

3.4 End of life

3.4.1 Male Life Expectancy



Note: Life expectancy at birth for an area is the average length of time someone born today could survive based on current death rates in that area.

Figure 3.4-1 shows an increasing trend in life expectancy at birth for men in Newcastle. The most recent data (for 2012-2014) shows that **male life expectancy in Newcastle is 77.9 years**. This is less than the England average (79.5 years). The gap between Newcastle and England male life expectancy has narrowed between 1991-1993 (when it was 2.2 years less) and 2012-14 (1.6 years less). Among the core cities, life expectancy for men in Newcastle is the fourth highest (after Sheffield, Leeds, and Bristol).

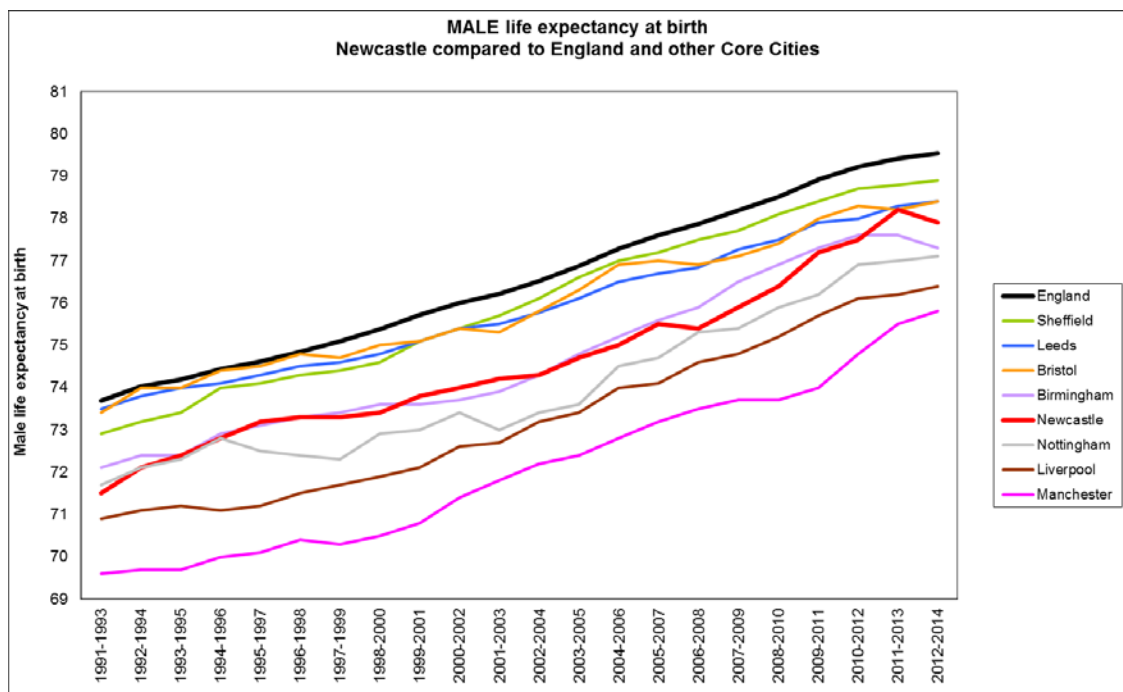


Figure 3.4-1: Male Life Expectancy at Birth. Source: Life expectancy at birth and at age 65, England and Wales, 1991-93 to 2012-14, Office for National Statistics (ONS), © Crown Copyright 2013.

Within Newcastle, there are substantial differences in longevity for men as shown in Figure 3.4-2. This chart shows life expectancy data from Newcastle, from 2013, at the ward level. Wards are listed from the most deprived (left) to the least deprived (right). Measure of deprivation in each ward (based on the 'Index of Multiple Deprivation', which is based on various indicators of deprivation) is based on 2015 data.

Figure 3.4-2 shows that there is a general trend between deprivation and life expectancy, with more deprived wards having lower life expectancies than less deprived wards. Between Elswick (the 2nd most deprived ward) and Parklands (the 3rd least deprived ward), the difference in life expectancy for men is 12.5 years.

