

planning
transport
design
environment
infrastructure

APPENDIX 8.1: Human Health Baseline

**Wheelabrator Kemsley Generating Station (K3) and Wheelabrator
Kemsley North (WKN) Waste to Energy Facility DCO**

S42 Draft ES

PINS ref: EN010083



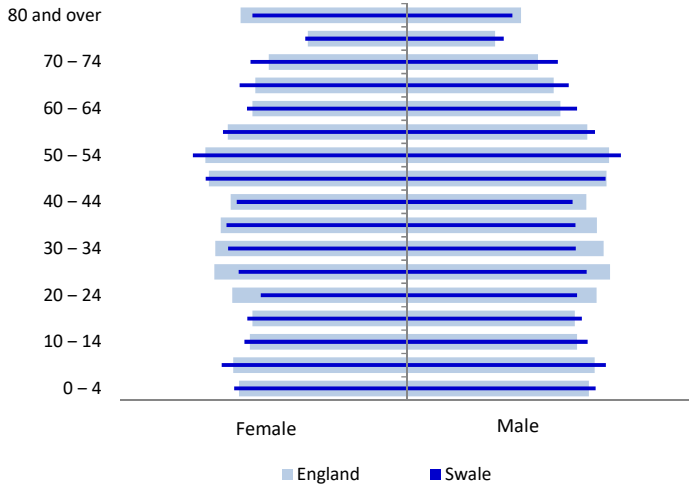
APPENDIX 8.1: HUMAN HEALTH BASELINE

Introduction

Evidence suggests that different communities have varying susceptibilities to health impacts and benefits as a result of social and demographic structure, behaviour and relative economic circumstance; the aim of the following information which makes up this health and wellbeing baseline, is to put into context the local health circumstance of the communities within the Borough of Swale, which makes up the study area, drawing from available statistics.

Demography

Age Structure



Population Change			
Area	2013	2017	Change (%)
Swale	139,171	146,694	5.4
Kent	1,493,512	1,554,636	4.1
South East	8,792,766	9,080,825	3.3
England	53,865,817	55,619,430	3.3

Source: Office for National Statistics

Overall, population growth within the study area is higher than that of the county, regional and national averages.

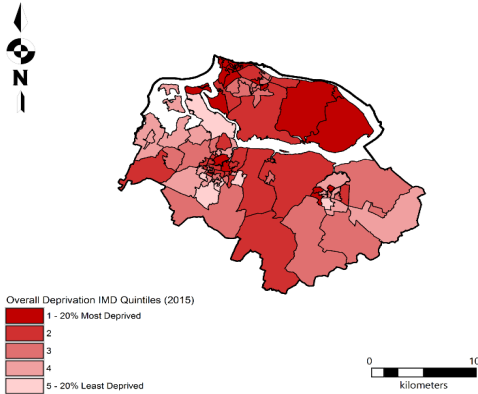
The study area shows a relatively large elderly population, with a higher proportion of the population aged 50-79 year olds compared to the national average.

Comparatively, the study area has a lower proportion of the population aged 20-44 year olds compared to the national average.

