
Life Expectancy in Wirral: 2013-15 update

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Life Expectancy in Wirral 2013-15

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Report Overview

Abstract	
Intended or potential audience	External <ul style="list-style-type: none">• Director of Public Health and wider Public Health Team Internal <ul style="list-style-type: none">• JSNA Bulletin• DMT (plus other departmental DMTs)
Links with other topic areas	<ul style="list-style-type: none">• Deprivation• Population• Mortality

Key Messages

- Life expectancy at birth has consistently been higher for females compared to males in both Wirral and England since systematic recording of this indicator began
- Over the last 20 years, life expectancy at birth has improved much faster for males in Wirral than it has for females (increase of 4.8 years since 1995-97 compared to an increase of 2.9 years for females over the same period). This means that the gender gap between males and females has reduced by a third (32%) in Wirral in 20 years
- The gap in life expectancy at birth between England and Wirral however, has not narrowed – and in the case of females has actually increased
- In 1995-97, the gap in life expectancy at birth between Wirral and England for males was 1.5 years. In 2013-15, the gap was exactly the same and still stood at 1.5 years
- The gap in life expectancy at birth between Wirral and England for females has actually increased since 1995-97, when it was 0.7 years – to 1.2 years in 2013-15. This is an increase of 71%
- In 2013-15, there was a decrease in life expectancy in Wirral compared to the previous time period for both males and females (the decrease was 0.1 years for men and 0.2 years for females). This is the first time this has happened in over 20 years
- This is in contrast to the national situation, where life expectancy at birth increased slightly for males in 2013-15 (by 0.1 years) and stayed the same for females
- Wirral had lower life expectancy at older ages (65, 75 and 85) for both males and females, compared to England overall in 2013-15
- Inequalities in life expectancy in Wirral are apparent at birth and at older ages (65, 75 and 85), with life expectancy lower in Wirral's 20% most deprived areas, compared to both the more affluent areas of Wirral and the 20% most deprived areas of England
- In males, the largest contributor to the gap in life expectancy between Wirral and England was cancer
- In females, the largest contributor to the gap in life expectancy between Wirral and England was respiratory disease (e.g. flu and pneumonia)
- Smoking is the biggest single contributor to both of these diseases
- The wards with the highest life expectancy in Wirral were Heswall for men (82.1) and Greasby, Frankby and Irby for females (87.5)
- The ward with the lowest life expectancy was Bidston & St. James - for both males (71.6 years) and females (77.1 years)
- Healthy life expectancy (HLE) and Disability Free Life Expectancy (DFLE) increased in Wirral for both males and females in 2013-15, contrary to decreases seen nationally
- Despite this, HLE and DFLE are still lower in Wirral than England, because the starting point was much lower
- In Wirral, males spend approximately 78% of their life in 'good' health, whereas women in Wirral will only spend around 75% of their life in 'good' health
- Recent increases in life expectancy have not been matched by corresponding rises in DFLE and HLE. This means that the additional years of life gained likely to be spent in poorer health, requiring additional health and social care

Introduction

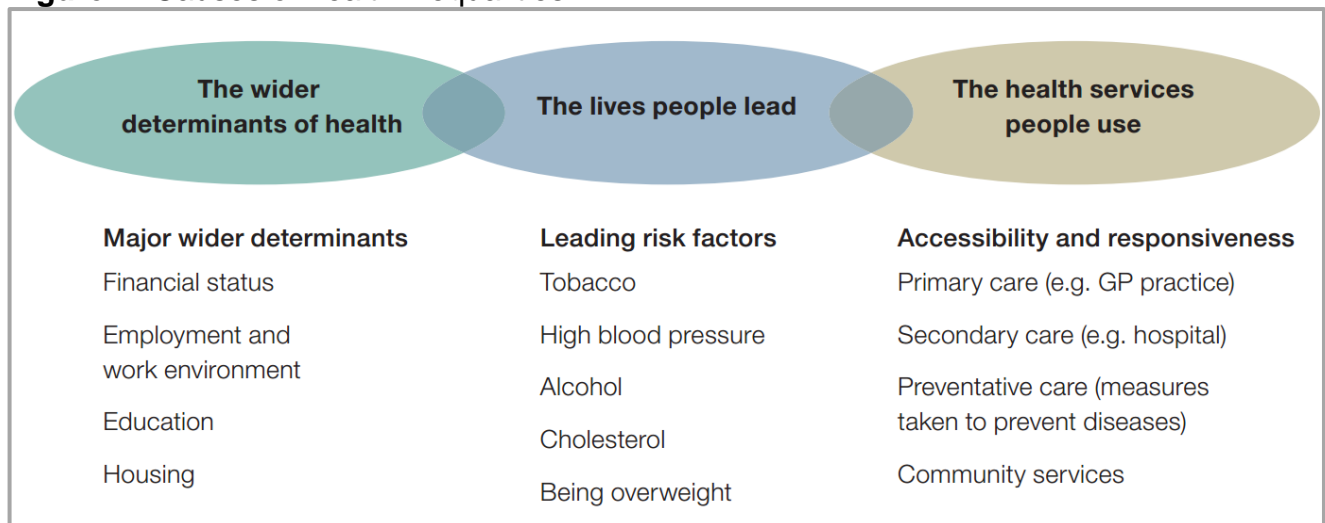
This update summarises the most recently available data (2013-15) for life expectancy (LE) in Wirral and compares local performance on this measure to England overall.

Life expectancy at birth in England showed dramatic increases throughout the twentieth century as health and living conditions improved. It increased from 46 for males and 50 for females in 1900, to 76 for males and 80 for females in 2000 and has continued to increase since.

However, increases in LE have not been uniform across all social groups. Marked increases have taken place amongst more affluent social groups, while progress has been significantly slower for people in more deprived social groups. The inequality gap in LE between these groups has increased in recent years.

Consequently, reducing inequalities in LE was a public health target throughout the 1990s and 2000s and is now one of the overarching indicators in the current [Public Health Outcomes Framework \(PHOF\)](#). The causes of these health inequalities are complex and involve interactions between social, educational, economic and structural factors (Figure 1).

Figure 1: Causes of health inequalities



Source: National Audit Office

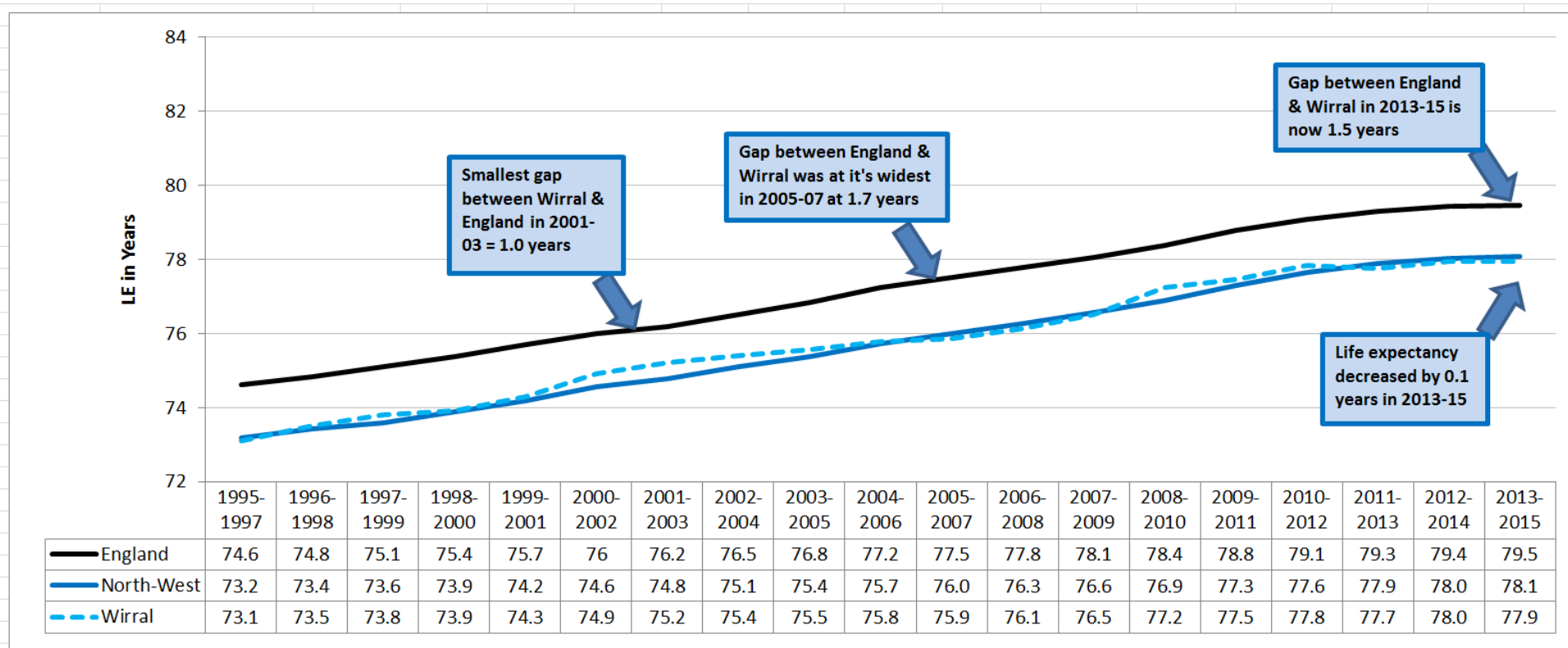
Life expectancy at birth

Life expectancy is, “an estimate of the average number of years a person...would survive if he or she experienced the particular area’s age-specific mortality rates for that time period throughout the rest of his or her life”.