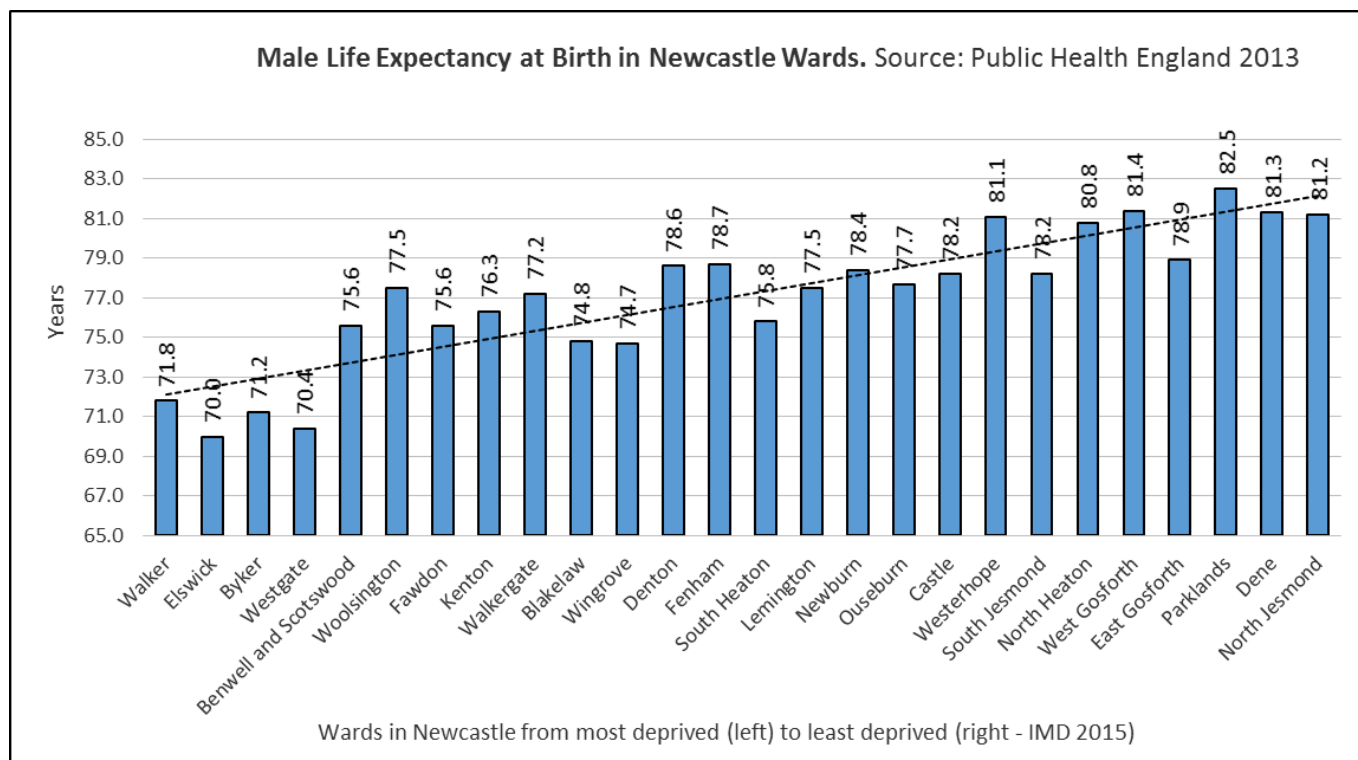


Figure 3.4-2: Male life expectancy at birth in Newcastle, by ward. Source: Public Health England 2013.

Taking data from even smaller geographical areas, known as Lower Level Super Output Areas, it is possible to compare the difference in life expectancy between those living in the most deprived areas of the city (decile 1) and the least deprived areas (decile 10). Figure 3.4-3 shows the difference in Life Expectancy for Men between the most (decile 1) and the least deprived (decile 10) areas in Newcastle between 2002- 2012. In 2010-2012 this was 72.7 years in the most deprived areas to 83.6 in the least deprived. Overall life expectancy increased in both Decile 1 and Decile 10 between 2002-04 and 2010-12. Male life expectancy has increased more in the most deprived decile compared to the least deprived (4.2 years compared to 3.8 years) which indicates that the gap is narrowing.

