

# Overarching health needs

## 1.1 Introduction

This section is based on the *Joint Strategic Needs Assessment (JSNA)*. It provides a summary of the health needs of Sunderland and highlights relevant issues for the commissioning of oral health promotion and dental services, building on the recommendations of the JSNA. The JSNA can be accessed at:

<https://www.sunderland.gov.uk/article/15183/Joint-Strategic-Needs-Assessment>.

The JSNA is the process by which Sunderland City Council and Sunderland CCG, working in collaboration with partners and the wider community, identify the health and wellbeing needs of the local population. It provides an insight into current and future health, wellbeing and daily living needs of local people and informs the commissioning of services and interventions to improve health and wellbeing outcomes and reduce inequalities.

The findings of the JSNA are based on:

- Consideration of the JSNA topic summaries, which identify health, social care and well-being indicators, including the results of local Lifestyle Services.
- Comparison of our local population against regional and national averages and, in some cases, statistical neighbours which helps us to understand if a particular health issue is significant.
- A summary of local needs analysis that has been carried out, identification of effective interventions (what works) and any other rationale for action e.g., a National ‘must do’ or service users’, carers’ and public views.

## 1.2 Population profile and demography

Sunderland has a population of around 277,417 <sup>(data source 1)</sup>. The population has fallen from close to 300,000 in the early 1990s, due in part to outward migration of younger working age people. Recently, this fall has levelled out and the population is predicted to rise to around 279,600 by 2032 <sup>(data source 2)</sup>.

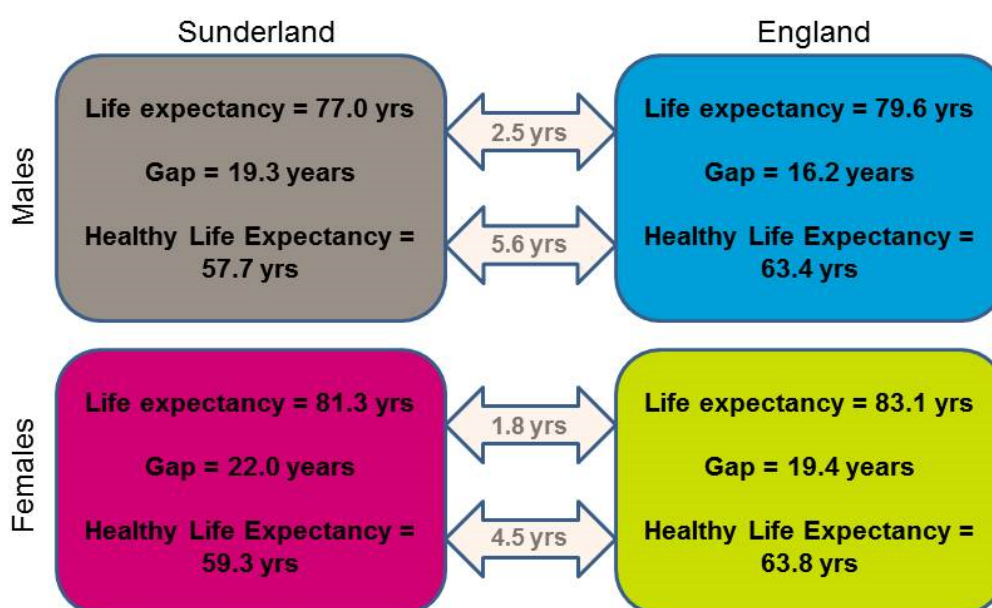
Compared to England, the population of Sunderland has a higher proportion of older people <sup>(data source 1)</sup> who use health and social care services more intensively than any other population group and may require more complex oral healthcare or dental treatment due to frailty and the presence of one or more long term conditions <sup>(9)</sup>.

Sunderland has also seen an increase in the population of people from black and minority ethnic groups, though the City is less ethnically diverse than the England average <sup>(data source 3)</sup>. The age distribution of people from black and minority ethnic groups is generally younger than for white groups in the City <sup>(data source 3)</sup>. Predicted patterns of migration suggest that the increase in the ethnic diversity of the population of Sunderland is likely to continue over the next 20 years <sup>(data source 2)</sup>.

### 1.3 Life expectancy

Whilst average life expectancy at birth has improved over a number of years, the City continues to lag behind the England position and the people of Sunderland live, on average, shorter lives than the England average <sup>(data source 4)</sup>. They also live, on average, a greater part of their lives with illness or disability which limits their daily activities <sup>(data source 4)</sup>. Notably, at England level, increases in life expectancy at birth have slowed and there has been no appreciable increase between 2013-2015 and 2014-2016 or between 2014-2016 and 2015-2017.