It is not the number of years a baby could *actually* expect to live, because it makes no allowance for probable future changes in death rates (i.e people living longer) and people moving away from the area in which they were born.

Figures 2 and 3 (over page) show the 20 year trend in LE at birth for males and females in England and Wirral between 1995 and 2015.

Figure 2: 20 year trend in life expectancy at birth for males in England, North-West and Wirral between 1995 and 2015

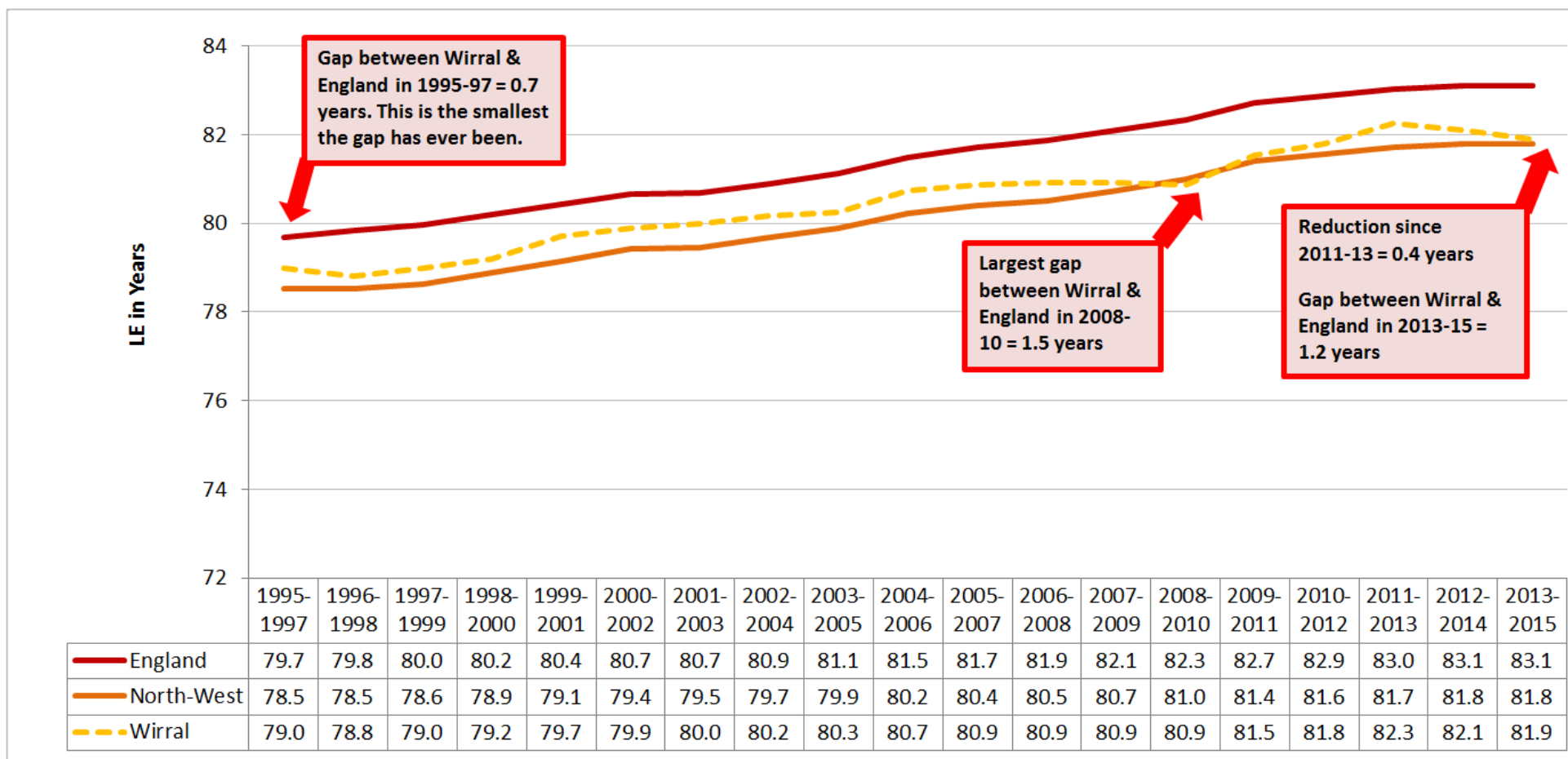


Source: Office for National Statistics, 2016

Over the last 20 years LE at birth has increased by 4.8 years for males in Wirral, compared to 4.9 years for males in England. So although LE has been increasing locally, it has also been increasing in England, so the gap between England and Wirral continues to be more than 1 year (currently 1.5 years, exactly the same as it was 20 years ago in 1995-97).

The latest time period (2013-15) has also seen a slightly decrease in LE at birth amongst males in Wirral (of 0.1 years) on the previous time period (2012-14). This also happened between 2010-12 and 2011-13 when LE at birth also decreased slightly (again, by 0.1 years). By contrast, LE at birth in England continued to make steady progress and increased by 0.1 years in 2013-15. The North-West also continued to show a small increase on the previous year (increase of 0.1 years) in 2013-15.

Figure 3: 20 year trend in life expectancy at birth for females in England, North-West and Wirral between 1995 and 2015



Source: Office for National Statistics, 2016

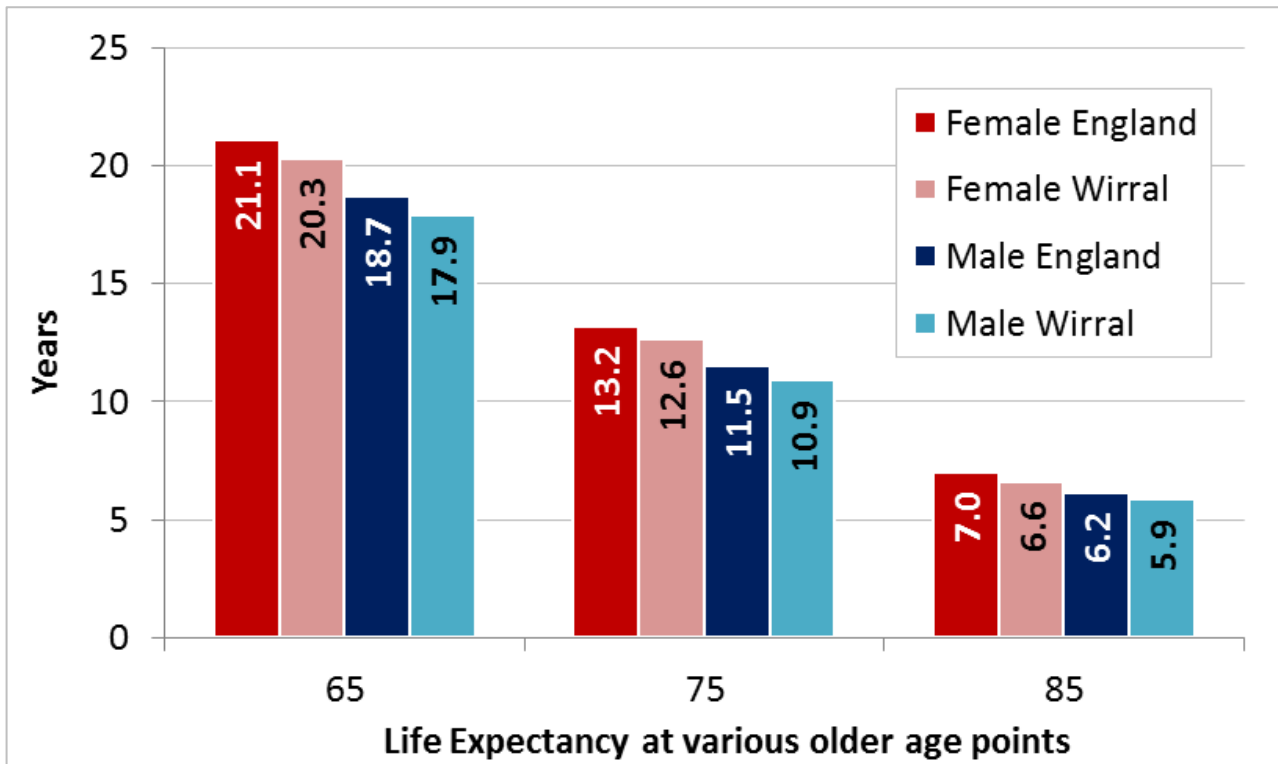
As Figure 3 shows, LE at birth over the last 20 years has increased by 2.9 years for females in Wirral, compared to 3.4 years for females in England. So although LE at birth has been increasing locally for females, it has not increased at the same pace as England, so the gap continues to be more than 1 year (currently 1.2 years, compared to a gap of 0.7 years in 1995-97) and has widened in the most recent time period. There was a reduction in LE at birth amongst females in Wirral in 2013-15 of 0.2 years. There was also a reduction in 2012-14 compared to 2011-13. This means that since 2011-13, there has been a reduction in LE at birth in Wirral females of 0.4 years. Nationally, LE in England and the North-West has remained static for the last 2 years, but has not reduced.

