Palliative and End of Life Care Phase One Needs Assessment

Staffordshire and Stoke-on-Trent, 2023

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About 1% of the UK population dies each year. A quarter of all deaths are due to cancer, a third from organ failure, a third from frailty or dementia. Only one twelfth of deaths are sudden and unexpected. Accurately identifying patients who are approaching the end of life has considerable benefits: supporting patients and carers, avoiding crises, anticipating need and supporting patients to think about and state their end-of-life preferences. Palliative care is defined by the World Health Organisation as an approach which aims to prevent and relieve suffering through the early identification, correct assessment and treatment of pain and other problems whether physical, psychosocial or spiritual. In England, the term 'end of life care' refers to the last year of life.

People generally state that they would prefer to die at home but in England in 2022 43.4% of all deaths occurred in hospital, compared to 28.7% at home. In Staffordshire and Stoke-on-Trent during the same period 47.1% of deaths occurred in hospital, significantly higher than the England average and conversely 26.9% of deaths occurred at home.

In Staffordshire and Stoke-on-Trent there are 5,888 registered palliative care patients. This represents a crude prevalence rate of 0.5%, which is significantly higher than the England average (0.46%).

The aim of this short summary review is to provide answers to six key questions, with the aim of understanding the underlying causes of these differences. These questions were chosen with current data restrictions in mind- as noted throughout this document there are many areas where the data available cannot speak to the most difficult issues. In some cases solutions have been identified, and ongoing access projects will provide further and richer information. In others, new datasets may have to be collected or bespoke research conducted. Where these gaps exist, these have been highlighted in response to the questions below.

1. How does the rate and profile of people dying in hospital in SSoT compare to statistical neighbours and 'gold standard' areas?

2. Which groups of patients are under-represented on PEoLC registers?

3. Which groups of patients are over-represented among admissions in final 3 months of life?

4. Which groups of patients are over- and under-represented among deaths in hospitals and at home; what are the barriers and enablers to ending life at home?

5. What do people who are identified as Palliative Care and End of Life Care (PEoLC) get admitted to hospital with?

6. The impact that specialist and non-specialist palliative care have on patient outcomes in acute and community settings?

ICB profile for 2022, taken from the OHID Palliative Care Dashboard

Indicator	Period	Staffs and Stoke-on-Trent ICB - QNC			NHS regions (since ICB setup)	England	England		
		Recent Trend	Count	Value	Value	Value	Lowest	Range	Highest
Deaths that occur at hospital									
Percentage of deaths that occur in hospital (All ages)	2022	↓	5,675	47.1%	44.0%	43.4%	37.2%		
Percentage of deaths that occur in hospital (85+ yrs)	2022	↓	1,989	43.3%	39.4%	39.4%	30.9%		
Percentage of deaths that occur in hospital (75-84 yrs)	2022	↓	1,887	50.4%	47.4%	46.9%	40.4%		
Percentage of deaths that occur in hospital (65-74 yrs)	2022	→	996	50.1%	48.0%	47.3%	40.2%		
Percentage of deaths that occur in hospital (<65 yrs)	2022	→	803	46.8%	45.2%	43.1%	33.5%		.2%
Deaths that occur at home									
Percentage of deaths that occur at home (All ages)	2022	↑	3,246	26.9%	28.9%	28.7%	26.2%		
Percentage of deaths that occur at home (85+ yrs)	2022	↑	955	20.8%	22.8%	22.5%	18.8%		
Percentage of deaths that occur at home (75-84 yrs)	2022	↑	1,022	27.3%	29.5%	29.2%	25.9%		
Percentage of deaths that occur at home (65-74 yrs)	2022	↑	655	32.9%	34.6%	34.6%	28.0%		
Percentage of deaths that occur at home (<65 yrs)	2022	↑	614	35.8%	37.3%	38.0%	31.8%		
Deaths that occur in care homes									
Percentage of deaths that occur in care homes (All ages)	2022	→	2,237	18.6%	20.3%	20.5%	12.5%		
Percentage of deaths that occur in care homes (85+ yrs)	2022	→	1,480	32.2%	34.7%	34.6%	20.5%		43.3%
Percentage of deaths that occur in care homes (75-84 yrs)	2022	→	569	15.2%	17.1%	17.4%	11.3%		
Percentage of deaths that occur in care homes (65-74 yrs)	2022	→	145	7.3%	8.1%	8.1%	5.3%		
Percentage of deaths that occur in care homes (<65 yrs)	2022	→	43	2.5%	2.8%	2.6%	1.5%		
Deaths that occur in hospice									
Percentage of deaths that occur in hospice (85+ yrs)	2022	→	127	2.8%	2.0%	2.2%	0.6%		
Percentage of deaths that occur in hospice (All ages)	2022	↓	631	5.2%	4.3%	4.7%	2.1%		
Percentage of deaths that occur in hospice (75-84 yrs)	2022	↓	215	5.7%	4.5%	4.9%	2.2%		
Percentage of deaths that occur in hospice (65-74 yrs)	2022	↓	150	7.5%	6.8%	7.5%	3.5%		
Percentage of deaths that occur in hospice (<65 yrs)	2022	↓	139	8.1%	7.1%	7.9%	4.1%		
Deaths that occur in 'other places'									
Percentage of deaths that occur in 'other places' (All ages)	2021	↑	320	2.6%	2.5%	2.7%	1.8%		
Percentage of deaths that occur in 'other places' (85+ yrs)	2021	→	58	1.3%	1.3%	1.3%	0.7%		
Percentage of deaths that occur in 'other places' (75-84 yrs)	2021	→	50	1.3%	1.6%	1.6%	1.2%		
Percentage of deaths that occur in 'other places' (65-74 yrs)	2021	→	48	2.3%	2.0%	2.4%	1.4%		
Percentage of deaths that occur in 'other places' (<65 yrs)	2021	→	164	8.0%	7.5%	8.1%	5.7%		

1. How does the rate and profile of people dying in hospital in SSoT compare to statistical neighbours and 'gold standard' areas?

Please note this data has been updated with 2022 data, released 5th December 2023

In SSoT in 2022, 47.1% of deaths occurred in hospital. The England average is 43.4%, significantly lower. Rates across the country vary between 37.2% and 50.8%:

The SSoT rate of 47.1% is higher than its statistical neighbours- suggesting we are an outlier among ICBs with similar populations:

Percentage of deaths that occur in hospital (All ages) 2022

Proportion - %

Area	Recent Trend	Count	Value	95% Lower CI	95% Upper CI
England	↓	233,922	43.4	43.3	43.6
NHS Staffordshire and Stoke-on-Trent Integrated Care Board - QNC	↓	5,675	47.1	46.2	48.0
NHS Mid and South Essex Integrated Care Board - QH8	↓	5,109	44.5	43.6	45.4
NHS Derby and Derbyshire Integrated Care Board - QJ2	→	5,095	43.6	42.7	44.5
NHS Humber and North Yorkshire Integrated Care Board - QOQ	→	8,289	42.6	41.9	43.3
NHS Suffolk and North East Essex Integrated Care Board - QJG	↓	4,421	40.6	39.7	41.5
NHS Kent and Medway Integrated Care Board - QKS	↓	7,217	38.6	37.9	39.3

Areas with the highest rates of people dying in hospital had:

- Lower rates of people aged 65 and over, unlike SSoT
- Higher rates of people from BAME communities, unlike SSoT
- Higher rates of older people living alone, unlike SSoT
- Higher rates of deprivation, like Stoke-on-Trent but unlike Staffordshire

There is considerable variation across the ICB geography in terms of rates of people dying in hospital. However, every area is in line with, or higher than, the England average:

Percentage of deaths that occur in hospital (All ages) 2022

Proportion - %

Area	Recent Trend	Count	Value	95% Lower CI	95% Upper CI
England	↓	233,922	43.4	43.3	43.6
NHS Staffordshire and Stoke-on-Trent Integrated Care Board - QNC	↓	5,675	47.1	46.2	48.0
Staffordshire and Stoke-on-Trent ICB - 05V	→	803	49.3	46.9	51.7
Staffordshire and Stoke-on-Trent ICB - 05D	→	614	49.1	46.3	51.8
Staffordshire and Stoke-on-Trent ICB - 05Q	→	1,180	47.4	45.5	49.4
Staffordshire and Stoke-on-Trent ICB - 05W	→	1,274	47.1	45.2	49.0
Staffordshire and Stoke-on-Trent ICB - 04Y	→	694	47.0	44.5	49.6
Staffordshire and Stoke-on-Trent ICB - 05G	↓	1,110	44.5	42.5	46.4

This information can also be presented by district Local Authority geography:

Percentage of deaths that occur in hospital (All ages) 2022

Proportion - %

Area	Recent Trend	Count	Value	95% Lower CI	95% Upper CI
England	↓	233,922	43.4	43.3	43.6
Tamworth	→	381	51.7	48.1	55.3
East Staffordshire	→	574	49.6	46.7	52.4
Stafford	→	706	48.9	46.3	51.5
Cannock Chase	→	497	47.7	44.7	50.7
Stoke-on-Trent	→	1,234	47.5	45.6	49.4
Lichfield	→	541	46.6	43.7	49.5
Newcastle-under-Lyme	↓	648	45.9	43.3	48.5
South Staffordshire	↓	592	45.5	42.8	48.2
Staffordshire Moorlands	↓	502	42.2	39.4	45.0

Within the ICB we only have access to local data, so information about national case-mix can only be drawn from tools such as Fingertips. However, there is scope for a deeper dive into the records of those 47.1% of the population dying in hospital to understand how they differ from those dying in other settings.

It is important to note that these are broad trends and may not be driving the differences seen in SSoT. Within the ICB we only have access to local data, so information about national case-mix can only be drawn from tools such as Fingertips. However, there is scope for a deeper dive into the records of those 47.6% of the population dying in hospital to understand how they differ from those dying in other settings.

2. Which groups of patients are under-represented on PEoLC registers?

- There are higher rates of female patients on the palliative care register. It has repeatedly been shown that women are more likely to receive palliative care than men.
- There are higher rates of white patients on the palliative care register. It has repeatedly been shown that ethnic minorities are less likely to receive palliative care.
- There are higher rates of deprived patients on the palliative care register. It has been shown that people living in socio-economic deprivation lack agency in making end of life care decisions because of more constrained home lives and increased comorbidities.

Rates of patients on the palliative care register vary considerably across SSoT PCNs, from 0.2% to 1.2%, though these generally correlate well with patient age profiles.

As well as these demographic characteristics, understanding the patient groups under-represented on PEoLC registers is a key question missing from this analysis. Primary care data is not currently directly available to analysts in the ICB, but instead a truncated, pre-analysed data extract is provided via MLCSU, the risk stratification dataset. Without access to broader primary care data it is not possible to analyse the patient groups on PEoLC, and whether they are represented in line with overall numbers of patients.

Palliative/supportive care: QOF prevalence (all ages) 2022/23

Proportion - %

Area	Recent Trend	Count	Value	95% Lower CI	95% Upper CI
England	→	290,433	0.5	0.5	0.5
NHS Staffordshire and Stoke-on-Trent Integrated Care Board - QNC	→	6,062	0.5	0.5	0.5
Leek & Biddulph PCN	→	591	1.2*	1.1	1.3
Stafford South PCN	→	324	1.1*	1.0	1.2
Lichfield PCN	↑	352	0.8*	0.7	0.9
Cannock North PCN	↑	312	0.7*	0.7	0.8
South Stoke West PCN	→	222	0.7*	0.6	0.8
Stafford North PCN	↓	262	0.6*	0.6	0.7
Newcastle Central PCN	↑	247	0.6*	0.5	0.7
Stafford Central PCN	↓	225	0.6*	0.5	0.6
About Better Care (Abc) PCN	→	271	0.6*	0.5	0.6
Cannock Villages PCN	→	334	0.5*	0.5	0.6
Stone & Eccleshall PCN	→	179	0.5*	0.5	0.6
Rugeley & Great Haywood PCN	→	211	0.5*	0.4	0.6
Moorlands & Rural PCN	→	189	0.5*	0.4	0.6
Whitfield PCN	→	186	0.5*	0.4	0.6
Newcastle South PCN	→	203	0.5*	0.4	0.5
South Stoke Central PCN	→	223	0.5*	0.4	0.5
East Staffordshire PCN	→	634	0.4*	0.4	0.5
Hanley, Bucknall & Bentilee PCN	→	116	0.3*	0.3	0.4
Meir PCN	→	130	0.3*	0.3	0.4
Mercian PCN	→	316	0.3*	0.3	0.4
Burntwood PCN	→	122	0.3*	0.3	0.4
Newcastle North PCN	→	116	0.3*	0.3	0.4
Seisdon PCN	→	136	0.3*	0.2	0.3
Shelton & Hanley PCN	→	90	0.2*	0.2	0.3
Hipc (Holistic Patient Centred Care) PCN	→	71	0.2*	0.2	0.3

It may be possible to use the Risk Stratification Dataset via the MLCSU to create prevalence statistics. The calculation of indirectly standardised rates will allow us to look at observed vs expected numbers by demographics e.g. sex, deprivation, ethnicity although note there are some quality issues in how ethnicity is recorded.

Given that 48% of people with cancer are on PEoLC, further investigation around this group may be most useful. High quality cancer statistics are available via the national Registry Service and provide insight into patient pathways.

3. Which groups of patients are over-represented among admissions in final 3 months of life?

According to an Office for Health Disparities (OHID) report, in England in 2021:

- the overwhelming majority (88.9%, 486,998) of people who died in 2021, died of or with one of four major conditions (cancer, cardiovascular disease, dementia and respiratory disease)
- nearly three quarters (72%, 395,438) of all people who died in 2021, spent time in hospital during the 6 months before they died, staying for a total of 7.7 million days in hospital
- nearly three quarters (73%, 269,493) of people who died in 2021 of one of the 4 major conditions, spent time in hospital during the 6 months before they died, staying for a total of 5.1 million days in hospital
- almost half (48%) of the inpatient care provided by hospitals (measured in terms of days in hospital) for people aged 85 year or older is for people in their last year of life
- almost two thirds (63.5%) of all people who died had a least one emergency admission in their last 3 months of life, 7.1% having three or more emergency admissions in their last 3 months of life
- among the major conditions, the likelihood of having an emergency admission in the 3 months prior to their death is greater for people who died of cancer (71%) or respiratory disease (72%) than for people who died of cardiovascular disease (55%) or dementia (44%)
- the condition(s) people are living with in their final weeks can affect where they are cared for and where they ultimately die; comparing the 4 major conditions with each other:
    - people who died of cancer were the most likely to die at home (41.6% compared to 28.7% of all deaths) or in a hospice (14.0% compared to 4.4%)
    - people who died of dementia were the most likely to die in a care home (63.2% compared to 20.2%)
    - people who died of respiratory disease were most likely to die in hospital (59.7% compared to 44.0%)

In SSoT:

- SSoT patients who die in hospital or in a hospice are most associated with 3+ emergency admissions in their last three months
- Men are more likely to have 3+ emergency admissions in their last 3 months compared to women. There are fewer men on the palliative care register
- Younger patients (<65) are more likely to have 3+ emergency admissions in their last 3 months compared to older patients (75-84, 85+)

It may be possible to use the Risk Stratification Dataset via the MLCSU to create prevalence statistics. The calculation of indirectly standardised rates will allow us to look at observed vs expected numbers

by demographics e.g. sex, deprivation, ethnicity although note there are some quality issues in how ethnicity is recorded.

4. Which groups of patients are over- and under-represented among deaths in hospitals and at home; what are the barriers and enablers to ending life at home?

In their 2023 report "Dying Well at Home" the Kings Fund listed a wide range of inequalities contributing to people's ability to die at home. These were:

- the availability and extent of family support;
- staff capability to effectively identify end-of-life patients and confidence in planning care; access to hospice and out-of-hours services;
- clinical diagnosis, with support for some patient groups, such as cancer patients, more advanced than others;
- dementia and learning disability, associated with less joined up care;
- deprivation, with increased deprivation less likely to have access to specialist palliative care so less likely to die at home;
- rurality, with services again harder to access in some rural areas;
- ethnicity, with BAME groups less likely to be referred to end-of-life care services;
- religious beliefs not being taken into account by professionals;
- homelessness and extreme poverty;
- and LGBTQ+ people may also be less likely to access end-of-life services.

There is a wealth of literature examining the barriers and enablers to dying well at home. Enablers include:

- clear communication between the patient, care-givers and healthcare professionals;
- talented and experienced palliative care staff with the time and resource to properly support families and have difficult conversations;
- effective collaboration across the healthcare system, particularly with colleagues in the community;
- caregiver access to equipment and medication;
- and regular ongoing contact and support.
- Taken together, these enablers work to build the confidence of all involved, allowing the patient and caregivers to feel supported but maintain some independence.

Barriers include:

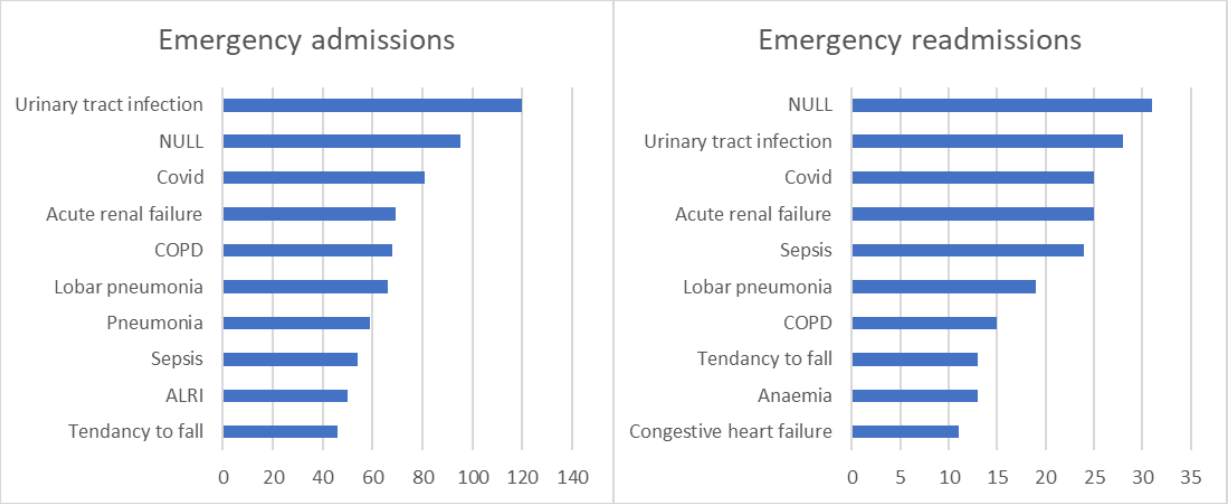
- lack of staff resource impeding their ability to give patients and carers a "good start" and therefore build up their confidence and skills;
- lack of staff confidence in supporting patients to stay at home;
- lack of collaboration between primary and secondary care, resulting in an inability for community colleagues to confidently support patients;
- and a lack of timely equipment and resources for home modifications.

5. What do people who are identified as Palliative Care and End of Life Care (PEoLC) get admitted to hospital with?

Amongst palliative care patients aged 75 and over:

- The most common reason for admissions and readmissions, based on primary diagnosis, were UTIs
- COVID remained a key driver for admissions in the June 2022-May 2023 data
- Pneumonia was another common reason for admissions and readmissions, as was COPD and acute lower respiratory infection
- Acute renal failure was another common cause of both admissions and readmissions
- Finally, falls also led to a number of admissions and readmissions

Top ten most common reasons for admission or readmission amongst palliative care patients aged 75+
Based on primary diagnosis description field. June 2022 to May 2023. Staffordshire and Stoke-on-Trent ICB.



Answering this question would ideally need a linked dataset of primary information and secondary care information – i.e. to capture people who are on the palliative care register (as recorded by primary care), understand how many hospital admissions they had and their primary reason for attendance (as recorded by hospital records or SUS datasets). As part of the wider PHM project the Optum linked data set is being created- however this will not be ready for some months.

6. The impact that specialist and non-specialist palliative care have on patient outcomes in acute and community settings?

Patient outcomes and patient experience are two key overlapping but separate issues. The effect of palliative care on patient outcomes varies by patient diagnosis and quality of the care provided, but studies have indicated a number of benefits:

- A reduction in hospitalisations, with no adverse effect on other clinical outcomes
- A reduction in costs associated with hospitalisations
- A reduction in distress caused by pain and other symptoms
- An improvement in quality of life during the final year of life
- An improved adjustment to loss in the bereaved

However, poor quality of care can lead to a number of adverse outcomes. Using local data to understand the impact of specialist palliative care on SSoT patients is a vital next step, as different models of care can lead to very different outcomes.

Introduction

The Needs Assessment for Palliative and End of Life Care (PEoLC) was initiated by the Staffordshire & Stoke-on-Trent Palliative and End of Life Care Programme Board. The needs assessment provides key data regarding palliative and end of life health and care needs in Staffordshire and Stoke-on-Trent and is intended to be utilised to inform and guide strategy, decision making and service development.

It will continue to be a live document and we recognise that there is further work to be done to identify and respond to the current and future needs of the Staffordshire and Stoke-on-Trent population.

Scope

The PEoLC needs assessment covers the geographical area of Staffordshire and Stoke-on-Trent Integrated Care System.

End of Life Definition

Palliative care is defined by the World Health Organisation as an approach that improves the quality of life of patients (adults and children) and their families who are facing problems associated with life-limiting illness, usually progressive. It prevents and relieves suffering through the early identification, correct assessment and treatment of pain and other problems whether physical, psychosocial or spiritual.

In England, the term 'end of life care' refers to the last year of life**.**

https://www.england.nhs.uk/eolc/

Context and Evidence Base

This Needs Assessment does not offer a systematic literature review of the evidence base for palliative and End of Life Care. However, it is framed by the National Ambitions for Palliative and End of Life Care and the policy and legislative context for PEoLC delivery:

Health and Care Act 2022

The Health and Care Act 2022 states a legal duty on ICBs to commission palliative care services under s3(1) NHS Act 2006 (as amended):The legal requirement on ICBs

The core responsibility for commissioners is to commission high quality safe services that are tailored to the needs of the individual. The Health and Care Act 2022 states a legal duty on ICBs to commission palliative care services under s3(1)

NHS Act 2006 (as amended):

(1) An integrated care board must arrange for the provision of the following to such extent as it considers necessary to meet the reasonable requirements of the people for whom it has responsibility

(h) such other services or facilities for palliative care as the board considers are appropriate as part of the health service Statutory Guidance for Integrated Care Boards (ICBs) 20 July 2022

National Ambitions for Palliative and End of Life Care

The National Ambitions document ***National Ambitions for Palliative and End of Life Care: A National Framework for local Action 2021-2026*** was refreshed and published in May 2021. The framework was developed by a partnership of national organisations across the statutory and voluntary sectors. It sets out our vision to improve end of life care through partnership and collaborative action between organisations at local level throughout England.

The National Institute for Health and Care Excellence (NICE) relevant guidelines

The NICE end of life care for adults service delivery guideline describes the provision of end of life care services for adults approaching the end of their life with any conditions and diseases. The guideline advises on service models for care in acute settings by disease-specific specialists and their supportive services, and in community settings by primary care or specialists in palliative care (for example, in hospices). It is intended to be used alongside the NICE guideline on Care of Dying Adults in the Last Days of Life, which covers care planning and clinical interventions for people who are considered to be in the last days of life (see below).

The guideline includes recommendations on:

- Identifying adults who may be approaching the end of their life
- Holistic needs assessment
- Supporting carers and providing information
- Reviewing current treatment
- Advance care planning and reviewing people's needs
- Communication between services, providing multipractitioner care and care coordination

- Transferring people between care settings and providing out-of-hours care

In addition to the end of life care guidance, the Care of Dying Adults in the Last Days of Life guidance provides clinical recommendations for the care of adults in their last two to three days of life. The accompanying quality standard describes the standards of care required to meet the guidance.

Local data narrative

HEADLINE FINDINGS

Key findings

In Staffordshire and Stoke-on-Trent around half of people die in hospital and a quarter at home, but the proportions are changing - there was a step change away from dying in hospital and towards home in 2020, which has largely persisted, but there are variations with the population.