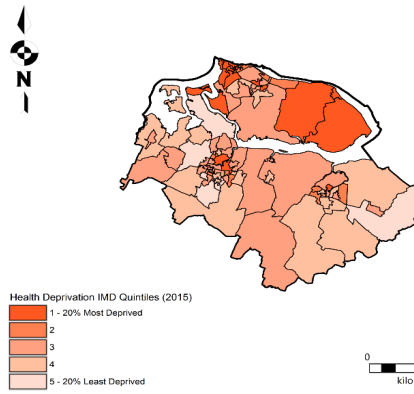
Source: Office for National Statistics

Deprivation

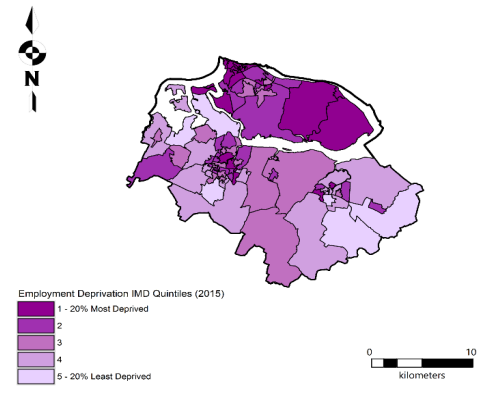
Overall Deprivation



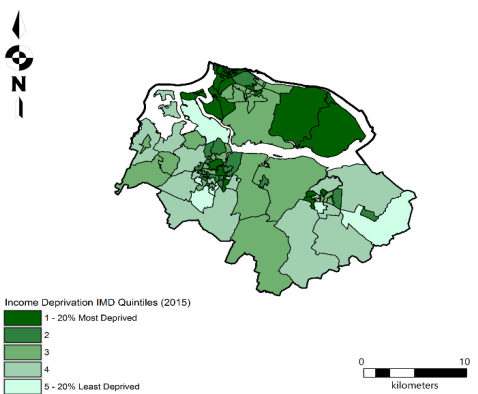
Health Deprivation



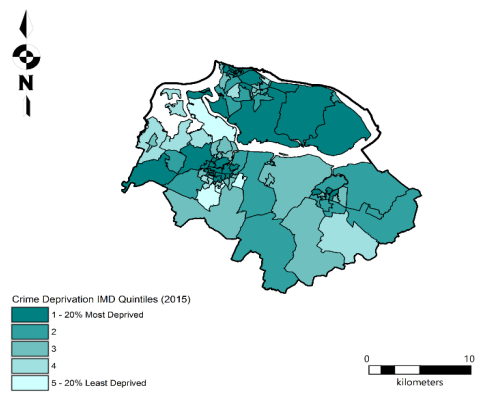
Employment Deprivation



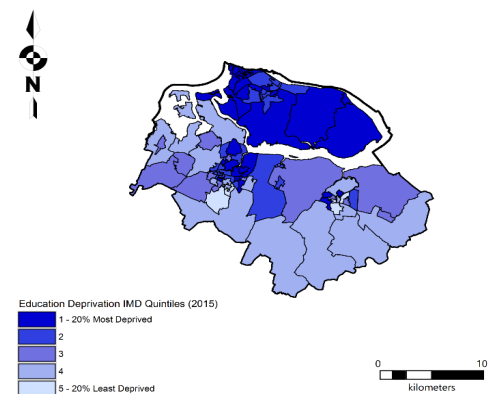
Income Deprivation



Crime Deprivation



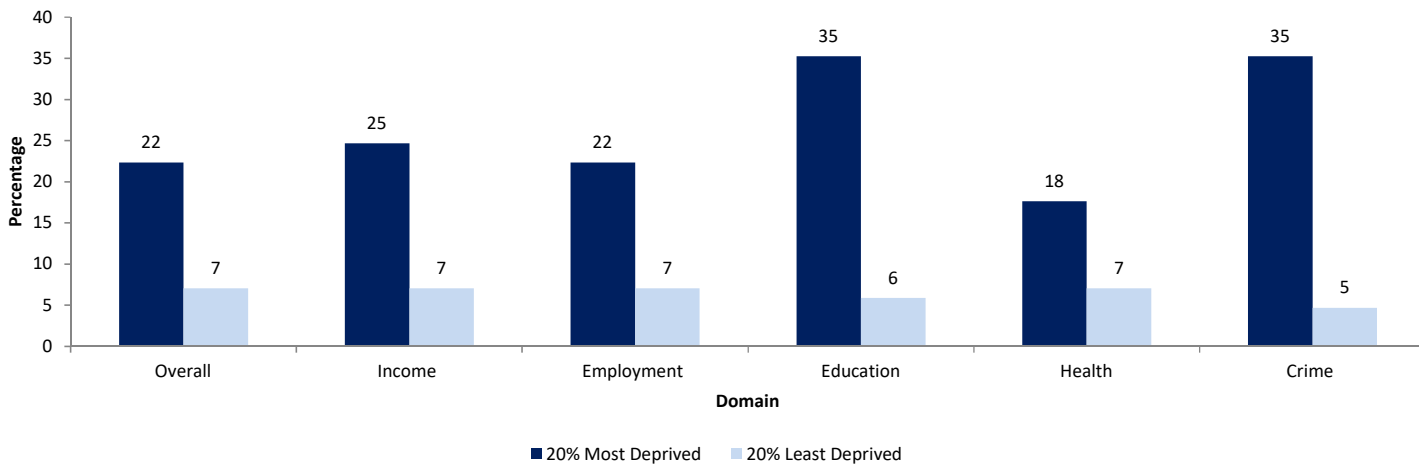
Education Deprivation



Source: Department for Communities and Local Government

The six images show deprivation at Lower Super Output Area (LSOA) level for the Borough of Swale; overall deprivation is presented in addition to selected individual deprivation domains comprising: health, employment, income, crime and education. The overall deprivation category is defined by a combination of all domains (some of which are not included individually in the images above). For overall deprivation, 20% of LSOAs are in quintile 1 (20% most deprived), while 7% are in quintile 5 (20% least deprived). Crime and education deprivation are the most deprived domains with 32% of LSOAs in quintile 1 for both, and 4% and 5% of LSOAs in quintile 5, respectively. None of the deprivation domains contain more LSOAs in quintile 5 than 1, indicating that deprivation in Swale is generally high.

