

## **HEALTHY LIFE EXPECTANCY IN STOCKPORT**

### **1. INTRODUCTION AND PURPOSE OF REPORT**

- 1.1 Healthy life expectancy (HLE) is a measure of the average number of years a person would expect to live in good health, rather than with a disability or in fair or bad health. It is often seen as a better measure of the population's health than life expectancy (the average number of years a person would expect to live) as it measures quality of life as well as length of life.
- 1.2 In Stockport healthy life expectancy is a key indicator within many of the strategic plans and outcomes frameworks including the One Stockport Health and Care Plan.
- 1.3 Healthy life expectancy combines three different data sources: information about our population, information about the number of deaths in the area and information from people about their self-reported health status (rating general health as either very good, good, fair, bad or very bad).
- 1.4 Regular healthy life expectancy data is available from the national published [Public Health Outcomes Framework](#) (PHOF) at a Stockport level. However there is no regularly published data on HLE below the local authority level, which is a particularly significant gap in our knowledge given the level of health inequalities in the borough. The difficulty is due to the fact that the self-reported health data is collected from surveys and most of these are not of sufficient sample size to allow sub-local authority analysis.
- 1.5 The publication of the decennial Census gives a once in ten year opportunity to calculate sub-Stockport health life expectancy, and this paper sets out the results of this analysis for 2020-2022 for Stockport.
- 1.6 The findings shows that:
  - Healthy life expectancy in Stockport for males and females is estimated to be 65.4 and 67.3 years respectively in 2020-2022.
  - The average age at which people move into bad health in Stockport for males and females was 75.0 and 78.4 years respectively in 2020-2022
  - **Therefore across Stockport nearly a fifth of life is spent in fair or bad health, and just over 5% spent in bad or very bad health.**
  - As with overall life expectancy there has been little change in the levels of healthy life expectancy (HLE) in Stockport over the last 10 years.
  - Females live longer than males, and their health declines at a slightly older age than males. Females however spend more years in fair or bad health than males: 16.0 years on the fair measure and 4.8 on the bad measure compared to 13.5 and 3.9 for males respectively.

- **There is a clear deprivation profile in Stockport with those in the most deprived areas living around 20 years in not good health compared to around 12 years in the least deprived on the fair health measure.**
- Those living in the most deprived areas can expect to live more than a quarter of their lives in not good health (26%) whereas males and females in the least deprived areas can expect to live 13% and 14% of their lives in not good health respectively.
- **The deprivation inequality in healthy life expectancy is greater than the deprivation inequality for life expectancy.**
- These estimates are somewhat different to the nationally published HLE data for Stockport, particularly for females, due to the reliance on small sample survey data used the more frequent nationally published estimates
- Nationally published data for HLE can be used for outcome purposes (as they allow comparisons to other areas) but the national HLE estimates should always be presented with the confidence intervals and the data should be used cautiously, due to the small sample sizes.

## 2. STOCKPORT LEVEL TRENDS IN HEALTHY LIFE EXPECTANCY

- 2.1 This section sets out analysis of the nationally published Stockport level healthy life expectancy measure as published in the Public Health Outcomes Framework by the Office for Health Improvement and Disparities (OHID).
- 2.2 Nationally self-reported health data is collected from the annual population survey (collected by ONS) in order to calculate healthy life expectancy alongside the annual life expectancy estimates and some weighting factors from the 2011 Census self-reported health data. The data suggests that HLE for England and Stockport is:

