Academic Health Science Network
North East and North Cumbria

NHS
North East Quality Observatory Service

Population Health & Healthcare Surveillance

Life Expectancy

March 2022 Update

Summary Dashboard

		Indicator	Time Period	North East Value	North East Rank	National Average	Direction of Travel
Life Expectancy		Life Expectancy at Birth (years)	2018 - 2020				
	1.	Male		77.6	9	79.4	
	2.	Female		81.5	9	83.1	
		Healthy Life Expectancy at Birth (years)	2017 - 2019				
	3.	Male		59.4	9	63.2	
	4.	Female		59.0	9	63.5	

Compared with England Significantly Better Similar Significantly Worse

North East Rank amongst the 9 Regions 1 - Best 9 - Worst

What do the detailed pages show?

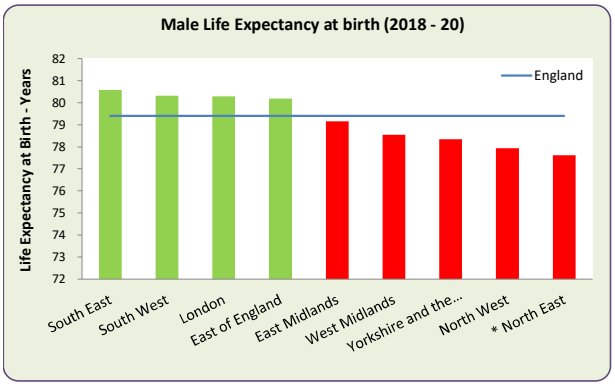
The following pages contain further information for each indicator, including, where available, data comparing each region in England, and trend data over time for England and the North East / North East and North Cumbria. The latest information at local authority or CCG level for the North East and North Cumbria is also presented. A narrative section explains the key findings from the data and also includes data sources and definitions.

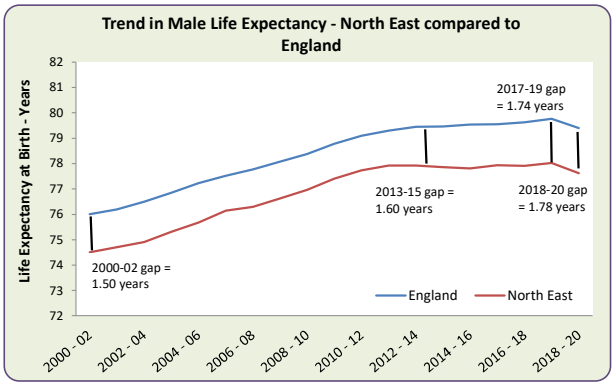
Compared with England Significantly Better Similar Significantly Worse

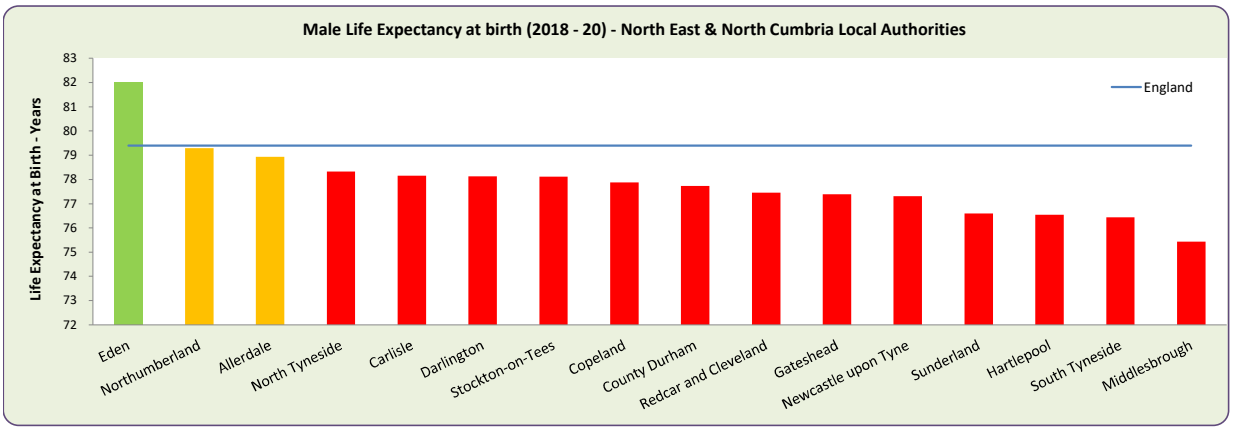
1. Life Expectancy at Birth - Male (2018 - 2020)

The average number of years a male would expect to live based on contemporary mortality rates.