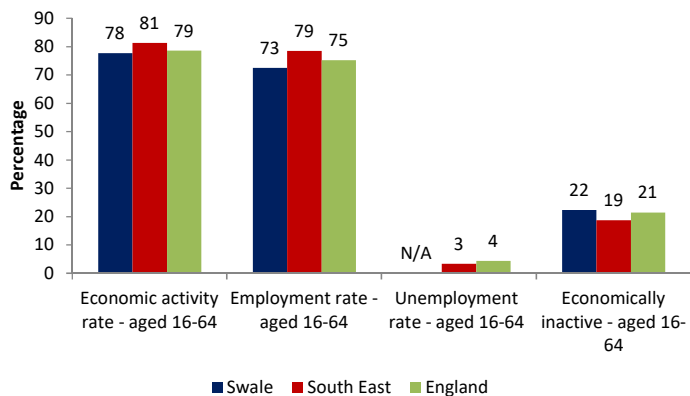
Deprivation Summary Statistics



Source: Department for Communities and Local Government

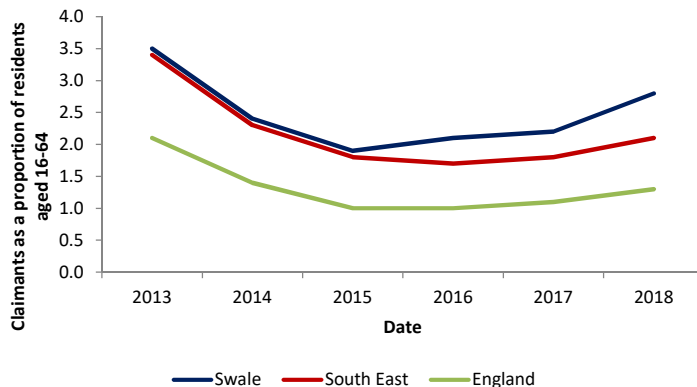
Socio-economic Factors

Economic Activity



Source: NOMIS

Job Seekers Allowance



Source: NOMIS

Income



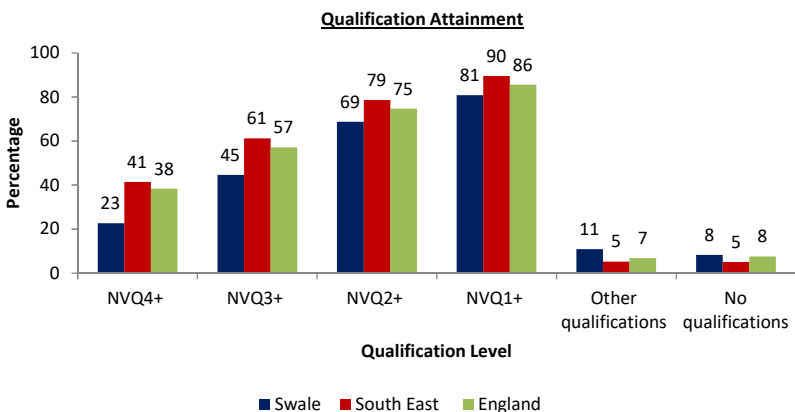
Source: NOMIS

Economic activity and employment rates within the study area are both below the regional and national average, while economic inactivity for Swale is higher than regional and national averages. Those who are economically inactive are those who are unemployed (in the conventional form), and are not seeking employment. Common reasons for economic inactivity include long-term sickness or disability, looking after a family/home, being a student, or being retired.

While data for unemployment rates in Swale is unavailable due to unreliable sample size, we can use employment rate as a proxy. As there is a lower than average employment rate, it would be expected that there is a higher than average unemployment rate within Swale.

The proportion of the population within Swale claiming Jobseekers' Allowance decreased between 2013-2015. Since then, it has been increasing and is been consistently higher than the regional and national averages.

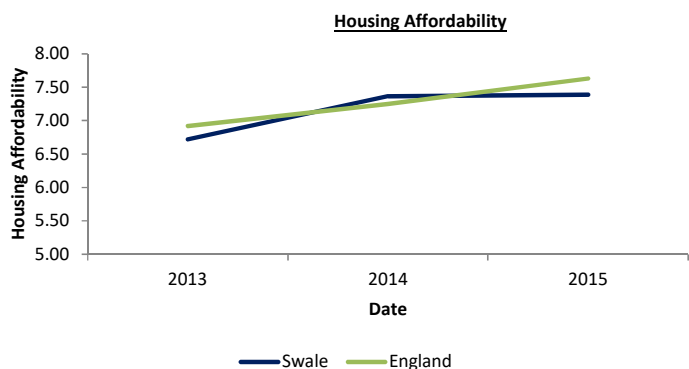
Full-time median weekly gross income within the study area has seen a general increase since 2013. Full-time median gross income within the study area has been consistently above the national average but consistently below the regional average. A lower proportion of the population in the study area have attained NVQ1+ to NVQ4+ level qualifications compared to the regional and national averages. A higher proportion of study area residents have obtained "other" qualifications or no qualifications compared to the regional and national averages. Overall, this indicates that the study area performs worse than regional and national averages in terms educational attainment.



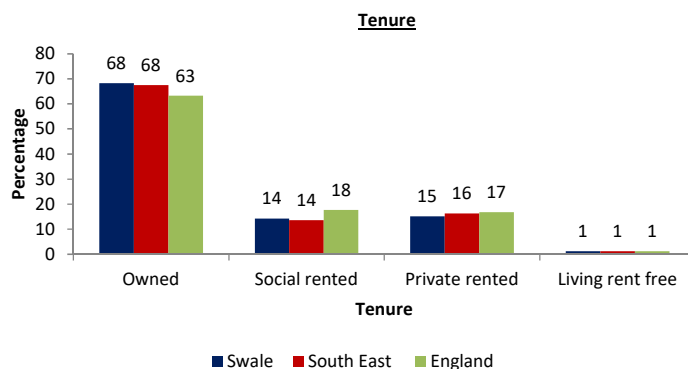
Source: NOMIS

Housing

Housing tenure in Swale shows that a marginally higher proportion of residents own their house compared to regionally and nationally. The proportion of social rented housing is similar to the regional average and lower than the national average, while the proportion of private rented housing is lower than both regionally and nationally. The proportion of those living rent free is very low and the same as regional and national averages. Trend analysis shows that housing is becoming increasingly more unaffordable in the study area, albeit at a slower rate than nationally. Although housing in Swale was more unaffordable in 2014 compared to nationally, since then it has become slightly more affordable than nationally.