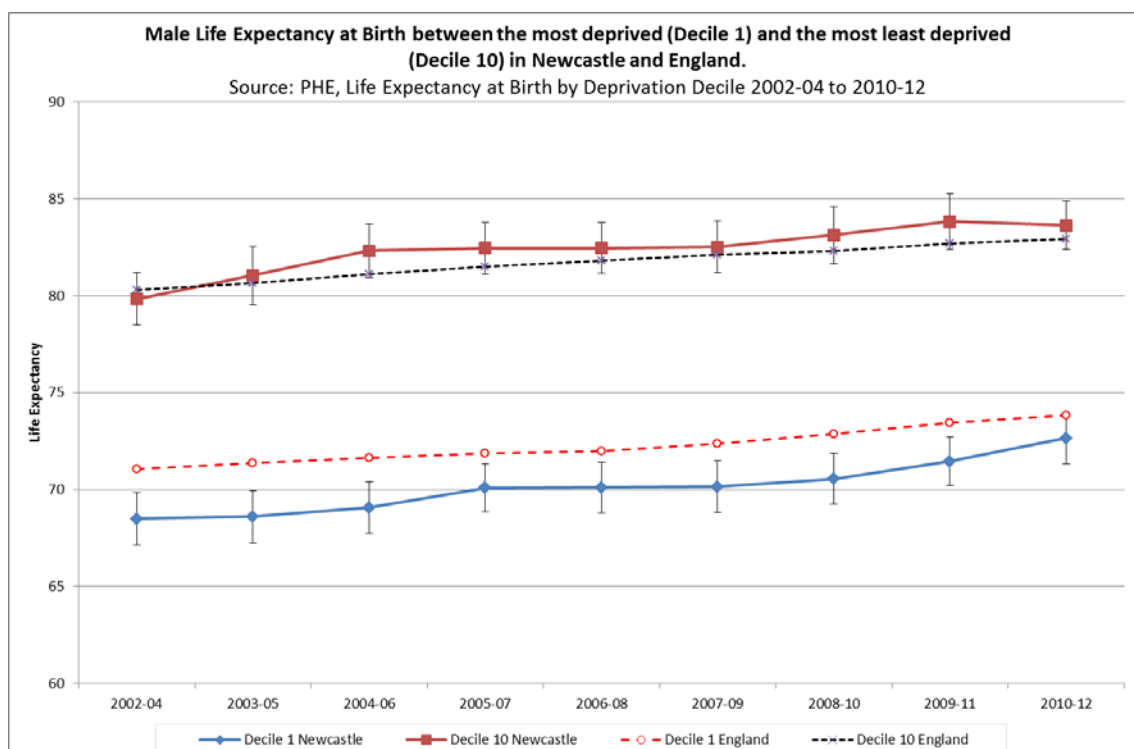


Figure 3.4-3: Male life expectancy at birth between the most (decile 1) and least deprived (decile 10) decile, 2002-04 to 2010-12. Source: Public Health England.



Note: Another way of representing the ‘gap’ is through the Slope Index of inequality. It is a single score, which represents the gap (years) in life expectancy between the best-off and worst-off within the city, based on a statistical analysis of the relationship between life expectancy and deprivation across the whole city.

Figure 3.4-4 shows the overall slope index of inequality for Men in Newcastle compared to England between 2002- 2012. In Newcastle, the Slope Index of Inequality and can be interpreted as **a difference in male life expectancy of 11.9 years between individuals living in the most and least deprived areas of Newcastle** in 2010-12, compared to 9.2 years across England. This difference has fluctuated, but has shown a downward trend from 2007-09 to 2010-12.