Rates of hospital deaths in SSoT are higher than both the England average and our statistical neighbours and this difference is not explained by population demographics and case mix.

To bring SSoT in line with the England average, 440 fewer people would need to die in hospital each year.

The data we need to answer the some of the most pressing questions is not currently available. Data quality around protected characteristics is lacking, while some linked datasets are unavailable.

Cause of death

In line with the national picture, the 5 leading causes of death in SSoT are cancer, COVID, dementia and Alzheimer's, ischaemic heart disease and chronic lower respiratory disease.

In SSoT, rates exceed national averages for infant mortality, suicide and deaths from preventable liver disease.

In Stoke-on-Trent there are high rates of death from all causes considered preventable and high and sharply rising rates of male suicide and death from drug misuse, although the numbers are small compared to the major causes of death.

Mortality rates are higher in SSoT than nationally among people aged over 65.

Place of death

Compared to the rest of the country, more SSoT residents die in hospital and hospices and fewer at home or in care homes, although recent data suggests the gap may be closing.

Dying at home decreases with age and although SSoT is following the national trend towards dying at home, this outcome is less likely locally for our oldest and most deprived residents.

Hospice deaths shows a social gradient, an age gradient (decreasing with increasing age), and are more common among White people and people dying from cancer – but the proportion of cancer deaths occurring in hospices is decreasing over time.

Palliative care

0.50% of patients (5,888) registered with a GP in SSoT receive palliative care, higher than the England average without adjustment for age profile.

Higher deprivation is linked to higher volume of admissions and higher per patient cost.

There is a marked bias towards emergency admission of palliative care patients at 1-2pm, particularly on weekdays.

Emergency admission in the final 3 months of life

The proportion of SSoT residents experiencing 3 or more emergency admissions in the final 3 months of life is consistently higher than the national average, for those who are 75 or over at the time of death.

People are most likely to experience 3 or more emergency admissions in the final 3 months of life if they are male or go on to die in hospital or in a hospice.

People are least likely to experience 3 or more emergency admissions in the final 3 months of life if they go on to die in a care home or 'other place', were never married or outlive their spouse, were homeless or are of mixed or unknown ethnicity.

Unanswered questions

There is a lack of data to answer a number of key questions.

Work is currently underway to link primary and secondary care datasets, which will help to make progress on this issue.

Commentary

Cause of Death

The populations covered by Staffordshire and Stoke-on-Trent Integrated Care System (ICS) are, on average, more likely to die prematurely from some of the most common preventable causes of death, including cancer, heart disease and respiratory disease, than people in other parts of England.

This is more marked among males and more marked in Stoke-on-Trent, where deprivation is higher. Smaller numbers of deaths but which are preventable are concerning, including rates of liver disease, suicide, drug deaths and infant mortality.

The underlying reasons for these deaths, and routes to reducing them, are complex, involving the social, economic and physical environment our citizens live in, as well as the availability and quality of health services. Inequalities in determinants of health drive inequalities in outcomes, which can be seen in the data revealing that some groups are more affected than others, such as the marked rise in deaths from suicide and drugs among men in Stoke-on-Trent since 2017.

Place of Death

In terms of where people die, the general trend away from dying in hospital and towards dying at home accelerated in 2020 and the pattern has persisted. However, there is a gap between the local and national experience, with more local people dying in healthcare settings and fewer dying in residential settings, particularly for our oldest, most deprived and ethnic minority residents. The gap is narrowing with time and overall the proportions of people dying in different settings are shifting, but there are variations within the population, some of which may reflect different preferences and some of which will undoubtedly reflect unwarranted inequities.

Almost half of all deaths occur in hospital, although this is higher among people of Asian ethnicity, lower among females and people dying from cancer or dementia, and the move away from hospital deaths is happening most rapidly for the least deprived.

Care homes provide the place of death for around 2 out of 10 people overall, but a higher proportion of females, older people and widows, and fewer people of Asian ethnicity. Among people dying from dementia, 6 in 10 deaths occur in a care home although this is only 1 in 10 among Asian patients with dementia. The higher proportion of females dying in care homes may reflect that females more commonly outlive their male partners than vice versa, and this is supported by data that show surviving spouses/civil partners are more likely to die in a care home than people who are married/civil partners.

Hospices provide a place of death for a small (5%) and decreasing proportion of people over time, although the apparent decrease is likely in part due to hospices (and hospitals) providing support for people to die at home. Data on healthcare-supported deaths at home would provide further insight into these trends and any potential inequalities. Those who die in a hospice are predominantly cancer patients, and more likely to be younger, less deprived and White.

Admissions

People who are admitted to hospital three or more times in their final three months of life are more likely to go on to die in hospital. People who are less likely to be admitted to hospital in the final three months of life include those who are cared-for elsewhere (i.e. those who go on to die in a care home) and those who we can

assume are not receiving other care: homeless people and people who die unexpectedly (not in a healthcare or residential setting).

Among palliative care patients, over £12 million a year is spent on emergency admissions and there is a consistent social gradient in both the volume and per-head cost of admissions, with higher levels of deprivation linked to higher spending.

Variation and Inequalities

Within the patch, variations in experience by Lower Tier Local Authority may be attributable to variations in the age of the population living in each area. Without age-standardised data it is not possible to draw meaningful conclusions about variations in experience. There is also a lack of data locally and nationally on the end-of-life experience among people with other protected characteristics, for example place and cause of death by disability, gender identity or sexual orientation.

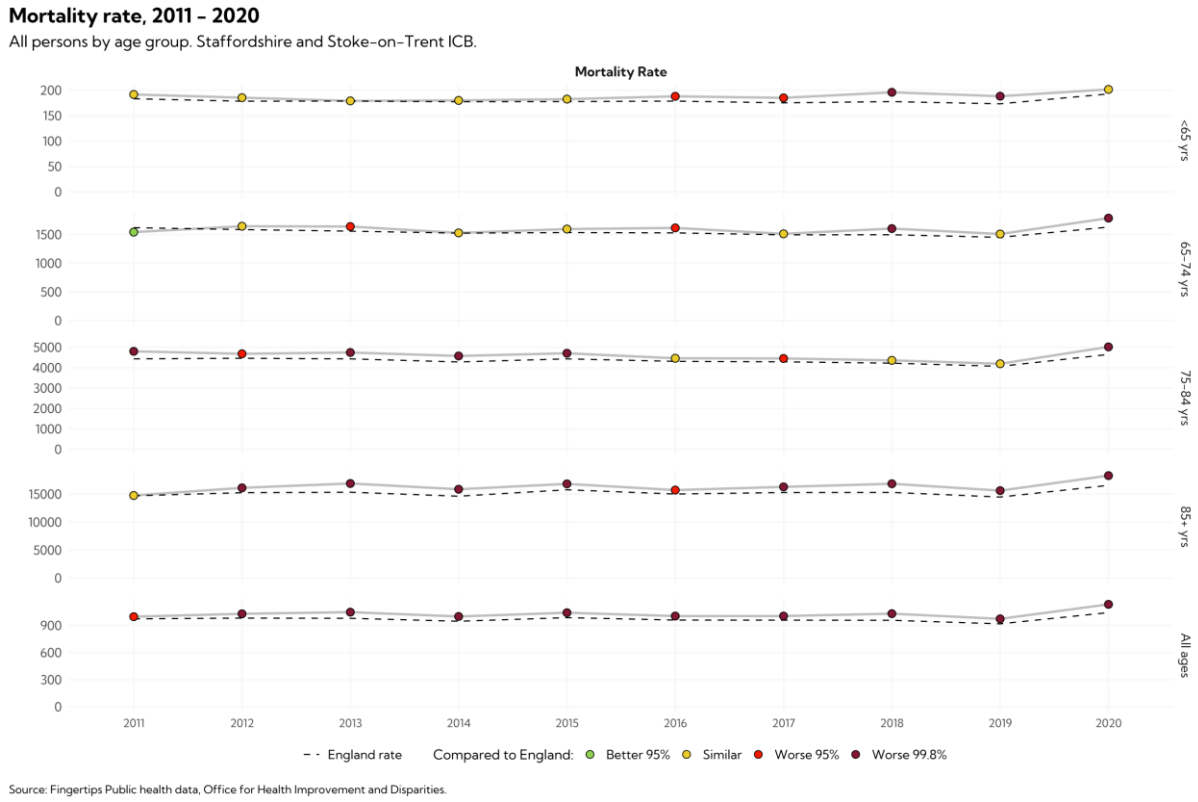
An important goal of palliative and end-of-life care is to enable a death that fulfils the wishes of patients and supports their loved ones. To this end an evidence review would be required to provide insights into end of life preferences, with particular attention to understanding the reasons for the disparities by ethnicity, deprivation and age observed in local data. Some inequalities may be driven by social determinants of health acting throughout the life course, requiring a broad social response to mitigate unjust effects on individuals and their consequences for public services and society. Other inequalities in the end-of-life experience however, may be driven by factors that are amenable to policy changes in health and care services such as proactive outreach to groups at highest risk of poor outcomes and co-creation of accessible and culturally competent services.

Local Data

Mortality rates

In the period 2011-2020, mortality rates were significantly higher in SSoT[1] than the national rate, when people of all ages are taken together, and for all age bands aged over 65 (Figure 1). Under the age of 65, SSoT mortality rates are similar to the England average.

Figure 1. Mortality rates per 100,000 in SSoT compared to England (2011-2020)



Premature mortality rates (deaths under 75 years) in Stoke-on-Trent are significantly higher than the England average for all causes considered preventable, preventable cancers, preventable cardiovascular disease (males only) and preventable respiratory disease, and in both Stoke-on-Trent and Staffordshire the rate of preventable liver disease is higher. See Appendix 1 for detail.

[1] SSoT is used throughout this document to denote residents of both Staffordshire and Stoke-on-Trent.

Cause of death

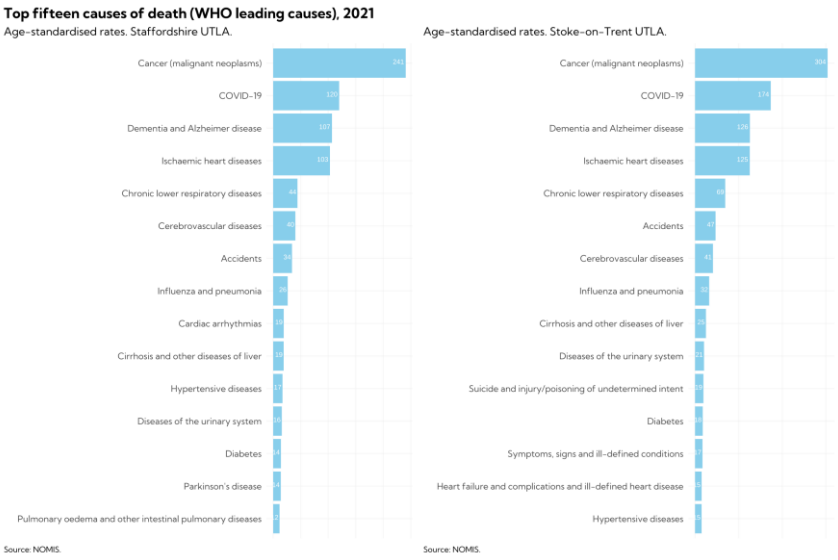
After age-standardisation[2], the 5 leading causes of death are the same between Staffordshire and Stoke-on-Trent, but death rates are higher in Stoke-on-Trent for all causes except deaths from Parkinson's disease and cardiac arrythmias (Figure 2 shows 2021 data; Appendix 2 shows additional data for 2013-2021). The 5 leading causes of death in SSoT are:

1. Cancer
2. COVID
3. Dementia and Alzheimer's disease
4. Ischaemic heart disease
5. Chronic lower respiratory disease

Compared to the national picture, 9 of the 10 leading causes of death in the period 2013 to 2021 are the same in England as they are in SSoT (Table 1). Locally, 'Cirrhosis and other diseases of the liver' replaces 'Symptoms, signs & ill-defined conditions' as the 9th most common cause of death, accounting for 2% of the total.

Overall, the proportion of deaths with an underlying cause of cancer, circulatory disease and respiratory disease is similar between SSoT and England across all age groups (Appendix 3). However, when data for Staffordshire and Stoke-on-Trent are separated, the proportion of deaths from respiratory disease for all age groups has been consistently higher than the national average in Stoke-on-Trent during the period 2011 to 2020 (Appendix 4).

Figure 2. Top 15 causes of death in 2021, Staffordshire and Stoke-on-Trent



[2] Age-standardisation takes account of the fact that the overall age profile varies place to place, for example the age profile of people who live in Staffordshire is older than people who live in Stoke-on-Trent. Without accounting for the different age profile, the comparison may hide a true difference in disease or death rates, or indicate there is a difference when in fact it is explained by the different age profiles. Age-standardisation provides a fairer comparison between places with different age profiles.

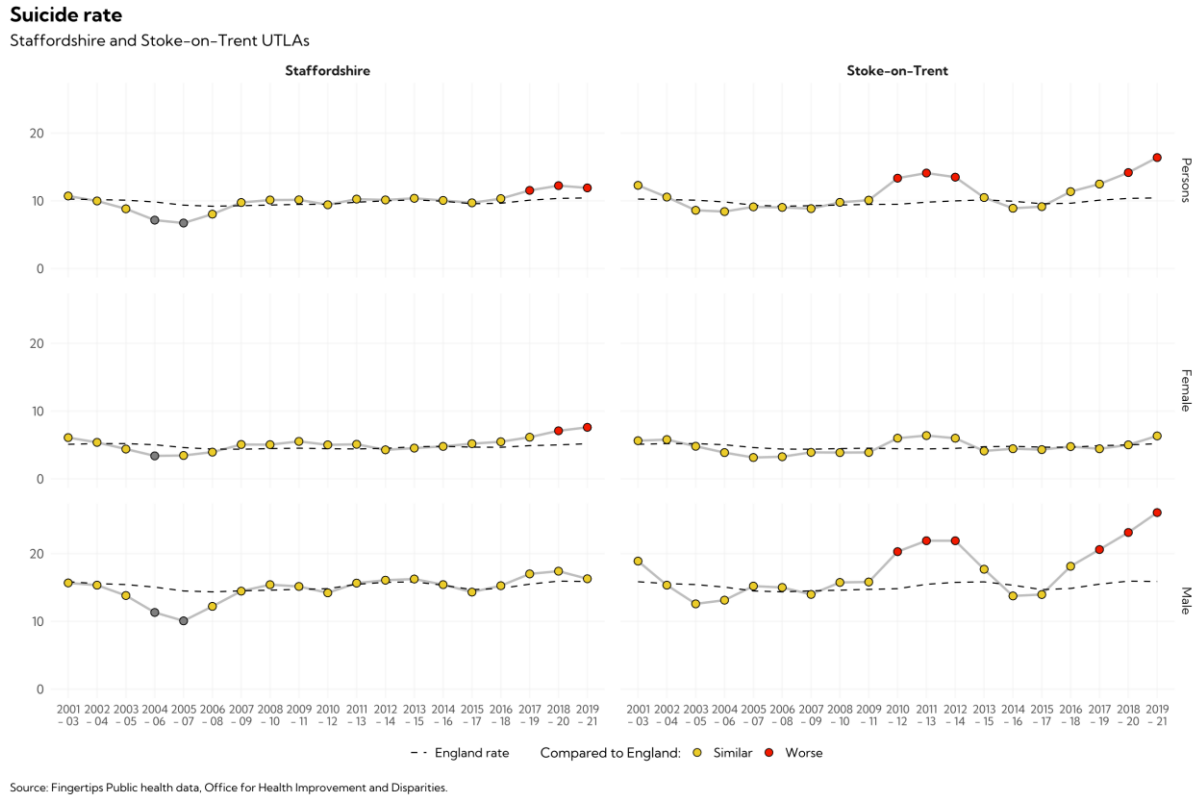
Table 1. Top 10 causes of death in England and SSoT ICS, 2013 to 2021

	England	SSoT
1	Cancers (29%)	Cancers (29%)
2	Dementia and Alzheimer's (13%)	Dementia and Alzheimer's (12%)
3	Ischaemic heart disease (12%)	Ischaemic heart disease (12%)
4	Cerebrovascular diseases (6%)	Chronic lower respiratory diseases (6%)
5	Chronic lower respiratory diseases (6%)	Cerebrovascular diseases (6%)
6	Influenza and pneumonia (5%)	Influenza and pneumonia (5%)
7	COVID-19 (4%)	COVID-19 (3%)
8	Accidents (3%)	Accidents (3%)
9	Symptoms, signs & ill-defined conditions (3%)	Cirrhosis and other diseases of the liver (2%)
10	Diseases of the urinary system (2%)	Diseases of the urinary system (2%)

Source: NOMS

Suicide rates are higher in SSOT compared to the national average. The rate of suicide among females is higher in Staffordshire than nationally; in Stoke-on-Trent it is higher among males and has risen sharply since 2017 (Figure 3).

Figure 3. Suicide rate in Staffordshire and Stoke-on-Trent compared to England, 2001-2021



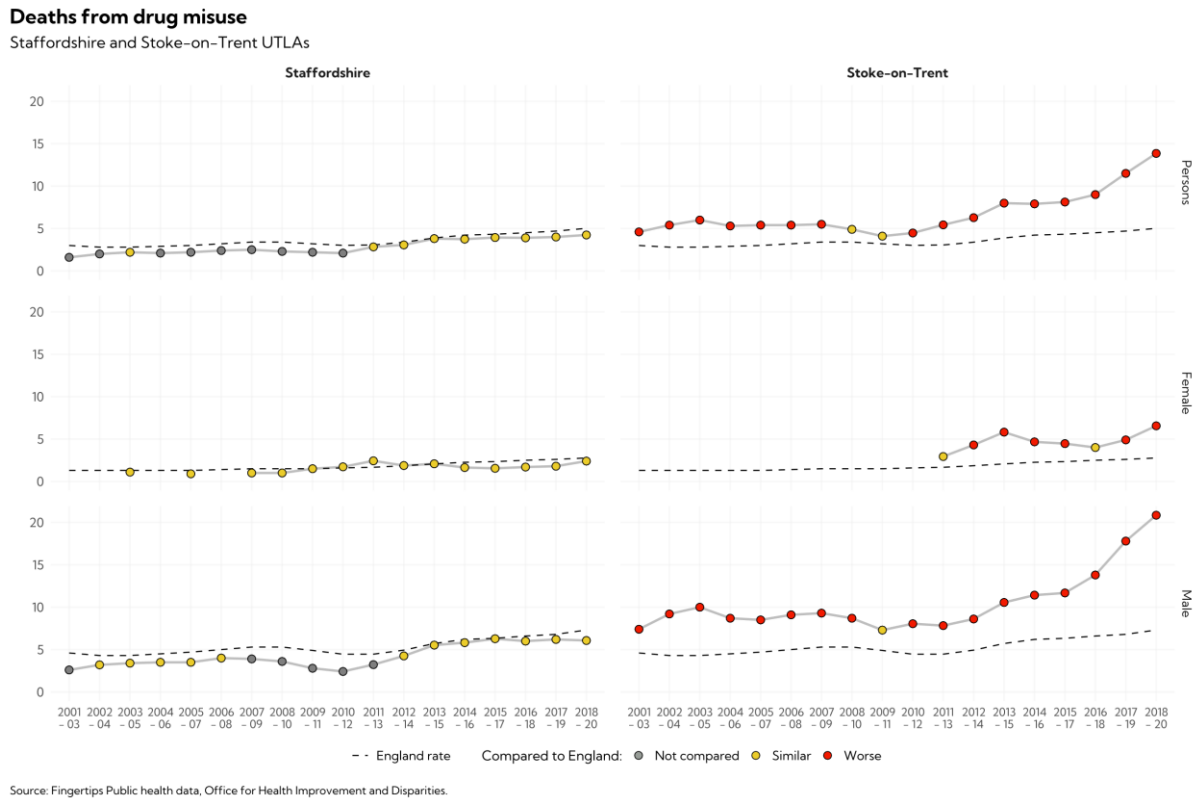
Source: Fingertips Public health data, Office for Health Improvement and Disparities.

Rates of death from drug misuse are significantly higher than nationally and rising sharply in Stoke-on-Trent. The trend affects both males and females but the trend is rising most marked among males (Figure 4).

Winter mortality figures vary year to year depending on temperature and other factors. Locally numbers mirror the national year-to-year variation, typically showing rates similar to England's average (Figure 5).

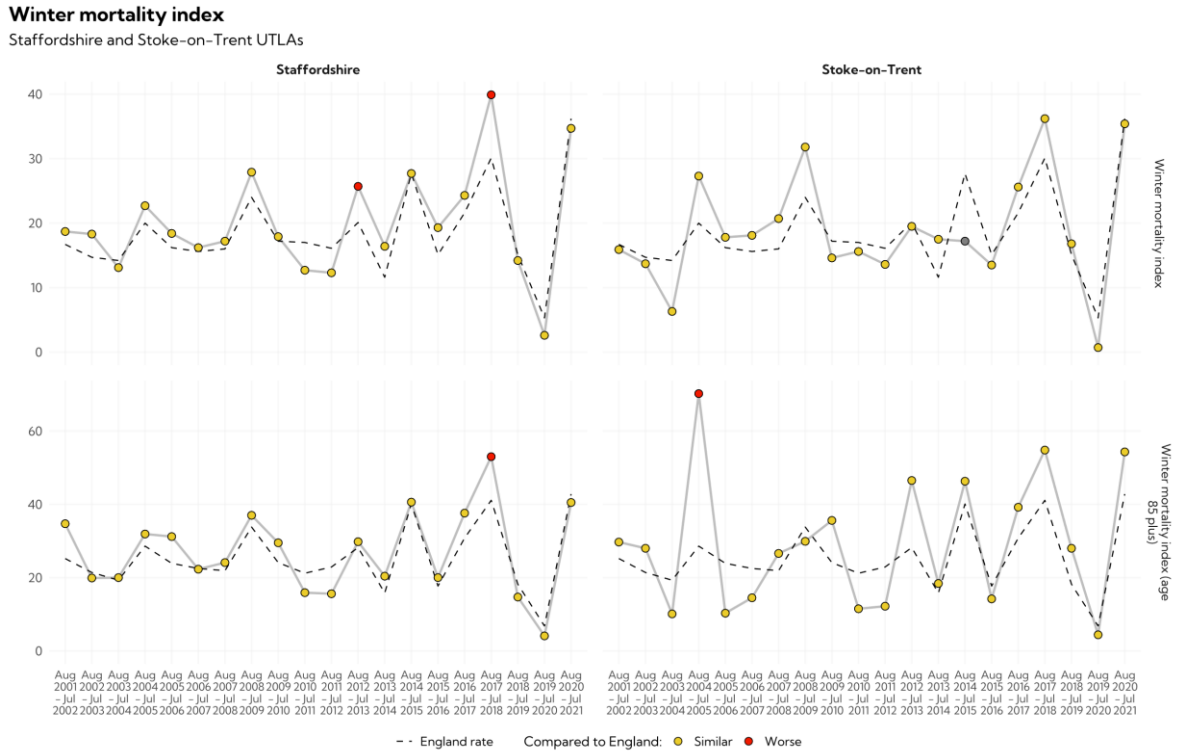
Infant mortality rates are consistently higher than the national average across SSoT, particularly in Stoke-on-Trent. Numbers are relatively small, leading to variability year to year, but locally the long- term trend broadly mirrors the national long term downward trend (Figure 6).