**Figure 3: Gaps in Life Expectancy and Healthy Life Expectancy, Sunderland compared to England, 2015-2017**

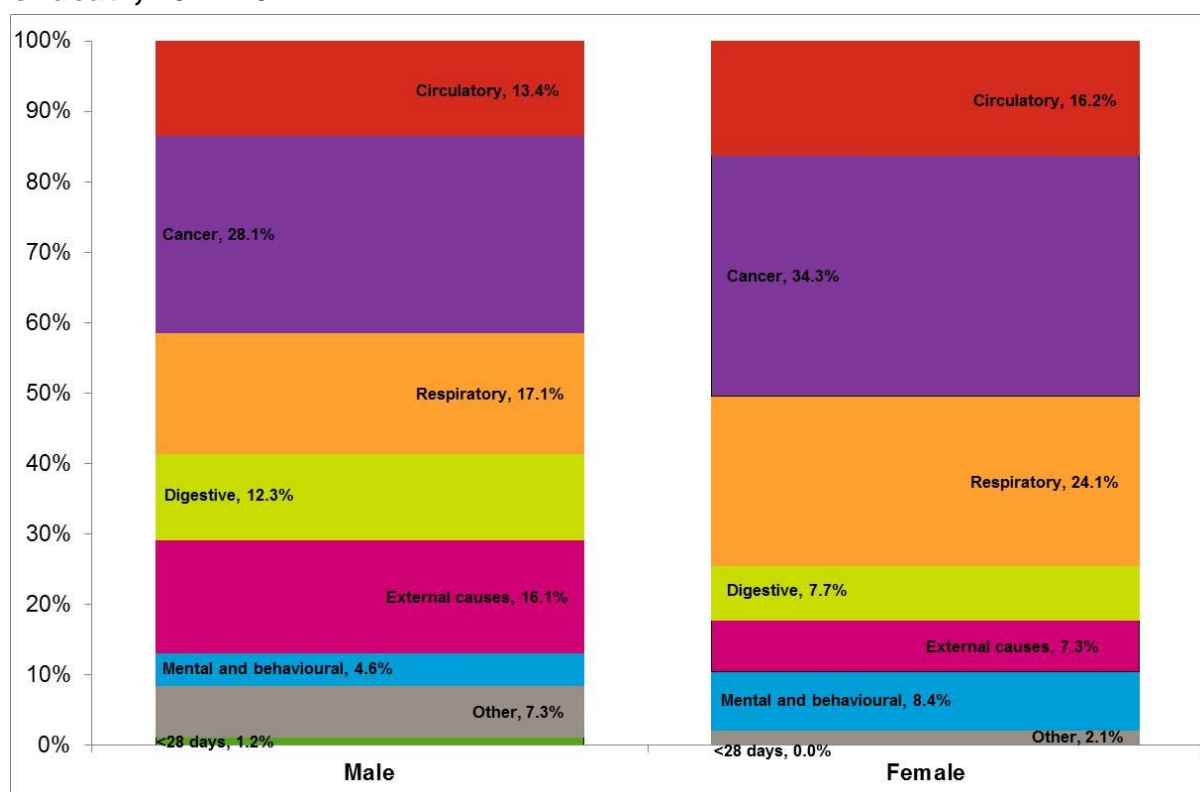


Data Source 4: [Health state life expectancies, UK 2015-2017](#). Office for National Statistics: December 2018.

Based on published data <sup>(data source 5)</sup>, around 69% of the life expectancy gap between Sunderland and England is due to higher rates of mortality from cardiovascular diseases (mainly coronary heart disease), cancers (mainly lung cancer) and respiratory diseases (particularly chronic obstructive airways disease); smoking is a key contributory risk factor that will impact on all three of these causes.

Health inequalities within Sunderland result in significant variations in mortality and life expectancy at birth between wards. For males, the gap in life expectancy at birth is around 11 years – Hendon 71.2 years compared to Fulwell 82.5 years. For females, the gap in life expectancy at birth is around 8 years - Hendon 77.3 years compared to Fulwell 85.4 years <sup>(data sources 6 & 7)</sup>.

**Figure 4: Gaps in Life Expectancy between Sunderland and England, by cause of death, 2012-2014**



Data Source 5: [The Segment Tool - Segmenting Life Expectancy Gaps by Cause of Death](#) (May 2016 Update), Public Health England

## 1.4 Deprivation

There is a substantial amount of evidence which shows that people living in the most deprived areas have worse health and health indicators than those in the most affluent areas. People in deprived areas are likely to have a higher exposure to negative influences on health, and to lack resources to avoid their effects.

The Index of Multiple Deprivation 2015 measures socioeconomic disadvantage across seven domains:

- income;
- employment;
- health;
- education;
- barriers to housing and services;
- crime, and;
- living environment.

The overall IMD2015 is a weighted average of the indices for the seven domains. Levels of deprivation remain high within Sunderland. Seventy one of Sunderland's 185 Lower Super Output Areas (LSOAs) are among the most disadvantaged fifth of

all areas across England, and 38% of the Sunderland population lives within these super output areas <sup>(data source 8)</sup>.

## 1.5 Behaviour factors affecting health outcomes

### 1.5.1 Smoking

Smoking remains the greatest contributor to premature death and disease across Sunderland. It is estimated that up to half the difference in life expectancy between the most and least affluent groups is associated with smoking.

According to the national Annual Population Survey, the proportion of adults that smoke in Sunderland fell between 2011 and 2017 from 24.3% to 22.7%, while in routine and manual groups smoking prevalence rose from 31.4% to 35.5% over the same period <sup>(data source 9)</sup>. It should be noted, though, that smoking prevalence estimates by local authority from this survey can fluctuate widely due to small sample sizes.

Our local adult health and lifestyle survey 2017, which is based on a larger sample size, suggests that the overall smoking prevalence adjusted for social class is 18.2% and the prevalence of smoking in routine and manual groups is 20.2% <sup>(data source 10)</sup>. Rates of smoking are highest among adults aged 25-34 years, males, people from socially and economically disadvantaged communities, people in routine and manual occupational groups, and those who have never worked or are long term unemployed <sup>(data source 10)</sup>. At ward level, the highest prevalence of smoking can be found in Redhill, Pallion, Hendon, Southwick, St. Anne's and Millfield <sup>(data source 10)</sup>.

Smoking during pregnancy remains high. According to 2017/18 figures, 500 women in Sunderland were recorded as smokers at the time they gave birth; this equates to 17.8% of pregnant women compared to the England average of 10.8% <sup>(data source 11)</sup>. Smoking during pregnancy can cause serious pregnancy-related health problems. These include complications during labour and an increased risk of miscarriage, premature birth, still birth, low birth-weight and sudden unexpected death in infancy. Smoking during pregnancy also increases the risk of infant mortality by an estimated 40% <sup>(29)</sup>.

