Public Health England

Protecting and improving the nation's health

State of the North East 2018:
Public Mental Health and Wellbeing

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Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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SUSTAINABLE DEVELOPMENT GOALS

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Foreword

Good mental health is the foundation for our lives; it helps us to flourish. Poor mental health is a huge burden on individuals, families and communities in our region, both in the quality of their lives and the devasting early deaths of too many people. This includes around 250 deaths from suicide in the North East each year, but a further 1,500 deaths of people with serious mental illness who die prematurely from other causes. Improving public mental health is not only the right thing to do, it also make economic sense. A recent report from Public Health England shows that for every £1 spent on identified prevention activities, the returns are often double that.

Figure 1. Making the economic case for prevention – return on investment from interventions that promote mental wellbeing and prevent mental ill-health

Workplace wellbeing programme	Workplace stress prevention	Collaborative care for physical health problems	Debt and welfare service	Adults: Suicide prevention programme	Older people: tackling loneliness through volunteering and social activities
Every [£] invested results in an estimated saving to society of:					
£2.37 over 1 year	£2.00 over 2 years	£1.52 over 2 years	£2.60 over 5 years	£2.93 over 10 years	£1.26 over 5 years

Source: PHE commissioning cost-effective services for promotion of mental health and wellbeing and prevention of mental ill-health. PHE publications 2017. This visualisation was produced by PHE's Local Knowledge and Intelligence Service South West.

The North East has a range of assets to support and improve good public mental health but it also has a number of challenges to overcome. This report provides the intelligence to highlight our opportunities and I urge all stakeholders to review the evidence and take action.

Professor Peter Kelly, Centre Director – PHE North East

Executive summary

Protecting and improving our mental health is as important as protecting and improving our physical health. The 2 outcomes are strongly related. This report examines the current intelligence about mental health in the North East of England, looking at the prevalence of illness throughout the life course, risk factors, vulnerable groups that may benefit from targeted prevention interventions, and premature mortality rates related to mental ill-health.

The North East has a range of assets to support good mental health, including good health services, high levels of social cohesion, and green environments with relatively low air pollution. We have lower levels of homelessness than other parts of England, our children have good levels of school readiness and most of our young people are in education, employment or training. Carers in this region are more likely to report that they have sufficient social contact than in any other region of the country. People living in the region who experience mental health problems are more likely than others in England to have stable and appropriate accommodation, and to be employed.

Both children and adults in the North East have similar levels of wellbeing to the rest of the country. However, there are challenges unique to the North East.

The mental health of pregnant women and new mothers has not been well measured and recorded to date but with estimates of 10-20% experiencing mental health problems, this is an area that requires further investigation and action. Poor maternal or paternal mental health will give children the unhealthiest start in life.

Educational attainment in the North East is comparatively low and we have very high numbers of vulnerable children: 92 in every 10,000 children in the region are in care; 31 in every 10,000 are in care as a result of neglect or abuse; a quarter of all children in the North East live in poverty; and an estimated 10% young people must be a focus for support if we are to improve their life chances.

Among adults, we have higher levels of mental health problems in the region, more substance misuse (particularly alcohol) and high levels of self-harm. While the suicide rate has remained relatively static in recent years, and all areas in the North East are implementing their suicide prevention plans, premature mortality from all causes for people with a mental illness remains extremely high in all of our local areas. A more integrated approach to population health, tackling the determinants of poor physical and mental health, is required (1).

1. Introduction

Good mental health supports our development, resilience, relationships and physical health. The mental health of individuals and society is influenced by many factors, including life experiences, the environment around us, employment, housing and family situation among others.

The North East has many assets, including affordable housing, access to great outdoor environments, good access to services and relatively high levels of social cohesion (PHE Health Asset Profiles, 2018). A new assets indicator has been produced by the Consumer Data Research Centre, the Access to Healthy Assets and Hazards (AHAH) index (2). The index has 3 domains:

- access to retail services (fast food outlets, gambling outlets, pubs/bars/nightclubs, off licenses, tobacconists)
- access to health services (GP surgeries, A&E hospitals, pharmacies, dentists and leisure centres)
- physical environment (access to green spaces; and low levels of 3 air pollutants – NO2, PM10 and SO2)

Areas with fewer unhealthy retail services, more access to health promoting services and good physical environments are considered to have more assets (shown by a low AHAH index score). The North East performs better than all other regions in England on the AHAH score.

Figure 2. Access to Healthy Assets and Hazards Index 2016 (persons, all ages)

Area	Count	Value		95% Lower CI	95% Upper CI
England	11,590,179	21.2		-	-
London region	4,790,536	55.2		-	-
East Midlands region	1,347,629	28.8		-	-
Yorkshire and the Humber...	1,194,364	22.2		-	-
East of England region	961,325	15.8		-	-
West Midlands region	842,653	14.7		-	-
North West region	1,017,178	14.2		-	-
South East region	929,798	10.4		-	-
South West region	412,391	7.5		-	-
North East region	94,305	3.6		-	-

Source: AHAH index data is provided by Consumer Data Research Centre (CDRC: https://data.cdrc.ac.uk/dataset/access-to-healthy-assets-and-hazards-ahah) and created by the Geographic Data Science Lab (GDSL: https://geographicdatascience.com/project/access-to-healthy-assets-and-hazards/). Population values are LSOA population mid year estimates 2015 from the Office for National Statistics: (https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/lowersuperoutputareamidyearpopulationestimates. Aggregation of LSOAs to local authorities used lookups from Office for National Statistics (2011). 2011 Census: boundary data (England and Wales). UK Data Service. SN:5819 UKBORDERS: Digitised Boundary Data, 1840- and Postcode Directories, 1980- http://discover.ukdataservice.ac.uk/catalogue/?sn=5819&type=Data catalogue, Retrieved from http://census.ukdataservice.ac.uk/get-data/boundary-data.aspx.

However, the region also has some of the highest levels of deprivation in the country, and this impacts upon our wellbeing and mental health. This report aims to collate the intelligence on mental health that is most pertinent to the North East, and highlight the key issues that we need to address.

1.1   A focus on public mental health

Wellbeing is described by the Office for National Statistics as "how we are doing" as individuals, as communities and as a nation (3). Evidence suggests that there are 5 key actions to support an individual's wellbeing: connect with the people around you; be active; take notice; keep learning; give (4).

Mental health is linked to wellbeing: the World Health Organization defines it as "a state of wellbeing in which every individual realises his or her own potential, can cope with the stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her own community" (5). While mental illness is considered in this report, we will focus on the whole picture from the promotion of good mental health and the prevention of mental illness through to recovery from mental health problems.

The Faculty of Public Health and the Mental Health Foundation have set out what can be done individually and collectively to enhance the mental health of individuals, families and communities by using a public health approach (6). This report will not duplicate that work but seeks to examine the available intelligence to highlight opportunities for improvement within the North East.

1.2   Scope of the report

This report is aimed primarily at public health commissioners and practitioners within the North East of England, to inform decision making around planning, commissioning, delivering and evaluating public mental health services. Other public and voluntary sector service providers, and the wider public, may be interested in aspects of the report and it is written in a style that we hope makes it accessible to a wide audience.

There is already a wealth of material on mental health, from National Institute for Health and Care Excellence (NICE) guidance and practice examples through to policy documents such as the Five Year Forward View for Mental Health (7) and the planning resources published with the Prevention Concordat (8). There is also an increasing amount of intelligence on mental health available from the Mental Health, Dementia and Neurology Intelligence Network, among others. This report aims to:

- highlight the importance of good mental health for the North East
- signpost to the existing intelligence
- identify the key opportunities for enhancing public mental health within the region

2. Prevalence of wellbeing and mental health conditions in the North East

The nature and severity of different mental health problems varies with age (9) so this chapter will take a lifecourse approach to describing prevalences of wellbeing and common mental health conditions in the region.

2.1 Perinatal mental health

During pregnancy and the first year of a child's life, women may experience the same mental health problems as anyone else. However women who have already experienced a serious mental illness such as bipolar disorder are at increased risk of a relapse during this time (10). A mother's poor mental health will also impact upon the health and wellbeing of her baby. Paternal mental health is also important, with children of fathers with depression experiencing emotional and behavioural problems (11). However, data on paternal mental health is not currently available and therefore cannot be included here.

The National Mental Health, Neurology and Dementia Intelligence Network produces perinatal mental health profiles for each local authority in the country, along with an interactive website, and this section describes the results for the North East.

There were 28,574 births in the North East in 2016 (12). Of the 28,214 maternities in the North East (one maternity can result in the birth of more than one baby), an estimated:

- 4,165 mothers experienced adjustment disorders and distress in the perinatal period
- 835 experienced post-traumatic stress disorder
- 2,775 experienced mild to moderate depressive illness and anxiety
- 835 experienced severe depressive illness
- 60 experienced chronic severe mental illness
- 60 would experience postpartum psychosis

Some mothers may experience more than one of these conditions and the overall prevalence of perinatal mental health problems is estimated to be 10-20%. (13) Note that all of these estimates are produced by applying national prevalence to local population estimates and do not take socioeconomic factors or local services into account. They should be used only as a guide.

2.2   Children and young people's mental health and wellbeing

Preventing mental health problems in childhood and supporting children's resilience will have long-lasting impacts (14). Unfortunately, relatively little information is collected about the mental health of young people and local prevalence often has to be approximated from national surveys, resulting in imprecise estimates that must be interpreted with caution.

Compared to the overall population, the North East has a smaller population aged under 18 (20%) than England (21%) (15).

Figure 3. Percentage of the population aged under 18 in each local authority, 2016
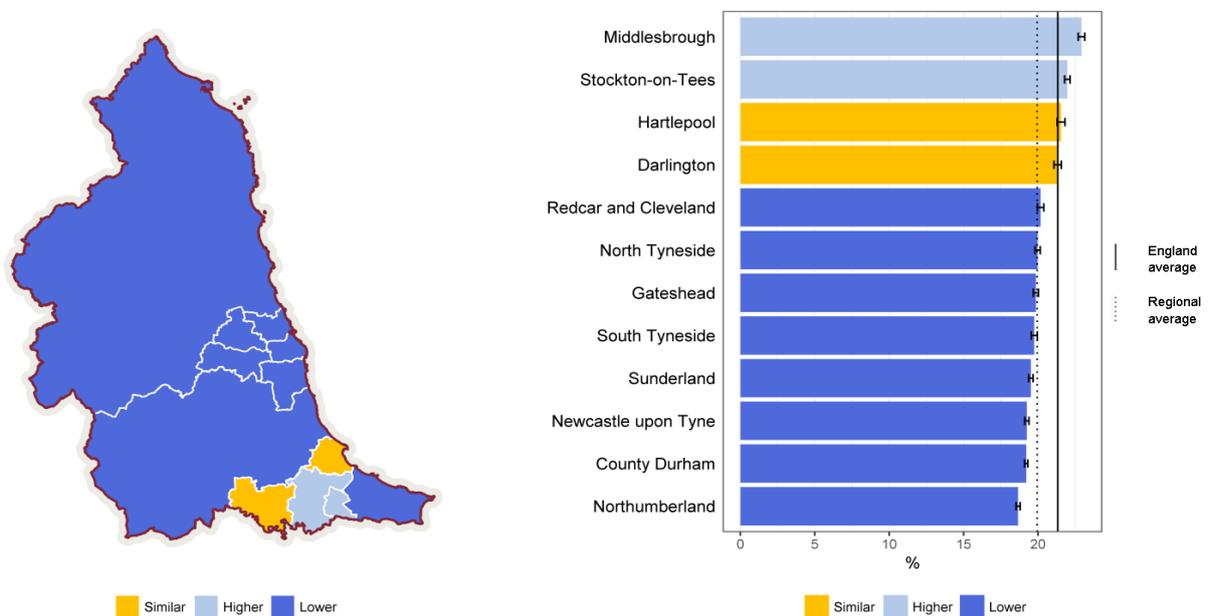
Source: Office for National Statistics, taken from PHE Fingertips.

Wellbeing is about "how we are doing" as individuals, as communities and as countries. Fifteen year olds in England were asked a series of questions in the "What about YOUth?" survey on their feelings about life and how optimistic they are, using the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). Scores range from 14 to 70 with a higher score representing a higher level of wellbeing. Nationally the average score amongst 15 year olds in 2014/2015 was 47.6, exactly the same as the North East average. There were significantly lower scores in Darlington and Northumberland, while young people in South Tyneside had relatively higher wellbeing scores. There are statistically significant associations between aggregate mean WEMWBS scores and other indicators related to wellbeing, including the percentage of 15 year olds who think that they're the right size (R^2=0.17) and the percentage who reported being bullied in the last month (R^2=0.17) (16).

Figure 4. Mean WEMWBS score in 15 year olds, 2014/2015
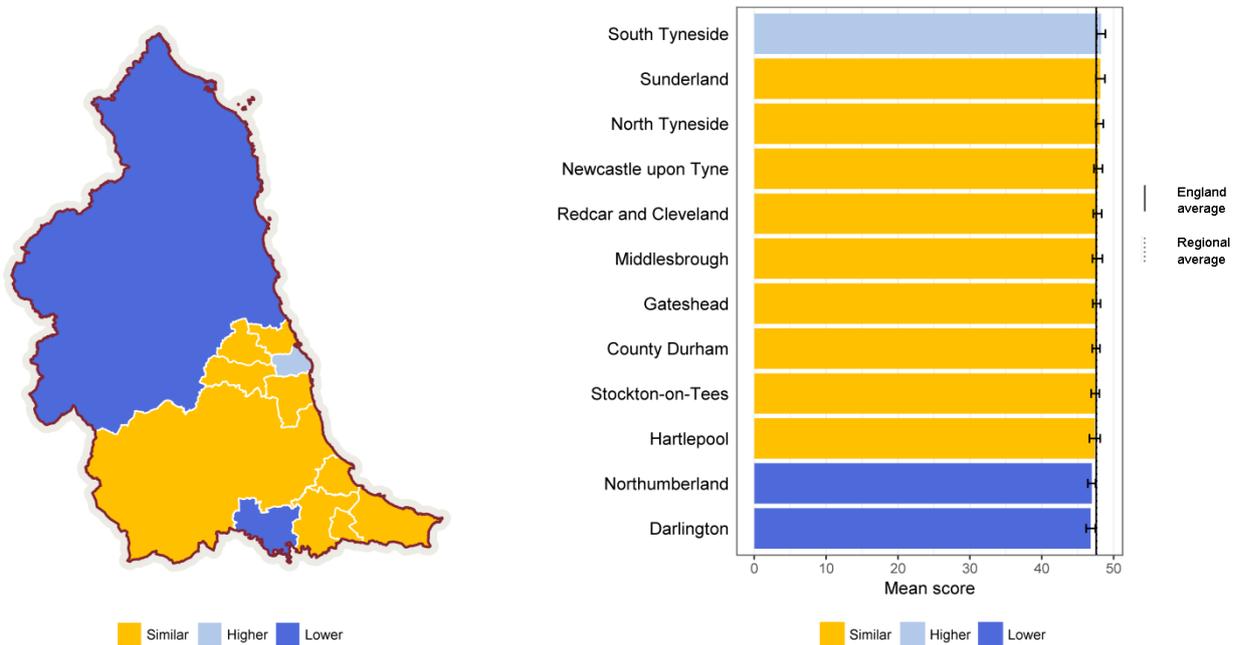
Source: NHS Digital, What About YOUth? Survey, taken from PHE Fingertips.

It is estimated that around 9.2% of 5-16 year olds in England have a mental health disorder, with the prevalence in the North East predicted to be slightly higher at 10.0%. The distribution of estimated prevalence across the North East is shown in Figure 5. These estimates, taken from Public Health England's Children and Young People's mental health and wellbeing profiles, originate from a 2004 survey and should be used with caution. They are based on the age, sex and socio-economic classification of children resident in an area.