Life expectancy at older ages

In the past, analysis tended to focus on premature mortality (deaths under 75 years) or life expectancy at birth. As the average age at death increases, patterns of mortality in older age groups become increasingly important, both in their own right and because of the contribution they make to overall mortality.

Consequently, the chart below shows compares LE in both Wirral and England at ages 65, 75 and 85 in 2013-15.

Figure 5: Life expectancy in England & Wirral in 2013-15 at older ages (65, 75 and 85)



The chart shows that LE in Wirral was lower than England for both genders and in all three age categories in 2013-15.

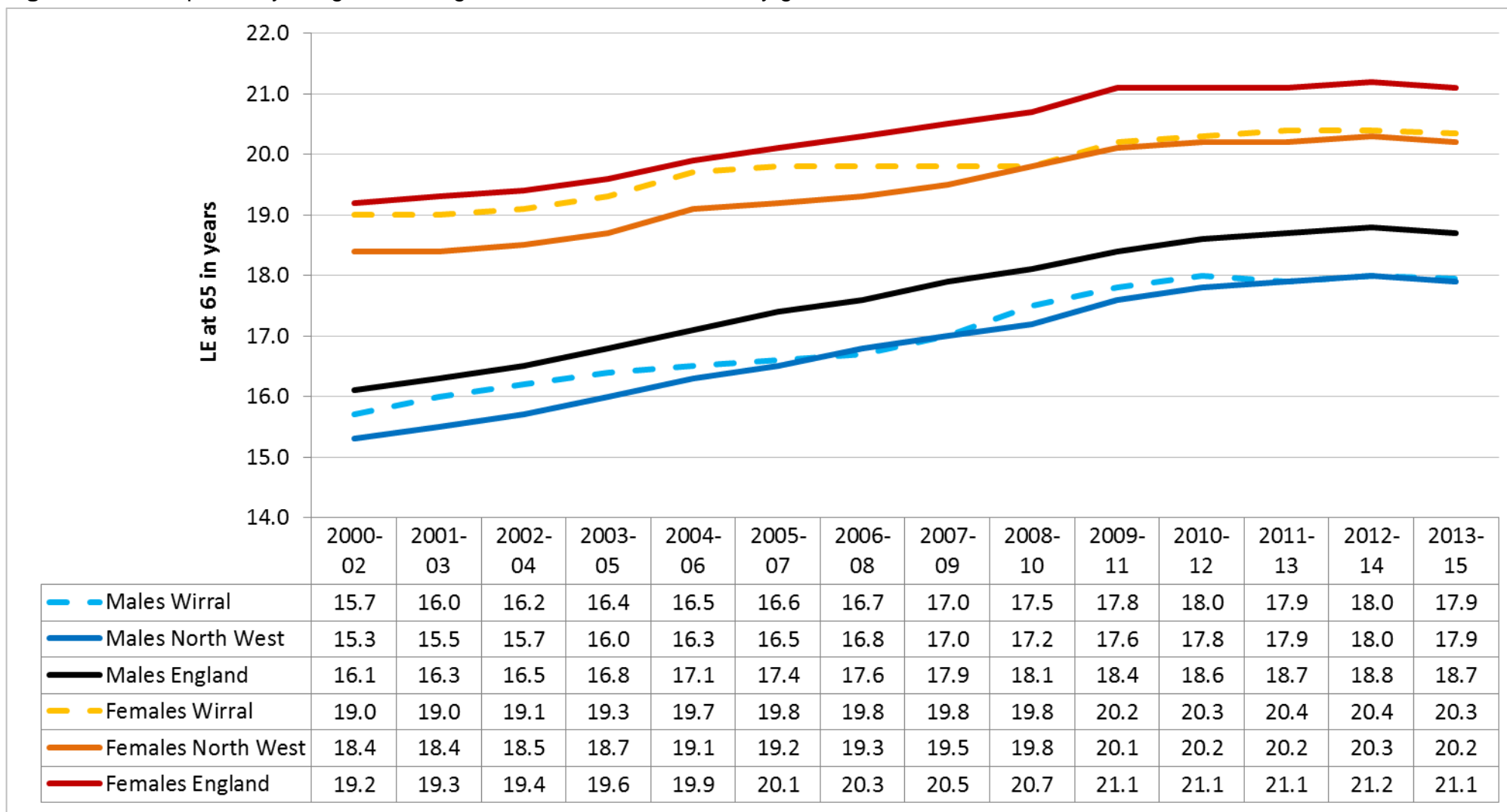
For those wishing to further explore this topic, Public Health England has produced two reports which explore the topic of life expectancy at older ages in more detail:

- [Recent Trends in Life Expectancy at Older Ages: An Update to 2014](#): (2016), concentrating on life expectancy at 65, 75, 85 and 95
- [Recent Trends in Life Expectancy at Older Ages](#) (2015), which concentrated on life expectancy at age 65

Life expectancy at age 65

Figure 4 shows life expectancy at age 65 in Wirral, the North-West and England for both males and females from 2000 to 2015. The chart shows that after many years of increasing gains in LE at age 65, 2009-11 marked a plateauing in England, the North-West and Wirral.

Figure 4: Life Expectancy at age 65 in England, North-West & Wirral by gender, 2000 to 2015



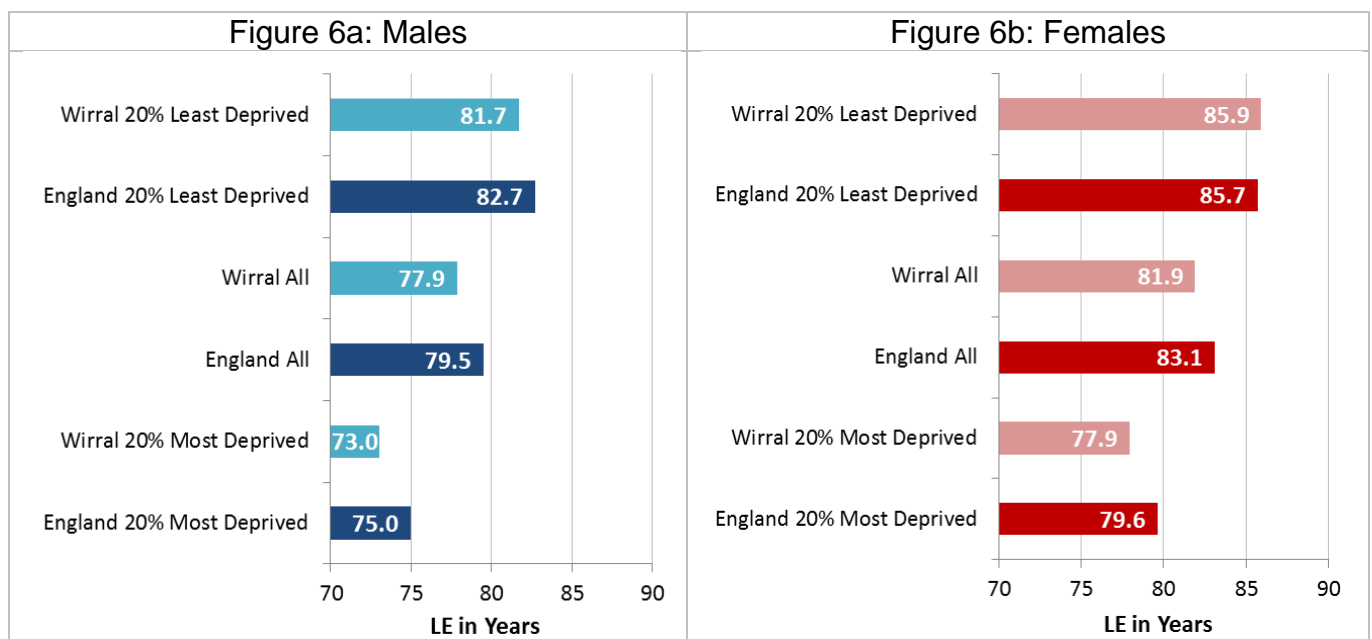
In fact, the most recent time period of 2013-15 actually showed a slight decrease in LE at 65 amongst both males and females in Wirral, the North-West and England overall. In every area, and in both genders, the decrease was 0.1 years between 2012-14 and 2013-15.