Smoking remains a key risk factor for lung cancer and deaths rates due to this disease are 57% higher in Sunderland than the England average <sup>(data source 9)</sup>. Sunderland also has significantly higher levels smoking-attributable mortality and smoking-attributable hospital admissions than the England average <sup>(data source 9)</sup>.

Supporting people to give up smoking will make a significant contribution to reducing health inequalities between Sunderland and England. One in twenty smokers (5.1%) in Sunderland now access NHS Stop Smoking Services each year <sup>(data source 13)</sup>. In 2017/18, 46.8% of people setting a quit date had successfully quit at four weeks <sup>(data source 13)</sup>.

### 1.5.2 Alcohol

Alcohol use is another major lifestyle risk factor. Alcohol misuse is a major problem within Sunderland in terms of health, social and economic consequences which affect a wide cross section of the city at a considerable cost.

The proportion of Sunderland adults aged 18 years and over that drink alcohol is 66.4% (data source 10). Men are more likely to drink alcohol than women. Men aged 45-64 and women aged 35-54 are most likely to drink alcohol. There is also a socio-economic gradient with adults in managerial and professional occupations being most likely to drink alcohol and those who have never worked or who are long term unemployed being least likely to drink alcohol (data source 10).

Overall, 33.6% of adults are abstinent, 44.8% of adults are lower risk drinkers (i.e., they drink up to 14 units of alcohol per week), 16.7% of adults are increasing risk drinkers (i.e., they drink more than 14 units and up to 35 units of alcohol per week), and 5.0% of adults are higher risk drinkers (i.e., they drink in excess of 35 units of alcohol per week) (data source 10). In Sunderland 21.6% of adults exceed the current recommended safe limits for alcohol consumption (data source 10). At ward level, the highest rates of drinking above the recommended safe limits are seen in Washington South, Washington East, St Michael's and St Chad's (data source 10).

Additionally, 26.3% of adults binge drink (i.e., they drink more than 6 units of alcohol on their heaviest drinking day in a typical week) (data source 10). Men are more likely to binge drink than women. Contrary to the commonly portrayed image, binge drinking is not confined to young adults; in Sunderland men aged 35-64 and women aged 35-54 are most likely to binge drink (data source 10). At ward level, the highest rates of binge drinking are seen in Washington West, Ryhope, Washington East and Fulwell (data source 10).

The historic trend of rising levels of alcohol related hospital admissions for both males and females in the city has re-established, following a short period of decline between 2010/11 and 2013/14. Data for 2016/17, suggests that there were 2,683 admissions for alcohol related harm (narrow definition) giving a rate of 984 admissions per 100,000 population which is significantly above the England average of 636 admissions per 100,000 population (data source 14). Between 2014/15 and 2016/17 there were 156 admissions to hospital (around 1 each week) in children aged under 18 that were wholly attributable to alcohol; this gives a rate of 95.7 per 100,000 persons aged under 18 and is significantly above the England rate of 34.2 per 100,000 persons aged under 18 (data source 14).

### 1.5.3 Substance misuse

Drug addiction leads to significant crime, health and social costs. Evidence-based drug treatment can reduce these and deliver real savings, particularly in relation to crime, but also in savings to the NHS through health improvements, reduced drug-related deaths and lower levels of blood-borne disease.

Estimates of the prevalence of opiate and crack cocaine produced in 2016/17 (data source 15) suggest that Sunderland has:

- Prevalence of 9.2 per 1,000 population aged 15-64 opiate and/or crack cocaine users or an estimate of 1,652 people, compared to an England rate of 8.9 per 1,000;
- Prevalence of 8.3 per 1,000 population aged 15-64 opiate users or an estimate of 1,493 people, compared to an England rate of 7.4 per 1,000;
- Prevalence of 4.0 per 1,000 population aged 15-64 crack users or an estimate of 712 people, compared to an England rate of 5.1 per 1,000.

Compared with previous prevalence estimates produced in 2014/15, the rate of opiate and/or crack cocaine users and the rate of opiate users, and the rate of crack users have increased in Sunderland. The increase in the number of opiate and/or crack users between 2014/15 and 2016/17 is statistically significant. Rates of use are higher in the 25-34 years age band than the 15-24 years and 35-64 years age bands (data source 15).

When engaged in effective treatment, people use fewer illicit drugs, commit less crime, improve their health and manage their health better. Preventing early drop-out and keeping people in treatment long enough to benefit contributes to these improved outcomes. In 2017/2018 there were 1,300 adults in effective drug treatment. During this time 556 adults started a new treatment journey, 87% of which were retained in treatment for at least 12 weeks or successfully completed treatment (data source 16).

#### 1.5.4 Obesity

In Sunderland, 29% of adults are classed as obese and a further 41% were classed as overweight; this is higher than the England prevalence of 24% obese and 40% overweight (data source 17). Men are more likely than women to be overweight and obese (data source 10). Men aged 65-74 and women aged 55-64 were most likely to be overweight; men and women aged 55-64 were most likely to be obese (data source 10). Persons from routine and manual groups were most likely to be overweight, whilst persons in intermediate occupations were most likely to be obese (data source 10). At ward level, the highest prevalence of obesity is seen in Hetton, Castle, Redhill, Washington North and Ryhope (data source 10).

The latest data from the National Childhood Measurement Programme for the school year 2017/18 (data source 18) shows that in Sunderland:

- 25.5% of Reception class children were recorded with excess weight, compared to 22.4% for England;
- 40.9% of Year 6 children were recorded with excess weight, compared to 34.3% for England.
- 11.4% of Reception class children were recorded as obese compared to 9.5% for England;
- 25.0% of Year 6 children were recorded as obese, compared to 20.1% for England;
- 3.1% of Reception class children were recorded as severely obese, compared to 2.4% for England;
- 5.9% of Year 6 children were recorded as severely obese, compared to 4.2% for England.