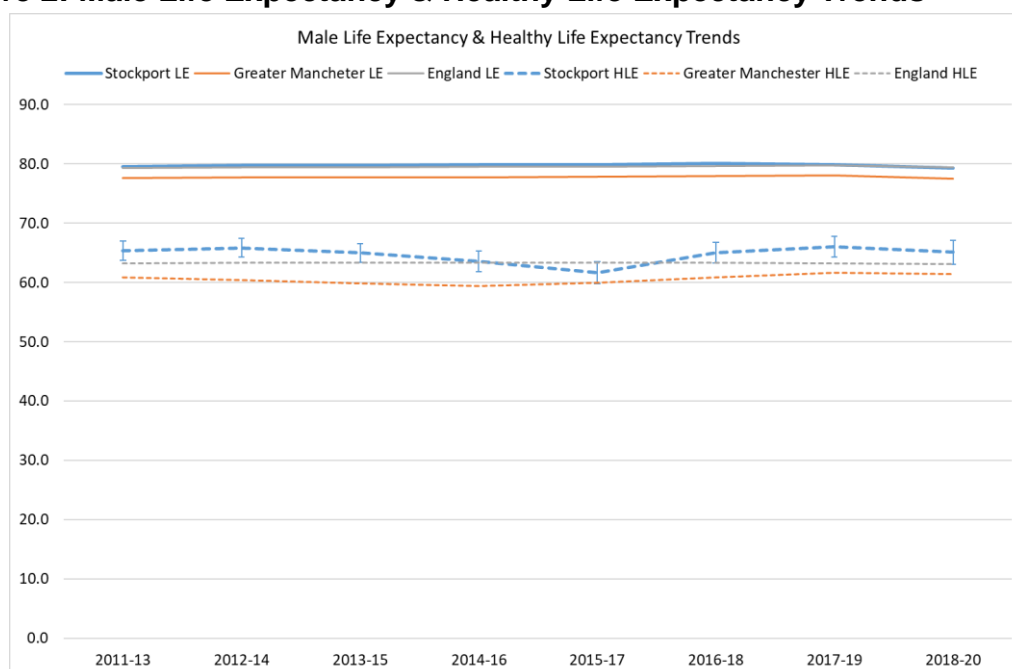
**Figure 1: 18/20 Healthy Life Expectancy estimates in years – national data**

Gender	Measure	Stockport	Greater Manchester	England
Female	Healthy life expectancy	62.2 years (CI <sup>1</sup> 59.8-64.6)	60.9 years (CI 60.1-61.6)	63.9 years (CI 63.7-64.1)
	% of life spent in good health	74.7%	74.9%	76.8%
Male	Healthy life expectancy	65.1 years (CI 63.1-67.1)	61.4 years (CI 60.78-62.1)	63.1 years (CI 62.9-63.3)
	% of life spent in good health	82.1%	79.2%	79.5%

Source: Office for National Statistics (ONS) & Public Health Outcomes Framework (OHID)

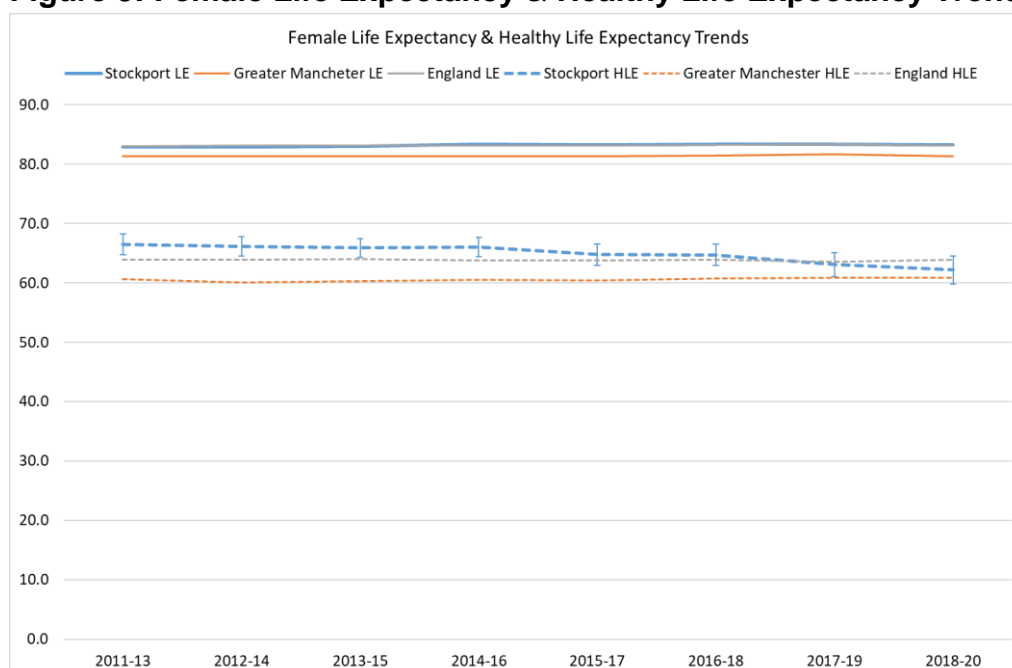
<sup>1</sup> The confidence intervals (CI) show the range in years which the estimated life expectancy value is likely to fall within, with a 95% statistical certainty. All else being the same, a larger sample produces a narrower confidence interval as there is less chance of random variation and more certainty in the estimate.

