

Life Expectancy

Introduction

Life expectancy in males and females are extremely important summary measures of mortality and morbidity. They show overall trends in major population health measures, setting the context in which local authorities can assess other indicators and identify the drivers of life expectancy and healthy life expectancy¹.

Life expectancy is the average number of years a person would expect to live if the mortality rates for that period remained constant throughout the rest of their life. In other words, life expectancy for 2015 measures how long people will live if mortality rates stay at the 2015 level².

Life expectancy has increased over time nationally and locally and is higher in Norfolk for both men and women than the England average, but there are still significant inequalities.

Summary

“Inequalities are a matter of life and death, of health and sickness, of well-being and misery. The fact that in England today people from different socio-economic groups experience avoidable differences in health, well-being and length of life, quite simply, unfair and unacceptable” (The Marmot Review)³.

People from the least deprived areas continue to live longer than those from the most deprived. The life expectancy gap between the most deprived areas of Norfolk and the least deprived areas is 6.2 years for men and 3.2 years for women.

Along with deprivation, other influences on life expectancy include socio-economic (income, education, housing), environment (air pollution, access to green space) and health behaviours (smoking, alcohol, nutrition, physical activity, stress).

Certain vulnerable groups also have a lower life expectancy than the general population, for example people with mental illness die around 20 years younger on average⁴.

There is gender inequality in life expectancy. Women are more likely to live longer than men in Norfolk and England although locally this gap has closed from around 4.6 years in 2000-02 to 3.6 years 2012-14.

Across Norfolk the average life expectancy is about 80 years for men and about 84 years for women. The average number of years a man can expect to live in good health is about 64 and for women it is about 65. This leaves a significant period of time where people's health deteriorates.

¹ Public Health England Public Health Outcomes Framework <http://www.phoutcomes.info/public-health-outcomes-framework#page/6/qid/1000049/pat/6/par/E12000006/ati/102/are/E10000020/iid/90366/age/1/sex/1>

² Office for National Statistics (2016), 'Dementia/Alzheimer's and respiratory disease behind biggest annual increase in deaths since the 1960s' <http://visual.ons.gov.uk/dementiaalzheimers-and-flu-behind-biggest-annual-increase-in-deaths-since-the-1960s/> (accessed 12/10/2016)

³ The Marmot Review (2010), 'Fair Society, Healthy Lives', London: The Marmot Review

⁴ Brown, et al., (2010) 'Twenty-five year mortality of a community cohort with schizophrenia', British Journal of Psychiatry 196: 116-121; Parks, et al., (2006) Morbidity and Mortality in People with Serious Mental Illness, 13th technical report, Alexandria, Virginia: National Association of state Mental Health Program Directors

Headlines

Life expectancy in Norfolk has increased over time and is significantly higher than England for males and females. Across Norfolk the average life expectancy is about 80 years for men (Figure 1) and about 84 years for women (Figure 2).

Women are more likely to live longer than men in Norfolk and England although locally this gap has closed from around 4.6 years in 2000-02 to 3.6 years 2012-14.