Based on data for 2014/15 to 2016/17, no wards had measured obesity prevalence for Reception class children that was significantly higher than the Sunderland average rate; the wards with the highest rates were Southwick, Sandhill, Castle, Hendon, and St Anne's (data source 19). Based on data for 2014/15 to 2016/17, no wards had measured obesity prevalence for Year 6 children that was significantly higher than the Sunderland average rate; the wards with the highest rates were Redhill, Pallion, Castle, Sandhill and Houghton (data source 19).

The underlying causes of obesity are the ready availability of high calorie food, more sedentary lifestyles caused by a reduction in activity and manual labour, and greater use of the car as a means of transport. Obesity is associated with a range of health problems including Type 2 Diabetes, cardiovascular disease and cancer.

Obesity places a burden on the healthcare system. In 2016/17, there were 353 admissions to hospital where the main reason for admission was recorded as obesity. The rate of admissions, at 129 per 100,000 population is the highest in the country and is significantly higher than the England average of 20 per 100,000 (data source 20). It should be noted that the North East region has significantly higher admission rates than the rest of the country and that City Hospitals Sunderland NHS Foundation Trust hosts the regional centre for bariatric surgery and surgical weight management. In addition, during 2017, 3,225 prescription items for the treatment of obesity were prescribed in primary care and dispensed within Sunderland. The rate of prescribing at 11.6 prescription items per 1,000 population is well above the England average of 7.3 per 1,000 (data source 20).

### 1.5.5 Sexual Health

Good sexual health is fundamental to general wellbeing and health; it is also an important public health issue. Poor sexual health imposes social, economic, emotional and health costs. Stark health inequalities exist within sexual health and key population groups can be identified for whom there are greater risks of experiencing sexual ill health. These are as follows: young people; gay, bisexual or other men who have sex with men; black and minority ethnic groups; and women of reproductive age.

Sexually transmitted infections can affect anyone but are more common among those aged under 25 years. Many sexual infections have long lasting effects on health, including cervical cancer and infertility. The rate of diagnosis in Sunderland of most common sexually transmitted infections is similar to or below regional and national averages (data source 21).

Sunderland has relatively low rates of HIV diagnosis and a relatively high uptake of HIV testing in eligible persons attending specialist sexual health services. Despite this between 2015 and 2017, 38.2% of all HIV diagnoses made for people from Sunderland are made late, when their immune system has already been damaged (data source 21). This is an improvement on previous data points and Sunderland is now lower than but not significantly different from the England position.

Reducing the burden of poor sexual health requires sustained approaches to support early detection, successful treatment and partner notification in conjunction with

access to a full range of contraception choices alongside safe sex health promotion and the promotion of safer sexual behaviour.

### 1.5.6 Teenage pregnancy

In 2016, the rolling annual rate for under-18 conceptions was 31.9 per 1,000 females aged 15-17 for Sunderland compared to 24.6 per 1,000 in the North East and 18.9 per 1,000 for England <sup>(data source 22)</sup>. This represents 135 conceptions in 2016 compared to 155 in 2015 and 163 in 2014.

The under-16 conception rate was 7.7 per 1,000 females aged 13-15 in Sunderland in 2016, compared to 4.9 per 1,000 in the North East and 3.1 per 1,000 in England <sup>(data source 22)</sup>. This represents 31 conceptions in 2016 compared to 35 in 2015 and 39 in 2014. Whilst the situation is improving slowly, compared to our statistical neighbours Sunderland benchmarks poorly and continues to have the 6<sup>th</sup> highest teenage pregnancy rate of all local authorities in England.

Areas of deprivation often have the highest teenage conception rates and the lowest percentage of conceptions leading to abortions. Consequently, deprived areas have the highest number of teenage maternities and are therefore disproportionately affected by the poorer outcomes associated with teenage parents. Data for 2013-2015 shows that in Sunderland there are four wards where teenage pregnancy rates remain significantly above the Sunderland average as follows: Redhill, Sandhill, Houghton and Castle <sup>(data source 23)</sup>.

## 1.6 Cancers

Death rates from all cancers have decreased significantly over the last two decades due to a combination of early detection and improved treatment. However, within Sunderland, cancer remains a significant cause of premature death and health inequalities. Cancer is the commonest cause of premature death in Sunderland with a death rate of 161 per 100,000 persons aged under 75 in 2015-2017. The rate of premature mortality from cancer considered preventable is 96 per 100,000 population aged under 75 for the same period. Both rates are significantly higher than the England average, but not significantly different from the regional average <sup>(data source 24)</sup>.

Collectively, cancers account for 28% of the gap between Sunderland and England for male life expectancy and 34% of the gap between Sunderland and England for female life expectancy <sup>(data source 5)</sup>.

Evidence from the Centre for Cancer Prevention at Queen Mary University of London and Cancer Research UK suggested that 37% of cancers (38% in males and 36% in females) that occurred in 2015 were linked to a range of major lifestyle and other factors as follows <sup>(data source 12)</sup>:

- Smoking (14.7%)
- Being overweight or obese (6.3%)
- Exposure to UV radiation (3.8%)
- Occupational exposures (3.7%)



- Infection (3.5%)
- Drinking alcohol (3.3%)
- Diet low in fibre (3.2%)
- Exposure to ionising radiation (1.9%)
- Diet including processed meat (1.5%)
- Air pollution (1.0%)
- Not Breastfeeding (0.7%)
- Insufficient physical activity (0.5%)
- Post-menopausal hormones (0.4%)
- Oral contraceptives (0.2%)

As cancers are caused by multiple factors acting simultaneously, the same cancers can be attributed to more than one cause and therefore summing the impacts of all lifestyle and other factors would overestimate the total burden of cancer. In order to prevent cancer, it is therefore likely that intervening across multiple risk factors will be required.