Inequalities in life expectancy in Wirral

There are well evidenced, long standing inequalities in LE – and these are shown for the most recent time periods (2013-15) in Wirral and England in the series of charts below. The charts show the inequalities in LE by the most and least deprived quintiles (20%) of the population and the population overall (of both Wirral and England). Quintiles were calculated according to the Index of Multiple Deprivation 2015 and data has been analysed and presented to show both genders:

- At birth (Figures 6a & 6b)
- At age 65 (Figures 7a and 7b)
- At age 75 (Figures 8a and 8b)
- At age 85 (Figures 9a and 9b)

Figure 6a & 6b: Life expectancy at birth in Wirral & England, by gender and deprivation (2013-15)

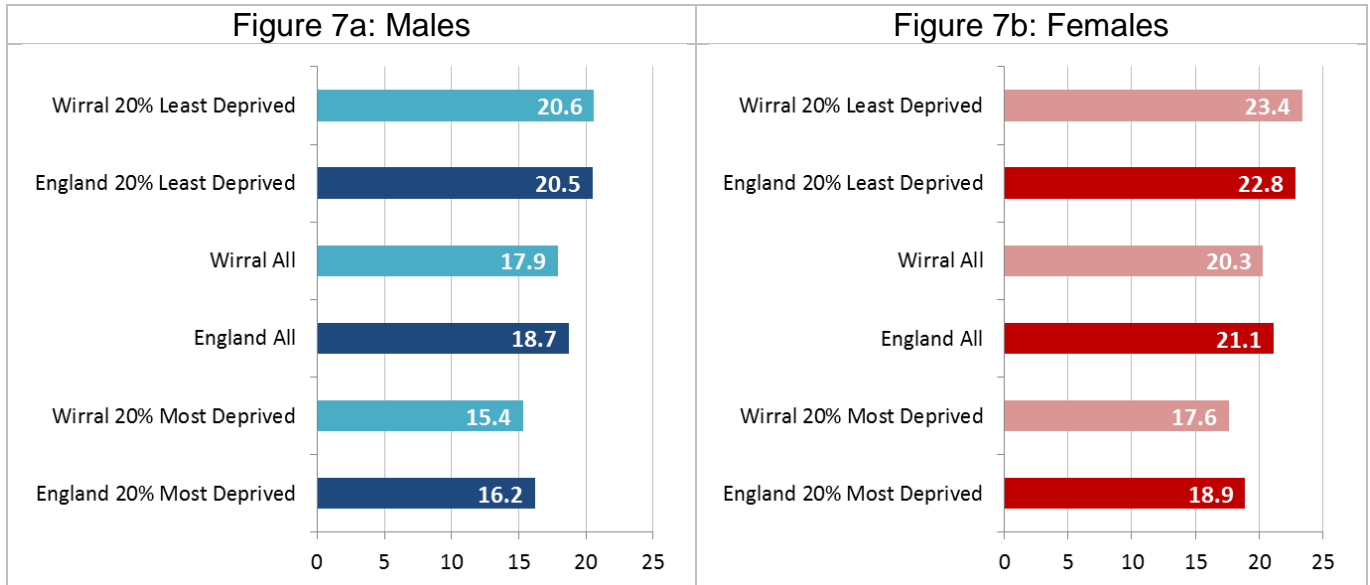


Source: ONS, 2016

As the charts above show, the difference in LE between the most deprived and least deprived (or most affluent) quintile of the population in Wirral was 8.7 years for males and 8.0 years for females in 2013-15. The same gap between the most and least deprived quintiles in England was 7.7 years for males and 6.1 years for females – indicating that inequalities are wider in Wirral than is the case in the England overall. This is in line with many other data sources which point to extremely wide health inequalities in Wirral.

Interestingly, although both males and females in the most deprived quintile in Wirral had worse LE than their England equivalents (most deprived quintiles in England), in the least deprived (or most affluent) quintile the picture was slightly different. Females in Wirral in the least deprived quintile had higher life expectancy than females in the least deprived quintile in England. This was not the case for males however - males in Wirral in the least deprived quintile still had lower LE than males in the least deprived quintile in England (by 1.0 years).

Figure 7a & 7b: Life expectancy at 65 in Wirral & England, by gender and deprivation (2013-15)



As **Figures 7a and 7b** shows, the least deprived (or most affluent) quintile of the Wirral population actually had higher LE than the least deprived (or most affluent) quintile of the England population. This was true of *both* males and females. By contrast, both males and females in the most deprived quintile (or 20%) of the Wirral population had *lower* LE than the most deprived quintile in England overall.

In short, the gap in LE at age 65 between those who are most and least deprived in Wirral, is bigger than it is in England overall. In actual numbers, the gap between males in the 20% most deprived and 20% least deprived quintiles in Wirral was 5.6 years in 2013-15. In females the same gap was 5.8 years. In England, the same gap was 4.3 years for males and 3.9 years for females.

Figure 8a & 8b: Life expectancy at 75 in Wirral and England, by gender and deprivation (2013-15)

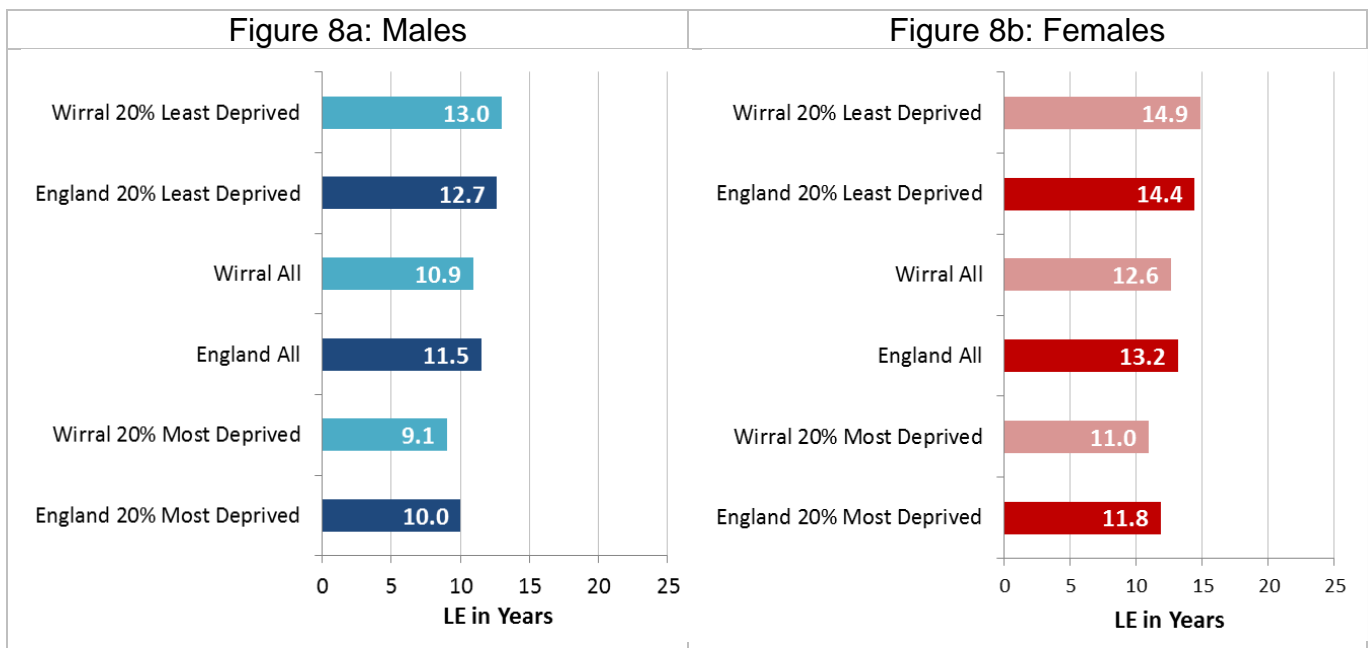


Figure 8a and 8b shows the same pattern of inequality is apparent in LE at age 75, as is the case for LE at age 65 (and LE at birth). Namely that the most affluent or least deprived 20% of the population in Wirral actually have higher LE than their equivalents in England, whilst the most deprived 20% have lower LE than England.

The gap between the most and least deprived quintiles of the Wirral population is 3.9 years in both males and females. The gap in England is 2.7 years for males and 3.4 years for females – again this adds to existing data which points to wide health inequalities in Wirral.