Figure 5. Estimated prevalence of mental health disorders in children and young people (% population aged 5-16), 2015
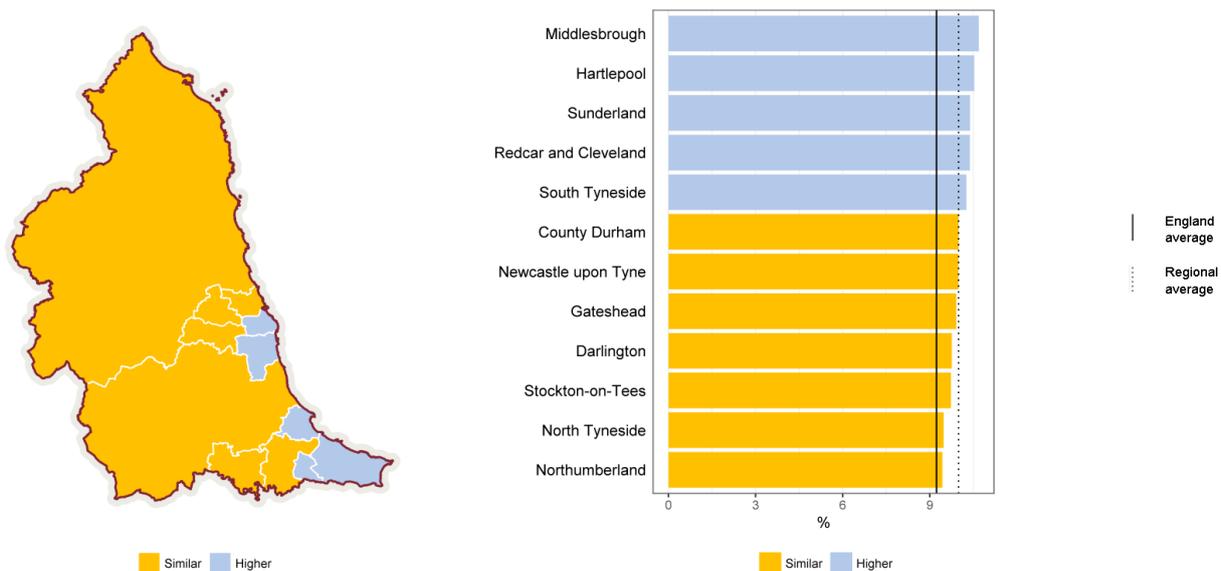
Source: Public Health England, taken from PHE Fingertips.

2.3   Adult mental health and wellbeing

In the working-age adult population, conditions and behaviours developed in younger years can manifest themselves more clearly in depression and serious mental health conditions, impacting on personal health as well as the wider community. The measurement of mental health in adults is more routine than for children, with the Adult Psychiatric Morbidity Survey and routine collections of general practice data providing insights into prevalence. However, there are still a significant proportion of people with undiagnosed and untreated conditions (9).

The Annual Population Survey has been using the following questions to assess adult wellbeing since 2011:

- overall, how satisfied are you with your life nowadays?
- overall, to what extent do you feel the things you do in your life are worthwhile?
- overall, how happy did you feel yesterday?
- overall, how anxious did you feel yesterday?

Responses are given on a scale of 1-10 and categorised high or low. 80% of the adult population in the North East had high life satisfaction scores in 2016/2017, up from 75.4% in 2011/2012. However, when compared with England, more people in the North East had low life satisfaction scores (5.1% compared with 4.5% people in England). There was a significantly higher proportion of people in North Tyneside who recorded low life satisfaction scores. Data was not available for Stockton. Low levels of life satisfaction at local authority level are associated with indicators related to deprivation such as the percentage of children in low income families (R^2=0.27), unemployment (R^2=0.21) and violent crime (R^2=0.32) (17).

Figure 6. Percentage of respondents scoring 0-4 out of 10 to the question "Overall how satisfied are you with your life nowadays?" 2016/2017
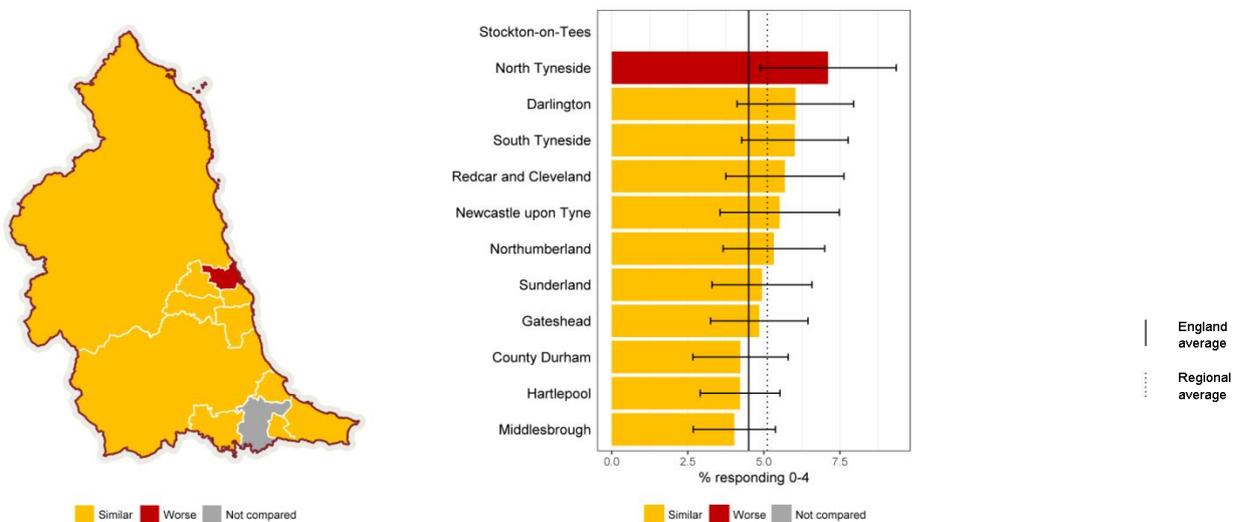
Source: Office for National Statistics, taken from PHE Fingertips.

In response to the survey question "overall, to what extent do you feel the things you do in your life are worthwhile?", those who recorded scores of 0-4 were classified as having a low score. In England 3.6% of people fell into this category, with the North East higher at 4.2%. Newcastle had the highest percentage at 5.7% but note that Redcar and Cleveland, Stockton on Tees and Sunderland have missing data for this question so no results for these areas are shown below.

Figure 7. Percentage of respondents scoring 0-4 to the question "Overall, to what extent do you feel the things you do in your life are worthwhile?", 2016/2017
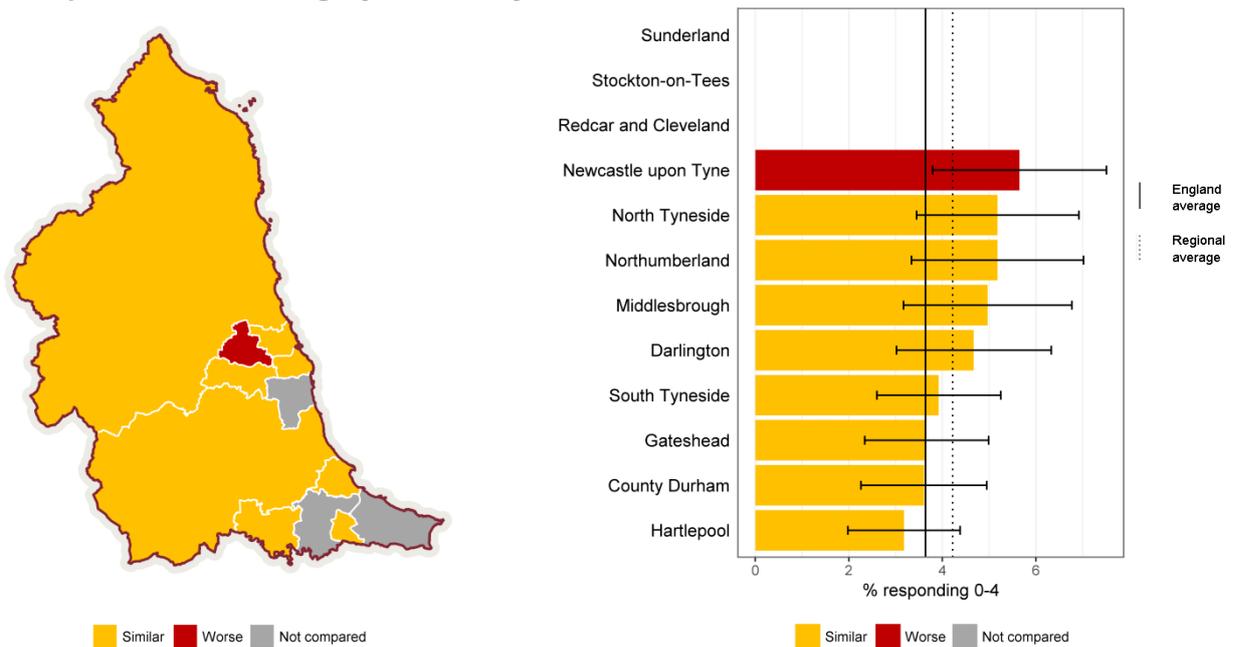
Source: Office for National Statistics, taken from PHE Fingertips.

Seventy two per cent of people in the North East in 2015/2016 had high happiness scores when asked how they felt yesterday, and the score has increased since 2011/2012. The score for England is fairly similar (74.7%). At the other end of the spectrum, 8.7% of the North East population have low happiness scores and the variation across the region is show in Figure 8. Sunderland has significantly more people with low happiness scores (13.2%).

Figure 8. Percentage of respondents scoring 0-4 to the question "Overall, how happy did you feel yesterday?", 2016/2017
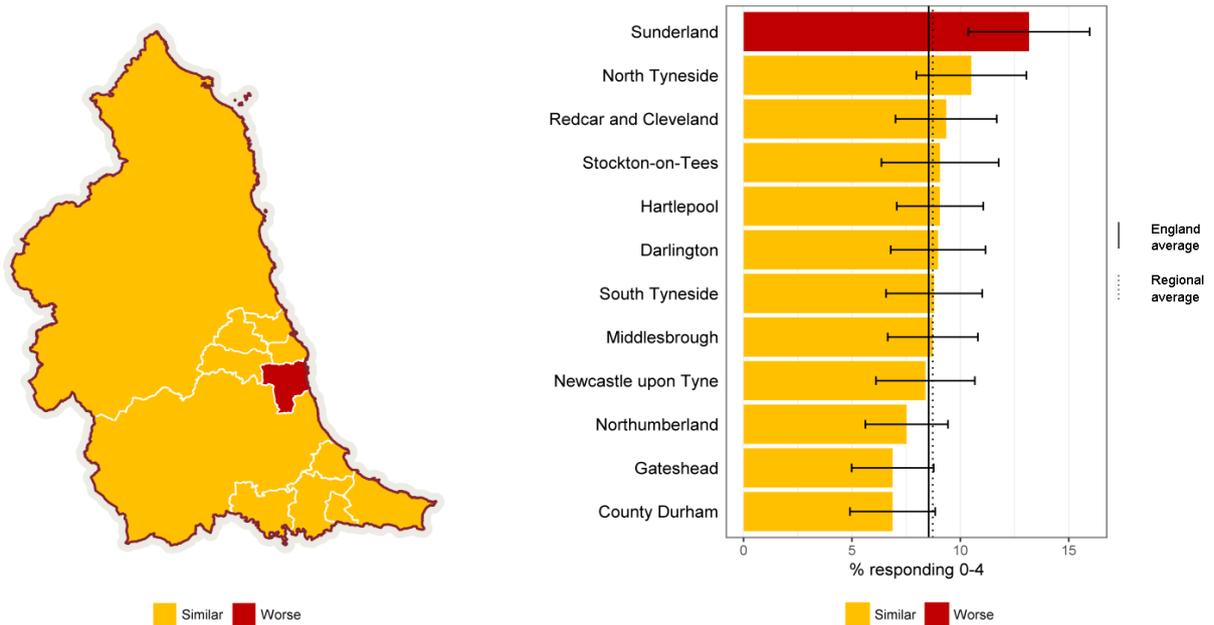
Source: Office for National Statistics, taken from PHE Fingertips.

The final wellbeing question is "how anxious did you feel yesterday?" and 19.8% people of people in the North East reported relatively high anxiety compared with 19.9% people in England. There were high percentages recording high anxiety scores in North Tyneside and Sunderland but these are not long-standing differences: in 2015/2016 their results were not significantly different from England.

Figure 9. Percentage of respondents scoring 6-10 to the question "Overall, how anxious did you feel yesterday?", 2016/2017
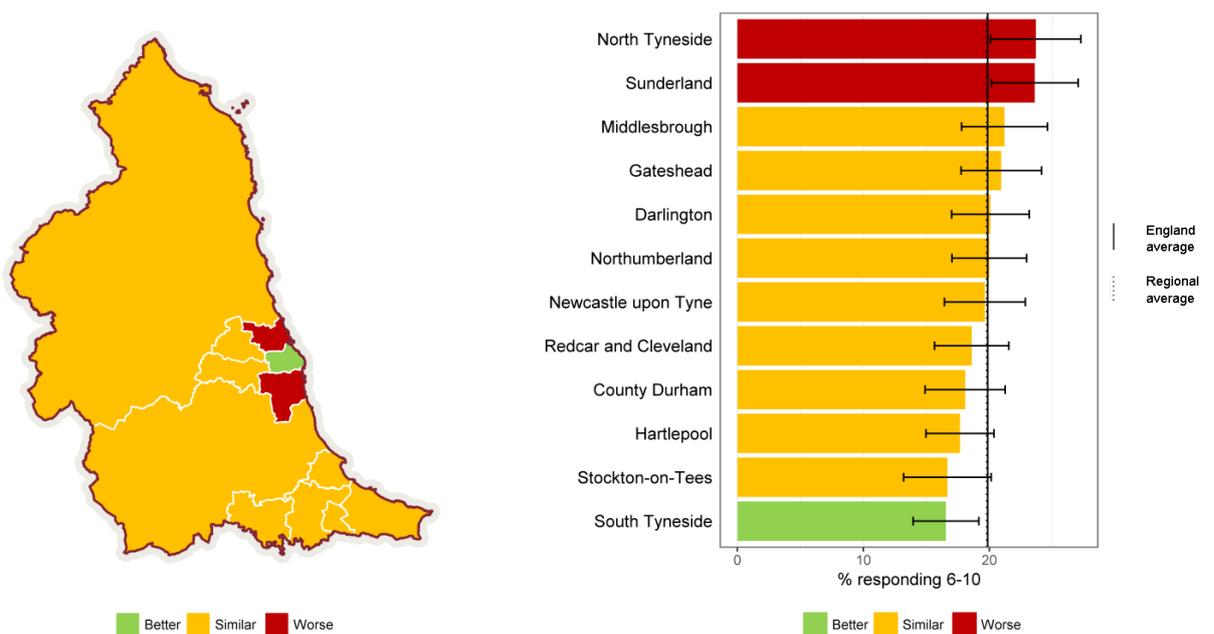
Source: Office for National Statistics, taken from PHE Fingertips.

There are some indications of poorer wellbeing in the North East, (low satisfaction scores and feeling that life is worthwhile) and there are some areas that have wellbeing scores that are significantly worse than England. However there are no areas which score particularly badly on all wellbeing indicators and no sign of long-term deteriorating trends. The fact that 80% of the North East population have high life satisfaction scores should be celebrated and built upon.

Depression is one of the most common mental disorders. According to the Adult Psychiatric Morbidity Survey (9), around 5.9% of the England population have general anxiety disorder, 3.3% have depression and 7.8% have unspecified common mental disorders. The prevalence of depression increases between the ages of 16 and 54, decreasing from age 55 onwards.

