes of health inequalities

- 6.2 The causes of health inequalities are complex and due to a combination of factors in the individual's social and economic environment. These may be due to wider determinants, for example, poverty, poor education, weak social cohesion and unemployment or related lifestyle factors, which are amenable to control, for example, smoking, alcohol abuse, use of illicit drugs, inadequate exercise.
- 6.3 Lifestyle related factors are not purely about personal choice; this can be seen using diet and nutrition as an example.
- 6.4 The role of food and diet in health can all too easily and incorrectly be confined in relation to the issue of over consumption and relating obesity. However, malnutrition should be considered in terms of both excess and under consumption which can lead to cardiovascular diseases, diabetes, cancer, degenerative eye diseases, obesity and dental caries¹¹.
- 6.5 The importance of access to fresh fruit and vegetables alongside affordable quality protein can be restricted in both rural and urban areas as a result of so called "food deserts". Poor transport can hamper the ability of disadvantaged people to access nutritious food in areas over supplied with fried food outlets.

⁹ Department of Health (2000) *The NHS Plan A Plan for Investment A Plan for Reform* London

¹⁰ Department of Health (2006) *Tackling Health Inequalities: Status Report on the Programme for Action*

http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4117696&chk=OXFbWI

¹¹ World Health Organization (2003) *Social Determinants of Health: the Solid Facts*. 2nd edition Edited by R Wilkinson and M Marmot

- 6.6 People in disadvantaged population are less likely to be able to access healthcare services. In 1971, Tudor Hart described the inverse care law that “*the availability of good medical care tends to vary inversely with the need for it in the population served. This ... operates more completely where medical care is most exposed to market forces, and less so where such exposure is reduced.*”¹²
- 6.7 There is much evidence in the literature that the socially deprived are more prone to ill-health but are less likely to obtain access to high-quality medical care. There is some evidence that the lowest socio-economic groups are further disadvantaged within the care system; for example one study found that the least affluent patients were only half as likely to have their cardiac surgery prioritised as urgent compared with the most affluent.¹³
- 6.8 Another example is infant mortality. The infant mortality rate in 2002-04 in babies born of mothers of Pakistani origin was double (10.2 per 1,000) that of that of the overall population (4.9 per 1,000).¹⁴ This increase may be due to a number of factors. Babies of mothers who are Asian or British Asian are more likely to die from congenital anomalies, this may be due to consanguinity in some Asian communities; however, this is not the complete picture. The evidence suggests that substantial social and cultural inequalities exist in knowledge about antenatal screening and there are ethnic inequalities in access to prenatal testing.¹⁵

Life expectancy by socio-economic group

- 6.9 The life expectancy of men in the highest social class (8% of the population) is about 10% greater than the lowest social class (5% of the population) – women 7% greater.

¹² Hart JT. The inverse care law. *Lancet* 1971;27:405-12.

¹³ Pell J, Pell A, Norrie J et al. Effect of socioeconomic deprivation on waiting time for cardiac surgery: retrospective cohort study *BMJ* 2000;320:15-18.

¹⁴ Department of Health (2007) Review of the health inequalities infant mortality PSA target http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4142971&chk=VOMWMg

¹⁵ Rowe R, Garcia J, Davison L. Social and ethnic inequalities in the offer and uptake of prenatal screening and diagnosis in the UK: A Systematic Review *Public Health* 2004;118; 177-89.

Table 1. Life expectancy at birth in England and Wales by socio-economic group and gender from 1997-99.

	% of pop ¹⁶	M	f
Professional	8	78.5	82.8
Managerial & technical	28	77.5	81.5
Skilled non-manual	42	76.2	81.2
Skilled manual		74.7	79.2
Semi-skilled manual	15	72.7	78.5
Unskilled manual	5	71.1	77.1