**Figure 2: Male Life Expectancy & Healthy Life Expectancy Trends**



Source: Office for National Statistics (ONS) & Public Health Outcomes Framework (OHID)

**Figure 3: Female Life Expectancy & Healthy Life Expectancy Trends**



Source: Office for National Statistics (ONS) & Public Health Outcomes Framework (OHID)

- 2.3 The data indicates that in 2018-2020 Stockport males spent around 18% of their lives in fair or bad health whereas females in Stockport spent around 25% of their lives in fair or bad health. Both male and females healthy life expectancy are statistically similar to the average in England in 2018-2020.
- 2.4 According to national data Stockport males have had higher HLE than females over last three years of data (to 2018-2020), although wide confidence

intervals<sup>2</sup> make this difference statistically insignificant. It is worth noting that while the confidence intervals for England are 0.4 years and for GM are 1.5 years, they are between 4 and 5 years for Stockport, reflecting the smaller population size and the smaller sample in the Annual Population Survey.

- 2.5 Given the long standing national and regional trends of higher female HLE compared to males and the small sample sizes involved, local knowledge would suggest that females mostly likely have higher HLE than males within Stockport and that the national data is an underestimate. It is however likely that females spend more years in not good health than males, in part due to the fact that they live longer but also as the proportion of their lives spend in not good health is higher.
- 2.6 The national data suggests that Stockport male HLE saw a fall of 0.3 years (0.4%) between 2011-13 and 2018-20 and female HLE saw a fall of 4.3 years (6.5%) although, as before, wide confidence intervals make this statistically insignificant. However the trend for females in Stockport is markedly different than national trends which were stable over the period. This inconsistency would supports a hypothesis that female HLE in Stockport on the national data is artificially low in later years and is higher than the national data suggests.
- 2.7 ONS and OHID will be producing an update of the official Healthy Life expectancy estimate using the 2021 Census in due course (date to be confirmed), however the publication of the 2021 Census results give the opportunity to calculate Healthy Life Expectancy locally.

**Figure 4: 20/22 Healthy Life Expectancy estimates in years – local data**

Gender	Measure	Stockport (2020-2022)	Difference to latest ONS (2018-2020)
Female	Life expectancy	83.3 years (CI 82.9-83.6)	+0.1 years
	Healthy life expectancy	67.3 years (CI 67.0-67.5)	+5.1 years
	% of life spent in good health	80.8%	
Male	Life expectancy	78.9 years (CI 78.5-79.3)	-0.5 years*
	Healthy life expectancy	65.4 years (CI 65.1-65.6)	+0.4 years
	% of life spent in good health	82.9%	

Source: Stockport Council Public Health Intelligence Team

\* COVID-19 impact

<sup>2</sup> The confidence intervals (CI) show the range in years which the estimated life expectancy value is likely to fall within, with a 95% statistical certainty. All else being the same, a larger sample produces a narrower confidence interval as there is less chance of random variation and more certainty in the estimate.

