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Solihull Outcomes Framework 2024/25

The Solihull Local Outcomes Framework has been developed to provide an overview of progress in improving the health and wellbeing of the population. The framework, which has been overseen by our Place Committee/ HWBB, takes into account the following:

- Solihull's Health and Wellbeing Strategy and Health Inequalities Strategy
- The priorities within the Birmingham and Solihull Integrated Care System's Inception Framework related to improving population health and healthcare, tackling unequal outcomes and across, enhancing productivity and value
- The Birmingham and Solihull Health Inequalities Strategy
- The Council Plan
- Council's Inclusive Growth Framework.

4. More children are happy, healthy and

safe

Ten high level areas have been identified which sit under three demains

Wider determinants **Our Services Outcomes for People** 8. People have access to the right care 1. Level up life expectancy 5. More people adopt a healthy lifestyle and support when and where they need it 9. Our health and care services deliver 2. More people have good mental health 6. More people are in well-paid work population 7. More people live in an environment 3. More people live independently for which supports their health and longer

wellbeing

good quality care and support to the 10. Our services work together to have a positive impact on outcomes and reduce health inequalities.

Solihull Outcomes Framework 2024/25

For each domain, indicators have been identified for inclusion which meet the following criteria:

- Wherever possible they are already collated and reported, for example to regional or national government departments and so allow benchmarking with other areas
- They can show difference over time
- They are relevant to measuring progress against the Health and Wellbeing Strategy and accompanying strategies like health inequalities and prevention.

For some of the indicators we may hold more up to date data locally which has not been included this is so we can compare our performance with other similar local authorities.

Legend

- Statistically Significantly Better than England
- Statistically Significantly Worse than England
- Similar to England

- Statistically Significantly Higher than England
- Statistically Significantly Lower than England
- Similar to England

Rankings are Solihull's rank within its statistically similar neighbours (most similar local authorities), Local authorities with similar socioeconomic deprivation and the West Midlands, a definition of these comparators are included in the glossary.

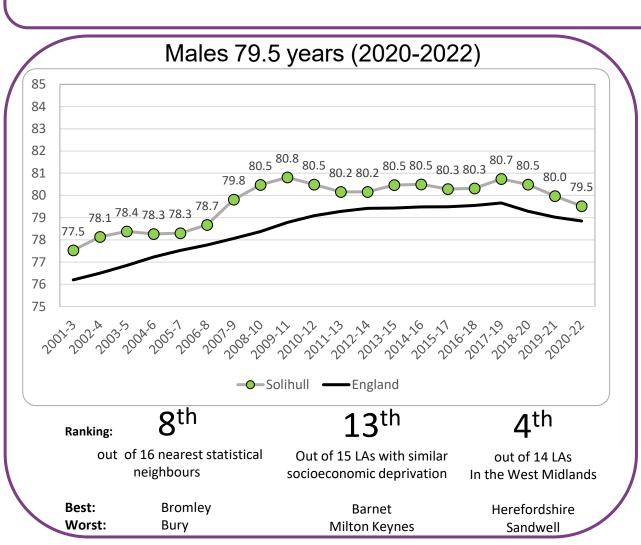
Performance

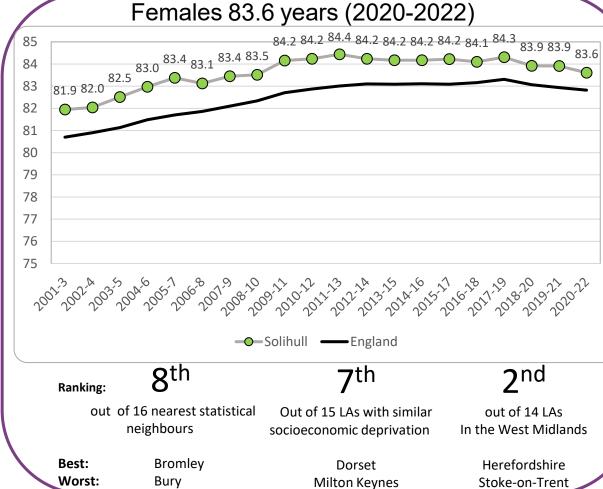
Solihull often performs well compared with national and regional counterparts. The Outcomes Framework also presents data on our rankings with our statistically similar neighbours and the local authorities with a similar socioeconomic deprivation level. The intention is to highlight areas where we may be performing well compared to England and the West Midlands but not be performing as expected against our most similar local authorities, therefore providing additional insight and scrutiny of our outcome measures.

1.1 Level up Life Expectancy: Life expectancy

Life expectancy at birth is an estimate of the average number of years a newborn baby would survive if he or she experienced the age-specific mortality rates for that area and time period throughout his or her life. Life Expectancy at birth gives context to healthy life expectancy figures by providing information on the estimated length of life.

Life expectancy shows a declining trend for men in Solihull since 2017 and now ranks 13th out of 15 LAs with similar levels of deprivation. Women continue to live longer (approximately 4 years extra) however, with a healthy life expectancy of 65.7 for females and 67.4 years for males, women are more likely to spend time in poor health.





1.2 Level up Life Expectancy: Inequality in life expectancy

Inequality in life expectancy is a key high-level inequalities outcome. It shows inequalities within local areas. This indicator measures inequality in life expectancy at birth for each deprivation decile and calculates the gap in life expectancy between the most and least deprived deciles within an area.

With an inequality gap of 12 years, Solihull Females have the worst inequality gap amongst all regional and statistically similar neighbours. With an 11.5 year gap for males, the situation is similar with just Bury having a higher inequality gap amongst all the comparator local authorities.





Best: South Gloucestershire Worst: Bury

15th
Out of 15 LAs with similar

socioeconomic deprivation

Dorset

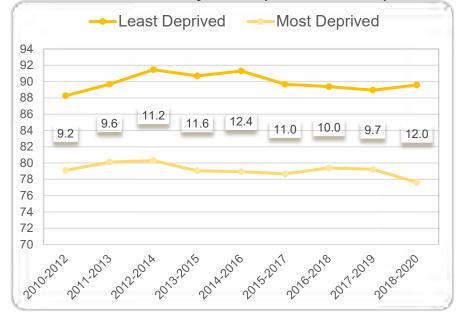
Solihull

out of 14 LAs In the West Midlands

14th

Herefordshire Solihull

Females 12.0 years (2018-2020)



Ranking:

10th

out of 10 nearest statistical neighbours

15th

Out of 15 LAs with similar socioeconomic deprivation

14th

out of 14 LAs In the West Midlands

Best: Worst: Swindon Solihull Devon Solihull Telford and Wrekin Solihull

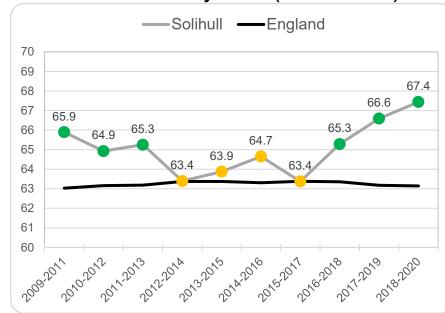
Source: Public health profiles - OHID (phe.org.uk)

[

1.3 Level up Life Expectancy: Healthy Life Expectancy

Healthy Life Expectancy shows the years a person can expect to live in good health (rather than with a disability or in poor health). It is a measure of the average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health. In Solihull the healthy life expectancy is higher in Males than Females, this differs to the national trend where females have the higher healthy life expectancy. Solihull has a higher male healthy life expectancy than all local authorities with a similar socioeconomic deprivation and is significantly higher than England. The same cannot be said for Solihull's female healthy life expectancy which at 65.7 years is similar to England and average when compared to its statistically similar neighbours.





3rd Ranking:

> out of 16 nearest statistical neighbours

Windsor and Maidenhead Best: Calderdale Worst:

Out of 15 LAs with similar socioeconomic deprivation

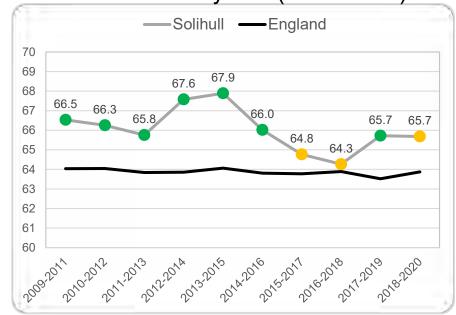
Solihull

Redbridge

out of 14 LAs In the West Midlands

1 st

Solihull Stoke-on-Trent Females 65.7 years (2018-2020)



Ranking:

out of 16 nearest statistical neighbours

Windsor and Maidenhead Best: Stockport Worst:

8th

Out of 15 LAs with similar socioeconomic deprivation

4th out of 14 LAs

In the West Midlands

Wandsworth Staffordshire

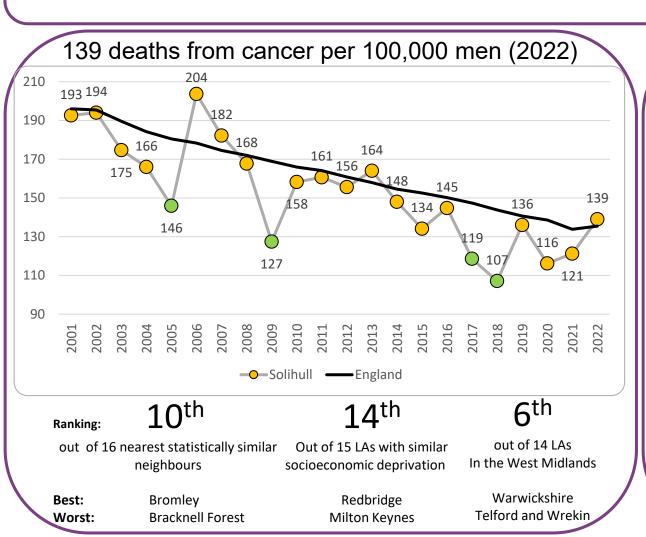
Shropshire Stoke-on-Trent

Source: Public health profiles - OHID (phe.org.uk)

1.4 Level up Life Expectancy: Under 75 mortality rate from cancer

Cancer is the primary cause of death for individuals under the age of 75 in England. To ensure a continued reduction in premature mortality from cancer, there is a need for a concerted effort to enhance both preventive measures and treatment strategies.

In both Solihull and England, the mortality rate from cancer among individuals under 75 is higher for males when compared to females. Among men, Solihull ranks 10th among its statistically similar neighbours and 14th among Local Authorities with comparable levels of deprivation. The mortality rate among women in Solihull compares well to regional and similar socioeconomic Local Authorities and compares averagely compared to its statistically similar neighbourhoods.



98 deaths from cancer per 100,000 women (2022) 190 170 158 156 145 150 137 134 <u>120</u> 122 130 138 137 110 119 113 90 2006 2008 2010 2005 2012 2013 2014 2016 2018 2020 2007 2011 -O-Solihull ---England **1** st 7th 4th Ranking: out of 14 LAs out of 16 nearest statistically similar Out of 15 LAs with similar In the West Midlands neighbours socioeconomic deprivation Redbridge Windsor and Maidenhead Solihull Best: Wolverhampton Trafford Worst: Bury

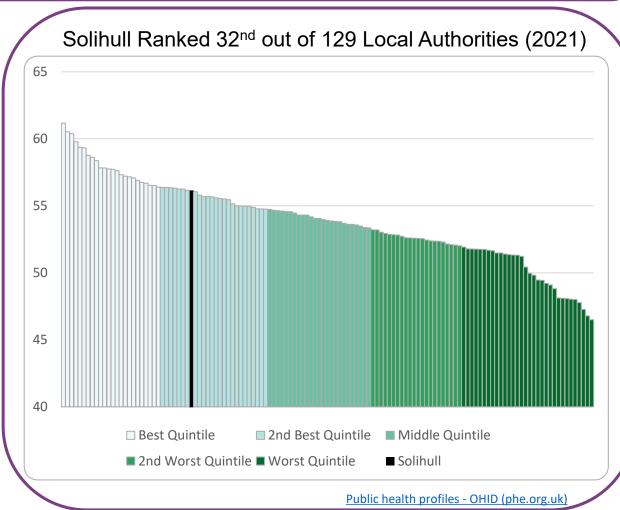
Source: Public health profiles - OHID (phe.org.uk)

1.5 Level up Life Expectancy: Cancer diagnosed at stage 1 or 2

The stage at which cancer is diagnosed serves as an indicator of its severity and spread. Advanced stages indicate that the cancer is larger or has metastasized to other parts of the body, leading to poorer health outcomes.

Since 2013, Solihull has achieved a higher rate of diagnosis for stage 1 or 2 cancers compared to England. Solihull's rate of diagnosis for stage 1 or 2 cancers has declined from a peak of 60.9% in 2015 to 56.1% in 2021. 2021 interrupts the long-term trend of a continued decrease in early diagnosis rates since 2015. Solihull compares well to regional and statistically similar Local Authorities.

56.1% Cancers diagnosed at stage 1 or 2 (2021) 60.9 60.9 59.7 57.1 58 56.2 56.1 55.5 56 52 50 2021 2013 2014 2015 2018 2019 2020 -O-Solihull ---England 4th 6th Ranking: out of 14 LAs Out of 11 LAs with similar out of 15 nearest statistically similar In the West Midlands socioeconomic neighbours deprivation Dudley Milton Keynes Windsor and Maidenhead Best: Wolverhampton Staffordshire Worst: Calderdale



1.6 Level up Life Expectancy: Under 75 mortality rate from Respiratory Diseases

Respiratory disease ranks among the primary causes of mortality in individuals under the age of 75 in England, with smoking identified as the primary factor leading to chronic obstructive pulmonary disease (COPD), a significant respiratory condition. This metric aims to direct public health efforts towards preventing smoking and addressing other environmental factors which may contribute to the development of respiratory diseases.

In Solihull, deaths from respiratory diseases are more likely to occur among men than women. Solihull ranks worst among LAs with similar levels of deprivation for men and 12th for women. 2022 showed an increase in deaths for both men and women when compared to 2021.

