Tyne and Wear Fire and Rescue Service

Creating the Safest Community

Community Risk Profile

2020 - 2023

Community Risk Profile 2020 - 2023

Tyne and Wear Fire and Rescue Service
Creating the Safest Community

- 5 local authorities
- 1.1 million residents
- Over 500,000 households
- 1 international airport
- 2 major cities
- 2.41 million m² retail floor space
- 3 universities

- Average age of 40
- 95.4% White British
- 95.9% English speaking
- 65% Christian
- 21.2% of households aged 65 or over
- 41% of properties rented
- 36,600 non-domestic properties
- Higher than average case of mental health issues*

Lowest median household total wealth**

No coastal flood risk & limited river flood risk

Better than average casualty rates for road traffic accidents*

North East

- Highest rate of unemployment *
- Highest rate of hospital admissions due to alcohol*
- Higher than average mortality rates from alcohol*
- 16% of adults smoke*
- Highest rate of mortality attributable to smoking*
- Highest number of hospital admissions due to drug use (per 100,000 population)*
- Highest levels of obesity*
- Higher than average levels of antisocial behaviour*

* England   **Great Britain

www.twfire.gov.uk

Contents

Chris Lowther
Chief Fire Officer and
Chief Executive

We're here to keep Tyne and Wear safe for everyone.

We do this by responding quickly and efficiently to emergencies, but also by preventing emergencies from happening in the first place. To achieve this, we need to understand the people that we serve and the places where they live and work.

Like most public sector organisations, our resources are limited. That's why it's essential that we target them effectively, using an evidence-based understanding of our communities and the risks they face.

Tyne and Wear is very different today from how it was when I first became a firefighter over 20 years ago. Our society is constantly evolving and our services need to evolve with it – so the information presented here plays a crucial role in helping us keep people safe, not just today, but tomorrow too.

Community Risk Profile
2020 - 2023

This Community Risk Profile (CRP) informs our Strategic Community Safety Plan (SCSP) and Integrated Risk Management Plan (IRMP). It provides a comprehensive and forward looking assessment of the risks in our community that will both impact upon, and shape service delivery over the coming years.

This document is an analysis of risk across the communities of Tyne and Wear. It is derived from detailed incident, census, geographical and environmental datasets, including information from our partners. This information is analysed to create a picture of risk in Tyne and Wear, enabling us to target our resources effectively.

This information plays a key role in the development of our IRMP and other key documents and ensures we follow an evidence-led approach to managing our activities and resources. All fire and rescue authorities have a statutory responsibility to produce an IRMP that sets out how it will address locally identified risks, and this document forms part of this process.

Utilising the data and information we identify who or what is at risk of harm from incidents. Once these have been identified the CRP will be used to determine how we address these issues.

We access this data from a range of sources:

National Risk Register (NRR)	The NRR is an assessment of risks that have the potential to cause disruption in the UK.
Local Resilience Forum (LRF) Community Risk Register (CRR)	The CRR provides information on emergencies that could happen within the Northumbria area, together with an assessment of how likely they are to happen and the impacts if they do.
Census	The census is a count of all people and households. That last census was held on 27th March 2011. The next census in England and Wales will be in 2021.
Mosaic	Mosaic is a consumer segmentation model from Experian which segments the population into groups and types that helps you to understand an individual's likely behaviour.
Exeter data	Health data detailing individuals aged over 65 registered with a GP practice within our area.
Partner agencies	We work closely and consult with a number of partner agencies to share information and working practices in relation to risks.
Incident Recording System (IRS)	The IRS is an electronic system operated by the Home Office for recording incident data for research and statistical purposes.
Cadcorp SIS	Cadcorp SIS is a desktop Geographical Information System (GIS) used for spatial data analysis and is capable of measuring the impact of potential changes in service deployment.
Community Fire Risk Management Information System (CFRMIS)	CFRMIS is an electronic system used to store and manage data relating to business and community fire safety.
Site Specific / Operational Risk Information	This is information we gain from visits to high risk premises and is then made available to operational crews when dealing with incidents.
Corporate Risk Profile	The Authority's specific risk profile which captures and evaluates risks to our organisation that may Impact our ability to deliver services safely and effectively.
Horizon scanning	Horizon scanning by our Senior Management Group.

National Risks

The National Risk Register of Civil Emergencies 2017 edition provides an updated government assessment of the likelihood and potential impact of a range of different civil emergency risks (including naturally and accidentally occurring hazards and malicious threats) that may directly affect the UK over the next 5 years.

In addition to providing information on how the UK government and local responders manage these emergencies, the National Risk Register also signposts advice and guidance on what members of the public can do to prepare for these events.

The risks identified by the National Risk Register of Civil Emergencies are:

Natural hazards
Flooding, Severe weather, Space weather, Volcanic eruptions, Poor air quality, earthquakes, Wildfires.

Diseases
Human diseases, Animal diseases.

Major accidents
Widespread electricity failure, System failure, Transport accidents, Industrial and urban accidents.

Societal Risks
Industrial action, Public disorder.

Malicious attacks
Malicious attacks, Attacks on crowded places, Attacks on transport systems, Attacks on infrastructure, Cyber attacks, Chemical, biological, radiological and nuclear attacks.

Managing Risk

The Community Risk Register (CRR) provides information on emergencies that could happen within the Northumbria area, together with an assessment of how likely they are to happen and the impacts if they do.

The [Northumbria community risk register](#) is produced by Northumbria Local Resilience Forum. It summarises the top risks in Northumbria together with an assessment of how likely they are to happen and the impacts if they do. It gives information on how you can be prepared and what to do in an emergency.

It is based on a National Risk Register produced by the Government. This is centred around a range of data including historic, scientific and expert analysis to assess the risks to the UK as a whole. Using this information we can identify which are relevant locally and add any additional risks. Again this process involves looking at a range of data, including incidents that have occurred, local knowledge and expert guidance.

The risks identified by the CRR are as follows:

- Flooding
- Animal disease
- Pandemic influenza
- Industrial Site accident
- Adverse weather
- Hazardous transport
- Cyber Attacks

PREPARING FOR EMERGENCIES IN NORTHUMBRIA

Coronavirus (COVID-19)
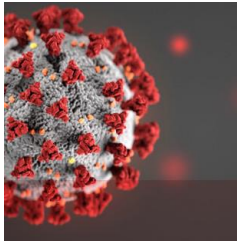
Government figures show the North East has been one of the hardest hit regions for cases of COVID-19 per 100,000 population[i]. In the North East there have been 254.5 deaths for every 100,000 people in the region, meaning one person in 394 has died of COVID-19.

Region	Rate per 100,000 population	
	Deaths	Cases
North West	270.6	8,159.1
North East	**254.5**	**7,129.8**
West Midlands	251.3	7,145.3
East of England	238.6	6,153.9
East Midlands	235.2	6,674.2
Yorkshire and The Humber	227.2	6,930.8
South East	222.3	5,815.6
London	210	7,938.9
South West	143.2	3,881.9

Studies[ii] have shown that COVID-19 does not affect all population groups equally. We know that the health, economic and social impacts of the pandemic are impacting disproportionately on different groups. Older age, ethnicity, deprivation and geographical area, for example, are associated with the risk of infection, and experiencing more severe symptoms and higher rates of death.

Men are more likely to die from Covid 19 but women are hit harder by social and economic impacts. Similarly older people are more likely to die from Covid-19 but younger people are more likely to lose their jobs.

Black and minority ethnic people are at both an increased health risk and increased economic and social risk. A Public Health England review of disparities in the risk and outcomes of COVID-19[iii] shows that there is an association between belonging to some ethnic groups and the increased likelihood of testing positive and mortality. An ONS bulletin[iv] released in March 2021 revealed that vaccination rates were lower among all ethnic minority groups compared with the White British population.

Disabled people have been hit harder in the coronavirus crisis, some have struggled to access food and essentials and PPE for carers and personal assistants. The prospect of extended isolation is also taking a heavy toll on disabled people's mental health and wellbeing.

Managing Risk

ONS data[v] released on 1 May 2021 shows that, once you take the age of population into account, the rate of deaths involving COVID-19 is roughly twice as high in the most deprived areas of England and Wales as in the least deprived. People in more deprived areas are less likely to have jobs where they can work from home meaning they may have to face a significant drop in income or continue going to work, facing greater risks of catching the virus. They are also more likely to live in overcrowded homes, increasing the risk for entire families. Data shows that the highest rates of deaths involving COVID-19 are in inner-city areas where lots of people live close together.

A report from the World Obesity Federation[vi] has found that COVID-19 death rates are 10 times higher in countries where more than half of the adult population is classified as overweight. Obesity is often linked to deprivation and the North East has a higher level of obesity than any other area of the country.

Our Response
In order to maintain our Service to the communities of Tyne and Wear, TWFRS successfully implemented our Business Continuity Plans and introduced technology to allow staff to work remotely where possible. We developed comprehensive risk assessments to ensure our premises are COVID-Secure and to maintain effective operational preparedness and response.

The Service considers COVID-19 as a national and civil emergency and we have arranged our workforce to ensure that we can respond to calls for assistance not only from the public but equally the wider community partners across agencies, local authorities, voluntary organisations as well as the NHS and health more generally.

To support this approach, TWFRS has planned its business activity to align with the necessary work to help prevent the spread of coronavirus, minimise the chance of death and serious injury and promote community activity around vaccination uptake and testing. The temporary addition of 'COVID Activities' to the Service focus areas of Response, Prevention, and Protection ensures community safety in its widest meaning remains the primary objective of the Service. The Service has directed its resources to coronavirus activity without compromising our statutory duties. The Service also continues enhanced health surveillance through routine coronavirus Lateral Flow Testing of our staff.

The concept of operations for coronavirus work is supported by National Fire Chiefs Council (NFCC) Strategic Intentions and model risk assessments.