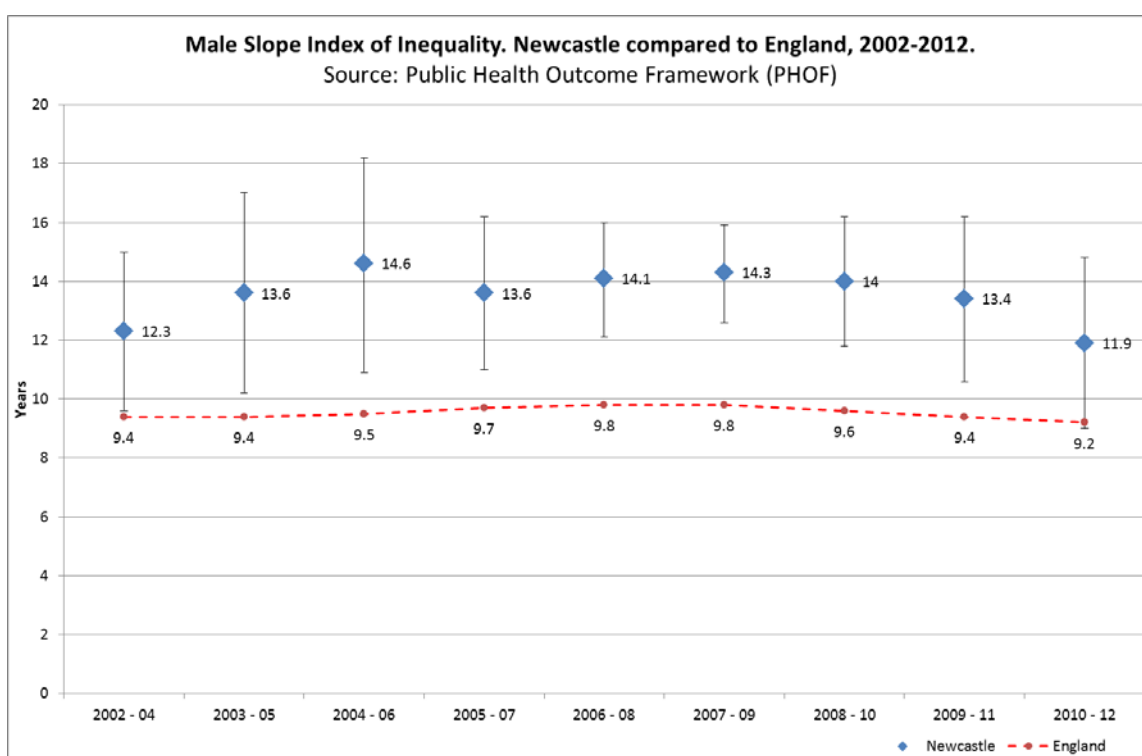


Figure 3.4-4: Male slope index of inequality, Newcastle upon Tyne, 2002-12. Source: Public Health England.

3.4.2 Female Life Expectancy

Figure 3.4-5 shows that **life expectancy for women** in Newcastle has increased over time. Based on data for 2012-2014, it is now **81.9 years**. Though this is lower than the England average of 83.2 years, the gap between Newcastle and England female life expectancy has narrowed between 1991-93 (when it was 1.6 years less) and 2012-14 (1.3 years less). Among the core cities, life expectancy for females is 5th highest (after Bristol, Sheffield, Leeds, and Birmingham).