The prevalence of depression diagnosed and recorded by general practitioners in England is 9.1% of patients aged 18 years and older (18). In the North East, the prevalence of diagnosed depression is 10.0% with lower rates in Hartlepool, Middlesbrough and Newcastle. It is unclear why the rates should be lower in these areas: all have relatively high levels of depression and anxiety as recorded in the GP patients survey (Hartlepool and Stockton CCG 16.7%, South Tees 17.3% and Newcastle-Gateshead 17.3% compared with 13.7% for England) and this could signify a higher prevalence of undiagnosed depression.

Figure 10. Percentage of the adult population with a recorded depression diagnosis, 2016/17
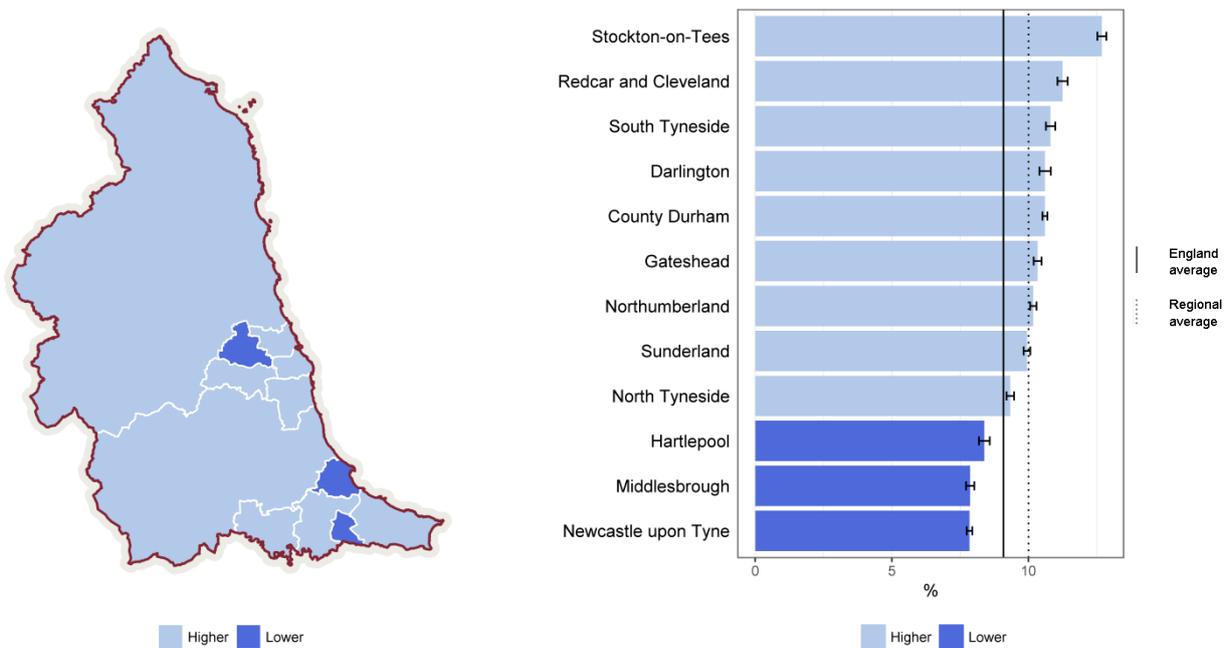
Source: Quality and outcomes framework (QOF), NHS Digital, taken from PHE Fingertips.

Severe mental illness, defined as people with a diagnosis of schizophrenia, bipolar disorder or other psychoses, is much less common than depression and anxiety. The recorded prevalence of severe mental illness in English general practices is 0.92%, with the North East slightly higher at 0.94%. Note that this prevalence is likely to include patients whose illness is in remission.

Figure 11. Severe mental illness recorded prevalence: % of practice register all ages, 2016/2017
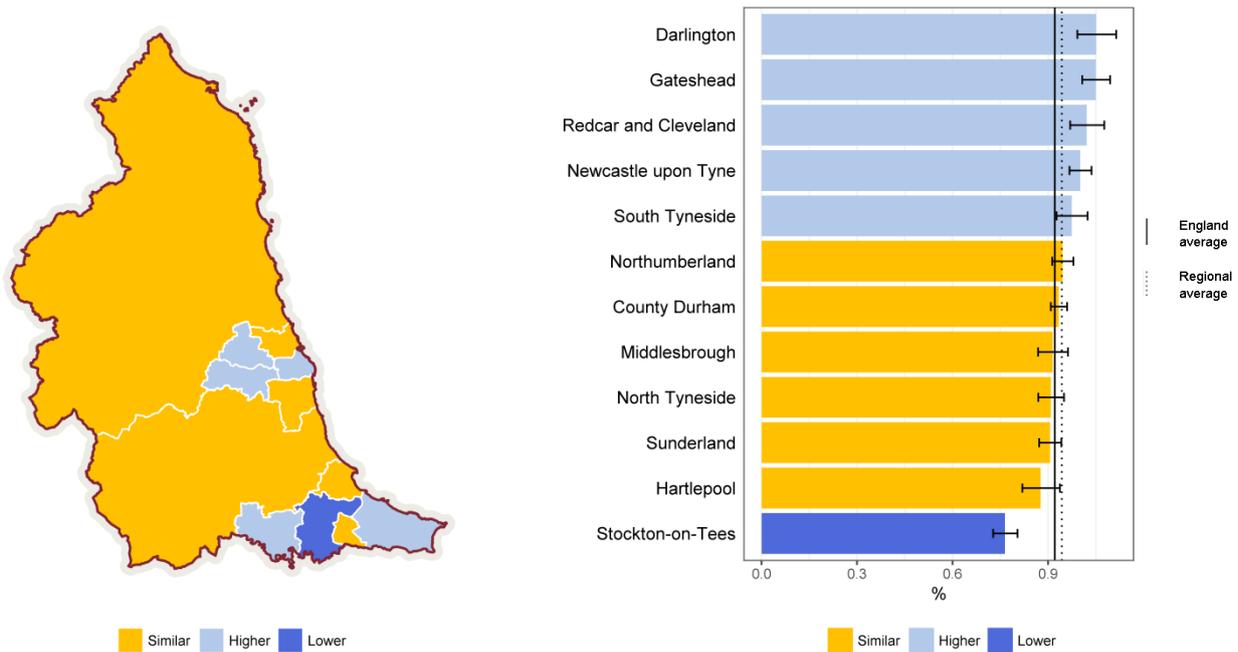
Source: Quality and outcomes framework (QOF), NHS Digital, taken from PHE Fingertips.

2.4   The mental health and wellbeing of older people

Average life satisfaction ratings rose across most age groups between 2011/2012 and 2016/2017 (19). However there was a small (not statistically significant) decrease in the life satisfaction ratings of those aged 90 and above, and a non-significant increase in the average anxiety scores of the same age group (Figure 14).

Figure 12. Percentage of the population aged over 65 in each local authority, 2016
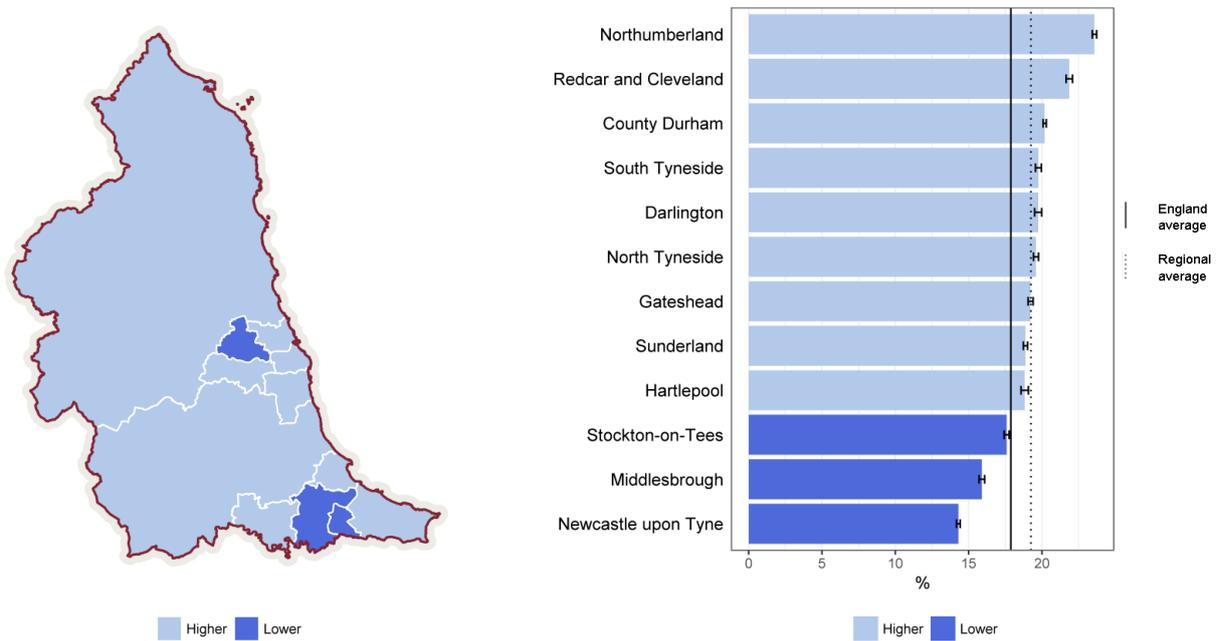
Source: Office for National Statistics, taken from PHE Fingertips.

Figure 13. Average life satisfaction ratings across age groups, England, year ending September 2012 and year ending September 2017
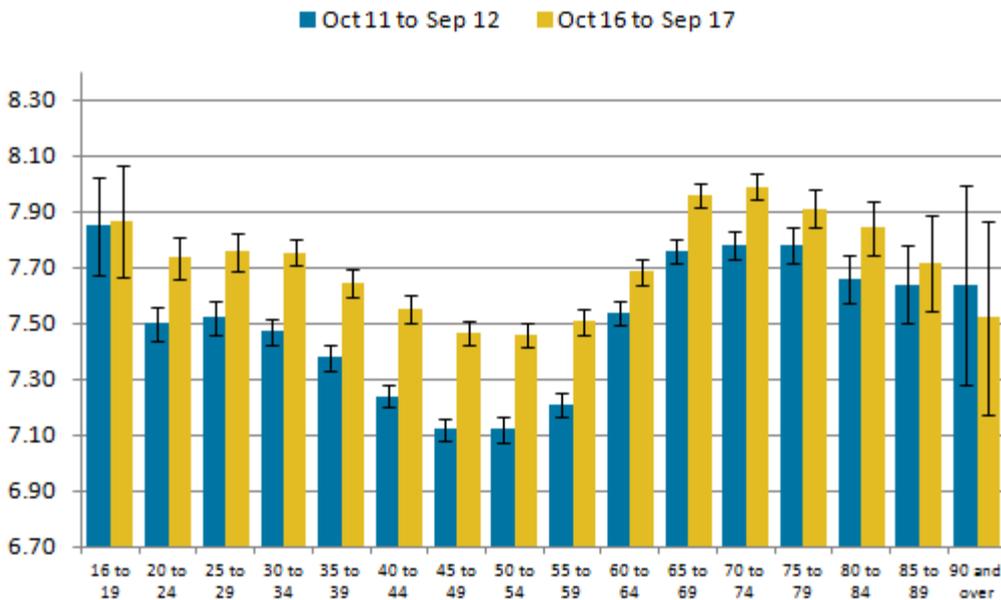
Source: Annual population survey, Office for National Statistics.

Figure 14. Average anxiety ratings across age groups, England, year ending September 2012 and year ending September 2017
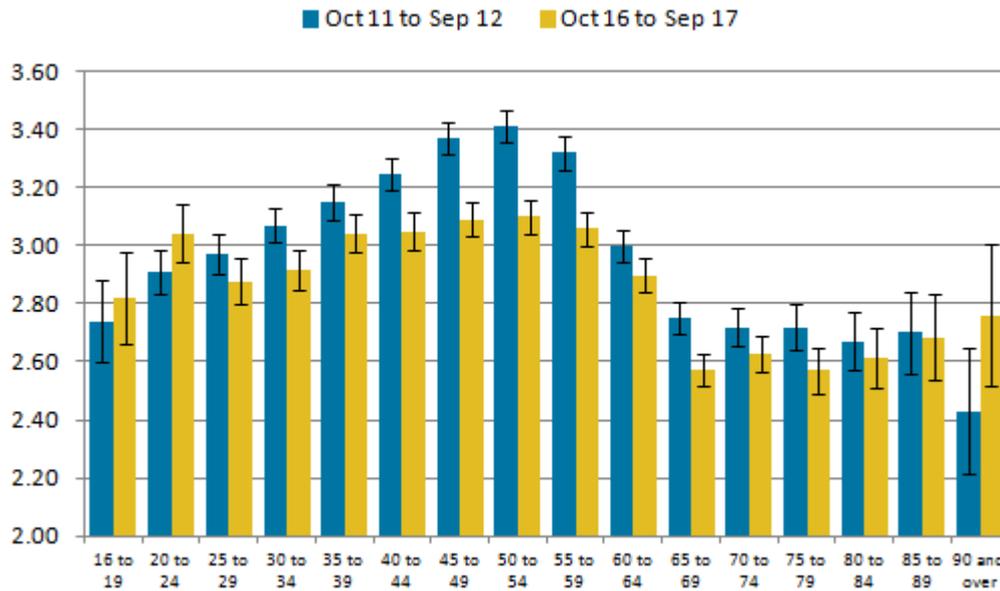
Source: Annual population survey, Office for National Statistics.

Older adults are at increased risk of dementia: there are an average of 3 recorded cases of dementia per 10,000 population aged 0-65 in England, compared with 433 per 10,000 of all over 65s (20). For the North East, the figures are even higher: 4 per 10,000 under 65s and 463 per 10,000 of over 65s. Even when taking the high prevalence of recorded dementia diagnoses in the region in to account, the North East has emergency hospital admission rates for people with dementia that are significantly higher than those for England, and significantly higher mortality rates from dementia (21) (see Public Health England's dementia profiles for further information).

Within the North East, most areas have a recorded dementia prevalence for the 65+ age group that is significantly higher than England, with only Northumberland having a significantly lower prevalence of 413 per 10,000. Recent literature suggests that the age-specific incidence of dementia is declining (22) (23). However, life expectancy has been rising for many years for both males and females (with a stabilisation and potential decline in the last couple of years) and it is still expected that there will be more than a million people living with dementia in England and Wales by 2040 (24).

3. Risk and protective factors

Investing "upstream", by reducing risk and enhancing protective factors as early as possible in the life cycle, will have the maximum effect. This chapter will look at the intelligence around early risk factors, such as adverse experiences in childhood, as well as issues that affect people throughout their lives, including poverty and access to good housing.

3.1   Childhood experiences

The family environment is critically important to future mental health (25). Secure attachment supports positive social and emotional development with children having better perceptions of self-worth, being more adaptable and better able to cope with stress (26).

Positive educational experiences can be protective factors for children and the North East has an improving record of school readiness, with 70.7% of all eligible children being ready for school (the same as the England value), and 57.7% of children eligible for free school meals being ready for school (higher than the England value of 56.0%, see PHE's Children and Young People's Mental Health and Wellbeing profiles). However, by the time young people reach their GCSEs, the North East has fallen behind in educational attainment: 56.5% of North East young people gain five or more GCSEs compared with 57.8% across England as a whole.

Physical or emotional abuse, parental substance addiction, violence or bereavement can all lead to changes in a child's developing brain that permanently affect the physiological response to stress and ability to adapt to adversity in later life (27). Adverse childhood experiences are also a risk factor to poor physical health with strong links to mental health problems and self-directed violence (28). A recent Public Health Wales study found that adults who had suffered 4 or more types of adverse childhood experience were almost 10 times more likely to have felt suicidal or have self-harmed than those who had experienced none (29). The study report identified that participating in sport and having an adult they could trust to talk to increased resilience against mental illness, regardless of adverse childhood experience. Adults who had experienced adverse childhood events were less likely to participate in sports or community groups, but those who did were less likely to report current treatment for mental illness. Within the North East, there are nearly twice as many children looked after as a result of abuse or neglect (31.2/10,000 under 18s) compared with England (16.2/10,000 under 18s). All of the local authorities in the region have rates significantly higher than the England average, except for Redcar & Cleveland.