Managing Risk

We take a standard approach to understanding risk which is made up of the **likelihood** that something could happen and the **impact** it would have if it did happen. Our role as a fire and rescue service is set out in legislation including the Fire and Rescue Services Act 2004, the Civil Contingencies Act 2004, the Regulatory Reform (Fire Safety) Order 2005 and the Fire and Rescue (Emergencies) (England) Order 2007.

That role is essentially to mitigate the risk by:

- Reducing the **likelihood** that fires will happen (through the Prevention and Protection activities that are part of our legal duty).

- Reducing the **impact** if incidents do happen. This is part of our duty to respond and provide resilience (extinguishing fires, rescuing people in a variety of situations, and being able to help the community if a major incident or disaster occurs). It also links to the Prevention and Protection duties through the promotion of measures that make sure people get out if there is a fire, or prevent the ignition and the spread of fire (sprinklers, smoke alarms, fire doors, fire retardant materials for vulnerable people and many others).

When thinking about the likelihood of fire and other incidents, the CRP is important because it helps us to understand the community. This understanding is cross referenced with incident data to enable resources to be targeted for Prevention, Protection and Response.

It is important to note that community risk and incidents are not the same thing. Community risk is inherent in the community and is connected with the social factors in the population, including poverty / deprivation, age, health and lifestyle. Individuals at risk of harm from fire and other accidents are often also at risk of other types of harm.

We know both from our routine local analysis, and national research[vii] that incidents are more likely to happen to some individuals and in some areas, than others.

Managing Risk

Our knowledge of the community includes historical and recent information about where incidents happen and to whom. We routinely make use of data systems including Community Fire Risk Management Information System (CFRMIS) and demographic profiling tools (e.g. MOSAIC), both of which provide information to household / business level. Other systems record patterns and frequency of incidents and allow us to model any proposed changes (e.g. Workload Modelling software).

This helps us to make the connections between the risk and the incidents and to target the available resources at the greatest risk areas, or the targeting of our programmes of Home Safety Checks (HSCs) or Risk Based Inspections (RBIP) of business premises.

Of course there will always be some fires and other accidents and it is not possible to totally remove all risk of these.

Throughout this document we have set out some of the key risks. Our approach to targeting these risks is also described. Policies and procedures are in place dealing with the specifics of targeting risk through Prevention (e.g. Home Safety Check targeting policy), Protection (e.g. Risk Based Inspection Programme for fire safety) and Response (e.g. Standard Operating Procedures and Pre-Determined Attendances).

When we analyse our performance, we compare ourselves to the other Fire and Rescue Services (FRS) in our 'family group' as categorised by Government. The group is more commonly referred to as 'the Mets' and includes: Greater Manchester FRS, London Fire Brigade, Merseyside FRS, South Yorkshire FRS, West Yorkshire FRS and West Midlands FRS. A full range of data on how we are performing is contained in our Annual Report / Statement of Assurance.

Managing Risk

Our approach to managing risk has enabled Tyne and Wear Fire and Rescue Service (TWFRS), working with key partners, to drive down risk and therefore reduce incidents. The chart opposite illustrates how our risk based approach has helped reduce accidental fires in peoples' homes.

The number of all incidents has reduced from 2009/10, however over the last few years we are seeing an increase in the number of fire incidents due to an increase in deliberate secondary fires.

Percentage Change in Accidental Dweling Fires
2009/10 - 2018/19

All Incidents
2009/10 - 2018/19

Fire   False Alarm   Special Service   Total Incidents
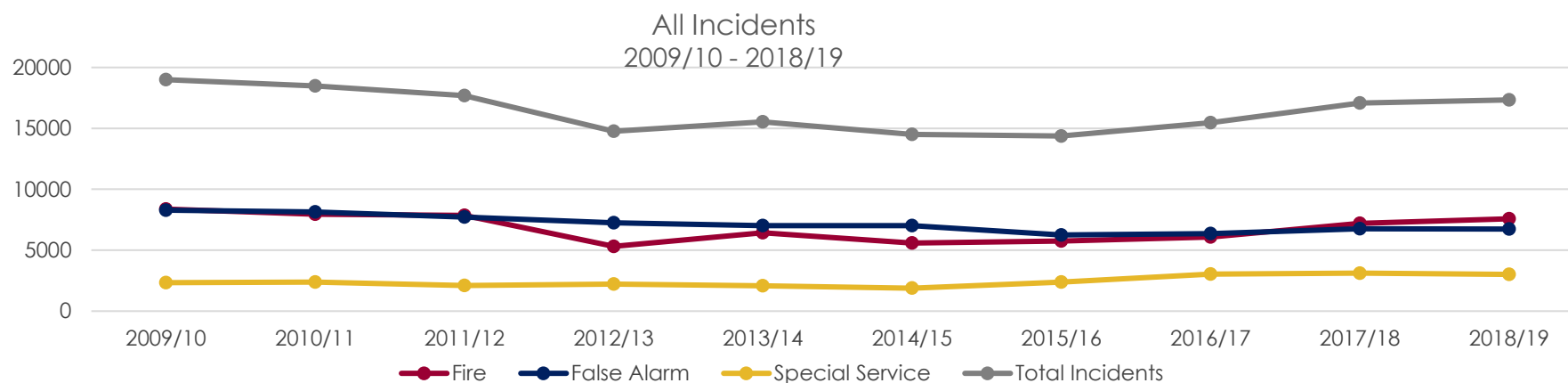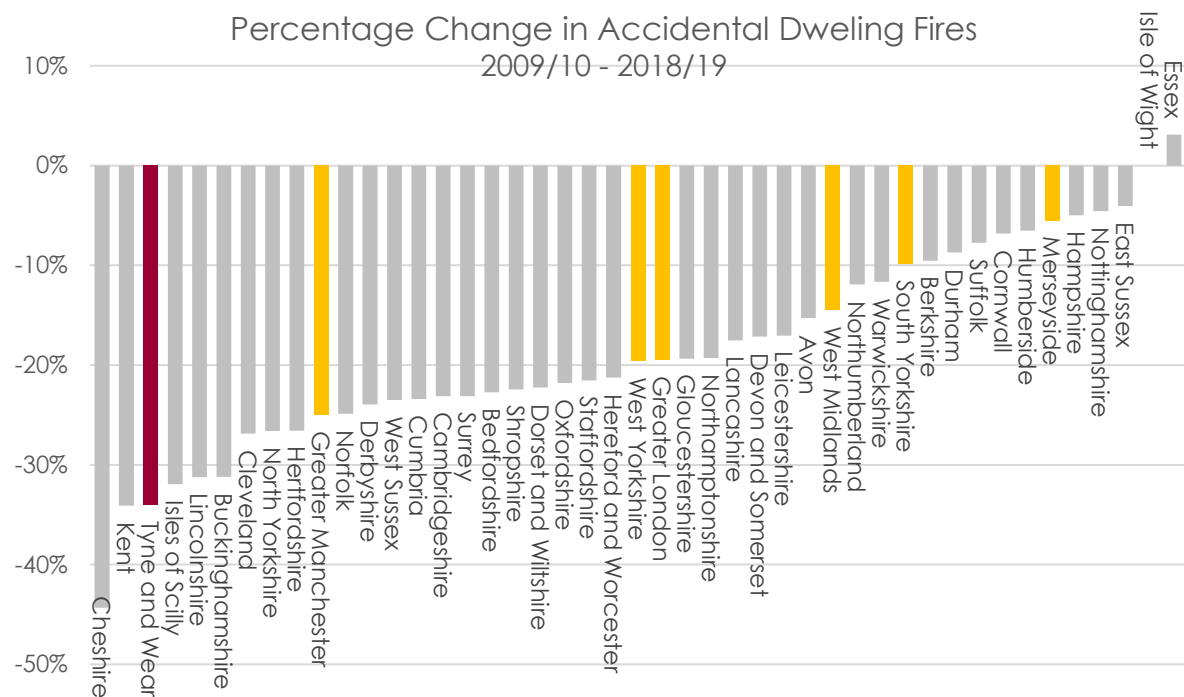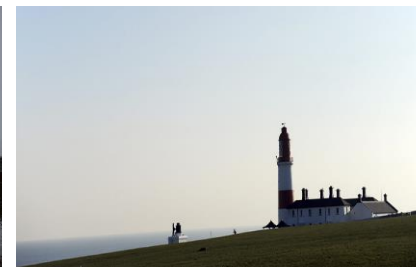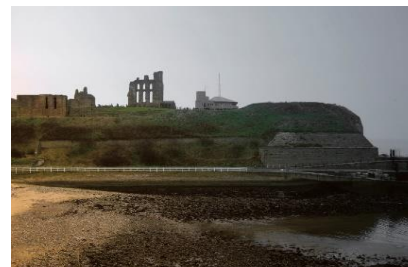
About Tyne and Wear

Tyne and Wear is a densely populated metropolitan area with 1.104 million residents located in the North East of England[viii]. Covering 538km^2 it represents only 6% of the North East region's land, yet it is home to 43% of the region's population with over 500,000 households. The population is growing, ageing and changing, the impact of this is covered in more detail later.

Tyne and Wear consists of five local authority areas: Gateshead, Newcastle, North Tyneside, South Tyneside and Sunderland. It borders Northumberland County to the North and Durham County to the South. Along with the other urban areas of Tees Valley, these four county areas constitute the North East region of England.

Tyne and Wear has an international airport, two major cities, nearly 2.41 million m^2 of retail floor space, five indoor shopping centres, three universities and a variety of specialist sporting facilities hosting both domestic and international competitions and events. Tyne and Wear also has a number of high risk sites registered under the Control of Major Accident Hazards (COMAH) regulations 1999.

The industrial makeup of the area has changed from largely heavy industry to a more diverse economy including a number of major enterprises such as the Nissan plant in Sunderland. The recession has hit the North East harder than many areas and recovery is slower.

Population

Population is a key risk factor for fire and rescue as reflected in the current Government arrangements for funding Fire and Rescue Authorities (FRAs). Put simply, risk goes with people and the number of people in an area is a key determinant of risk alongside social factors in how the population is made up. As a Metropolitan FRA covering five densely populated urban local authority areas, population is a key consideration throughout our planning.