38.3 deaths from Respiratory Diseases per 100,000 men (2022) 50 17 —O—Solihull ——England

Ranking: 15th 7th out of 16 nearest statistically similar Out of 15 LAs with similar neighbours socioeconomic deprivation out of 14 LAs In the West Midlands Best: Bromley Barnet Shropshire

Solihull

Stockport

Worst:

24.7 deaths from Respiratory Diseases per 100,000 women (2022) 50 31 28 30 24 25 20 17 ——Solihull ——England 7th 11th Ranking: out of 15 nearest statistically similar Out of 15 LAs with similar out of 14 LAs In the West Midlands socioeconomic deprivation neighbours

Redbridge

Havering

Buckinghamshire UA

Calderdale

Best:

Birmingham

Worst:

Shropshire

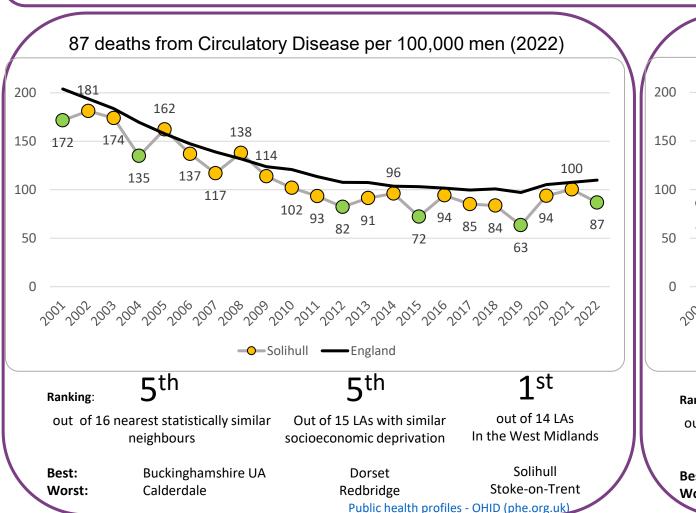
Wolverhampton

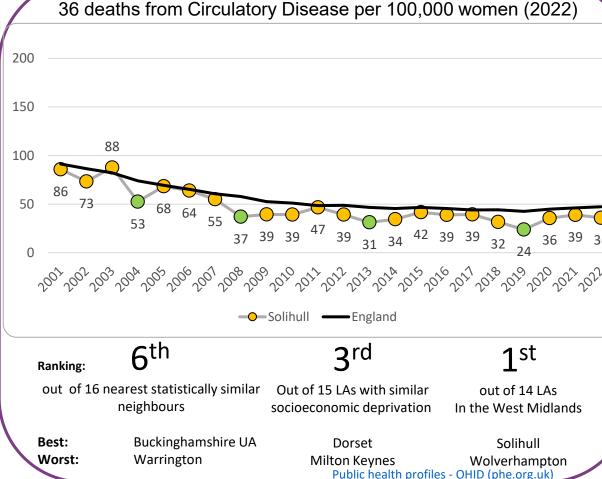
Public health profiles - OHID (phe.org.uk)

1.7 Level up Life Expectancy: Under 75 mortality rate from Circulatory Disease

Circulatory diseases – stroke and cardiovascular disease - stand as a significant contributor to mortality in individuals under the age of 75. Sustained efforts in both prevention and treatment are essential to further reduce the incidence of premature mortality from circulatory diseases.

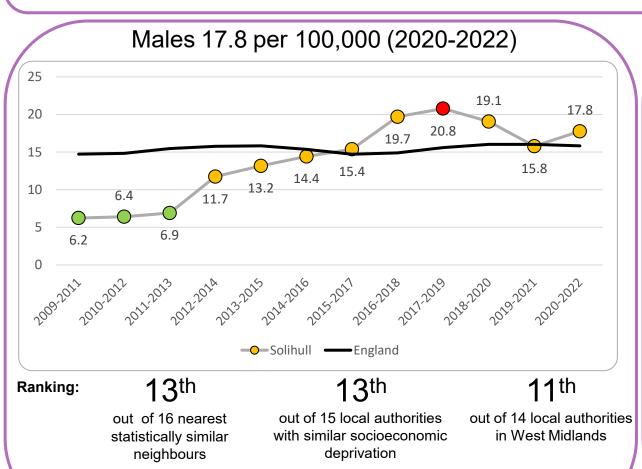
The mortality rate from circulatory diseases among males in Solihull is more than double the rate of mortality among females. Solihull compares well to other LAs, with higher rankings among women. The long-term trend shows a decline in deaths for both women and men although the rate of decline has been noticeably less sharp since 2007 onwards.





2.1 More people have good mental health: Suicide rate

Nationally, suicide is a significant cause of death in young adults and is seen as an indicator of underlying rates of mental ill-health. Suicide is a major issue for society and a leading cause of years of life lost. Suicide is often the end point of a complex history of risk factors and distressing events, but there are many ways in which services, communities, individuals and society as a whole can help to prevent suicides. This indicator shows the age-standardised mortality rate from suicide and injury or undetermined intent per 100,000 population. In Solihull the suicide rate for both men and women is similar to England, rates in men are more than 4 times higher than females and have nearly tripled over the past 10 years. Solihull compares poorly among men compared to other LAs yet fairs well among women.



Barnet

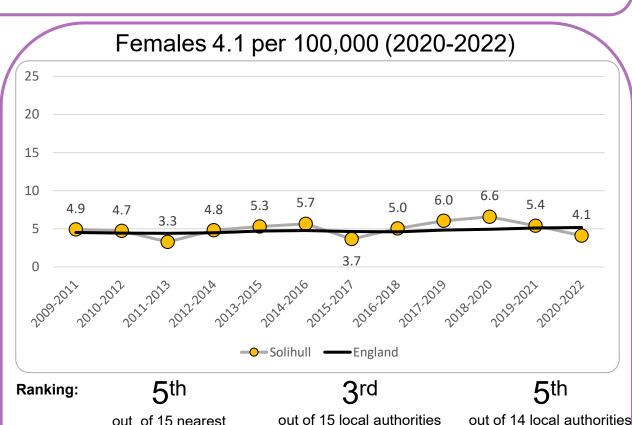
Shropshire

Best:

Worst:

Bromley

Calderdale



with similar socioeconomic

deprivation

Wandsworth Staffordshire

in West Midlands

Birmingham

Staffordshire

statistically similar

neighbours

Bromley

Bracknell Forest

Best:

Worst:

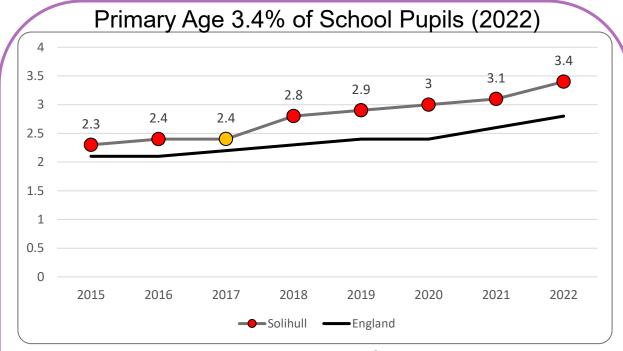
Wolverhampton

Stoke-on-Trent

2.2 More people have good mental health: SEN pupils with social, emotional and mental health needs

Children with learning or physical disabilities have a higher risk of developing a mental health problem compared to the national population. This indicator shows the proportion of school pupils with Special Education Needs (SEN) who are identified as having social, emotional or mental health as the primary type of need, expressed as a percentage of all school pupils.

The proportion of school pupils with social, emotional and mental health needs is similar for both primary and secondary age children in Solihull. For secondary age children (648 individuals) the proportion is similar to England and Solihull compares well compared to our statistical neighbours. The rate in primary age children (727 individuals) is statistically significantly higher than England and Solihull is ranked low when compared to its statistically similar and regional neighbours. The rate has increased in recent years within both age groups.



Ranking: 16th
out of 16 nearest statistically similar neighbours

Best: Havering
Worst: Solihull

13th 5 local authorities

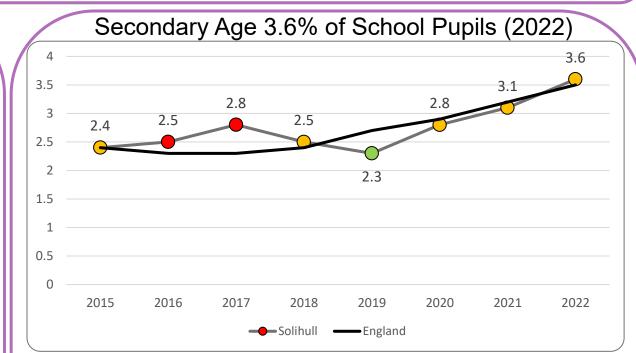
out of 15 local authorities with similar socioeconomic deprivation

> Havering Wandsworth

14th

out of 14 local authorities in West Midlands

> Staffordshire Solihull



Ranking: 3rd
out of 16 nearest statistically similar neighbours

Best: Calderdale Worst: Stockport

Oth
out of 15 local authorities
with similar socioeconomic
deprivation

Milton Keynes Wandsworth 9th
out of 14 local authorities
in West Midlands

Staffordshire Herefordshire

Source: Child and Maternal Health - Data - OHID (phe.org.uk)

2.3 More people have good mental health: Hospital admissions for Mental Health Conditions (under 18s)

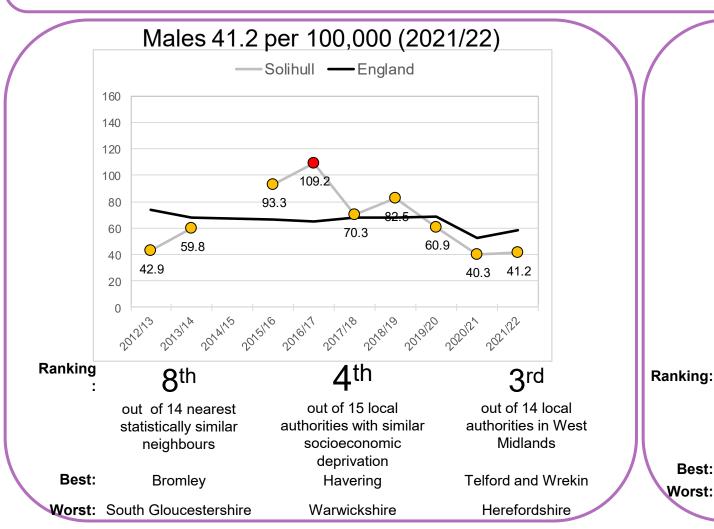
One in ten children aged 5-16 years has a clinically diagnosable mental health problem and, of adults with long-term mental health problems, half will have experienced their first symptoms before the age of 14. Self-harming and substance abuse are known to be much more common in children and young people with mental health disorders with 10% of all 15–16-year-olds having self-harmed at some point during their lifetimes.

Best:

Warrington

Worst:

In Solihull, the rate of hospital admissions in under 18s for mental health conditions is similar to England. Compared to our similar socio-economic areas and the West Midlands Solihull performs well but ranks 8th out of 14 statistically similar neighbourhoods among males. Rates are highest amongst females, double that of males.



Females 88.4 per 100,000 (2021/22) -Solihull ---England 160 140 120 100 109.2 108.2 93.2 80 91.3 88.4 60 40 45.8 20 2nd 3rd 4th out of 16 nearest out of 15 local authorities out of 14 local authorities statistically similar with similar socioeconomic in West Midlands deprivation neighbours **Bromley** Redbridge Birmingham

North Somerset

Herefordshire

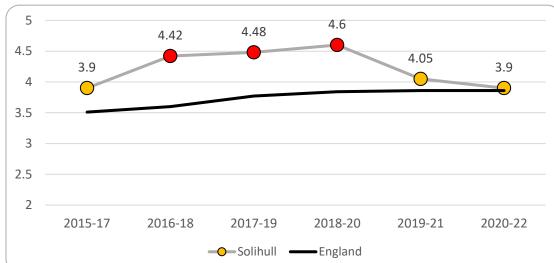
Source: Fingertips - OHID (phe.org.uk)

2.4 More people have good mental health: Excess under 75 mortality rates in adults with serious mental illness (excess risk %)

Individuals with enduring mental health challenges, particularly those with psychosis or bipolar disorder, are twice as likely to smoke. Moreover, they face heightened risks of obesity, asthma, diabetes, chronic obstructive pulmonary disease (COPD), and cardiovascular disease compared to the general patient population.

Since 2019, individuals in Solihull with severe mental illness (SMI) have faced a risk of premature mortality comparable to England. Nationally, Solihull falls within the middle quintile. However, Solihull ranks lower when compared to its regional neighbours.