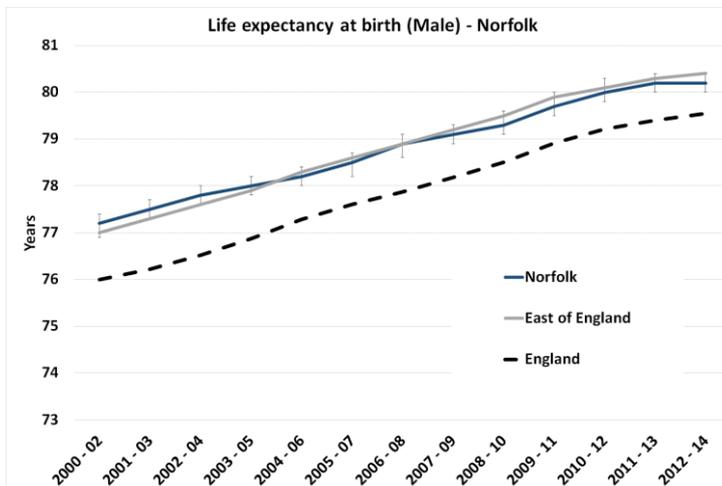


Figure 1 Life expectancy at birth for males, Norfolk. 2000-02 to 2012-14

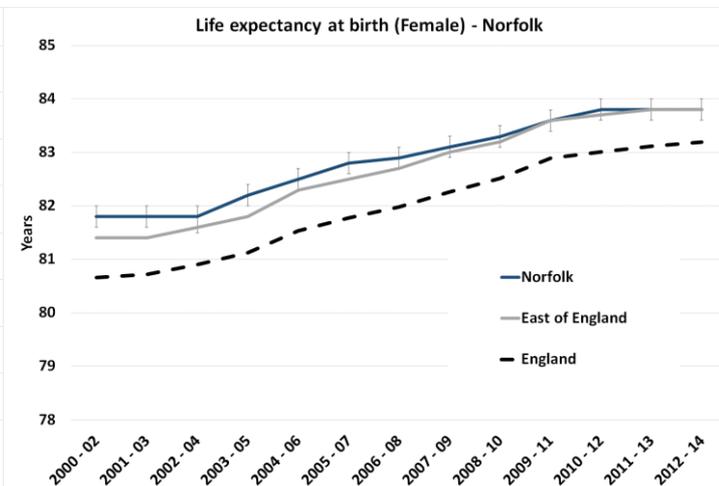


Figure 2 Life expectancy at birth for females, Norfolk. 2000-02 to 2012-14

Areas in Great Yarmouth and King's Lynn have the lowest life expectancy in Norfolk, these are also some of the most deprived areas in the county (Figure 3 and Figure 4).

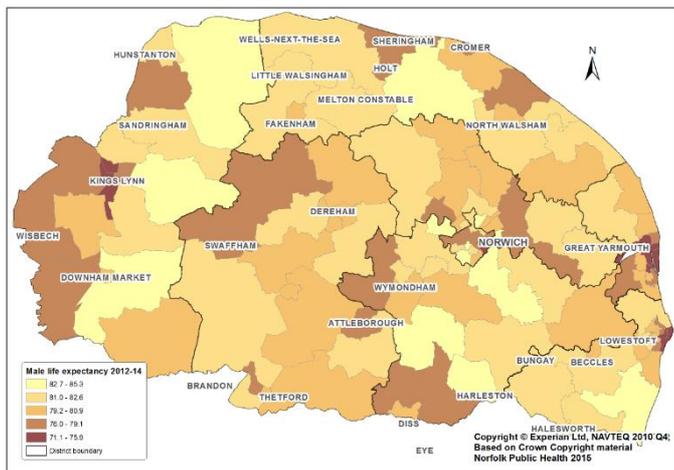


Figure 3 Life expectancy at birth for males, Norfolk and Waveney. 2012-14

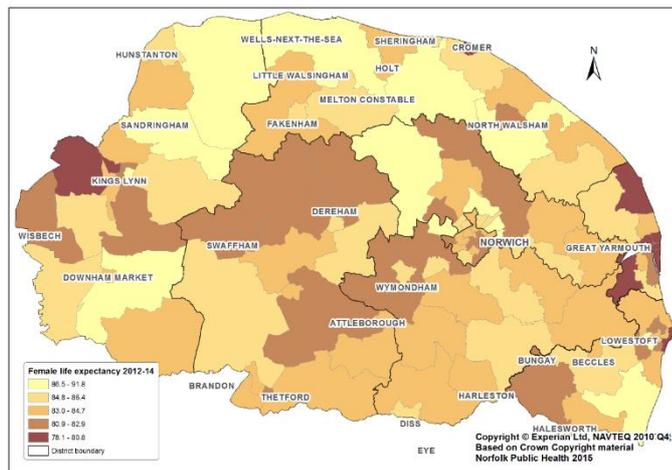


Figure 4 Life expectancy at birth for females, Norfolk and Waveney. 2012-14

Social, environmental, population context

There are inequalities in life expectancy nationally and locally, some groups have higher mortality rates than others:

- Women are expected to live around three and a half years longer than men in Norfolk.
- Socio-economic status and deprivation have an effect on life expectancy, people from more deprived areas are expected to live longer than those from the least deprived areas.
- Certain vulnerable groups have a lower life expectancy than the general population, for example people with mental illness die around 20 years younger on average⁵.
- Other factors also have an influence on life expectancy inequalities: poor diet, inactivity, drinking and smoking can reduce life expectancy.