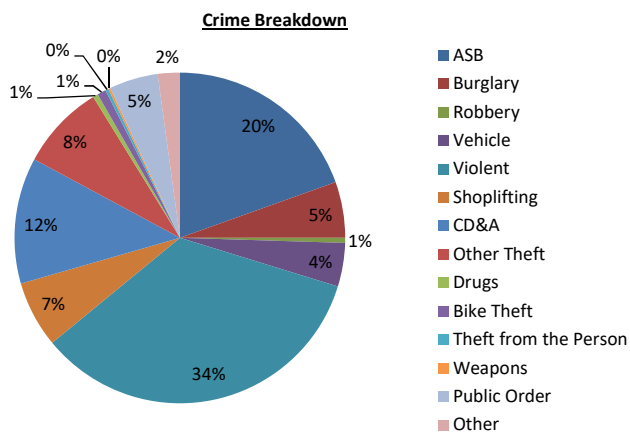
Source: Department for Communities and Local Government



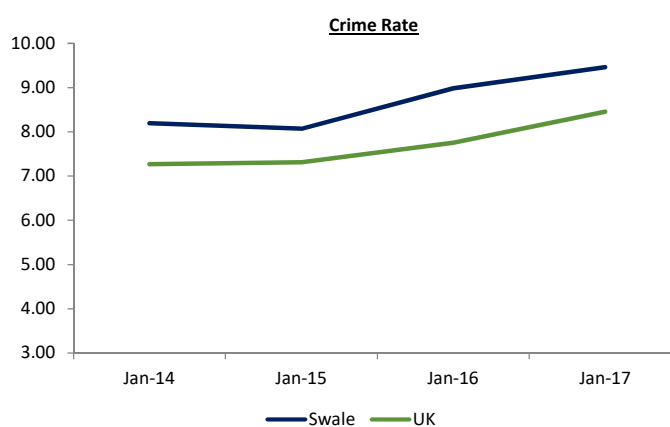
Source: NOMIS

Crime

Crime rate within the study area is consistently higher than the UK average, and has generally been increasing over the years. Following a slight decrease from 8.20 to 8.07 per 1,000 population between 2014 and 2015, crime rates have increased again to 9.46 per 1,000 population in 2017, compared to a UK average of 8.46 per 1,000 population. When analysing the type of crime being committed, most recent figures show that the largest contribution (34%) is from "violent crimes", followed by "anti-social behaviour" (ASB) (20%) and "criminal damage and arson" (CD&A) (12%).



Source: UK Crime Stats

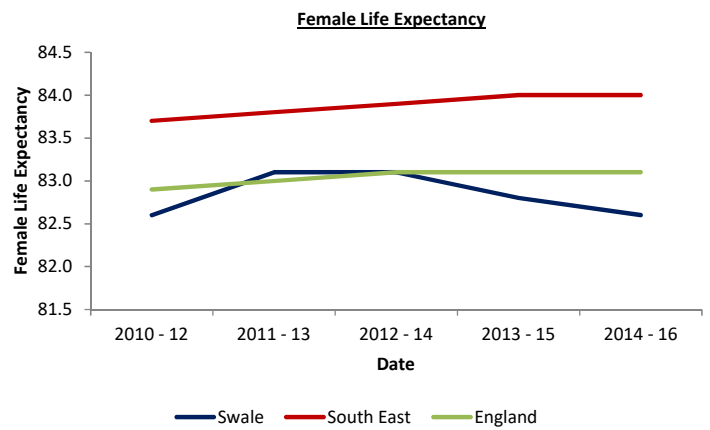
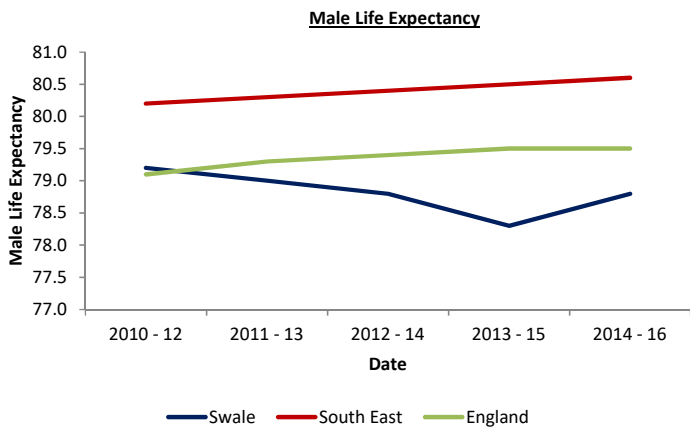