People with SMI face a 3.9-fold higher risk of death





Best: Worcestershire

4th
out of 15 local
norities with similar

authorities with similar socioeconomic deprivation Redbridge

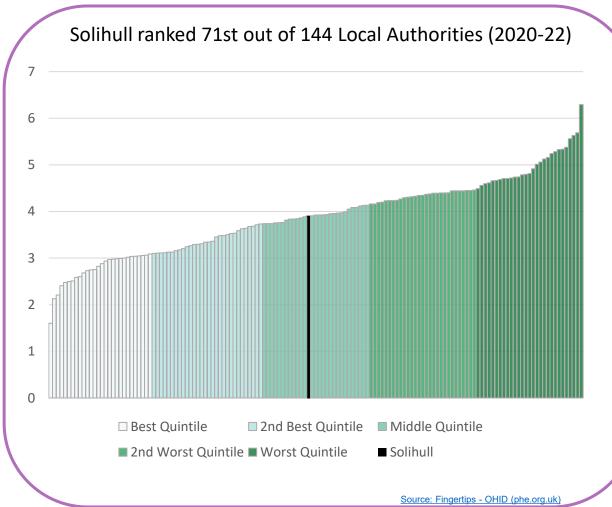
11th

out of 14 local authorities in West Midlands

Walsall

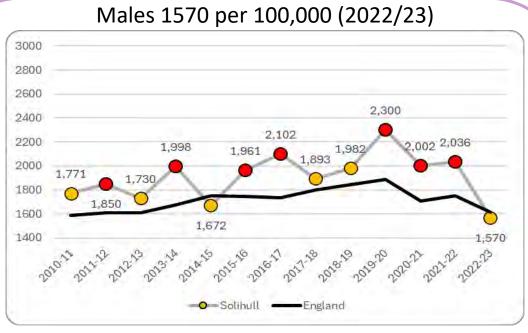
Worst: Bracknell Forest North Somerset Shrop

Shropshire

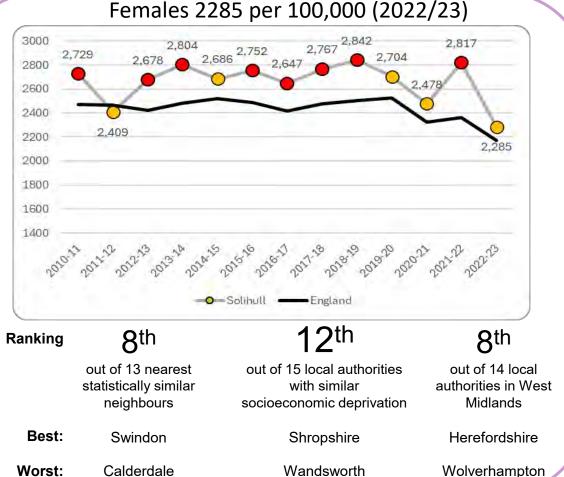


3.1 More people live independently for longer: Falls in Over 65-year-olds

Falls are the largest cause of emergency hospital admissions for older people, and significantly impact on long term outcomes. Falls are a major reason for people moving from their own home to long-term nursing or residential care. Falls that results in injury can be very serious – approximately 1 in 20 older people living in the community experience a fracture or need hospitalisation after a fall. Falls and fractures in those aged 65 and above account for over 4 million bed days per year in England alone, at an estimated cost of £2 billion. In Solihull, the directly agestandardised rates of hospital admissions for falls in both Males and Females are similar to the England average. Solihull also has similar rates when compared to its regional and statistically similar neighbours. Compared to the year 2021-22, there has been a significant reduction in fall rates among both genders in Solihull from 2022-23. The directly age-standardised rate for Solihull for both males and females combined was 1981 per 100,000 people from 2022 to 2023, this is equivalent to 1000 admissions. From 2023 to 2024, the number of admissions has increased by 2% to 1019 admissions.





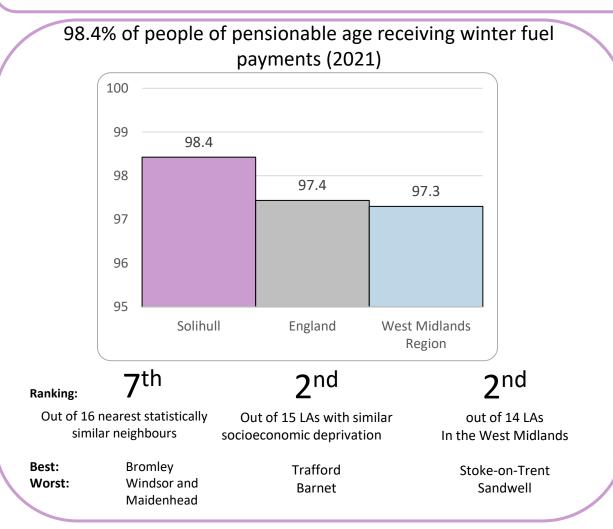


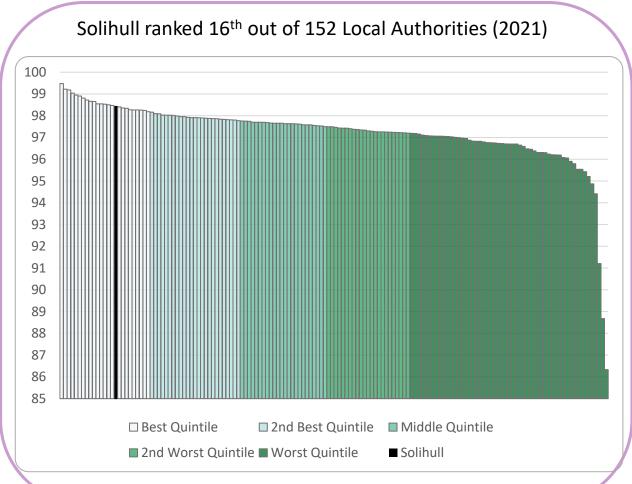
Source: Public health profiles - OHID (phe.org.uk)

3.2 More people live independently for longer: Percentage of people of pensionable age receiving winter fuel payments

Winter Fuel Payments are designed to support older individuals in meeting the costs of heating their homes during the winter season. Automatic distribution of Winter Fuel Payments occurs for individuals meeting specific eligibility criteria and receiving the State Pension or another social security benefit.

In Solihull, the percentage of eligible individuals receiving Winter Fuel Payments surpasses England. Additionally, Solihull has some of the highest rates when compared to its socioeconomic and regional neighbours and ranks 7th/16 among its statistically similar neighbourhoods. However, it is notable that a considerable number of the 152 local authorities report high percentages above 95%.

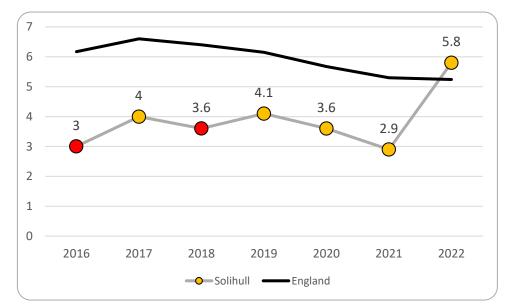




3.3 More people live independently for longer: The percentage of the population who are in receipt of long-term support for a learning disability that are in paid employment (aged 18 to 64)

People with learning disabilities encounter numerous barriers to accessing employment, ranging from inadequate support and employer attitudes to a general misunderstanding of their potential achievements with appropriate assistance, spanning from education to the workplace. Solihull performs slightly better than England among men and slightly worse among women. Since 2021 there has been an upwards trend within Solihull among both genders. Solihull ranks well compared to regional authorities and less well compared its statistically similar neighbours. A caveat to this data is that it is not known how this population varies between areas therefore comparison should be interpreted with caution.

5.8% of men who are in receipt of long-term support for a learning disability that are in paid employment (2022)



Ranking:

Out of 16 nearest statistically similar neighbours

Best: Trafford Worst:

Warrington

8th

Out of 15 LAs with similar socioeconomic deprivation

Bexley

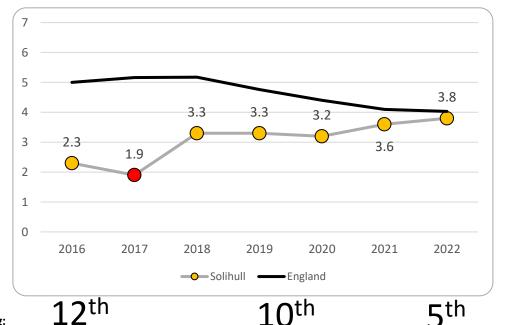
Redbridge

out of 14 LAs In the West Midlands

2nd

Shropshire Sandwell

3.8% of women who are in receipt of long-term support for a learning disability that are in paid employment (2022)



Ranking:

Out of 16 nearest statistically similar neighbours

Out of 15 LAs with similar socioeconomic deprivation

out of 14 LAs In the West Midlands

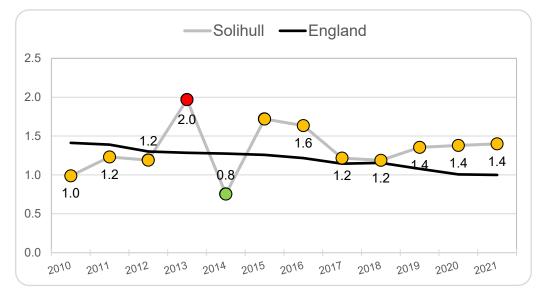
Best: Worst: Warrington Bury

Bexley Dorset Herefordshire Sandwell

4.1 More children are happy, healthy and safe: Proportion of babies with very low birth weight (<1500g)

Low birthweight is an enduring aspect of childhood morbidity, a major factor in infant mortality and has serious consequences for health in later life. The 2023 story of Solihull highlighted that Solihull had significantly more babies born under 2500grams than the England and West Midland averages. Data on low birthweight is no longer available however data on very low birth weight babies, born weighing under 1500grams, shows that Solihull is amongst the worst 20% of local authorities in England. Nationally between 2018 and 2020 the proportion of very low birth weight babies reduced to just 1% and remained unchanged in 2021. In Solihull, the proportion increased in 2019 to 1.4% and has remained unchanged since. Solihull ranks 16th out of its 16 statistically similar neighbourhoods.

1.4 % very low birth weight of all babies (2021)



Ranking:

16th

Out of 16 nearest statistically similar neighbours

Best: Swindon
Worst: Solihull

14th

out of 15 local authorities with similar socioeconomic deprivation

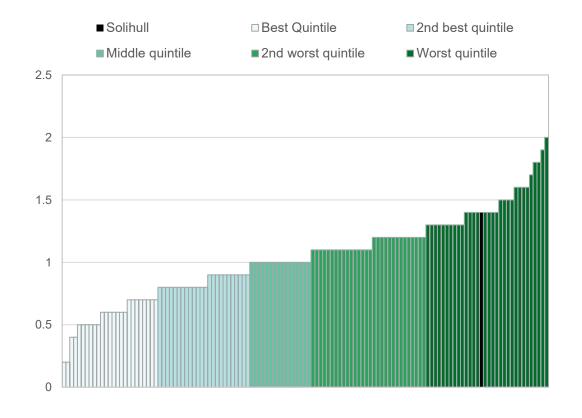
Havering Bexley

9th

out of 14 local authorities in West Midlands

Shropshire Walsall

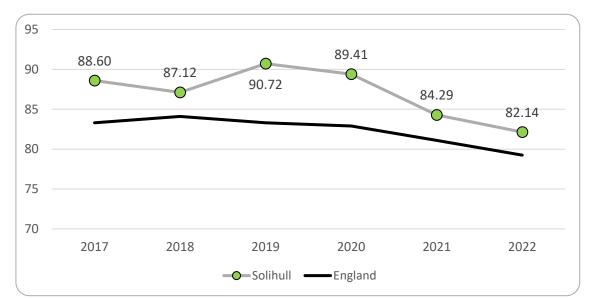
Solihull is ranked 110 out of 127 local authorities



4.2 More children are happy, healthy and safe: Proportion of Children on Track with their Development at 2 to 2 and a half years

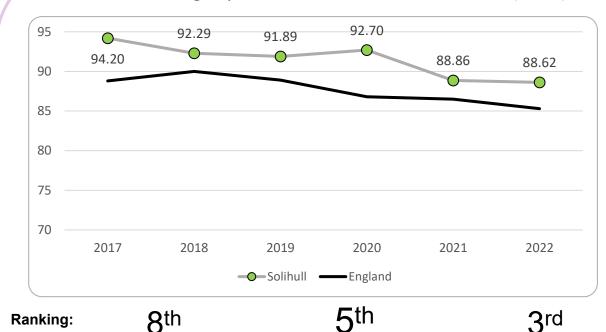
Disparities in child development are recognisable in the second year of life and have an impact by the time children enter school. If left unsupported, these children are less likely to achieve their full potential. The Ages and Stages Questionnaire (ASQ 3), used by health visiting teams, provide an objective measure of development and allows comparisons to be made helping to identify children who are not developing as expected and supporting decisions on closer monitoring of progress or early intervention services. Domains of development which are tested include communication, gross motor, fine motor, problem solving and personal-social skills. The proportion of 2 years olds achieving the expected level of development for communication and across all domains is higher within Solihull than England. Solihull ranks 8/14 when compared to its statistically similar neighbours and 3/13 compared to regional neighbours. Since 2020, the long-term trend in Solihull looks to be steadily declining in-line with England.