South East	South West	London	East of England	East Midlands	West Midlands	Yorkshire and the Humber	North West	*North East*	England
80.6	80.3	80.3	80.2	79.2	78.5	78.4	77.9	77.6	79.4







Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2021 (http://fingertips.phe.org.uk) © Crown copyright 2022

Definitions / Notes

Life Expectancy at birth is an estimate of the average number of years a newborn baby would survive if he or she experienced the same age-specific mortality rates for that area and time period throughout his or her life, i.e. if they remained in the same area with the same mortality rates for the rest of their life.

Life expectancy is used internationally as a key summary health outcome indicator and data is commonly compared over rolling three year periods.

What is the data telling us?

These data show that average life expectancy at birth for men in the North East in 2018-20 was the lowest amongst all the regions, at 77.6 years, compared to the national average of 79.4 years, a difference of 1.8 years. Within the region there is a 6.6 year difference between the area with the highest life expectancy (Eden - 82.0 years) compared to the area with the lowest (Middlesbrough - 75.4 years). The national and local variation in male life expectancy is closely related to variations in socio-economic circumstances[1]. These circumstances can be summarised by measuring a population's deprivation which encompasses factors like living environment, income, employment and education[1]. These inequalities have been exacerbated during the COVID-19 pandemic with COVID-19 mortality rates, between March 2020 and March 2021, for those under 65 in the most deprived areas of England being 3.7 times greater than the least deprived areas[2]. Reasons for this include having a higher risk of exposure to COVID-19 as a result of overcrowded housing, inability to work from home, financial difficulties in self-isolating and being more susceptible to the impact of COVID-19 due to, generally, more underlying health conditions as a result of poorer social and economic conditions[2].

Trend data shows that after several decades of improvement in male life expectancy, for the last decade, until the COVID-19 pandemic struck, the rate of improvement had slowed nationally and became fairly static in the North East. Both nationally and regionally, the 2018-20 data signals a significant fall in male life expectancy. In the North East the decline between 2017-19 and 2018-20 was almost 5 months. The magnitude of this decrease is the largest since World War 2 and is a result of the excess mortality from COVID-19[3]. Trend data also show that the absolute gap in male life expectancy between the North East and England continues to widen. In 2000-02 it was 1.5 years, widening to 1.74 years by 2017-19, due to more favourable longetivity gains in other parts of the country than in the North East. With COVID-19 further exacerbating the deprivation divide[4], the gap had increased to 1.78 years by 2018-20.

Gaps in life expectancy between different populations lie at the heart of concerns around inequalities in health. The gaps are further explored in the following pages.

1. The King's Fund. (2020). What are health inequalities? https://www.kingsfund.org.uk/publications/what-are-health-inequalities#life

2. The Health Foundation. (2021). What geographic inequalities in COVID-19 mortality rates and health can tell us about levelling up. https://www.health.org.uk/news-and-comment/charts-and-infographics/what-geographic-inequalities-in-covid-19-mortality-rates-can-tell-us-about-levelling-up

3. The King's Fund.(2021). What is happening to life expectancy in England? https://www.kingsfund.org.uk/publications/whats-happening-life-expectancy-england

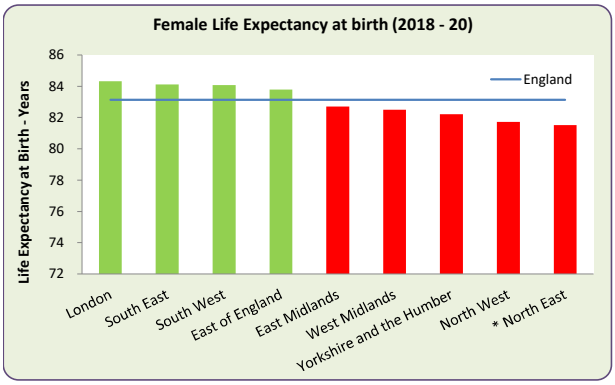
4. PHE. (2021). Health Profile for England 2021. https://fingertips.phe.org.uk/static-reports/health-profile-for-england/hpfe_report.html