Based on 2011 census data, the population of Tyne and Wear is 1.104 million with an average age of 40 years.

The relative density of Tyne and Wear's population is shown in the map[ix] (circled area).

Population density
(people per hectare)
- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 150
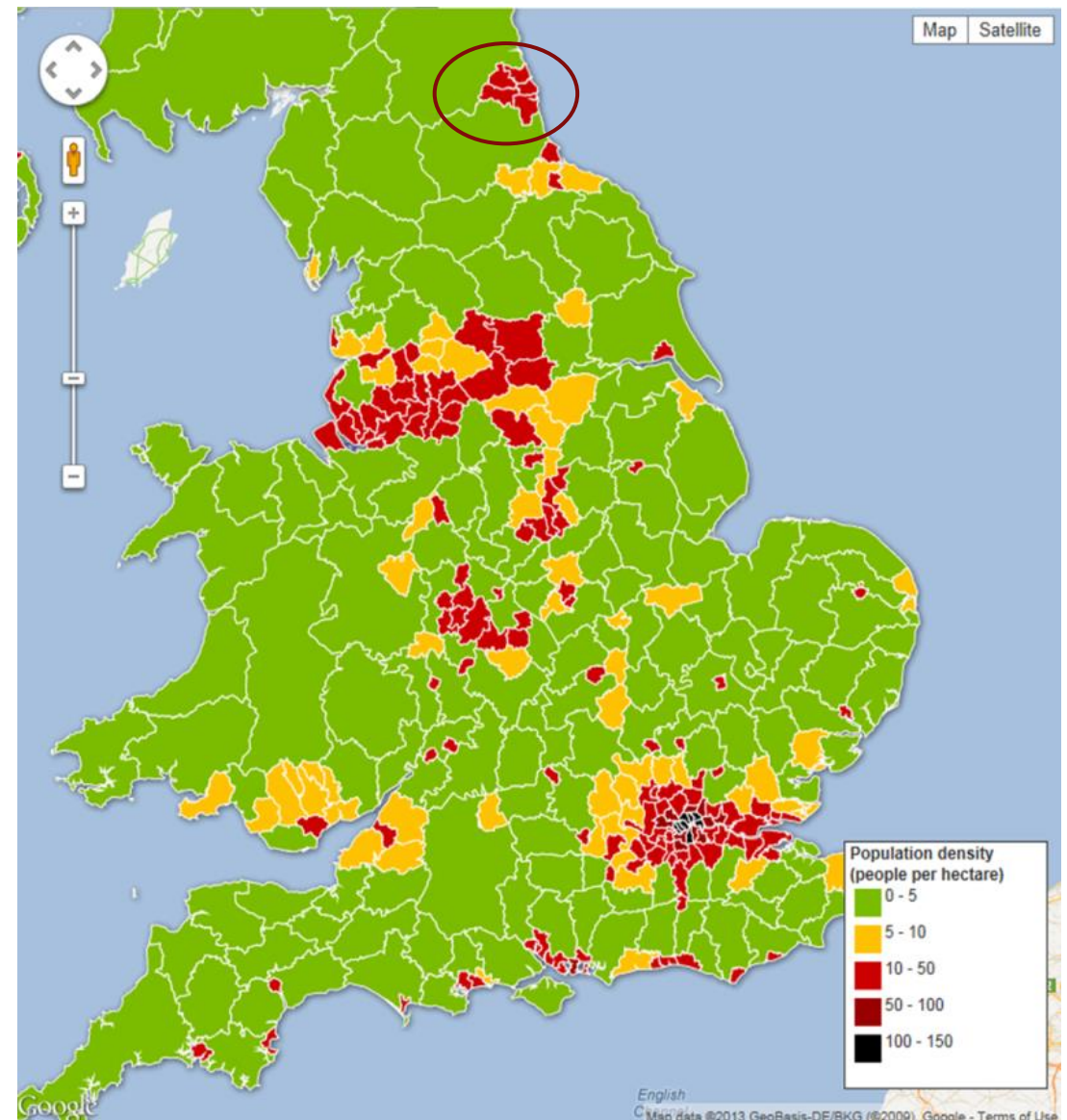
Population

The following chart shows the population of Tyne and Wear broken down across the Local Authority areas.
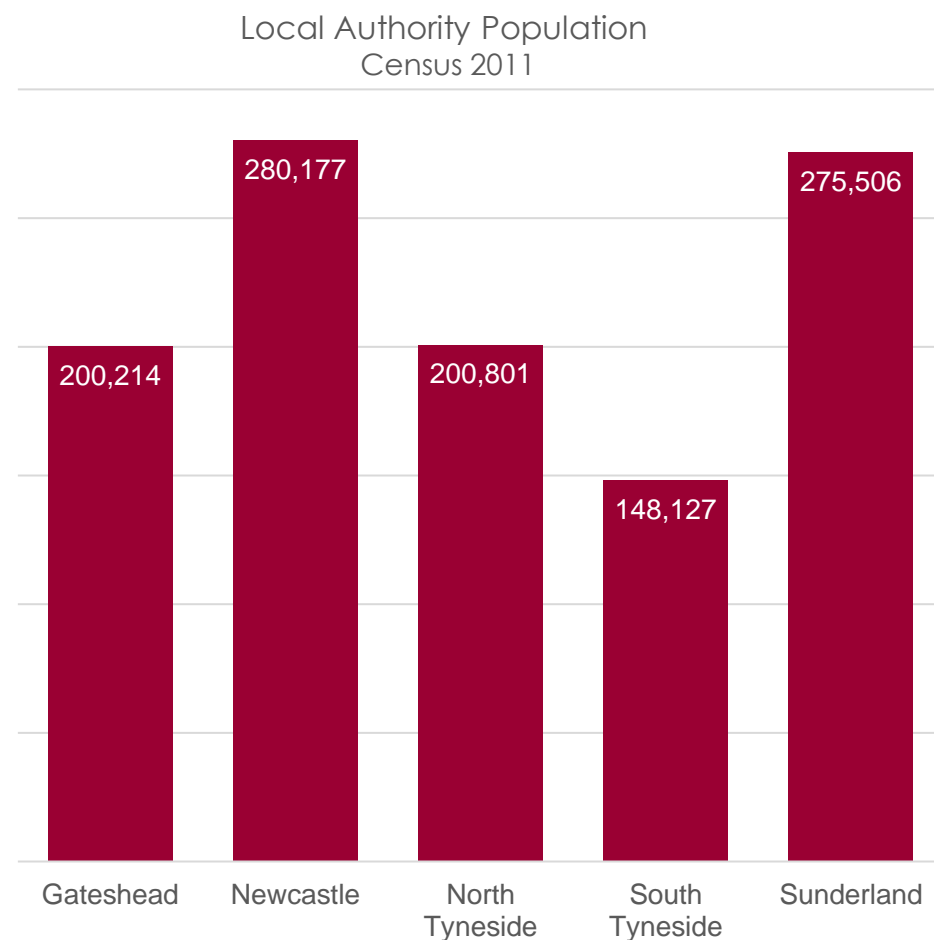
The age structure of the population within Tyne and Wear is detailed below:

Local Authority Population
Census 2011

Local Authority	Population
Gateshead	200,214
Newcastle	280,177
North Tyneside	200,801
South Tyneside	148,127
Sunderland	275,506

Age Structure of Tyne and Wear
Cenus 2011

- **65-84**, 14.53%
- **85+**, 2.13%
- **0-14**, 16.31%
- **15-24**, 14.50%
- **25-44**, 26.18%
- **45-64**, 26.35%
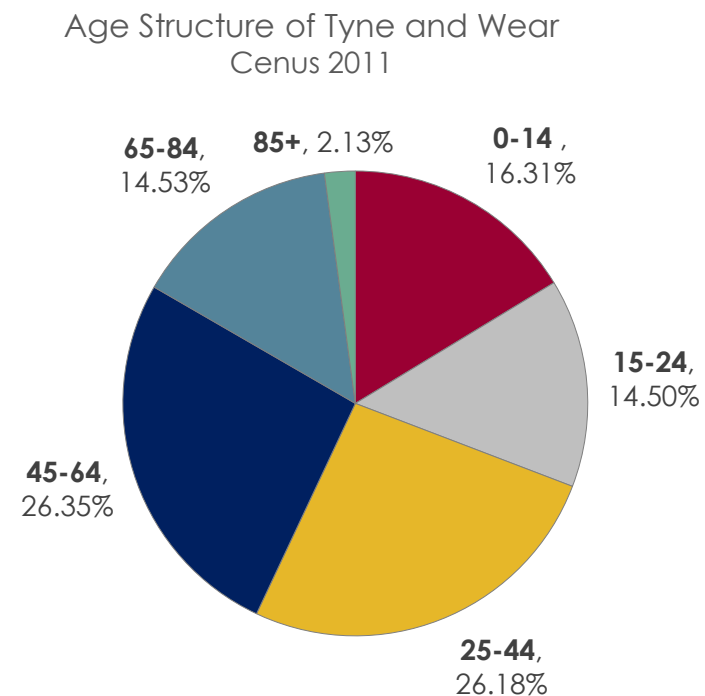
Over 50% of the population within Tyne and Wear are within the 25 - 64 age group and those aged 65 and over make up over 16%

Population

In the decade between Census 2001 and Census 2011, the population on Tyne and Wear showed an increase of 1.65% (17,300).

The rate of population Change in each constituent Local Authority was as follows:

- Gateshead: + 9,100 (+ 4.8%)
- Newcastle: + 12,900 (+ 4.8%)
- North Tyneside: + 9,200 (+ 4.8%)
- Sunderland: - 9,300 (- 3.3%)
- South Tyneside: - 4,600 (- 3.0%)

Regional projections indicate that this picture is set to change again by 2021 with Tyne and Wear's total population rising to 1.160m, a 5.1% increase spread across all of the constituent local authorities. This is lower than that in most other metropolitan areas (Greater Manchester 6.5%, West Midlands 7.6%, South Yorkshire 5.7%, West Yorkshire 9.1%) other than Merseyside (0.8%).