6.10 Inequality is graded and continuous across the social classes, not confined to a narrow disadvantaged group.

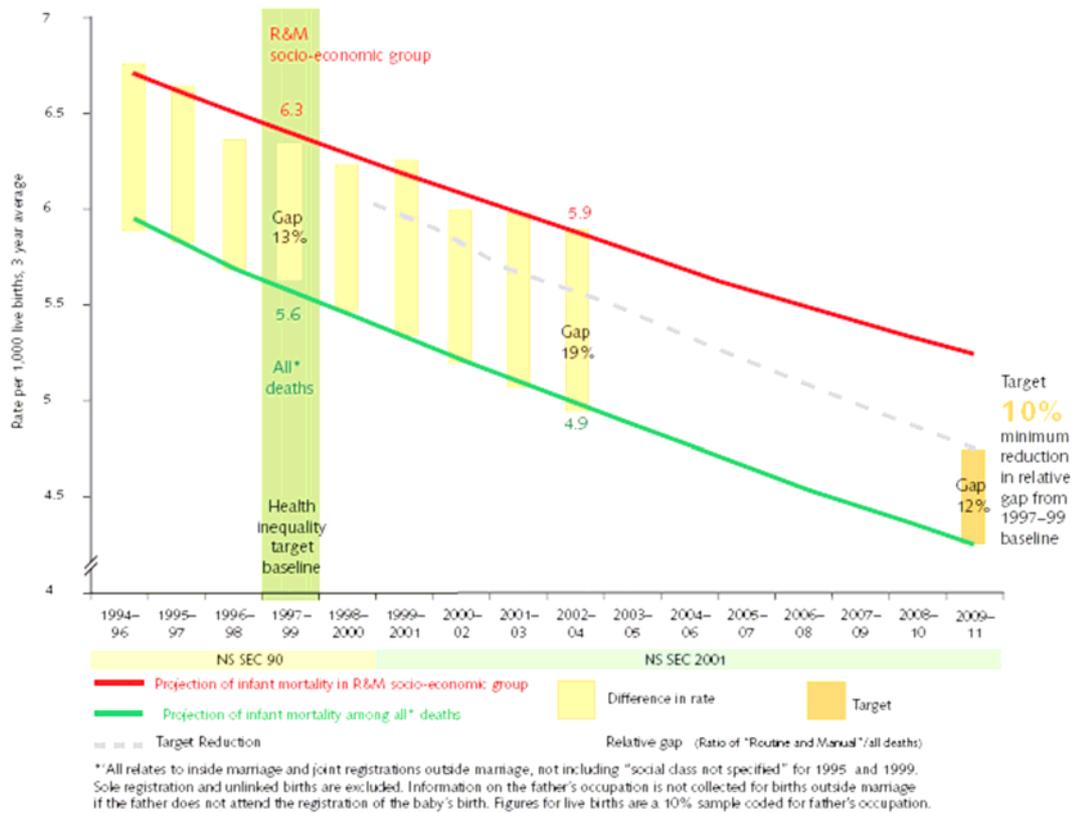
6.11 In order to smooth out the trend and minimise any problems caused by the relatively small numbers of infant deaths, the infant mortality inequality target is monitored using three year average rates.

6.12 The data for 2002-04:

- show that the overall IMR in England and Wales (for all births in marriage or out of marriage jointly registered by both parents) was 4.9 deaths per 1,000 live births, and the rate for those in R&M group was 5.9 per 1,000 live births;
- confirm that while the rate in the R&M group is continuing to improve, the relative gap between the R&M group and the population as a whole has widened since the target baseline;
- the IMR among the R&M group was 19% higher than in the total population as a whole in 2002-04, the same as in 2001-03. This compares with an IMR 13% higher in the baseline period of 1997-99.¹⁴

¹⁶<http://www.ihp.ox.ac.uk/sepho/publications/carrhill/xi/11-3-1.htm>

Figure 1. Infant mortality rates in England and Wales from 1994-2004 by socio-economic group with projection to 2010 target