82.1% Achieving Expected Levels Across All Domains (2022)



3rd 8th Ranking: out of 13 local authorities Out of 14 nearest out of 15 local authorities with similar socioeconomic in West Midlands statistically similar deprivation neighbours **Best: Bracknell Forest** Dorset Warwickshire Central Bedfordshire Worst: **Barnet** Stoke-on-Trent

88.6% Achieving Expected Levels in Communication (2022)



5th 8th Ranking: Out of 14 nearest statistically similar neighbours Best: Hertfordshire Trafford Central Bedfordshire Worst: Barnet

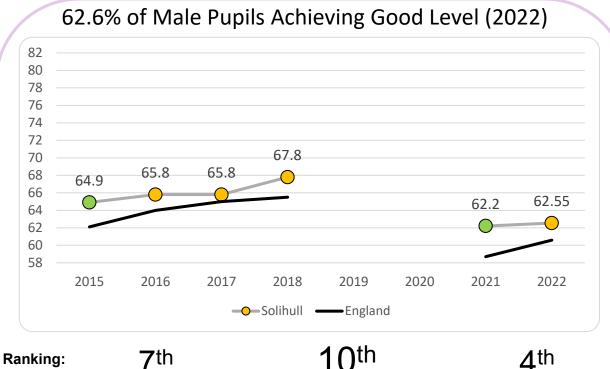
out of 15 local authorities with similar socioeconomic deprivation

out of 13 local authorities in West Midlands Warwickshire

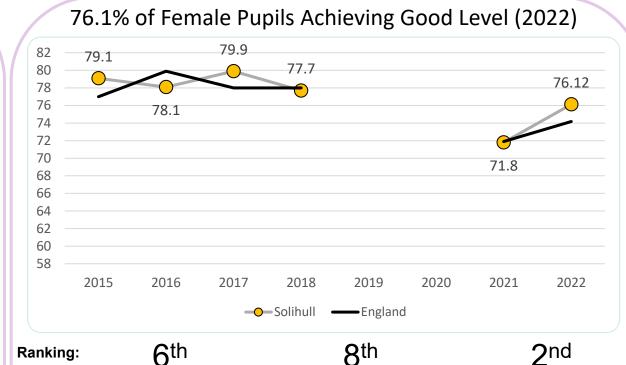
Stoke-on-Trent

4.3 More children are happy, healthy and safe: Proportion of children achieving a good level of development at the end of reception

Children are defined as having reached a good level of development if they achieve at least the expected level in the early learning goals in the prime areas of learning (personal, social and emotional development, physical development and communication and language) and the early learning goals in the specific areas of mathematics and literacy. Just 62.6% of male reception pupils in Solihull are achieving the expected level (2022/23), significantly lower than the rate in females. Solihull compares well among regional LAs yet compares less well among its deprivation neighbours.







out of 15 local authorities

with similar socioeconomic

deprivation

Wandsworth

Havering

6th

Out of 16 nearest

statistically similar

neighbours

Bromley

Havering

Ranking:

Best:

Worst:

2nd

out of 14 local authorities

in West Midlands

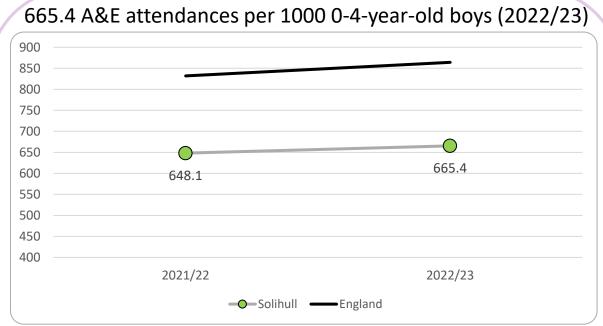
Herefordshire

Sandwell

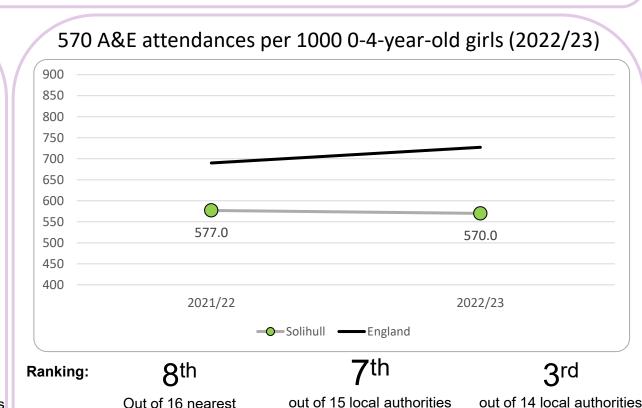
Source: Public Health Profiles, OHID (PHE.org.uk)

4.4 More children are happy, healthy and safe: A&E attendances (0-4 years) Crude rate per 1000

Many A&E visits for children under five are avoidable, typically stemming from accidental injuries or minor illnesses that could have been effectively handled through primary care services. Solihull performs well comparative to its regional neighbours and averagely compared to its deprivation and statistically similar neighbours. Notably, Solihull has a lower rate of A&E attendance compared to England. However, within Solihull, there is a growing disparity between boys and girls in A&E attendance. From 2021/22 to 2022/23, attendances among boys slightly increased, while those among girls declined, widening the gap between the two groups. When combining rates for boys and girls this equates to 7120 attendances.







statistically similar

neighbours

Warrington

Best: Windsor and Maidenhead

Worst:

with similar socioeconomic

deprivation

Havering

Barnet

in West Midlands

Worcestershire

Wolverhampton

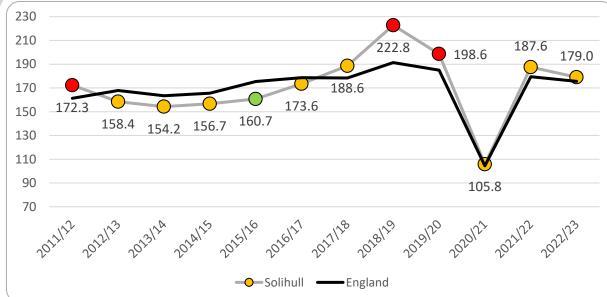
Source: Public Health Profiles, OHID (PHE.org.uk)

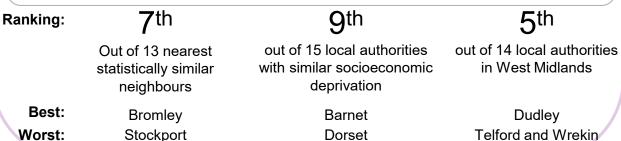
4.5 More children are happy, healthy and safe: Emergency Admissions (0-4 years) Crude rate per 1000

Approximately 35% of all admissions in the NHS in England are classified as emergency admissions, costing approximately £11 billion a year. Admitting a patient to hospital as an emergency case is costly and frequently preventable, yet the number of emergency admissions to hospital has been rising for some time. From a public health point of view, emergency admissions data gives an indication of wider determinants of poor health, linked to areas such as housing and transport.

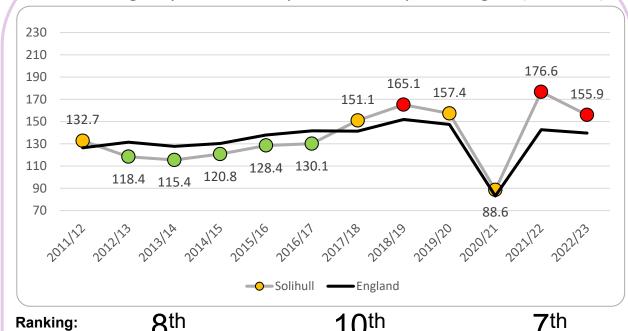
Emergency admissions among girls in Solihull have been worse than England for the past two years. However, the admission rate among girls has decreased since 2021-22. For boys, Solihull's rates are similar to England, although boys are more likely to be admitted than girls. Overall, Solihull's rate is similar to its regional and statistically similar neighbours. When combining rates for boys and girls this equates to 1930 admissions.

179 Emergency Admissions per 1000 0-4-year-old boys (2022/23)





155.9 Emergency Admissions per 1000 0-4-year-old girls (2022/23)



8th Ranking: Out of 13 nearest statistically similar neighbours Best: **Bromley**

Stockport

Worst:

out of 15 local authorities with similar socioeconomic deprivation

10th

out of 14 local authorities in West Midlands

Redbridge Devon

Dudley Telford and Wrekin

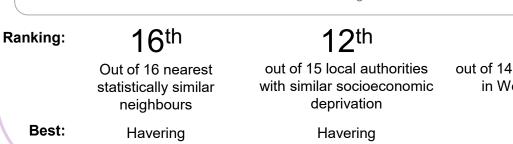
4.6 More children are happy, healthy and safe: Children in care immunisations

Children in the care system face an increased likelihood of not receiving essential childhood vaccinations. This metric gauges the percentage of children in care who are up-to-date with vaccinations according to the NHS routine schedule.

In 2023, the immunisation rate among children in care within Solihull continued to decline to a decade low of 62%. Similarly, Solihull compares poorly to its regional and statistically similar neighbours. Whilst the immunisation rate has fallen on a national level since 2020, within Solihull, this drop has been particularly dramatic, decreasing by 27% since 2021. In 2023, Solihull ranked within the worst quintile nationally.

62% of children in care up to date with immunisations (2023) 100 93.9 94.6 96 91 89 80 76.1 70 65 60 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Solihull —England

Redbridge



Solihull

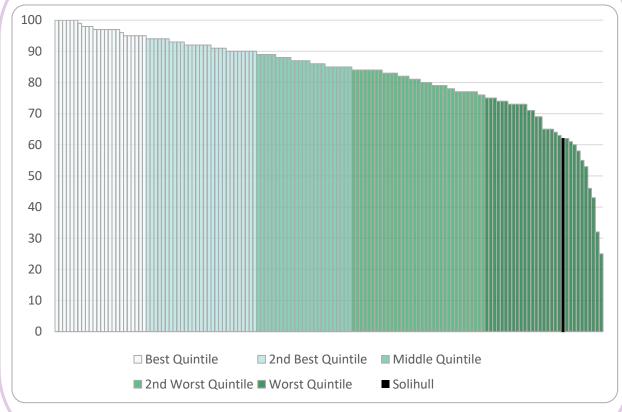
Worst:

14th
out of 14 local authorities
in West Midlands

Walsall

Solihull

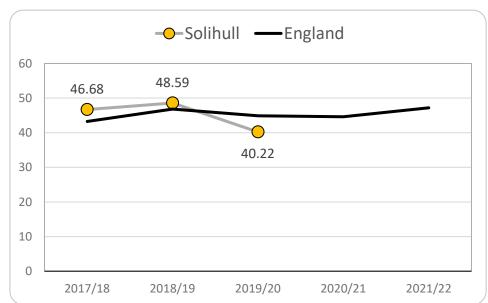
Solihull Ranked 133rd out of 144 Local Authorities (2023)



5.1 More people adopt a healthy lifestyle: proportion of children physically active

Engaging in regular moderate to vigorous physical activity (MVPA) yields numerous health advantages, such as enhanced fitness, strengthened muscles and bones, improved coordination, weight management, better sleep, positive emotional well-being, increased confidence, improved social skills, and enhanced concentration and learning abilities. Cultivating healthy physical activity habits in childhood and adolescence is likely to carry over into adulthood thereby reducing the risk of chronic non-communicable diseases and mortality later in life. Although performing well within the West Midlands region, Solihull ranks within the second worst quintile and sits below England. It is also notable that data for Solihull is missing after 2020 due to a reduction in participation regarding the Active Lives Survey for Children during the COVID-19 pandemic.

40.2% of children are physically active (2019-20)





Best: Swindon
Worst: Stockport

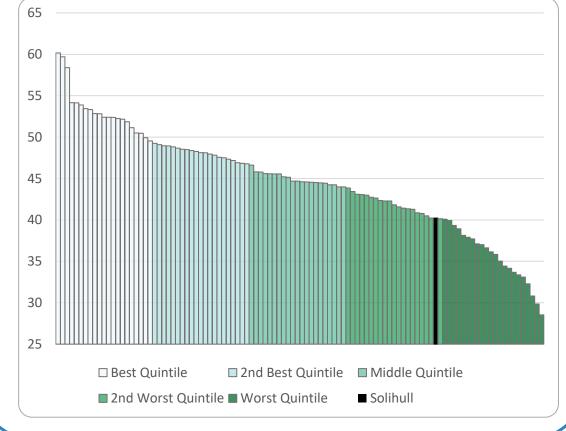
6th

out of 15 local authorities with similar in West Midlands socioeconomic deprivation

Wandsworth Havering Walsall

2nd

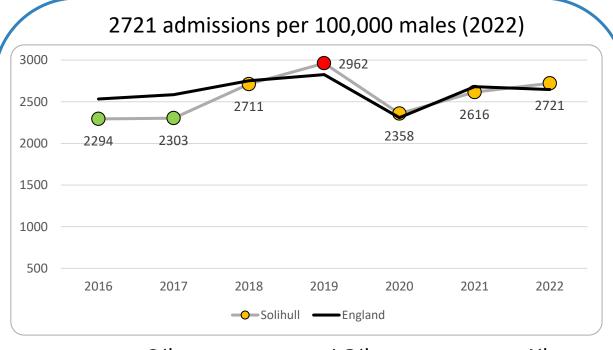
Solihull ranked 83rd out of 106 Local Authorities (2019-20)

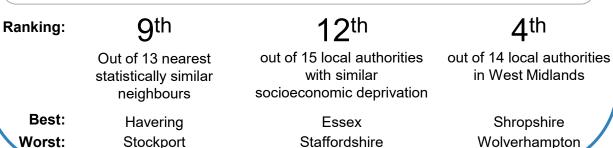


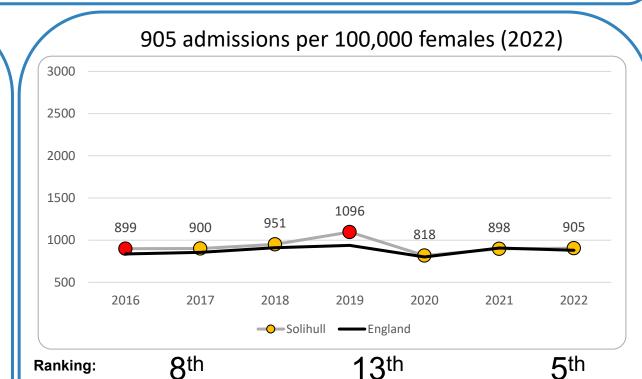
5.2 More people adopt a healthy lifestyle: Hospital admission rate for alcohol related conditions

Alcohol consumption contributes significantly to hospital admissions and fatalities across a range of conditions. The estimated cost of alcohol misuse to the NHS is approximately £3.5 billion per year, with a societal impact of £21 billion annually. The proportion of diseases attributable to alcohol is determined using a relative risk specific to each disease, age group, and gender, combined with population alcohol consumption rates.