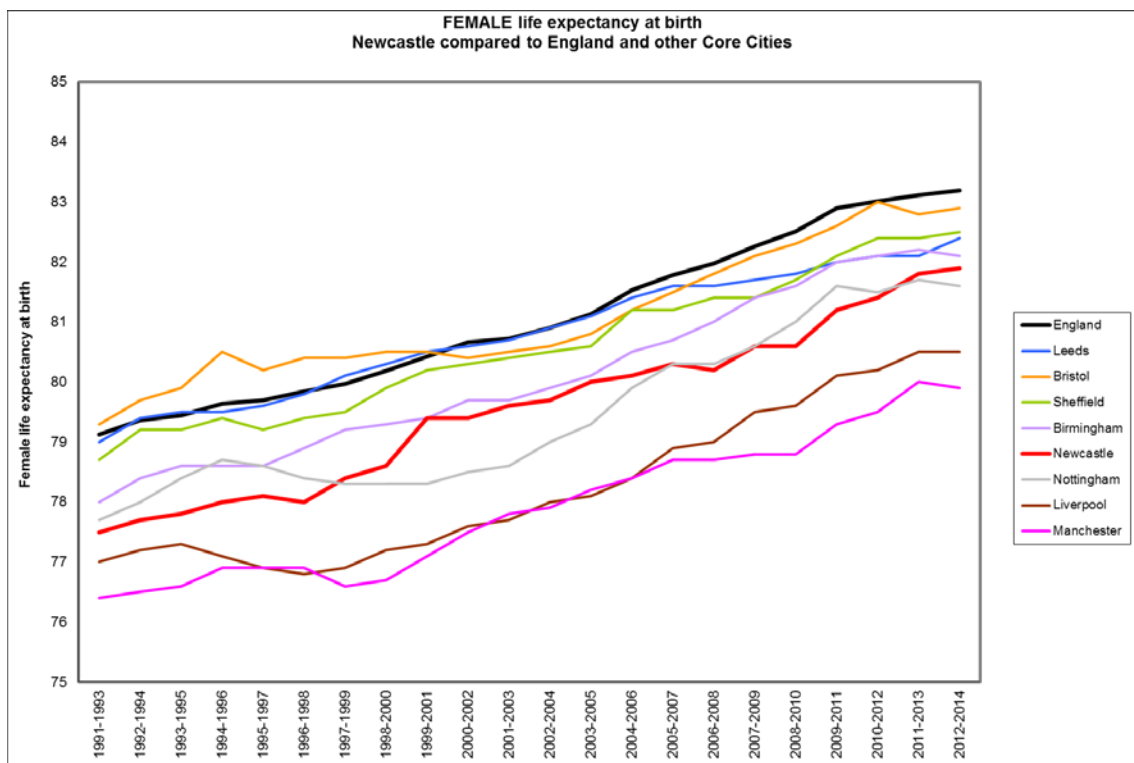


Figure 3.4-5: Female Life Expectancy at birth. Source: Life expectancy at birth and at age 65, England and Wales, 1991-93 to 2012-14, Office for National Statistics (ONS), © Crown Copyright 2013.

As with men, there are substantial differences in longevity for women as shown in Figure 3.4-6. Figure 3.4-6 shows that, as with male life expectancy, there is a general trend between deprivation and female life expectancy in Newcastle, with more deprived wards having lower life expectancies than less deprived wards. Between Elswick (the 2nd most deprived ward) and Parklands (the 3rd least deprived ward), the difference in life expectancy for females is 13.0 years.