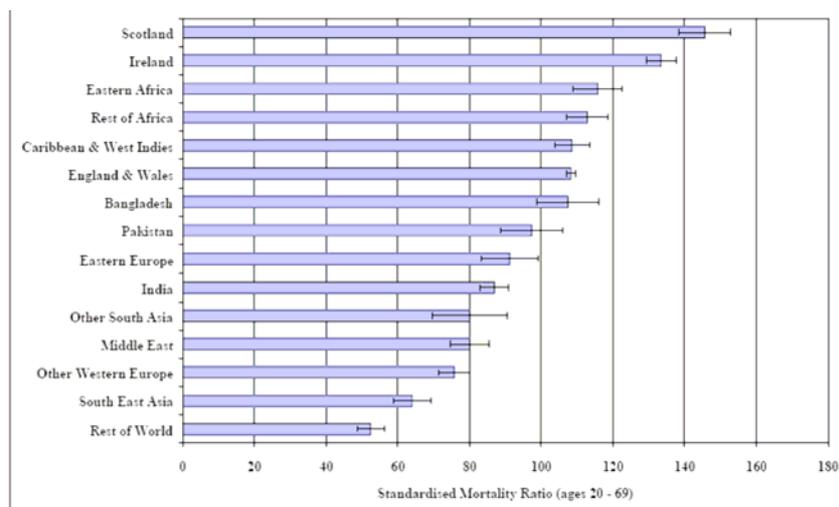
Source: ONS

Mortality by ethnic group

6.13 There is no data on life expectancy by ethnic group. The following chart showing the relative mortality rates of Londoners born abroad may serve as a proxy¹⁷. It shows no clear pattern, with some groups better than average for the population (SMR=100), others worse, notably those born in the British Isles.

¹⁷ www.londonhealth.gov.uk/pdf/hiabme_s.pdf

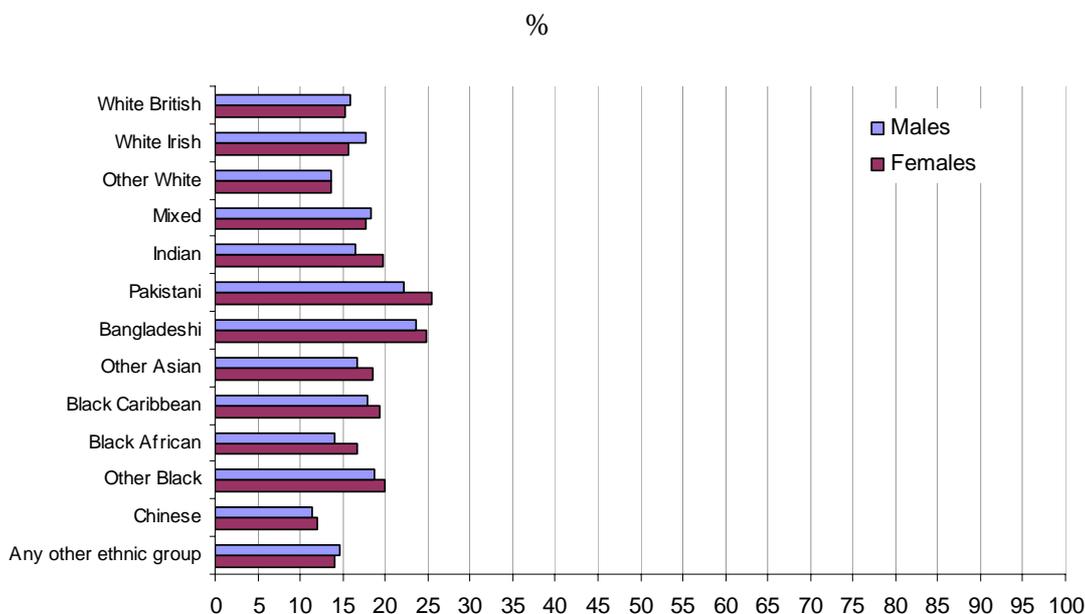
Figure 2. Standardised mortality rates of Londoners born abroad



Mortality by socio-economic group

6.14 Morbidity is a less reliable measure of health inequalities because self reported and criteria may differ across groups. Nevertheless, there is a socio-economic gradient and the rate of limiting long-term illness is higher in black and ethnic minority groups.