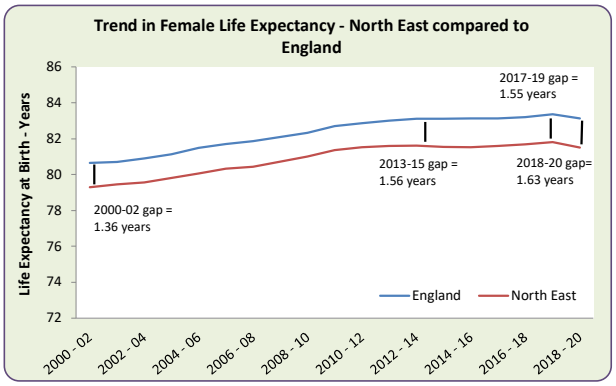
Compared with England Significantly Better Similar Significantly Worse

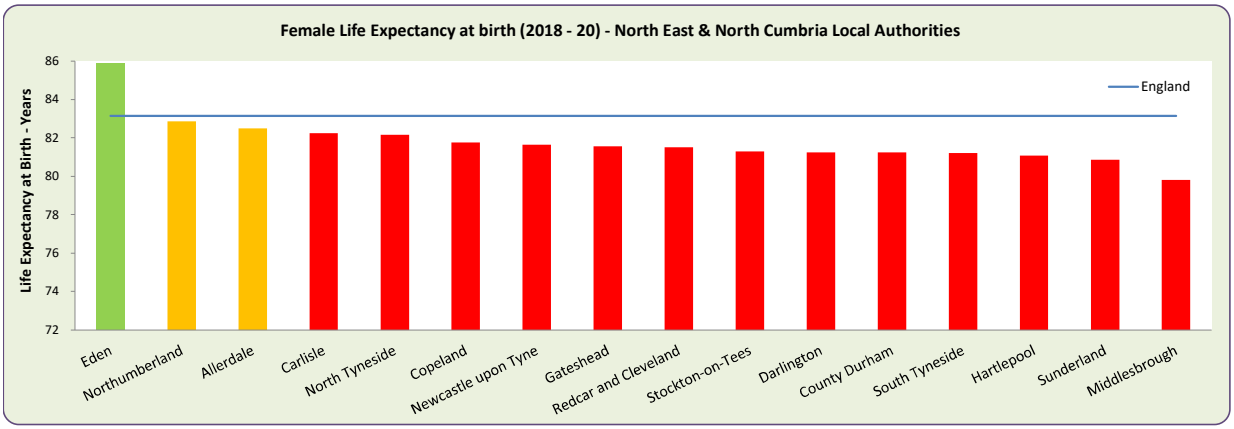
2. Life Expectancy at Birth - Female (2018 - 2020)

The average number of years a female would expect to live based on contemporary mortality rates.

London	South East	South West	East of England	East Midlands	West Midlands	Yorkshire and the Humber	North West	*North East*	England
84.3	84.1	84.1	83.8	82.7	82.5	82.2	81.7	81.5	83.1







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Definitions / Notes

Life Expectancy at birth is an estimate of the average number of years a newborn baby would survive if he or she experienced the same age-specific mortality rates for that area and time period throughout his or her life i.e. if they remained in the same area with the same mortality rates for the rest of their life.

Life expectancy is used internationally as a key summary health outcome indicator and data is commonly compared over three year rolling periods.

What is the data telling us?

These data show that average life expectancy at birth for women in the North East in 2018-20 was the lowest amongst all the regions, i.e. 81.5 years compared to the national average of 83.1 years, a difference of 1.6 years. Within the region there is a 6.1 year difference between the area with the highest life expectancy (Eden - 85.9 years) compared to the area with the lowest (Middlesbrough - 79.8 years).

Like for male life expectancy, trend data show that improvements in female life expectancy have stalled in the North East. A similar picture is observed nationally with the reasons behind this trend being widely contested with austerity-driven constraints on health, an ageing population, widening inequalities and rising death rates among young adults mainly due to drug misuse being some of the explanations put forward[3,5,6,7].

Trend data also show that the absolute gap in female life expectancy between the North East and England continues to widen. In 2000-02 it was 1.36 years, widening to 1.55 years by 2017-19, due to more favourable longetivity gains in other parts of the country than in the North East. With COVID-19 further exacerbating the deprivation divide, the gap had increased to 1.63 years by 2018-20.

Between 2000 and 2015, life expectancy for males increased at a faster rate than for females in the North East and so the absolute gap in life expectancy between the sexes reduced. In 2000-02 the gap was 4.8 years, steadily reducing to 3.7 years in 2015-17. However, by 2018-20 it had widened to 3.9 years, likely due to higher mortality rates from COVID-19 among males compared to females[3].