- 2.8 The data indicate that in 2020-2022 Stockport males spent around 17.1% of their lives in fair or bad health whereas females in Stockport spent around 19.2% of their lives in fair or bad health.
- 2.9 Local estimates for 2020/2022 give a HLE figure for males that is very similar to the nationally calculated rate for 2018/2020 (65.4 years [CI 65.1-65.6]), for females the local estimate (67.3 years [CI 67.0-7.5]) is higher and is much closer to both the national average and the national calculated estimates for Stockport from the beginning of the decade. The local estimates also suggest that the female healthy life expectancy is higher than the male estimate (as national level data shows), but that the proportion of life spent in fair or bad health is higher for females.
- 2.10 The confidence intervals for the local data are narrower than the national estimates at an interval of 0.5 years, reflecting that the self-reported health element comes from a whole population survey rather than a sample survey.
- 2.11 Further analysis will be undertaken when the nationally calculated data for 2020-2022 is published. Until this point we will continue to use the data within the PHOF for outcome purposes (as they allow comparisons to other areas) but the national HLE estimates should always be presented with the confidence intervals and the data should be used cautiously.
- 2.12 Analysis shows that as with overall life expectancy there has been little change in the levels of healthy life expectancy in Stockport over the last 10 years when using locally calculated data.

**Figure 5: 20/22 Healthy Life Expectancy estimates in years trend**

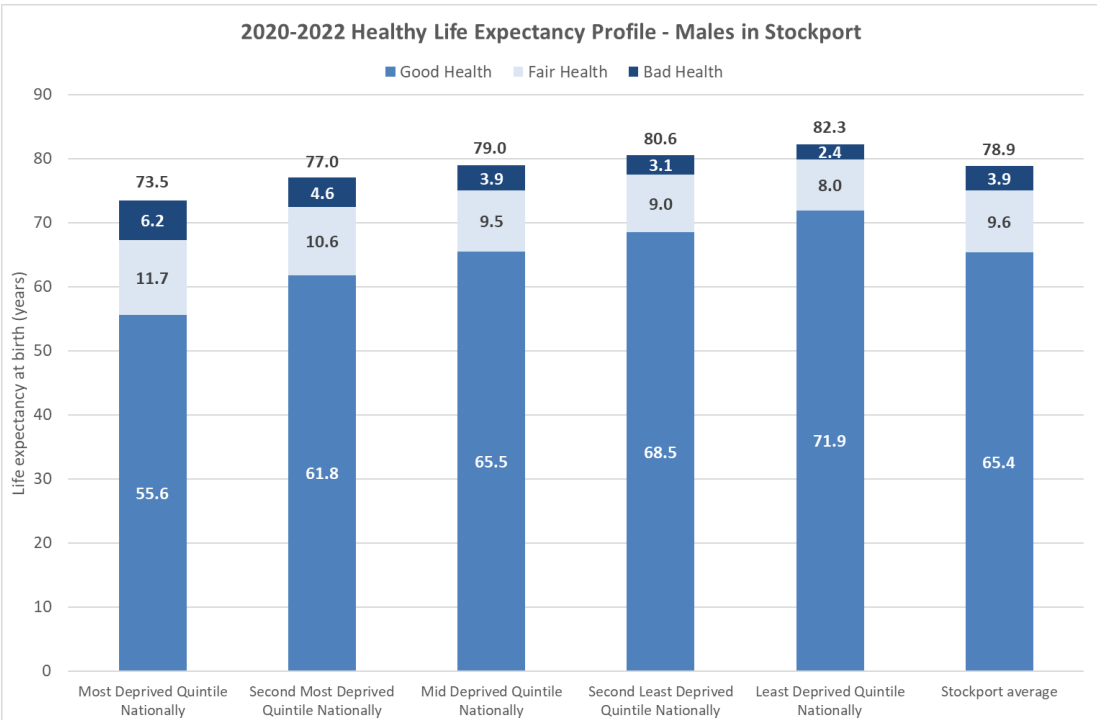
Gender	Measure	Stockport (2020-2022)	Stockport (2010-2012)	Stockport (2000-2002)
Female	Life expectancy	83.3 years (CI 82.9-83.6)	83.1 years (CI 82.7-83.4)	81.0 years (CI 80.7-81.4)
	Healthy life expectancy	67.3 years (CI 67.0-67.5)	66.8 years (CI 66.6-67.0)	64.4 years (CI 64.1-64.6)
	% of life spent in good health	80.8%	80.4%	79.4%
Male	Life expectancy	78.9 years (CI 78.5-79.3)	79.8 years (CI 79.4-80.2)	75.9 years (CI 75.5-76.3)
	Healthy life expectancy	65.4 years (CI 65.1-65.6)	65.4 years (CI 65.1-65.7)	62.8 years (CI 62.6-63.1)
	% of life spent in good health	82.9%	82.0%	82.8%