Figure 4. Death rate from drug misuse in Staffordshire and Stoke-on-Trent compared to England, 2001-2020



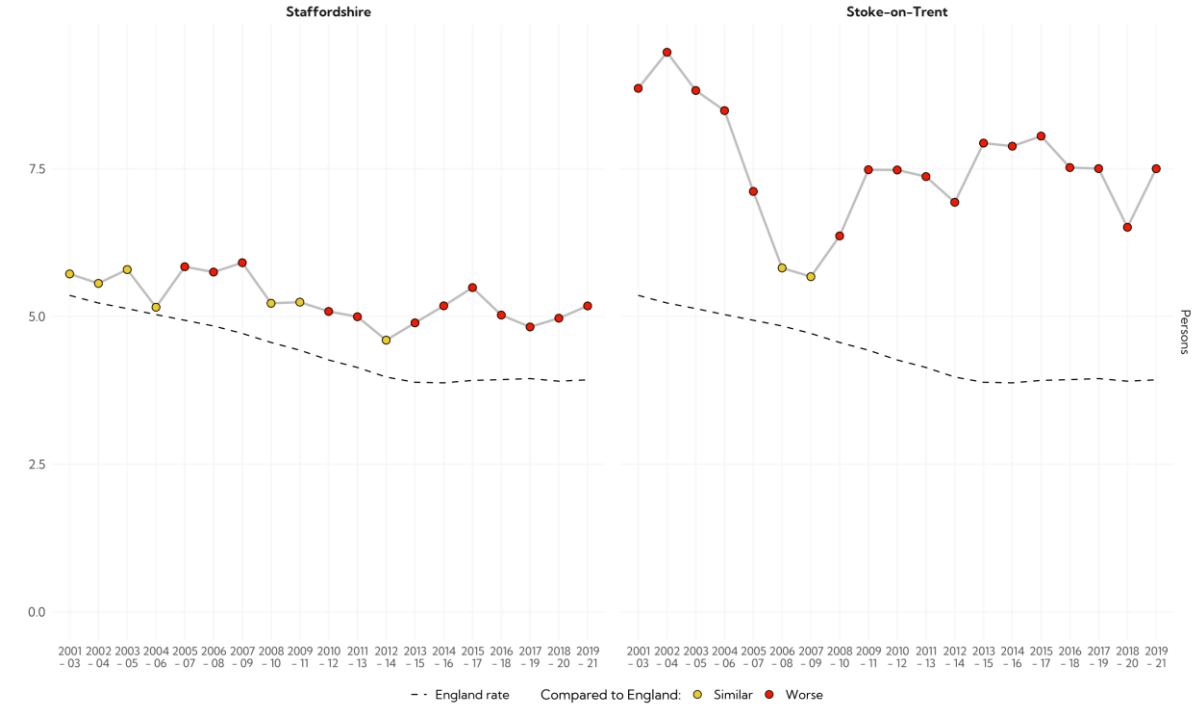
Source: Fingertips Public health data, Office for Health Improvement and Disparities.

Figure 5. Winter mortality index for Staffordshire and Stoke-on-Trent compared to England, 2001-2021



Source: Fingertips Public health data, Office for Health Improvement and Disparities.

Figure 6. Infant mortality rate in Staffordshire and Stoke-on-Trent compared to England, 2001-2021



Source: Fingertips Public health data, Office for Health Improvement and Disparities.

Place of death

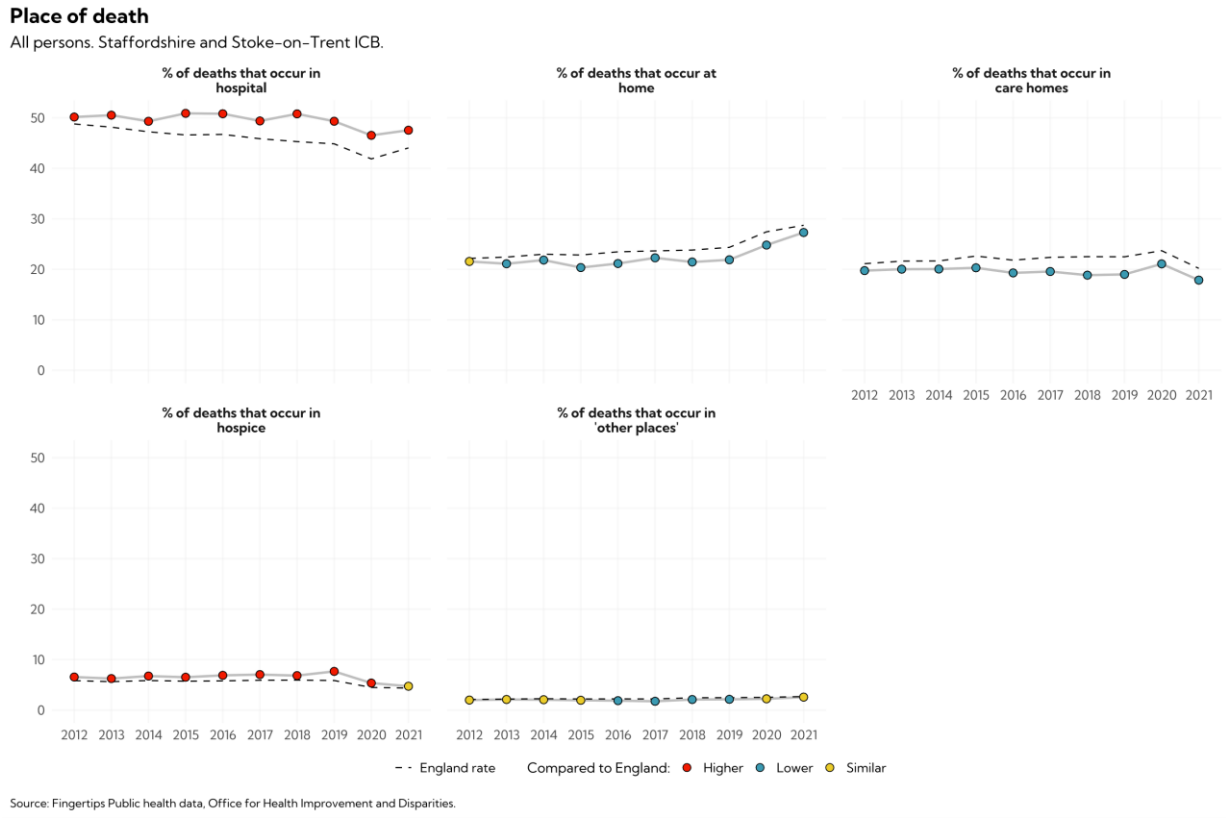
Compared to the national picture, more SSoT residents die in hospital and hospices (Table 2). Deaths in hospital are slowly decreasing, in line with a national trend, but the gap between local and national rates is significant. The flip side to this is that fewer SSoT residents die at home and in care homes compared to nationally. The most recent data (2021) show that local figures are closing in on national averages for place of death (Figure 6).

Table 2. Place of death in England and SSoT, 2021, all ages

	England	SSoT
1. Hospital	44	48 (significantly higher)
2. Home	29	27 (significantly lower)
3. Care home	20	18 (significantly lower)
4. Hospice	4	5
5. Other	3	3

Source: Fingertips

Figure 6. Place of death in SSoT compared to England, 2012-2021



Source: Fingertips Public health data, Office for Health Improvement and Disparities.

When place of death is presented by age groups, the largest gap between SSoT and England is among the proportion of over 85 year olds dying in hospital or at home, with more local residents dying in hospital and fewer dying at home than in the country as a whole (Table 3).

Table 3. Place of death in England and SSoT, 2021, aged over 85 years

	England	**SSoT**
1. Hospital	39	44 (significantly higher)
2. Home	23	19 (significantly lower)
1. Care home	35	33 (significantly lower)
2. Hospice	2	3
3. Other	1	1

Source: Fingertips

In terms of changing trends over time, there has been an increase in deaths at home in the last 5 years, accompanied by a slight decrease in deaths in hospital and hospices. For males there was an increase in deaths at home of 5% (from 25 to 30%) between 2018 and 2022 and for females a 6% increase (from 19 to 25%).

Analysis of 5 years of local death registration data published by Public Health England in 2019, revealed variation in place of death by demographic characteristics. Details can be found in Appendix 5.

Males are more likely to die at home (56 v. 44%), hospital (53 v. 47%) or other place (67 v. 33%) and females are more likely to die in a hospice (51 v. 49%) or care home (67 v. 33%). Data on place of death is only reported by sex, not gender identity. The higher proportion of females dying in care homes may reflect that females typically outlive their male partners and this is supported by findings that surviving spouses/civil partners are more likely to die in a care home than people who are married/civil partners.

Hospice deaths show a social gradient, decreasing in likelihood with increasing deprivation. Care home deaths are most likely among the middle deprivation group and least likely among the most deprived group, and death in 'other places' is most common among the most deprived group. The proportion of people dying at home has increased across all deprivation groups, and the least deprived have seen the greatest increase (20% in 2018 to 28% in 2022). The 2 least deprived groups have also seen the greatest reduction in proportion of deaths in hospital (51 and 53% in 2018, both groups reducing to 47% in 2022) and the most deprived have seen the largest reduction in deaths in a hospice (7% in 2018 to 4% in 2022). See Figure 7.

For all deprivation groups, deaths at home and in hospices decrease with age, deaths in care homes increase with age and deaths in hospital remain broadly steady across the life span. Comparing across deprivation groups, there is a higher proportion of deaths in hospital for the most deprived groups at all ages, particularly in the 65-74 year old group. Below the age of 65, dying at home is most common in the most deprived group and least common in the least deprived group, but this trend is reversed among the over 85s.

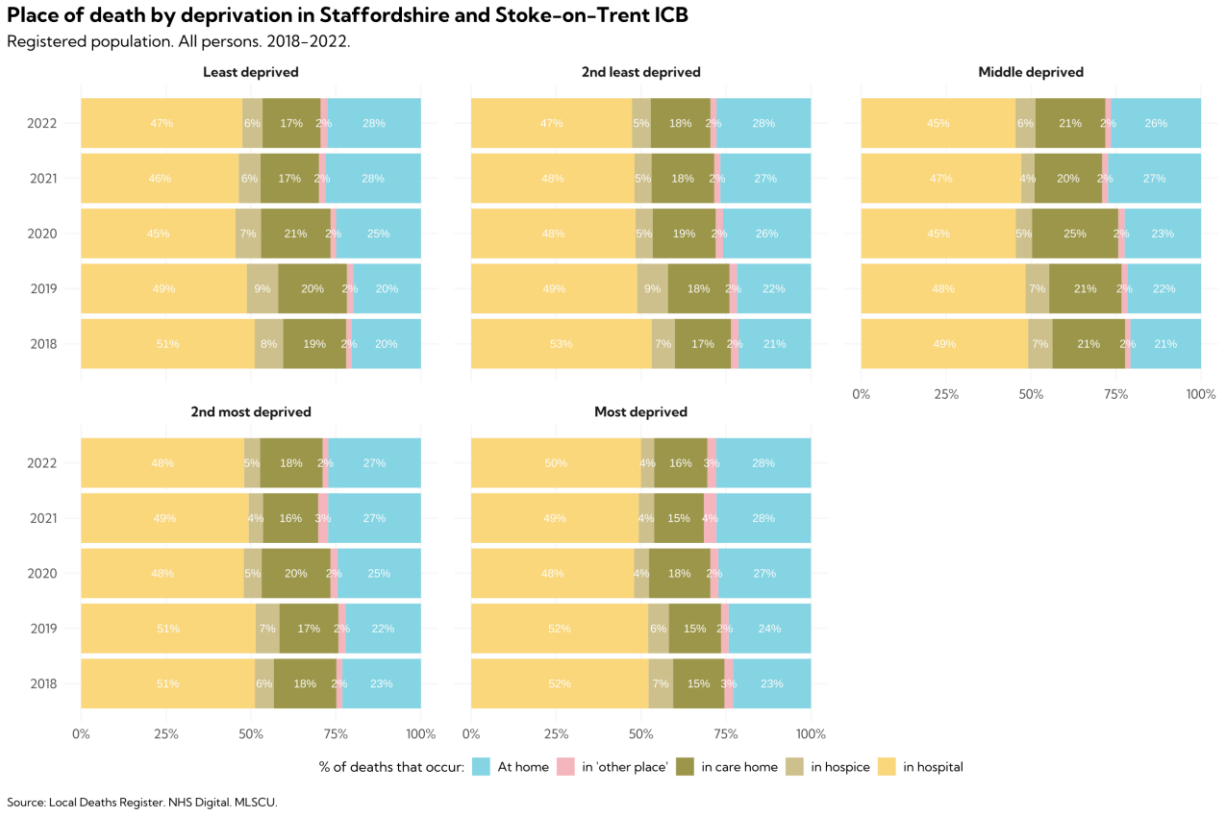
Among the least deprived group aged under 65 there is a trend towards increasing hospital deaths which has persisted beyond the peak of the pandemic; in the least deprived aged 75 and older the trend is towards an increase in deaths at home.

There is an increasing trend towards death at home for all age and deprivation groups in the period 2018-2022, with the proportion of deaths at home compared to other settings reducing with age for all deprivation groups. Death at home for the oldest age group (85+) is growing most slowly among the most deprived groups. Deaths in hospital show a slowly decreasing trend except for the least deprived people dying under the age of 74 and the most deprived aged 65-74. Hospice deaths show a decreasing trend among younger age groups (age 74 and younger) across the deprivation spectrum, with the trend more pronounced among less deprived groups. Care home deaths do not show a notable trend over the period 2018-2022. See Appendix 5 for data.

Compared to the overall number of people dying of different ethnicities, White people are proportionally more likely to die in a hospice and people of 'unknown' or 'other' ethnicity are less likely to die in a hospice. People of 'other', 'mixed' and Black/Black British ethnicity are all more likely to die in 'other places'. Asian/British Asian people are more likely to die in hospital and less likely to die in a hospice or care home.

Married people are more likely to die in a hospice or at home and less likely to die in a care home or 'other place'. Widows and surviving civil partners are most likely to die in a care home and less likely to die in a hospice, at home or in an 'other place'. People who were never married are most likely to die in an 'other place' and least likely to die in a care home.

Figure 7. Trends in place of death by deprivation quintile in SSoT, 2018-2022



Source: Local Deaths Register. NHS Digital. MLSCU.

In the period 2018-2022, Asian/British Asians experienced the highest proportion of deaths in hospital (66%), and White people experienced the lowest proportion (49%). White people have the highest proportion of

deaths in a care home (20%) and Asian/British Asians have the lowest (3%). Deaths at home or in a hospice do not show pronounced variation by ethnicity.

Deaths in hospital show a decreasing trend among White and Asian/British Asian people and an increasing trend for people of Black/Black British and Other ethnicities. For deaths at home the trend is reversed: over time an increasing proportion of White and Asian/British Asian people are dying at home and a decreasing proportion of people of Black/Black British and Other ethnicities. The proportion of Black/Black British people dying in a care home is decreasing. There is a slowly decreasing proportion of White and Asian/British Asian people dying in a hospice.

The proportion of people dying at home increases with age for Asian/British Asians and decreases with age for White people. For people of all ethnicities, a lower proportion die in hospital and a higher proportion die in care homes as age increases.

A higher proportion of people who are widowed or a surviving civil partner die in a care home than people with a different marital status, and are least likely to die at home. People who are married or in a civil partnership are most likely to die in hospital. Those who are divorced or separated are more likely than others to die in a hospice.

People in all categories of marital status are less likely to die at home as they get older, but the reduction with age is less for those who are married or in a civil partnership. Conversely, the growth in proportion of people dying in a care home as they get older is less for people who are married or in a civil partnership. Those who are divorced or separated who die under the age of 85 are much more likely to die in a hospice than others.

Cause of death has a significant influence on place of death. The majority (64%) of people dying from dementia and Alzheimer's disease die in a care home. People dying from cancer have the highest proportion of those dying in hospices and people dying from influenza, pneumonia and COVID-19 have the highest proportions of death in hospital. People dying in 'other place' are predominantly deaths from accidents.

Over the period 2018-2022, there is a trend of decreasing proportion of deaths in hospital and a concomitant increase in deaths at home from dementia and Alzheimer's disease, cancers, influenza and pneumonia and 'other causes'. Place of death from these causes all showed a step change away from hospital and towards home in 2020, likely due to the presence of COVID-19 in hospitals, but the proportion of hospital/home deaths may be showing signs of retreating in 2022 data. Cancer deaths are the leading cause for hospice deaths but the proportion of these deaths occurring in hospices is decreasing over time.

The proportion of deaths at home decreases with age for accidents, chronic lower respiratory diseases, COVID-19, influenza and pneumonia. The proportion of deaths in hospital increases with age for accidents and chronic lower respiratory diseases and decreases with age for cerebrovascular diseases, COVID-19 and dementia and Alzheimer's.

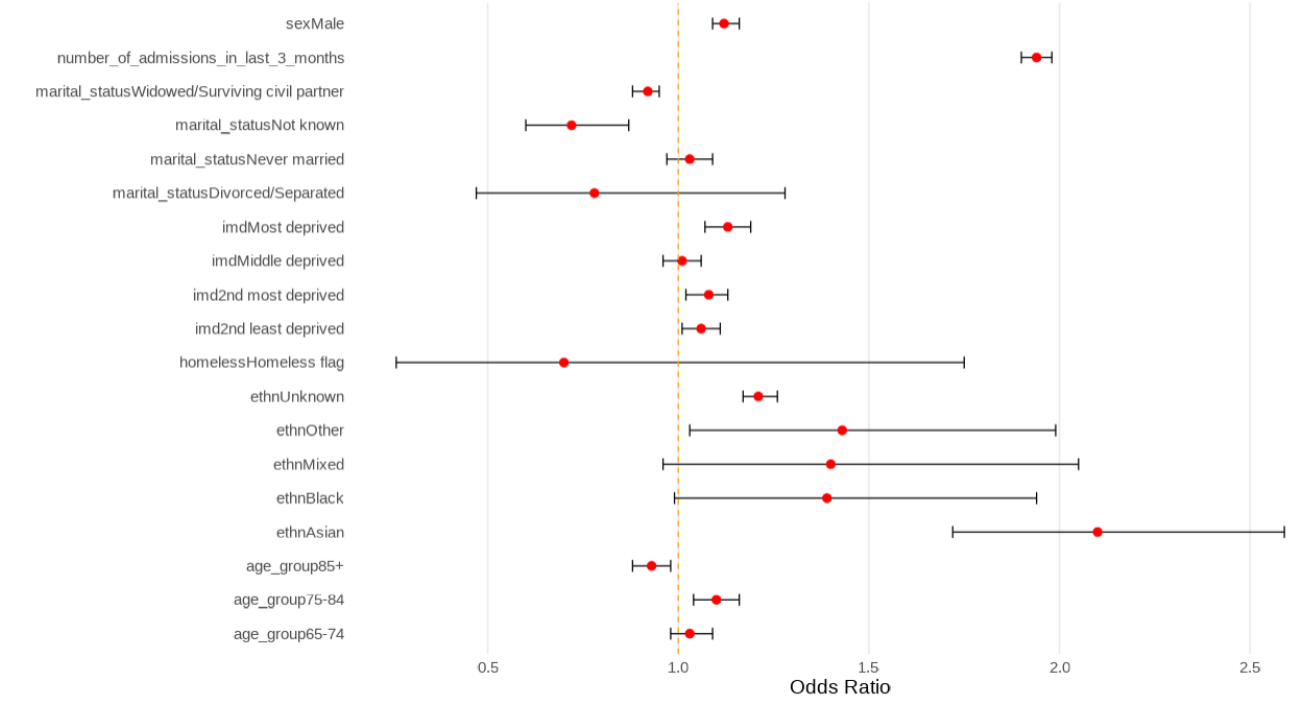
The proportion of people dying in a care home increases with age for all causes. People dying from dementia and Alzheimer's are more likely to die in a care home than any another setting at all ages.

Among people who die from accidents and chronic lower respiratory diseases, increasing deprivation is linked to increasing likelihood of dying at home and decreasing likelihood of dying in hospital. For those dying from cancers, increasing deprivation is linked to increased likelihood of dying in hospital and decreased likelihood of dying in a hospice.

There is a low proportion of deaths in care homes for all causes among Asian/British Asians. This is most notable in dementia and Alzheimer's deaths where the disparity between those of Asian/British Asian ethnicity (9% of deaths) compared to other ethnic groups (57% to 88%) is considerable.

Local analysis indicates that people who die in hospital are most likely to be Asian/British Asian or admitted 3 or more times in the final 3 months of life; other factors associated with a hospital death are being of other or unknown ethnicity, being aged 75-84, male and comparative deprivation. Being 85 or older, a widow/surviving civil partner or of unknown marital status reduce the likelihood of dying in hospital (see Figure 8).

Figure 8. Factors associated with dying in hospital in SSoT
Odds risk ratio of risk factors associated with place of death: hospital
All deaths.



Source of data: MLCSU.

Six out of the nine areas of SSoT have a higher proportion of people dying in hospital compared to England: Cannock Chase, East Staffordshire, Newcastle-under-Lyme, Stafford, Stoke-on-Trent and Tamworth. Three of the nine areas have a lower proportion of people dying at home compared to England: Stafford, East Staffordshire and South Staffordshire. These data are not age-standardised and are likely to reflect larger populations of people aged over 85. Some areas of the patch have a significantly lower proportion of people dying in care homes than nationally: Cannock Chase, Newcastle-under-Lyme, Stoke-on-Trent and Tamworth.

Trend data covering the period 2012-2021 show that in areas of SSoT where deaths in hospital are higher than in England, the trend still mirrors the national gradual decline in proportion. Likewise, the national trend towards an increasing proportion of deaths at home is mirrored locally, even in parts of the patch where proportions are currently lower than nationally. Similarly, the national direction of a downward trend in the proportion of deaths occurring in hospices is mirrored locally in most areas (even those above the national average: Stoke-on-Trent, Stafford, Lichfield, Newcastle and Tamworth), with the exception of East

Staffordshire where the proportion was significantly lower than nationally until 2019 and now closely follows the national figure.

Palliative Care Patients

QOF (Quality Outcomes Framework) data from 2021-22 indicates that 0.50% of patients (5,888) were registered with a GP in SSoT were on the palliative care register, higher than the England average of 0.46%, although the local figure is not age-standardised. After age-standardisation, patients with a palliative care flag in their notes (n=4650), patients were more likely to be female, white, and in the 2 most deprived quintiles,.