Since combinations of factors are linked to different cancers, different proportions of different cancers are preventable. The proportion of preventable cases is high for cervical cancer (due to the link with human papilloma virus (HPV) infection), oesophageal and lung cancers (due to the link with smoking), and malignant melanoma (due to the link with ultra-violet (UV) radiation from sunlight and sunbeds). Many of the most common cancers have a large proportion of preventable cases. Prostate cancer is a notable exception because it is not clearly linked to any preventable risk factors.

## 1.7 Long term conditions

A long term condition is a condition that cannot, at present, be cured but is controlled by medication and/or other treatment/therapies. The prevalence of long term conditions increases with age and the proportion of the population with multiple long term conditions also increases with age. People from lower socio economic groups have increased risk of developing a long term condition; better management can help to reduce health inequalities <sup>(35)</sup>.

People with long term conditions are intensive users of health and social care services, including community services, urgent and emergency care and acute services. They account for <sup>(35)</sup>:

- 50% of all GP appointments;
- 64% of outpatient appointments;
- 70% of all inpatient bed days;
- Around 70% of the total health and care spend in England.

For all of the conditions listed below, the identification of patients who already have or who are at risk of developing disease and successful management of their conditions is important to the efforts to reduce premature mortality, morbidity and inequalities in health. Information about how well the Sunderland health system

delivers against the evidence based standards of care for these conditions can be found in published disease profiles <sup>(data sources 25-26)</sup>.

### 1.7.1 Cardiovascular disease

Cardiovascular disease (CVD) covers a number of different problems of the heart and circulatory system, such as coronary heart disease (CHD), stroke and peripheral vascular disease (PVD). It is strongly linked with other conditions such as diabetes and chronic kidney disease and is more prevalent in lower socio-economic and minority ethnic groups.

Death rates from cardiovascular disease have decreased significantly over the last two decades due to a systematic approach to secondary prevention and improved treatment. However, within Sunderland, cardiovascular disease remains a significant cause of premature death and health inequalities. Cardiovascular disease is the second commonest cause of premature death in Sunderland with a death rate of 84.7 per 100,000 persons aged under 75 in 2015-2017. The rate of premature mortality from cardiovascular disease considered preventable is 53.3 per 100,000 persons aged under 75 for the same period. Both rates are significantly higher than the England average, but not significantly different from the regional average <sup>(data source 27)</sup>.

The recorded (diagnosed) prevalence for key cardiovascular long term conditions is higher for Sunderland than the England average as follows <sup>(data source 28)</sup>:

- For coronary heart disease, recorded prevalence in Sunderland is 4.7% in 2017/18 (around 13,281 persons) compared to a prevalence of 3.1% in England;
- For stroke, recorded prevalence in Sunderland is 2.2% (around 6,240 persons) compared to a prevalence of 1.8% in England.

### 1.7.2 Hypertension

A measurement of blood pressure indicates the pressure that circulating blood puts on the walls of blood vessels. A blood pressure of 140/90 mmHg or greater is usually used to indicate hypertension (high blood pressure) because persistent levels above this start to be associated with increased risk of cardiovascular events. Uncontrolled hypertension is a major risk factor for stroke, heart attack, heart failure, aneurysms and chronic kidney disease.

The recorded (diagnosed) prevalence for hypertension is higher for Sunderland than the England average as follows <sup>(data source 28)</sup>:

- For hypertension, recorded prevalence in Sunderland is 16.8% (around 47,699 persons) compared to a prevalence of 13.9% in England.

The prevalence estimate based on the published evidence suggest that the underlying prevalence in the population – including both diagnosed and undiagnosed disease – is more likely to be as follows in Sunderland <sup>(data source 29)</sup>:

- For hypertension, 26.9% of the population or around 76,329 persons – this means that there could be around 28,630 persons in the population whose condition is undiagnosed.

### 1.7.3 Atrial Fibrillation

Atrial fibrillation is a heart condition that causes an irregular and often abnormally fast heart rate. It can affect adults of any age, but it becomes more common as you get older and is more common in people with hypertension, atherosclerosis or heart valve problems. People with atrial fibrillation are at risk of blood clots forming, they therefore have an increased risk of having a stroke. Persistent atrial fibrillation may weaken the heart and in extreme cases can lead to heart failure.

The recorded (diagnosed) prevalence for atrial fibrillation is higher for Sunderland than the England average as follows <sup>(data source 29)</sup>:

- For atrial fibrillation, recorded prevalence in Sunderland is 2.2% (around 6,137 persons) compared to a prevalence of 1.9% in England.

The prevalence estimate based on the published evidence suggest that the underlying prevalence in the population – including both diagnosed and undiagnosed disease – is more likely to be as follows in Sunderland <sup>(data source 30)</sup>:

- For atrial fibrillation, 2.5% of the population or around 7,159 persons – this means that there could be around 1,022 persons in the population whose condition is undiagnosed.

### 1.7.4 Diabetes

Diabetes is a chronic and progressive disease that impacts upon almost every aspect of life. It can affect infants, children, young people and adults of all ages, and is becoming more common. Diabetes can result in premature death, ill-health and disability, yet these can often be prevented or delayed by high quality care. Preventing Type 2 diabetes (the most common form) requires action to identify those at risk who have non-diabetic hyperglycaemia and prevention activities to tackle obesity and lifestyle choices about diet and physical activity.

The recorded (diagnosed) prevalence for diabetes is higher for Sunderland than the England average as follows <sup>(data source 28)</sup>:

- For diabetes, recorded prevalence in Sunderland is 7.2% (around 16,848 persons aged 17 and over) compared to a prevalence of 6.8% in England.