Hospital admissions among males in Solihull are three times more common than those among females. Solihull ranks well compared to regional authorities although ranks lower when compared to its statistical neighbours among both genders. Solihull compares slightly worse than the national average across both genders. This equates to 3945 admissions.







out of 15 local authorities

with similar socioeconomic

deprivation

Redbridge

Staffordshire

Out of 13 nearest

statistically similar

neighbours

Bromley

South Gloucestershire

Best:

Worst:

out of 14 local authorities

in West Midlands

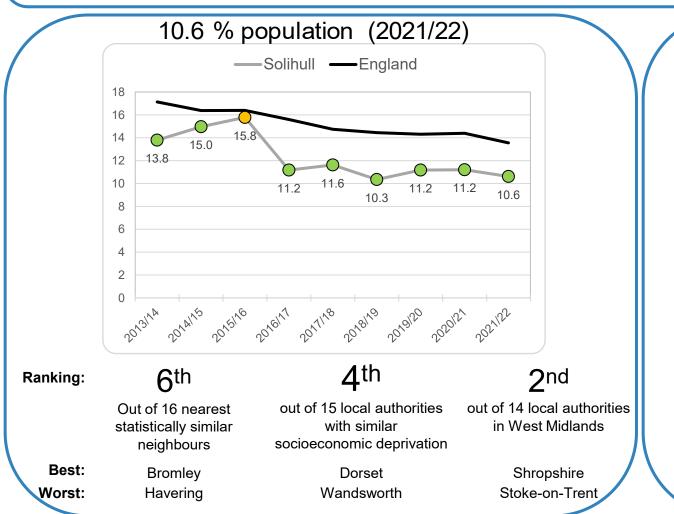
Sandwell

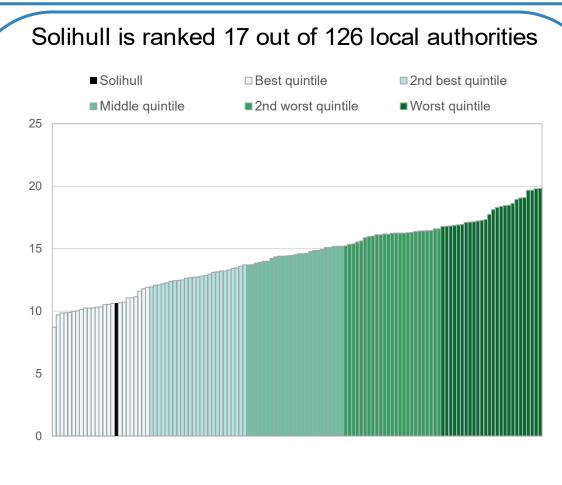
Stoke-on-Trent

5.3 More people adopt a healthy lifestyle: Smoking prevalence

Smoking is the most important cause of preventable ill health and premature mortality in the UK. Smoking is a major risk factor for many diseases such as lung cancer, chronic obstructive pulmonary disease (COPD) and heart disease. It is also associated with cancers in other organs including lip, mouth, throat, bladder, kidney, stomach, liver and cervix.

Solihull has a lower smoking prevalence rate than England, Solihull is ranked 17th out of 126 local authorities which is within the best quintile nationally. Solihull ranks 6th/16 when compared to its statistically similar neighbours and is second to Shropshire within the West Midlands.



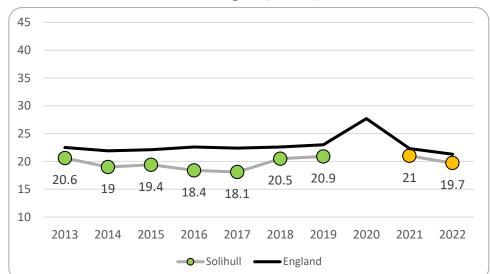


5.4 More people adopt a healthy lifestyle: Prevalence of obesity and overweight in reception and year 6

There is concern about the rise of childhood obesity and the implications of obesity persisting into adulthood. The risk of obesity in adulthood and risk of future obesity-related ill health are greater as children get older. Studies tracking child obesity into adulthood have found that the probability of children who are overweight or living with obesity becoming overweight or obese adults increases with age.

Solihull has a lower obesity prevalence rate than England. Solihull performs well compared to regions within the West Midlands but compares less well compared to Solihull's statistically similar areas. This trend can be seen in both reception aged children and children within year 6.

19.7% of children in reception have obesity or are overweight (2022)



Ranking:

10th

Out of 16 nearest statistically similar neighbours

Best: South Gloucestershire **Worst:** Warrington

8th

out of 15 local authorities with similar socioeconomic deprivation

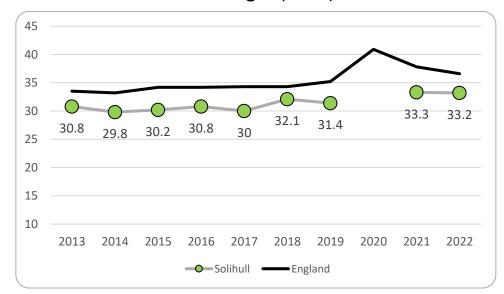
> Trafford Staffordshire

out of 14 local authorities in West Midlands

3rd

Herefordshire Wolverhamption

33.2% of children in Year 6 have obesity or are overweight (2022)



Ranking:

Best:

Worst:

8th

Out of 16 nearest statistically similar neighbours

Buckinghamshire UA Havering 6th

out of 15 local authorities with similar socioeconomic deprivation out of 14 local authorities in West Midlands

2nd

Devon Redbridge Shropshire Sandwell

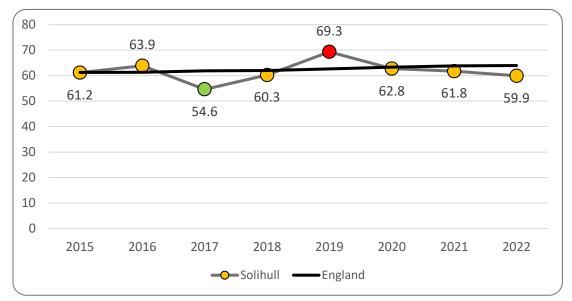
Source: Outcomes Framework - OHID (phe.org.uk)

Source: Outcomes Framework - OHID (phe.org.uk)

5.5 More people adopt a healthy lifestyle: Percentage of adults (aged 18+) classified as overweight or obese

Obesity is linked to a shortened life expectancy and is a risk factor for various chronic diseases, including cardiovascular disease, type 2 diabetes, multiple cancers, liver and respiratory diseases, and mental health issues. Over the last four decades, the proportion of adults in England with obesity has shown significant increases. Solihull ranks 1st among Local Authorities within the West Midlands, 2nd among its statistically similar neighbourhoods, and sits within the best quintile nationally. The long-term trend shows a slight decrease in the numbers classed as overweight within Solihull since 2020.

59.9% of adults in Solihull classed as overweight or obese (2022)



Ranking: 2nd

Out of 16 nearest statistically similar neighbours

Best: South Gloucestershire
Worst: Swindon

4th

out of 15 local authorities with similar socioeconomic deprivation

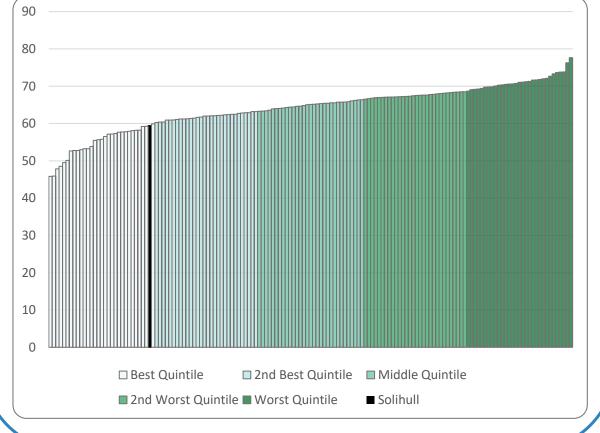
Wandsworth Staffordshire

1st

out of 14 local authorities in West Midlands

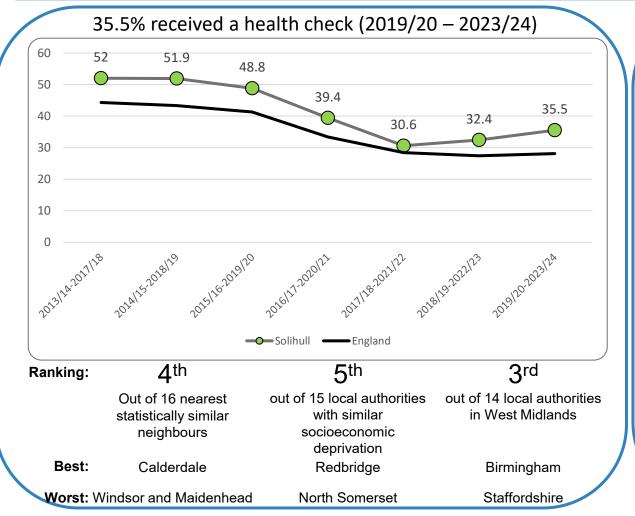
Solihull
Stoke-on-Trent

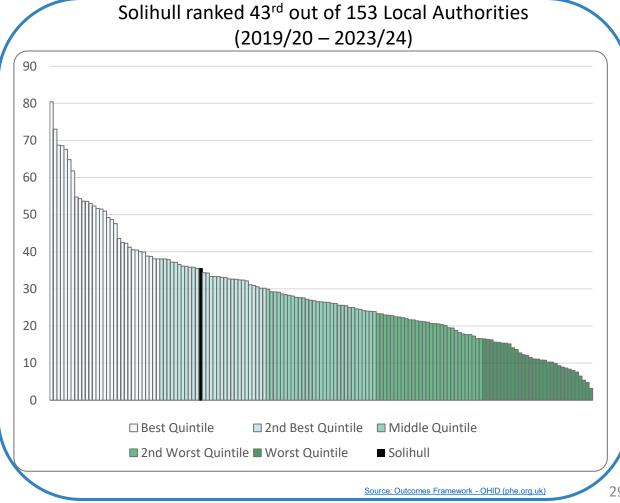
Solihull ranked 31st out of 153 Local Authorities (2022)



5.6 More people adopt a healthy lifestyle: Proportion who received a Health Check

The NHS Health Check programme aims to help prevent heart disease, stroke, diabetes and kidney disease. Everyone between the ages of 40 and 74, who has not already been diagnosed with one of these conditions, will be invited (once every 5 years) to have a check to assess, raise awareness and support them to manage their risk of cardiovascular disease. In Solihull, the proportion of eligible people receiving a health check is significantly higher than England. Solihull is ranked within the 2nd best quintile nationally. Solihull is 4th out of its 16 statistically similar neighbours, 5th among 15 socioeconomically similar local authorities and 3rd among the 14 Local authorities in the West Midlands. Notably, the most recent data shows a higher rate of increase within Solihull than England.

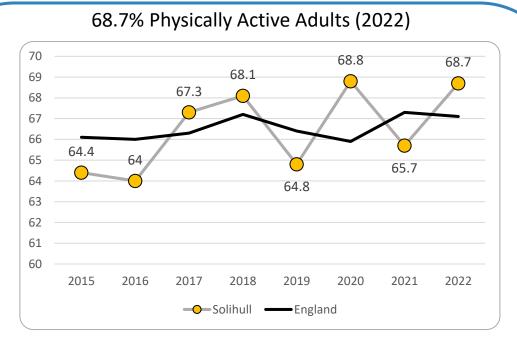




5.7 More people adopt a healthy lifestyle: Percentage of physically active adults

Physical inactivity is the 4th leading risk factor for global mortality accounting for 6% of deaths globally. People who have a physically active lifestyle have a 20 to 35% lower risk of cardiovascular disease, coronary heart disease and stroke compared to those who have a sedentary lifestyle.

Solihull and England have statistically similar levels of adult physical activity and Solihull sits in the second-best quintile nationally. Solihull compares well to areas within the West Midlands and ranks 5th out of 16 statistically similar neighbours.



Ranking:

Out of 16 nearest statistically similar neighbours

5th

Best: Buckinghamshire UA
Worst: Swindon

7th

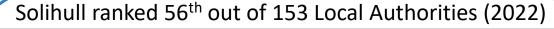
out of 15 local authorities with similar socioeconomic deprivation

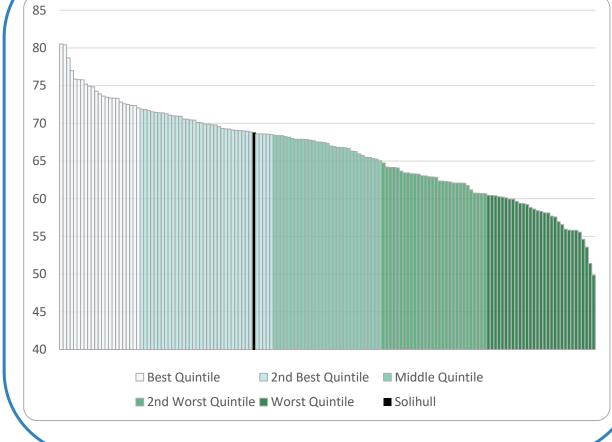
> Wandsworth Redbridge

3rd

out of 14 local authorities in West Midlands

Shropshire Sandwell

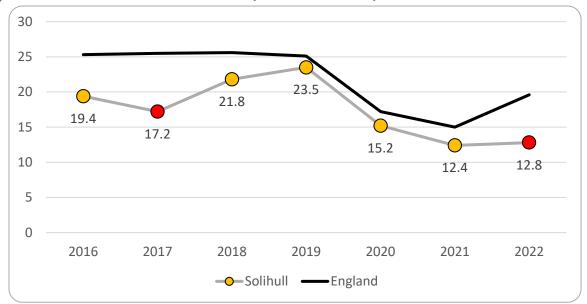




5.8 More people adopt a healthy lifestyle: Percentage of adults walking/cycling 3 times per week for purposes of travel

Regular physical activity is associated with numerous health benefits, including improved cardiovascular health, weight management, and reduced risk of chronic diseases such as heart disease and diabetes and may improve mental well-being. Additionally, by reducing the reliance on motorised vehicles, walking and cycling contribute to improved air quality. This is particularly important in urban areas where air pollution can have adverse effects on public health. From 2019, there had been a decrease in walking and cycling for travel both nationally and within Solihull, likely due to the restrictions imposed during the COVID-19 pandemic. However, data for 2022 shows that whilst other Local Authorities within England had seen an increase in walking and cycling after the COVID-19 pandemic, Solihull's levels have plateaued, ranking within the worst quintile nationally.