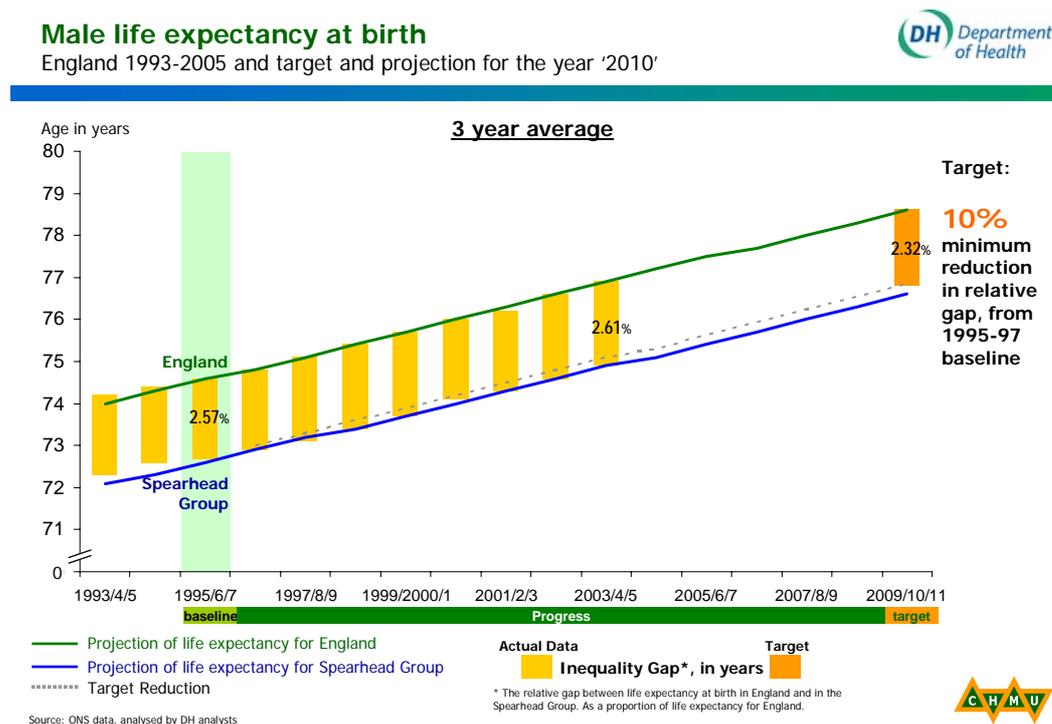
Figure 3. Age standardised limiting long-term illness by ethnic group and gender, 2001



7. Review of the national health inequalities target

- 7.1 Since the UK government committed itself to achieving a reduction in health inequalities in England by 2010- delivery of this promise became a political priority. The national monitoring of this target showed little change in the inequalities gap and by 2005 evidence of a continued widening was mounting.
- 7.2 In 2005, the government commissioned a high level cross government review of the life expectancy element of the health inequalities target. The findings confirmed that the gap was not only widening but that most areas were not applying either systematic consideration to monitoring their gap or had programmes that would deliver the target.¹⁸
- 7.3 Figure 4 and 5 shows that although life expectancy in England is increasing, it is doing so at a slower rate in the Spearhead areas, those 70 Local Authorities with the worst health and deprivation indicators, for both men and women.

Figure 4. Male Life Expectancy at Birth

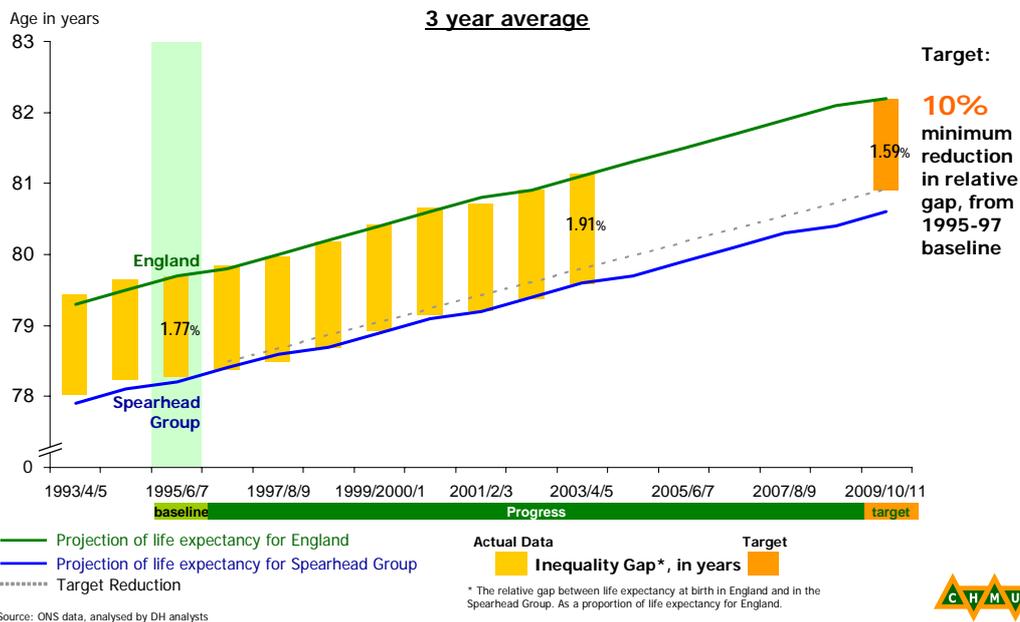


¹⁸ Rae M. Health inequalities – a sustainable development issue. *Public Health* 2007 In Press