5. Loopstra, R., McKee, M., Katikireddi, S.V., Taylor-Robinson, D., Barr, B., Stuckler, D. (2016). Austerity and old-age mortality in England: a longitudinal cross-local area analysis, 2007–2013. Journal of the Royal Society of Medicine,vol 109, pp 109–16. https://doi.org/10.1177/0141076816632215

6. Hiam, L., Harrison, D., McKee, M., Dorling, D. (2018). Why is life expectancy in England and Wales "stalling"? Journal of Epidemiology and Community Health, 72(5), pp 404–408. https://doi.org/10.1136/jech-2017-210401

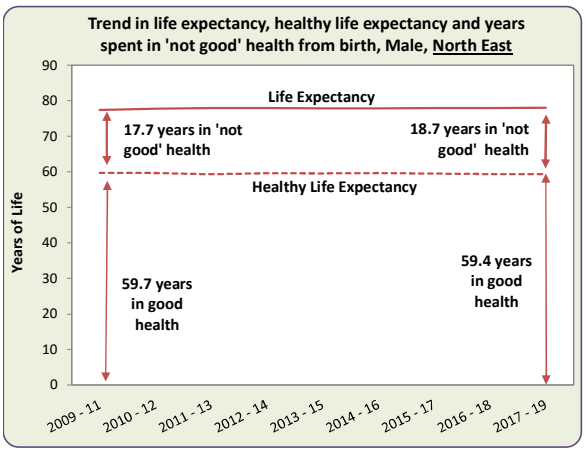
7. PHE. (2018). Recent trends in mortality in England: review and data packs. https://www.gov.uk/government/publications/recent-trends-in-mortality-in-england-review-and-data-packs

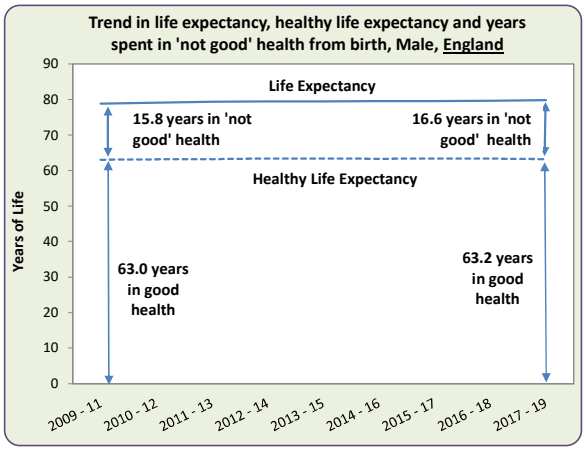
Compared with England Significantly Better Similar Significantly Worse

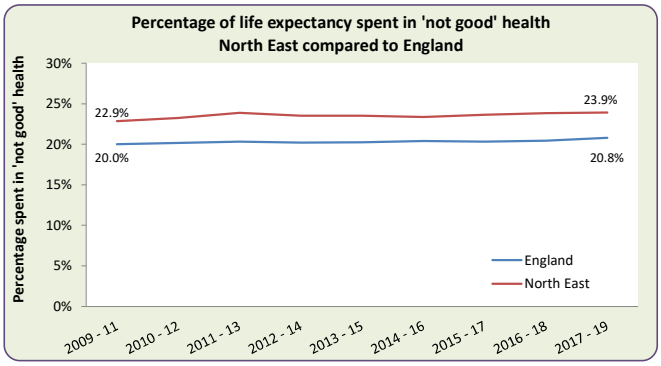
3. Healthy Life expectancy at birth (Male) (2017 - 2019)

The average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.

South East	South West	East of England	London	East Midlands	North West	West Midlands	Yorkshire and the Humber	*North East*	England
65.3	65.2	64.4	63.5	62.2	61.7	61.5	61.2	59.4	63.2







Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2021 (http://fingertips.phe.org.uk) © Crown copyright 2022

Definitions / Notes

While average life expectancy and healthy life expectancy are both important headline measures of the health status of the population, the healthy life expectancy measure adds a 'quality of life' dimension to estimates of life expectancy by dividing them into time spent in different states of health.

Healthy life expectancy is an estimate of the number of years lived in 'Very good' or 'Good' general health, based on how individuals perceive their general health. The prevalence of 'good' / 'not good' health is derived from responses to a question on general health in the Annual population Survey. The question asks "How is your health in general; would you say it was…" with responses "Very good" and "Good" categorised as 'Good' health and "Fair", "Bad" or "Very bad" as 'Not Good' health.