Figure 9a & 9b: Life expectancy at 85 in Wirral and England, by gender and deprivation (2013-15)



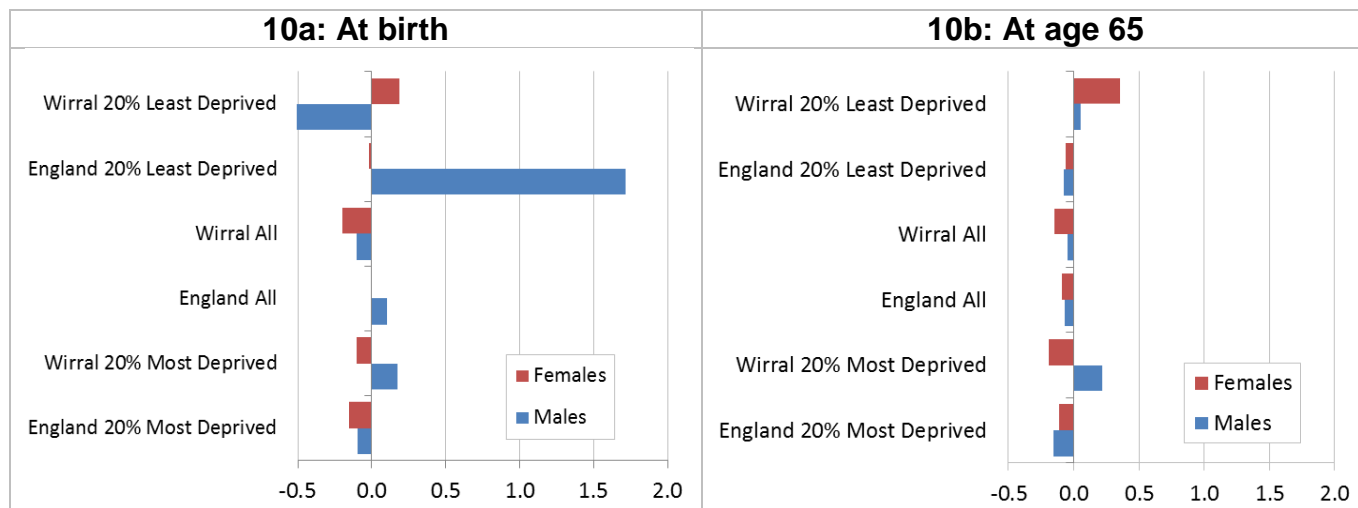
The inequalities outlined in the charts above showing LE at birth, 65, 75 and 85 are also apparent at age 85, where the gap between the most and least deprived quintiles of the Wirral population is 2.4 years in males and 1.7 years for females. This compares to the gap for the England population of 1.3 years for males and 0.7 years for females. As mentioned previously, this serves to underline that inequalities in life expectancy are wider in Wirral than in the country overall – and this is also true in the older age groups.

Also in common with all of the charts above, those in the least deprived (or most affluent) quintile of the Wirral population have a higher LE at age 85 than their England counterparts. In the most deprived quintile however, the reverse is again true and LE is worse than the most deprived quintile of the England population.

Changes in life expectancy between 2012-14 and 2013-15

The series of charts below (Figures 10-11) show the changes in life expectancy at birth, age 65, 75 and 85, between 2012-14 and 2013-15.

Figure 10a & 10b: Change in life expectancy between 2012-14 and 2013-15 (birth & age 65)



Figures 10a & 10b show that with few exceptions, there has been a decrease in life expectancy (at both birth and age 65) across the board in both England and Wirral between 2012-14 and 2013-15. The exceptions to this were females in the least deprived (or most affluent quintile) where LE at birth and at age 65 increased. There was also an increase in males in the least deprived quintile in England (at birth), and interestingly – amongst the most deprived males in Wirral (at age 65). Reasons for this are unclear.

Figure 11a & 11b: Change in life expectancy between 2012-14 and 2013-15 (age 75 and 85)

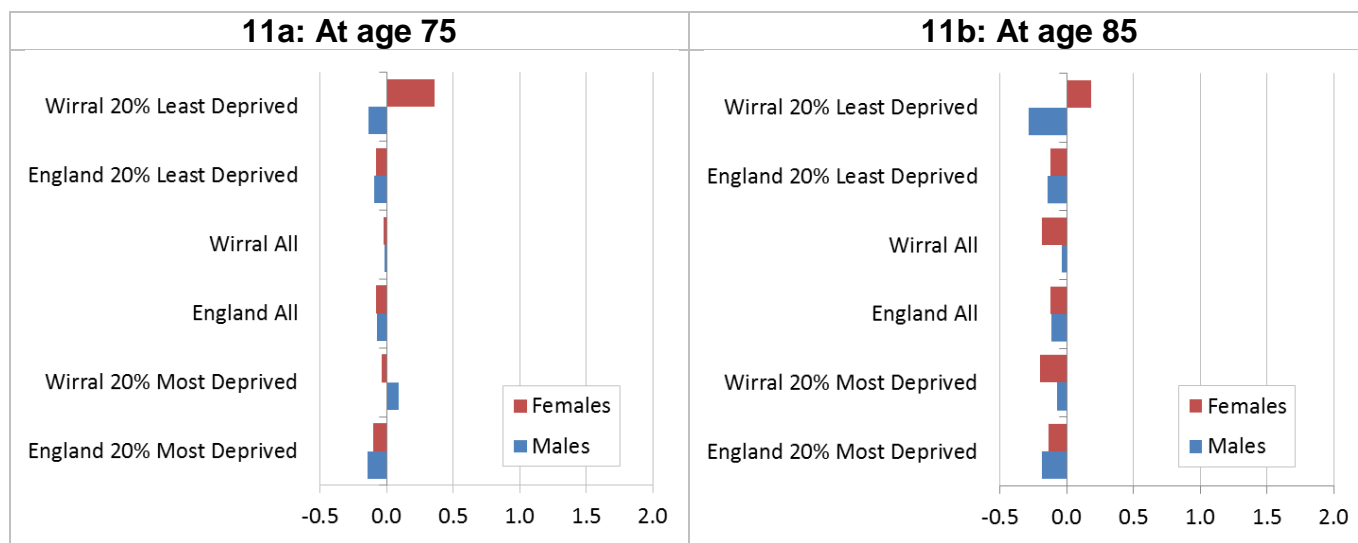


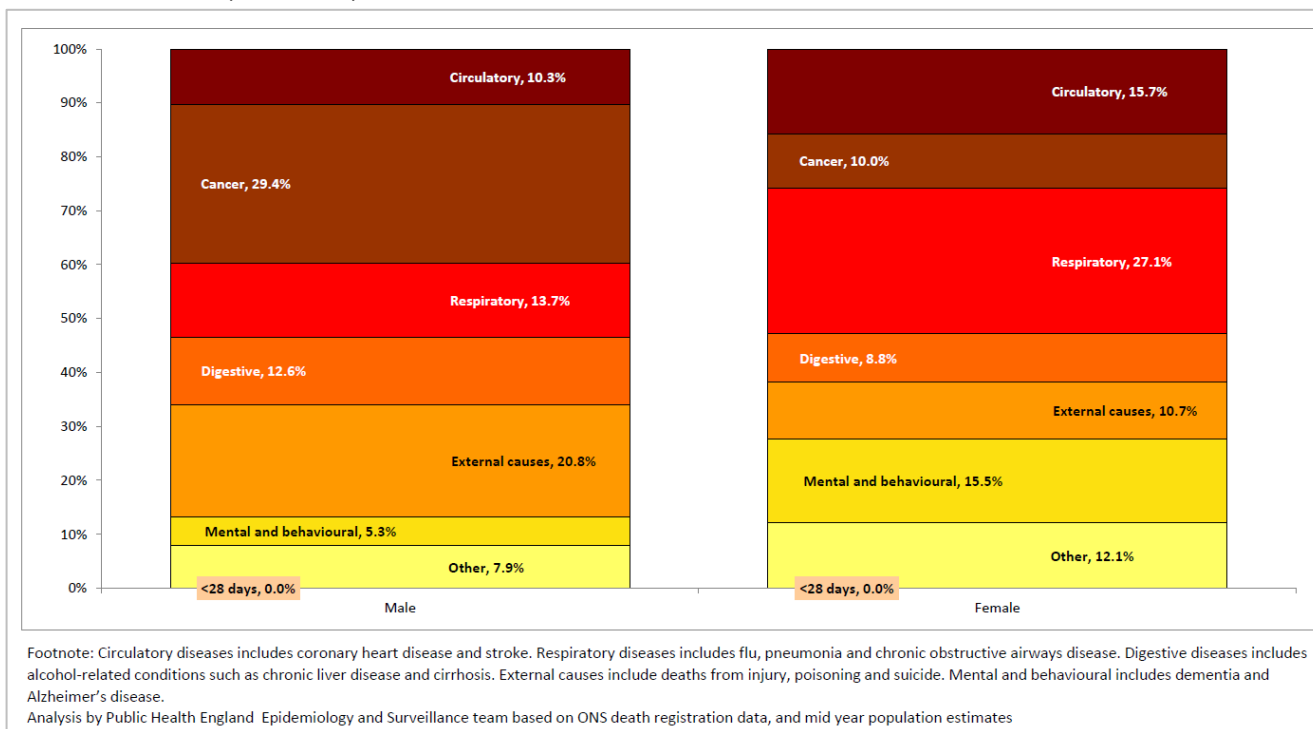
Figure 11a & 11b show a similar picture to those above, namely that with few exceptions, life expectancy at ages 75 and 85 decreased across the board in both England and Wirral between 2012-14 and 2013-15. The exceptions (again) were females in the least deprived (affluent) quintiles and again, interestingly, in males (at age 75) in the most deprived quintile.