Data linking primary and secondary health care activity among patients with a palliative care flag or plan in their notes showed that there were 5,320 A&E admissions in 2022. Twenty-five percent of these were from Stoke-on-Trent and 24% from North Staffordshire. The average number of A&E admissions among these patients is 1.1 and the highest in the patch is 1.5 emergency admissions per palliative care patient, in Cannock Chase. Key findings are summarised in Box 1

Box 1. Admissions among palliative care patients in SSoT, 2022

- 5,320 A&E admissions, average 1.1 per palliative care patient, £1.1 million/£238 per patient
- 3,216 non-elective admissions, £11m/£2,483 per patient
- Cannock Chase had the highest costs, followed by South East Staffordshire and Seisdon
- Higher deprivation and mixed ethnicity were also linked to higher costs although for mixed ethnicity small numbers may imply a pattern that would not be borne out with larger numbers
- A&E admissions for palliative care patients were most common at 1-2pm on weekdays and the volume is highest from North Staffordshire followed by and Stoke-on-Trent

Figure 9. Cost of admission among SSoT palliative care patients, by deprivation quintile, 2022

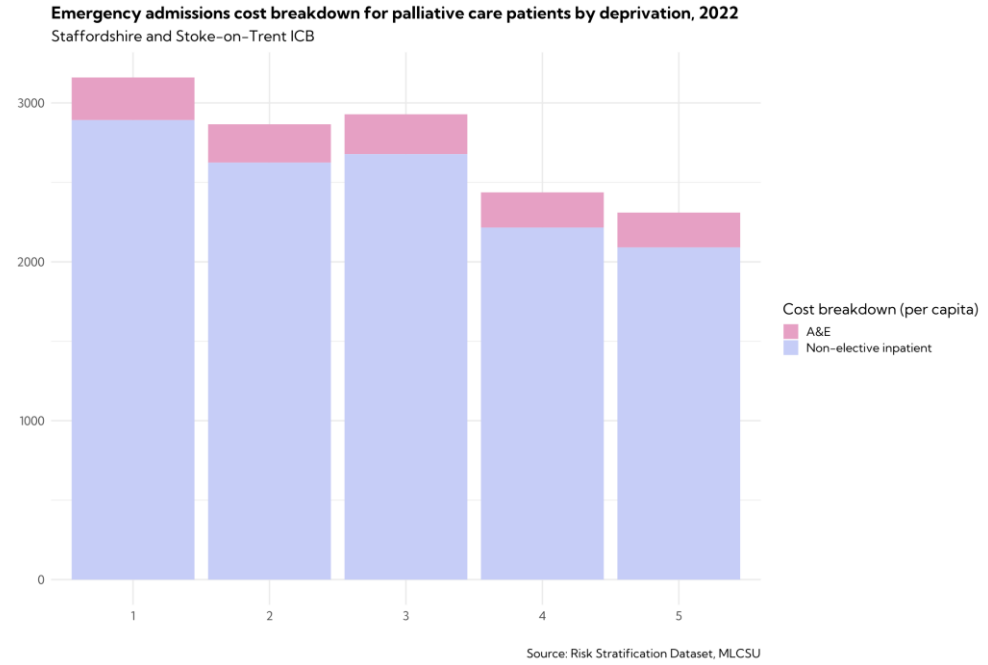
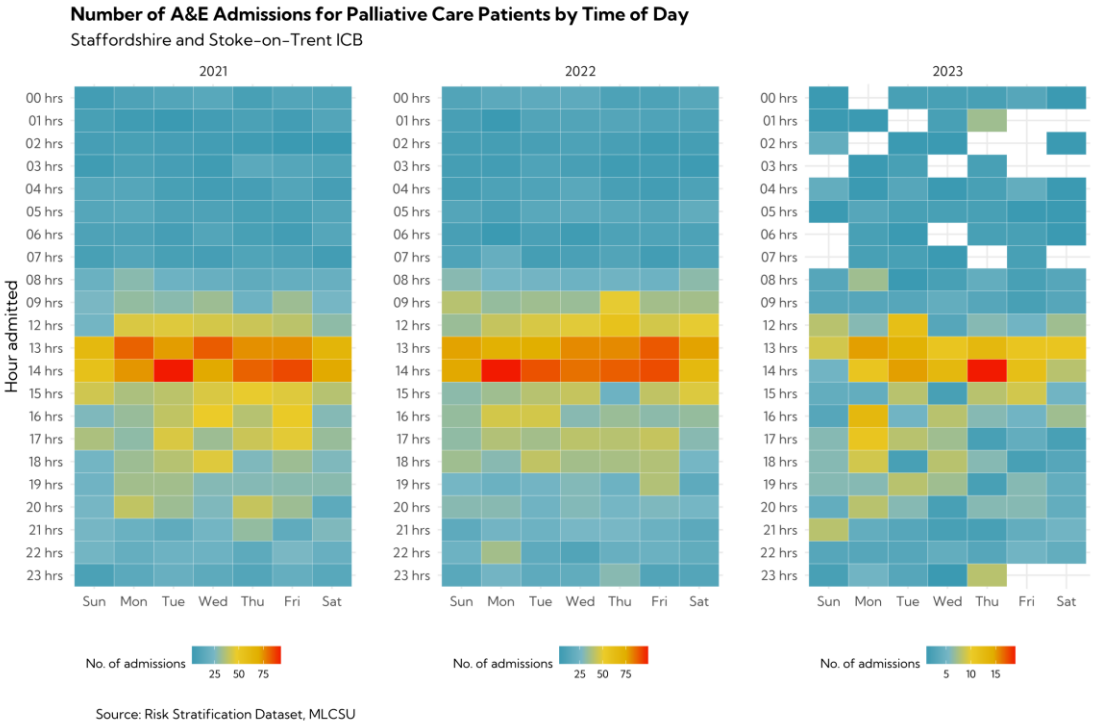


Figure 10. SSoT palliative care patient admissions by time of day, 2021-23



Emergency admissions in the final 3 months of life

In SSoT, the proportion of people experiencing 3 or more emergency admissions in the final 3 months of life has been significantly greater than the national average since 2015 among those dying aged 75 and over (Figure 11). There is variation within the SSoT patch, with Stoke-on-Trent and East Staffordshire showing consistently higher levels than the national average (Figure 12).

Local death registration data show that men and people who go on to die in hospital or in a hospice are most likely to experience 3 or more emergency admissions in the final 3 months of life. People aged over 75, those who die in a care home or 'other place', people who were never married or who outlive their spouse, homeless people and people of mixed or unknown ethnicity are all less likely to have 3 emergency admissions in the final 3 months of life.

Figure 11. Deaths among people with 3 or more emergency admissions in the final 3 months of life, by age

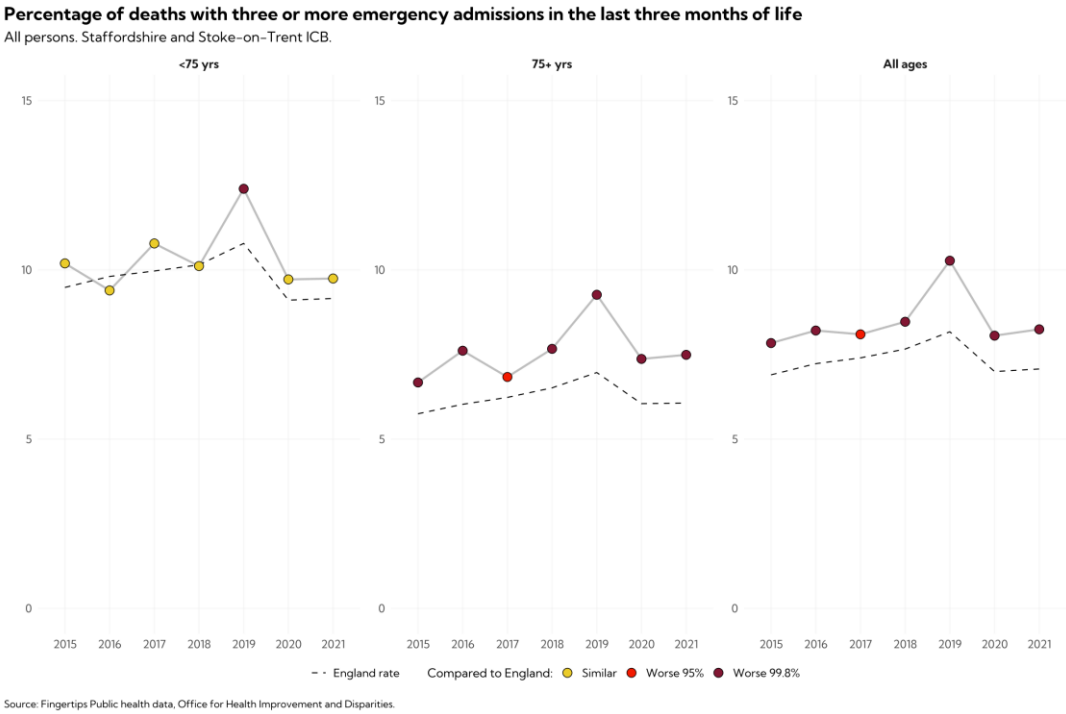
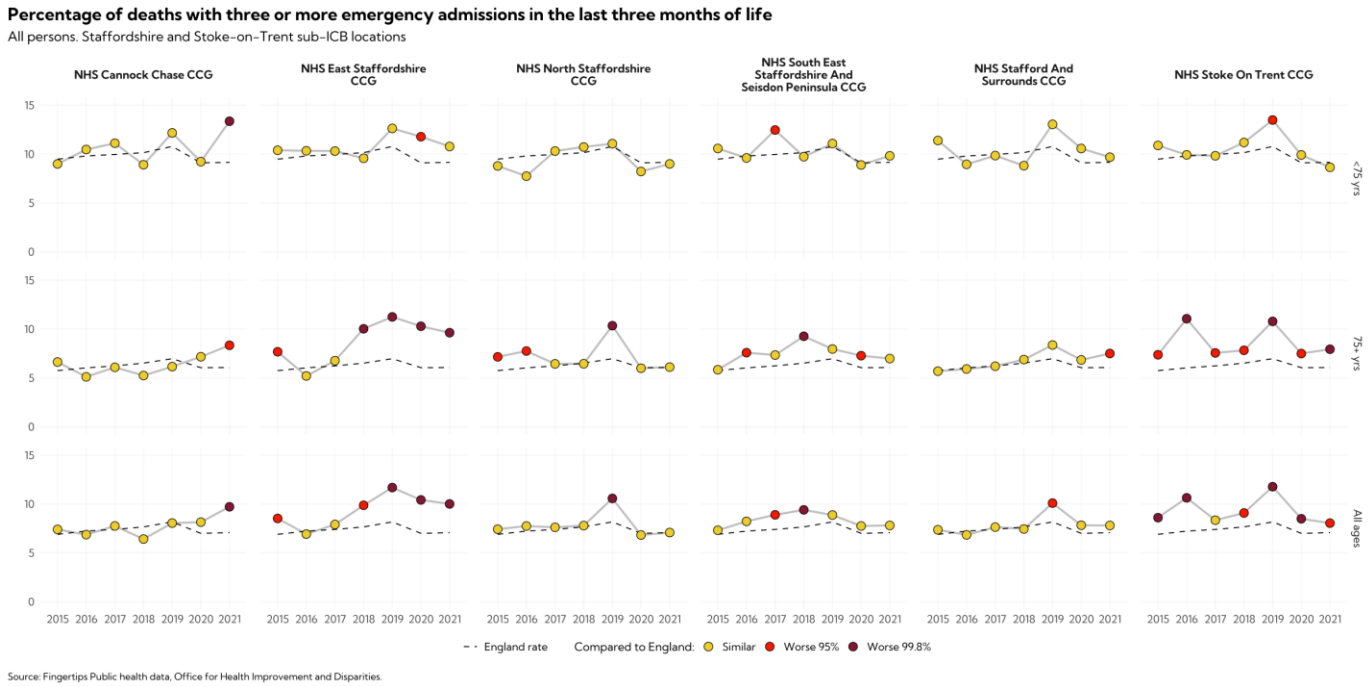


Figure 12. Deaths among people with 3 or more emergency admissions in the final 3 months of life, by CCG



Further information needed

There are a number of ongoing issues around data access, which has limited the ability of this review to answer some key questions. Within the ICB we only have access to local data, so information about national case-mix can only be drawn from tools such as Fingertips. This leads to some of the conclusions drawn from national data to be vulnerable to the ecological fallacy, a mistake in reasoning that occurs when conclusions about individuals are incorrectly drawn from group-level data. It involves assuming that correlations observed at the aggregate level apply at the individual level. This error highlights the importance of being cautious when generalising from group-level findings to individuals and emphasizes the need for careful interpretation in statistical analysis.

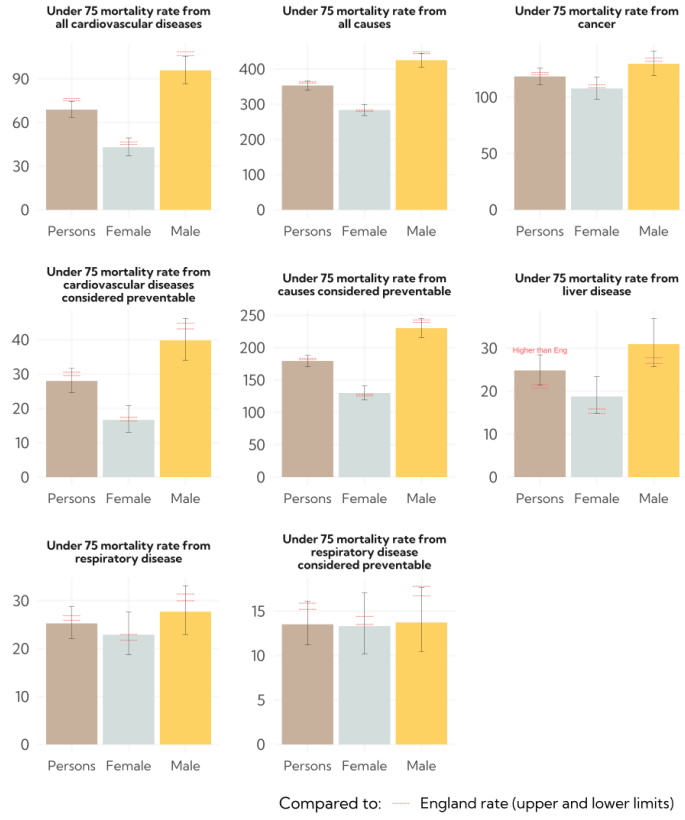
With regard to local data, a deeper understanding of the ICB picture could be gained by linking datasets of primary information and secondary care information – i.e. to capture people who are on the palliative care register (as recorded by primary care), understand how many hospital admissions they had and their primary reason for attendance (as recorded by hospital records or SUS datasets). As part of the wider PHM project the Optum linked data set is being created- however this will not be ready for some months.

Finally, there are certain questions which will not be answered by any data currently collected in the ICB. Information about the experiences of people from protected minority group, such as LGBTQ+ individuals cannot be described, as many characteristics are not collected in any existing datasets.

Appendix 1. Premature mortality rates per 100,000 in Staffordshire and Stoke-on-Trent compared to England, 2021

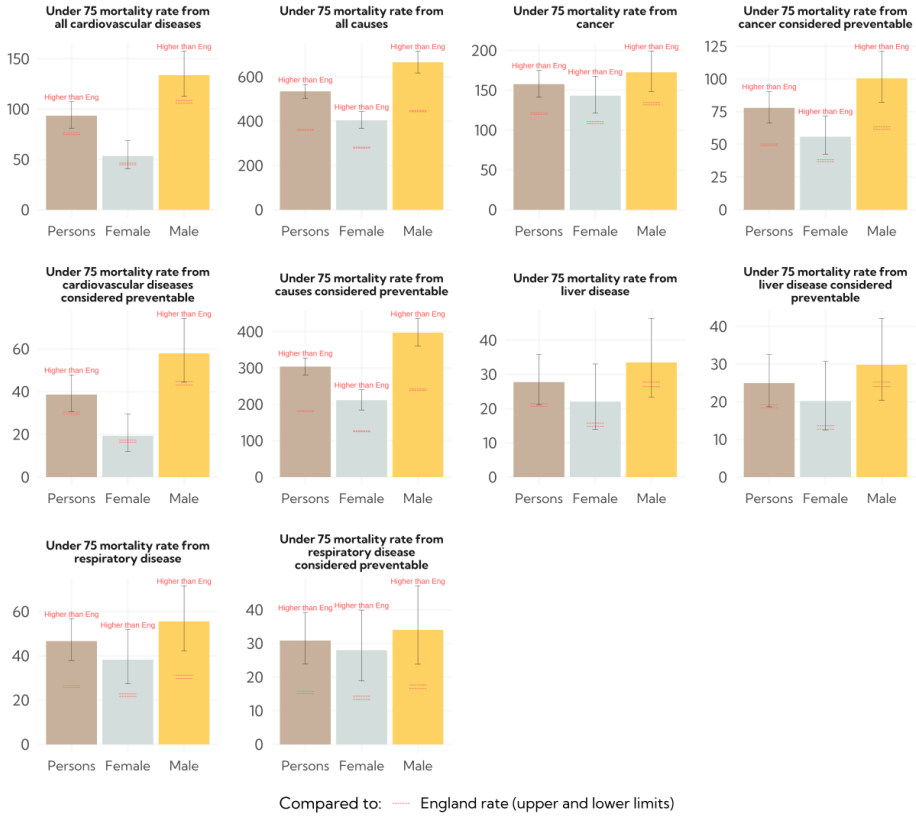
Premature mortality rates, 2021

Staffordshire UTLA



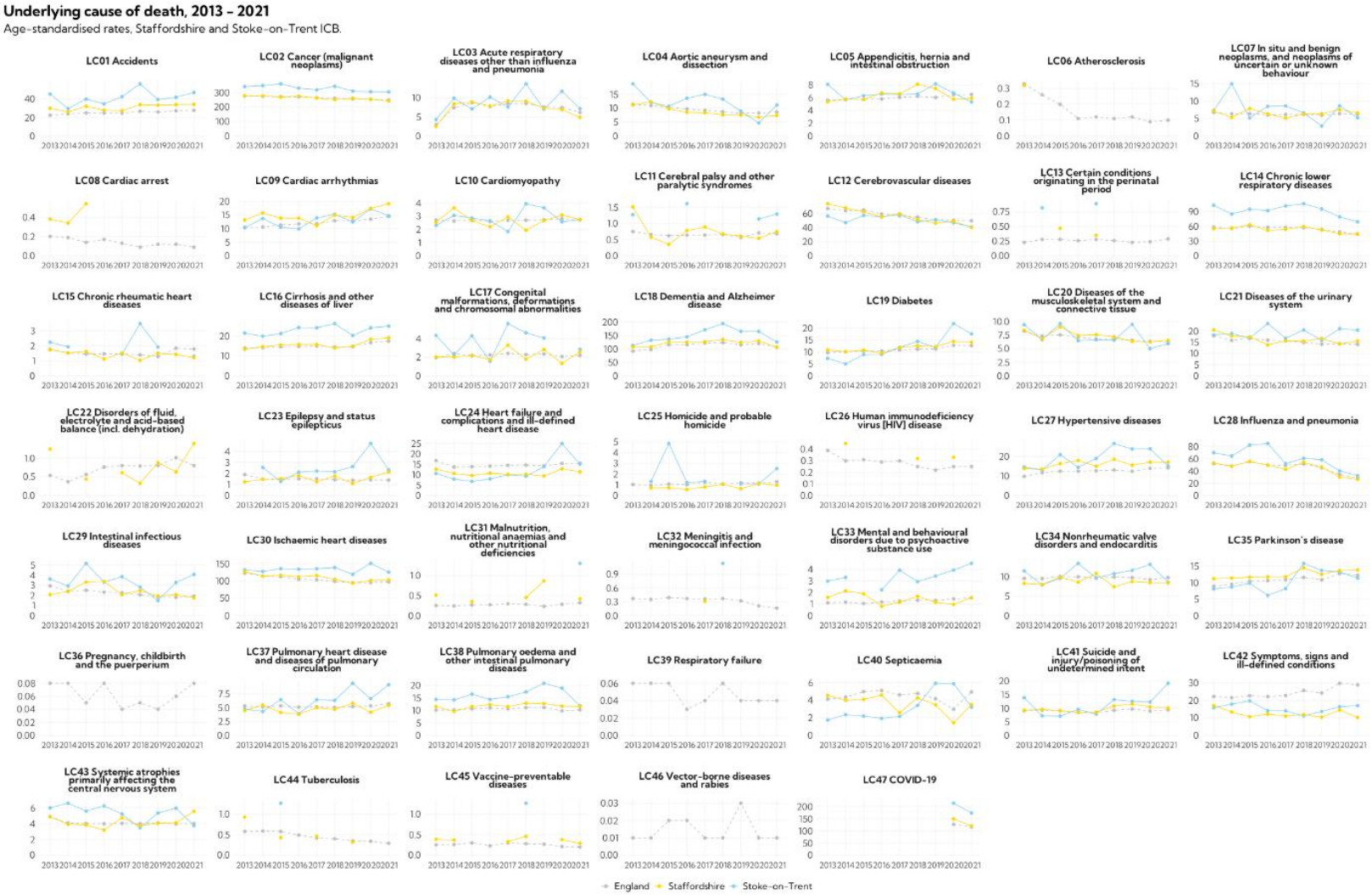
Source: Fingertips Public health data, Office for Health Improvement and Disparities.

Stoke-on-Trent UTLA

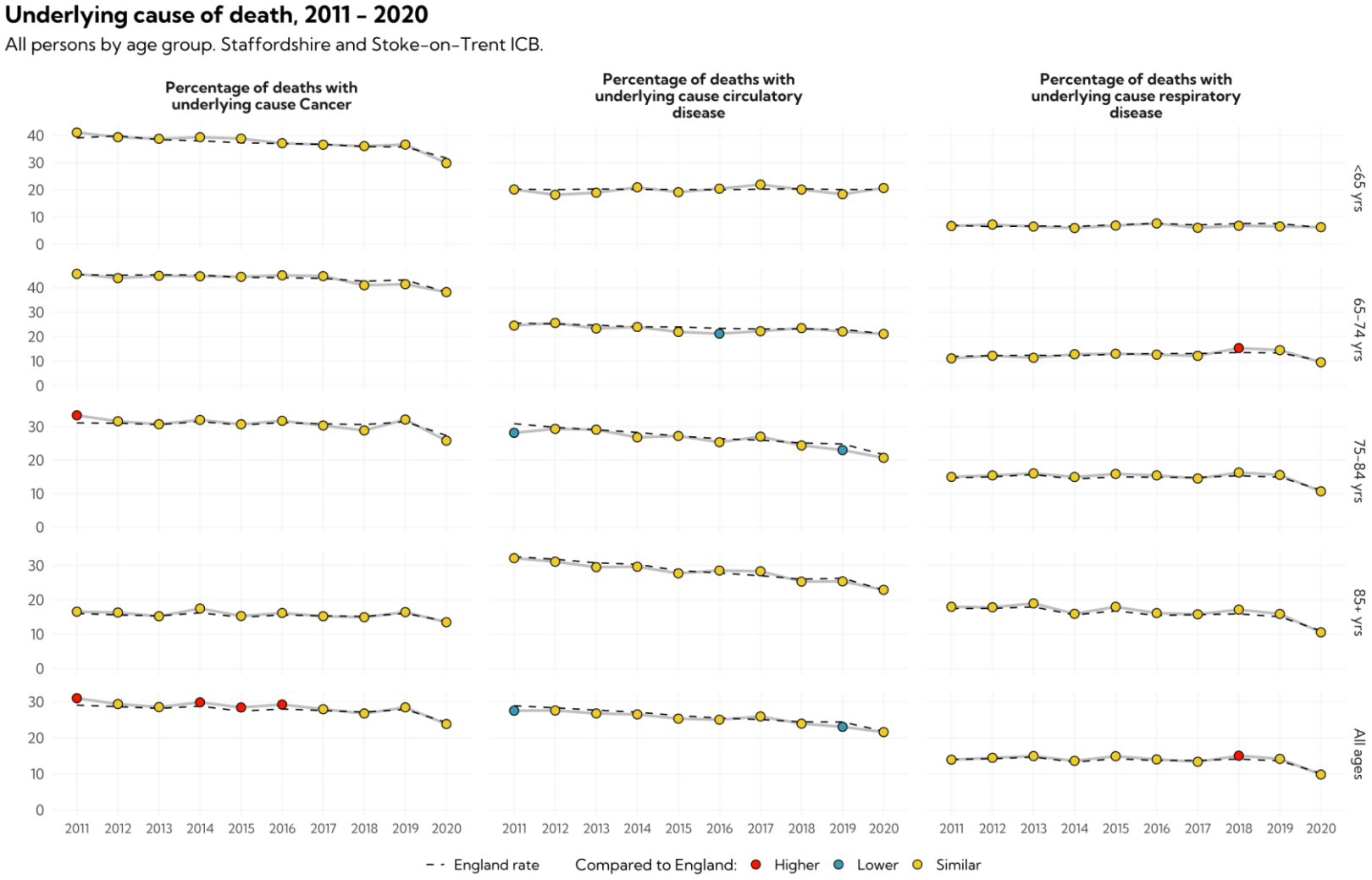


Source: Fingertips Public health data, Office for Health Improvement and Disparities.