Source: Stockport Council Public Health Intelligence Team

### 3. WITHIN STOCKPORT LEVEL TRENDS IN HEALTHY LIFE EXPECTANCY

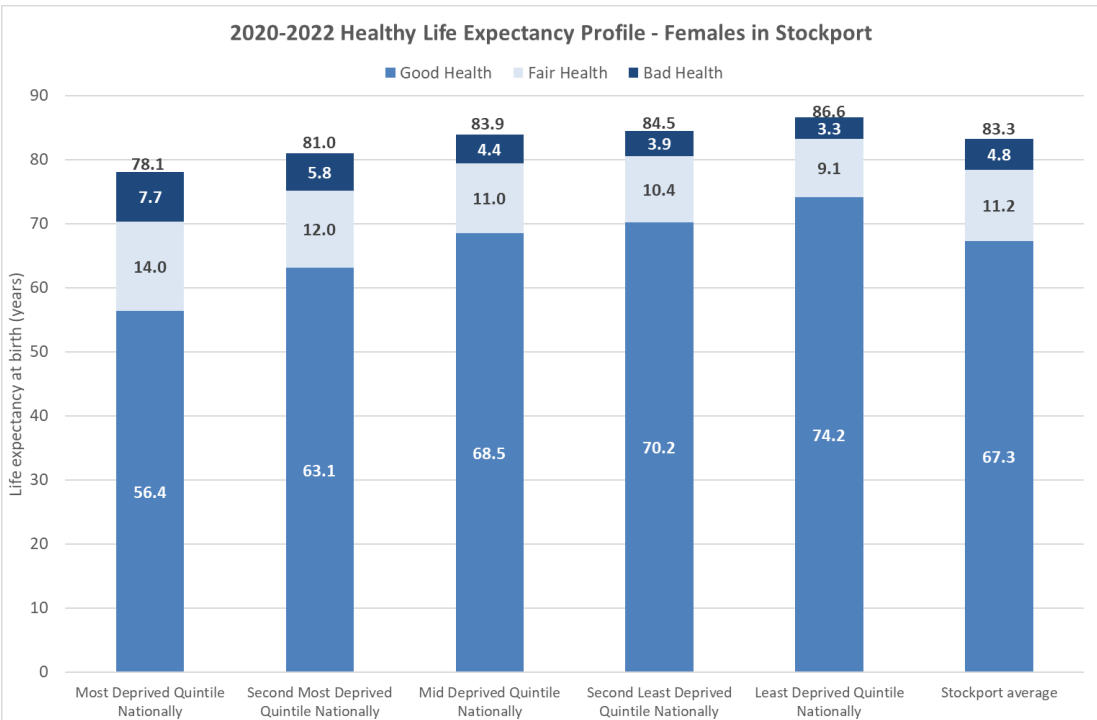
- 3.1 Within Stockport estimates of healthy life expectancy for 2020-2022 have also been calculated by quintiles of deprivation.