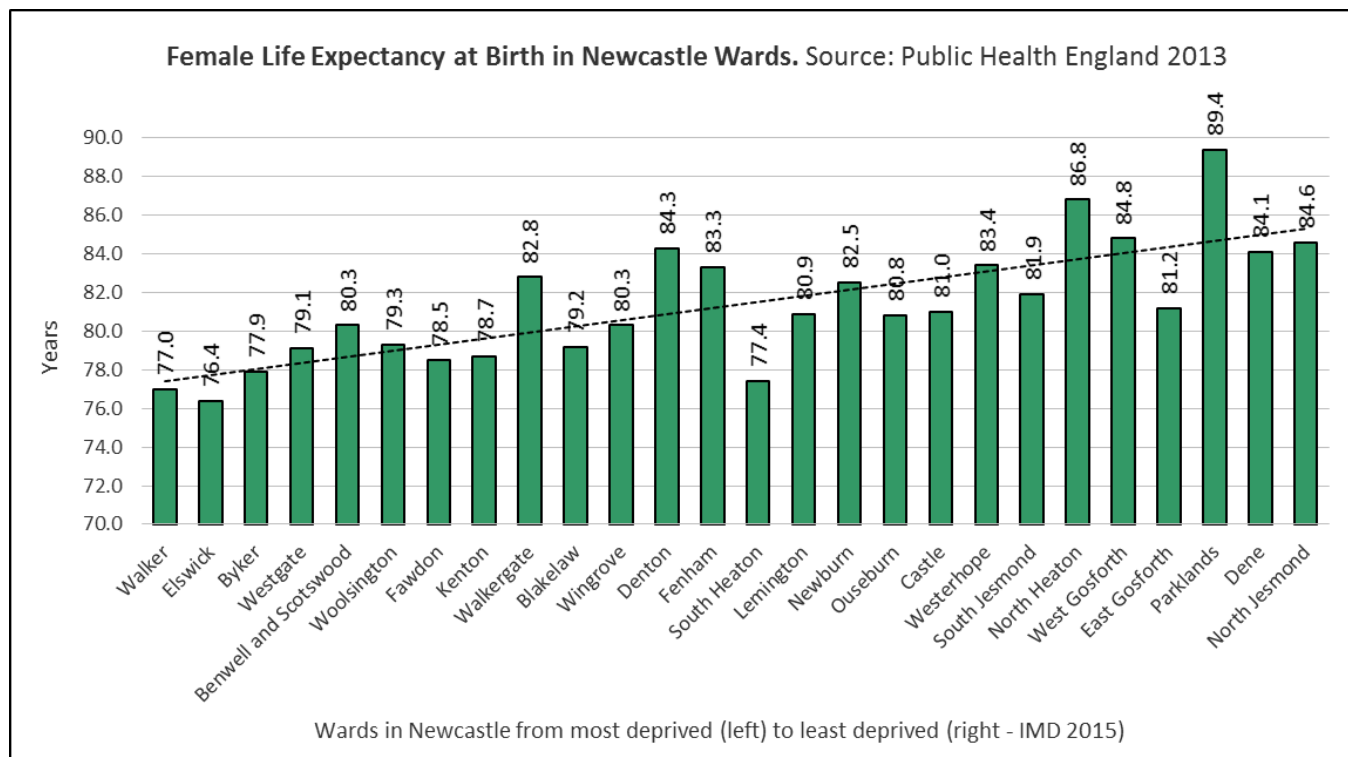


Figure 3.4-6: Female life expectancy at birth in Newcastle by ward. Source: Public Health England 2013.

Figure 3.4-7 shows the difference in Life Expectancy for Females between the most deprived areas (decile 1) and the least deprived areas (decile 10) in Newcastle between 2002 and 2012. In 2010-2012 this ranged from 78.6 years in the most deprived areas to 86.0 years in the least deprived. Life expectancy has increased by 2.4 years between 2002-04 and 2010-12 in the least deprived areas and 1.9 years in the most deprived areas over the same period.

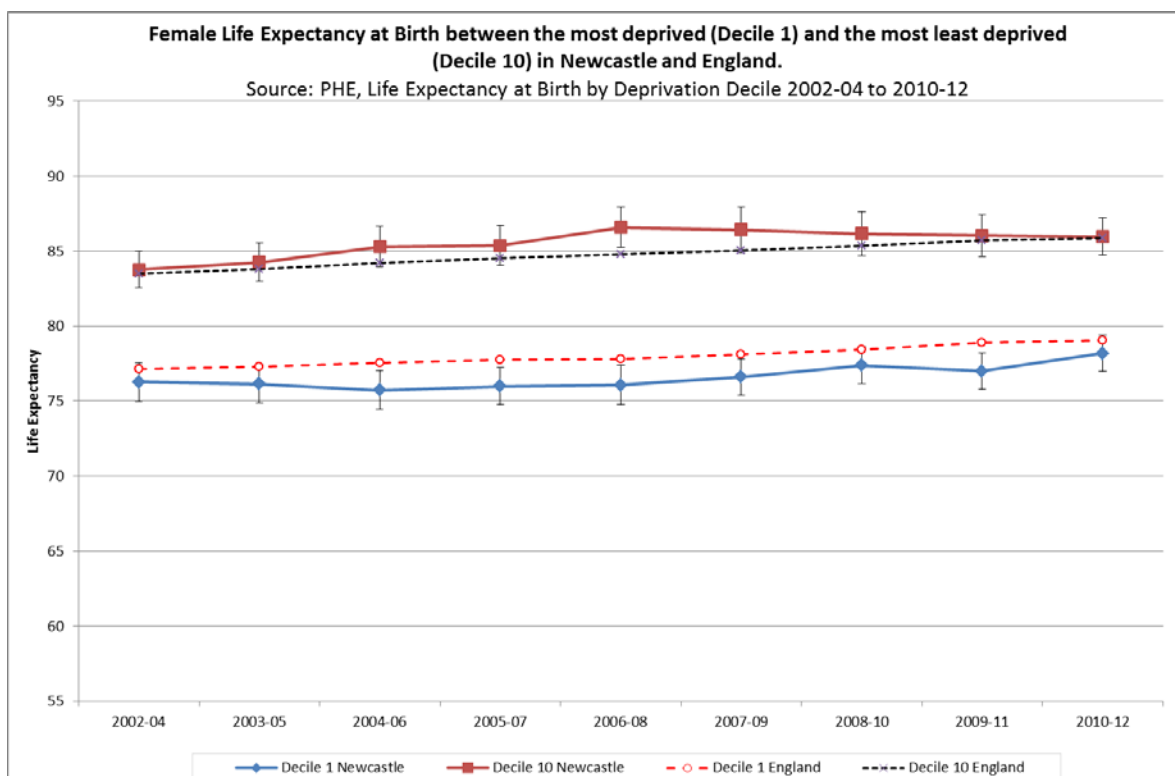


Figure 3.4-7: Female life expectancy at birth between the most (decile 1) and least deprived (decile 10) decile, 2002-04 to 2010-12. Source: Public Health England.