Appendix 2. Age-standardised rates for cause of death 2013-2021 for Staffordshire and Stoke-on-Trent, compared to England

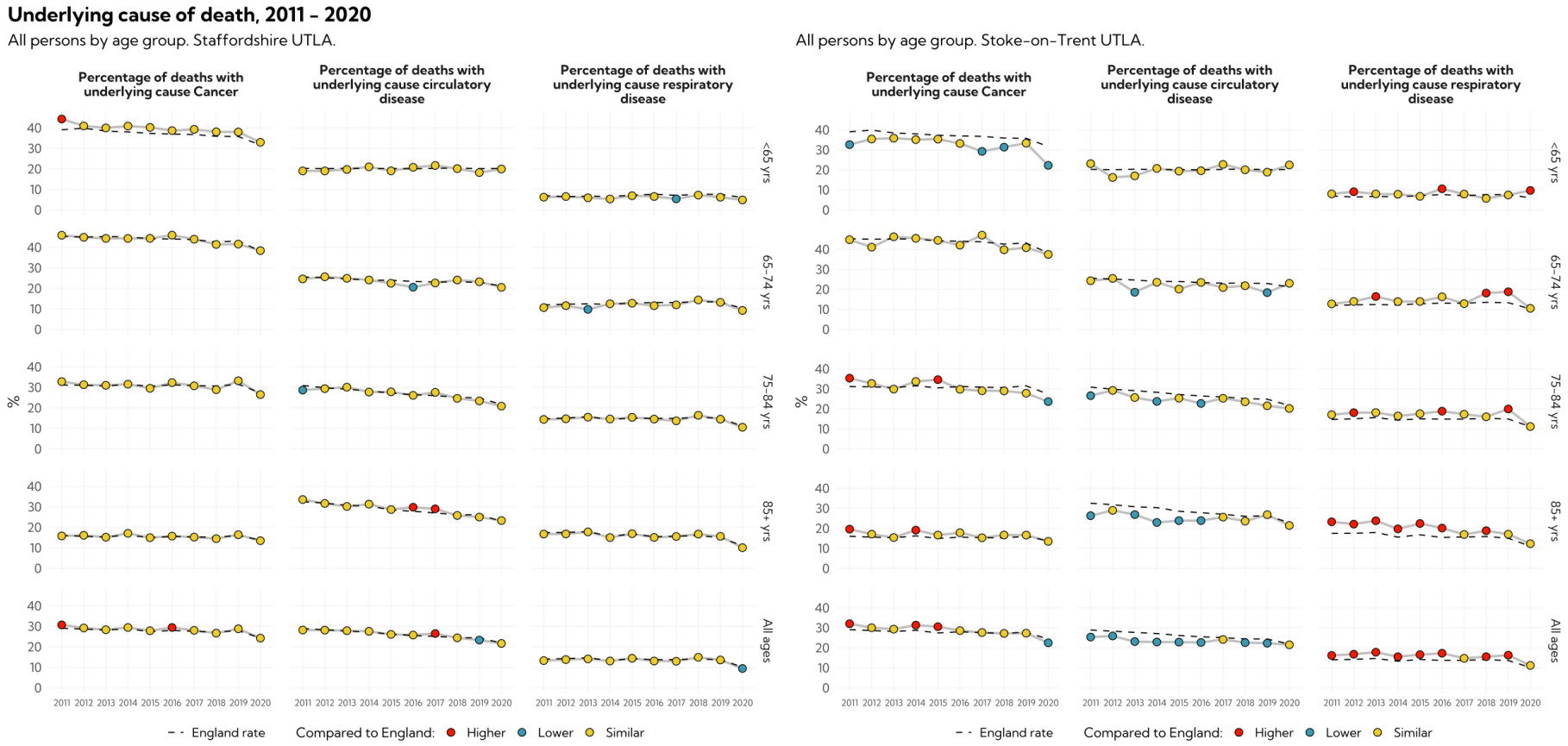


Appendix 3. Underlying cause of death, proportions 2011-2020 for SSoT, compared to England



Source: Fingertips Public health data, Office for Health Improvement and Disparities.

Appendix 4. Underlying cause of death, proportions 2011-2020 for Staffordshire and Stoke-on-Trent, compared to England



Source: Fingertips Public health data, Office for Health Improvement and Disparities.

Appendix 5. Place of death by demographics for SSoT, 5 years of data, published 2019

Characteristic	Overall, N = 71,055[†]	Home, N = 17,662[†]	Hospital, N = 34,105[†]	Hospice, N = 4,093[†]	Care home, N = 13,594[†]	Other places, N = 1,601[†]
Avg. age (yrs)	78	75	77	73	87	64
Age group;						
<65	10,786 (15%)	3,665 (21%)	5,265 (15%)	871 (21%)	229 (1.7%)	756 (47%)
65-74	12,201 (17%)	3,789 (21%)	6,160 (18%)	1,097 (27%)	896 (6.6%)	259 (16%)
75-84	21,571 (30%)	5,486 (31%)	10,912 (32%)	1,337 (33%)	3,554 (26%)	282 (18%)
85+	26,497 (37%)	4,722 (27%)	11,768 (35%)	788 (19%)	8,915 (66%)	304 (19%)
Sex:						
Female	34,874 (49%)	7,728 (44%)	15,997 (47%)	2,084 (51%)	8,533 (63%)	532 (33%)
Male	36,181 (51%)	9,934 (56%)	18,108 (53%)	2,009 (49%)	5,061 (37%)	1,069 (67%)
Deprivation quintile:						
Least deprived	12,434 (17%)	3,079 (17%)	5,799 (17%)	902 (22%)	2,419 (18%)	235 (15%)
2nd least deprived	15,881 (22%)	3,939 (22%)	7,654 (22%)	946 (23%)	2,994 (22%)	348 (22%)
Middle deprived	15,227 (21%)	3,593 (20%)	7,061 (21%)	836 (20%)	3,432 (25%)	305 (19%)
2nd most deprived	13,771 (19%)	3,463 (20%)	6,716 (20%)	724 (18%)	2,553 (19%)	315 (20%)
Most deprived	13,742 (19%)	3,588 (20%)	6,875 (20%)	685 (17%)	2,196 (16%)	398 (25%)
Ethnic group:						
White	49,714 (86%)	11,403 (87%)	24,573 (85%)	3,135 (89%)	9,741 (87%)	862 (86%)
Unknown	6,958 (12%)	1,500 (11%)	3,657 (13%)	367 (10%)	1,326 (12%)	108 (11%)
Other ethnic groups	154 (0.3%)	32 (0.2%)	86 (0.3%)	4 (0.1%)	27 (0.2%)	5 (0.5%)
Mixed	117 (0.2%)	29 (0.2%)	65 (0.2%)	5 (0.1%)	12 (0.1%)	6 (0.6%)
Black or Black British	150 (0.3%)	30 (0.2%)	83 (0.3%)	8 (0.2%)	22 (0.2%)	7 (0.7%)
Asian or Asian British	444 (0.8%)	110 (0.8%)	294 (1.0%)	17 (0.5%)	14 (0.1%)	9 (0.9%)
Unknown	13,518	4,558	5,347	557	2,452	604
Marital status:						
Married/in Civil Partnership	35,958 (51%)	10,334 (59%)	18,115 (53%)	2,521 (62%)	4,310 (32%)	678 (42%)
Widowed/Surviving civil partner	27,409 (39%)	5,222 (30%)	12,324 (36%)	1,185 (29%)	8,265 (61%)	413 (26%)
Never married	7,123 (10%)	1,918 (11%)	3,443 (10%)	350 (8.6%)	938 (6.9%)	474 (30%)
Divorced/Separated	69 (<0.1%)	14 (<0.1%)	31 (<0.1%)	12 (0.3%)	9 (<0.1%)	3 (0.2%)
Not known	496 (0.7%)	174 (1.0%)	192 (0.6%)	25 (0.6%)	72 (0.5%)	33 (2.1%)

Appendix 6. Trends in place of death by age group and deprivation, SSoT 2018-2022

Place of death by deprivation and age in Staffordshire and Stoke-on-Trent ICB

Registered population. All persons. 2018–2022.

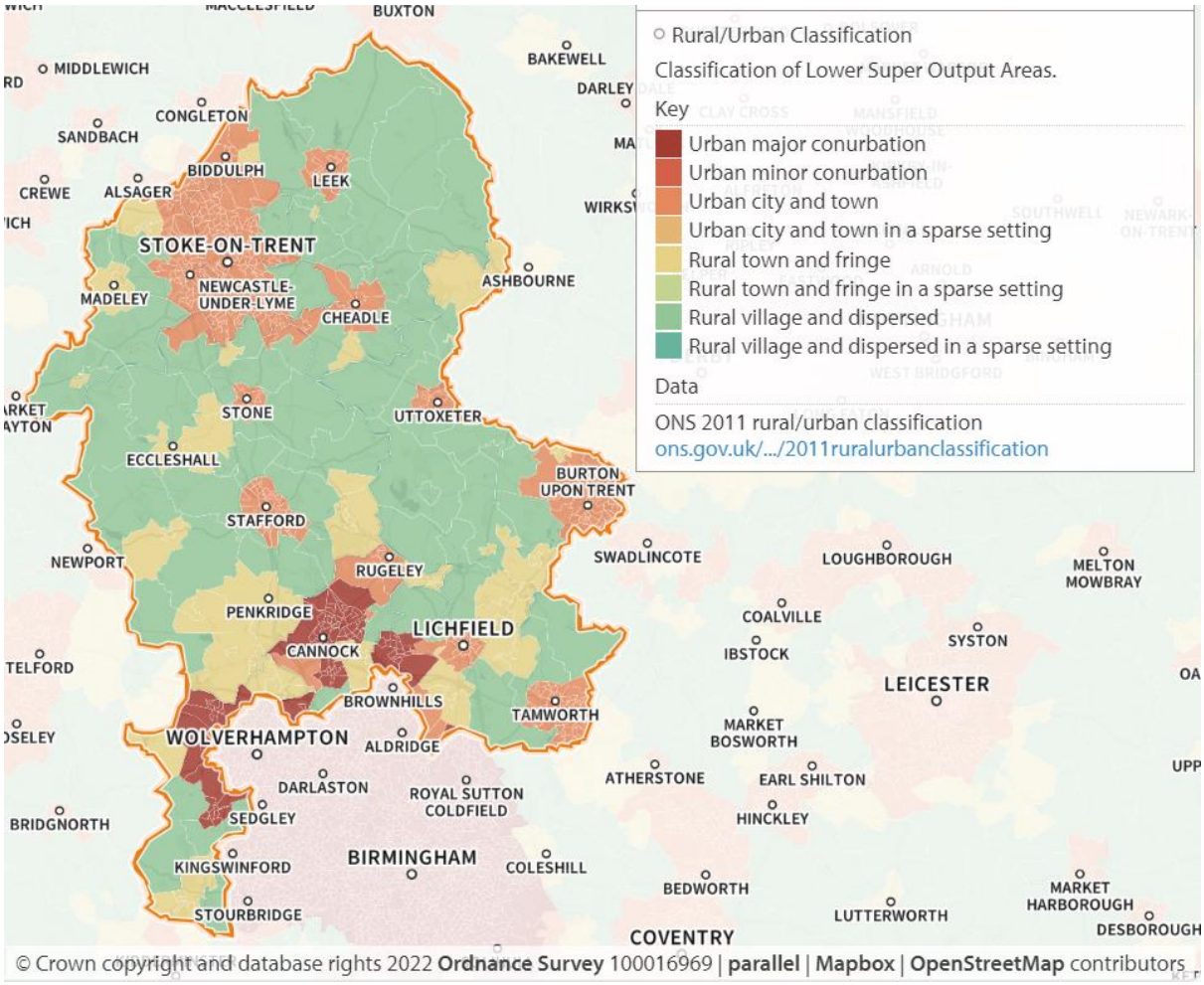
Source: Local Deaths Register. NHS Digital. MLSCU.

Appendix: Further information regarding the demographics of SSoT ICB residents

1. Our patch

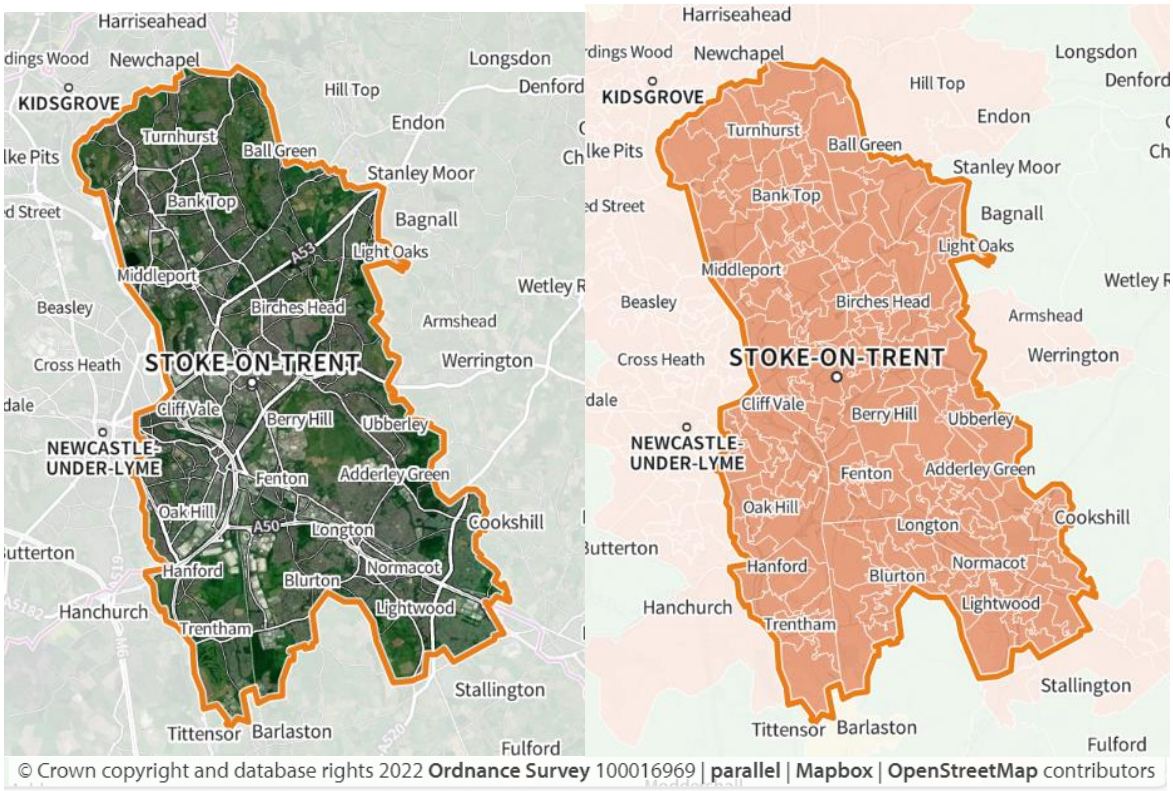
1.1. The area

Staffordshire and Stoke-on-Trent Integrated Care Board (ICB) covers a diverse population. The area contains large areas of rural countryside, along with densely populated towns and cities.



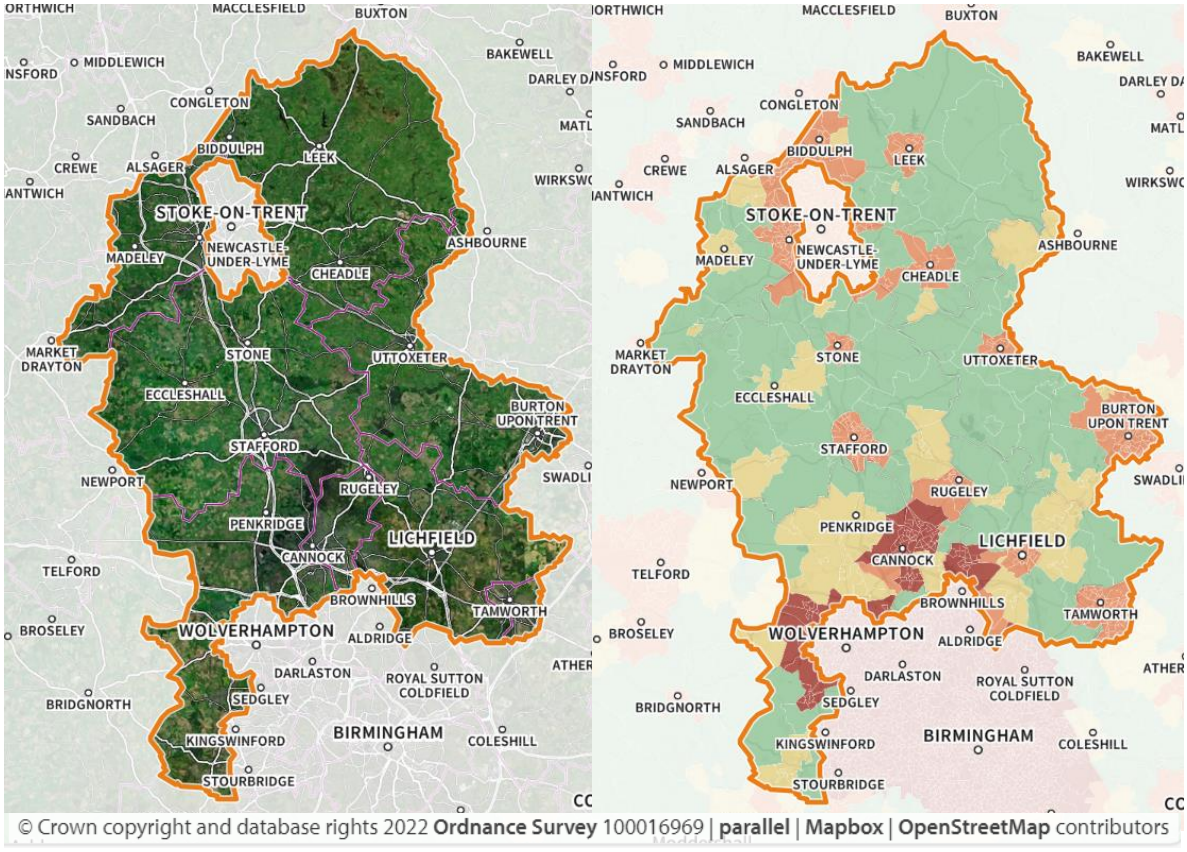
All rural and urban maps taken from the OHID SHAPE Place tool[1]

Stoke-on-Trent, often referred to as the Potteries, is a city in the West Midlands area surrounded by the county of Staffordshire, known for its rich industrial heritage in ceramic production. The city is comprised of six towns, each with their own identity and history. Stoke-on-Trent has undergone urban regeneration efforts in recent years, blending its industrial history with modern developments and cultural initiatives. All of the area inside the Stoke-on-Trent UTLA boundary is classified as urban.



All rural and urban maps taken from the OHID SHAPE Place tool[2]

Staffordshire is a county in the West Midlands, characterised by its diverse geography ranging from rural countryside to urban areas. The county is known for its historic market towns and cities, including Stafford and Lichfield, as well as attractions such as Alton Towers, a popular theme park. Staffordshire has a rich cultural heritage, reflected in its historic buildings, museums, and events that celebrate the region's history and traditions. While much of the area inside the Staffordshire UTLA boundary is classified as rural, some areas, particularly to the south of the county on the WMCA border, are classified as “major urban”.



All rural and urban maps taken from the OHID SHAPE Place tool[3]

1.1.1. Local economy

The top three employment categories in Stoke-on-Trent are Human Health and Social Work Activities (21%), Wholesale And Retail Trade; Repair Of Motor Vehicles And Motorcycles (14.5%) and Manufacturing (13.7%)[4]. The Gross Domestic Product of Stoke-on-Trent per head in 2021 was £27,230[5], lower than the England average of £34,690[6].

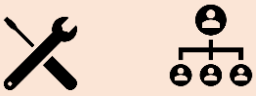
In the most recent dataset, 43.8% of employees in Stoke-on-Trent were in category 1-3 manager and senior professional occupations, while 22.4% were in category 8-9 machine operative and elementary employment occupations. Average gross weekly pay for full time workers in Stoke-on-Trent is £568.20, considerably lower than the national average.

77.5% of the population in Stoke-on-Trent are economically active and 73.6% of the working age population are in employment, in line with the England average[7]. In 2021 5.4% of the population claimed out of work benefits.

Three most common professions:

21% 14.5% 13.7%

Professional categories:



22.4% 43.8%

Key comparisons:

GDP:	£27,230	£34,690
Salary:	£568.20	£645.80
Employed:	73.6%	75.7%

Three most common professions:


16.7%


12.7%


12.1%

Professional categories:


18.7%


50%

Key comparisons:

GDP:	£24,930	£34,690
Salary:	£630.70	£645.80
Employed:	80.7%	75.7%

The top three employment categories in Staffordshire are Wholesale and Retail Trade; Repair Of Motor Vehicles And Motorcycles (16.7%), Manufacturing (12.7%) and Human Health And Social Work Activities (12.1%)[8]. The Gross Domestic Product of Staffordshire per head in 2021 was £24,930[9], lower than the England average of £34,690[10].

In the most recent dataset, 50% of employees in Staffordshire were in category 1-3 manager and senior professional occupations, while 18.7% were in category 8-9 machine operative and elementary employment occupations. Average gross weekly pay for full time workers in Staffordshire is £630.70.

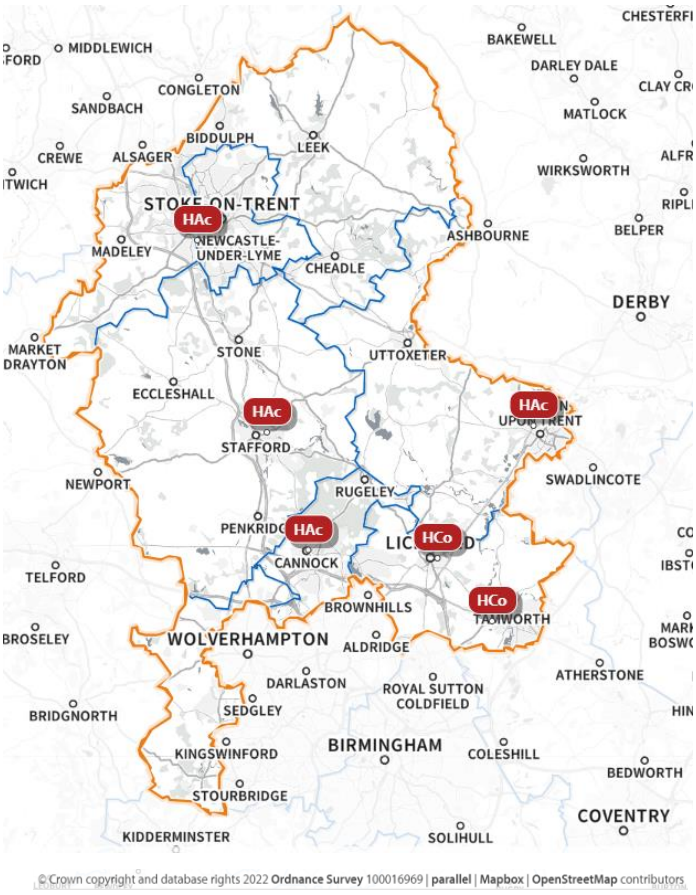
82% of the population in Staffordshire are economically active and 80.7% of the working age population are in employment, higher than the England average[11]. In 2021 2.8% of the population claimed out of work benefits.

1.1.2. Significant health and community assets

Secondary care sites

There are seven acute and community specialist sites across the area: Burton Hospital, Cannock Chase Hospital, Stafford County Hospital, Rehabilitation Medicine and Rheumatology in Stoke-on-Trent, Royal Stoke University Hospital, Samuel Johnson Community Hospital and Sir Robert Peel Community Hospital.

In total there are three emergency departments across the geography, at Burton, County Hospital and Royal Stoke. There are 11 minor injury units, two urgent care centres, four walk-in centres, 5 sexual health sites and 14 mental health and learning difficulty sites.



Site map taken from the OHID SHAPE Place tool[12]

1.1.3. Statistical neighbours

There are a number of established ways to compare geographies. With regard to local authorities, CIPFA nearest neighbours are an established comparison point. CIPFA Nearest Neighbours is a tool developed by the Chartered Institute of Public Finance and Accountancy (CIPFA) to compare and benchmark the financial and performance data of local authorities. Neighbours are designed to help local governments to identify and learn from others that are similar in various aspects, such as size, population, and demographics. The statistical neighbours of each local authority vary widely.

The CIPFA nearest neighbours of **Stoke-on-Trent** are Wolverhampton, Gateshead, Stockton-on-Tees, Tameside, Telford and Wrekin, Blackburn with Darwen, Kingston upon Hull, Bolton, Derby, Sandwell, Plymouth, Middlesbrough, Walsall, Sunderland and Halton.

The CIPFA nearest neighbours of **Staffordshire** are Nottinghamshire, Derbyshire, Suffolk, Worcestershire, Warwickshire, Gloucestershire, Lancashire, Norfolk, Cumbria, Somerset Cty, Essex, Leicestershire, Lincolnshire, Devon and North Yorkshire Cty.