Total Population 2001 - 2021 (projected)
Census 2011

	2001	2011	2021
Gateshead	191,000	200,000	207,000
Newcastle	266,000	279,000	299,000
North Tyneside	192,000	201,000	216,000
South Tyneside	153,000	148,000	154,000
Sunderland	285,000	275,000	284,000
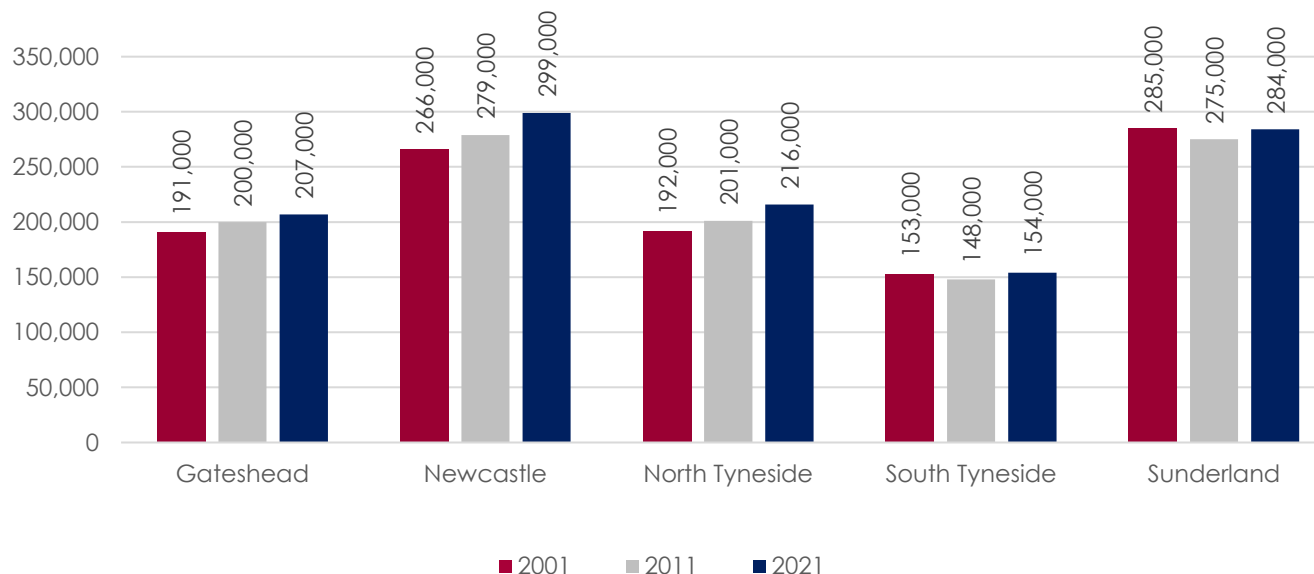
Population

In terms of changes by age band, the projections for Tyne and Wear are as follows:

Under 25s: In 2021 the 0-14 age group is expected to remain at around 16% of the population total. The percentage share of the population relating to the 15-24 age group is expected to reduce from 14.5% to 12.74%.

25-44: The percentage share of the population in this group is expected to remain around 26%.

45-64: The percentage share of the population in this group is expected to reduce from 26.4% to 24.8% by 2021.

65 and over: The regional projections[x] indicate that "the percentage of the population aged 65 and over is projected to be one of the fastest growing among the regions". The percentage s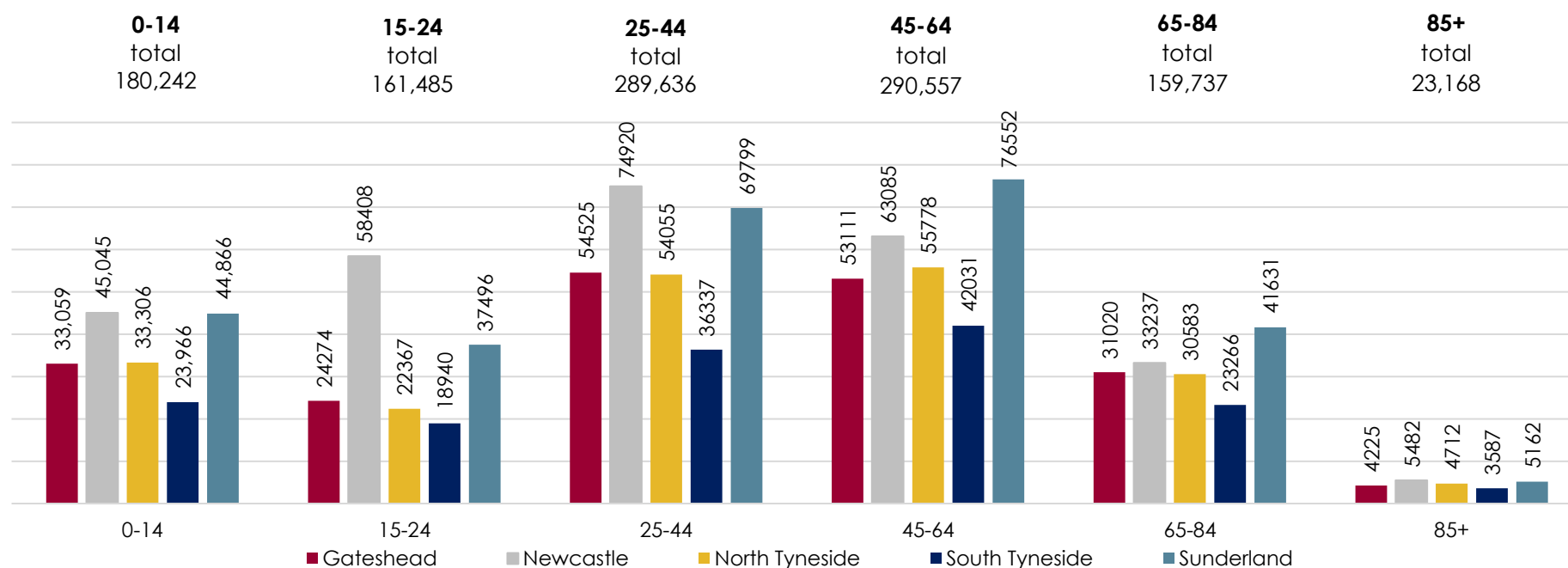hare of the population relating to the 65 and over age group is expected to show an increase from 16.66% to 18.89% which is an increase of 19% from 2011 to 2021.

Population by Local Authority Area and Age Group
Census 2011

0-14 total 180,242	15-24 total 161,485	25-44 total 289,636	45-64 total 290,557	65-84 total 159,737	85+ total 23,168

Legend: ■ Gateshead ■ Newcastle ■ North Tyneside ■ South Tyneside ■ Sunderland

0-14: Gateshead 33,059; Newcastle 45,045; North Tyneside 33,306; South Tyneside 23,966; Sunderland 44,866

15-24: Gateshead 24274; Newcastle 58408; North Tyneside 22367; South Tyneside 18940; Sunderland 37496

25-44: Gateshead 54525; Newcastle 74920; North Tyneside 54055; South Tyneside 36337; Sunderland 69799

45-64: Gateshead 53111; Newcastle 63085; North Tyneside 55778; South Tyneside 42031; Sunderland 76552

65-84: Gateshead 31020; Newcastle 33237; North Tyneside 30583; South Tyneside 23266; Sunderland 41631

85+: Gateshead 4225; Newcastle 5482; North Tyneside 4712; South Tyneside 3587; Sunderland 5162

F

Population

There is a clear indication that Tyne and Wear like the country in general, is encountering an ageing population. Age is a risk factor for fire. The charts below show fire deaths and injuries in Tyne and Wear by age group. Our targeting and delivery policies take account of this. It is worth noting that our community is among the safest in the country from fire deaths and injuries[xi].

Since the largest percentage increase in population is in the 65 and over category, our policies, procedures and resource allocation will need to be continually adapted to protect this vulnerable group.

Accidental Dwelling Fire Injuries
01/04/2009 - 31/03/2019

Age	Value
0-15	49
16-39	181
40-64	152
65+	143
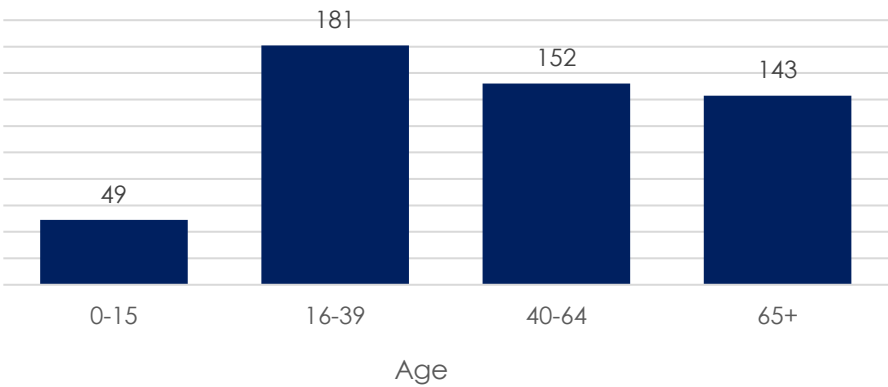
Accidental Dwelling Fire Fatalities
01/04/2009 - 31/03/2019

Age	Value
0-15	0
16-39	3
40-64	9
65+	10
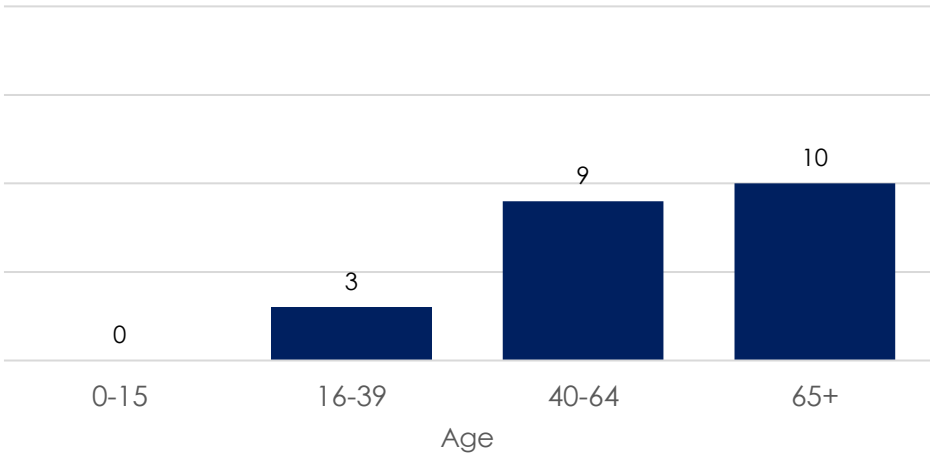
Ethnicity and Language

Ethnicity

Comparison of the last two censuses show that the population of Tyne and Wear is becoming more ethnically diverse: in 2001 95.4% of the population declared themselves as White British whereas in 2011 this figure was 91.5%.