Slope index of inequality in life expectancy at birth is a key high-level health inequalities outcome and is core to the aims of the Department of Health. It shows inequalities within local authorities, enabling a focus on the deprivation that exists everywhere at small area level. By highlighting area based inequalities, it sets the context within which local areas can assess the other indicators and set priorities, identifying the drivers of life expectancy, especially in areas where life expectancy is low⁶.

The life expectancy gap between the most deprived areas of Norfolk and the least deprived areas is 6.2 years for men and 3.2 years for women⁷.

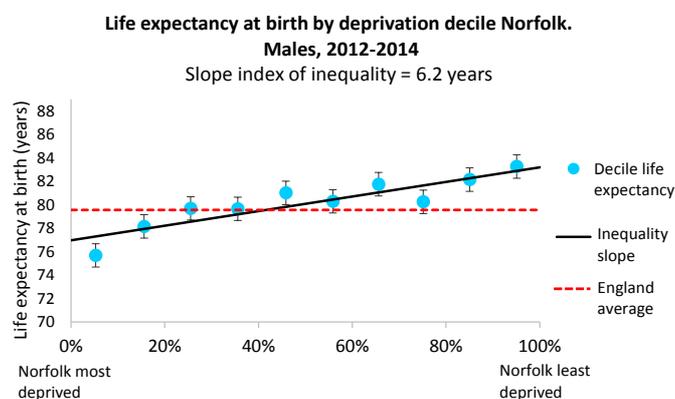


Figure 5 Life expectancy at birth by deprivation decile for males, Norfolk, 2012-14

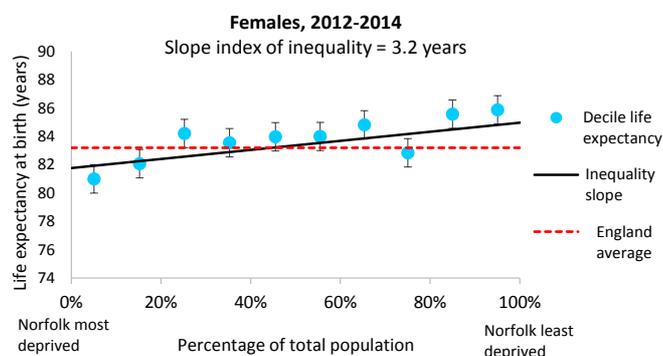


Figure 6 Life expectancy at birth by deprivation decile for females, Norfolk, 2012-14

An increase in the number of deaths has a direct impact on life expectancy at birth. For England and Wales this has dropped by 0.2 years for males (to 79.3 years) and 0.3 years for females (to 82.9 years) since 2014, according to provisional mortality rates for 2015¹.

Most extra deaths nationally were in people aged 75 and over. Dementia/Alzheimer's and respiratory disease caused most of the recent increase in deaths. Provisional data show that this is the same in Norfolk, the number of people who died of Alzheimer's and dementia has increased yearly. In 2009 there were 446 deaths for these conditions, compared with 1,200 in 2015. This caused the condition specific death rate to almost double in the same time period⁸. Dementia is now the underlying cause for 10% of all deaths in the county.

