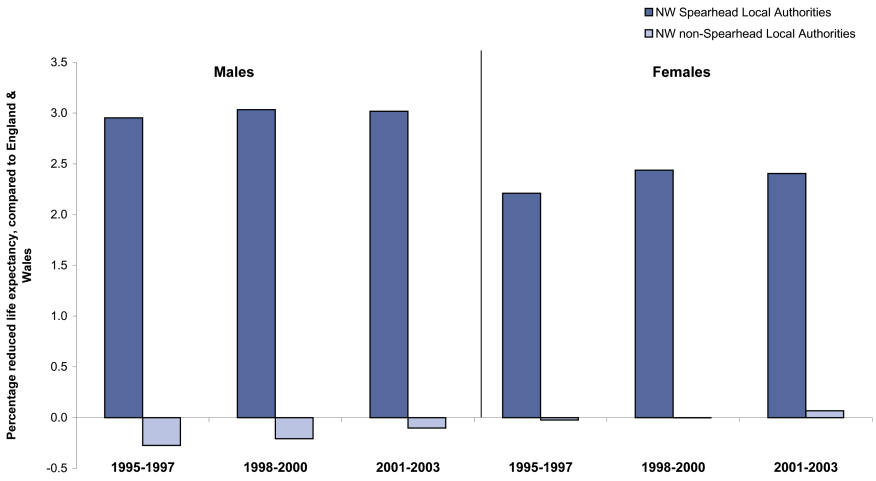
5. North West progress in tackling Health Inequalities

The recent national Scientific Reference group report compares progress on national health inequalities up to the period 2001-2003 [5]. Figure 5.1 demonstrates a counterpart exercise for the North West region; distinguishing those Local Authority areas in the region that are within the Spearhead group (see Section 3) from the rest. This confirms that the North West is following national trends, with the life expectancy gap widening between the Spearhead authorities and the national average for England and Wales. The absolute life expectancy gap for North West Spearhead authorities compared to England and Wales increased from 26 to 28 months for males and from 21 to 23 months for females between 1995-1997 and 2001-2003. However, this does not necessarily mean that there is a continuing increasing trend. By calculating counterpart figures for the interval three-year period 1998-2000, we can see that the major part of the observed widening of the life expectancy gap occurred in the later 1990s. Between 1998-2000 and 2001-2003, the relative gap remained virtually static for both males (at around 3% below the England and Wales average) and females (at around 2.4% below).

Also demonstrated in this analysis is the significant difference between Spearhead and non-Spearhead Local Authority populations in the North West (Figure 5.1). For both males and females, this difference has narrowed since 1995-1997. However, this narrowing was due to deterioration in the relative experience of the North West non-Spearhead populations (which have become closer to the England and Wales average over time) rather than an improvement in the relative experience of Spearhead populations.

Figure 5.1. Relative gap in life expectancy at birth for Males and Females: 1995/97 to 2001/03 comparing North West region with England and Wales



It is known that local area calculations of life expectancy at birth can be distorted by deaths of older persons in nursing homes and hospices. In addition, certified causes of death for persons over 75 are known to be subject to increased imprecision and error. A more robust description of local trends can be observed by using under 75 mortality rates (Figure 5.2). This shows that (for both males and females) under 75 mortality rates in Spearhead populations in the North West are currently over 25% higher than the national average. Female mortality shows a similar pattern to that for life expectancy with a sharp increase in the mortality gap in the late 1990s (from 24.0% to 26.6%); followed by a slight reduction in the gap to 25.8% in 2001-2003. For males, however, the gap in under 75 mortality increased in both the late 1990s and the early 2000s; from 25.2% to 26.1%, and then to 27.2% in 2001-2003. Changes in under 75 mortality in the non-Spearhead areas are not as evident as for life-expectancy, thus accentuating the gap between Spearhead and non-Spearhead areas.

Overall change (or non-change) in life expectancy or mortality gaps consist of component changes for a range of different causes. We have therefore adopted a technique of 'Reduced Life Expectancy by Cause of Death' (see Section 4 and Appendix 7) to break down the life expectancy gap into major diagnostic categories. The results (Figure 5.3 for males and Figure 5.4 for females) demonstrate the aggregate gap in life expectancy by cause of death between the North West Spearhead populations and the average for England and Wales over time. For males, we can see a reduction of nearly two months in the life expectancy gap related to coronary heart disease (comparing 1995-1997 with 2001-2003) and a counterpart increase of nearly the same scale relating to deaths from digestive causes (including cirrhosis of the liver). The gaps relating to lung cancer, bronchitis/COPD, other respiratory diseases and overdose and poisoning have also narrowed (Figure 5.3), whereas there are increased gaps associated with deaths due to violent assaults, other cancer and causes not specifically classified (other causes).