It is also possible to compare each local authority with others of a similar level of deprivation. The 173 upper tier local authorities are divided into deciles, or tenths, by their deprivation level. Stoke-on-Trent is in the most deprived decile and Staffordshire is in the third less deprived decile.

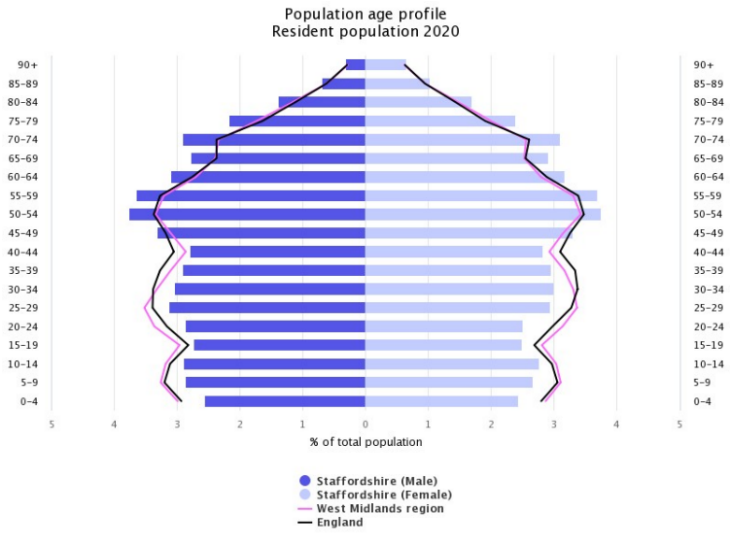
Stoke-on-Trent Staffordshire

1.2. Population

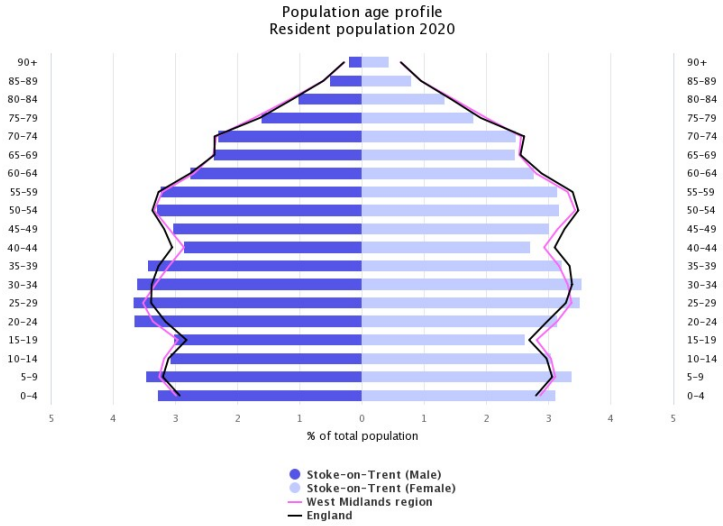
In 2022 the approximate population of the MPFT geography was 1,146,300 people, of whom over 77% lived in Staffordshire and 23% in Stoke-on-Trent. Stoke-on-Trent has a younger population, Staffordshire an older one.

Staffordshire

In total 886,300 people reside in Staffordshire. The proportion of residents who are younger than 45 is lower than the England average, both in total and across each five-year age band. Conversely, the proportion of adults older than 45 is higher than the England average, particularly in the older working age population (50-64) and those in the first decade of retirement.



Source: OHID Fingertips[13]



Stoke-on-Trent

In total 260,000 people reside in Stoke-on-Trent. In contrast to Staffordshire, the proportion of residents who are in the youngest age groups (0-9) is higher than the England average, as are the proportions of young adults.

Source: OHID Fingertips[14]

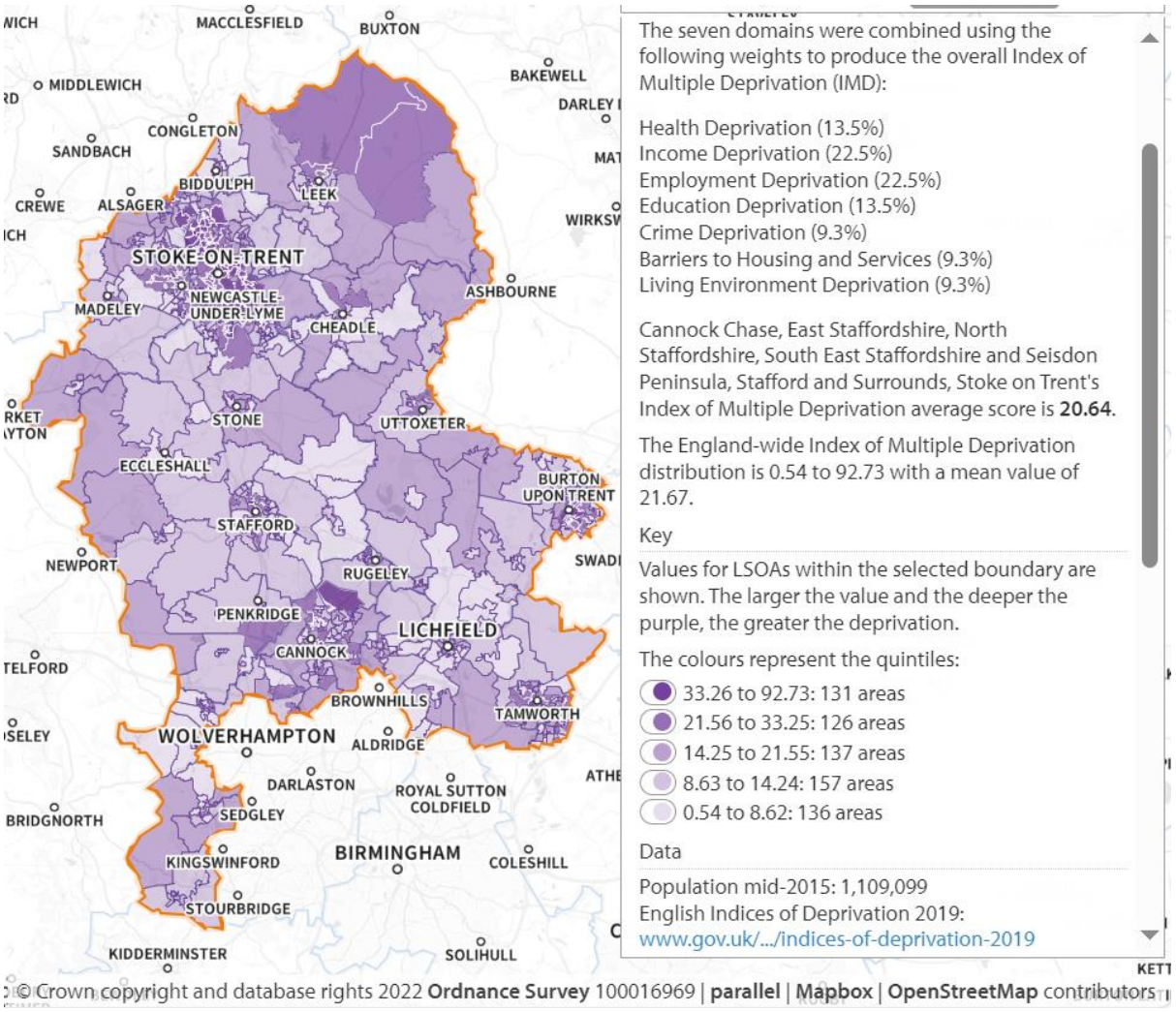
1.2.1. Size and structure

Stoke-on-Trent City Council is the local authority of Stoke-on-Trent, Staffordshire, England. As a unitary authority, it has the combined powers of a non-metropolitan county and district council and is administratively separate from the rest of Staffordshire. It is 36 square miles (93 km^2) in total. The latest JSNA for Stoke-on-Trent can be found here.

Staffordshire County Council is the top-tier local authority for the non-metropolitan county of Staffordshire, England. Eight district councils sit under the upper tier local authority: Cannock Chase District Council, East Staffordshire District Council, Lichfield District Council, Newcastle-under-Lyme District Council, South Staffordshire District Council, Stafford District Council, Staffordshire Moorlands District Council and Tamworth District Council. These provide district-level services. County-level services are provided by Staffordshire County Council. It is 625 square miles (1620 km^2) in total. The latest JSNA for Staffordshire can be found here.

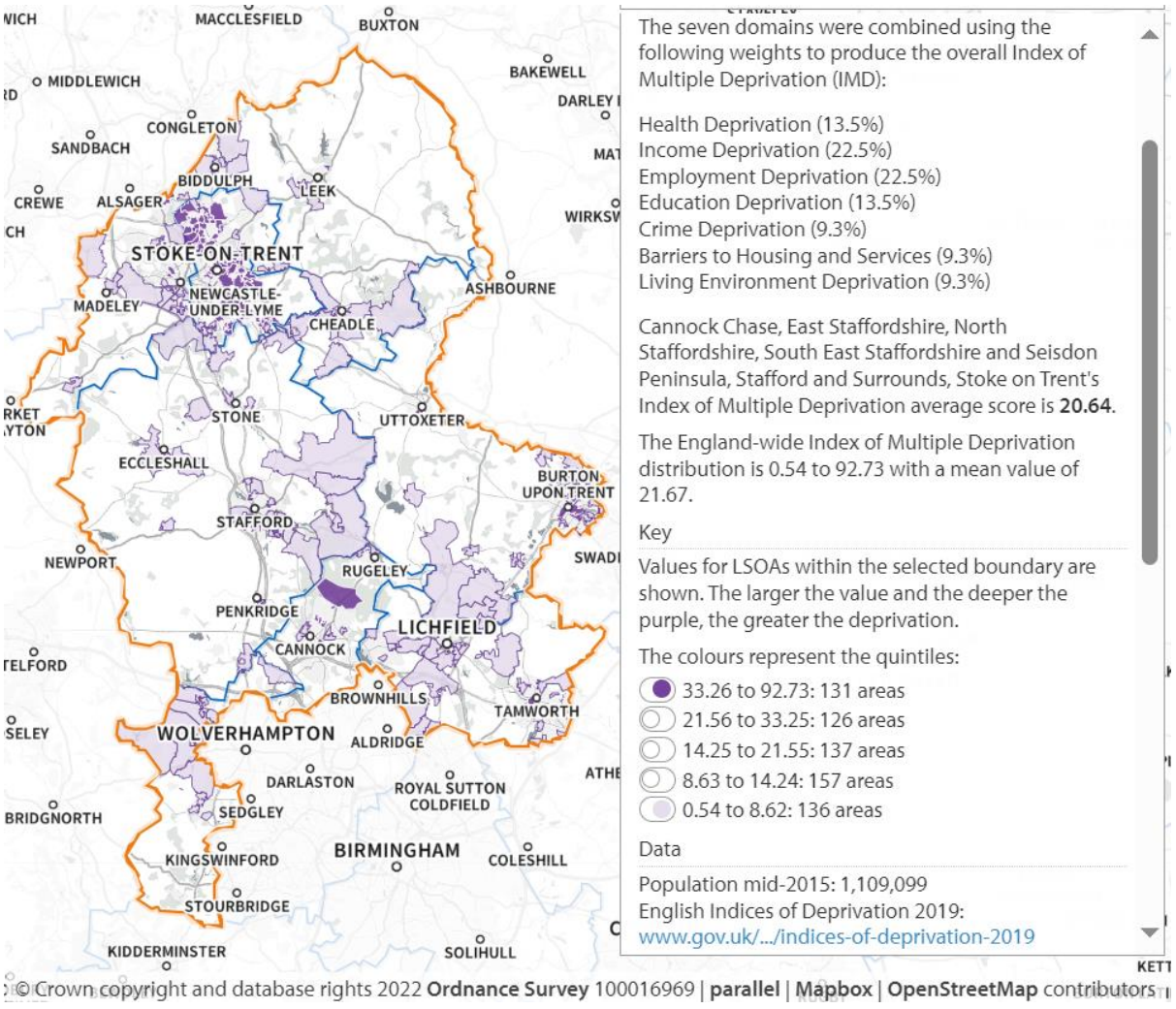
1.2.2. Deprivation profile

The Index of Multiple Deprivation (IMD) 2019 is a measure used to assess and rank areas based on their overall level of deprivation. Deprivation refers to the extent to which people in an area experience disadvantage, and measured through seven different domains, designed to capture deprivation which goes beyond income. These are health deprivation; income deprivation; employment deprivation; education deprivation; crime deprivation; barriers to housing and services; and living environment deprivation. The IMD 2019 combines multiple indicators to create a single score for each area, allowing for comparison and ranking. The higher the score, the higher the level of deprivation in that area. This index helps policymakers, researchers, and communities understand where socio-economic challenges are more prevalent and allocate resources accordingly to address specific needs in different regions.

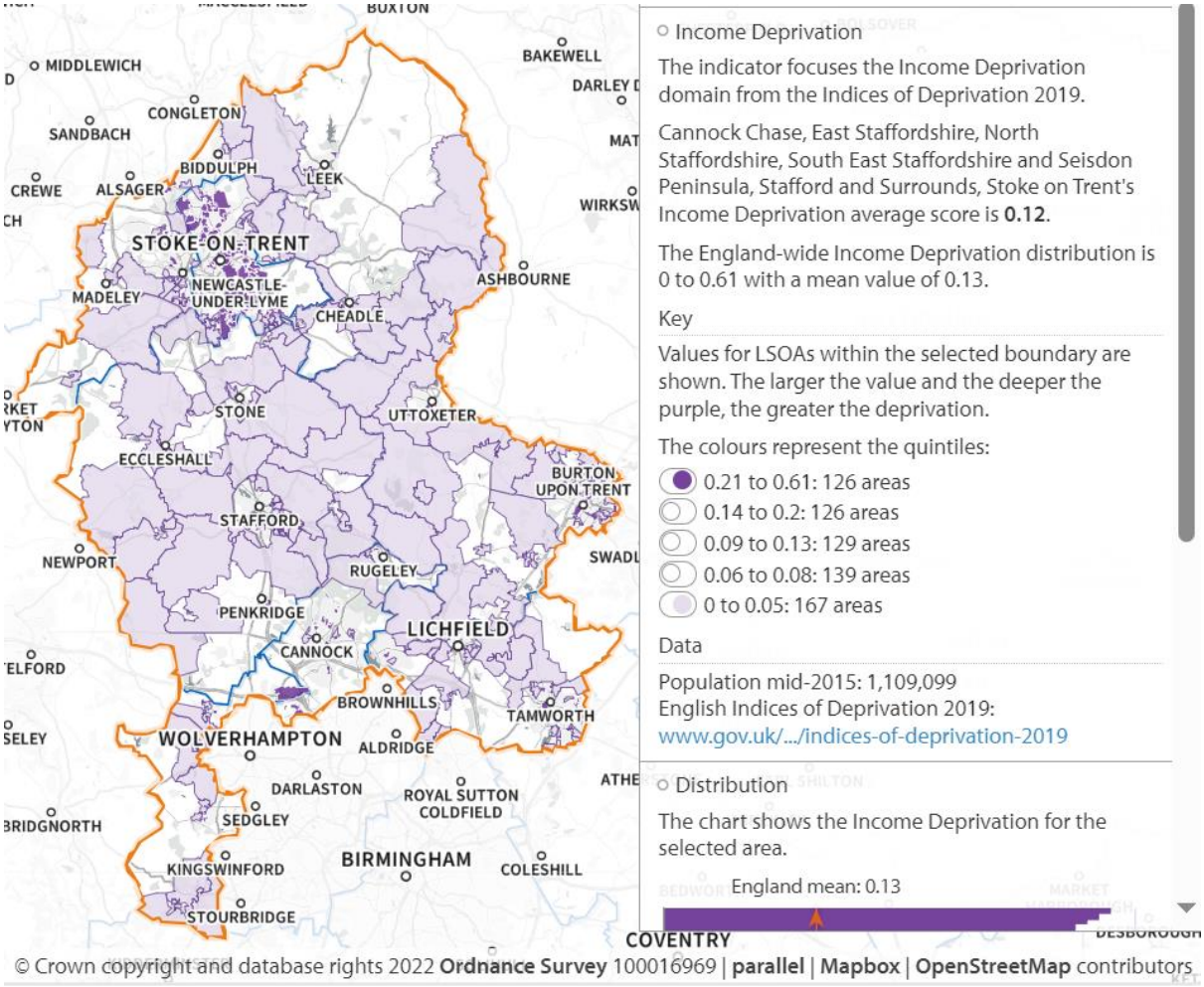


All IMD maps taken from the OHID SHAPE Place tool[15]

The map above shows the rates of deprivation across the geography, with the darkest purple representing the most deprived areas. The average Index of Multiple Deprivation score for the MPFT geography is 20.64, marginally lower than the England wide score of 21.67.

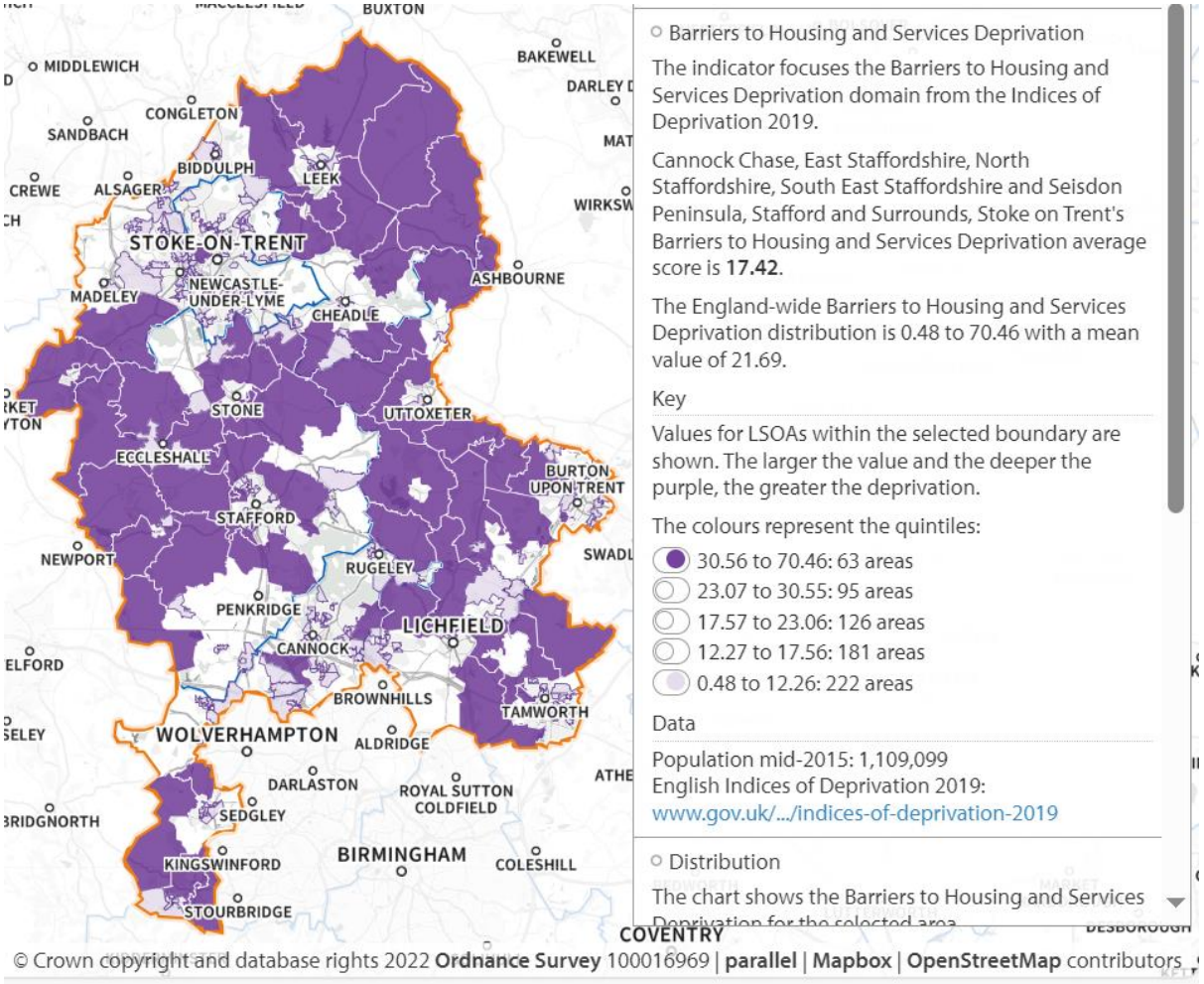


This overall average disguises wide variation, from 1.58 in an area of Stafford to 66.24 in an area of Stoke-on-Trent. Some of the most deprived areas (darkest purple) can be seen side by side some of the least deprived (light purple). The map below shows only the areas in the top and bottom fifth nationally with regard to deprivation.



It is also possible to examine the impact of individual domains of the Index of Multiple Deprivation across the geography. When only income deprivation is taken into account, the picture changes dramatically, with many more areas of the geography falling into the lowest fifth nationally for income deprivation, largely in the rural areas.

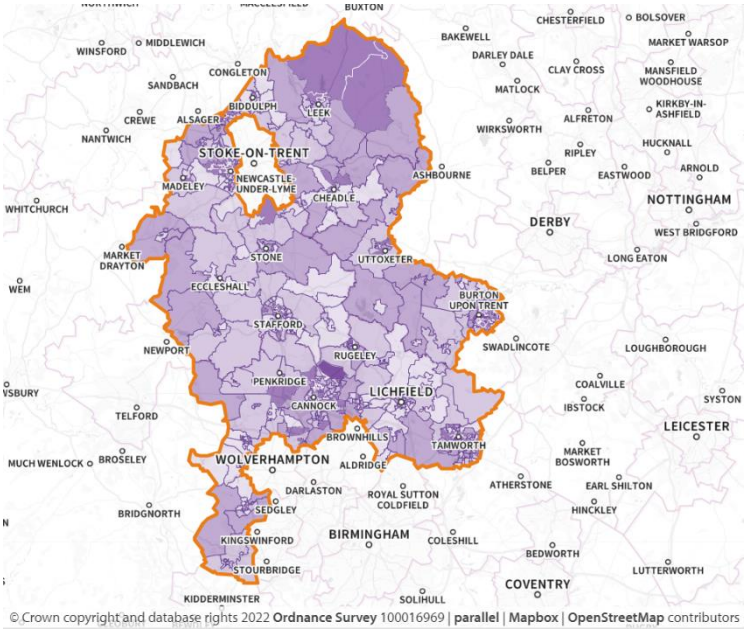
This picture almost reverses when we instead look at barriers to housing and services.

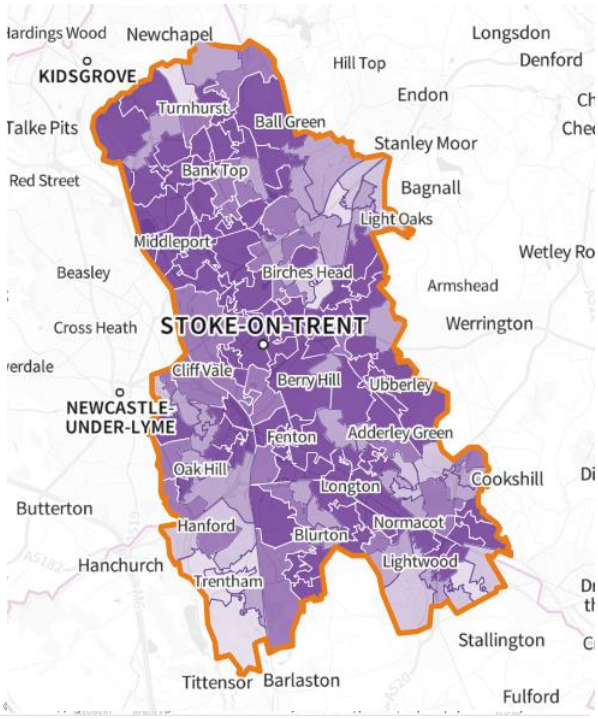


These differences highlight the complexity with regard to understanding deprivation across a large and mixed geography. Areas traditionally thought of as affluent may face considerable barriers to accessing healthcare services located many miles away with poor public transport links. At the same time it is important to recognise the impact of income deprivation on the population, and the many challenges this poses to residents.