Figure 5. Female Life Expectancy at Birth

Female life expectancy at birth

England 1993-2005 and target and projection for the year '2010'



- 7.4 This continued increasing gap will mean that approximately 13,700 early deaths will occur in people aged 30- 59 in Spearhead areas.¹⁸
- 7.5 Analysis on the causes of the gap highlighted that four main diseases (CVD, cancer, respiratory diseases and diseases of the digestive system) accounted for the majority of the life expectancy gap.¹⁸

Figure 6. Contribution to the Life Expectancy Gap in Males

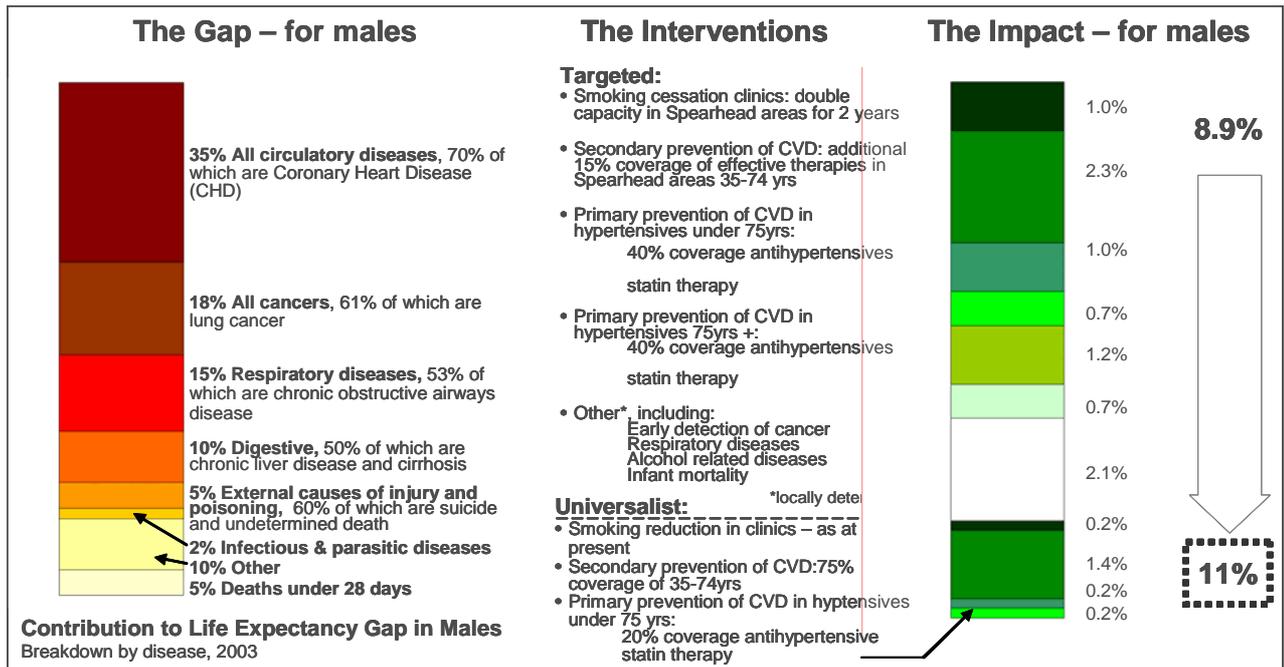
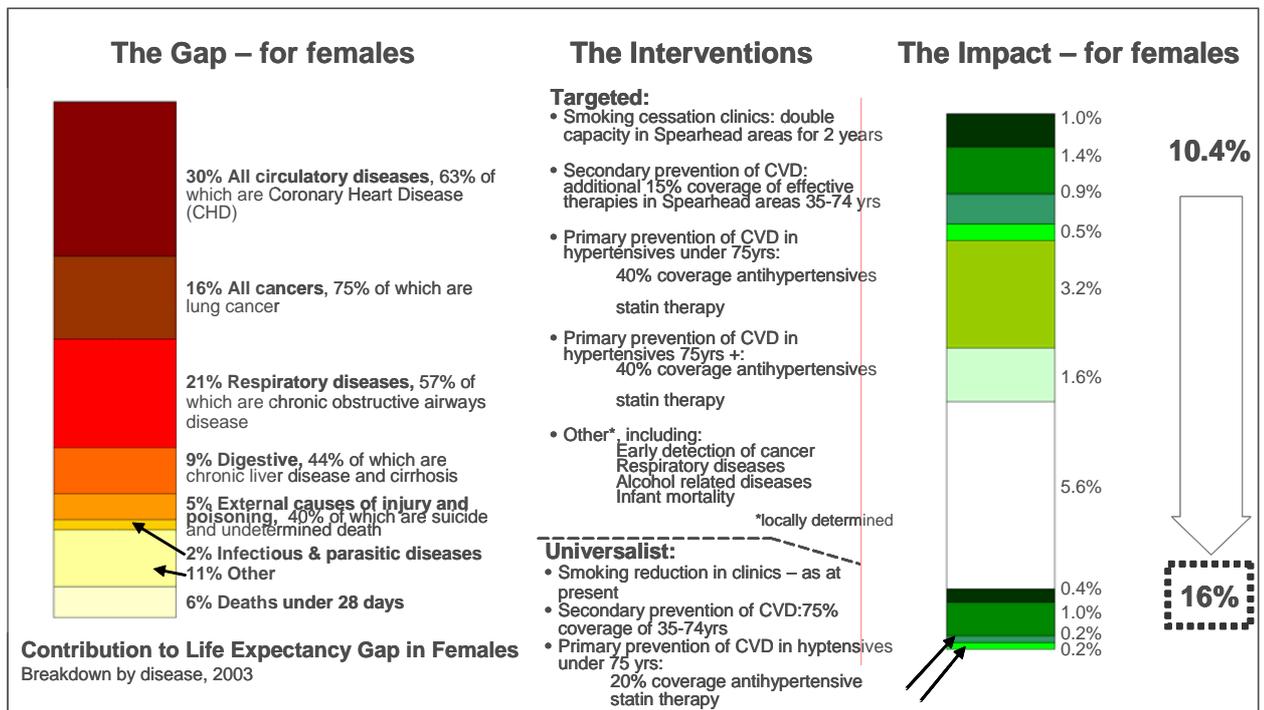