The breakdown of the population by local authority area is as follows[xii].

	White British (%)	White other (%)	Asian/ Asian British (%)	Black/ African/ Caribbean / Black British (%)	Mixed and multiple ethnic groups (%)	Other (%)
Gateshead	94.1	2.2	1.9	0.5	0.8	0.5
Newcastle	81.9	3.6	9.7	1.8	1.5	1.5
North Tyneside	95.1	1.5	1.9	0.4	0.9	0.2
South Tyneside	95.1	0.9	2.2	0.3	0.9	0.7
Sunderland	94.8	1.1	2.7	0.5	0.6	0.3

Main Language

In relation to language, the vast majority (95.9%) of residents aged 3 or over use English as their main language. However, there are a number of other languages spoken within Tyne and Wear which largely correspond to the migration patterns experienced in each local area.

The most commonly spoken languages as defined in the census 2011 are shown below[xiii].

Language	Speakers	%
English	1,021,903	95.9%
Bengali	4,907	0.46%
All other Chinese (exc: Mandarin, Cantonese)	4,783	0.45%
Polish	3,715	0.35%
Arabic	3,203	0.30%
Urdu	2,111	0.20%
Persian/Farsi	1,776	0.17%
Panjabi	1,623	0.15%
Tagalog/Filipino	1,237	0.12%
French	1,231	0.12%
All Other Languages	19,642	1.84%

Religion

65% of the population across Tyne and Wear identified themselves as Christian in the 2011 census. A further 24.9% stated that they followed no religion, while 5.96% did not state a religious preference on their census return.

There are significant variations within local authorities: Newcastle has the greatest ethnic diversity, Sunderland the least. Tyne & Wear's Jewish community in Gateshead and the Muslim community in Newcastle are larger than the national average.

The religions followed by Tyne and Wear residents are shown in the chart opposite.

Religions of Tyne and Wear Residents
Census 2011

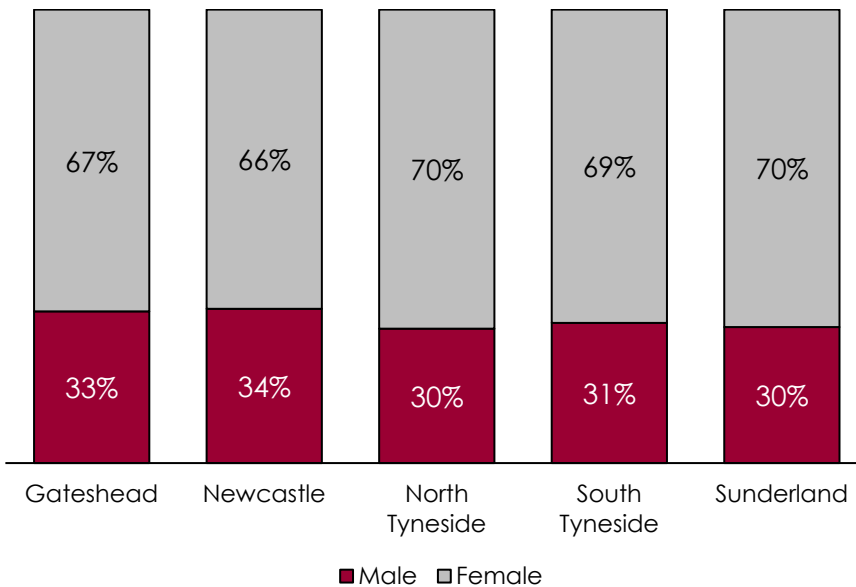| Religion	Percentage
Christian	65.00%
No religion	24.90%
Religion not stated	5.96%
Muslim	2.50%
Hindu	0.45%
Jewish	0.35%
Buddhist	0.30%
Sikh	0.29%
Other religions	0.24%
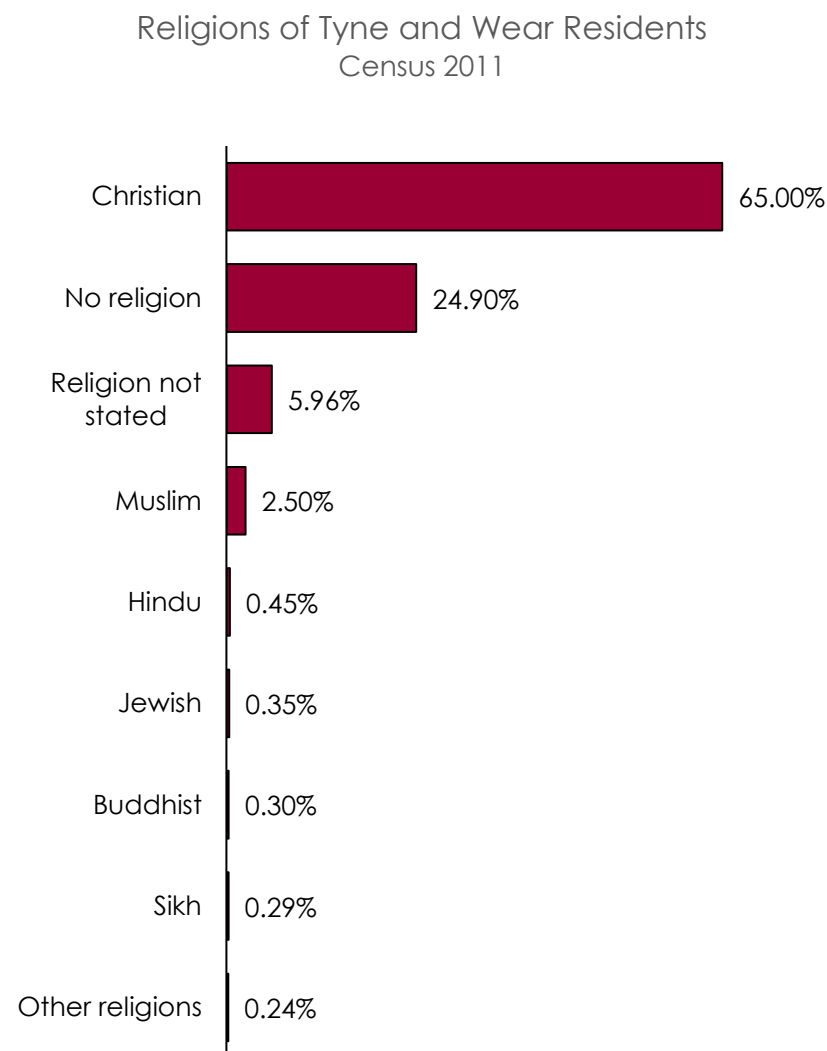
Housing

33.5% of homes within Tyne and Wear are one-person households, the majority of which fall into the 'aged 50 and over' category.

When looking further into the composition of these households, most are single females. 40% of one-person households are aged 65 or over, 68% of which are female.

21.2% of all households within Tyne and Wear are aged 65 or over; the percentage in Newcastle is somewhat lower than in other parts of Tyne and Wear.

Male / Female split of one person households

	Gateshead	Newcastle	North Tyneside	South Tyneside	Sunderland
Female	67%	66%	70%	69%	70%
Male	33%	34%	30%	31%	30%

■ Male ■ Female

% of Households Aged 65 or over
2011 Census

Gateshead	Newcastle	North Tyneside	South Tyneside	Sunderland
21.9	18.7	22.0	22.8	21.6

■ Local Authority ▬▬ Tyne and Wear
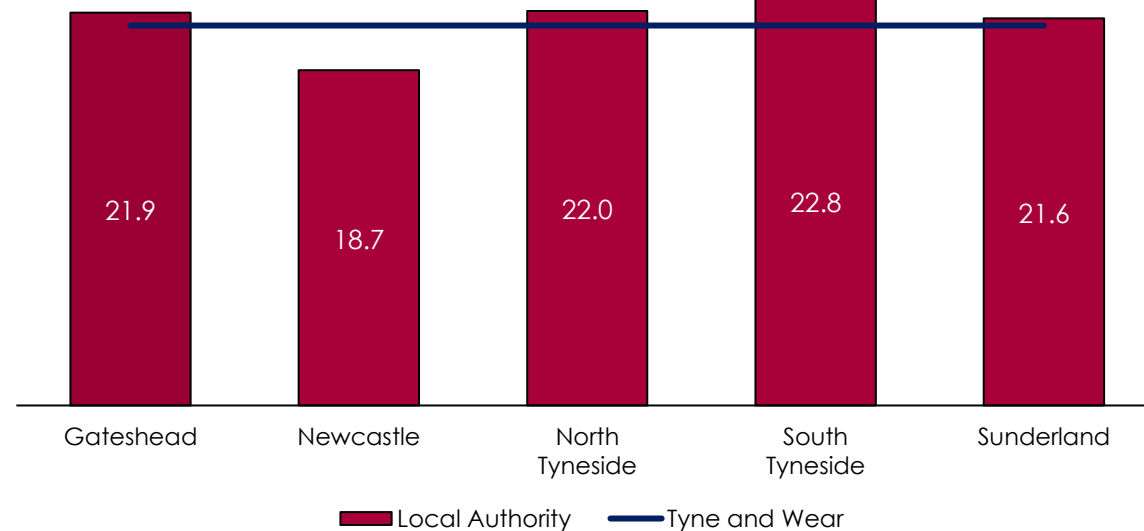
Housing