The prevalence estimate based on the published evidence suggests that the underlying prevalence in the population – including both diagnosed and undiagnosed disease – is more likely to be as follows in Sunderland <sup>(data source 31)</sup>:

- For diabetes, 8.7% of the population or around 20,324 persons aged 17 and over – this means that there could be around 3,476 persons in the population whose condition is undiagnosed.

Work undertaken to prepare for the procurement and implementation of Healthier You, the NHS Diabetes Prevention Programme, for Sunderland has identified patients with non-diabetic hyperglycaemia who are at high risk of developing type 2 diabetes.

The recorded prevalence of non-diabetic hyperglycaemia for Sunderland in March 2017 was as follows <sup>(data source 32)</sup>:

- There were 20,615 known persons aged 18 and over with non-diabetic hyperglycaemia, giving a prevalence of 9.3%. Of these, 6,477 patients were identified within the last year. Prevalence for England is currently unknown.

The prevalence estimate based on the published evidence suggest that the underlying prevalence in the population – including both diagnosed and undiagnosed disease – is more likely to be as follows in Sunderland <sup>(data source 33)</sup>:

- For non-diabetic hyperglycaemia, 11.1% of the population or around 25,574 persons aged 18 and over – this means that there could be around 4,959 persons in the population who have not been identified but who are at high risk of developing type 2 diabetes.

#### 1.7.5 Chronic Kidney Disease

Chronic kidney disease is the progressive loss of kidney function over time, due to damage or disease. It becomes more common with increasing age, and is more common in people from black and south Asian ethnic groups. Chronic kidney disease is usually caused by other conditions that put a strain on the kidneys such as high blood pressure, diabetes, high cholesterol, infection, inflammation, blockage due to kidney stones or an enlarged prostate, long term use of some medicines or certain inherited conditions. People with chronic kidney disease are at increased risk of cardiovascular diseases.

The recorded (diagnosed) prevalence for chronic kidney disease is higher for Sunderland than the England average as follows <sup>(data source 29)</sup>:

- For chronic kidney disease, recorded prevalence in Sunderland is 4.3% (around 9,961 persons aged 18 and over) compared to a prevalence of 4.1% in England.

The prevalence estimate based on the published evidence suggest that the underlying prevalence in the population – including both diagnosed and undiagnosed disease – is more likely to be as follows in Sunderland <sup>(data source 34)</sup>:

- For chronic kidney disease, 6.1% of the population or around 14,051 persons aged 18 and over – this means that there could be around 4,090 persons in the population whose condition is undiagnosed.

### 1.7.6 Chronic Obstructive Pulmonary Disease

Chronic obstructive pulmonary disease (COPD) is a progressive disease which covers a range of conditions, including bronchitis and emphysema. Its symptoms include cough and breathlessness; over time it can become increasingly severe, having a major impact on mobility and quality of life as it impacts on people's ability to undertake routine activities. In the final stages it can result in heart failure and respiratory failure. Because of its disabling effects, it impacts not only on the person with the disease but also on those who provide informal care to that person. The biggest risk factor for the development and progression of COPD is smoking, so prevention is linked to smoking cessation activities and broader tobacco control.

Within Sunderland, respiratory diseases are a significant cause of premature death and health inequalities. Respiratory disease is a common cause of premature death in Sunderland with a death rate of 47.9 per 100,000 persons aged under 75. The rate of premature mortality from respiratory disease considered preventable is 29.7 per 100,000 population aged under 75. Both rates are significantly higher than the England average but not significantly different from the regional average <sup>(data source 35)</sup>. Collectively, respiratory disease account for 17% of the gap between Sunderland and England for male life expectancy and 24% of the gap between Sunderland and England for female life expectancy <sup>(data source 5)</sup>.

The recorded (diagnosed) prevalence for COPD is higher for Sunderland than the England average as follows <sup>(data source 28)</sup>:

- For COPD, recorded prevalence in Sunderland is 3.4% (around 9,653 persons) compared to a prevalence of 1.9% in England.

The prevalence estimate based on the published evidence suggests that the underlying prevalence in the population – including both diagnosed and undiagnosed disease – is more likely to be as follows in Sunderland <sup>(data source 36)</sup>:

- For COPD, 3.5% of the population or around 9,979 persons – this means that there could be around 326 persons in the population whose condition is undiagnosed.

### 1.7.7 Dementia

Dementia is a group of related symptoms associated with an on-going decline of brain functioning. This may include problems with memory loss, confusion, mood changes and difficulty with day to day tasks.

The biggest risk factor for dementia is age; the older you are the more likely you are to develop the condition. But dementia is not an inevitable part of ageing. Although it is not possible to completely prevent dementia, leading a healthy lifestyle and taking regular exercise can lower the risk of dementia.

There are different types of dementia; all of them are progressive and interfere with daily life. Alzheimer's disease and vascular dementia together make up the vast majority of cases. Although there is no cure for dementia, early diagnosis and the

right treatment can slow its progress, help to maintain mental function, and give time to prepare and plan for the future.

The recorded (diagnosed) prevalence for dementia is higher for Sunderland than the England average as follows <sup>(data source 28)</sup>:

- For dementia, recorded prevalence in Sunderland is 0.8% (around 2,384 persons) compared to a prevalence of 0.8% in England.

The prevalence estimate based on the published evidence suggest that the underlying prevalence in the population – including both diagnosed and undiagnosed disease – is more likely to be as follows in Sunderland <sup>(data source 37-38)</sup>:

- For dementia, 1.2% of the population or around 3,525 persons (including 3,448 aged 65 and over and around 77 with early onset) – this means that there could be around 1,141 persons in the population whose condition is undiagnosed.

Locally the number of cases of dementia is predicted to increase as the proportion of older people in the population grows rising from 3,525 persons in 2017 to 4,904 persons in 2030 (including 4,833 aged 65 and over and around 71 with early onset) <sup>(data source 37-38)</sup>.