Causes of the gap in life expectancy gap in Wirral

Targeting the causes of death which contribute most to the life expectancy gap should have the biggest impact on reducing inequalities. In order to help local areas identify which causes of death are driving health inequalities, Public Health England has produced a Segmentation

Tool which is available here: <https://fingertips.phe.org.uk/profile/segment>. **Figure 12** below is taken from this Segmentation Tool and shows how the different broad causes of death contribute to the gap in life expectancy between Wirral and England. For example, in males, the largest contributor to the 1.5 year gap between Wirral and England was cancer, followed by external causes (includes injuries and suicide). In females, the largest contributor to the 1.2 year gap was respiratory disease (e.g. flu and pneumonia), followed by mental & behavioural (includes Alzheimers and dementia).

Figure 12: Breakdown of the life expectancy gap between Wirral and England, by broad cause of death (2012-14)

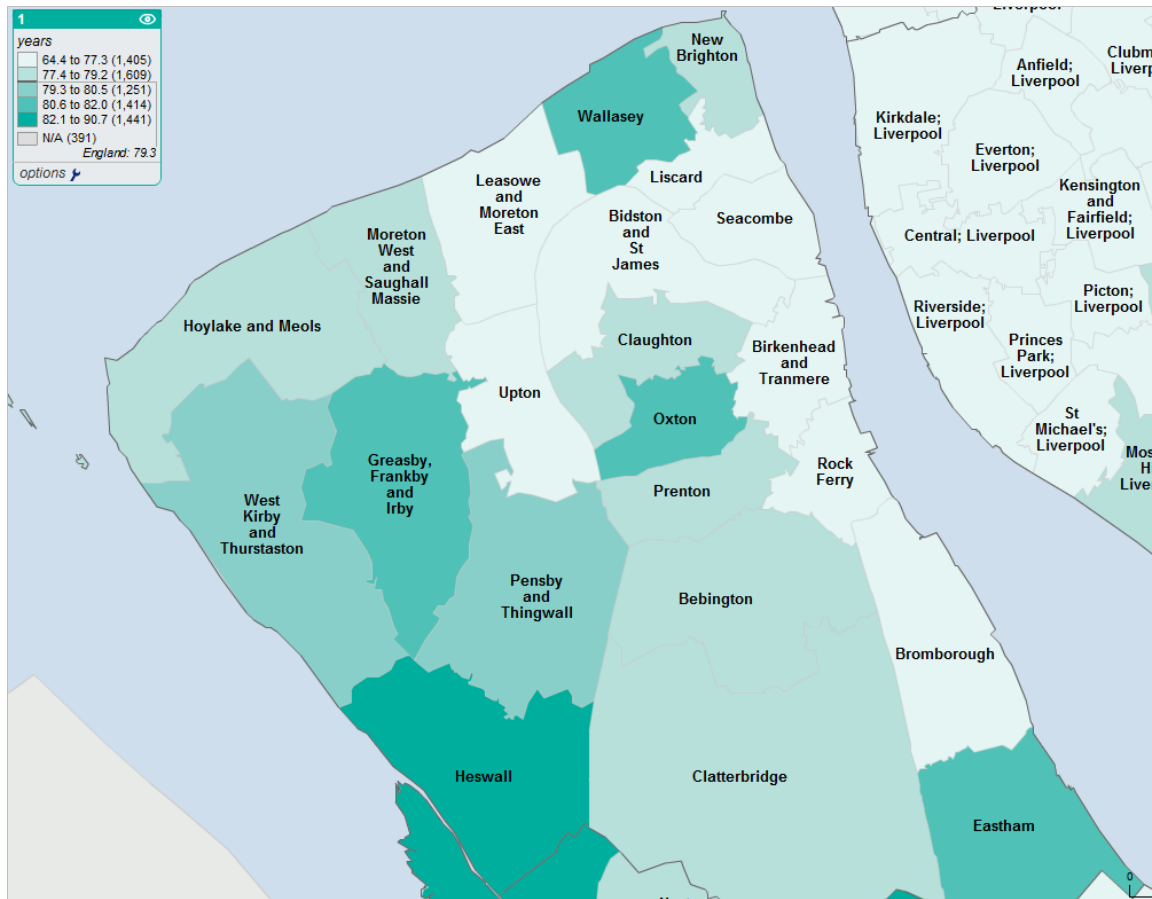


It should be noted that the above 'scarf' charts only relate to deaths which contribute to the gap between Wirral and England – they are not the causes of *all* deaths in Wirral. As **Figure 12** shows, cancer appears to be the largest contributor to the gap between Wirral and England for males, whilst for females it is respiratory illness.

Life Expectancy by Ward

Life expectancy varies considerably by Wirral ward. The [Local Health](#) website created by PHE shows life expectancy in Wirral by ward, pooling 4 years together in order to make the data reliable. The below tables and maps were created using the Local Health website.

Map 1: Life expectancy at birth in males, by Wirral Ward (2010-14)



Map 2: Life expectancy at birth in females, by Wirral Ward (2010-14)

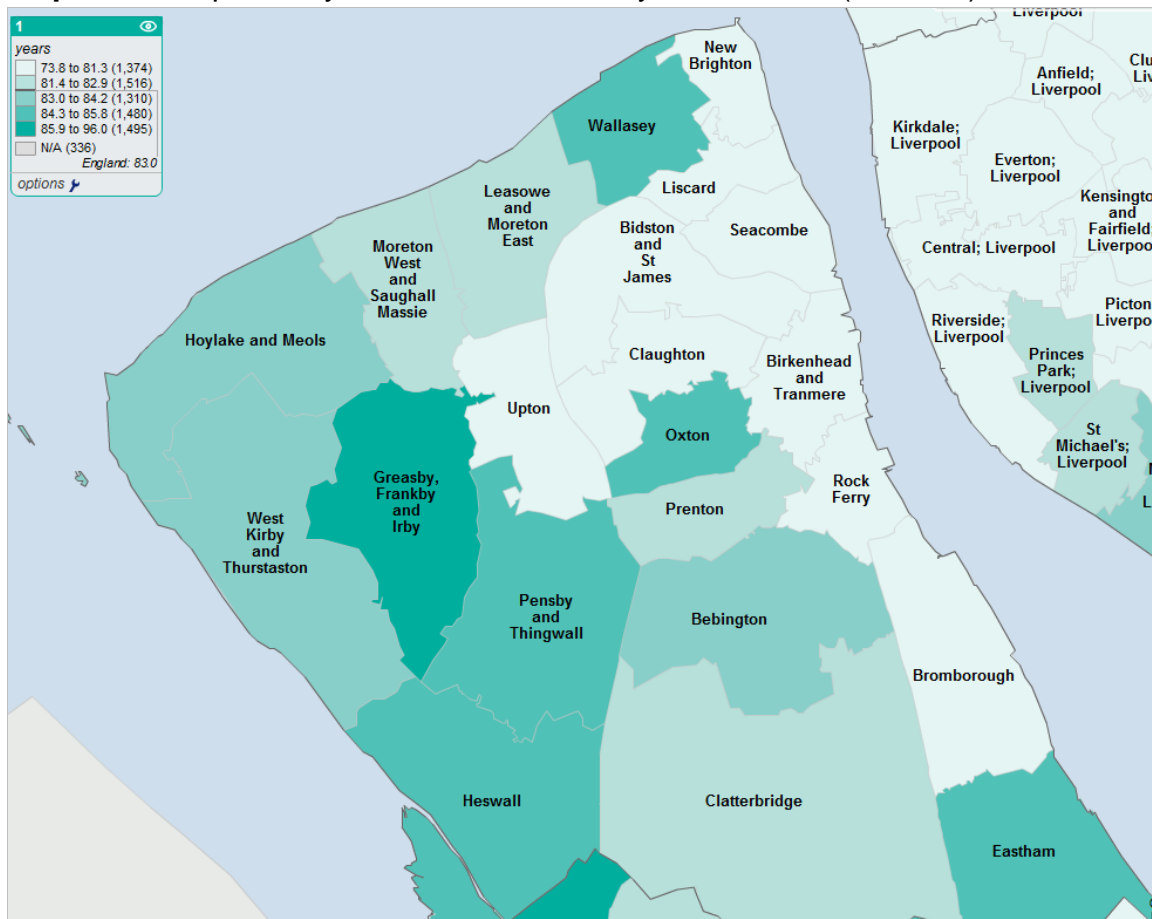
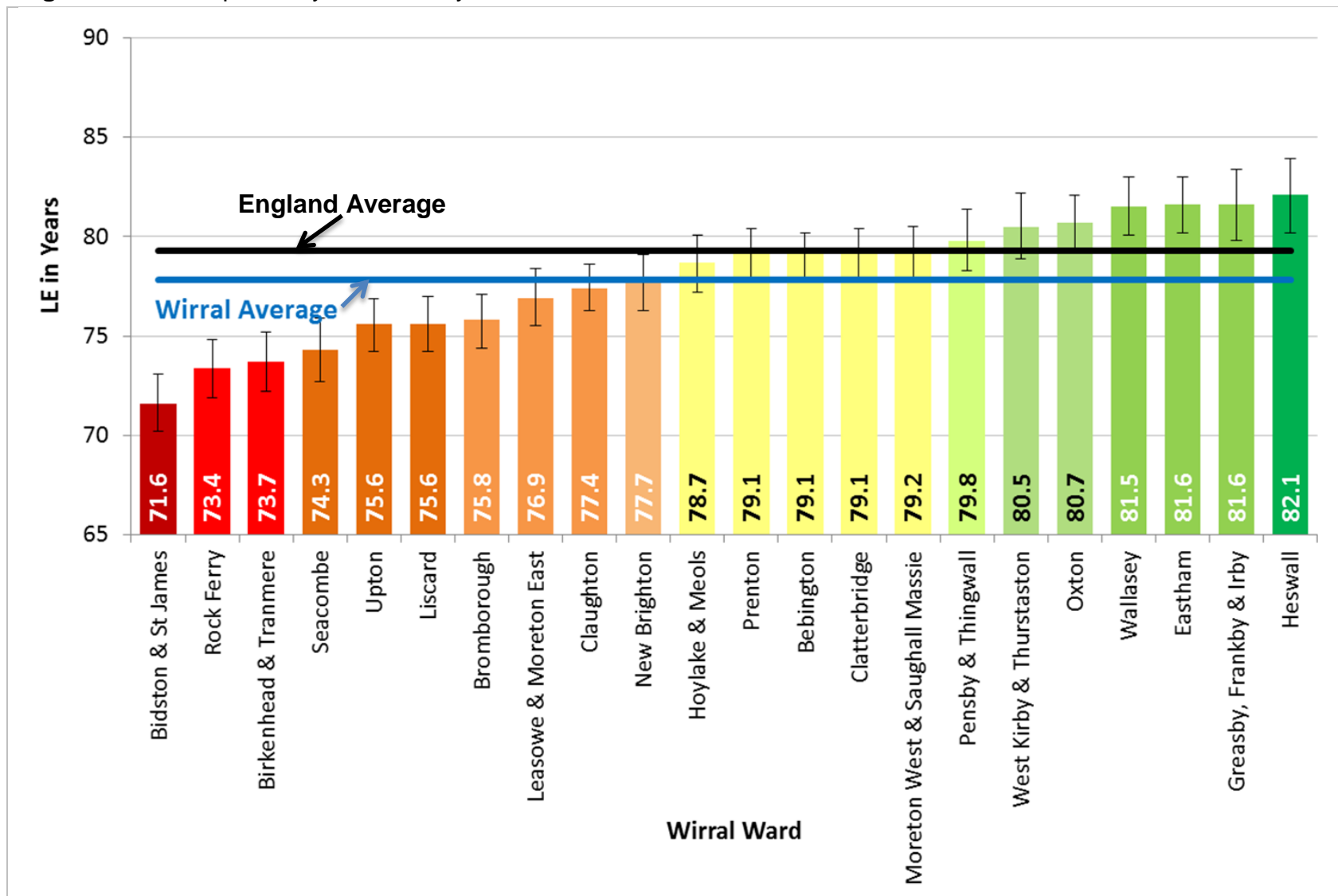