Figure 15. Children who started to be looked after due to abuse or neglect in 2017: rate per 10,000 children aged under 18
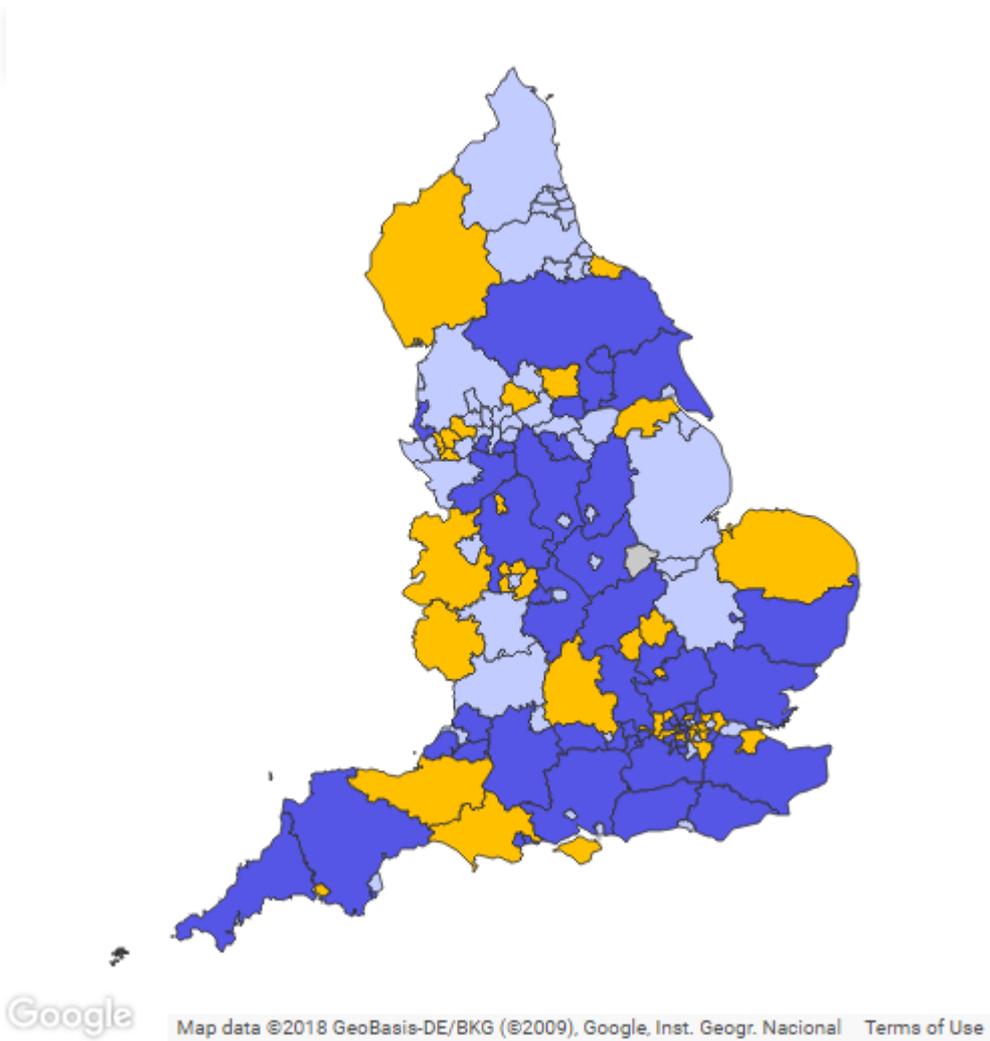
Source: Department for Education, taken from PHE Fingertips.

3.2   Poverty and debt

One study showed that children living in low-income households are nearly 3 times as likely to experience mental health problems than their peers (30). Nationally 20.1% of under 16s are defined as being in low income families compared with 24.9% in the North East. North Tyneside and Northumberland have lower rates, but all other local authorities in the region have statistically higher rates, with Hartlepool and Middlesbrough amongst the highest in the country.

Figure 16. Percentage of children in low income families, 2014
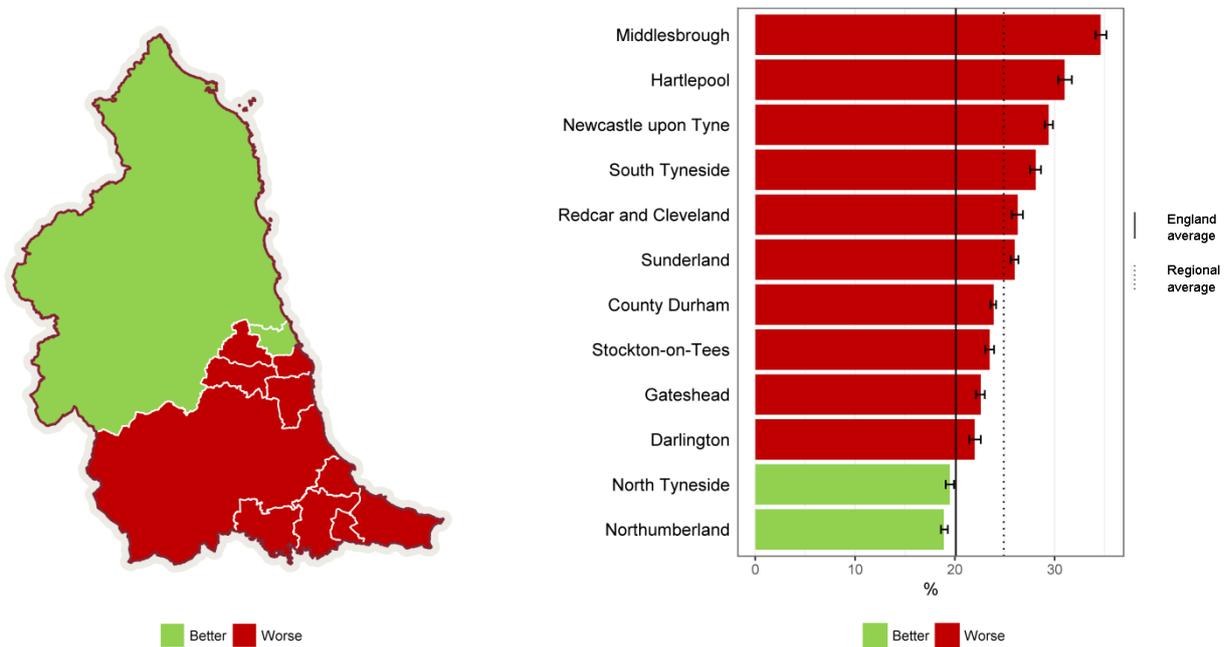
Source: HM Revenue and Customs, taken from PHE Fingertips.

Working age adults with mental and behavioural disorders may be entitled to Employment and Support Allowance (ESA) if their ability to work is restricted. Across England in 2016, 27.5 working age people in every 1,000 received ESA benefits but in the North East, the figure was significantly higher: 37.4 people in every 1,000. The claimant rate has risen in recent years, particularly in the most deprived areas of the region and the trend for Middlesbrough, which has the highest rate, is shown below.

Figure 17. Employment Support Allowance claimants for mental and behavioural disorders in Middlesbrough: rate per 1,000 working age population

Recent trend:							
Period		Count	Value	Lower CI	Upper CI	North East	England
2012	○	1,650	18.4	17.6	19.4	15.6	11.9
2013	○	2,800	31.3	30.2	32.5	25.0	19.0
2014	○	3,650	40.9	39.6	42.3	32.3	24.0
2015	○	4,270	48.1	46.6	49.5	37.2	26.8
2016	○	4,280	48.2	46.8	49.7	37.4	27.5

Source: www.nomisweb.co.uk
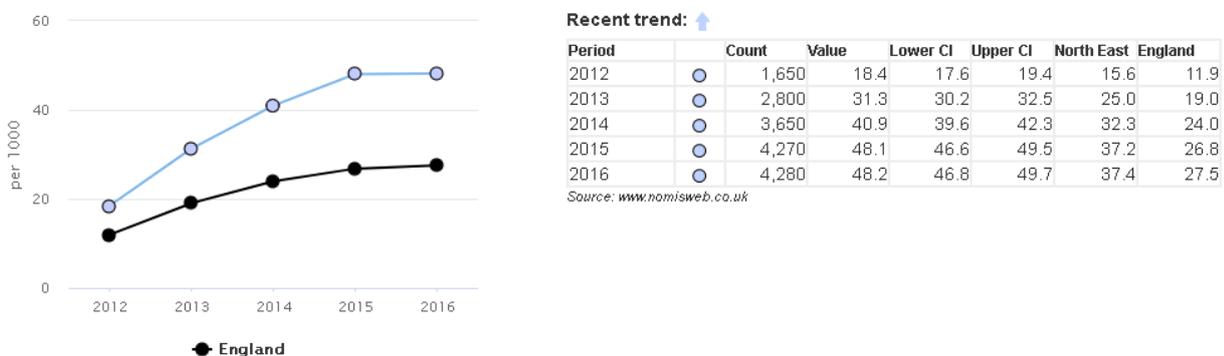
Source: NOMIS, taken from PHE Fingertips.

Note that ESA claimants per 1,000 population correlates well with mental health prevalence indicators such as proportion of adults in contact with secondary mental health services (R^2=0.32), rate of contact with mental health or learning disability services per 1,000 registered patients (R^2=0.39) and percentage of 5-16 year olds with

a mental health disorder (R^2=0.56). This suggests that the high benefit claimant rate in the North East is simply a reflection of the high levels of mental ill-health.

3.3   People living in areas of high deprivation

Mental health problems are more commonly found in areas of deprivation (31) and the North East has a relatively high proportion of these areas (32), as shown in Figure 18. Compared with England as a whole, both Northumberland and North Tyneside are less deprived but Middlesbrough and Hartlepool have some of the most substantial concentrations of deprivation in England.

Figure 18: Relative deprivation in the North East, using the Index of Multiple Deprivation 2015
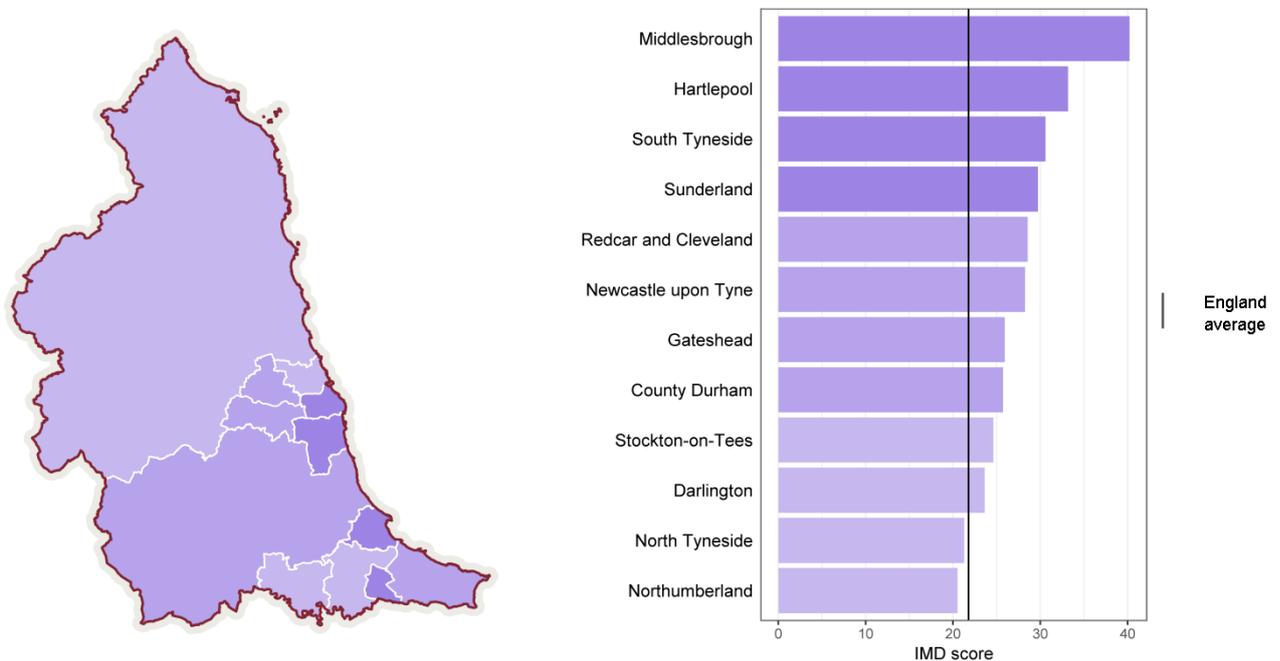
Source: Department of Communities and Local Government, taken from PHE Fingertips.

Figures 19 and 20 show that for both children and adults, the prevalence of mental health disorders is higher in more deprived areas of England. The data is not available at a regional or local level.

Figure 18. Prevalence of mental health disorders in ages 5-16 by deprivation deciles

Estimated prevalence of mental health disorders in children and young people: % population aged 5–16 – England, 2015 – Data partitioned by County & UA deprivation deciles in England (IMD2015)

Decile	Value
Most deprived decile (IMD2015)	10.5
Second most deprived decile (I...	10.2
Third more deprived decile (IM...	9.9
Fourth more deprived decile (I...	9.7
Fifth more deprived decile (IM...	9.3
Fifth less deprived decile (IM...	9.4
Fourth less deprived decile (I...	9.0
Third less deprived decile (IM...	8.8
Second least deprived decile (...	8.6
Least deprived decile (IMD2015...	8.1

— England average
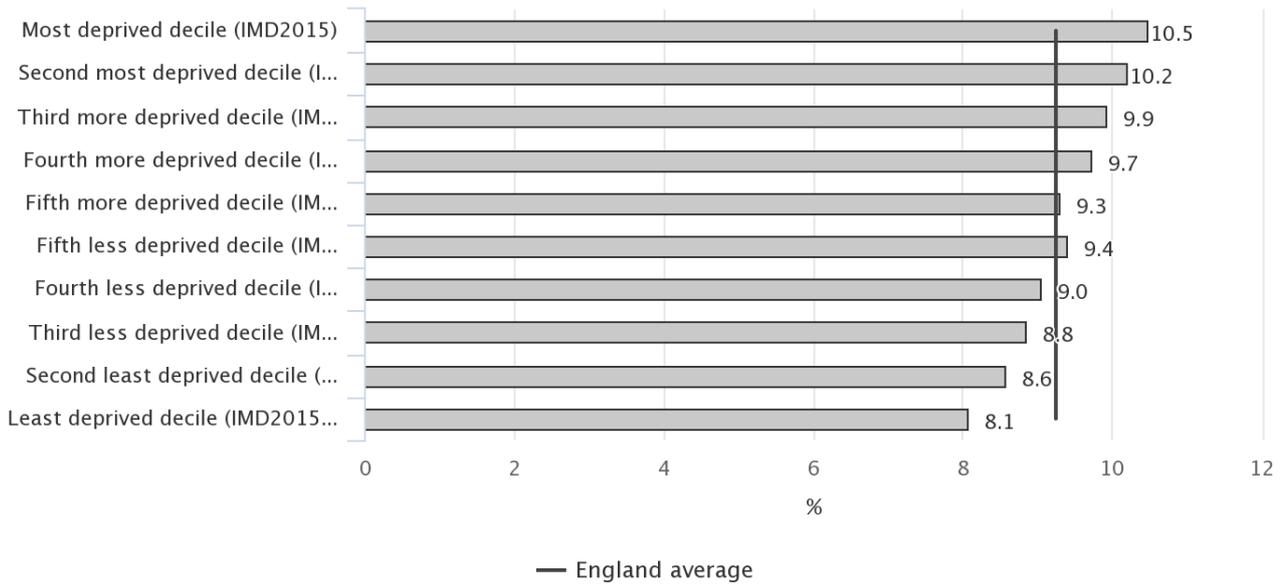
Source: Mental health of children and young people in Great Britain 2004, taken from PHE Fingertips.