It is expected that households in Tyne and Wear will increase by 11% by 2041[xiv] and one-person households will continue to make up the greatest proportion.
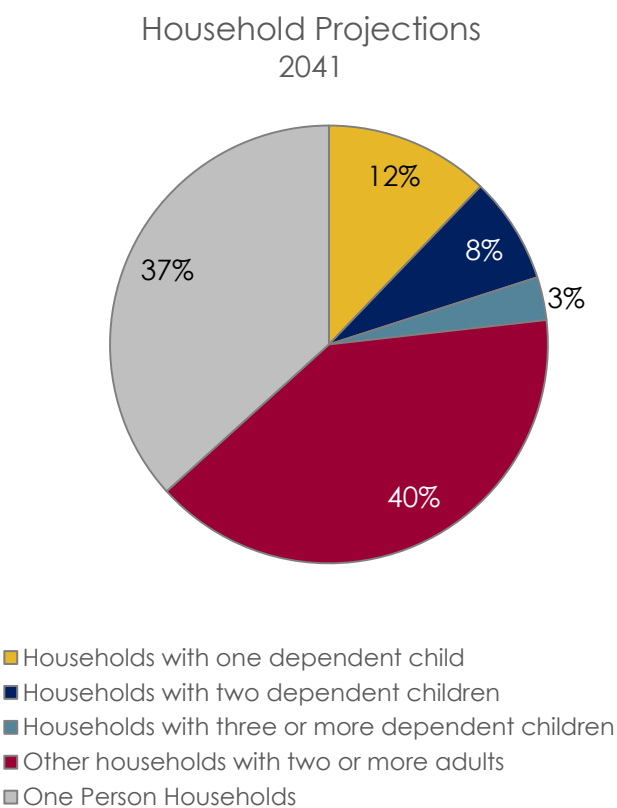
In terms of tenure, 41% of individuals rent their properties which is higher than the national average of 34.5%.

Household Projections 2041

- Households with one dependent child
- Households with two dependent children
- Households with three or more dependent children
- Other households with two or more adults
- One Person Households

Households by Tenure Census 2011

	Gateshead	Newcastle	North Tyneside	South Tyneside	Sunderland
Owned	51,915	57,955	59,136	38,333	71,566
Shared Ownership	363	489	374	297	352
Social Rented	24,941	34,850	19,677	21,204	32,399
Private Rented	11,125	22,318	11,300	6,758	14,552
Living Rent Free *	810	1,541	808	575	889

* The owner is not asking for payment

Dwelling Stock

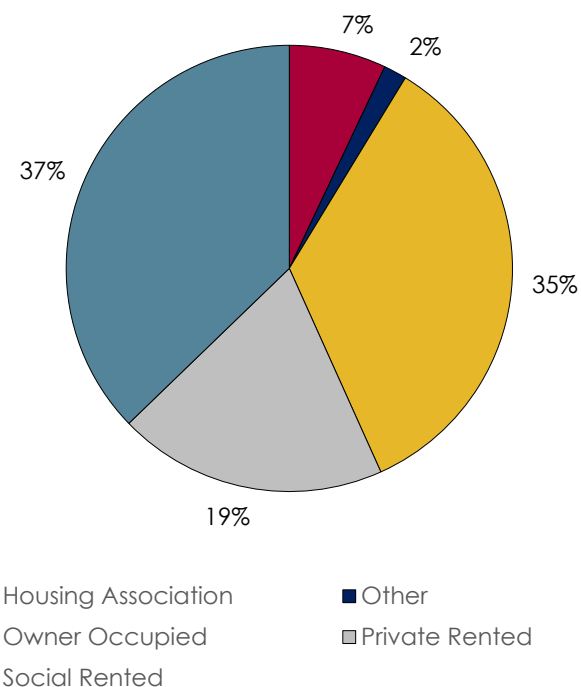In 2018 it was identified that Tyne and Wear is made up of 521,950 dwellings[xv]. This is an increase of 4% (20,020) since 2011 and is distributed as follows:

	Local Authority Owned	Private Registered Provider	Other Public Sector	Private Sector	Total
Tyne and Wear	**77,010**	**60,740**	**1,400**	**382,800**	**521,950**
Gateshead	19,290	5,220	400	69,000	93,910
Newcastle	25,700	10,240	1,000	92,850	129,790
North Tyneside	14,970	5,940	0	77,650	98,560
South Tyneside	17,050	5,090	0	49,730	71,870
Sunderland	0	34,260	0	93,570	127,830

Household makeup, tenure and length of residence all have an influence on fire risk and is reflected in the incidents that occur.

For example, analysis of accidental dwelling fires for TWFRS from 2016/17 to 2018/19 indicates that such fires are more likely to occur in rented accommodation (see following chart).

Accidental Dwelling Fires by Ownership 2016/17 - 2018/19

- 7%
- 2%
- 37%
- 35%
- 19%

- ■ Housing Association
- ■ Other
- ■ Owner Occupied
- ■ Private Rented
- ■ Social Rented

High Rise Buildings

In response to the Grenfell Tower fire on June 14th 2017, we engaged with all local social housing providers, setting out their responsibilities and providing options for future joint initiatives to continue to improve the safety of residents in these properties.

We also took a number of steps including:

- Visiting approximately 12,000 flats to provide reassurance and conduct safety checks.

- Conducting over 200 audits of high rise buildings which provided building owners and managers with the opportunity to ask advice and better assess the fire safety measures within their buildings. This also allowed our operational crews to gather vital risk information relating to each building to check and improve firefighter safety.

- Conducting high rise training in collaboration with partners utilising a local authority premises to ensure we are well prepared and can respond effectively to high rise incidents.

- We also provided reassurance to residents and the wider community through a range of media releases; strengthened fire safety advice and radio and tv interviews. We have also been working with housing providers to direct residents to information regarding HSCs. We also engaged with hospitals, universities and

other building owners where there was a potential increased risk due to cladding materials.

We continue to work with our community to support them following lessons learned from this tragic event, continuing to assess and implement the findings from the Grenfell Tower Inquest and revision of building standards.

Short Term Residence

Population transience and short term residence are other challenges we face in Tyne and Wear. The census only captures short term residence where this relates to people born outside the UK.
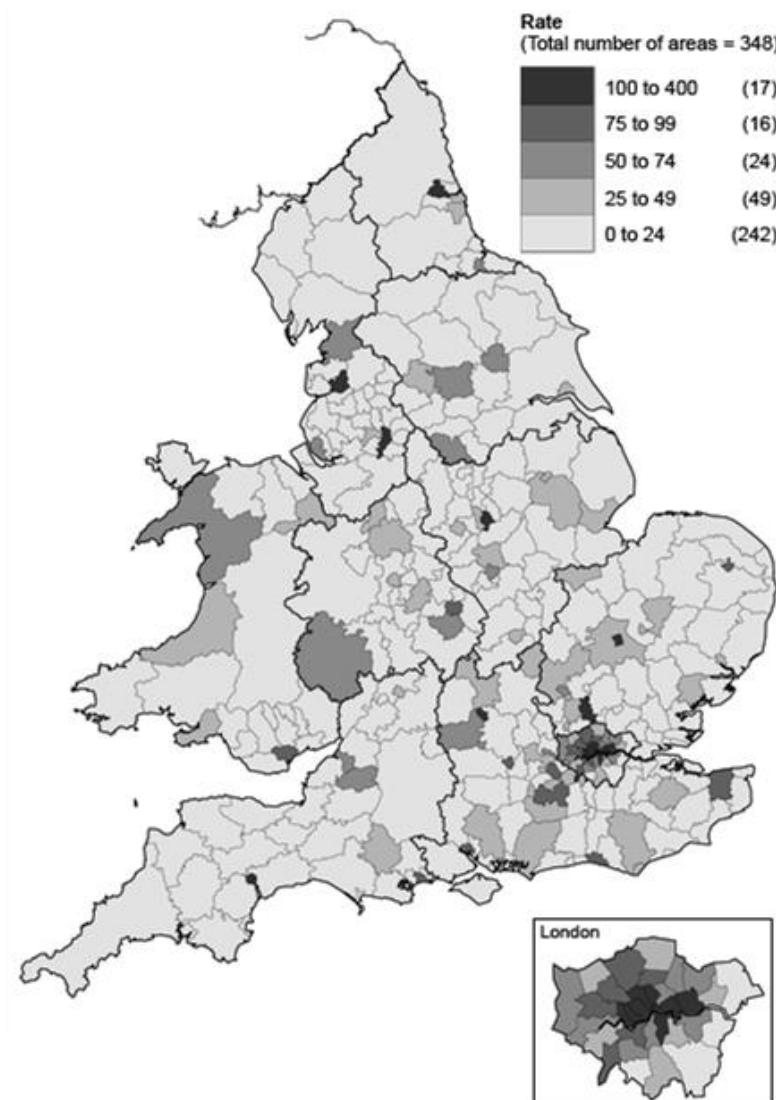
The census map opposite shows non-UK born residents per 10,000 usual residents for England and Wales broken down into local or unitary authority districts. The numbers are particularly high in Newcastle.

Another contributory factor in the transient population of the area is the student population. Tyne and Wear has three universities – two in Newcastle and one in Sunderland.

Student numbers for our universities were as follows in 2018/19[xvi].

University	Postgraduate	Undergraduate	Total
Newcastle	6,365	20,845	27,210
Northumbria	5,750	20,700	26,450
Sunderland	2,785	11,925	14,710

It will be less likely that a Home Safety Check, along with the accompanying fire safety in the home advice, will have taken place in these types of premises.