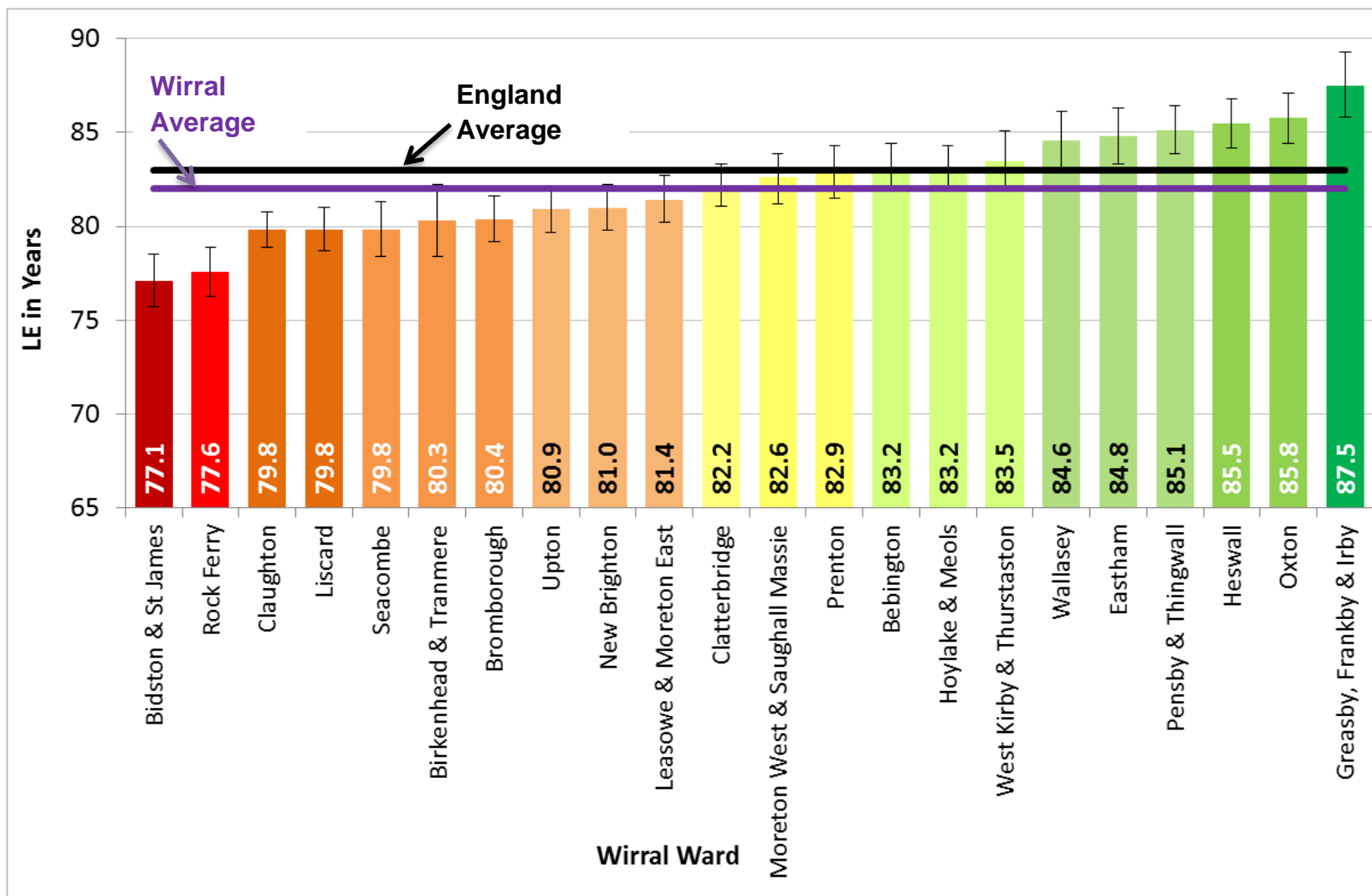
Figure 13: Life expectancy in males, by Wirral Ward, 2010-14



As the chart shows, there was a gap of more than 10 years (10.5 years) between Heswall and Bidston & St. James, the wards with the highest and lowest LE in Wirral in males in 2010-14. The Wirral average was 77.8 years, whilst the England average was 79.3 for this time period (a gap of 1.5 years). The four wards with the lowest LE are also the four most deprived wards in Wirral according to the IMD (2015), but this is not the case with high LE. Although Heswall is the most affluent ward, West Kirby & Thurstaston and Clatterbridge were the next most

affluent wards, but this does not appear to have translated into higher LE for these wards. Instead Oxton, Wallasey, Eastham and Greasby, Frankby and Irby all have higher LE despite being less affluent. There are only 7 of Wirrals 22 wards which are above the England average LE for males of 79.3, the majority (15) are below the England average.

Figure 14: Life expectancy in females, by Wirral Ward, 2010-14



As **Figure 14** shows, the gap between the Wirral wards with the highest and lowest LE is, like for males over 10 years (10.4 years). As was also the case in males, Bidston & St. James was the ward with the lowest LE, but the lowest 4 wards were not the most deprived wards in Wirral. Similarly, Heswall, Clatterbridge and West Kirby & Thurstaston are the three least deprived wards in Wirral, but this is not *exactly* mirrored by the LE data. Average LE over this period in Wirral was 82.0 for females, compared to 83.0 in England – a gap of exactly one year.

Nine of Wirral's 22 wards have life expectancy above the England average of 83.0, the majority (13) are below this figure.

Healthy Life Expectancy (HLE)

Healthy Life Expectancy is an estimate of the number of years a person can expect to spend in 'very good' or 'good' health based on the current mortality and health status of a population.

In 2013-15, healthy life expectancy in Wirral was 61.1 for men and 61.7 for women, compared to 63.4 years for men and 64.1 years for women in England (see **Table 2**). By comparing HLE to LE, it means that in Wirral, a male will spend approximately 78.4% of their life in 'good' health, whereas women in Wirral will only spend around 75.3% of their life in 'good' health.