Figure 7. Contribution to the Life Expectancy Gap in Females



7.6 Prior to the review there was a widespread belief that universalist policies addressing many of the wider determinants coupled with specific health programmes would deliver the required gap reduction.

- 7.7 However, although the deprived Spearhead areas had the greatest capacity to benefit a combination of historical structural inequities both in health and social care provision; under funding according to potential need; differential uptake in hard to reach areas of preventive services and lifestyle modification means that universalist policies, at best, will have only a marginal effect and in reality may actually widen health inequalities.
- 7.8 To address these issues a stepped wedge intervention approach of “Spearheads First” has to be adopted to ensure that new national interventions are rolled out in Spearhead areas first to ensure greater uptake.
- 7.9 The review also found that cardiovascular disease accounts for the largest proportion of excess deaths and that successful delivery of the target by 2010 will be primarily through the NHS using known interventions of primary and secondary prevention.
- 7.10 The message that the NHS could make a major contribution to health inequalities was a difficult one to deliver to those working in public health. That good quality clinical services for those in deprived populations had not been given such a high profile seemed to have escaped many working in public health.¹⁶
- 7.11 However, ultimately, actions on the wider determinants and effective cross government and cross agency working will have an impact on reducing health inequalities beyond the 2010 target.
- 7.12 In 2006, an internal review of the infant mortality element of the target came to similar conclusions, that this target would be achieved by a combination of NHS actions and actions on wider determinants.¹⁴
- 7.13 Four interventions will have the maximum impact on reducing the gap by at least 10% and help to meet the infant mortality target. These are reducing obesity in women in the routine and manual group, reducing smoking, targeted interventions to reduce sudden unexpected deaths in infancy and reducing teenage pregnancies.¹⁴
- 7.14 Health inequalities have been made one of the top six NHS priorities for 2006–2007, putting the issue, and the target, at the heart of NHS service planning and performance. Making health inequalities a top priority recognises the enormous commitment that exists at local level to improving life expectancy in the Spearhead areas with the worst health and deprivation. It also recognizes that the target is achievable if local action is focused and evidence based, with effective accountability and performance management.¹⁸
- 7.15 High-quality primary care, case finding and identification and control of long-term conditions such as diabetes will also be important.