Figure 20. Percentage of people aged 18+ reporting a long-term mental health problem by deprivation deciles

% reporting a long–term mental health problem – England, 2015/16 – Data partitioned by County & UA deprivation deciles in England (IMD2015)

Decile	Value
Most deprived decile (IMD2015)	6.3
Second most deprived decile (I...	5.8
Third more deprived decile (IM...	5.8
Fourth more deprived decile (I...	5.9
Fifth more deprived decile (IM...	5.5
Fifth less deprived decile (IM...	5.3
Fourth less deprived decile (I...	4.8
Third less deprived decile (IM...	4.7
Second least deprived decile (...	4.6
Least deprived decile (IMD2015...	4.1

— England average
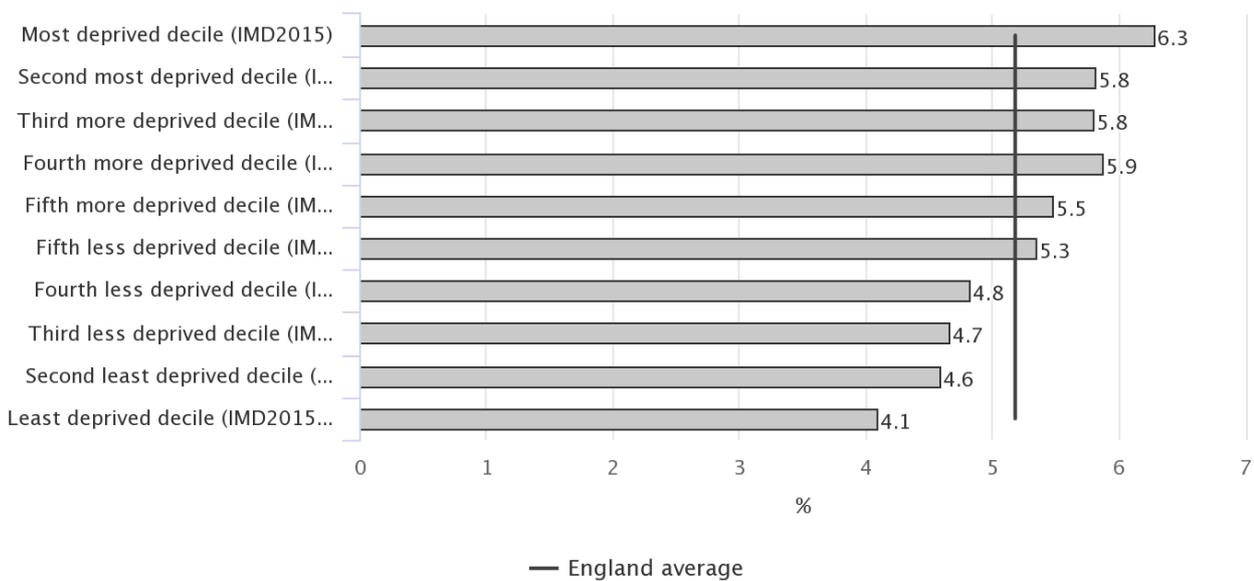
Source: Department of Health General Practice Survey, taken from PHE Fingertips.

3.4   Employment

Work is one of the most strongly evidenced determinants of mental health (33). Good jobs can provide an opportunity for people to build resilience, increase social networks and develop their own social capital (34). Good mental health among employees is associated with improved productivity and reduced sickness levels (35). Though levels of unemployment are coming down, the North East had significantly higher levels of long-term Job Seeker Allowance claimants than England (6.8% compared with 3.7% Wider determinants of health profiles).

People who are in contact with secondary mental health services are less likely to be employed than the general population. Across England, the gap is 67.4% and in the North East, the figure is lower at 61.8%. There are no areas that have an employment gap significantly higher than England.

Figure 21. Gap in the employment rate between those in contact with secondary mental health services and the overall employment rate, 2016/17
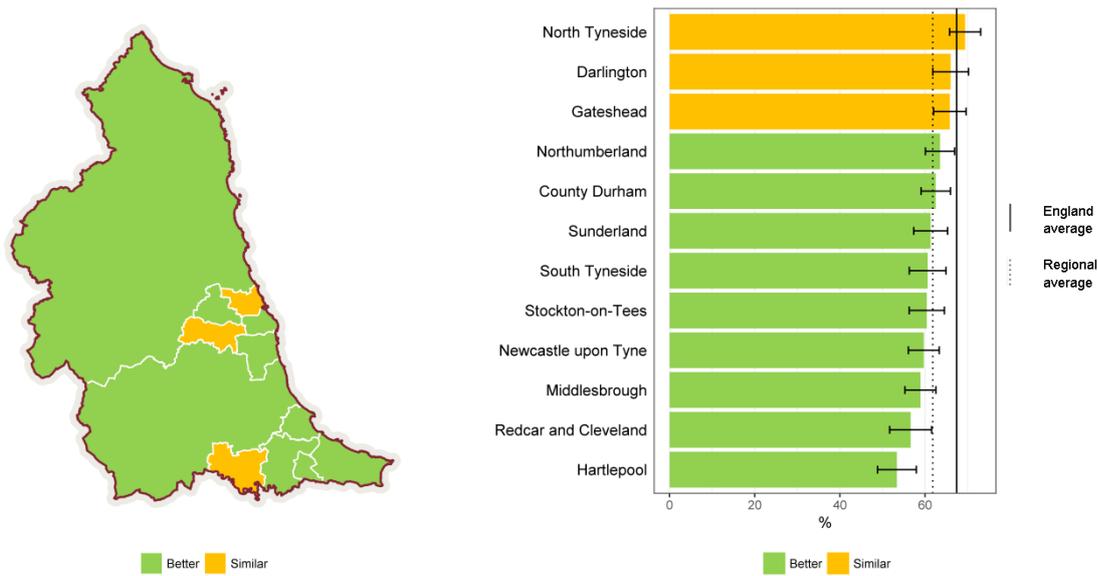
Source: ONS annual population survey, taken from PHE Fingertips.

3.5   Housing and homelessness

Having a good home is critical to the prevention of mental health problems and the promotion of recovery (36). Adults in the North East in contact with mental health services are generally more likely to live in stable and appropriate accommodation compared with the rest of England (63% compared with 54%). Although there are some concerns about the data (2017/2018 results were suspended by NHS Digital due to concerns about data quality and completeness), the results still suggest that a large number of people in contact with mental health services do not live in stable and appropriate accommodation, particularly in the north of the region.

Figure 22. Adults in contact with secondary mental health services who live in stable and appropriate accommodation, 2016/2017
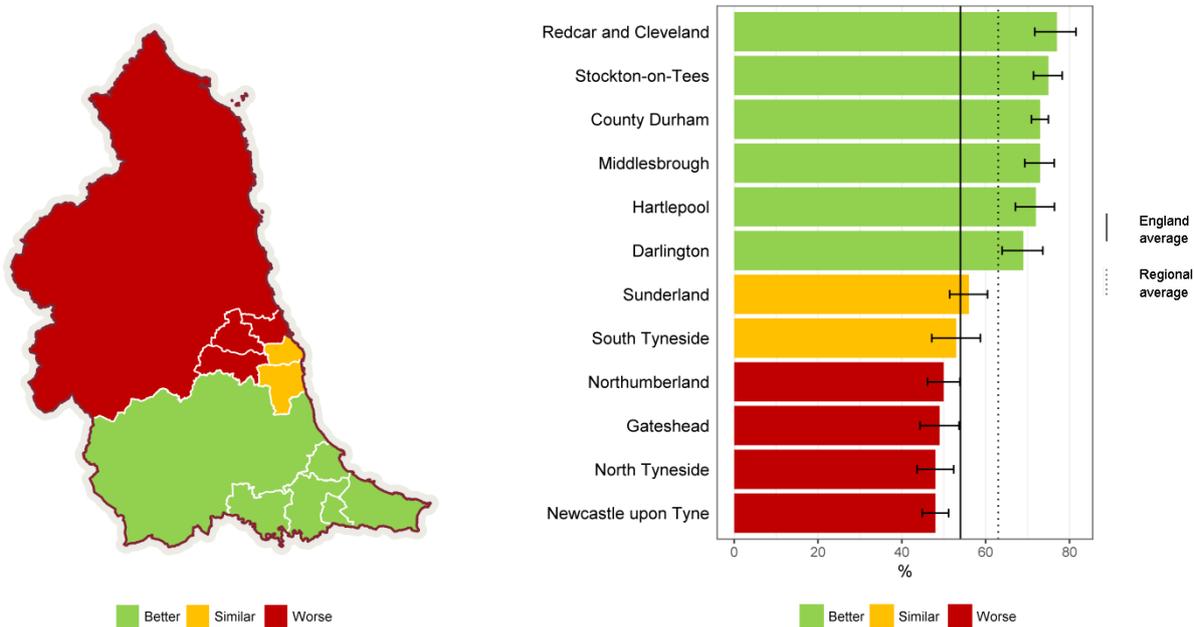
Sources: NHS Digital Adult and Social Care Outcomes Framework, taken from PHE Fingertips.

Poor mental health can be both a cause and a consequence of homelessness. A 2004 study of over 2,500 homeless people found that 80% reported mental health problems and 45% had been diagnosed with a mental health condition (37). Family homelessness is defined as households accepted as unintentionally homeless with a priority need, including pregnant women or dependent children. Family homelessness per 1,000 households is significantly lower than England for all local authorities in the North East but as a recent needs assessment for homeless people in Gateshead notes, true identification of numbers is challenging and "any homelessness is evidence of inequalities and a late marker of exclusion and disadvantage" (38).

Figure 23. Family homelessness, rate per 1,000 households, 2016/2017

Better

Better
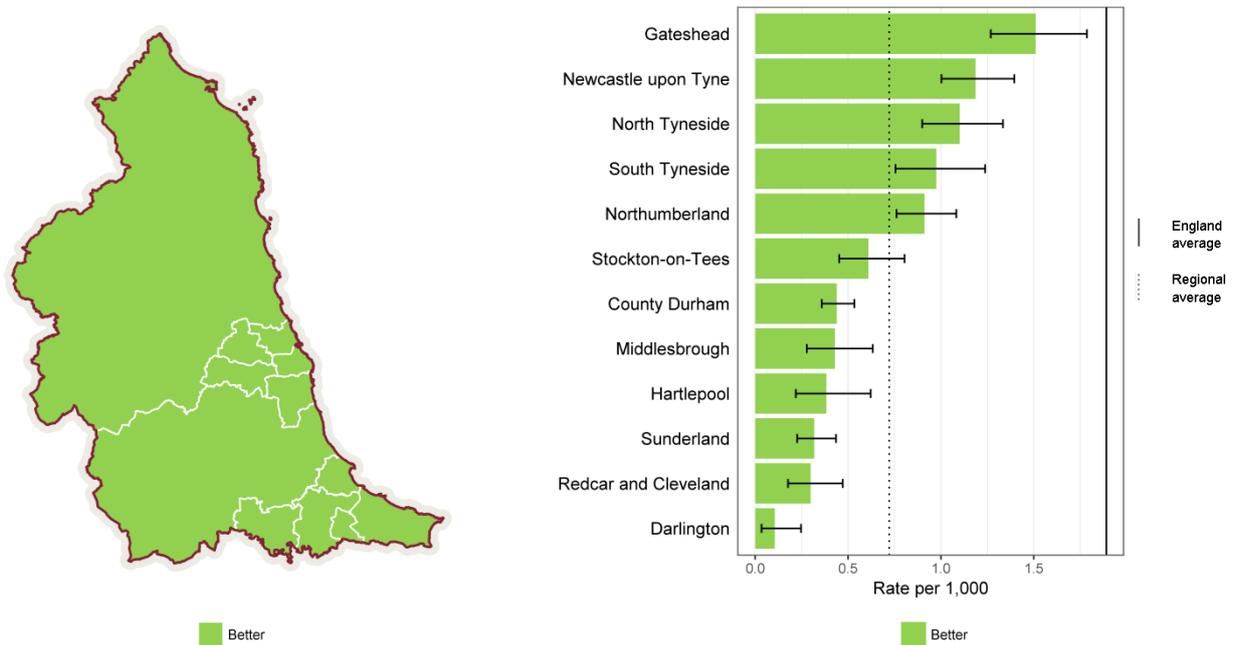
Source: Department for Communities and Local government (DCLG), taken from PHE Fingertips.

3.6   Loneliness and social isolation

Feeling lonely is not a mental health problem but it can lead to mental and physical health problems including depression. Around 5% of adults in England reported feeling lonely often or always in the 2016-2017 Community Life Survey (39). Younger adults aged 18-24 reported feeling lonely more often than people in older age groups. Women, people who are single or widowed, and people in poor health are more likely to report loneliness than their peers. The Office for National Statistics have recently developed national measures of loneliness to establish a more consistent method of quantifying and comparing prevalence and outcomes.

3.7   Substance misuse

At present, there are no direct indicators of co-morbid substance misuse and mental health issues. Public Health England's mental health intelligence network shows data on smoking, alcohol misuse and drug use alongside mental health prevalences in its Co-occurring substance misuse and mental health issue profiles, allowing users to look at correlations at an area level. The profiles show that the North East has:

- a high percentage of adults with alcohol dependence (1.72% compared with 1.39% for England)

- a high admission rate to hospital for mental and behavioural disorders due to alcohol (108.8/100,000 population compared with 72.3/100,000 for England)
- a high adult smoking rate (16.2% compared with 14.9% for England – though it is worth noting that the absolute and relative gap with England has narrowed in recent years)
- a high smoking prevalence rate for adults with serious mental illness (41.8% compared with 40.5% for England)
- a high estimated prevalence of opiate and/or crack cocaine use (10.4% compared with 8.6% for England

4. Vulnerable groups

Inequalities are systematic differences between groups of people that are both avoidable and unfair (40). Inequalities in the prevalence of common mental health conditions occur in many vulnerable groups and this chapter will examine the differences for some key populations.

4.1 Children and young people in care and leaving the care system

Children and young people in care are among the most vulnerable in England (41), having by definition had at least one adverse childhood experience. Of all looked after children aged 5 to 17 years who are in local authority care, 45% had a mental health disorder, 37% had clinically significant conduct disorders, 12% had emotional disorders, such as anxiety or depression, and 7% were hyperkinetic (30). In England 62 children in every 10,000 are in the care system, and all of the local authorities in the North East have statistically higher proportions of children in care.