Source: UK Crime Stats

Life Expectancy

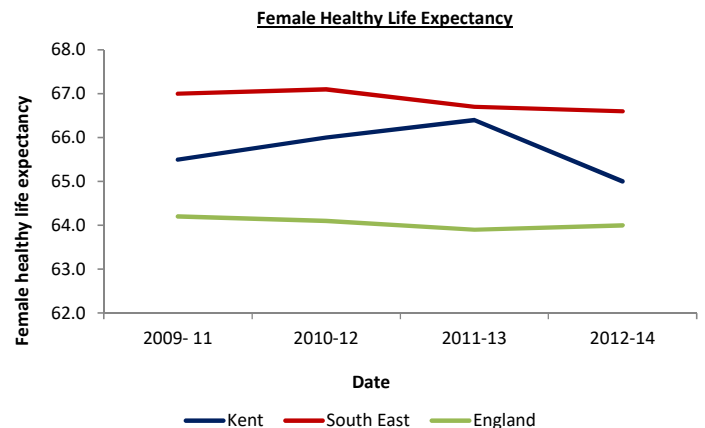
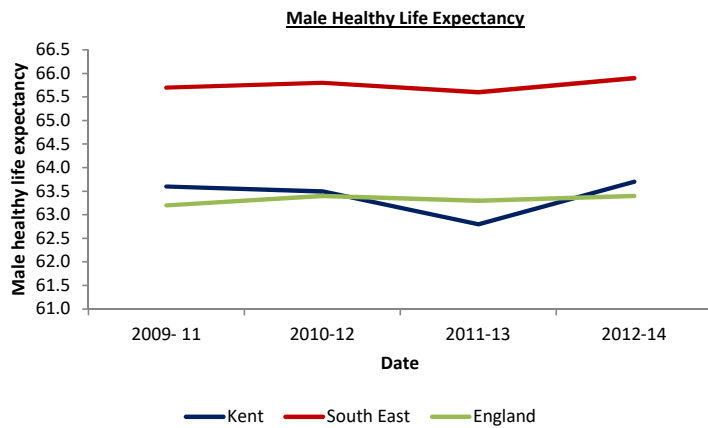
Male life expectancy in Swale has shown a general decrease over the years from 79.2 in 2010-12 to 78.8 in 2014-16; from 2010-12 to 2014-16, male life expectancy has been consistently below the regional average, and since 2011-13 to 2014-16 male life expectancy has been below the national average too.

Female life expectancy has fluctuated in the past few years, increasing between 2010-12 to 2011-13 but then consistently decreasing after that up to 2014-16 where female life expectancy equals that in 2010-12. It has also consistently been lower than the regional average. Female life expectancy has remained consistently below the regional average but fluctuates above and below the national average.



Source: PHE Health Profiles

Source: PHE Health Profiles

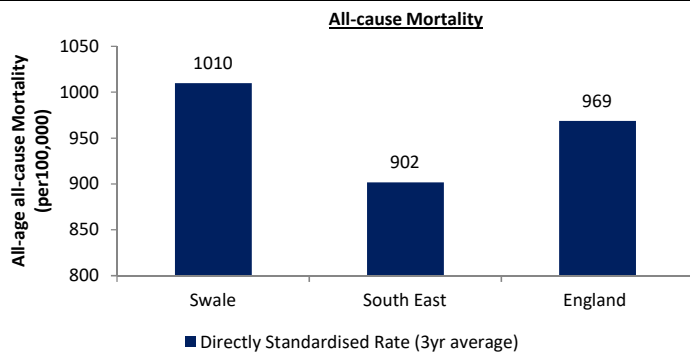


Source: Office for National Statistics

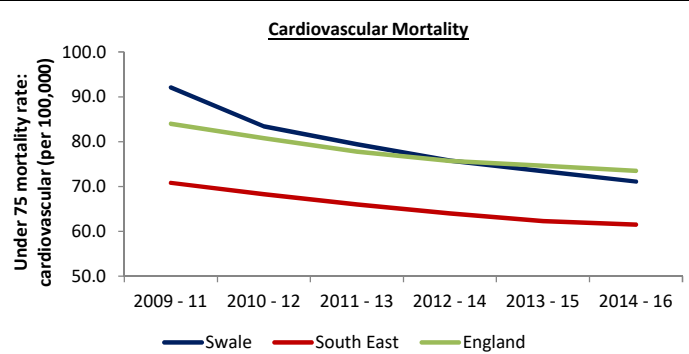
Source: Office for National Statistics

When considering healthy life expectancy (HLE), i.e. the proportion of life spent in "good" health, the patterns change slightly. Male HLE has fluctuated over the years but has been increasing since 2011-13; throughout this time period, male HLE has remained consistently below the regional average. Female HLE increased between 2009-11 and 2011-13, after which it has shown a decrease. Female HLE has consistently remained consistently higher than the national average but lower than the regional average.