For females, the gaps are not as wide as for males but show similar patterns; there are consistent reductions in the life expectancy gaps related to coronary heart disease, lung cancer and poisonings, and consistent increases in the gaps associated with digestive diseases and violence (Figure 5.4). Other component causes of the life expectancy gap are slightly more variable for females.

It should be noted that there are wide differences between local populations as to which causes of death most significantly influence life expectancy. Thus the counterpart picture for some Local Authority populations with either very poor or very good relative life expectancy differ greatly from the aggregate patterns shown here. In particular, local variations in infant mortality can

North West progress in tackling Health Inequalities

Figure 5.2. Relative gap in excess mortality for Males and Females: 1995/97 to 2001/03 comparing North West region with England and Wales

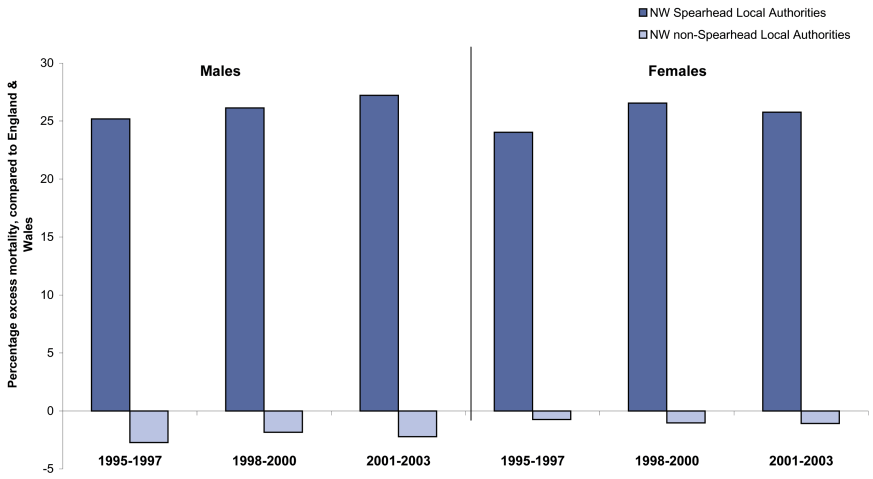


Figure 5.3. Contribution to life expectancy in Males under age 75 by cause of death: 1995/97 to 2001/03 comparing North West Region with England and Wales

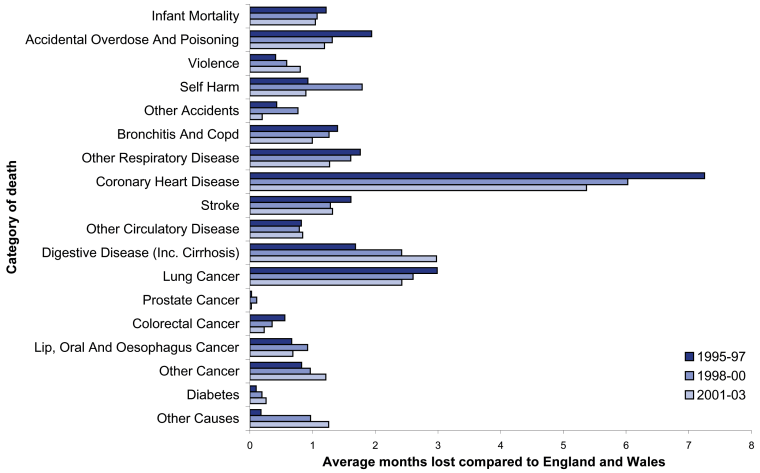
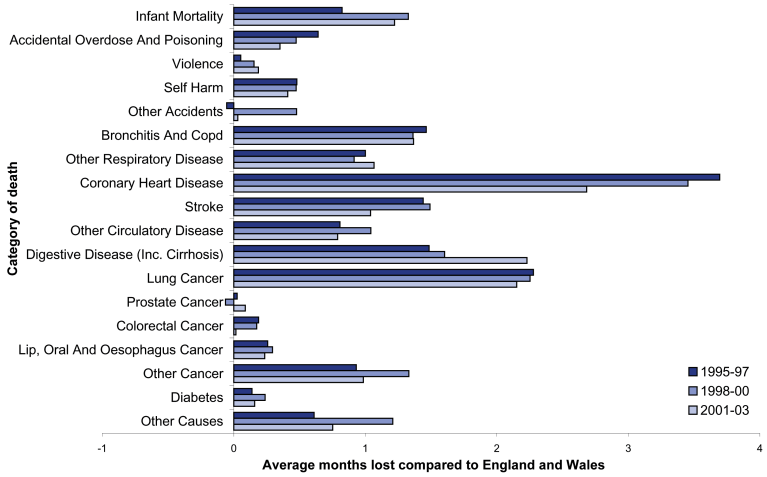