Figure 24. Children in care, rate per 10,000 children aged under 18 years, 2017
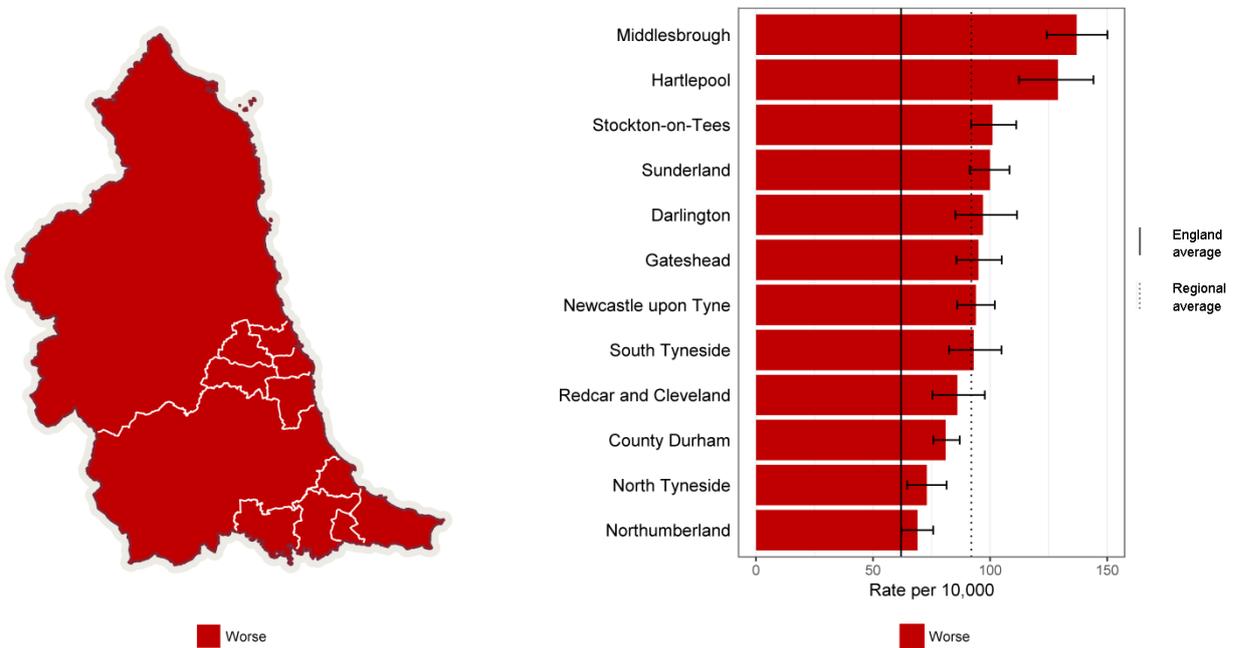

Source: Department for Education, taken from PHE Fingertips.

There are also suggestions that more needs to be done to support care leavers with their mental health needs. Research by Barnados (42) estimated that 46% care leavers had mental health needs, and of those with mental health needs, 65% did not receive any statutory services and 25% had a mental health crisis since leaving care.

4.2   Young people in the justice system

Vulnerable children such as those with a learning disability, those who are in care or with mental health needs are more likely to end up in the youth justice system (43), and consequently, those in the youth justice system tend to have more unmet health needs than other children. Early intervention can address these health inequalities and potentially lower offending and reoffending rates (44 p. 24). 327 in every 100,000 children in England receive their first reprimand between the ages of 10-17; 6 North East local authorities have significantly higher rates than this.

Figure 25. Rate of 10-17 year olds receiving their first reprimand, warning or conviction per 100,000, 2016
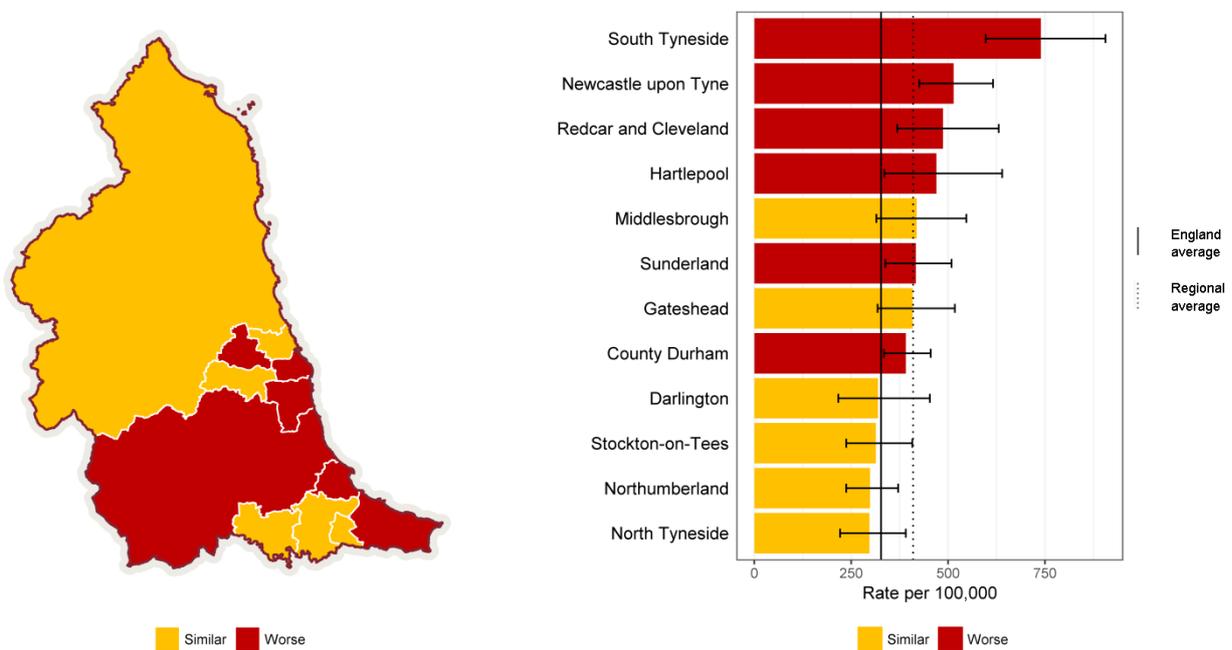
Source: Police National Computer, taken from PHE Fingertips.

4.3   Young people who are not in education, employment or training

Young people who are not in education, employment or training are at a greater risk of a range of negative outcomes, including depression (45 p. 9). Nearly 60% of young people not in education, employment or training had already experienced at least one mental health problem, compared with 35% of their peers. The proportion of young people aged 16-18 who are not currently in education, employment or training in the North East in 2016 was significantly lower than the England average at 5.4% compared to 6.0% in England as a whole.

Figure 26. Percentage of 16-18 year olds not in education, employment or training (NEET) or whose activity is not known, 2016
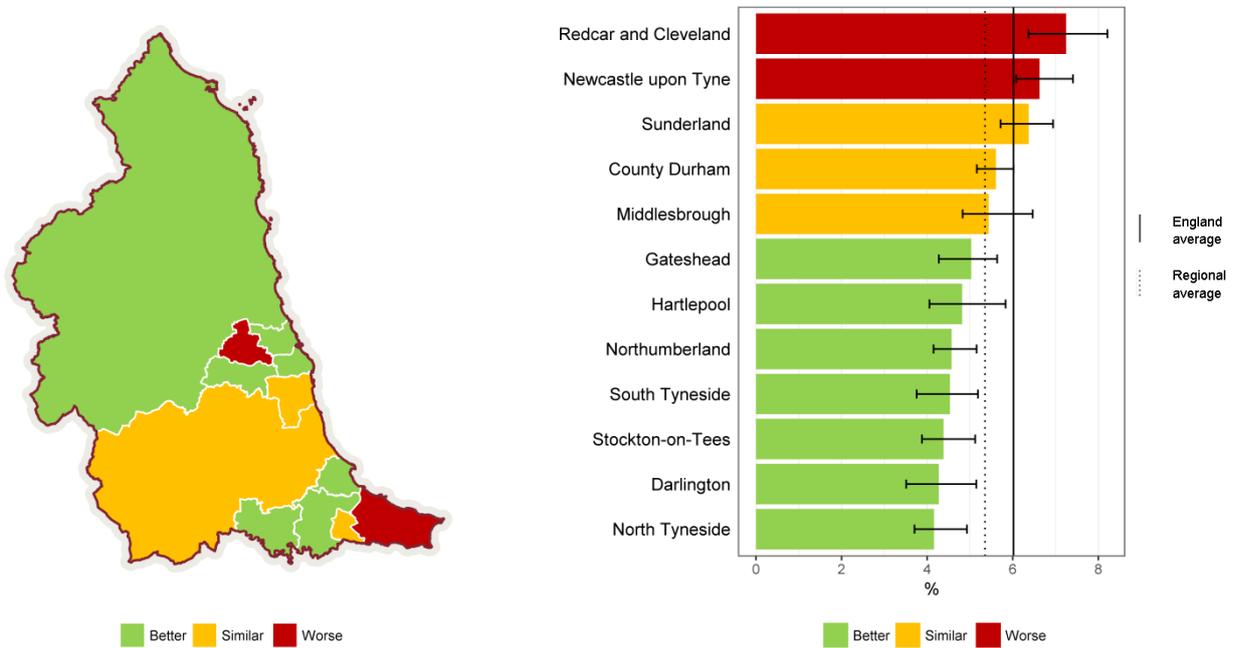
Source: Department for Education, taken from PHE Fingertips.

4.4   Ethnic minorities

The 2014 Adult Psychiatric Morbidity Survey (9) showed that prevalence of common mental health disorders does not vary significantly for men from different ethnic groups (10.5-13.5% age standardised rates) but white non-British women (15.6%) are significantly less likely to have a common mental health disorder than white British women (20.9%), while these disorders were more common in Black and Black British women (29.3%). Due to small numbers in the survey, the prevalence of mental health disorders in different ethnic groups cannot be disaggregated to a regional level.

4.5   People with long-term conditions

Thirty per cent of people with a long-term physical health conditions also have a mental health problem, and 46% of people with a mental health problem have a long-term physical health problem (46). Wellbeing is generally worse among people who have physical health issues, for example low happiness scores (more unhappiness) for people with poor health. Figure 27 shows that there is more unhappiness (shown by low happiness scores) among people with bad or very bad health.

29

Figure 27. Percentage of people with a low happiness score by health status (rated very good to very bad), England 2016/2017
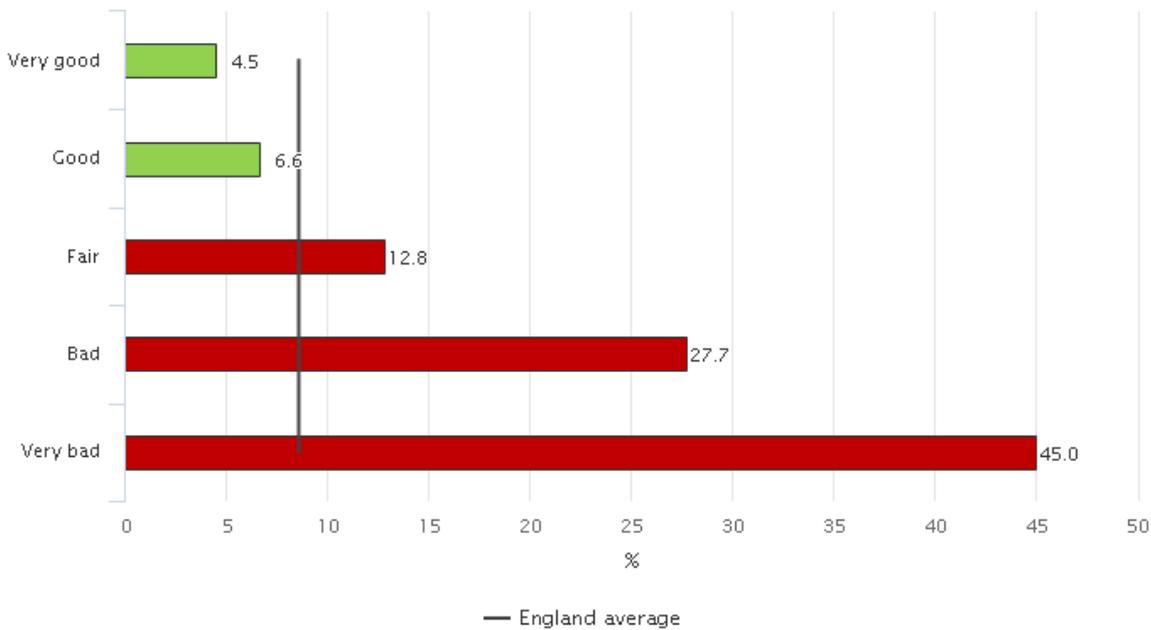
Source: Public Health England, taken from PHE Fingertips.

Recent analysis by Public Health England's Local Knowledge and Intelligence Service (LKIS) estimated that 255,000 people in the North East have co-existing long-term physical and mental health conditions, equivalent to 9.8% of the population and higher than the 8.6% of the population of England (estimated using prevalence data from Barnett et al (47)). Co-morbidity of mental and physical health conditions is generally higher among women and older age groups.

In the 2014 Adult Psychiatric Morbidity Survey, 37.6% of people with a severe common mental disorder had a chronic physical condition, compared with 25.3% of people who did not have a common mental disorder (9). People with a serious mental illness are more likely than the general population to be obese, and have asthma, diabetes, heart disease, stroke and chronic obstructive pulmonary disease (48). There are several guidance documents to support the improvement of physical health for people with serious mental illness (48) (49) (50).

4.6   Lesbian Gay Bisexual and Transgender (LGBT) people

Lesbian, gay, bisexual and transgender people have a significantly higher risk of depression, anxiety and other mental health disorders (51) (52). Men who have sex with men are twice as likely to be depressed and/or anxious compared to other men (53). The Trans Mental Health Study of 2012 (54) showed that of the 889 who participated, 38% had experienced sexual harassment, 88% had experienced depression, 10% had been an inpatient at a mental health unit at least once and 53% had self-harmed and

35% had attempted suicide at least once. There is currently little intelligence available at a local level.

4.7   Carers

A 2010 literature review found that caring for a family member with a mental health problem can lead to significant impact on carers' own mental health. The mental health problems of carers include emotional stress, depressive symptoms and, in some cases, clinical depression (55). A 2008 literature review also highlighted that caring for a family member often resulted in carer stress that impacted on physical and psychological health. However, it was also noted that a caring role could also have beneficial effects, including improvements in their relationship with the family member, and learning more skills (56).

The impact on the mental health of carers seems to be moderated by a number of factors, including the intensity of caregiving, perceived patient's suffering, patient's illness, caregiver's age, relationship of the caregiver, and gender. The Carers UK annual survey of over 5,000 carers revealed that 84% of carers feel more stressed, 78% feel more anxious and 55% reported they suffered from depression as a result of their caring role (57). The 2015/2016 survey of carers by social service departments suggests that the quality of life for carers in the North East is slightly higher than across England as a whole, and only South Tyneside has a lower average quality of life for carers than the national average (58).

Figure 28. Carers-reported quality of life, 2014/2015, average score out of 12
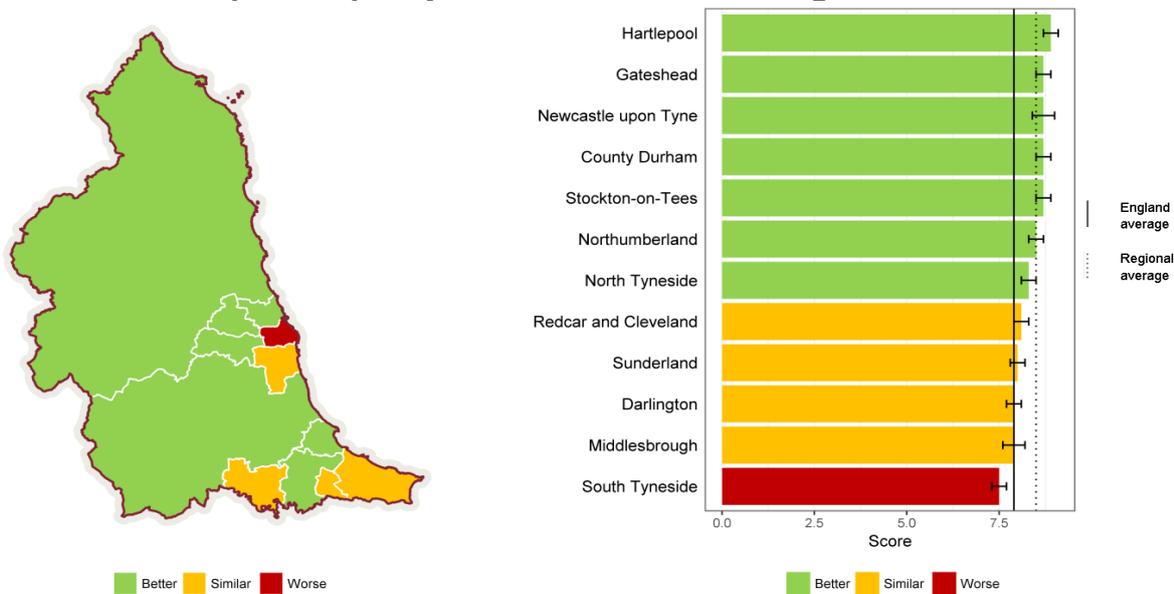
Source: NHS Digital, Adult Social Care Outcomes Framework, taken from PHE Fingertips.