How local government can contribute to reducing health inequalities

- 7.16 Local government has a key contribution to make. Among the top priorities for local authorities are:
- the shared priority for healthy communities and reducing health inequalities agreed between central and local government made tackling

health inequalities a priority for local authorities, and is now reflected in the Comprehensive Performance Assessment;

- reducing health inequalities is at the heart of the Local Area Agreements, with mandatory targets reflecting the challenges facing Spearhead and non-Spearhead areas.

7.17 Having a crucial role to play in supporting delivery of the 2010 target and tackling the wider determinants of inequalities that will see inequalities continuing to reduce in the longer term. But the problem in making progress is clear and has two components:

- while the NHS can provide the treatment to help people live longer and healthier lives, many people do not seek NHS services when they should or adopt healthier lifestyles; there are many reasons for this, including the social and economic conditions in which they live, lack of knowledge and understanding of health and how to access health services, and lack of support;
- community engagement and improved life chances will be crucial to encouraging and supporting people to adopt healthier lifestyles and to seek medical advice and treatment at an early stage, so they will want to live longer and healthier lives.

7.18 Early wins for local authority action are:

- demonstrating community leadership for health and engaging with their most disadvantaged communities to support people to make healthy choices, local authorities can make a significant contribution to reducing inequalities;
- action on helping to reduce smoking prevalence is key; for example, addressing smoking on council premises, with support for staff to give up smoking as part of workplace health strategies, can have an impact beyond the authority;
- while traditional local authority services are all crucial determinants of health, action to improve housing and to ensure leisure facilities are accessible to low income and at risk groups can provide early wins and contribute longer term; creating employment opportunities and regeneration of disadvantaged areas can provide the economic and social incentives people need; improving health needs to be built into all local authority business, from the built environment to trading standards;
- Local Area Agreements provide a real opportunity for local authorities to bring health inequalities to the forefront of community planning and to engage local partners in delivering health strategies; Local Strategic Partnerships have a crucial role to play in engaging support from other community partners, with the local authority leading the health agenda with support from health partners;
- overview and scrutiny has a role to develop health strategies, to ensure services are delivered to those who need them, and to ensure action in the

Spearhead areas is focused on narrowing the gap between the England average and in non-Spearhead areas on narrowing the gap within the area.

Health Trainers and Life Check

- 7.19 Key programmes to help tackle health inequalities and provide sustainable development based on what communities are already developing include the DH Health Trainers and Life Check programmes.¹⁹
- 7.20 Health trainers exist to help people set personal goals for improving their health. They are visible, accessible and crucially, because of their local knowledge, able to direct people to services that can support their healthier choices, through the health trainers' detailed knowledge of the local area.
- 7.21 Health Trainers are a perfect example of an initiative called *Small Change Big Difference*, launched by the Prime Minister, which encourages people to take small, manageable steps towards a healthier lifestyle.
- 7.22 Following the *Our Health, Our Care, Our Say* white paper, health trainers can also help deliver the Life Check.¹⁹ The purpose of Life Check is to assess key risk factors in an individual's lifestyle. The public consultation exercise resulted in an overwhelming number of people who wanted safe, quality assured advice and information about their health and well-being.

8. Future work in development

- 8.1 Supporting the NHS in reducing the life expectancy and infant mortality health inequalities is key to the current and future work of the Department of Health (DH). Not only have performance management systems been significantly strengthened but also innovative support systems are being piloted or in development.
- 8.2 With about a third of the Spearhead areas already on track to deliver on either male or female life expectancy there are key lessons to be learnt from their success and shared with their underperforming areas. The DH National Support Team for Health Inequalities will be visiting both on and off track areas to help areas review their performance, share best practise and help ensure delivery.
- 8.3 Tools to help local areas understand what causes of early death make up their health inequalities gap have also been developed and allow the impact of key interventions such as increased uptake of statin and anti-hypertensive prescribing.
- 8.4 In local Spearhead areas the presentation patterns for both Cancer and CVD are significantly different from non Spearhead areas with later presentation for

¹⁹ Department of Health (2006) *Our Health Our Care Our Say: A New Direction for Community Services*

www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4127453&chk=NXIecj

cancer and higher rates for CVD. Work to understand the causes and address these through community collaborative approaches is currently being commissioned.

9. Conclusions

- 9.1 Health inequalities are a result of a complex interplay of both personal decisions and long standing structural issues. Significant progress has been made in England on not only understanding the causes of such health inequalities but also designing effective interventions that will deliver the gains needed in life expectancy and reductions in infant mortality and will also tackle the root causes of poverty, low educational achievement and low aspirations.