Figure 3.4-8 shows the overall slope index of inequality for Females in Newcastle compared to England between 2002 and 2012. In Newcastle, the Slope Index of Inequality can be interpreted as a **difference in female life expectancy of 9.1 years between individuals living in the most and least deprived areas of Newcastle** in 2010-12, compared to 6.8 years across England. This difference has fluctuated, but has shown a downward trend from 2007-09 to 2010-12.

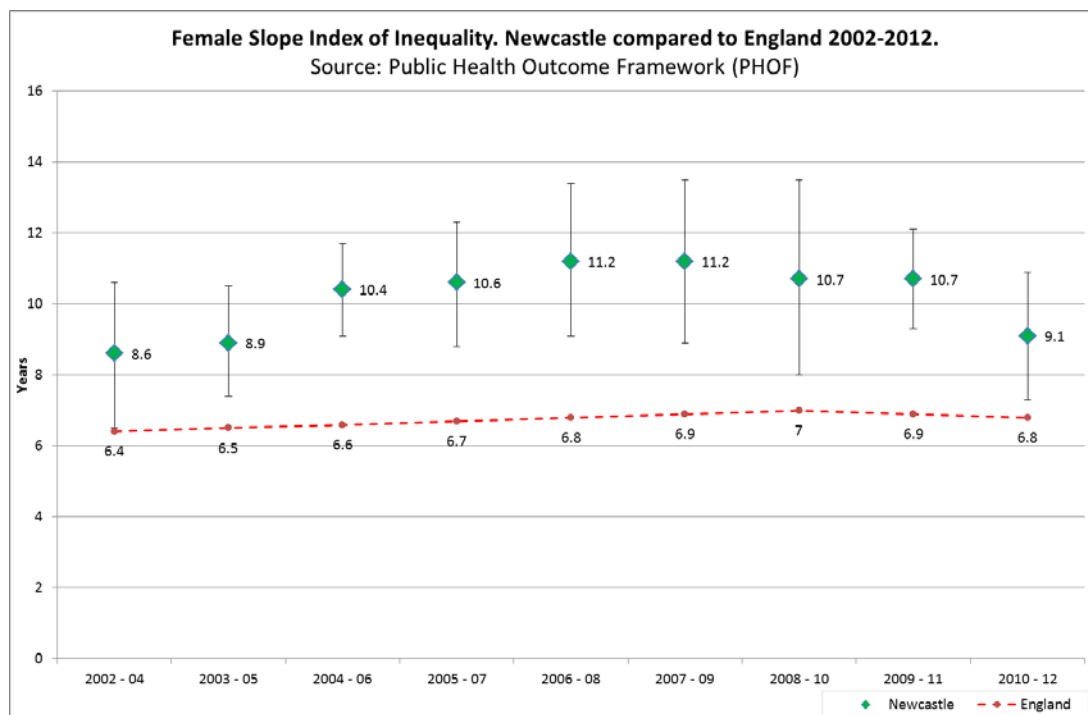


Figure 3.4-8: Female slope index of inequality, Newcastle, 2002-2012. Source: Public Health England.

3.4.3 Comparing male and female life expectancy

Figure 3.4-9 shows the gap in life expectancy at birth between the most and least deprived areas for males and females. It shows the gap in life expectancy between the most and least deprived areas is greater for males than females.