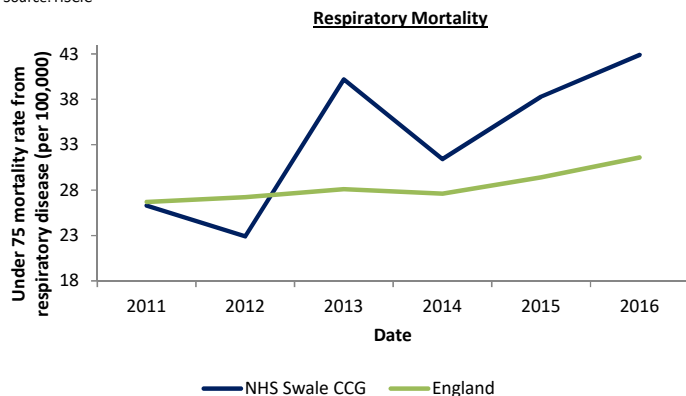
Physical Health



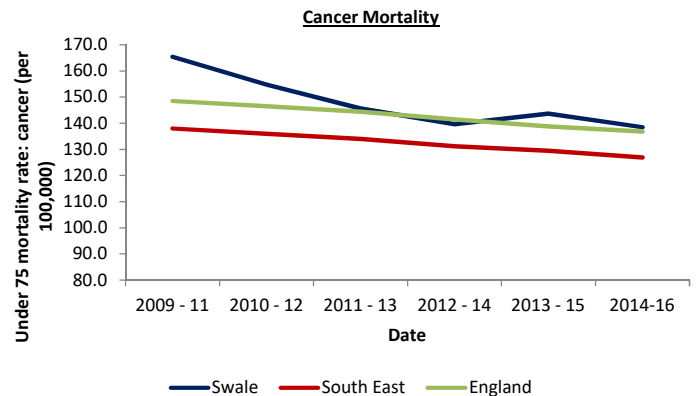
Source: HSCIC



Source: PHE Health Profiles



Source: HSCIC



Source: PHE Health Profiles

ICD Code	Disease	Emergency Hospital Admissions Incidence Rate (per 100,000)	
		England	Swale
Cardiovascular			
I00-I09	Rheumatic heart disease	2.9	2.8
I10-I15	Hypertensive diseases	26.6	25.6
I20-I25	Ischaemic heart diseases	250.5	241.3
I26-I28	Pulmonary heart disease & diseases of pulmonary	50.1	48.2
I30-I52	Other forms of heart disease	334.8	322.4
I60-I69	Cerebrovascular diseases	167.4	161.3
I70-I79	Diseases of arteries, arterioles & capillaries	38.7	37.3
I80-I89	Diseases of veins & lymphatic system nec.	66.7	64.2
I95-I99	Other & unspecified disorders of the circulatory system	41.7	40.2
Respiratory			
J00-J06	Acute upper respiratory infections	208.7	222.1
J09-J18	Influenza & pneumonia	487.3	518.5
J20-J22	Other acute lower respiratory infections	298.6	317.7
J30-J39	Other diseases of upper respiratory tract	30.3	32.2
J40-J47	Chronic lower respiratory diseases	369.5	393.1
J60-J70	Lung diseases due to external agents	42.1	44.8
J80-J99	Other diseases of the respiratory system	83.7	89.0

Source: Hospital Episode Statistics (corrected using SAR for CHD and COPD)

All-cause mortality is higher in Swale compared to both the regional and national average.

Mortality from cardiovascular disease has been decreasing since 2009. In 2009, cardiovascular disease mortality was higher than both the regional and national averages; since 2013-15 it has decreased to lower than the national average but remains higher than the regional average.

The mortality rate for respiratory disease has fluctuated substantially since 2011 and has remained higher than the national average since 2013.

The under 75 mortality rate for cancer shows a general decrease since 2009. In most years, cancer mortality rate has been higher than the regional and national averages.

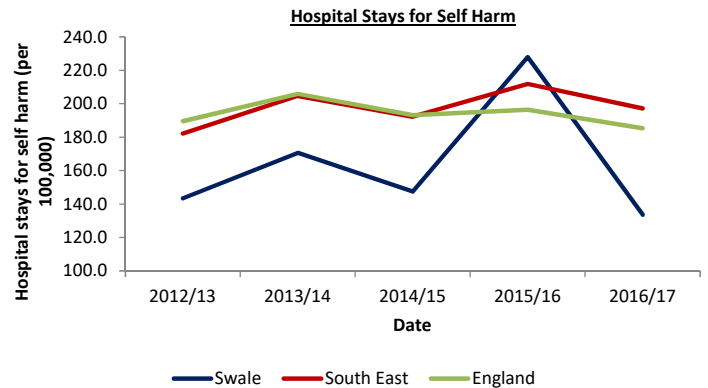
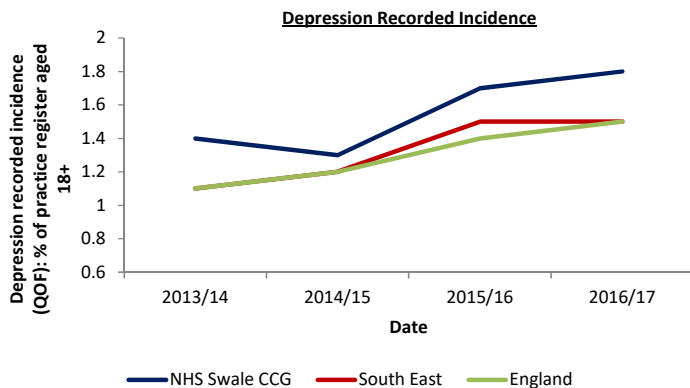
From the statistics analysed for respiratory disease, cardiovascular disease and cancer, cancer is the main cause of death in Swale, causing 138.5 deaths per 100,000 population compared to cardiovascular diseases which cause 71.1 deaths per 100,000 population and respiratory diseases which cause 42.9 deaths per 100,000 population.