In addition to adding a quality of life dimension to life expectancy, the number of years of life in 'Not Good' health is also important as it relates more closely to demand for health and social care services.

Due to a change in methodology, data on healthy life expectancy are only available back to 2009-11. This short time scale limits the conclusions that can be drawn about trends. Please also note that although data on life expectancy is published for districts, data on healthy life expectancy are only available at county level, which for this report, affects the data that is shown for Cumbria.

Please note that although the latest published life expectancy data relate to 2018-20 the most recent healthy life expectancy data relate to 2017-19.

What is the data telling us?

From 2009-11 to 2017-19, there has been no major change to healthy life expectancy, either nationally or in the North East. Although a North East male could expect, in 2017-19, to live 78.0 years, his average healthy life expectancy (based on self-reported general health) was only 59.4 years, compared to a national average of 79.8 years for life expectancy and 63.2 years for healthy life expectancy.

Between 2009-11 and 2017-19, male life expectancy at birth in the region increased by almost 7 and a half months. However, healthy life expectancy fell by just over 4 months over the same period, and therefore the number of years lived in 'not good' health increased from 17.7 to 18.7 years.

These data demonstrate that not only do males in the North East have lower life expectancy than the national average, they spend a larger proportion of their shorter lives in 'not good/poor' health. Men in the North East spend almost a quarter (23.9%) of their lives in 'not good/poor' health compared to 20.8% of those in the country as a whole, and the trend shows a deteriorating picture. This picture is thought to be largely driven by the widening inequalities and deprivation divide across the country[8].

Intra regional variation is explored on the next page.

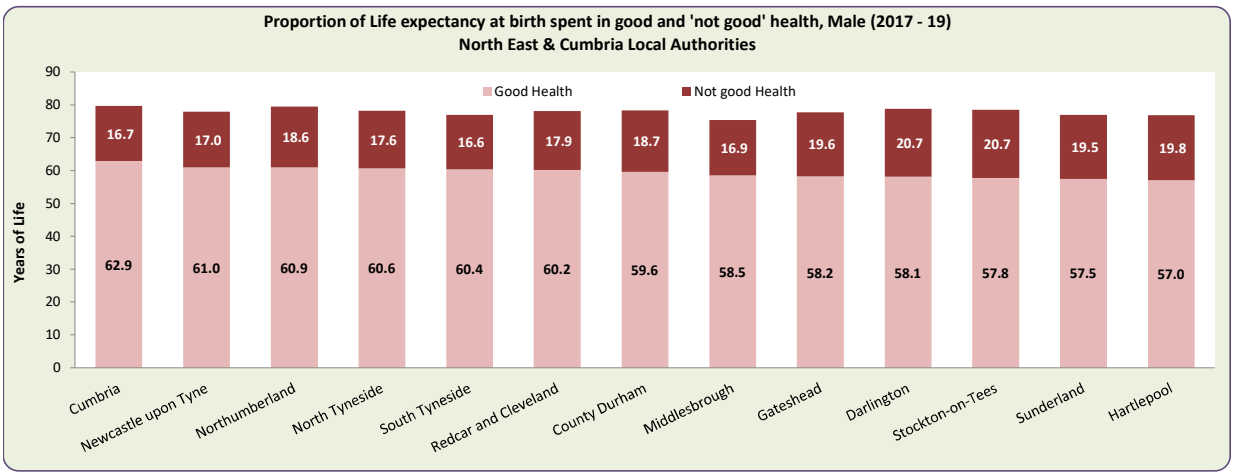
8. Marmot, M. (2020). Health Equity in England: The Marmot Review 10 Years on. *BMJ*, 368, M693. https://doi.org/10.1136/bmj.m693