⁵ Brown, et al., (2010) 'Twenty-five year mortality of a community cohort with schizophrenia', British Journal of Psychiatry 196: 116-121; Parks, et al., (2006) Morbidity and Mortality in People with Serious Mental Illness, 13th technical report, Alexandria, Virginia: National Association of state Mental Health Program Directors

⁶ Public Health England Public Health Outcomes Framework <http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000049/pat/6/par/E12000006/ati/102/are/E10000020/iid/90364/age/1/sex/1>

⁷ Life expectancy at birth has been calculated for each population decile from the most deprived 10% of the population to the least deprived 10%. An inequality slope has been calculated (line of best fit using the least squares method) which highlights the life expectancy difference in Norfolk. The England average life expectancy has been included as an illustration of total equality, points below this line show a worse than average life expectancy. Source: ONS PCMD and IMD2010. More information at:

<http://tinyurl.com/LEInequality>

⁸ Primary Care Mortality Database

Currently the largest contributors to the gap in life expectancy between the most and least deprived populations in Norfolk are circulatory diseases, cancer and external causes (including suicide and injury) for males and circulatory diseases, cancer and respiratory diseases for females.

Figure 7 and Figure 8 shows the contribution to life expectancy gap between the most and least deprived LSOA quintiles by broad cause of death. This is the difference between life expectancy in the most and least deprived areas and the contribution to gap in life expectancy in years.

The coloured bars on the chart indicate difference in life expectancy if the death rate for that cause was the same as in the least deprived areas of Norfolk. Red shows potential for improvement⁹. For example, if the male death rate for cancer was the same in the most deprived areas as in the least deprived, people in the most deprived areas would live around a year longer. Males in the least deprived quintile have a life expectancy above 82, and deaths from cancer reduces the life expectancy by a year for those from the most deprived quintile.

Higher death rates for each cause for this mean that cumulatively males from the most deprived quintile have a life expectancy seven years and nine months lower than those from the least deprived. The difference is five years and seven months for women. This gap is different to that in the slope index of inequality because it is comparing areas from the most deprived national quintile, rather than local.

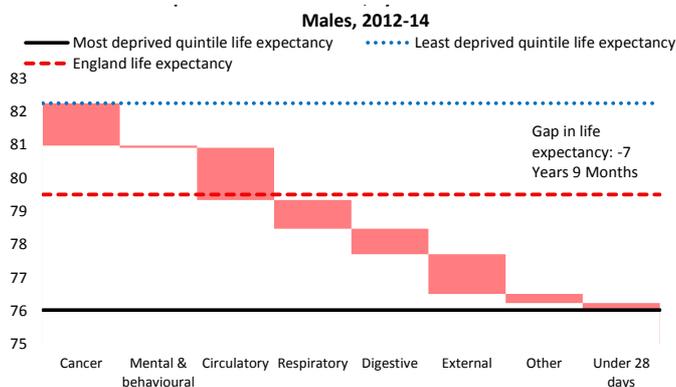


Figure 7 Contribution to life expectancy gap between most and least deprived areas by broad cause of death for males, Norfolk, 2012-14

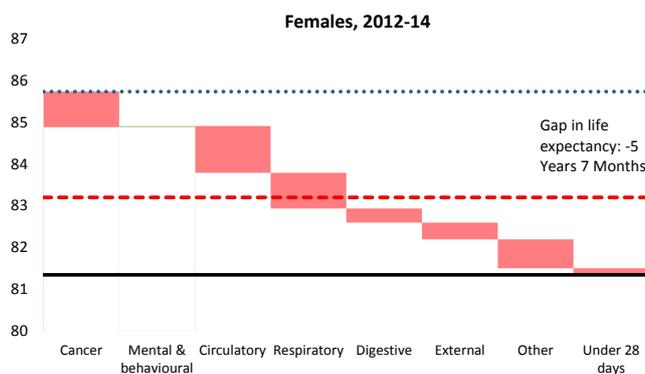


Figure 8 Contribution to life expectancy gap between most and least deprived areas by broad cause of death for females, Norfolk, 2012-14

Considerations for HWB and commissioner

Across the United Kingdom and Norfolk whilst those most in need require more resources, programmes and projects aimed at the most deprived groups tend to yield the highest benefits. This should be considered by commissioners when allocating resources across programmes.

Many inequalities are linked to deprivation such as life expectancy and understanding the influence can help target resources to those most in need.

⁹ Segment tool info.: <http://tinyurl.com/z472itk>

References and information

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Publication date

17th October 2016