4.8   People who self-harm

Self-harm describes someone who intentionally hurts themself by cutting or burning, or poisons themself by intentionally taking too many tablets. Most incidents of self-harm will not receive any medical attention, but the most severe incidents may result an admission to hospital. These hospital admission rates are used as a proxy measure for severe self-harm across populations, since most incidents will go unreported. The vast majority of people who self-harm will not try to commit suicide, although a 2015 study indicated that 0.5% of people who self-harmed subsequently died by suicide, 49 times greater than the probability of suicide in the general population (59).

The North East has relatively high rates of emergency hospital admissions for self-harm: 231.9 per 100,000 population in compared with 185.3 per 100,000 for England. However, as Figure 29 shows, the rate of admissions for self-harm has dropped in recent years and the gap with England is narrowing.

Figure 29: Hospital admissions for intentional self-harm, all ages, 2016/2017
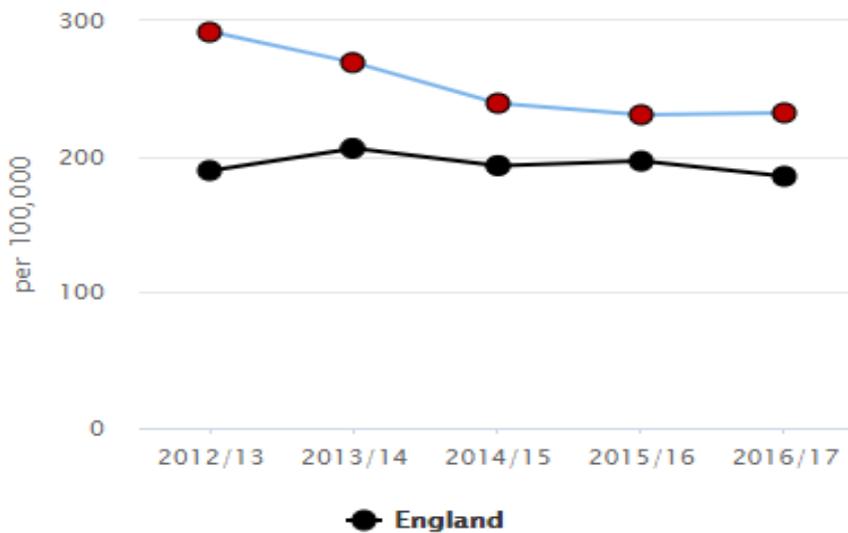
Source: Hospital episode statistics, taken from PHE Fingertips.

This indicator does need to be interpreted with a degree of caution: the occurrence of multiple emergency admissions for the same individuals, particularly in areas where admission rates are considered high or low, can help to explain some of the variation in self-harm recording. One way of showing this is to calculate not only the admission rates (Public Health Outcomes Framework Indicator 2.10ii 'Emergency Hospital Admissions for Intentional Self-Harm' currently published as part of the Public Health Profiles) but also to calculate the rates for the numbers of patients admitted and divide them by the rate of patients admitted to give a ratio. A ratio of one for example would indicate that, on average, patients were admitted once only in any given time period; a ratio of 1.5 would indicate that, on average, patients were admitted 1.5 times.

Furthermore, patients who are admitted to hospital as an emergency via A&E departments do not always have the same diagnosis recorded in both A&E and hospital inpatient settings, which can make it extremely difficult to ascertain the true level of hospital activity associated with self-harm.

Preliminary work exploring these 2 issues has been undertaken within PHE's Local Knowledge and Intelligence Services for the North East, and a PowerPoint presentation showing some of this work may be viewed via the PHINE Network North East website (registration required). The work shows that the rates of people admitted as an emergency due to self-harm is similar in the North East, North West and South West, but all 3 regions have significantly higher rates than the rest of the country.

5. Reducing premature mortality for people with mental health problems

5.1 Suicide

Around 250 people die from suicide in the North East every year (60).

In 2016, there were 4,941 deaths recorded as suicide in England and Wales, while in the same year, the Samaritans took more than 770,000 calls from people who expressed suicidal feelings. Note that deaths from suicide are generally referred to by the year in which they were **registered**, which is different from the year in which they **occurred**, in order to publish statistics in the most timely manner. The average delay in registering deaths from suicide in England in 2017 was 152 days. This has remained fairly consistent over the last 10 years, varying between 144 and 168 days with no obvious trend.

In the North East in 2017, there was an average delay in recording suicides of 102 days, down from a high of 185 days in 2010. This improved recording time will mean that more suicides occuring in the North East in 2017 are recorded in 2017, compared with the number occurring/recorded across England as a whole. Comparison of suicide rates between the North East and England must, therefore, be undertaken with caution. The suicide rate in England shown in Figure 30 appears to have a fairly clear downward trend but the picture for the North East is less clear. Table 1 looks at 3-year pooled mortality rates and suggests that the relative and absolute gaps between suicide rates for the North East and the rest of the country are reducing.

Figure 30. Age-standardised suicide rates for the North East and England, 1981-2017
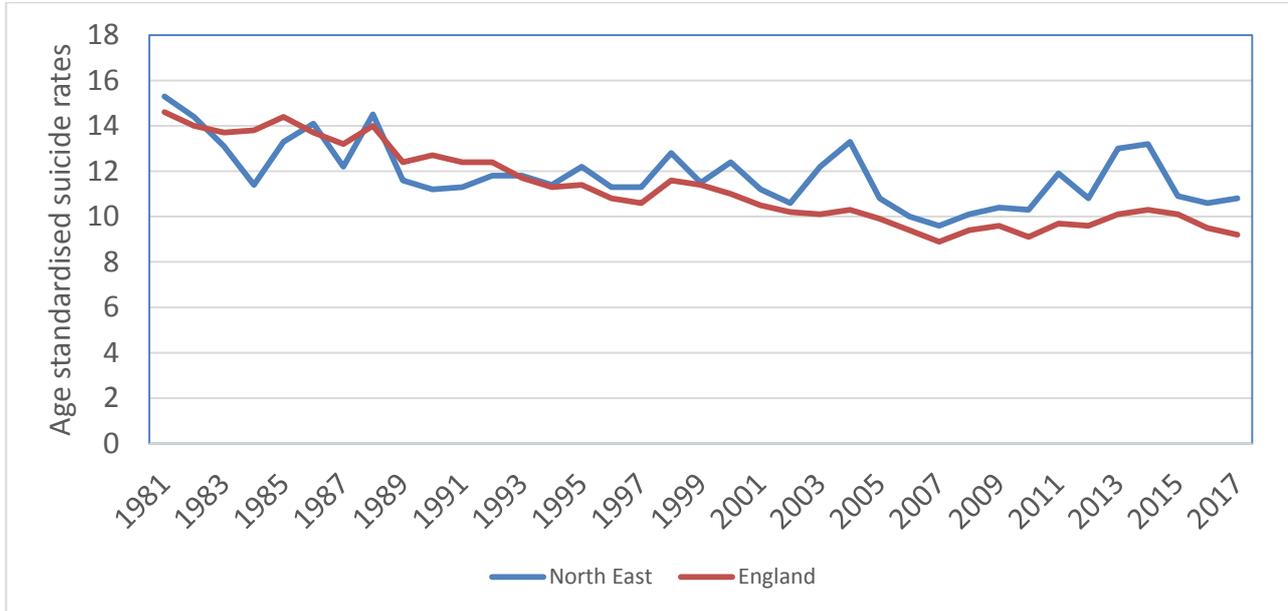
Source: Office for National Statistics.

Table 1. Age-standardised mortality rates from suicide for the North East and for England, with confidence intervals, and the gaps between them

	England		North East		Gaps between England and the NE	
Years	Rate	CIs	Rate	CIs	Absolute	Relative
2002-2004	10.2	10.0-10.4	12	11.2-12.9	1.8	18%
2003-2005	10.1	9.9-10.3	12.1	11.3-13.0	2.0	20%
2004-2006	9.9	9.7-10.0	11.4	10.6-12.2	1.5	15%
2005-2007	9.4	9.2-9.5	10.1	9.4-10.9	0.7	7%
2006-2008	9.2	9.0-9.4	9.9	9.1-10.6	0.7	8%
2007-2009	9.3	9.1-9.4	10	9.3-10.8	0.7	8%
2008-2010	9.4	9.2-9.5	10.2	9.5-11.0	0.8	9%
2009-2011	9.5	9.3-9.6	10.9	10.1-11.7	1.4	15%
2010-2012	9.5	9.3-9.7	11.0	10.2-11.8	1.5	16%
2011-2013	9.8	9.6-10.0	11.9	11.0-12.7	2.1	21%
2012-2014	10.0	9.8-10.2	12.3	11.5-13.2	2.3	23%
2013-2015	10.1	10.0-10.3	12.4	11.5-13.2	2.2	22%
2014-2016	9.9	9.8-10.1	11.6	10.8-12.4	1.6	16%
2015-2017	9.6	9.4-9.7	10.8	10.0-11.5	1.2	12%

Data source: Office for National Statistics.

Men, divorced people and those living in less well-off areas are at greater risk of suicide (61). Suicide risk is particularly high among people with serious mental illness during psychiatric admission and shortly after discharge (62).

5.2 Premature mortality from other causes

The NHS Outcomes Framework reports on the excess under 75 mortality rate in adults with serious mental illness (which is defined as the adult population who has been in contact with secondary mental health services in the last 3 years) (63). In 2014/2015, the directly standardised mortality rate for the general population in England aged under 74 was 388/100,000 while the rate for people with serious mental illness was very much higher at 1,429/100,000.

The indicator shows that for every 100 deaths in the general population, there were 370 deaths among people with serious mental illness (64). Further, the gap in these mortality rates has been rising since 2009/2010. It is estimated that these premature deaths result in an average of 15 to 20 fewer years of life for people with a serious mental illness (65).The main conditions responsible for these early deaths are liver disease, respiratory disease, cardiovascular disease and cancer.

People with a serious mental illness had a much higher premature mortality rate in all North East local authorities than across England as a whole. The ratio of deaths of people with a serious mental illness compared with the general population was particularly high in Newcastle, South Tyneside, County Durham and Teesside.

Figure 31. Age-standardised premature mortality rates for the general population and for people with a serious mental illness, 2012-2015
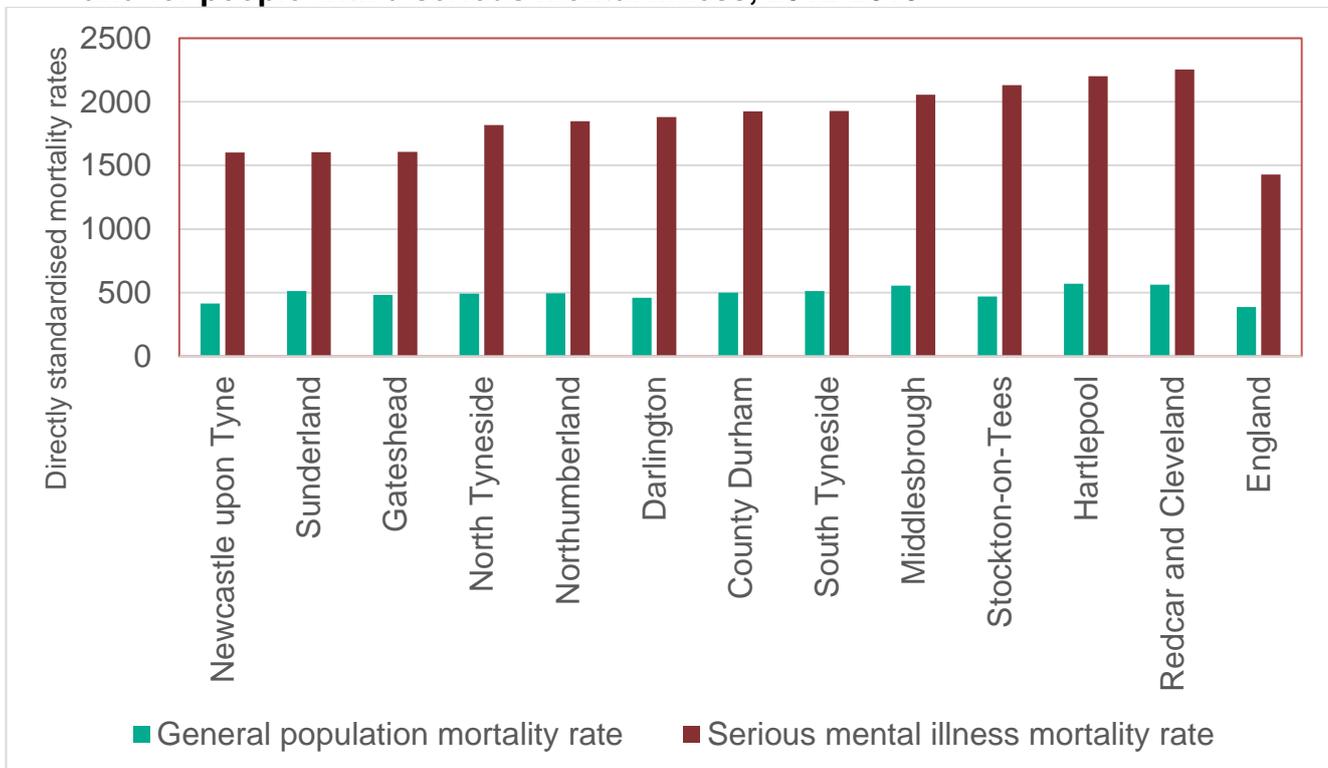
Source: NHS Digital.

While indicators such as the one discussed here tend to focus on premature deaths of people in contact with mental health services, a recent paper looked at the deaths of people who were diagnosed with a serious mental illness in either primary or secondary care (66). It found that the mortality rate for people in contact with secondary care services was higher than the group only in contact with primary care, suggesting that the existing indicator in the NHS Outcomes Framework may overestimate the excess premature mortality among people with a serious mental illness.

A joint report has been produced by Public Health England, the Royal Colleges of GPs, Nursing, Pathologists, Psychiatrists and Physicians, the Royal Pharmaceutical Society and the Academy of Medical Royal Colleges sets out the essential actions to improve the physical health of adults with a mental health condition (67). Regional approaches such as the mental health Trusts going smoke free (68) are in line with those recommendations and should have an impact on the causes of some of these early deaths. However, more needs to be done to take a holistic view of both the mental and physical needs of the population.

6. Conclusions

Many of the issues identified in this report are as relevant for good physical health as they are for good mental health: what's good for your head is also good for your heart. Unequal distribution of wealth, good housing and good jobs drives inequalities in health and wellbeing and the region suffers disproportionately from poverty.

The population of the North East does not differ significantly from the England population in terms of happiness or anxiety. Eighty per cent of our population have high levels of satisfaction and rates of life satisfaction have increased for 20-74 year olds in recent years. People in the region with an existing mental illness have a relatively high chance of living in stable accommodation and of being employed compared to their peers in other parts of the country, and rates of homelessness are relatively low here. Carers in the North East are more likely to report a good quality of life than carers in other parts of the country. However, there are still high levels of homelessness and worklessness in the region.

The more obvious challenges for the region are:

- children starting North East schools with average levels of school readiness but falling behind the rest of England in educational attain by the time they leave, increasing their risk of mental illness
- the high proportion of young people experiencing adverse childhood events, especially those who end up in care or in the youth justice system
- high levels of substance misuse, particularly for people who are already suffering with their mental health
- addressing the physical health of people with a mental health condition, and the mental health of people with a physical health condition
- high levels of dementia and high rates of emergency hospital admissions for people with dementia
- preventing self-harm, particularly repeat incidents, and supporting those who express suicidal thoughts

This will require continued partnership working across a range of agencies, including the NHS, the third sector, schools, employers and colleagues in local authorities – particularly those in education and social care. The King's Fund's report on integrating physical and mental health care (1), NICE guidance (69) and the Five Year Forward View (7) all provide recommendations on how progress can be made.