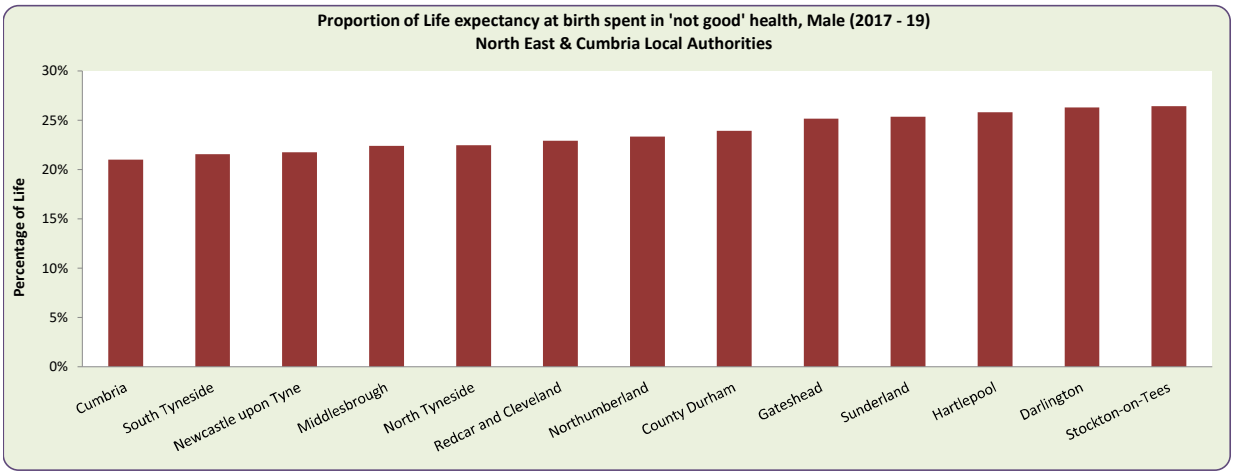
Compared with England Significantly Better Similar Significantly Worse

3. Healthy Life expectancy at birth (Male) (2017 - 2019)

The average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.

South East	South West	East of England	London	East Midlands	North West	West Midlands	Yorkshire and the Humber	*North East*	England
65.3	65.2	64.4	63.5	62.2	61.7	61.5	61.2	59.4	63.2





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What is the data telling us?

Whilst the gap in male life expectancy within the North East and Cumbria was 4.2 years in 2017-19, there was a 5.9 year difference in healthy life expectancy between the area with the highest healthy life expectancy (Cumbria - 62.9 years) and that with the lowest (Hartlepool - 57.0 years). It should be noted that in the charts above data is reported for the whole of Cumbria and therefore the figures include Barrow-in-Furness and South Lakeland which are outside the AHSN boundary. This inclusion of county-level data for Cumbria, rather than district-level figures explains why the intra regional gap in life expectancy is lower than that reported earlier in this report (Indicator 1). Men in Hartlepool spend 26% of their lives in 'not good/poor' health, whereas for men in Cumbria it is 21%. Males from both Stockton-on-Tees and Darlington also spend 26% of their lives in 'not good/poor' health.

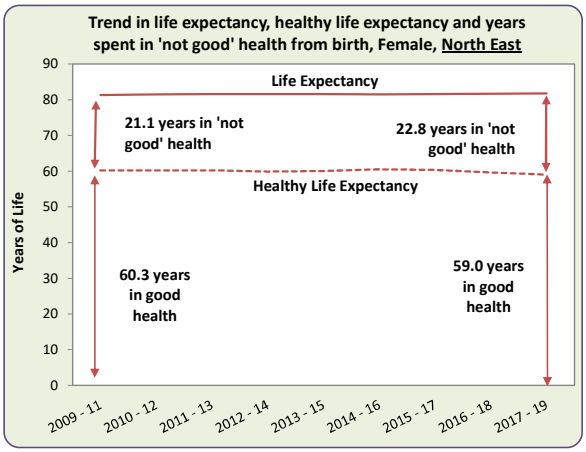
In the following two pages of the report similar information on healthy life expectancy in relation to women is presented.

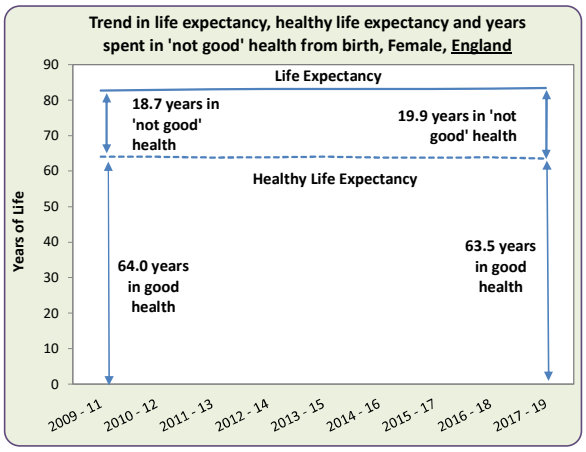
Compared with England Significantly Better Similar Significantly Worse