Emergency hospital admission rates for cardiovascular diseases in Swale district are lower than national averages; "other forms of heart disease" has the highest incidence rate in Swale, followed by "ischaemic heart diseases"

Emergency hospital admission rates for respiratory diseases in Swale district are lower than national averages; "influenza & pneumonia" has the highest incidence rate, followed by "chronic lower respiratory diseases".

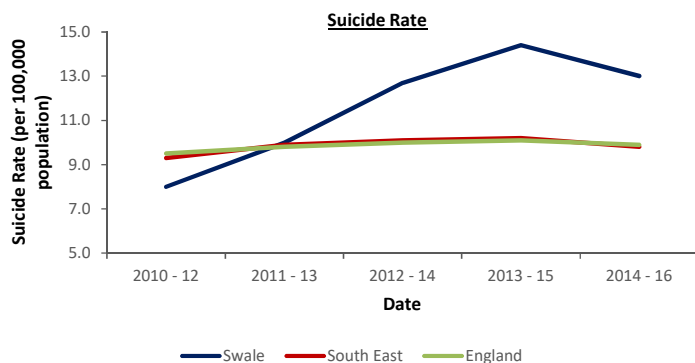
Mental Health

Depression recorded incidence within the study area has shown a general increase over the years and has been consistently higher than both the regional and national average. Hospital stays for self-harm in the study area have been fluctuating since 2012; excluding data from 2015/16, hospital stays for self-harm within Swale have remained below the regional and national averages. Suicide rate within Swale increased between 2010-12 and 2013-15 to above the regional and national averages. While suicide rate decreased in 2014-16, suicide rate remains higher in Swale compared to regional and national averages. The study area has a lower dementia recorded prevalence (age 65+) compared to the regional and national average.

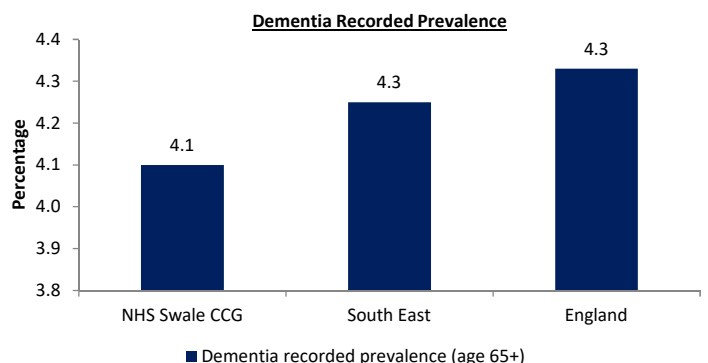


Source: PHE Health Profiles

Source: PHE Health Profiles



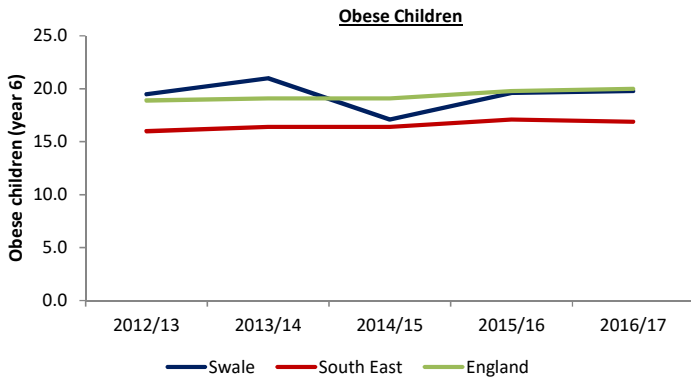
Source: PHE Health Profiles



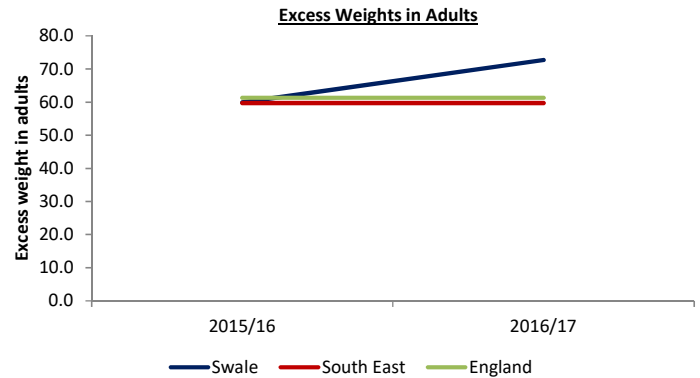
Source: PHE Health Profiles

Lifestyle

Childhood obesity within Swale has remained relatively static over the years, excluding a noticeable decrease during 2014/15. Childhood obesity within Swale has been consistently higher than the regional average but has remained relatively similar to the national average, fluctuating above and below it. Currently it is static and similar to the national average at around 19.5%. The proportion of adults with excess weight within Swale increased between 2015/16 and 2016/17 going against regional and national trends; most recent figures show that the proportion of the adult population within Swale with excess weight is higher than the regional and national averages at 72.7%.