Staffordshire

Staffordshire is a very diverse local authority with regard to deprivation, with a lower extreme IMD score of 1.58 in an area of Stafford and a higher extreme of 61.66 in an area of Tamworth. The average score for the county is 16.57, lower than the overall England average. Areas of highest deprivation are generally centred around the towns of Burton-on-Trent, Newcastle-under-Lyme, Tamworth and Cannock.





Stoke-on-Trent

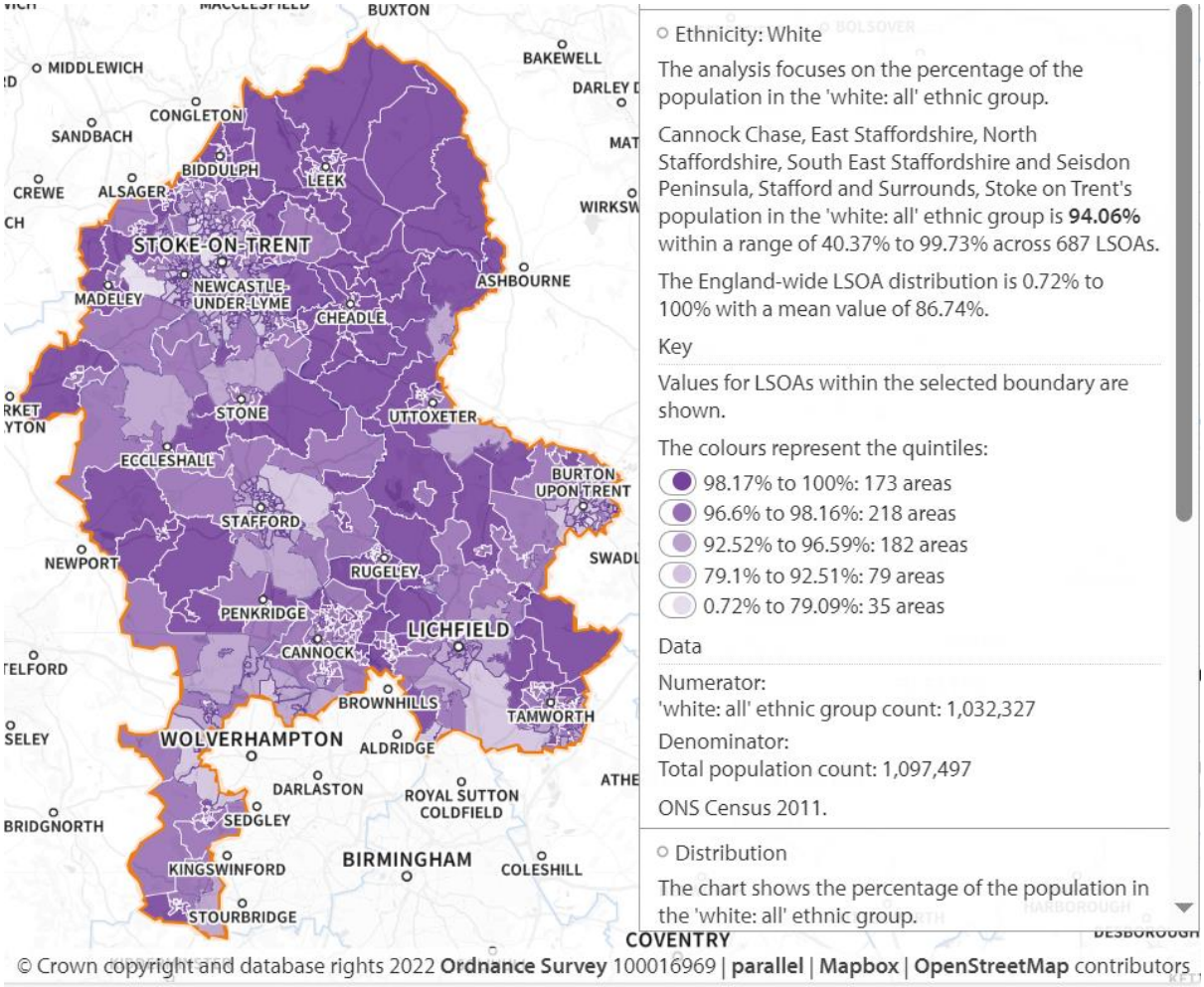
Stoke-on-Trent as a whole falls into the most deprived category of UTLAs and over half of the small areas within Stoke are in the most deprived fifth of areas nationally. The average score for the area is 34.5. The highest deprivation score in Stoke-on-Trent is 66.24. However, there are also a small number of areas in the fifth least deprived areas nationally, largely in the south of the geography. The lowest deprivation score in Stoke-on-Trent is 5.64.

1.2.2. Ethnicity profile

White

The proportion of the geography in the 'white: all' ethnic group was 94.06% within a range of 40.37% to 99.73% across 687 LSOAs according to the 2011 census. By the time of the 2021 census this had reduced slightly to 91.31%[16].

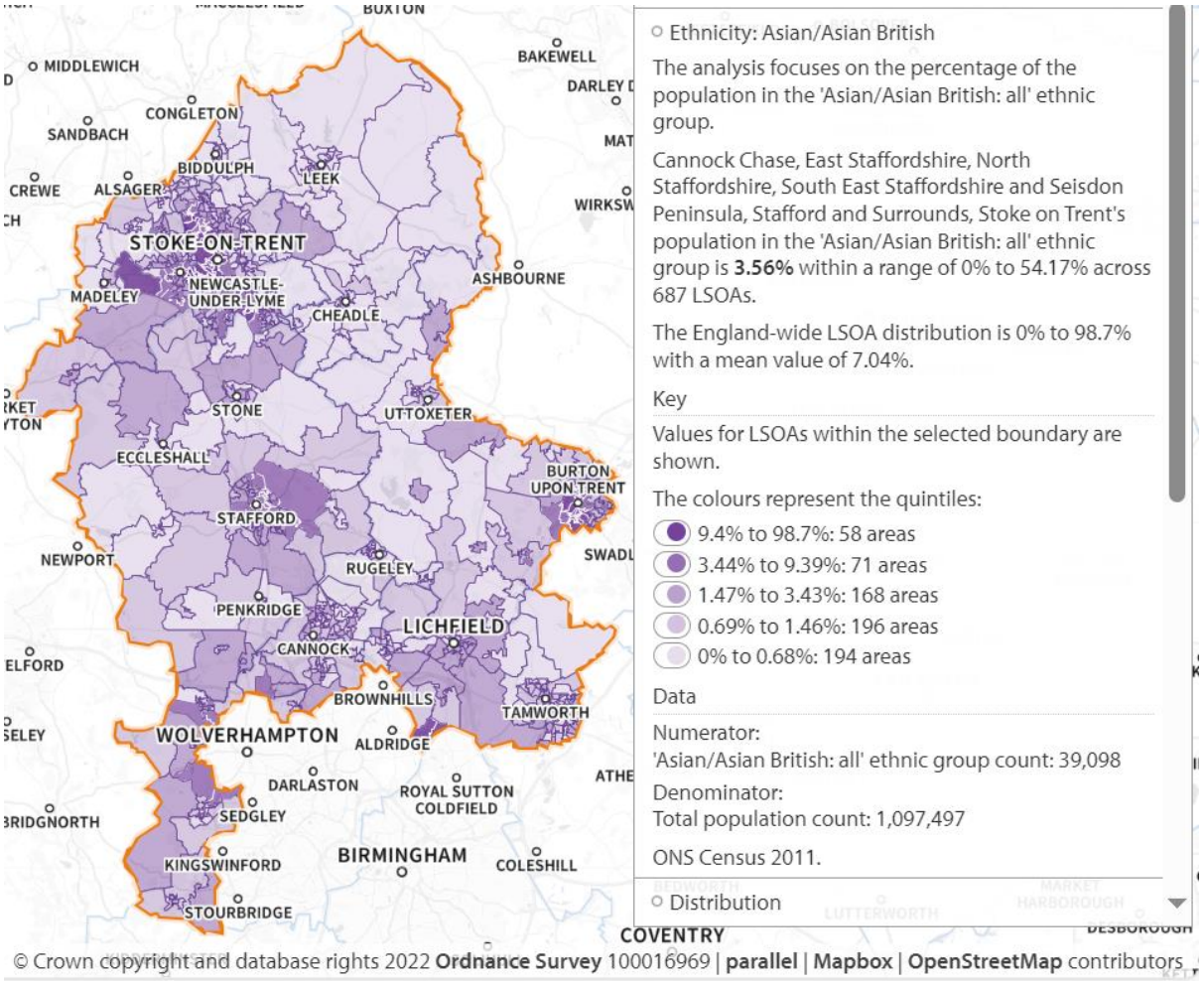
The England-wide LSOA distribution was 0.72% to 100% with a mean value of 86.74%, meaning that generally more people are of white ethnic origin in the geography than the overall England average. In 2021 21% of the overall English population identified as white[17].



All ethnicity maps taken from the OHID SHAPE Place tool[18]

Asian/Asian British

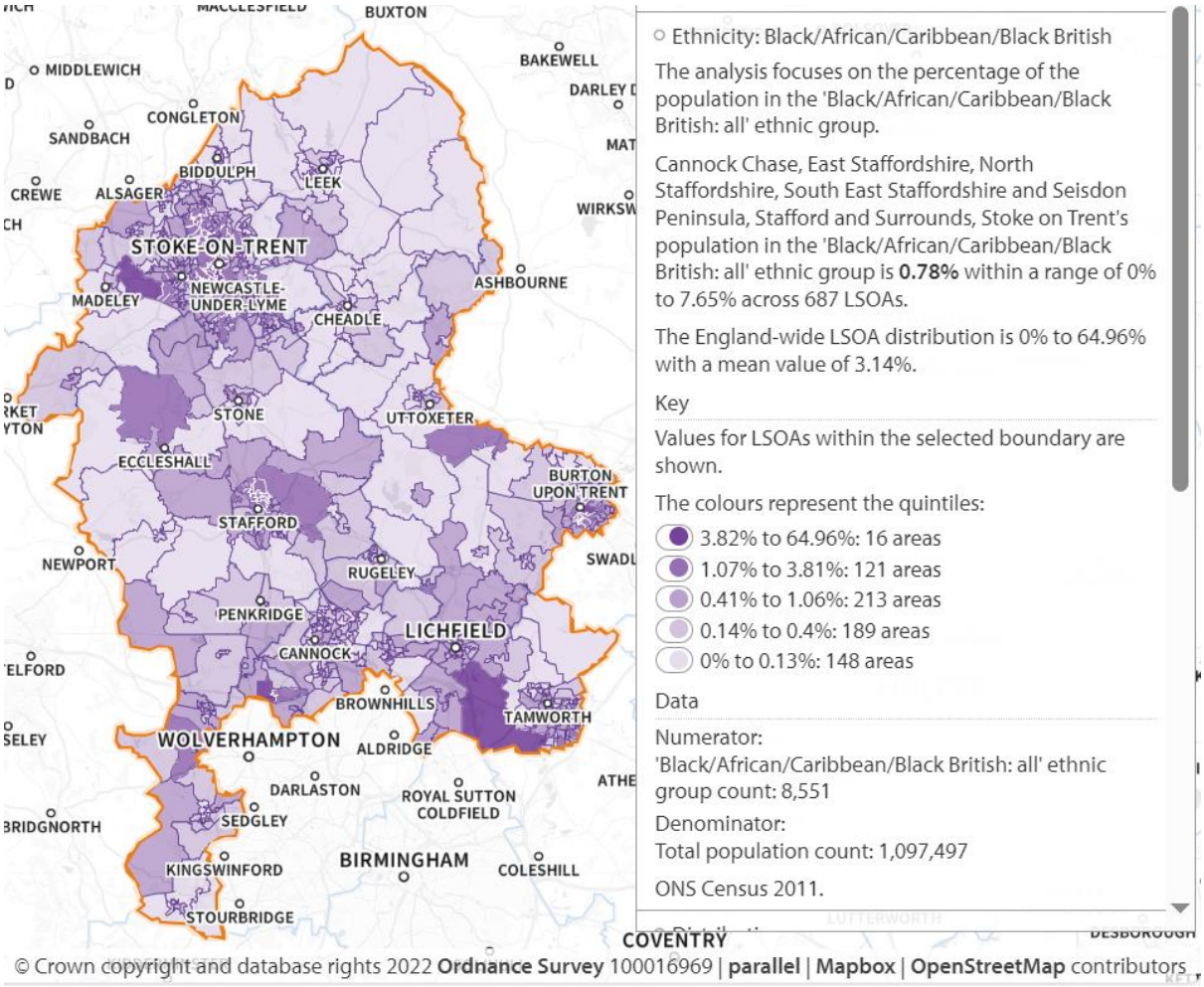
The proportion of the geography in the 'Asian/Asian British: all' ethnic group was 3.56% within a range of 0% to 54.17% across 687 LSOAs according to the 2011 census. By the time of the 2021 census this had increased slightly to 4.80%[19].



The England-wide LSOA distribution was 0% to 98.7% with a mean value of 7.04%, meaning that generally fewer people are of Asian/Asian British ethnic origin in the geography than the overall England average. In 2021 9.6% of the overall English population identified as Asian/Asian British[20].

Black/African/Caribbean/Black British

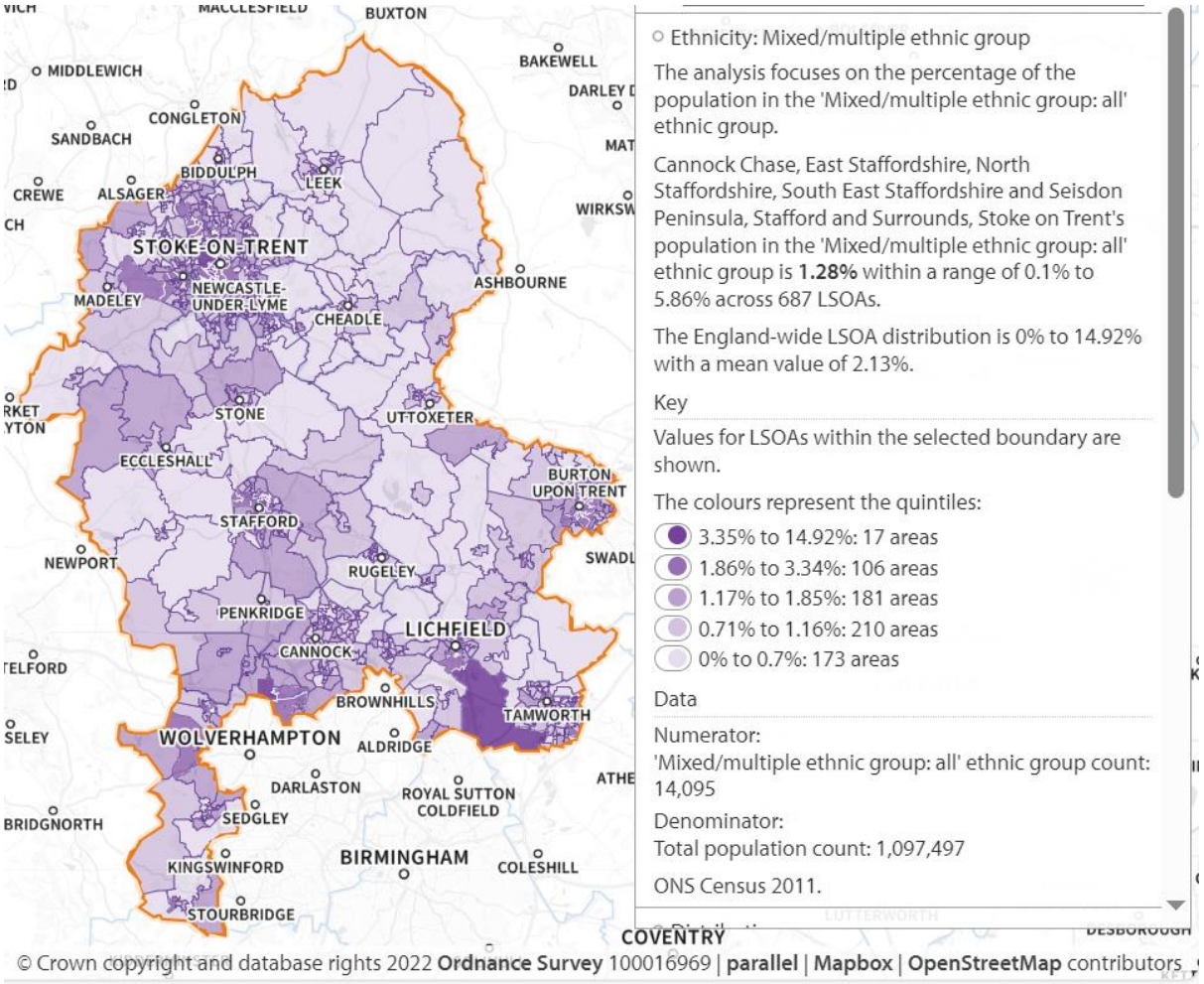
The proportion of the MPFT geography in the 'Black/African/Caribbean/Black British: all' ethnic group was 0.78% within a range of 0% to 7.65% across 687 LSOAs, according to the 2011 census. By the time of the 2021 census this had increased slightly to 1.21%[21].



The England-wide LSOA distribution was 0% to 64.96% with a mean value of 3.14% meaning that generally fewer people are of 'Black/African/Caribbean/Black British: all' ethnic origin in the geography than the overall England average. In 2021 4.2% of the overall English population identified as 'Black/African/Caribbean/Black British: all'[22].

Mixed/multiple ethnic group

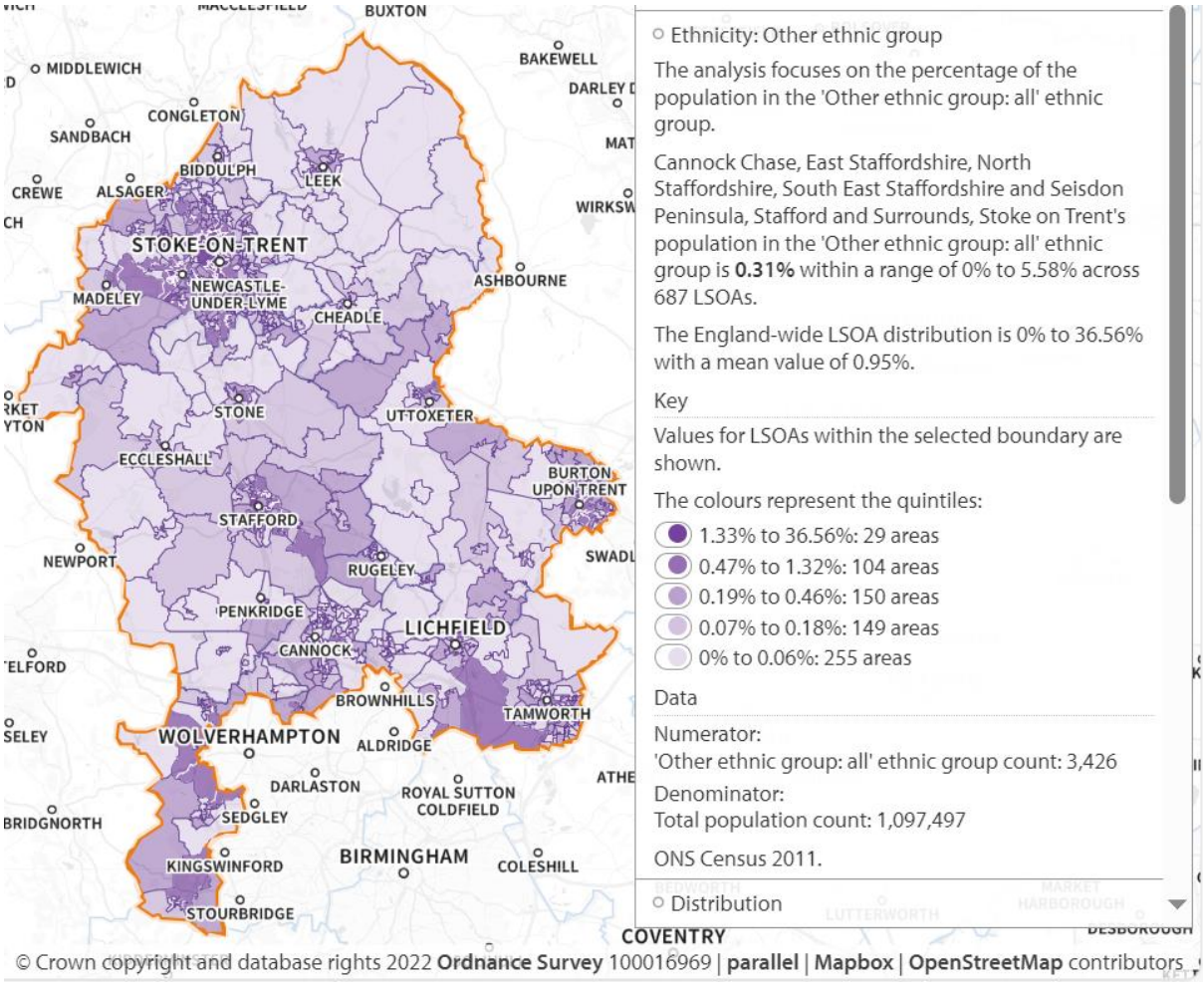
The proportion of the MPFT geography in the 'Mixed/multiple ethnic group: all' ethnic group was 1.28% within a range of 0% to 5.86% across 687 LSOAs, according to the 2011 census. By the time of the 2021 census this had increased slightly to 1.86%[23].



The England-wide LSOA distribution was 0% to 14.9% with a mean value of 2.13% meaning that generally fewer people are of mixed/multiple ethnic group ethnic origin in the geography than the overall England average. In 2021 3% of the overall English population identified as mixed/multiple ethnic group[24].

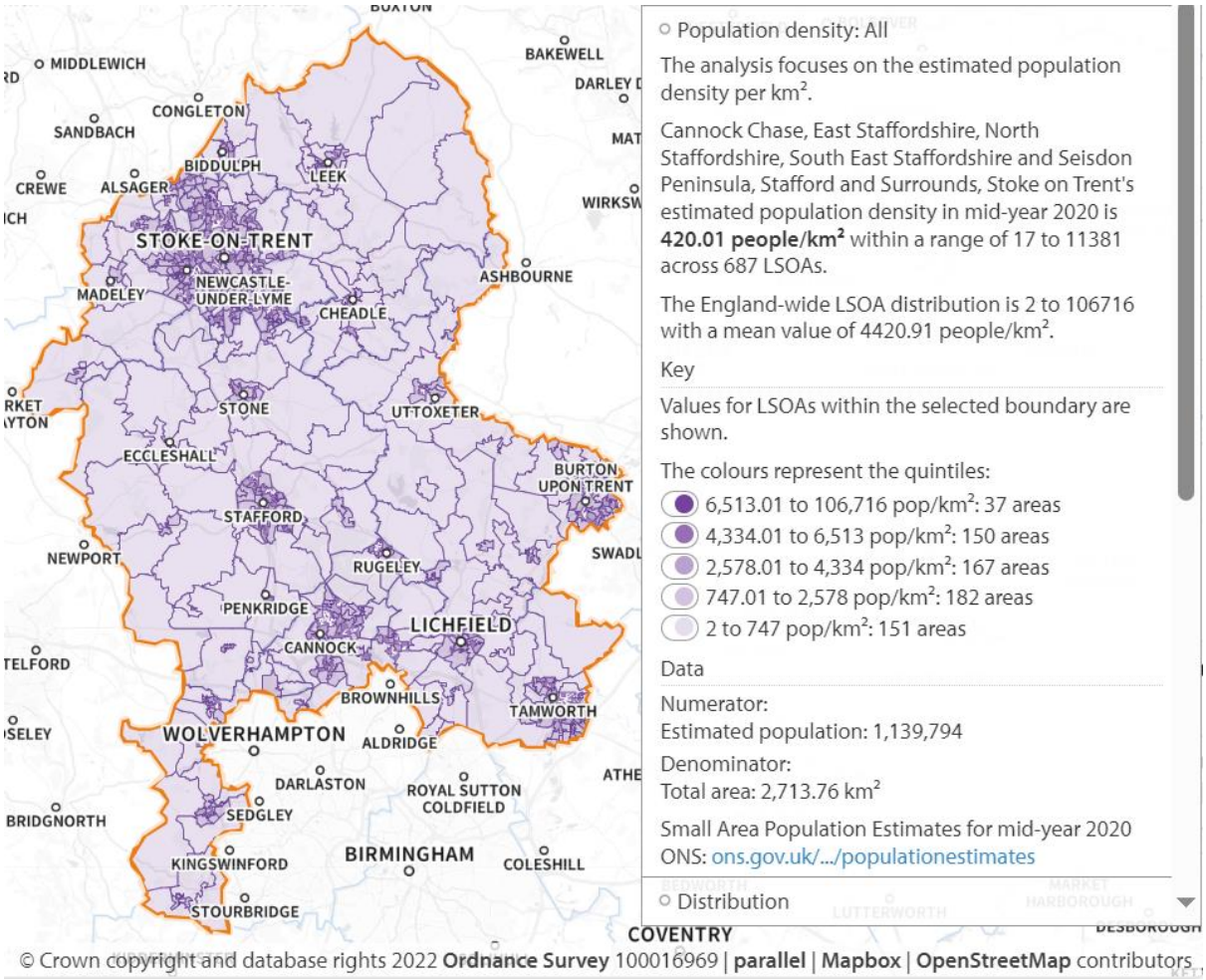
Other ethnic group

The proportion of the MPFT geography in the 'Other ethnic group: all' ethnic group was 0.27% within a range of 0% to 5.58% across 687 LSOAs, according to the 2011 census. By the time of the 2021 census this had increased slightly to 0.8%[25].