12.8% of adults walk/ cycle 3 times per week for travel



16th Ranking Out of 16 nearest statistically similar neighbours

Best: Bromley Worst: Solihull

14th

out of 15 local authorities with similar socioeconomic deprivation Wandsworth

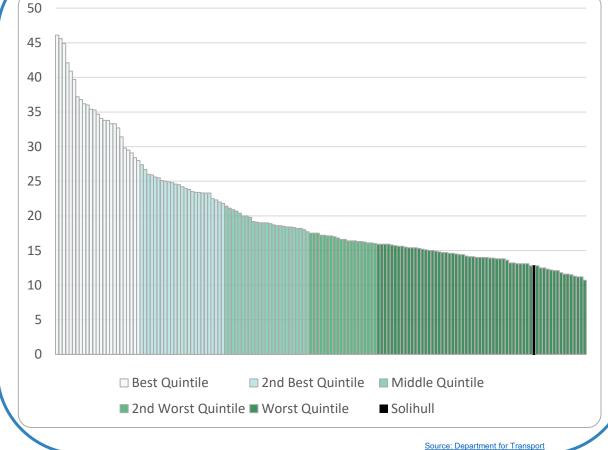
Staffordshire

12th

out of 14 local authorities in West Midlands

> Birmingham Staffordshire

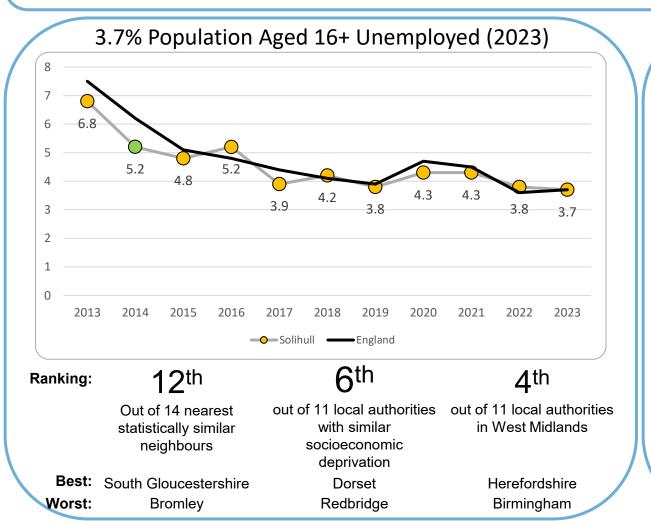
Solihull ranked 142nd out of 157 Local Authorities



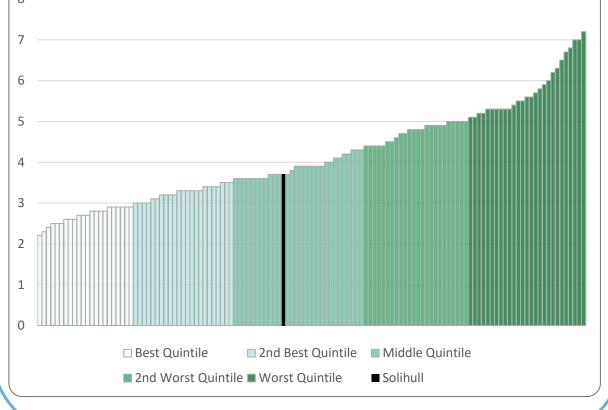
6.1 More people are in well paid work: Unemployment (model-based)

Unemployment is associated with an increased risk of ill health and mortality. There are relationships between unemployment and poor mental health and suicide, higher self-reported ill health and limiting long term illness and a higher prevalence of risky health behaviours including alcohol and smoking. Unemployment is defined as the percentage of the economically active population without a job who are available to start work.

In Solihull the unemployment rate has been lowering slightly since 2021. Solihull is placed within the middle quintile nationally. Solihull is ranked 6th out of its socioeconomic neighbours, 4th in the West Midlands but 12th when compared to its statistically nearest neighbours. This equates to 3,900 people.



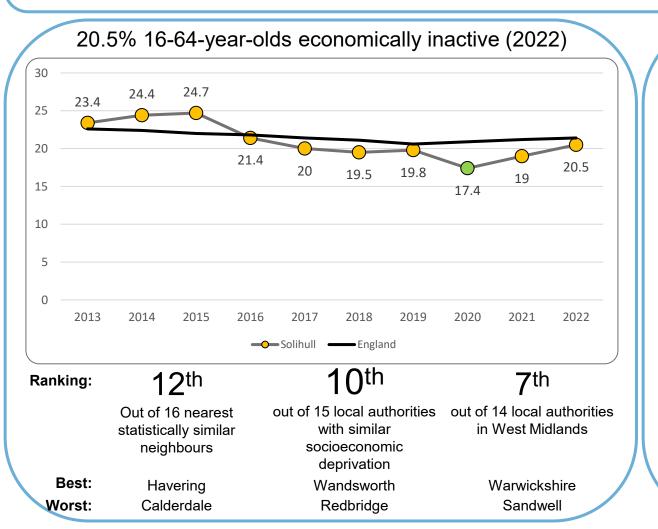
Solihull ranked 57th out of 126 Local Authorities (2023)



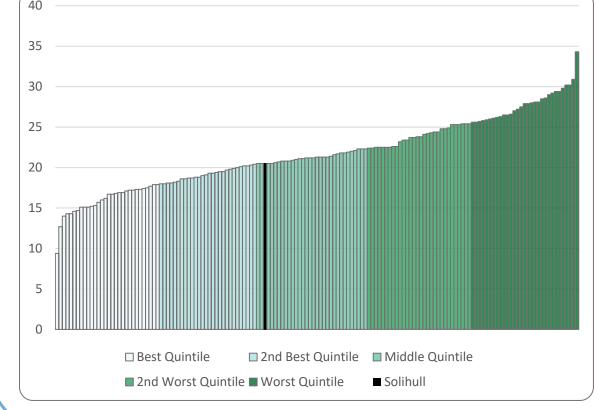
6.2 More people are in well paid work: Proportion economically inactive (16-64 year olds)

The indicator measures economic inactivity in the 16–64-year-old population, defined as those not classed as employed or unemployed according to ILO definitions. The unemployed and the economically inactive represent two distinct categories. Groups comprising the economically inactive include: the long-term sick or disabled, the temporary sick (with no employment), people looking after family/home, students, and retired people.

Solihull has a similar economically inactive rate as England. Solihull is ranked 61st out of 151 local authorities which is within middle quintile nationally yet compares poorly to its statistically similar neighbourhoods. This equates to 25,900 people.



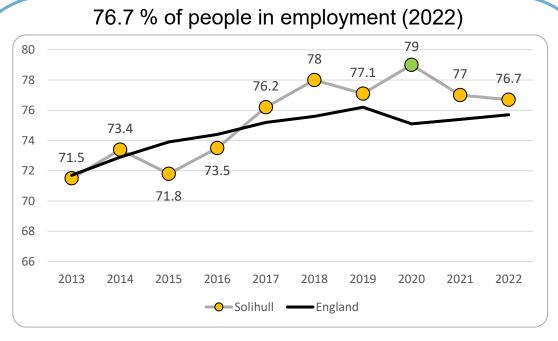
Solihull ranked 61st out of 151 Local Authorities (2022)



6.3 More people are in well paid work: Proportion of people in employment

Access to local employment and good working conditions influences the health of a community.

Solihull's employment rate is similar to England. Solihull is ranked 63rd out of 150 local authorities which is within the middle quintile nationally. Solihull is placed fifth within the West Midlands yet compares poorly compared to its statistically similar neighbourhoods. This equates to 96,800 people.



12th Ranking: Out of 16 nearest statistically similar neighbours

Best: Havering Trafford Worst:

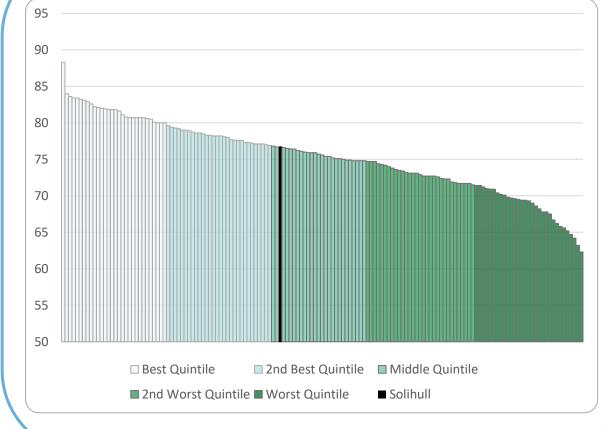
Wandsworth

Barnet

5th out of 15 local authorities out of 14 local authorities with similar in West Midlands socioeconomic deprivation

Warwickshire Sandwell

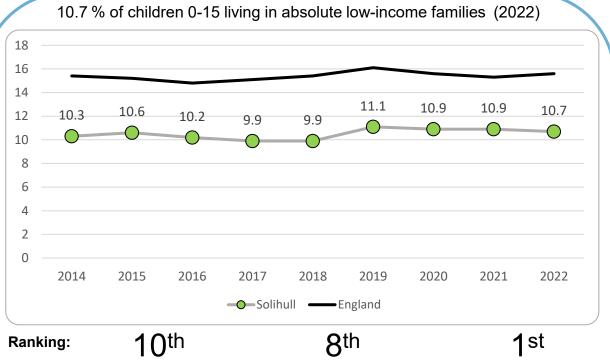
Solihull ranked 63rd out of 150 Local Authorities (2022)



6.4 More people in well-paid work: Proportion of children aged 0-15 living in absolute low-income families

The indicator measures percentage of children aged under 16 living in absolute low-income families. Absolute low income takes the 60% of median income threshold from 2010 to 2011 and then fixed this in real terms (the line moves with inflation). This is designed to assess how incomes are faring with reference to inflation. The percentage of individuals in absolute low income will decrease if individuals with lower incomes see their incomes rise by more than inflation.

Solihull has had lower levels of children living in low-income families than England. Solihull is ranked 34th out of 151 local authorities which is within the second-best quintile nationally. Solihull is ranked 8th out of its socioeconomic neighbours, 1st in the West Midlands, but 10th when compared to its statistically similar neighbours. This equates to 4517 children (under 16).



Out of 16 nearest statistically similar neighbours

Best: Windsor and Maidenhead

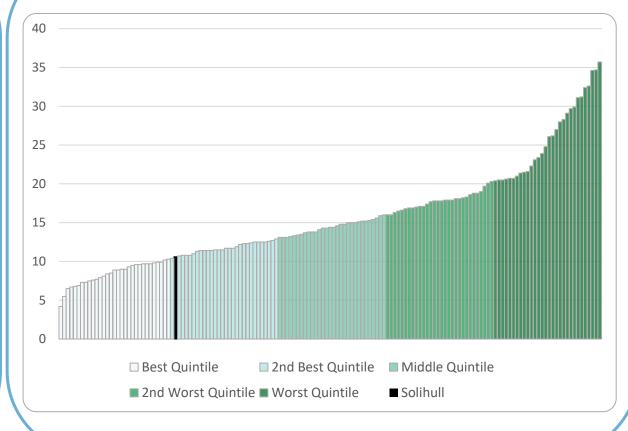
Worst: Bury

Staffordshire

out of 15 local authorities out of 14 local authorities with similar in West Midlands socioeconomic deprivation Barnet

Solihull Birmingham

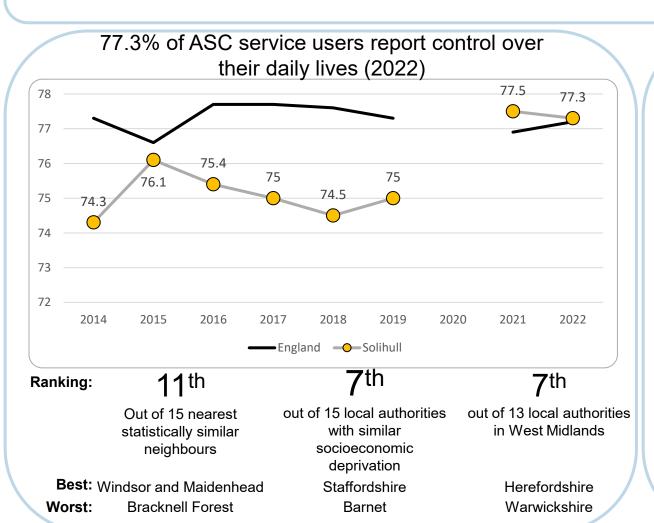
Solihull is ranked 34th out of 151 local authorities



7.1 More people live in an environment which supports their health and wellbeing: People have control over their daily life

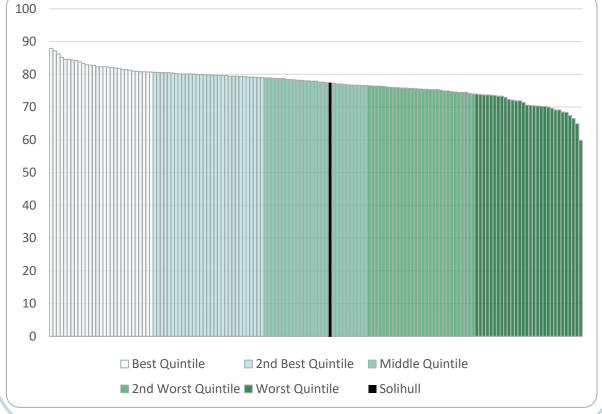
Part of the intention of personalised services is to design and deliver services more closely matching the needs and wishes of the individual, putting them in control of their care and support. This measure is one means of determining whether that outcome is being achieved. The metric is the proportion of respondents to the Adult Social Care Survey Question 3a who chose the answers "I have as much control over my daily life as I want" or "I have adequate control over my daily life".

Solihull sits within the middle quintile nationally with similar levels to England. Solihull ranks 7/13 among its regional neighbours and 11/15 among its statistically similar



authorities.