**Figure 6: 2020/2022 Healthy Life Expectancy by deprivation for males**



Source: Stockport Council Public Health Intelligence Team

**Figure 7: 2020/2022 Healthy Life Expectancy by deprivation for females**



Source: Stockport Council Public Health Intelligence Team

3.2 There is a clear inequality profile for both males and females, with HLE in the most deprived areas between 10 and 11 years lower than the Stockport average. The least deprived areas have HLE between 6 and 7 years higher than the Stockport average. Those in the most deprived areas can expect to

live around 25-28% of their lives in not good health compared around 13%-14% for males and females respectively in the least deprived areas.

- 3.3 For both male and females in the most deprived areas of Stockport HLE estimates suggest that on average good health ends in the mid-fifties (55.6 years for males, 56.4 years for females) while people are still of working age, in the least deprived areas on average good health lasts into the early-seventies (71.9 years for males, 74.2 years for females).
- 3.4 For both male and females in the most deprived areas of Stockport HLE estimates suggest that on average bad health starts just after the current state pension age (67.3 years for males, 70.4 years for females), in the least deprived areas on average bad health starts 12-13 years later (79.9 years for males, 83.3 years for females).
- 3.5 People in the most deprived areas can expect to live 8-10% of their lives (6.2-7.7 years) in bad health, compared to the Stockport average of 5-6% (3.9-4.8 years) and the average in the least deprived areas of 3-4% (2.4-3.3 years).
- 3.6 The inequality in HLE is wider than the inequality in life expectancy for both males and females when looking at either the gap between the most and least deprived quintiles, or the gap between the most deprived quintile and the Stockport average. When comparing life expectancy in the least and most deprived areas there is a gap of around 8.8 years for males and 8.6 years for females but for HLE this gap widens to 16.4 and 17.8 years respectively. When comparing the most deprived to the Stockport average the gaps in life expectancy are 5.4 and 5.2 years for males and females which is still considerably narrower than the HLE variance of 9.8 and 10.8 years respectively.
- 3.7 The inequality gap between the genders however is narrower in all areas of Stockport for HLE compared to life expectancy. Overall in Stockport the gap between males and females in HLE is around 1.9 years, life expectancy has a gap of 4.4 years. This is replicated in all deprivation quintiles.
- 3.8 Trend analysis for HLE by deprivation quintile is not directly comparable, as the definition of deprived areas has changed over the decade (from the 2007 Index of Multiple Deprivation [IMD] to the 2019 IMD), however in 2013 analysis also shows a clear deprivation profile in Stockport with those in the most deprived areas living around 20 years in not good health compared to around 12 years in the least deprived on the fair health measure. Those in the most deprived areas can expect to live over a quarter of their lives in not good health whereas males and females in the least deprived areas can expect to

live 14% and 16% of their lives in not good health respectively. Therefore there has not been a significant change in deprivation inequalities.

3.9 2021 Census data is not available for Stockport's new (2023) ward boundaries, but proxy analysis based on the best fit LSOAs (lower super output areas) has enabled the analysis of Healthy Life Expectancy for neighbourhoods. This analysis can be used to inform the continued development of our One Stockport Neighbourhood and Prevention programme.

3.10 The analysis shows the inequalities between neighbourhoods with Healthy Life Expectancy for females ranging from 59.9 years in Stockport Central to 73.6 years on Bramhall and Cheadle Hulme South (a gap of 13.7 years) and 58.9 years to 71.6 years for males (a gap of 12.9 years); again these gaps are larger than for life expectancy as a whole (7.3 for females, 7.5 for males).