Rate
(Total number of areas = 348)

100 to 400	(17)
75 to 99	(16)
50 to 74	(24)
25 to 49	(49)
0 to 24	(242)

London

Growth and Development

Along with population growth, the social and economic regeneration activities led by our local authority partners influence the changing shape of the built environment and the makeup of different communities over the years.

Tyne and Wear FRS is informed of new properties (both domestic and non-domestic) when we receive gazetteer updates from Ordnance Survey; however we also work with partners to identify forward plans to inform our own strategic planning.

Domestic Properties

New premises are routinely added to CFRMIS through the gazetteer update and at the same time evaluated (as part of the import process) to determine their MOSAIC classification type code. Properties are then filtered into the relevant priority group for HSC or risk based inspection targeting in line with the current strategy.

Similarly, any domestic premises that have been demolished will have their building status amended accordingly in CFRMIS and will cease to appear on any targeting reports.

Non-Domestic Properties

The Valuation Office Agency states that Tyne and Wear have 36,600 non domestic premises as at 2019. New non-domestic premises are also imported automatically into CFRMIS. Depending on the use of the premises (and associated risk) a fire safety visit will be scheduled for a point in the future in accordance with the standard re-inspection frequencies held in CFRMIS's Inspection Frequency Officer Grade (IFOG) planner.

The Fire Safety pending workload schedule is evaluated annually and premises audits are prioritised based on risk, premises type, previous compliance and fire trend data. Any non-domestic premises that have been demolished or that have ceased trading, will not form part of the Risk Based Inspection Programme.

In terms of forward planning the following pages set out some of the changes envisaged throughout Tyne and Wear based on our planning strategy.

Growth and Development

Newcastle and Gateshead

Newcastle and Gateshead have been working together to produce 'The Core Strategy and Urban Core Plan'[xvii] which will guide development in Newcastle and Gateshead through to 2030.

Some key elements from the plan specific to Newcastle include:

- 21,000 new homes to be built.
- 14,000 additional jobs created in areas such as offshore engineering and life sciences.
- Business expansion on sites such as: Science Central, East Pilgrim Street, the Central Station and Stephenson Quarter, on the banks of the Tyne and at Newcastle International Airport.

Some key elements from the plan specific to Gateshead include:

- 11,000 new homes to be built.
- 8,000 new jobs created.
- Regeneration of the area close to Dunston, Metrocentre and the River Derwent.
- District and local centres to be revitalised and strengthened; examples being Birtley, Blaydon and Felling.
- Development of Gateshead Quays and Baltic Business Quarter.

The full plan can be found at: www.newcastle.gov.uk

Growth and Development

North Tyneside

The below is an extract from the North Tyneside Local Plan 2017[xviii] detailing potential development sites over the next 15 years.
The key elements of the plan include:

- Protect the Green Belt in North Tyneside
- Provide new accessible open space – adding to the 25% of the borough that is already open space.
- Regenerate and redevelop brownfield sites and deliver appropriate development of sustainable greenfield land amounting to around seven per cent of the borough's area – to support at least 12,700 new jobs and 23,000 more residents.
- Prioritise regeneration in Wallsend, North Shields, the coast and the North West.
- Ensure development considers the environmental, social and economic conditions of the area.

The full plan can be found at:
 *www.northtyneside.gov.uk*

Growth and Development

South Tyneside

The South Tyneside Local Development Framework[xix] sets out a number of proposals for the area including:

- Investing £180m in new and improved homes building on the success of 71 new affordable homes in Hebburn and UK's biggest solar-powered social housing project at Sinclair Meadows in South Shields, securing economic growth by building on the borough's reputation in marine, offshore and automotive industries to become a leading centre for advanced engineering and manufacturing. This will be supported by the ongoing partnership with Sunderland through the 'City Deal' agreement to drive economic growth for the borough and region.

- Meeting the demand for up to 12,000 new homes over the next 20 years working with a range of housing providers.
- Major new transport schemes such as Testo's Grade Separation, the extension of the Metro line and A185 improvements.
- Development plans for Hebburn Town Centre, Jarrow and South Shields Town Centres and Waterfront.
- Regeneration plans are also to be developed for Boldon, Whitburn and Cleadon.

The full plan can be found at: *www.southtyneside.gov.uk*
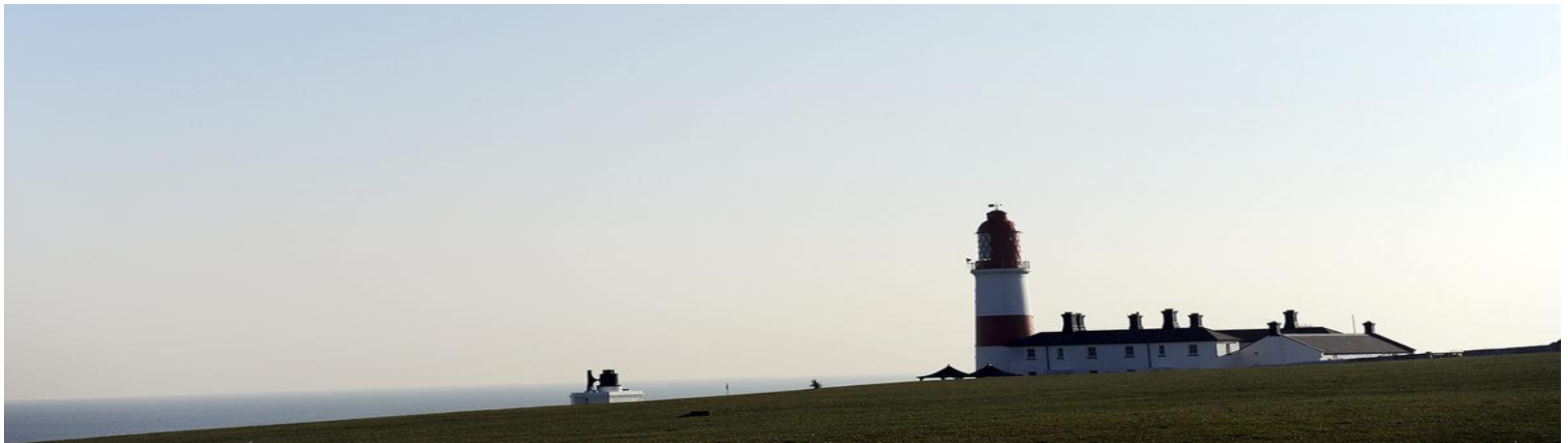
Growth and Development

Sunderland

Part of Sunderland's Local Plan[xx] is the 'Core Strategy and Development Plan' which is a long-term plan for development across the city to 2033.

Some key points from the plan include:

- 13,824 new homes to be built across the city in various locations.
- An aim to provide an additional 10,337 new jobs.
- Regeneration of the city centre to provide extra retail and leisure facilities whilst limiting the number of hot food takeaways.
- Ensure that the impact of the development on the city's environment is limited.
- Produce an 'Infrastructure Delivery Plan' to set out the facilities required to deliver the proposed development.

The full plan can be found at www.sunderland.gov.uk.

Deprivation

Indices of Deprivation (IMD)

IMD measures multiple deprivation for local authority areas and smaller Lower Layer Super Output Areas (LSOAs). The index is made up of seven themed Domains or groupings of deprivation indicators. Each Domain contributes a different amount (%) to the overall index as follows:

- Income Domain (22.5%)
- Employment Domain (22.5%)
- Health and Disability Domain (13.5%)
- Education, Skills and Training Domain (13.5%)
- Barriers to Housing and Services Domain (9.3%)
- Crime Domain (9.3%)
- Living Environment Domain (9.3%)

The overall IMD combines each of the themed domains into a single overall measure of deprivation. Each themed domain combines multiple quality of life indicators, totalling 39 overall.

Deprivation varies between and within local authority areas. Based on average ranks, Tyne and Wear residents experience levels of deprivation among the highest in the country, our local authority areas are ranked as follows out of **317**[xvi].

- South Tyneside: **26th** most deprived
- Sunderland: **33rd**
- Gateshead: **54th**
- Newcastle: **74th**
- North Tyneside: **128th**

IMD 2019 by LSOA in England
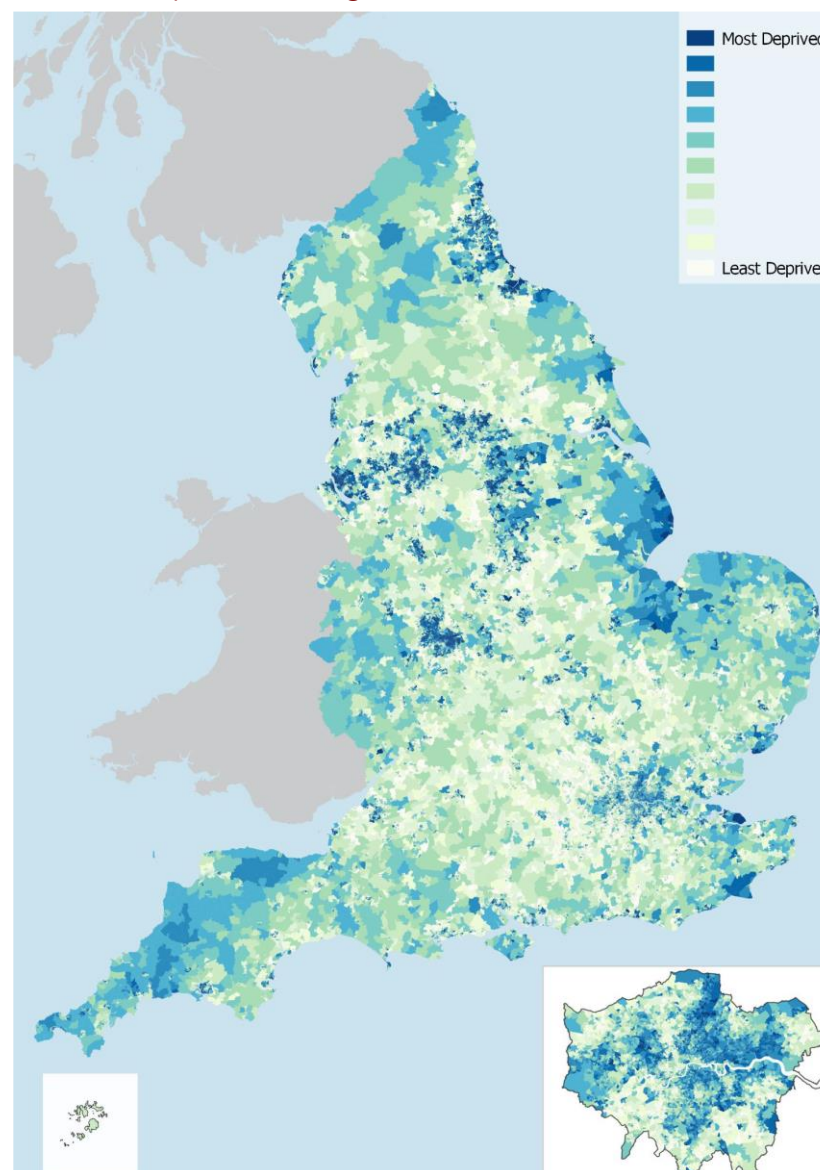
Deprivation

Indices of Deprivation (IMD)