Source: PHE Health Profiles

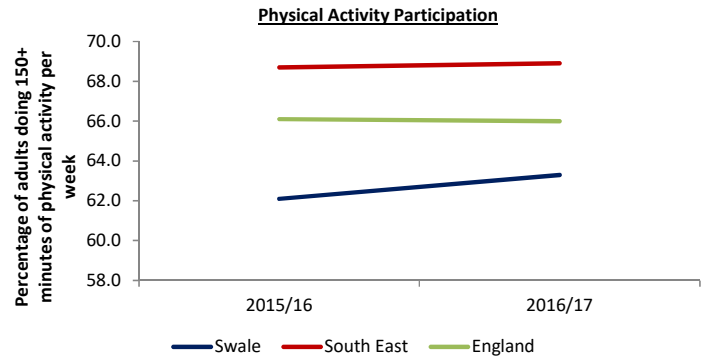


Source: PHE Health Profiles

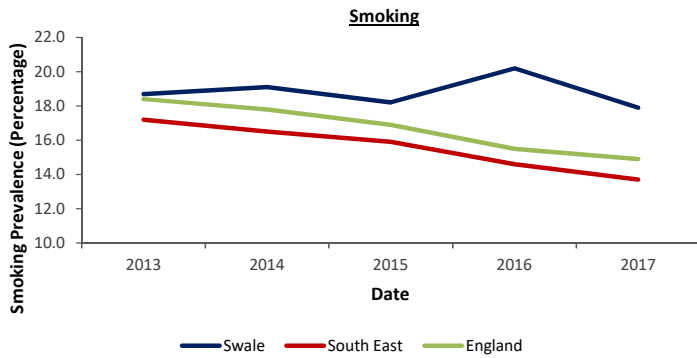
The percentage of adults in the study area who engage in 150+ minutes of physical activity per week (63.3%) is consistently below the regional and national averages at 68.9% and 66% respectively, but is increasing.

Smoking prevalence within the study area has been consistently higher than regional and national averages. While smoking prevalence has fluctuated over the years, most recent figures are similar to the figure in 2013 and show a decreasing trend.

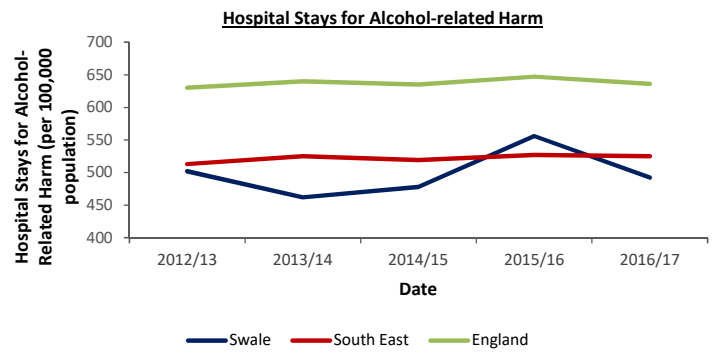
Hospital stays for alcohol related harm are consistently below the national average but fluctuate above and below the regional average. Most recent figures for hospital stays for alcohol related harm are relatively similar to the figure in 2012/13 and are decreasing.



Source: PHE Health Profiles



Source: PHE Health Profiles



Source: PHE Health Profiles

Conclusion

The study area shows higher levels of population growth compared to the county, regional and national averages. In addition, there is a larger proportion of residents aged 50-79 and a smaller proportion of residents aged 20-44 years compared to the national average.

Crime and education are the most deprived IMD domains, with 32% of LSOAs within the 20% most deprived quintile and only 4% and 5% respectively in the 20% least deprived quintile. Economic activity and employment rates are lower than regional and national averages. This is reflected by a higher number of people claiming Job Seeker's Allowance compared to regional and national levels. However, income levels for full-time employees is higher than the national average and continues to increase. There is a relative lack of residents who have attained NVQ1+ to NVQ4+ level qualifications which reflects the results from the education deprivation domain.

Life expectancy within the study area for both males and females is currently lower than the regional and national averages. Most recent figures for male life expectancy are lower compared to in 2010-12; most recent figures for female life expectancy are the same as in 2010-12. Female HLE is better than the national average, while male HLE is similar to the national average, fluctuating above and below it.

Hospital admissions for respiratory diseases, respiratory disease mortality, cardiovascular disease mortality and cancer mortality are all higher in Swale compared to the national average. Mental health conditions are becoming more prevalent within the population with higher depression recorded incidence and suicides rates than the regional and national averages. Hospital stays for self-harm are lower than the regional and national averages in most years.

Lifestyle indicators show that there are high levels of childhood obesity, a high proportion of adults with excess weight, and low levels of participation in physical activity within the adult population. Risk taking behaviours such as smoking and excessive alcohol intake are also relatively high within the study area.