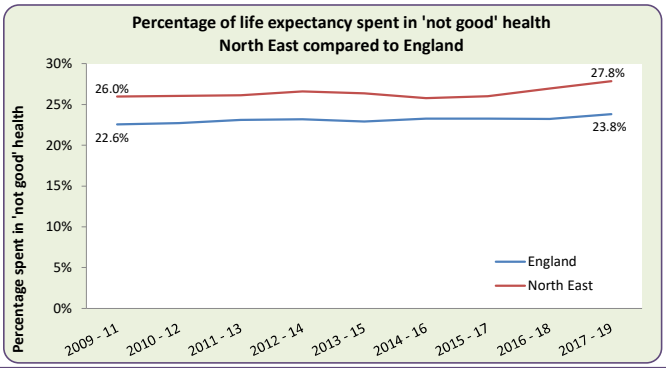
4. Healthy Life expectancy at birth (Female) (2017 - 2019)

The average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.

South East	South West	East of England	London	West Midlands	North West	Yorkshire and the Humber	East Midlands	*North East*	England
65.9	65.0	64.2	64.0	62.6	62.2	61.9	61.9	59.0	63.5







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Definitions / Notes

While average life expectancy and healthy life expectancy are both important headline measures of the health status of the population, the healthy life expectancy measure adds a 'quality of life' dimension to estimates of life expectancy by dividing them into time spent in different states of health.

Healthy life expectancy is an estimate of the number of years lived in 'Very good' or 'Good' general health, based on how individuals perceive their general health. The prevalence of 'good'/ 'not good' health is derived from responses to a question on general health in the Annual population Survey. The question asks "How is your health in general; would you say it was…" with responses "Very good" and "Good" categorised as 'Good' health and "Fair", "Bad" or "Very bad" as 'Not Good' health.

In addition to adding a quality of life dimension to life expectancy, the number of years of life in 'Not Good' health is also important as it relates more closely to demand for health and social care services.

Due to a change in methodology, data on healthy life expectancy are only available back to 2009-11. This short time scale limits the conclusions that can be drawn about trends. Please also note that although data on life expectancy is published for districts, data on healthy life expectancy are only available at county level, which for this report, affects the data that is shown for Cumbria.

Please note that although the latest published life expectancy data relate to 2018-20 the most recent healthy life expectancy data relate to 2017-19.

What is the data telling us?

Between 2015-17 and 2017-19, healthy life expectancy steadily deteriorated in the North East. In 2017-19 a North East female could expect to live 81.8 years, but her average healthy life expectancy (based on self-reported general health) was only 59.0 years, compared to a national average of 83.4 years for life expectancy and 63.5 years for healthy life expectancy.

These data demonstrate that not only do females in the North East have lower life expectancy than the national average, they spend a larger proportion of their shorter lives in 'not good/poor' health. Women in the North East spend well over a quarter (27.8%) of their lives in 'not good/poor' health compared to 23.8% of those in the country as a whole.

Despite life expectancy for women in the North East being 3.8 years longer than for men in 2017-19, all of that time, plus an additional 4 months on average, was spent in 'not good/poor health'.
It is recognised nationally that there is a gender health gap with women reported to receive poorer healthcare than men which has recently prompted the government to begin creating a national women's health strategy[9].

Intra regional variation is explored on the next page.

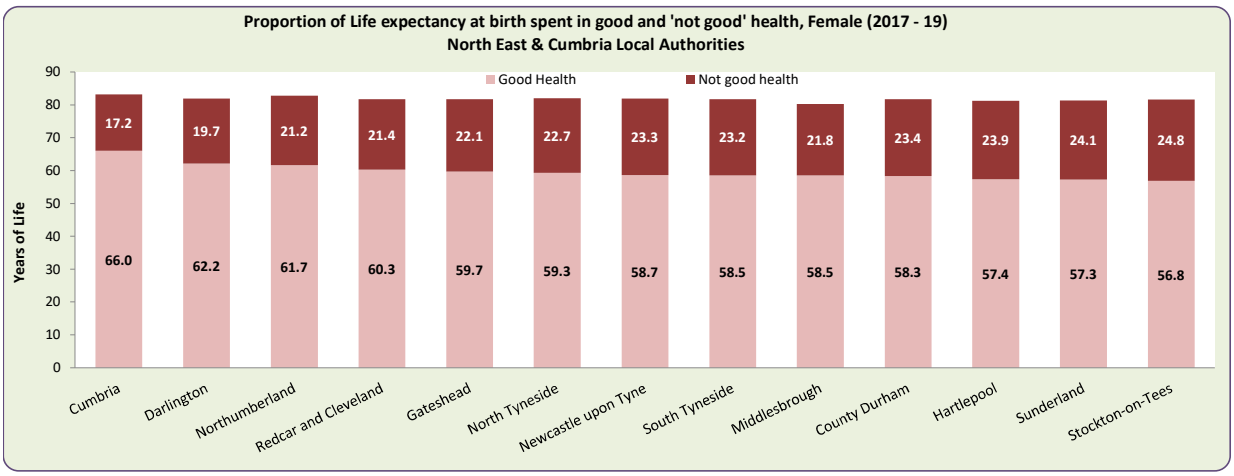
9. Department of Health and Social Care. (2021). Government launches call for evidence to improve health and wellbeing of women in England. https://www.gov.uk/government/news/government-launches-call-for-evidence-to-improve-health-and-wellbeing-of-women-in-england