Figure 5.4. Contribution to life expectancy in Females under age 75 by cause of death: 1995/97 to 2001/03 comparing North West Region with England and Wales



North West progress in tackling Health Inequalities

have a substantial impact on the overall life expectancy gap, as each infant who dies represents a loss of over 70 life years. Individual charts for males and females in every Local Authority in the North West are available online at **www.nwph.net/life-expectancy**.

Nevertheless, generally across the North West, the causes of death where the life expectancy gap is increasing (for persons under 75) are broadly those substantially attributed to the effects of alcohol misuse; whereas the causes of death where the life expectancy gap is reducing are those substantially or partially attributed to the consequences of smoking [xi]. In terms of their effects on life expectancy in the North West population, these two countervailing trends are nearly in balance. This occurs despite the fact that the actual death rate attributed to smoking is more than twice that attributed to alcohol (see Section 19), because alcohol attributable deaths are much more common in younger populations (i.e. under 50). Consequently, each death from alcohol related causes results in a greater loss of potential life years than deaths due to smoking related causes.

We have further calculated trends in life expectancy across all of the North West population by deprivation and geodemographic lifestyle gradients (Figures 5.5 to 5.8). To do this we have

Figure 5.5. Relative gap in life expectancy in Males under age 75 by deprivation (IMD 2004) quintile: 1995/97 to 2001/03 comparing North West Region with England and Wales

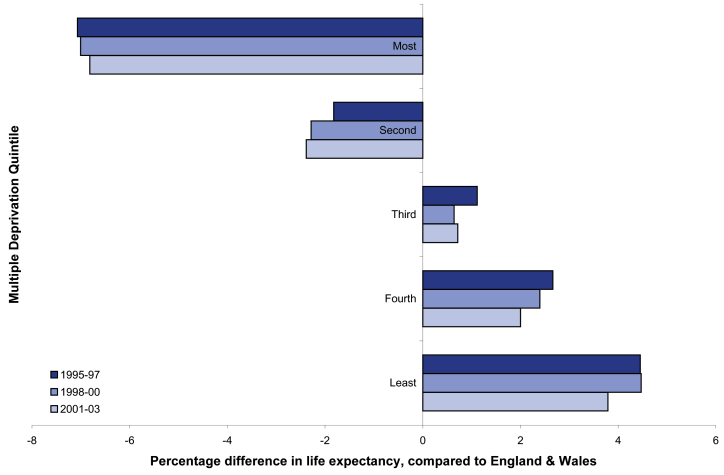
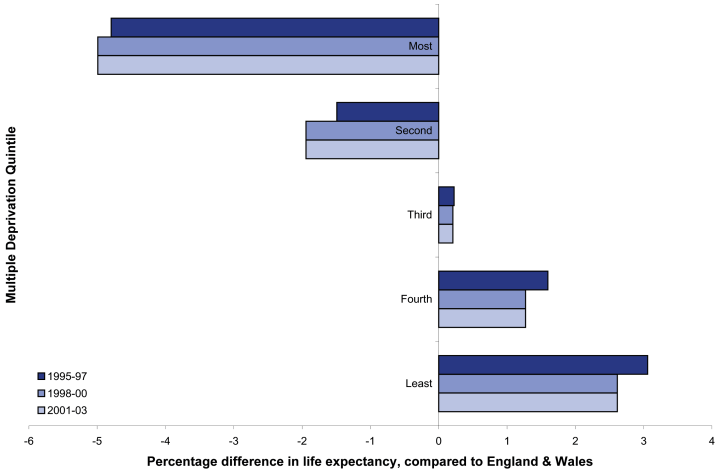