## **1.8 Disability**

The Equality Act 2010 defines disability as an impairment that has a substantial and long-term adverse effect on a person's ability to perform normal day-to-day activities. Such impairments can vary considerably and include both congenital and acquired disabilities.

### **1.8.1 Mental Health and Mental Wellbeing**

Mental health problems represent the largest single cause of disability in the UK and the cost to the economy is estimated at £105 billion a year <sup>(40)</sup>. One in four adults will experience at least one diagnosable mental health problem in any given year and one in ten children aged 5-16 have a diagnosable mental health problem <sup>(40)</sup>. Mental health problems are widespread, at times disabling, and yet often hidden. They can affect people from all walks of life at any point in their lives, including children, teenagers, adults, new mothers and older people.

In recent years, there has been increasing recognition of the impact of mental illness on the population. Differences in the allocation of resources between mental health and physical health, with historic underinvestment in mental health care across the NHS, are being addressed through the ambition of “parity of esteem”. This seeks to improve investment in mental health services to ensure that mental health and physical health are equally valued. At the same time, the interplay between physical and psychological symptoms is becoming better understood, and the very real inequalities in health outcomes for people with mental health problems are being quantified. We know that people with long term physical illnesses suffer more complications if they also develop mental health problems.

As many of the risk factors for mental illness are linked to deprivation, it is not surprising that Sunderland experiences a relatively high burden from mental ill health, higher recorded prevalence of depression on GP systems, high levels of prescribing antidepressants, and a high burden on mortality.

People from Sunderland report poorer outcomes for aspects of the self-reported wellbeing score than the England average, although these are not statistically significant <sup>(data source 39)</sup>:

- 21.2% report a high anxiety score, compared to 20.0% across England;
- 10.4% report a low happiness score, compared to 8.2% across England;
- 5.4% report a low satisfaction score compared to 4.4% across England;
- 4.1% report a low worthwhile score compared to 3.6% across England.

The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), which creates an overall score based on responses to 14 positively worded items, allows us to describe mental wellbeing in the general population. For each individual, scores are between 14 and 70 and a higher score represents better mental wellbeing. Average (mean) scores are used to compare the results of different groups. For Sunderland adults aged 18 years and over, the average WEMWBS score is 52.7 <sup>(data source 10)</sup> compared to 49.9 for England adults aged 16 years and over <sup>(data source 40)</sup>.

Within Sunderland, men have a higher average mental wellbeing score than women <sup>(data source 10)</sup>. Men and women aged 25-34 have the lowest average mental wellbeing scores, whilst men and women aged 65-74 have the highest average mental wellbeing scores <sup>(data source 10)</sup>. There is also a socio-economic gradient with adults in managerial and professional occupations having the highest average mental wellbeing scores and those who have never worked or who are long-term unemployed having the lowest average mental wellbeing scores <sup>(data source 10)</sup>.

At ward level the highest average mental wellbeing scores are seen in St Peter's, Fulwell, Ryhope and Washington West, whilst lowest average mental wellbeing scores are seen in Southwick, Hetton, St Anne's and Hendon <sup>(data source 10)</sup>.

### 1.8.2 Learning Disability

A learning disability affects the way a person understands information and how they communicate, which means they can have difficulty understanding new or complex information, learning new skills and coping independently. They are caused by something affecting how the brain develops.

Learning disabilities can be mild, moderate or severe. Some people with a learning disability live independently without much support; others need help to carry out most daily activities. Many people with learning disabilities also have physical and/or sensory impairments, and some might behave in a way that others find difficult or upsetting (called behaviour that 'challenges').

People with learning disabilities can become socially excluded and vulnerable. They have greater health needs than the rest of the population as they are more likely to have:

- Mental illness;
- Chronic health problems;
- Epilepsy;
- Physical disabilities and sensory impairments.

The recorded prevalence of learning disability for Sunderland is as follows (data source 29):

- For learning disabilities, recorded prevalence in Sunderland is 0.7% (around 2,121 persons) compared to a prevalence of 0.5% in England.

The prevalence estimate based on the published evidence suggest that the underlying prevalence in the adult population – including both diagnosed and undiagnosed disease – is more likely to be as follows in Sunderland (data source 41):

- For learning disability, 1.9% of the population or around 5,273 persons (including 1,096 whose learning disability is moderate or severe) – this means that there could be around 3,152 adults in the population whose condition is undiagnosed.

Based on local lifestyle data for Sunderland adults aged 18 years and over (data source 10), we can see that people with a learning disability:

- Are significantly more likely to smoke (26.7% compared to 15.9%);
- Are significantly less likely to drink alcohol (49.1% compared to 67.0%) and less likely to binge drink (20.0% compared to 26.5%);
- Are as likely to meet the recommended 30 minutes of moderate intensity physical activity at least five times a week (38.4% compared to 39.3%);
- Are less likely to eat the recommended 5 or more portions of fruit and vegetables each day (44.8% compared to 47.6%);
- Are significantly more likely to be of excess weight (74.8% compared to 58.0%); and
- Have significantly lower average mental wellbeing scores (44.3 compared to 52.9).

Based on their greater health needs, it is critical that people with a learning disability have full access to health and care services.

### 1.8.3 Physical Disability

Physical disabilities are physical conditions that affect a person's mobility, physical capacity, stamina, or dexterity. They are wide ranging and include musculoskeletal conditions, neuromuscular conditions and sensory impairments. People with physical impairments face many barriers to living a fulfilling and independent life. Not only do they have the practical problems of everyday life to contend with but also they have to face negative public perceptions, problems gaining access to everyday facilities and services, and prejudice. The support required for people with physical impairment may be multi-dimensional and needs to be tailored to address their specific individual needs.