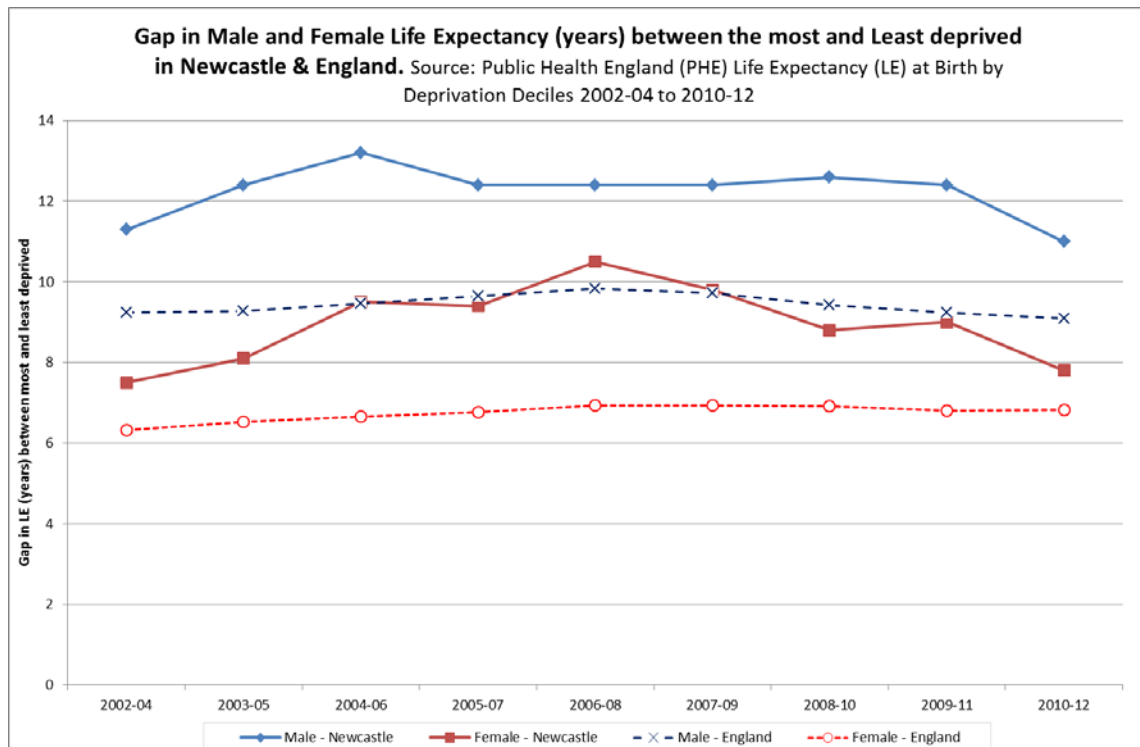


Figure 3.4-9: Gap in male and female life expectancy (years) between the most and least deprived deciles, Newcastle upon Tyne, 2002-04 – 2010-12. Source: Public Health England.

3.4.4 Places of death

Providing care at the end of life often involves the interaction of many different care agencies. By looking at indicators such as underlying cause of death, age of death and place of death, commissioners and providers of end of life care get a clearer picture of the end of life care needs of their local populations. They will help with the planning and delivery of services and will support drives locally towards improving end of life care.

Table 3.4-1 shows the place of death for various age groups in Newcastle in 2013. England averages are shown in brackets. It shows that, in Newcastle, most deaths – regardless of age group – took place in hospital. This was followed by the home (for people age 0-84) and care home (for people age 85+). A small proportion of deaths among people age over 85 took place in the home (14.4%).

Table 3.4-1: Places of death in Newcastle, 2013. Source: Public Health Outcomes Framework.

Place of death	Age 0-64	Age 65-74	Age 75-84	Age 85+
Hospital	43.6% (46.4%)	48.3% (49.9%)	52.1% (52.0%)	47.4% (45.6%)
At home	38.5% (33.5%)	33.5% (30.2%)	24.5% (22.6%)	14.4% (14.8%)
Care home	2.0% (2.9%)	6.1% (8.1%)	15.4% (18.6%)	34.9% (36.7%)
Hospice	8.3% (10.3%)	11.2% (9.9%)	6.2% (5.5%)	1.4% (1.9%)
Other	7.6% (7.0%)	0.9% (1.9%)	1.8% (1.3%)	1.9% (1.0%)

Table 3.4-2 shows the place of death in Newcastle in 2011-2013, by underlying cause of death. It shows that, in 2011-2013, most hospice deaths (92.0%) were from cancer. Almost half of all deaths (49.4%) in care homes were from 'other' underlying causes, with just over half caused by cancers, circulatory disease, and respiratory disease. Most deaths that took place at home were from cancer (43.0%), followed by circulatory disease (29.3%) and other underlying causes (18.5%). In hospitals, most deaths were from circulatory disease (29.3%) or other causes (29.6%).

Table 3.4-2: Places and underlying cause of death in Newcastle, 2011-2013. Source: End of Life Profiles, Public Health England.

Place of death	Cancer	Circulatory disease	Respiratory disease	Other
Hospital	21.9%	29.3%	19.2%	29.6%
At home	43.0%	29.3%	9.2%	18.5%
Care home	15.3%	21.4%	13.9%	49.4%
Hospice	92.0%	2.4%	1.6%	4.0%