Figure 5.6 Relative gap in life expectancy in Females under age 75 by deprivation (IMD 2004) quintile: 1995/97 to 2001/03 comparing North West Region with England and Wales



[xi] Not all of the apparent narrowing in the absolute life expectancy gap relating to coronary heart disease can be credited to the observed reductions in smoking prevalence, as there is known to have been a dramatic long-term trend reduction in coronary heart disease risk for populations born in the United Kingdom around 1925 compared with those born around 1945, at all their subsequent years of life, irrespective of their smoking status or current environmental circumstances [38].

North West progress in tackling Health Inequalities

Figure 5.7. Relative gap in life expectancy in Males under age 75 by Geodemographic lifestyle group: 1995/97 to 2001/03 comparing North West Region with England and Wales

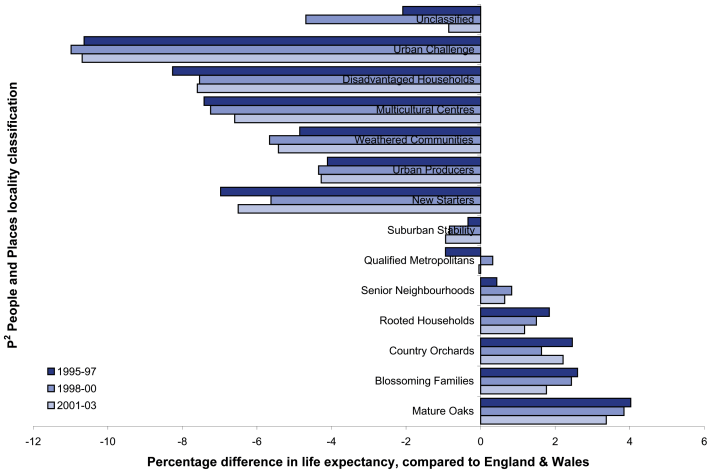
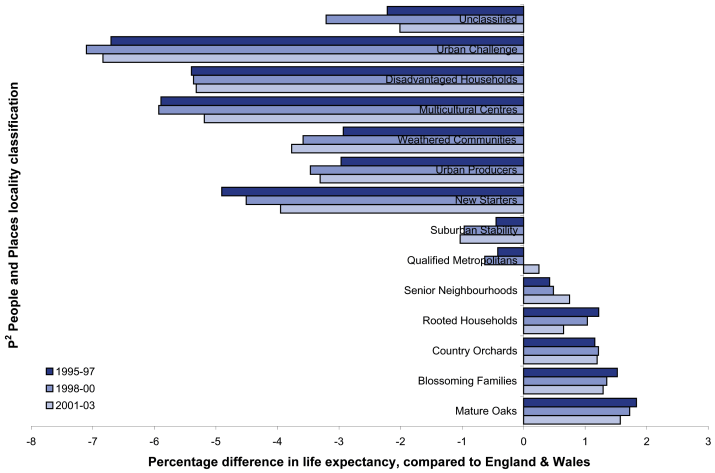


Figure 5.8. Relative gap in life expectancy in Females under age 75 by Geodemographic lifestyle group: 1995/97 to 2001/03 comparing North West Region with England and Wales



decomposed the Local Authority mid-year estimates for the years 1995 to 2003 down to LSOAs (on the basis of their 2001 census populations), and then re-aggregated these areas into national deprivation quintiles and geodemographic lifestyle groups. Using counts of deaths by LSOA (based on postcode of residence), it is possible to calculate the full life expectancy ranges for each aggregated classification. The striking picture from these analyses is the extreme difference in the gap in life expectancy (compared to the England and Wales average) between the most deprived sections of the population and the most affluent.

Men in the North West living in the fifth most deprived LSOAs of the country, could expect in 2001-2003 to live on average 6.8 % less long than the average for the country (Figure 5.5). Whereas, men living in the most affluent fifth of areas nationally could expect to live 3.8% longer than the average for the country. For men in the North West, the life expectancy gap worsened between 1995-1997 and 2001-2003 in four of five deprivation quintiles; the exception being the most deprived quintile; in these areas, the gap in life expectancy compared with the average for all men in England and Wales decreased very slightly. Hence too, the life expectancy difference between most and least deprived areas within the region has been consistently narrowing but due in the main to a deterioration in the life expectancy in more affluent areas.