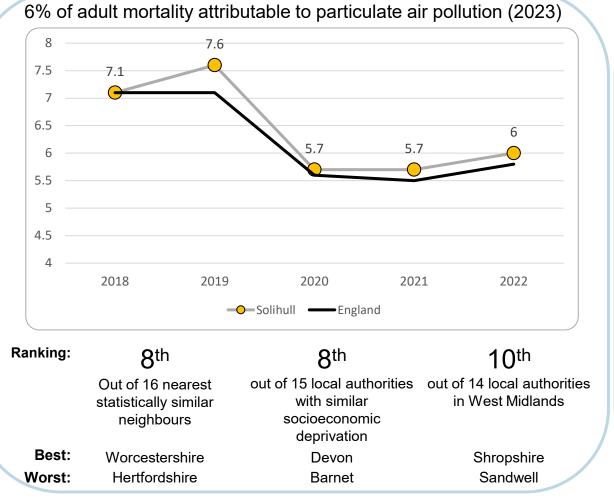
Solihull is ranked 79th out of 149 local authorities (2022)

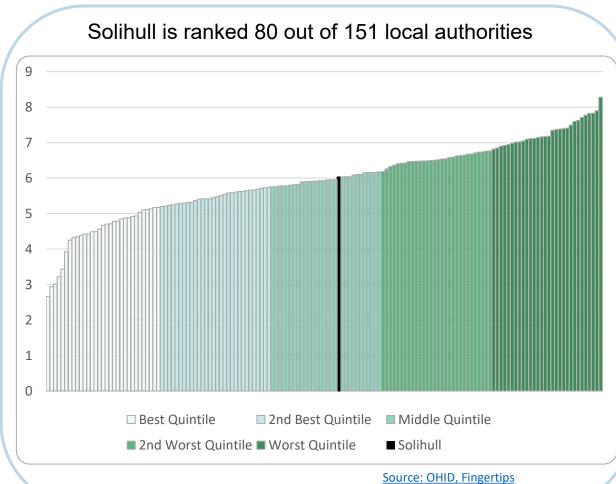


7.2 More people live in an environment which supports their health and wellbeing: Fraction of mortality attributable to air pollution

Poor air quality is a significant public health issue. There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease, and lung cancer, exacerbates asthma and has a contributory role in mortality. The annual burden of air pollution in the UK has been estimated to be equivalent to approximately 28,000 to 36,000 deaths at typical ages.

6% of adult mortality in Solihull is estimated to be attributable to particulate air pollution. This is an increase on previous years and slightly higher than England. Solihull is in the middle quintile nationally. Solihull compares less well among authorities within the West Midlands, ranking 10th out of 14 local authorities.



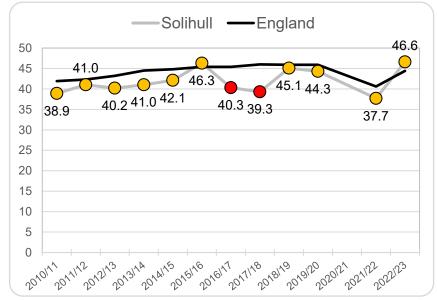


7.3 More people live in an environment which supports their health & wellbeing: Proportion reporting they have enough social contact

There is a clear link between loneliness and poor mental and physical health. A key element of the Government's vision for social care is to tackle loneliness and social isolation, supporting people to remain connected to their communities and to develop and maintain connections to their friends and family. This measure draws on self-reported levels of social contact as an indicator of social isolation for both users of social care and carers.

Solihull is within the 2nd best quintile nationally for the proportion of adult social care users who have as much social contact as they would like, a huge improvement on 2021/22. Currently 46.6% get as much social contact as they like, this is ranked slightly above England although not significantly different. Solihull performs well compared to its statistically similar neighbours, ranking 5th/15.

46.6% of ASC users have enough social contact (2022/23)



Ranking:

Best:

Worst:

Out of 15 nearest statistically similar neighbours

Worcestershire Bracknell Forest

4th

out of 15 local authorities with similar socioeconomic deprivation Redbridge

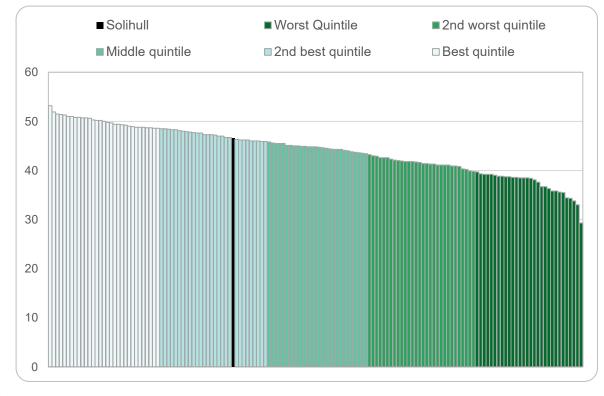
Barnet

7^{th}

out of 14 local authorities in West Midlands

Herefordshire
Telford and Wrekin

Solihull is ranked 52 out of 149 local authorities



Source: NHS England, Adult Social Care Survey

7.4 More people live in an environment which supports their health & wellbeing: Percentage of households secured accommodation for 6+ months following homelessness prevention and relief duty

Local authorities may deliver their prevention duty through any activities aimed at preventing a household threatened with homelessness within 56 days from becoming homeless. The relief duty is owed to households that are already homeless on approaching a local authority and require help to secure settled accommodation. Solihull ranks well compared to its statistically similar neighbours and regional neighbours. Solihull sits within the second-best quintile nationally and ranks well compared to England.

40%

30%

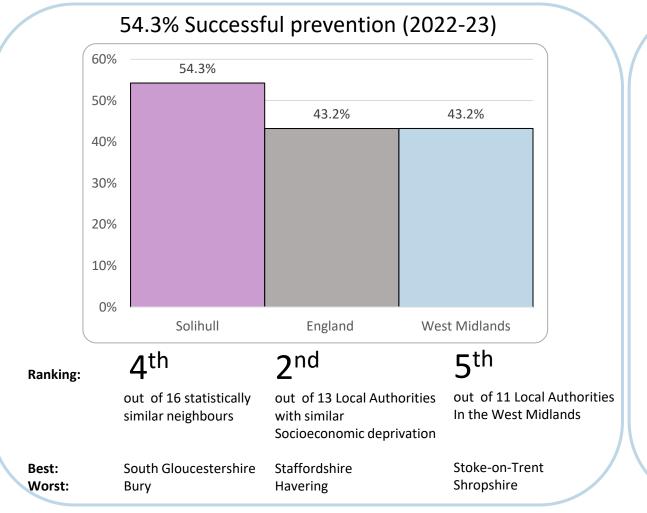
20%

10%

0%

■ Best Quintile

■ 2nd Worst Quintile ■ Worst Quintile



Solihull ranked 30th out of 115 Local Authorities (2022-23) 90% 80% 70% 60% 50%

■ 2nd Best Quintile

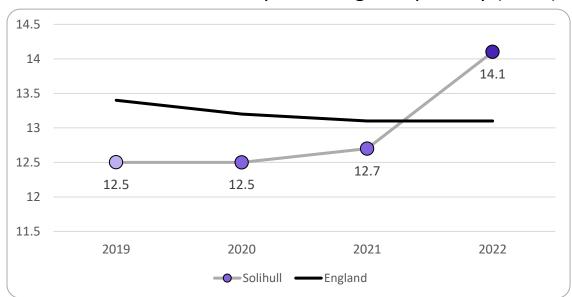
■ Middle Quintile

■ Solihull

7.5 More people live in an environment which supports their health & wellbeing: Fuel poverty (low income, low energy efficiency methodology)

The factors contributing to fuel poverty, namely low income, inadequate energy efficiency, and high energy prices, are closely connected to the prevalence of cold homes. Research highlights a clear association between residing in cold homes and adverse health outcomes, elevating the risk of illness and death across all age groups. Solihull ranks within the second worst quintile nationally for the proportion of households experiencing fuel poverty. Solihull ranks 1st compared to Local Authorities within the West Midlands yet compares less favourably to its statistically similar neighbours, ranking 14th/16.

14.1% of households experiencing fuel poverty (2022)



Ranking:

14th

Out of 16 nearest statistically similar neighbours

Best: Bracknell Forest Worst: Calderdale

12th

out of 15 Local Authorities with similar Socioeconomic deprivation

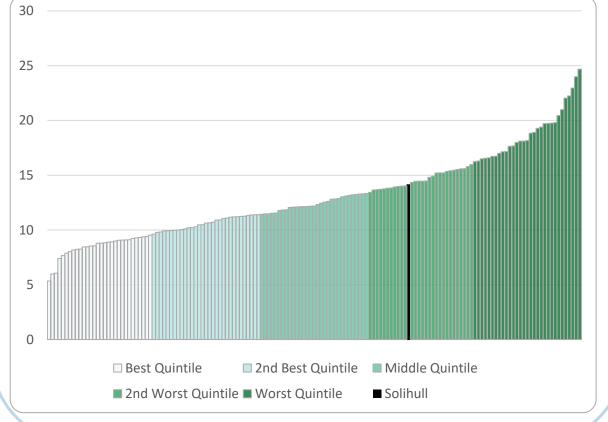
Milton Keynes Sol Shropshire Sto

1st

out of 14 Local Authorities In the West Midlands

Solihull Stock-on-Trent

Solihull ranked 104th out of 153 Local Authorities (2022)

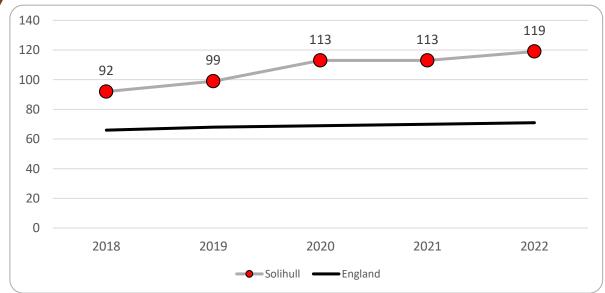


8.1 People have access to the right care and support when and where they need it: Children and Young People in Care

Children and young people in care are among the most socially excluded children in England. There are significant inequalities in health and social outcomes compared with all children and these contribute to poor health and social exclusion of care leavers later in life.

The rate of children in care per 10,000 population (aged under 18 years) in Solihull is significantly higher than England and is in the highest quintile. Solihull has the highest rate of children in need amongst its statistically similar neighbours. Only Stoke-on-Trent and Herefordshire have higher rates in the West Midlands.

119 children in care per 10,000 population (2022)



Ranking:

Out of 16 nearest statistically similar neighbours

16th

Best: Hertfordshire Worst: Solihull

15th

Essex

Solihull

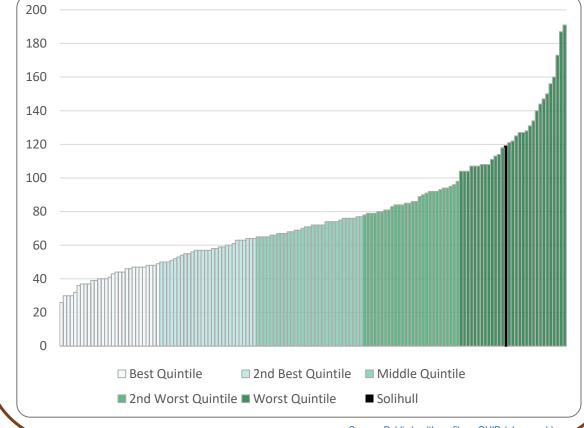
out of 15 Local Authorities with similar Socioeconomic deprivation

12th

out of 14 Local Authorities In the West Midlands

Warwickshire Stoke-on-Trent

Solihull ranked 130th out of 147 Local Authorities (2022)



8.2 People have access to the right care and support when and where they need it: Percentage of offenders who re-offend

In the West Midlands

Solihull

Stoke-on-Trent

An individual's offending behaviour is closely intertwined with their physical and mental well-being and is often linked with substance misuse. Additionally, a significant number of families dealing with multiple challenges are engaged with the criminal justice system, and their issues span across generations. Consequently, reducing re-offending not only affects the health and well-being of individuals but also has widespread implications for their children, families, and the communities in which they reside. Solihull levels of reoffending have been statistically better than England from 2017-21. Solihull ranks the best among its regional neighbours and is ranked as the second-best authority nationally following only Windsor and Maidenhead. It is notable that the confidence intervals are not available for this indicator due to a changed methodology used to aggregate the yearly counts and rates.

14.5% of offenders in Solihull re-offend (2021) 20.8 2021 2017 2018 2019 2020 -O-Solihull ---England 2nd **1** st **1** st Ranking: out of 14 Local Authorities Out of 16 nearest out of 15 Local Authorities

Socioeconomic deprivation

with similar

Solihull

Redbridge

35 30

25

20

15

10

Best:

Worst:

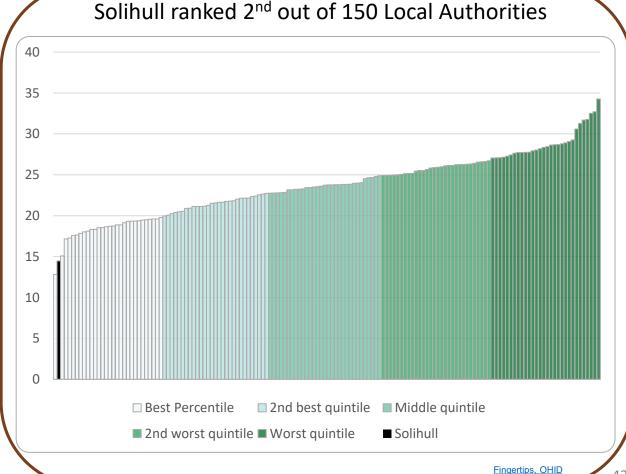
statistically similar

neighbours

Windsor and

Maidenhead

Swindon



9.1 Our health and care services deliver good quality care and support to the population: Neonatal mortality rate

Birmingham

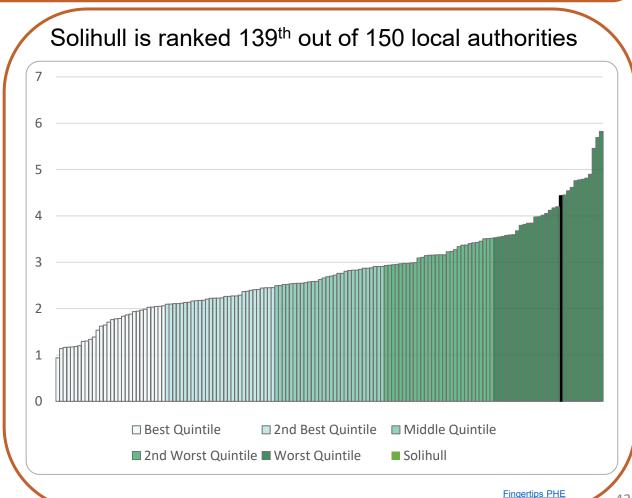
Deaths within the initial 28 days of life, known as the neonatal period, are associated with the overall health and care provided to both the mother and newborn. The neonatal period is the most critical for ensuring a child's survival. Smoking is identified as a significant risk factor linked to both infant mortality and stillbirth. Solihull performs worst compared to statistically similar neighbourhoods. Solihull has had more deaths than the national average since 2012 with a statistically significant discrepancy to England since 2018. Solihull sits in the worst quintile nationally.