Published national prevalence figures for some types of physical disability are shown below and applied to the Sunderland population to estimate local prevalence (data source 42):

- 10.8% of persons have mobility issues – an estimated 29,900 people in Sunderland;
- 8.2% of persons have impairments affecting stamina, breathing or fatigue – an estimated 22,700 people in Sunderland;
- 3.9% of persons have impairment affecting dexterity - an estimated 10,800 people in Sunderland;
- 2.1% with hearing impairments - an estimated 5,800 people in Sunderland;
- 1.7% with visual impairments - an estimated 4,700 people in Sunderland.

Physical disability can be caused by a wide variety of diseases, illnesses or circumstances and may impact on oral health in a number of ways. Disability that affects the dexterity of hands and arms can affect an individual's ability to complete oral hygiene tasks <sup>(44)</sup>, which will in turn negatively impact their oral health status. Mobility problems can also mean that patients have difficulty accessing a sink area and prevent them from carrying out tooth brushing or denture care.

## **1.9 Summary of health needs analysis**

Sunderland experiences higher levels of deprivation than the national average. Social disadvantage is also associated with increased risk of a range of health conditions.

Large increases are predicted in the elderly, and particularly the very elderly, populations. This has significant implications for health care over the next five, ten and twenty years. Even if the general levels of health in these age groups continue to improve, the shape and structure of health services will need to change to meet the needs of this growing population.

Many people in Sunderland continue to follow unhealthy behaviours when compared to England. This is directly linked to a range of social, economic and environmental factors.

In 2012, work by the Kings Fund <sup>(54)</sup> examined how four lifestyle risk factors – smoking, excessive alcohol use, poor diet, and low levels of physical activity – occur together in the population and how this distribution has changed over time. The report found that people with no qualifications are currently more than five times as likely as those with higher education to engage in all four poor behaviours. Recent data from the Sunderland Adult Health and Lifestyle Survey <sup>(data source 10)</sup> shows that:

- 13.9% of adults aged 18 and over have none of these risk factors;
- 36.8% of adults aged 18 and over have one of these risk factors;
- 35.2% of adults aged 18 and over have two of these risk factors;
- 12.1% of adults aged 18 and over have three of these risk factors;
- 1.9% of adults aged 18 and over have all four of these risk factors.

The King's Fund report <sup>(54)</sup> concluded that in order to improve the public health in lower socio-economic groups a holistic approach is needed encompassing multiple unhealthy behaviours. A recent update by the Kings Fund <sup>(55)</sup> has confirmed that as the number of unhealthy lifestyle behaviours increases so does the impact on mortality, morbidity and quality of life. Whilst the evidence is still emerging, it appears that success in changing one behaviour may be related to success in changing another. It is not yet clear, though, whether changes are more effective when undertaken together or in sequence. The exception to this is in relation to stopping smoking, where evidence shows that this is more effective when delivered in sequence rather than being delivered at the same time as other behaviour change interventions.

Unhealthy behaviours continue to drive higher prevalence of long term conditions and increased rates of premature death across the City. A key challenge for the Sunderland health economy is the need to manage the high and increasing levels of long term conditions in the population, including increasing proportions of people with multiple long term conditions.

Preventing premature deaths due to cancer, cardiovascular disease and respiratory disease remains a priority for health partners across the City. This requires a targeted approach to reducing the gap in life expectancy. Current strategic and operational plans <sup>(26-27)</sup> include a strong focus on identifying and managing long term conditions, including through self-care. There are currently programmes looking at hypertension, atrial fibrillation, diabetes treatment and diabetes prevention.

Sunderland's population makes relatively high use of hospitals, with standardised rates of elective admissions that are 40% higher than the England average <sup>(data source 46)</sup> and standardised rates of emergency admissions that are 18% higher than the England average <sup>(data source 47)</sup>.

Sunderland's Health & Care System *Strategic Plan* <sup>(26)</sup> identified the need for services to be good quality, safe and effective, but also sustainable and better integrated. Key work streams include:

- Stronger prevention and public health;
- Sustainable primary care services;
- Transformed community services;
- Transformed in hospital services.

## 1.10 Key health challenges

A summary of the high level health challenges for Sunderland is therefore as follows:

- Inequalities, relating to both socio-economic position and protected characteristics, have a significant impact on the health of people in Sunderland and should be considered for all interventions and policies, recognising that socio-economic inequalities are a continuum across the population and that some people are impacted by multiple inequalities.
- Poverty levels within the City continue to have an impact and should be tackled by increasing levels of employment in good work through attracting more jobs into the City, increasing educational and skills attainment of Sunderland residents and ensuring as many people as possible are supported to stay in work, despite having a health condition.
- Children and young people in Sunderland face some significant health challenges. These include high levels of teenage pregnancy, smoking during pregnancy, unhealthy weight, alcohol related hospital admissions; low levels of breastfeeding; and poor oral health and mental health outcomes. Partners need to work together and with children, young people and families to address these issues and build resilience.
- The four main behavioural risk factors – smoking, diet, alcohol and physical activity – lead to poor health outcomes and increase health inequalities and so programmes need to continue to be developed, in partnership with local people, to make it easier to make the healthy choice.
- There are more people in Sunderland living with, and prematurely dying from, cancer, cardiovascular disease and respiratory disease than elsewhere in the country. Partners need to be clear that primary, secondary and tertiary prevention programmes are in place that ensure that no opportunities are missed to prevent these diseases and stop them progressing.
- The ageing population as well as the high numbers of people with long term, often multiple, conditions has a significant on local people and services. This needs to continue to be addressed through integrated care and supporting people to self-care as well as a transparent, whole system approach to preventing service failure.
- People in Sunderland have poor mental wellbeing suffer from a higher burden of mental ill health than the rest of England. This should be tackled through a preventative programme alongside recognition of the needs of people with poorer mental health and wellbeing and the impacts this has on their physical health.