Women in the North West living in the fifth most deprived LSOAs of the country, could expect to live on average 5% less long than the average for the country in 2001-2003 (Figure 5.6). Whereas, women living in the most affluent fifth of areas nationally could expect to live 2.6% longer than the average for the country. For women in the North West, the life expectancy gap worsened between 1995-1997 and 2001-2003, regardless of whether they lived in affluent or deprived areas. But as with males, the difference in life expectancy gap between most and least deprived areas within the region has been consistently narrowing.

The Geodemographic Lifestyle gradients used in this report have been ordered in relation to a poverty index (see Section 4), and thus a very similar pattern with deprivation quintiles can be observed for both males and females life expectancy gaps (Figures 5.7 and 5.8). The gap in male life expectancy is highest for populations in Urban Challenge areas, who live 10% less long

North West progress in tackling Health Inequalities

than the England and Wales average. These people tend to be elderly, single and unemployed and living in small council or housing association accommodation [xii]. Conversely, men in Mature Oaks areas live 4% longer than the England and Wales average. These people tend to be older married couples living in large, owner-occupied detached houses in rural areas. When looking at the full gradient of lifestyle categories between these two groups (Figure 5.7), it is clear that male populations in New Starters areas live less long than the position on the poverty rank would suggest (at over 6% less that the England and Wales average life expectancy compared with an expected of around 4%). These people tend to be students and qualified young adults, often cohabiting in flats, bedsits and purpose built flats [xii].

The gap in female life expectancy across geodemographic groups shows a similar pattern to males in the North West, with populations in Urban Challenge areas living 7% less long and those in Mature Oaks areas living 1.5-2% longer than the England and Wales average (Figure 5.8). However, females in Multicultural Centres areas (living 5% less than the England and Wales average) as well as in New Starters areas (living 4% less) seem to have a reduced life expectancy greater than would be expected from the poverty rank. The majority of the population of Multicultural Centres areas are ethnic minority families living in housing association or council owned terraces, bedsits and purpose built flats without gardens, mostly employed as semi skilled manual and unskilled workers or unemployed [xii].

With regard to progress between 1995-1997 and 2001-2003, there is a variable pattern across Geodemographic Lifestyle groups for both sexes, with no obvious trend in closing the gap. The exceptions are that the more affluent male populations living in Rooted Households, Blossoming Families and Mature Oaks areas tend to show a deterioration in relative experience compared with the England and Wales average (Figure 5.7), a trend previously observed for the non-Spearhead Local Authorities (Figure 5.1). Similarly, female relative life expectancy in Blossoming Families and Mature Oaks areas deteriorated between 1995-1997 and 2001-2003 (Figure 5.8). This occurred despite the fact that males and females in these areas live around 1 to 1.5% longer than the England and Wales average.

Most of the lifestyle groups with the highest poverty rank, for both males and females, tend to show little change in relative life expectancy compared with the England and Wales average. The exceptions are populations in Multicultural Centres and New Starters areas (particularly for females) who show a slightly improving relative gap in life expectancy compared with the England and Wales average (Figures 5.7 and 5.8). Populations in Weathered Communities, with higher numbers of older people living in single person households, and in Urban Producer areas, with many young single unqualified parents living in terraced council houses, show deterioration in their relative life expectancy.

By using various methods of categorising areas within the North West, we have illustrated different details relating to life expectancy trends for the regions population. Thus:

- Residents of the Spearhead Group of Local Authorities in the North West are increasingly living fewer years than the average for England and Wales.
- Although residents of the most affluent (non-Spearhead) Local Authorities continue to exceed the average life expectancy for England and Wales, the gap is decreasing.
- Analysis of thousands of small areas (4,480 Lower Super Output Areas: LSOAs) across the North West shows that the life expectancy of the most deprived fifth remains far below the England and Wales average, with little change, but that life expectancy (relative to the national average) has deteriorated in all other areas.
- The small areas (LSOAs) have been further classified into 13 lifestyle groups (geodemographies) showing that some groups have improving life expectancy relative to the national average; multicultural centres, with high ethnic diversity, and new starters, with many students and qualified young adults. Other lifestyle groups show either no change or a worsening life expectancy relative to the England and Wales average.

[xii] See Appendix 2 for a more detailed description of each P2 People and Places category.