**Figure 8: 2020/2022 Healthy Life Expectancy estimates for neighbourhoods**

Neighbourhood	Females			Males		
	Life expectancy (years)	Healthy life expectancy (years)	% of life spent in not good health	Life expectancy (years)	Healthy life expectancy (years)	% of life spent in not good health
Stockport Central	79.4	59.9	24.5%	75.4	58.9	22.0%
Heatons and Reddish	82.2	66.2	19.5%	78.0	64.1	17.8%
Werneth	82.9	66.0	20.4%	78.2	64.1	18.0%
Marple	84.2	71.0	15.7%	79.1	68.2	13.7%
Cheadle	83.4	68.0	18.5%	79.8	66.8	16.3%
Stepping Hill	84.9	68.9	18.8%	80.0	67.0	16.3%
Bramhall and Cheadle Hulme South	86.7	73.6	15.2%	82.9	71.6	13.6%
Stockport	83.3	67.3	19.2%	78.9	65.4	17.1%



## 4. FUTURE ANALYSIS PRIORITIES

- 4.1 Work will continue to validate and analyse nationally published data on healthy life expectancy for Stockport and to compare it to the local estimates once available. National methodological changes following the 2021 Census will also be investigated and may inform future local analysis.
- 4.2 Further work to develop a more regular analysis of Healthy Life Expectancy locally will continue, however a number of issues remain:
- The data sources used for calculating healthy life expectancy nationally (the Annual Population Survey) are not suitable for local level analysis due to the small sample size.
  - The data from the 2021 Census on general health is suitable, however this data is only collected every 10 years and therefore cannot be used for regular monitoring.
  - There is also some uncertainty about whether a Census will be conducted in 2031<sup>3</sup>.
- 4.3 Going forward, models will be developed and tested to assess whether the 2021 Census responses can be adapted to changes in health so HLE can be calculated on a more frequent basis. This may include conducting a Stockport Wellbeing and Health survey to collect the necessary self-reported health data, or using a proxy measure for good / fair / bad health based on administrative data sources such as hospital admissions or GP practice consultations.
- 4.4 It is not possible to put a time frame on this work as it will depend on the success of the outputs, but it will be undertaken through 2024.

## 5. RECOMMENDATIONS

- 5.1 The Health and Wellbeing Board are asked to note the following key summary points:
- Healthy life expectancy in Stockport for males and females is estimated to be 65.4 and 67.3 years respectively in 2020-2022.
  - The average age at which people move into bad health in Stockport for males and females was 75.0 and 78.4 years respectively in 2020-2022
  - **Therefore across Stockport nearly a fifth of life is spent in fair or bad health, and just over 5% spent in bad or very bad health.**

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<sup>3</sup> <https://blog.ukdataservice.ac.uk/future-uk-censuses/>

- Females live longer than males, and their health declines at a slightly older age than males. Females however spend more years in fair or bad health than males: 16.0 years on the fair measure and 4.8 on the bad measure compared to 13.5 and 3.9 for males respectively.
- **There is a clear deprivation profile in Stockport with those in the most deprived areas living around 20 years in not good health compared to around 12 years in the least deprived on the fair health measure.**
- Those living in the most deprived areas can expect to live more than a quarter of their lives in not good health (26%) whereas males and females in the least deprived areas can expect to live 13% and 14% of their lives in not good health respectively.
- The deprivation inequality in healthy life expectancy is greater than for life expectancy.

- 5.2 The Health and Wellbeing Board are asked to endorse the proposed work to continue to investigate other, more regular, methods of assessing Healthy Life Expectancy locally.
- 5.3 The insight from this and further analysis into Healthy Life Expectancy should be used to inform our strategic planning and continue to steer Stockport's work to reduce health inequalities; informing the development of the outcomes frameworks for the One Health and Care Plan and Neighbourhood and Prevention Framework and our local response to Greater Manchester Fairer Health for All; this includes ensuring that confidence intervals are used when using the nationally calculated HLE data.