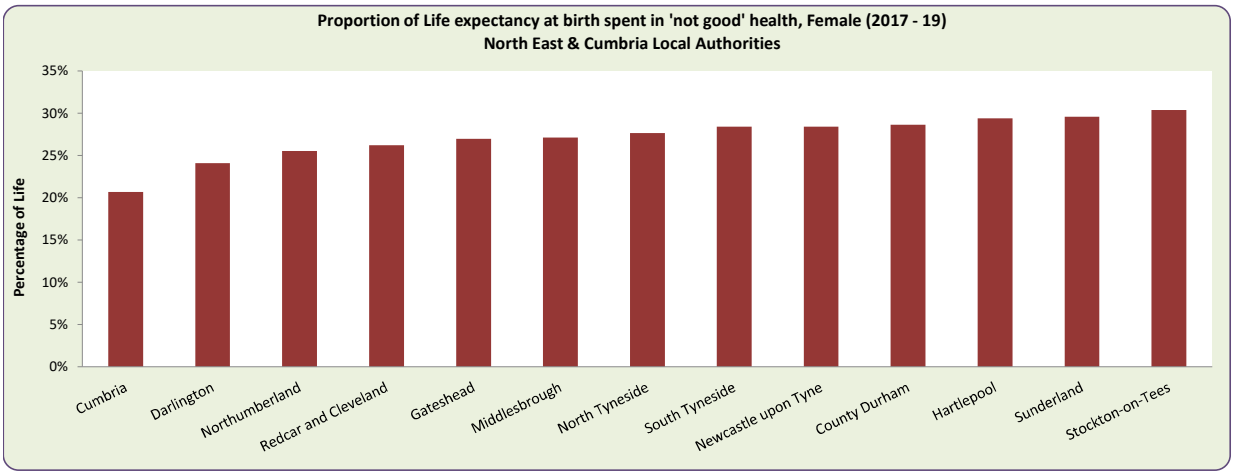
Compared with England Significantly Better Similar Significantly Worse

4. Healthy Life expectancy at birth (Female) (2017 - 2019)

The average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.

South East	South West	East of England	London	West Midlands	North West	Yorkshire and the Humber	East Midlands	*North East*	England
65.9	65.0	64.2	64.0	62.6	62.2	61.9	61.9	59.0	63.5





Data source: Office for Health Improvement and Disparities. Public Health Profiles. 2021 (http://fingertips.phe.org.uk) © Crown copyright 2022

What is the data telling us?

Whilst the gap in female life expectancy within the North East and Cumbria was 2.9 years in 2017-19, there is a 9.1 year difference in healthy life expectancy between the area with the highest (Cumbria - 66.0 years) healthy life expectancy and that with the lowest (Stockton-on-Tees - 56.8 years). It should be noted that in the charts above data is reported for the whole of Cumbria and therefore the figures include Barrow-in-Furness and South Lakeland which are outside the AHSN boundary. This inclusion of county-level data for Cumbria, rather than district-level figures explains why the intra regional gap in life expectancy is lower than that reported earlier in this report (Indicator 2). Women in Stockton-on-Tees spend 30% of their lives in 'not good/poor' health, whereas for women in Cumbria it is 21%.

Deprivation is not the only factor that impacts healthy life expectancy; smoking prevalence, alcohol consumption, diet and physical activity all impact healthy life expectancy and the proportion of life expectancy at birth spent in 'not good' health[10]. Some of these factors are explored further in later chapters of the report.

10. ONS. (2017). What affects an area's healthy life expectancy?
https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/articles/whataffectsanareashealthylifeexpectancy/2017-06-28