4.4 deaths under 28 days per 1000 live births (2020-22) 5 4.5 3.5 2.5 2.8 1.5 1 0.5 16th 14th 9th Ranking: out of 14 Local Authorities Out of 16 nearest out of 15 Local Authorities with similar In the West Midlands statistically similar neighbours Socioeconomic deprivation Dudley **Bracknell Forest** North Somerset Best:

Staffordshire

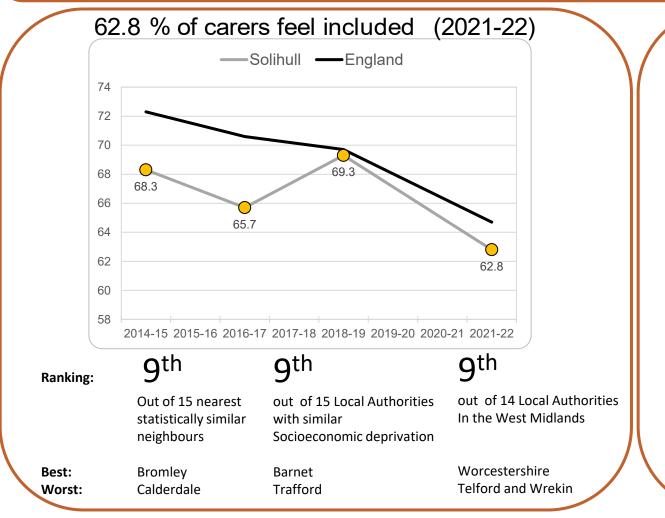
Solihull

Worst:

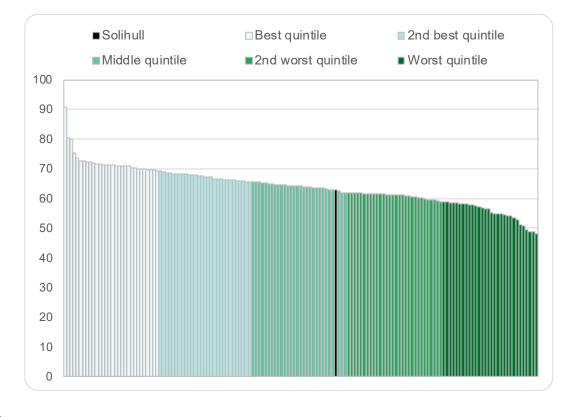


9.2 Our health and care services deliver good quality care and support to the population: Carers included in discussion about cared for person

Carers are a key policy area within the Department of Health and Social Care (DHSC) and the Care Quality Commission (CQC). The Survey of Adult Carers in England has been developed to learn more about whether services received by carers are helping them in their caring role and their life outside of caring, and also about their perception of the services provided to the person they care for. This measure is the percentage of all those responding 'I always felt involved or consulted' and 'I usually felt involved or consulted', to the question: 'In the last 12 months, do you feel you have been involved or consulted as much as you wanted to be, in discussions about the support or services provided to the person you care for'. In Solihull the proportion of carers feeling included in discussions about care has fallen and remians similar to England. Solihull is placed within the middle quintile nationally, ranking 86th out of 149 local authorities.



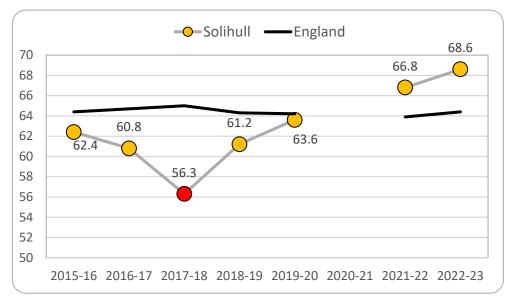
Solihull is ranked 86 out of 149 local authorities 2021-22



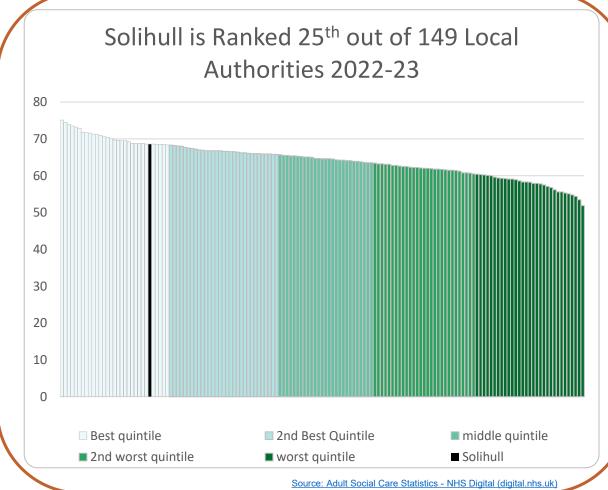
9.3 Our health and care services deliver good quality care and support to the population: Overall satisfaction of people who use care and support services (%)

Experience of adult social care is measured through regular surveys of service users and informal carers. In March 2020, the survey programme was delayed or made voluntary due to the pressures on local authorities, who administer the surveys, caused by the pandemic. Therefore, there was no available national data published for 2020-21. This programme was reinitiated for 2021-22. Satisfaction of service users with their care (percentage extremely or very satisfied) within Solihull has seen a long-term increasing trend since 2018 with Solihull ranking within the best quintile nationally in 2022. Equally, Solihull scores well when compared to its statistically similar and regional neighbours.

68.6% of service users very satisfied with support



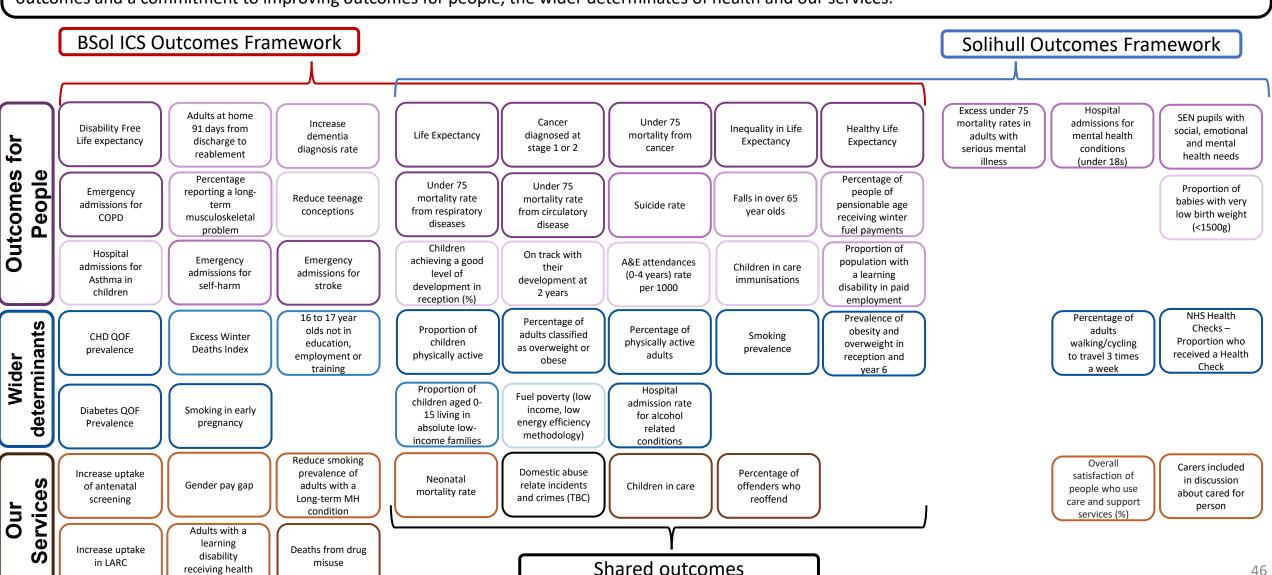




10.1 Our services work together to have a positive impact on outcomes and reduce health inequalities

checks

The council are part of the Birmingham and Solihull Integrated Care System (BSol ICS) and share a vision to make Birmingham and Solihull the healthiest place to live and work, driving equity in life chances and health outcomes for everyone. This is reflected in our respective outcomes frameworks which share many outcomes and a commitment to improving outcomes for people, the wider determinates of health and our services.



Outcomes for People				Wider determinants			Our services		
Level up Life Expectancy	More people have good mental health	More people live independently for longer	More children and happy, healthy & Safe	More people adopt a healthy lifestyle	More people are in well-paid work	More people live in an environment which supports their health and wellbeing	People have access to the right care and support when and where they need it	Our health and care services deliver good quality care and support to the population	Our services work together to have a positive impact on outcomes and reduce health inequalities
Life Expectancy	Suicide rate	Falls in over 65 year olds	Proportion of babies with very low birth weight (<1500g)	Proportion of children physically active	Unemployment (model- based)	People have control over their daily life	Children in care	Neonatal mortality rate	
Inequality in Life Expectancy	SEN pupils with social, emotional and mental health needs	Percentage of people of pensionable age receiving winter fuel payments	On track with their development at 2 years	Hospital admission rate for alcohol related conditions (Broad)	Proportion economically inactive (16-64 year olds)	Fraction of mortality attributable to air pollution	Percentage of offenders who reoffend	Carers included in discussion about cared for person	
Healthy Life Expectancy	Hospital admissions for mental health conditions (under 18s)	Proportion of population with a learning disability in paid employment	Children achieving a good level of development in reception (%)	Smoking prevalence	Proportion of people in employment	Proportion reporting they have enough social contact		Overall satisfaction of people who use care and support services (%)	
Under 75 mortality from cancer	Excess under 75 mortality rates in adults with serious mental illness		A&E attendances (0-4 years) rate per 1000	Prevalence of obesity and overweight in reception and year 6	Proportion of children aged 0-15 living in absolute low-income families	Percentage of households secured accommodation for 6+ months following homelessness prevention and relief duty			
Cancer diagnosed at stage 1 or 2			Emergency Admissions (0-4 years) rate per 1000	Percentage of adults (aged 18+) classified as overweight or obese		Fuel poverty (low income, low energy efficiency methodology)			
Under 75 mortality rate from respiratory diseases			Children in care immunisations	NHS Health Checks – Proportion who received a Health Check					
Under 75 mortality rate from circulatory disease				Percentage of physically active adults					
				Percentage of adults walking/cycling to travel 3 times a week					

Glossary

Statistically Similar Neighbours

This repository was developed by the Data Science team for the Adult Social Care Statistics team, to provide a way of comparing statistics between 'similar' Local Authorities. It is a metric of similarity (Euclidean distance) based on standardised, normalised input features from Census 2021 data, including population demographics such as age, ethnicity and educational attainment. Solihull's statistically similar neighbours are: South Gloucestershire, Central Bedfordshire, Bracknell Forest, Buckinghamshire UA, Winsdor and Maidenhead, Hertfordshire, Swindon, Havering, Stockport, Trafford, Warrington, Worcestershire, Calderdale, Bury, and Bromley.

Socioeconomic Deprivation

The Index of Multiple Deprivation (IMD) measures relative levels of deprivation in 32,844 neighbourhoods in England. Deprivation covers a broad range of issues and refers to unmet needs caused by lack of resources of all kinds, not just financial. Local authorities with a similar average IMD score to Solihull have been used as a benchmark, these local authorities are: Barnet, Bexley, Devon, Dorset, Essex, Havering, Milton Keynes, North Somerset, Redbridge, Shropshire, Staffordshire, Trafford, Wandsworth, Warwickshire.

West Midlands

The 14 local authorities in the West Midlands include: Solihull, Worcestershire, Herefordshire, Staffordshire, Dudley, Shropshire, Warwickshire, Sandwell, Coventry, Wolverhampton, Birmingham, Walsall, Telford and Wrekin, Stoke-on-Trent.

Model -based unemployment estimates

The model-based estimate improves on the Adult Population Survey (APS) estimate by borrowing strength from the claimant count to produce an estimate that is more precise i.e. has a smaller confidence interval. The claimant count is not itself a measure of unemployment but is strongly correlated with unemployment, and, as it is an administrative count, is known without sampling error. The gain in precision is greatest for areas with smaller sample sizes.

Mortality attributable to particulate air pollution (new method)

Background annual average $PM_{2.5}$ concentrations for the year of interest are modelled on a 1km x 1km grid using an air dispersion model, and calibrated using measured concentrations taken from background sites in Defra's Automatic Urban and Rural Network (https://uk-air.defra.gov.uk/interactive-map). By approximating LA boundaries to the 1km by 1km grid, and using census population data, population weighted background $PM_{2.5}$ concentrations for each lower tier LA are calculated. This work is completed under contract to Defra, as a small extension of its obligations under the Ambient Air Quality Directive (2008/50/EC). Concentrations of total $PM_{2.5}$ are used for estimating the mortality burden attributable to particulate air pollution (COMEAP, 2022). An increase of 10 µg/m in population-weighted annual average background concentration of $PM_{2.5}$ is assumed to increase all cause mortality rates by a unit relative risk (RR) factor of 1.08 (COMEAP, 2022). For a population weighted modelled annual average background $PM_{2.5}$ concentration x, RR is calculated as $(1.08)^{(x/10)}$ (as explained in PHE, 2014). The fraction of deaths attributable to $PM_{2.5}$ is expressed as a percentage, calculated as 100^* (RR-1)/RR.