A final note on likely priorities which should not be ignored simply because there is relatively little data available on them at present. The evidence suggests that the burden of mental ill-health during pregnancy and the first year of a baby's life is likely to be

substantial, with up to 20% of women experiencing problems during this period. Efforts must be made to address this, while better data sources are established.

7. References

1. Naylor C, Das P, Ross S, Honeyman M, Thompson J, Gilburt H. *Bringing together physical and mental health: a new frontier for integrated care.* London: The King's Fund, 2016.

2. Consumer Data Research Centre. Access to healthy assets and hazards. *Consumer Data Research Centre.* [Online] 2017. [Cited: 24 October 2018.] data.cdrc.ac.uk/dataset/access-to-healthy-assets-and-hazards-ahah

3. Office for National Statistics. Measures of National Well-being Dashboard. *Office for National Statistics.* [Online] 26 September 2018. [Cited: 16 October 2018.] www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuresofnationalwellbeingdashboard/2018-09-26

4. New Economics Foundation. *Five ways to wellbeing.* London : New Economics Foundation, 2007.

5. World Health Organisation. Mental health: a state of well-being. *World Health Organization.* [Online] August 2014. [Cited: 16 October 2018.] www.who.int/features/factfiles/mental_health/en

6. UK Faculty of Public Health. Better mental health for all. *Faculty of Public Health and Mental Health Foundation.* [Online] 2016. [Cited: 26 April 2018.] www.fph.org.uk/better_mental_health_for_all

7. Independent Mental Health Taskforce to the NHS in England. *The Five Year Forward View for Mental Health.* s.l. : Independent Mental Health Taskforce to the NHS in England, 2016.

8. Public Health England. Prevention concordat for better mental health: consensus statement. *gov.uk.* [Online] 2016. [Cited: 3 October 2018.] www.gov.uk/government/publications/prevention-concordat-for-better-mental-health-consensus-statement/prevention-concordat-for-better-mental-health.

9. NHS Digital, NatCen Social Research, University of Leicester. *Mental health and wellbeing: Adult Psychiatric Morbidity Survey 2014.* Leeds : NHS Digital, 2016.

10. National Institute for Health and Social Care Excellence. Postnatal care up to 8 weeks after birth. *National Institute for Health and Social Care Excellence.* [Online] February 2015. [Cited: 2 May 2018.] www.nice.org.uk/guidance/cg37/evidence.

11. *The effects of pre- and postnatal depression in fathers: a natural experiment comparing the effects of exposure to depression on offspring.* Ramchandani P.G., O'Connor,T.G., Evans,J., Heron,J., Murray,L., Stein A. 2008, Journal of child psychology and psychiatry, and allied disciplines.

12. Office for National Statistics. *Live births by mnothers' usual area of residence.* 20 November 2017.

13. Bauer A, Parsonage M, Knapp M, Iemmi V, Adelaja B. *The costs of perinatal mental health problems.* Centre for Mental Health and London School of Economics. London: Centre for Mental Health, 2014.

14. Public Health England. *Promoting children and young people's emotional health and wellbeing: a whole school and college approach.* London : Public Health England, 2015.

15. Office for National Statistics. Statistical bulletin:National Population Projections: 2016-based statistical bulletin. *Office for National Statistics.* [Online] 26 October 2017. [Cited: 18 February 2018.] www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2016basedstatisticalbulletin.

16. Public Health England. *Child Health profiles.* London: Public Health England, 2018.

17. —. Public Health Outcomes Framework. *Fingertips.* [Online] May 2018. [Cited: 12 June 2018.] fingertips.phe.org.uk/profile/public-health-outcomes-framework.

18. NHS Digital. Quality and Outcomes Framework. *NHS Digital.* [Online] 2018. [Cited: 2 May 2018.] qof.digital.nhs.uk

19. Office for National Statistics. Personal well-being in the UK: October 2016 to September 2017. *Office for National Statistics.* [Online] 26 February 2018. [Cited: 2 May 2018.] www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/measuringnationalwellbein g/october2016toseptember2017.

20. PHE. Dementia profiles. *Fingertips.* [Online] 2018. [Cited: 2 May 2018.] fingertips.phe.org.uk/profile-group/mental-health/profile/dementia.

21. Public Health England. Dementia profiles. *Fingertips.* [Online] May 2018. [Cited: 12 June 2018.] fingertips.phe.org.uk/profile-group/mental-health/profile/dementia.

22. *Is dementia incidence declining?: Trends in dementia incidence since 1990 in the Rotterdam Study.* Schrijvers EM, Verhaaren BF, Koudstaal PJ, Hofman A, Ikram MA, Breteler MM. 2012, Neurology, pp. 1456-63.

23. *A two decade dementia incidence comparison from the Cognitive Function and Ageing Studies I and II.* Matthews FE, Stephan BC, Robinson L, et al. Cognitive Function and Ageing Studies (CFAS) Collaboration. 2016, Nat Commun, p. 11398.

24. *Temporal trend in dementia incidence since 2002 and projections for prevalence in England and Wales to 2040: modelling study.* Ahmadi-Abhari S, Guzman-Catillo M, Bandosz P, Shipley MJ, Muniz-Terrera G, Singh-Manoux A, Kivimaki M, Steptoe A, Capewell S, O'Flaherty M, Brunner EJ. 2017, British Medical Journal, p. www.bmj.com/content/358/bmj.j2856.

25. *Circuits and circumstances: the neurobiological consequences of early relationship.* R, Balbernie. 3, 2001, Journal of Child Psychotherapy, Vol. 27, pp. 237-55.

26. *Parental Attachment, Self-Worth, and Depressive Symptoms Among Emerging.* Kenny ME, Sirin S. 2006, Journal of Counselling & Development, Vol. 84, pp. 61-71.

27. *The lifelong effects of early childhood adversity and toxic stress.* Shonkoff JP, Garner AS. 1, 2012, American Journal of Pediatrics, Vol. 129, pp. 232-246.

28. *The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis.* Hughes K, Bellis M, Hardcastle K, Sethi D, Butchart A, Mikton C, Jones L, Dunne M. 2, 2017, Lancet Public Health, pp. 356-366.

29. Hughes K, Ford K, Davie AR, Homolova L, Bellis MA. *Sources of resillience and their moderating relationships with harms from adverse childhood experiences.* Wrexham : Public Health Wales, 2018.

30. Meltzer H, Gatward R, Goodman R, Ford T. *Mental health of children and adolescents in Great Britain.* London : The Stationery Office, 2000.

31. *On poverty, politics and psychology: the socioeconomic gradient of mental healthcare utilisation and outcomes.* Delgadillo J, Asaria M, Ali S, Gilbody S. November 2016, The British Journal of Psychiatry, pp. 429-430.

32. Department for Communitites and Local Government. *The English Indices of Deprivation 2015.* London : Department for Communities and Local Government, 2015.

33. *Together in pain: attachment-related dyadic.* Ein-Dor T, Doron G, Soloman Z, Mikulincer M, Shaver PR. 2010, Vol. 57.

34. HM Government. *No Health without Mental Health: A cross-government mental health outcomes strategy for people of all ages.* London: HM Government, 2011.

35. Office for National Statistics. *Census 2011.* [www.ons.gov.uk/census/2011census/2011censusdata] 2011.

36. NHS England. *Five year forward view for mental health.* Leeds : NHS England, 2016.

37. Homeless Link. *The unhealthy state of homelessness.* London : Homeless Link, 2014.

38. Harland, J. *Gateshead homelessness and multiple and complex needs: health needs assessment.* Gateshead : Gateshead council, 2017.

39. Office for National Statistics. Loneliness - what characteristics and circumstances are associated with feeling lonely? *Office for National Statistics.* [Online] 10 April 2018. [Cited: 1 October 2018.] www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/lonelinesswhatcharacteristicsandcircumstancesareassociatedwithfeelinglonely/2018-04-10.

40. Public Health England. *Reducing health inequalities:.* London: Public Health England, 2017.

41. Bright, Cordis. *Defining child vulnerability:definitions, frameworks and groups. Technical Paper 2 in Children's Commissioner project on vulnerable children.* London: Children's Commissioner for England, 2017.

42. N, Smith. *Neglected minds. A report on mental health support for young people leaving care.* Barnados. Ilford : Barnados, 2017.

43. Newman, R. *Turning young lives around: How health and justice services can respond to children with mental health problems and learning disabilities who offend.* London : Prison Reform Trust, 2013.

44. Northern Ireland Department of Justice. *Reducing Offending: Towards a Safer Society.* Belfast : DoJNI, 2012. p. 24.

45. Public Health England and the Institute of Health Equity. *Reducing the number of young people not in education, employment or training.* London : PHE, 2014. p. 9.

46. Naylor C, Parsonage M, McDaid D, Knapp M, Fossey M, Galea A. *Long-term conditions and mental health: the cost of co-morbidities.* London: The Kings Fund and the Centre for Mental Health, 2012.

47. *Epidemiology of multimorbidity and implications for health care, research, and medical.* Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. 9836, 2012, Lancet, Vol. 380, pp. 37-43.

48. Public Health England. Severe mental illness and physical health inequalities: briefing. *gov.uk.* [Online] 27 September 2018. [Cited: 12 December 2018.] www.gov.uk/government/publications/severe-mental-illness-smi-physical-health-inequalities/severe-mental-illness-and-physical-health-inequalities-briefing.

49. England, NHS. *Improving physical healthcare for people living with severe mental illness (SMI) in primary care: Guidance for CCGs.* 9 February 2018.

50. NHS England. *Improving the physical health of people with serious mental illness: a practical toolkit.* London: s.n., 24 May 2016.

51. National Institute for Health and Care Excellence. NICE. *Mental health and wellbeing.* [Online] 2018. [Cited: 2 May 2018.] www.nice.org.uk/guidance/lifestyle-and-wellbeing/mental-health-and-wellbeing.

52. National Institute for Mental Health in England. *Mental disorders, suicide and deliberate self harm in lesbian, gay and bisexual people: a systematic review.* Leeds: National Institute for Mental Health in England, 2007.

53. *Mental health disorders, psychological distress and suicidality in a diverse sample of lesbian, gay, bisexual and transgender youths.* Mustanski BS, Garofalo R, Emerson EM. 12, 01 December 2010, American Journal of Public Health, Vol. 100, pp. 2426-2432.

54. *Promoting the health and wellbeing of gay, bisexual and other men who have sex with men.*

55. McNeil J, Bailey L, Ellis S, Morton J, Regan M. *Trans Mental Health and Emotional Wellbeing Study 2012.* Equality Network. Edinburgh : Scottish Transgender Alliance, 2012.

56. *Review article: psychological distress in carers of people with mental disorders.* Shah AJ, Wadoo O, Latoo J. 2010, British Journal of Medical Practitioners, p. 327.

57. *Physical and mental health effects of family caregiving.* Schulz R, Sherwood PR. 2008, The Americal Journal of Nursing, pp. 23-7.

58. Carers UK. State of caring 2016. *Carers UK.* [Online] 29 May 2015. [Cited: 3 May 2018.] www.carersuk.org/for-professionals/policy/policy-library/state-of-caring-2015.
59. Public Health England. Social care profiles. *Fingertips.* [Online] December 2016. [Cited: 12 June 2018.] fingertips.phe.org.uk/profile/adultsocialcare.
60. *Suicide following self-harm: findings from the Multicentre Study of self-harm in England, 2000-2012.* Hawton K, Bergen H, Cooper J, Turnbull P, Waters K, Ness J, Kapur N. 1 April 2015, Journal of Affective Disorders, Vol. 175, pp. 147-151.
61. Office for National Statistics. Suicides in England and Wales by local authority. *Office for National Statistics.* [Online] 4 September 2018. [Cited: 9 October 2018.] www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/suicidesbylocalauthority.
62. —. Who is most at risk of suicide? Analysis and explanation of the contributory risks of suicide. *Office for National Statistics.* [Online] 7 September 2017. [Cited: 10 October 2018.] www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/whoismostatriskofsuicide/2017-09-07.
63. National Confidential Inquiry into suicide and homicide by people with mental illness. *Safety first.* London: Department of Health, 2001.
64. Clinical Indicators Team, NHS Digital. NHS Outcomes Framework. *NHS Digital.* [Online] May 2018. [Cited: 29 August 2018.] files.digital.nhs.uk/D5/75D10D/NHSOF_Domain_1_S.pdf.
65. —. NHS Outcomes Framework Indicators, November 2016 Quarterly Publication. *NHS Digital.* [Online] 17 November 2016. [Cited: 29 August 2018.] files.digital.nhs.uk/93/E0395C/nhs-out-fram-ind-nov-16-comm.pdf
66. *Inequalities in physical comorbidity: a longitudinal comparative cohort study of people with severe mental illness in the UK.* Reilly S, Olier I, Planner C, Doran T, Reeves D, Ashcrofy DM, Gask L, Kontopantelis E. 12, s.l. : BMJ Journals, 2015, BMJ Open, Vol. 5.
67. *Premature mortality among people with severe mental illness - new evidence from linked primary care data.* John A, McGregor J, Jones I, Lee SC, Walters JTR, Owen MJ, O'Donovan M, DelPozo-Banos M, Berridge D, Lloyd K. 2018, Schizophrenia Research.
68. The Royal College of Psychiatrists. *Improving the physical health of adults with severe mental illness: essential actions.* s.l. : Royal College of Psychiatrists, 2016.
69. Hamilton S, Jones S, Mulrine S, Clements H, Jones D, Christie A, Billett A. Evaluation of the introduction of smokefree policies in two North East NHS Foundation Trusts: Northumberland, Tyne & Wear NHS FT and Tees, Esk & Wear Valleys NHS FT. *fuse.* [Online] May 2018. [Cited: 29 August 2018.] www.fuse.ac.uk/askfuse/outputs/Evaluation%20of%20the%20introduction%20of%20smokefree%20policies%20in%20two%20North%20East%20NHS%20Foundation%20Trusts%20-%20Executive%20Summary.pdf.
70. National Institute for Health and Care Excellence. Mental health and wellbeing. *NICE.* [Online] [Cited: 25 October 2018.] https://www.nice.org.uk/guidance/lifestyle-and-wellbeing/mental-health-and-wellbeing.

Appendix 1. Local resources for supporting good mental health

Many North East Local Authorities have web pages containing advice on maintaining good emotional health and wellbeing, but also pointing people to local preventative services.

Darlington Borough Council have 2 web pages, one entitled Mental Well-Being at: www.darlington.gov.uk/health-and-social-care/adult-social-care/keeping-healthy-and-well/mental-health/mental-well-being/ and another, Seeking Support for Mental Health Issues at www.darlington.gov.uk/health-and-social-care/adult-social-care/keeping-healthy-and-well/mental-health/seeking-support-for-mental-health-issues

Gateshead Council have a page on Emotional Health at: www.gateshead.gov.uk/article/3876/Emotional-health

Hartlepool have separate web pages for Children and Young People's Mental Health and Wellbeing at: www.hartlepool.gov.uk/info/20015/social_care_and_health/533/children_and_young_peoples_mental_health_and_wellbeing/2 and a page that links to a directory of local mental health services at: www.hartlepool.gov.uk/info/20076/adults_and_older_people/442/beautiful_minds_directory_-_mental_health_services

Middlesbrough Council have a web page entitled Mental Wellbeing at: www.middlesbrough.gov.uk/social-care-and-wellbeing/public-health/adult/living-well/mental-wellbeing

North Tyneside Council have a web page on Mental Health and Wellbeing at: my.northtyneside.gov.uk/category/599/mental-health-and-wellbeing

Redcar and Cleveland have a web page entitled Mental Health Support at: www.redcar-cleveland.gov.uk/resident/adult-children-health/health-care-services/Pages/Mental-Health-Support.aspx