The England-wide LSOA distribution was 0% to 36.56% with a mean value of 0.95% meaning that generally fewer people are of other ethnic group in the geography than the overall England average. In 2021 2.2% of the overall English population identified as other ethnic group[26].

1.2.3. Population density



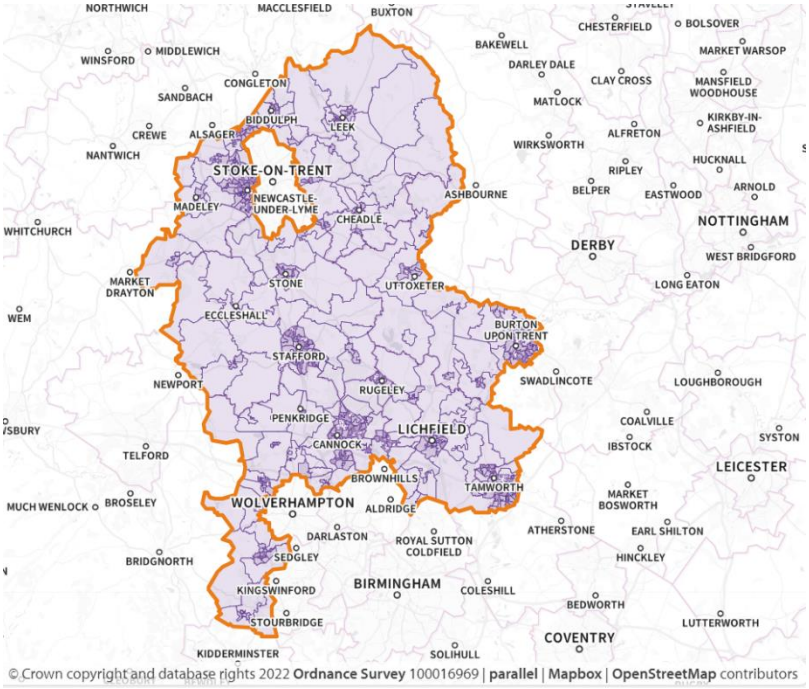
All population density maps taken from the OHID SHAPE Place tool[27]

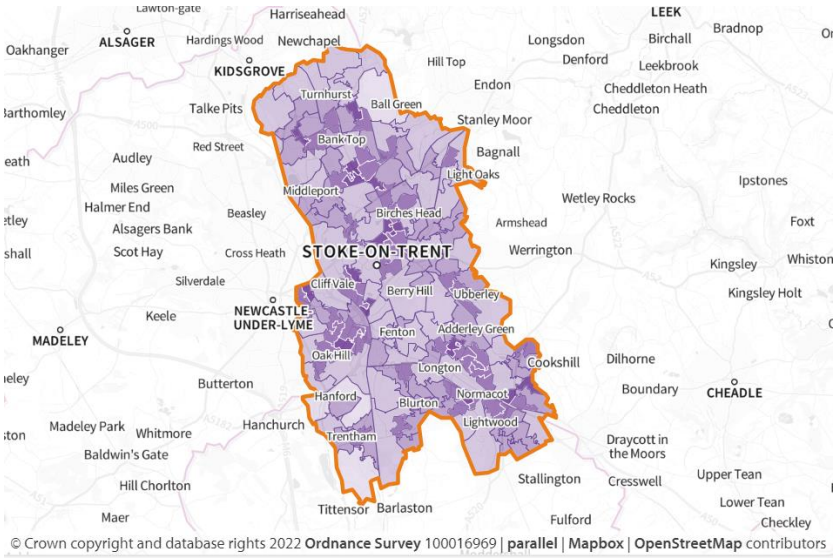
Population density is generally much lower than the England average across the geography. The average MPFT geography estimated population density in mid-year 2020 was **420.01** people/km² within a range of 17 to 11381 across 687 LSOAs. The most densely populated areas across the geography are in Burton-on-Trent and Stoke-on-Trent, while the least densely populated areas are in the Staffordshire countryside.

The England-wide LSOA distribution was 2 to 106716 with a mean value of 4420.91 people/km².

Staffordshire

Staffordshire's estimated population density in mid-year 2020 was **420.01** people/km² within a range of 17 to 11381 across 687 LSOAs. This is approximately ten times lower than the England average. Only 3% of LSOAs are in the top quintile of densely populated areas nationally. In contrast, 22% are in the bottom quintile.





Stoke-on-Trent

Stoke-on-Trent's estimated population density in mid-year 2020 is **2745.79** people/km² within a range of 657 to 10468 across 159 LSOAs. This is much higher than the Staffordshire average, but still lower than the England average.

1.3. Health and wellbeing

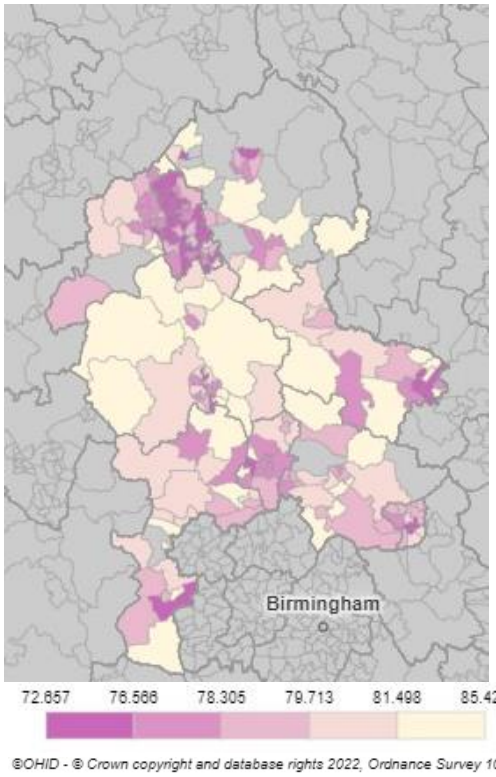
1.3.1. Life expectancy

Life expectancy and healthy life expectancy are crucial public health indicators, together offering a snapshot of the overall health and well-being of the population. Understanding life expectancy trends allows policymakers to identify specific health challenges, regional disparities, and demographic variations that may require targeted interventions. For instance, it can shed light on issues such as access to healthcare, socioeconomic inequalities, and the impact of lifestyle factors on health outcomes.

Unlike life expectancy, healthy life expectancy is a more subjective measure, where a measure of self-reported health is applied to period life expectancy to calculate what proportion of life is spent in 'good health'[28]. Importantly, what counts as good health can vary between groups and places and this measure does not take these differences into account.

Life expectancy and healthy life expectancy both vary considerably across the geography. Stoke-on-Trent generally reports the lowest results, significantly lower than the England average across all four indicators. The performance of Staffordshire is mixed, with life expectancy in areas in line with the England average, but healthy life expectancy in the female population lower.

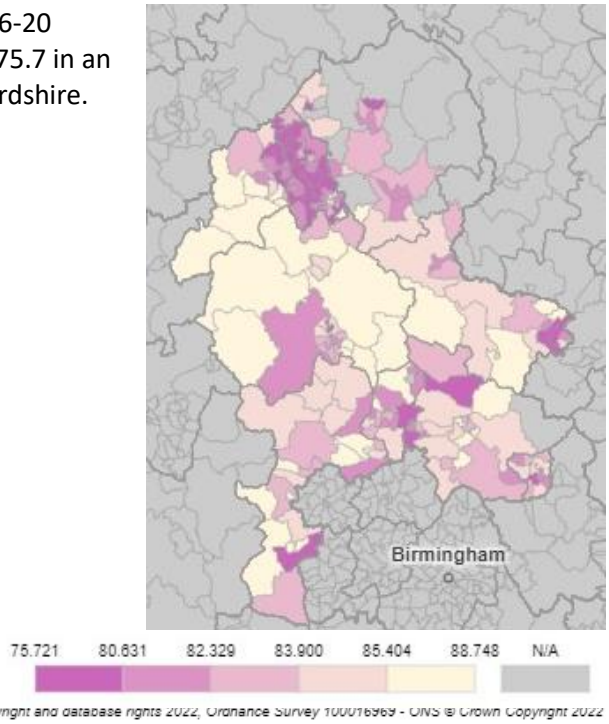
Indicator	Period	England	ICB	Staffordshire	Stoke-on-Trent
A01a - Healthy life expectancy at birth (Male)	2018 - 20	63.1	-	63.1	55.9
A01a - Healthy life expectancy at birth (Female)	2018 - 20	63.9	-	60.7	55.1
A01b - Life expectancy at birth (Male, 1 year range)	2021	78.7	-	78.9	74.6
A01b - Life expectancy at birth (Female, 1 year range)	2021	82.8	-	82.9	79.2



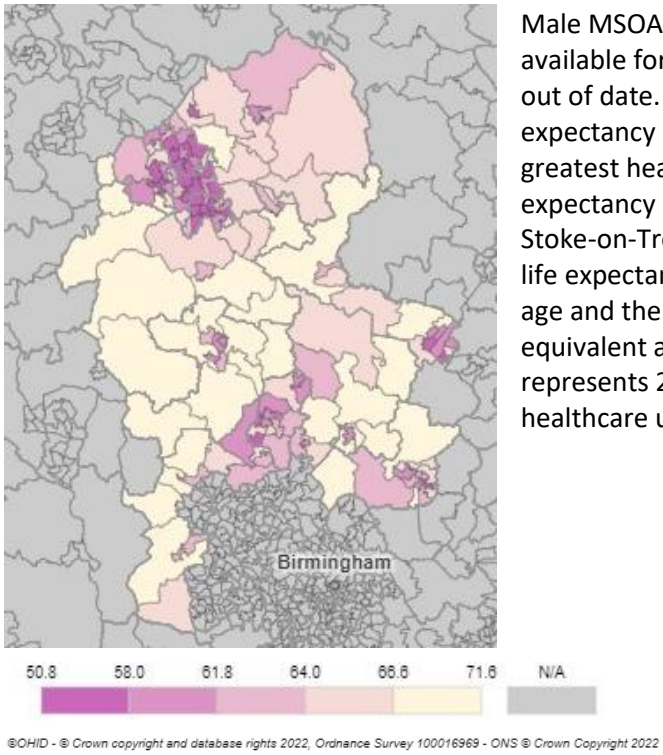
As well as examining life expectancy data at local authority level, it is also possible to look at the variations within area at MSOA level. Male life expectancy[29] at birth for the years 2016-20 shows wide variation across the geography, from 72.7 in an area of Stoke-on-Trent to 85.4 in an area of Staffordshire.

Source: Local Health[30]

Female life expectancy[31] at birth for the years 2016-20 shows wide variation across the geography, from 75.7 in an area of Stoke-on-Trent to 88.7 in an area of Staffordshire.



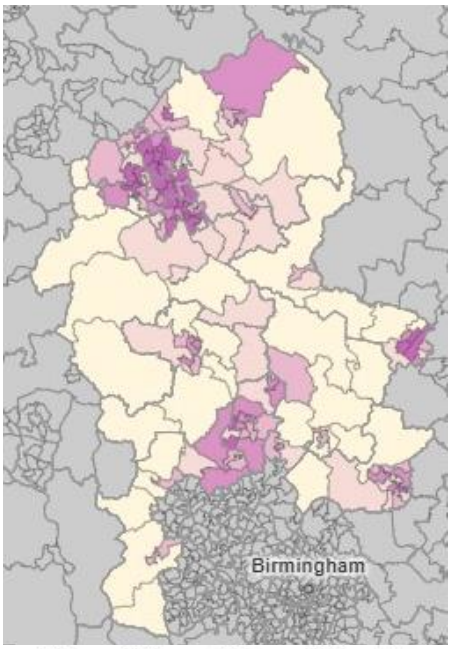
Source: Local Health[32]



Male MSOA level healthy life expectancy data[33] is only available for a single time-period, 2009 to 2013, so is now out of date. However, the spread in healthy life expectancy is still helpful and indicative of the areas of greatest health inequality. The range of healthy life expectancy across the geography is 50.8 in an area of Stoke-on-Trent and 71.6 in an area of Stafford. A healthy life expectancy of 50.8 is far below both the retirement age and the overall life expectancy, which in the equivalent area and time period was 73.7. This represents 23 years in ill health and likely high levels of healthcare use.

Source: Local Health[34]

Female MSOA level healthy life expectancy data[35] is only available for a single time-period, 2009 to 2013, so is now out of date. However, the spread in healthy life expectancy is still helpful and indicative of the areas of greatest health inequality. The range of healthy life expectancy across the geography is 52.0 in an area of Stoke-on-Trent and 72.3 in an area of Stafford. A healthy life expectancy of 52.0 is far below both the retirement age and the overall life expectancy, which in the equivalent area and time period was 77.8. This represents 25 years in ill health and likely high levels of healthcare use.



1.3.2. Health indicators

The indicators below are largely taken from the Public Health Outcomes Framework[36] and represent the latest data available as of November 2023. The wide variety of outcomes data available means that any selection will always provide a partial picture, and each indicator should be interpreted in the broader context. However, indicators are useful for providing an overview of the health of residents living within the geography described above and will be broadly interpreted below.

Indicator	Period	England	ICB	Staffordshire	Stoke-on-Trent
Life expectancy and causes of death					
Life expectancy at birth (Male, 3 year range)	2018 - 20	79.4	-	79.3	75.9
Life expectancy at birth (Male, 1 year range)	2021	78.7	-	78.9	74.6
Life expectancy at birth (Female, 3 year range)	2018 - 20	83.1	-	83.1	79.7
Life expectancy at birth (Female, 1 year range)	2021	82.8	-	82.9	79.2
Under 75 mortality rate from all causes	2021	363.4	-	352.7	534.1
Under 75 mortality rate from all cardiovascular diseases	2021	76.0	-	68.8	93.4
Under 75 mortality rate from cancer	2021	121.5	-	118.3	157.6
Suicide rate	2019 - 21	10.4	-	11.9	16.4
Injuries and ill health					
Killed and seriously injured (KSI) casualties on England's roads	2021	95.6*	-	34.3*	70.7
Emergency Hospital Admissions for Intentional Self-Harm	2021/22	163.9	-	169.9	150.1
Hip fractures in people aged 65 and over	2021/22	551	-	537	623
Percentage of cancers diagnosed at stages 1 and 2	2020	52.3	-	52.5	50.1
Estimated diabetes diagnosis rate	2018	78.0	-	83.9	88.9
Estimated dementia diagnosis rate (aged 65 and older) similar to 66.7% < 66.7% (significantly)	2023	63.0	-	66.2*	83.9
Behavioural risk factors					
Admission episodes for alcohol-specific conditions - Under 18s	2018/19 - 20/21	29.3	-	29.4	25.9
Admission episodes for alcohol-related conditions (Narrow)	2021/22	494	-	670	828
Smoking Prevalence in adults (18+) - current smokers (APS)	2022	12.7	-	9.3	16.3
Percentage of physically active adults	2021/22	67.3	-	67.6	63.0
Percentage of adults (aged 18 plus) classified as overweight or obese	2021/22	63.8	-	68.2	67.1
Child health					
Under 18s conception rate / 1,000	2021	13.1	-	16.2	24.4
Smoking status at time of delivery	2022/23	8.8	-	9.9	13.9
Baby's first feed breastmilk (previous method)	2018/19	67.4	-	58.7	53.2
Infant mortality rate	2019 - 21	3.9	-	5.2	7.5
Year 6 prevalence of obesity (including severe obesity) (10-11 yrs)	2022/23	22.7	-	23.6	29.9
Inequalities					
Deprivation score (IMD 2019)	2019	21.7	-	16.6	34.5
Smoking prevalence in adults in routine and manual occupations (18-64) - current smokers (APS)	2022	22.5	-	15.8	26.6
Inequality in life expectancy at birth (Male)	2018 - 20	9.7	-	8.4	9.4
Inequality in life expectancy at birth (Female)	2018 - 20	7.9	-	7.8	8.8
Wider determinants of health					
Children in relative low income families (under 16s)	2021/22	19.9	23.7*	19.3	36.1
Children in absolute low income families (under 16s)	2021/22	15.3	18.6*	14.9	29.0
Average Attainment 8 score	2021/22	48.7	-	48.2	43.2
Percentage of people in employment	2022/23	75.7	79.0*	80.7	73.6
Homelessness: households owed a duty under the Homelessness Reduction Act	2021/22	-	-	-	-
Violent crime - hospital admissions for violence (including sexual violence)	2018/19 - 20/21	41.9	-	22.0	38.3
Health protection					
Winter mortality index	Aug 2020 - Jul 2021	36.2	-	34.7	35.4
New STI diagnoses (excluding chlamydia aged under 25) per 100,000	2022	496	-	264	412
TB incidence (three year average)	2019 - 21	7.8	-	3.7	9.3

As described above, life expectancy across the geography varies both within and between the UTLAs. Stoke-on-Trent consistently reports lower life expectancy than the England average, Staffordshire consistently in line with the England average. In terms of premature deaths from all causes and cancer, the same pattern holds, while for cardiovascular disease Staffordshire has a lower mortality rate. Suicide rates are significantly worse than the England average in both Staffordshire and Stoke-on-Trent, with Stoke-on-Trent showing a sharp increase in the latest time period.

With regard to injuries and ill health the geography generally performs in line with or better than the England average. This data is modelled and should be interpreted with caution.

Admission episodes for alcohol related conditions are significantly higher than the England average in Staffordshire and Stoke-on-Trent. Adult obesity is higher than the England average in both local authorities and significantly higher in Staffordshire.

Child health indicators are largely significantly worse than the England average in Staffordshire and Stoke-on-Trent. The rate of mothers smoking at the time of delivery is higher than the England average in both local authorities. The infant mortality rate in Stoke-on-Trent is the highest in the country. Child obesity is also particularly high in Stoke-on-Trent, with the fifth highest rates in the country, and increasing, which is in contrast to the trend seen nationally.

1.3.3. Mental health

As with wider public health, there are many public health indicators available, but again these should be interpreted in the context with local, more detailed, data. Some of the indicators presented here are now drawn from older data, and there is evidence that the pandemic had a complex impact on the mental health of the population, with different groups affected to a greater or lesser extent. Therefore this data should be interpreted with caution, particularly in the case of the older indicators.

Indicator	Period	England	ICB	Staffordshire	Stoke-on-Trent
Children & Young People					
93587 - Estimated number of children and young people with mental disorders – aged 5 to 17 ⚠	2017/18	-	-	15218	4778
Common Mental Disorders					
Estimated prevalence of common mental disorders: % of population aged 16 & over	2017	16.9*	-	15.3*	20.3*
Estimated prevalence of common mental disorders: % of population aged 65 & over	2017	10.2*	-	9.6*	12.6*
Depression: QOF prevalence (18+ yrs) New data	2021/22	12.7	-	13.4	17.9
Depression: QOF incidence (18+ yrs) - new diagnosis	2021/22	1.5	1.8*	1.6	2.6
90535 - Depression and anxiety among social care users: % of social care users ⚠	2018/19	50.5	-	53.7	43.7
Depression and anxiety prevalence (GP Patient Survey): % of respondents aged 18+ ⚠	2016/17	13.7	-	13.5*	17.6*
Severe Mental Illness					
Mental Health: QOF prevalence (all ages) New data	2021/22	0.95	0.78*	0.73	0.94
Long-term mental health problems (GP Patient Survey): % of respondents	2017/18	-	-	-	-
Mental Health					
ESA claimants for mental and behavioural disorders: rate per 1,000 working age population	2018	27.3*	30.7*	24.9*	50.4*

The estimated prevalence of common mental health disorders in both the general adult population and in older people is significantly higher than the England average in Stoke-on-Trent. This estimate is in line with much more recent QoF data for depression prevalence and incidence rates, which are also highest in Stoke-on-Trent. All areas across the geography show higher prevalence rates than the England average. The next two indicators are marked with data quality warnings, both because of the source of the data and their age, but again the prevalence rate indicator is in line with the general trend seen in the other indicators of higher prevalence in Stoke-on-Trent. Interestingly, this is not the case with social care users, who reported lower than average rates of depression and anxiety in Stoke-on-Trent, but again this indicator should be interpreted with caution.

In the case of severe mental illness, the QoF data again points to a higher burden of disease in Stoke-on-Trent, with lower than average rates in Staffordshire.

Finally, with regard to older data looking at Employment and Support Allowance claims for mental and behavioural disorders, the rates of claims are higher in the geography compared to the England average (30.7 claims per 1,000 working age population, compared to 27.3 across England). This is driven by particularly high rates in Stoke-on-Trent, being the fifth highest rate in the country. It is unclear if this trend has continued to the latest time period.

1.3.4. Social determinants of health

Indicator	Period	England	ICB	Staffordshire	Stoke-on-Trent
School readiness: percentage of children achieving a good level of development at the end of Reception	2021/22	65.2	-	67.5	61.3
School Readiness: percentage of children with free school meal status achieving a good level of development at the end of Reception	2021/22	49.1	-	49.4	51.8
Average Attainment 8 score	2021/22	48.7	-	48.2	43.2
16 to 17 year olds not in education, employment or training (NEET) or whose activity is not known	2022/23	5.2	-	5.0	10.9
19-24 year olds not in education, employment or training	2020	14.0	-	-	-
Unemployment (model-based)	2021	4.5	-	*	4.3
Long term claimants of Jobseeker's Allowance	2021	2.1	2.1*	1.5	4.3
Individuals not reaching the Minimum Income Standard	2016/17 - 18/19	29.5	-	-	-
Work-related illness	2018/19 - 20/21	4680	-	-	-
Fuel poverty (low income, low energy efficiency methodology)	2021	13.1	-	15.8	22.9

Social determinants of health are used to understand the broader context in which residents live, work, study and spend their leisure time. Deprivation and employment are important social determinants of health and have been described in more detail above.

School readiness is mixed, with Staffordshire being significantly higher than the England average, Stoke-on-Trent significantly lower. However, children who are eligible for free school meals, an important measure of income deprivation, score lower on both school readiness and GCSE achievement across the board, though this largely reflects the pattern seen nationally.

Rates of 16- and 17-year-olds not in education, employment or training (NEETs) is mixed across the geography, with higher rates than the England average in Stoke-on-Trent, the third in the country in the most recent time period. In Staffordshire the rates are significantly lower than the England average.

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