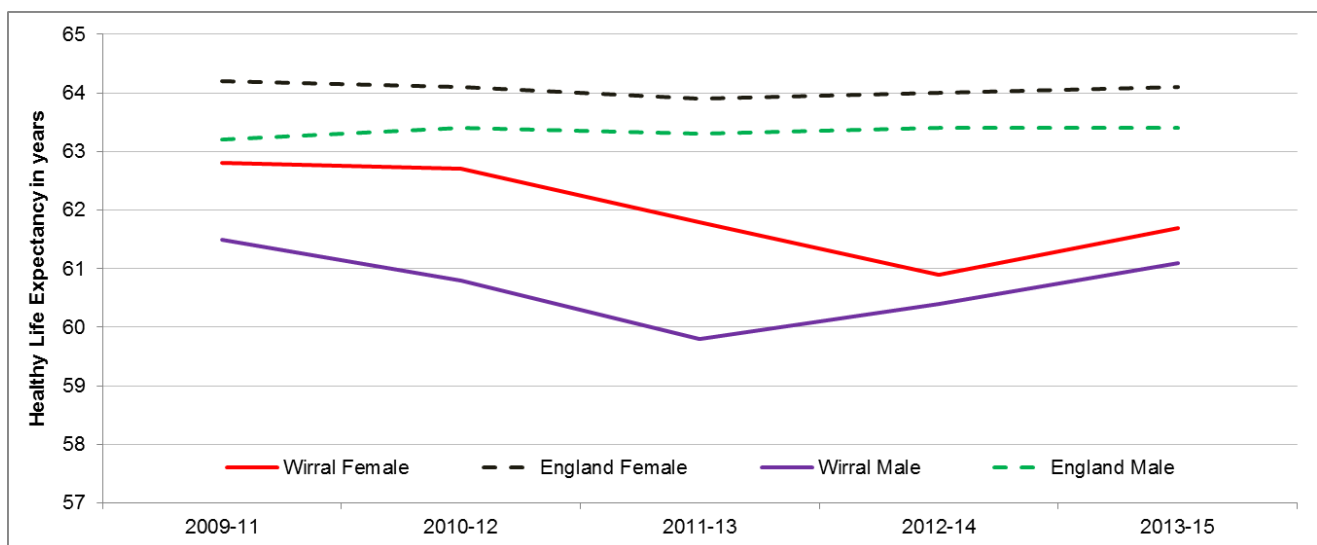
Table 2: Life Expectancy with Healthy Life Expectancy and proportion, 2012-14

Area	Life Expectancy, Males (Years)	Healthy Life Expectancy, Males (Years)	Proportion of life spent in 'good' health, Males	Life Expectancy, Females (Years)	Healthy Life Expectancy, Females (Years)	Proportion of life spent in 'good' health, Females
Wirral	77.9	61.1	78.4%	81.9	61.7	75.3%
North West	78.1	61.1	78.2%	81.8	62.0	75.8%
England	79.5	63.4	79.8%	83.1	64.1	77.1%

Source: Office for National Statistics, 2016b

Since 2011-13 healthy life expectancy for men in Wirral has been increasing at a faster rate than that seen nationally; the gap between Wirral and England for males has decreased from 3.5 years (2011-13) to 2.3 years (2013-15), the smallest gap since 2009-11 (1.7 years). Female healthy life expectancy has increased in Wirral for the latest period (2013-15), also at a faster rate compared to England. Despite this increase, the gap in healthy life expectancy between Wirral and England females is still greater than that seen in 2009-11 (1.4 years).

Figure 4: Trend in healthy life expectancy for males and females, Wirral and England, 2009-2014



Source: Office for National Statistics, 2016b

Disability-Free Life Expectancy (DfLE)

The DfLE figures produced by the Office for National Statistics are slightly different to the HLE figures (produced using a slightly different method), but are also snapshot of mortality and health status of the area. In 2013-15, DFLE for males in Wirral was 60.3 years and 61.4 years for females, compared to 63.0 for males and 62.6 for females in England (See **Table 3**). This means that males in Wirral will spend approximately 77.3% of their life 'disability-free' whereas women will only spend around 75.0% of their life 'disability-free'.

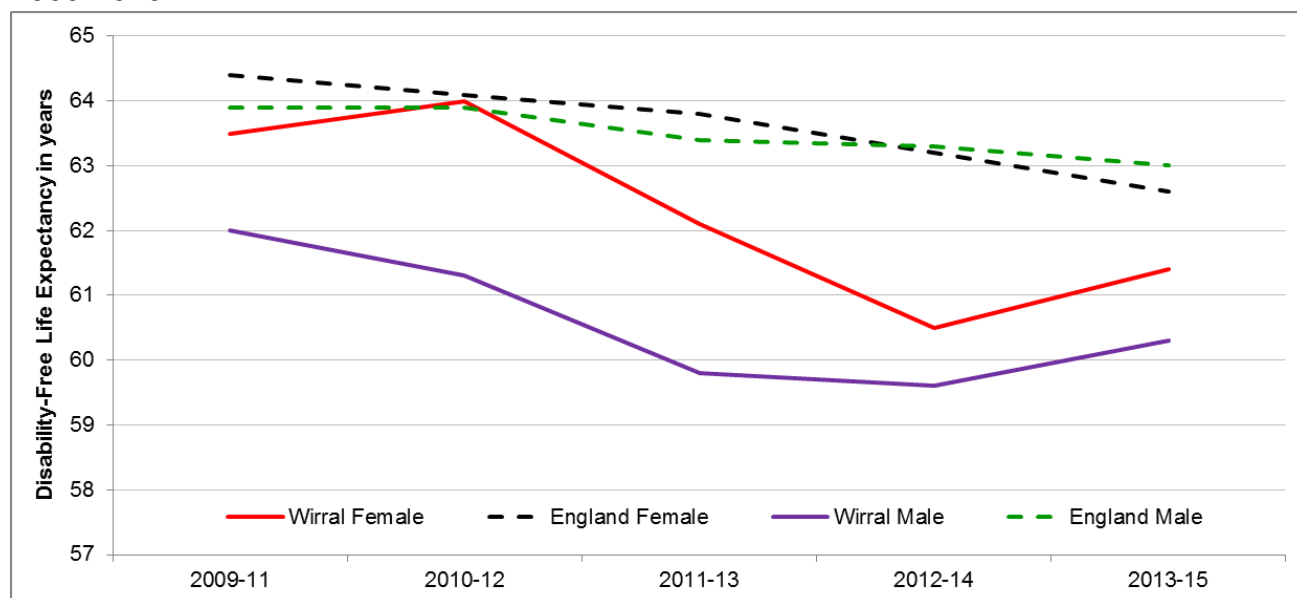
Table 3: Life Expectancy with Disability-Free Life Expectancy and proportion, 2012-14

Area	Life Expectancy, Males (Years)	Disability Free Life Expectancy, Males (Years)	Proportion of life spent 'disability-free', Males	Life Expectancy, Females (Years)	Disability Free Life Expectancy, Females (Years)	Proportion of life spent 'disability-free', Females
Wirral	77.9	60.3	77.3%	81.9	61.4	75.0%
North West	78.1	60.9	78.0%	81.8	60.3	73.8%
England	79.5	63.0	79.3%	83.1	62.6	75.4%

Source: Office for National Statistics, 2016c

As Figure 5 shows, disability-free life expectancy has decreased in England between 2009-11 and 2013-15. However, DFLE in Wirral has increased for the latest period, meaning the gap between Wirral and England has decreased during this time; from approximately 32 months for females, and 44 months to 32 months for males.

Figure 5: Trend in disability-free life expectancy for males and females, Wirral and England, 2009-2015



Source: Office for National Statistics, 2016c

Recent increases in life expectancy have not been matched by corresponding rises in DfLE and HLE. This means that the additional years of life gained likely to be spent in poorer health, requiring additional health and social care

References

1. [Recent Trends in Life Expectancy at Older Ages: An Update to 2014](#): (2016), Public Health England
2. [Recent Trends in Life Expectancy at Older Ages](#) (2015), Public Health England
3. National Audit Office, 2010, Tackling inequalities in life expectancy in areas with the worst health and deprivation, Accessed at 13 May 2016, Available at: <http://www.nao.org.uk/>
4. Office for National Statistics, 2017a, Health State Life Expectancy at Birth and Age 65 2013-15, Accessed at June 2017, Available at: <https://www.ons.gov.uk>
5. Office for National Statistics, 2017b, Health State Life Expectancy at Birth and Age 65 2013-15, Accessed at June 2017, Available at: <https://www.ons.gov.uk>
6. Office for National Statistics, 2017c, Health State Life Expectancy at Birth and Age 65 2013-15, Accessed at June 2017, Available at: <https://www.ons.gov.uk>

Further Reading / Links

- Wirral JSNA: <http://info.wirral.nhs.uk/ourjsna/>
- Health & Social Care Outcomes Framework: <https://www.gov.uk/government/collections/health-and-social-care-outcomes-frameworks>
- Public Health England – Data and analysis tools: <https://www.gov.uk/guidance/phe-data-and-analysis-tools>
- Office for National Statistics – Life Expectancies: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies>
- Life Expectancy Calculator: http://www.riskprediction.org.uk/index_lifeexp.php
- Public Health Outcomes Framework: <http://www.phoutcomes.info/public-health-outcomes-framework>