As well as the overall makeup of the population, national research indicates that there is a correlation between deprivation in an area and fire risk. In particular, risk of accidental dwelling fires / casualties arising from these and risk of deliberate (anti-social behaviour) fires.

The map opposite shows the Indices of Deprivation data for each district. The colours on the map indicate the deprivation decile of each LSOA for England as a whole, and the coloured bars above indicate the proportion of LSOAs in each national deprivation decile. The most deprived areas (decile 1) are shown in blue. LSOAs have an average population of just under 1,500 (as of 2019).

The areas of greatest deprivation have a tendency to be clustered in former areas of heavy industry (e.g. along riverbanks or former coal mining areas) and in city or town centres.

IMD 2019 by Local Authority in England

Note: there are 123 Districts with no Lower-layer Super Output Areas in the most deprived 10 per cent of areas. These areas score zero on this summary measure and are shown in the least deprived decile.
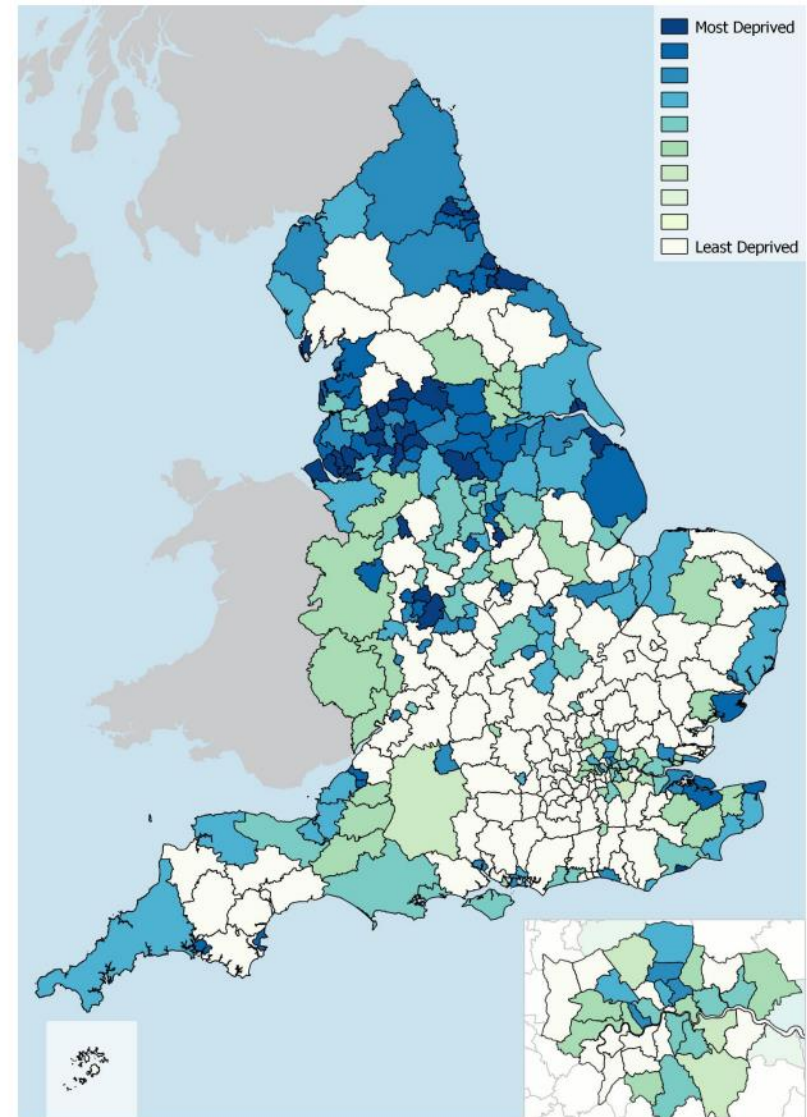
English Indices of Deprivation 2019
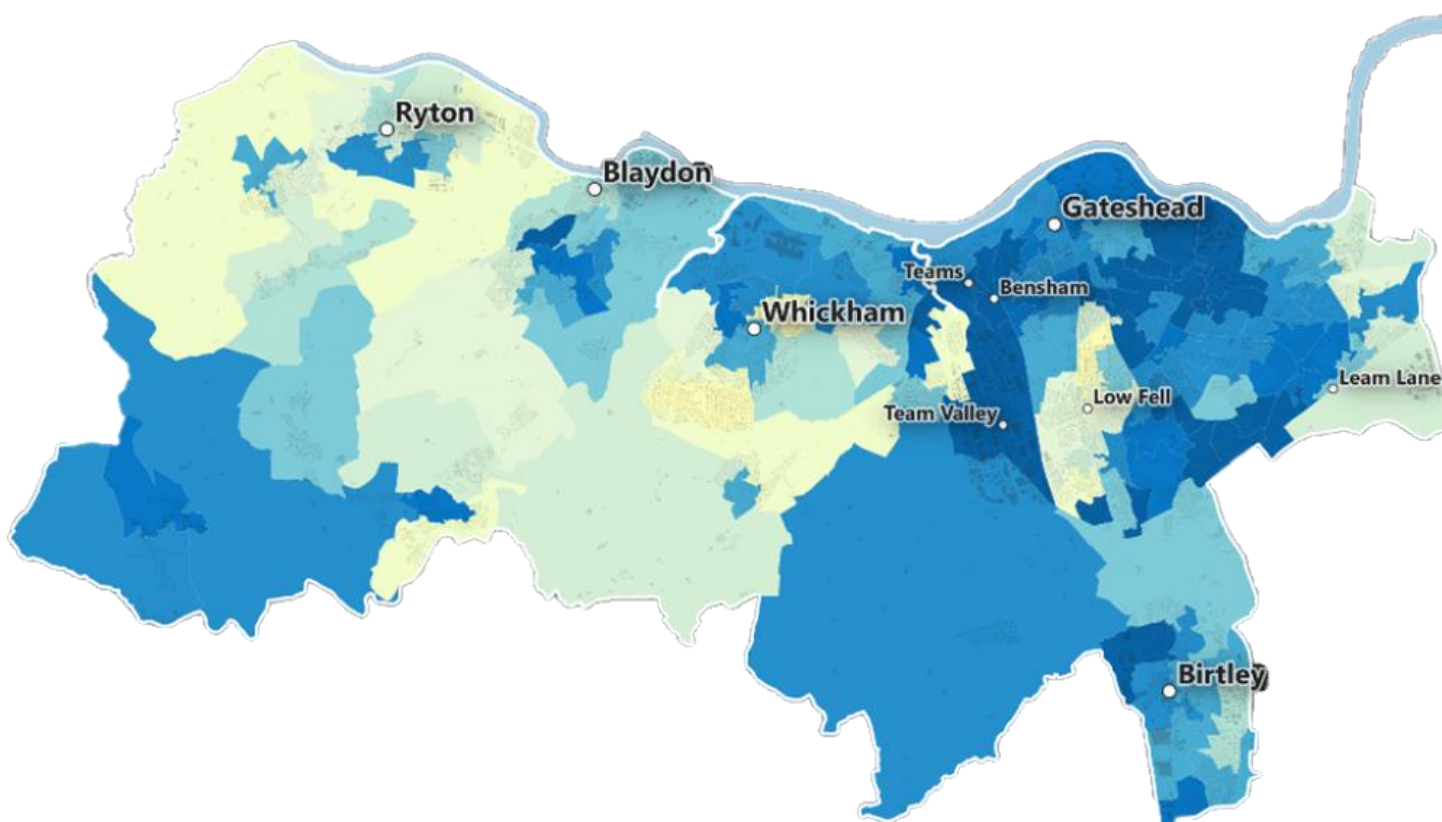
GATESHEAD

Local deprivation profile

% of LSOAs in each national deprivation decile

MORE DEPRIVED

Decile	%
1	16.7%
2	15.1%
3	19.8%
4	8.7%
5	10.3%
6	4.8%
7	7.1%
8	7.1%
9	6.3%
10	4.0%

LESS DEPRIVED
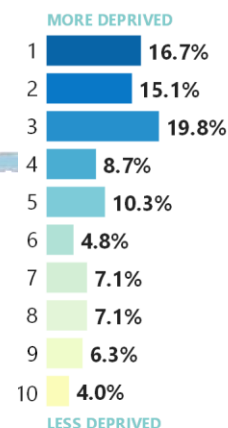
What this map shows

This is a map of Indices of Deprivation 2019 data for **Gateshead**. The colours on the map indicate the deprivation decile of each Lower Layer Super Output Area (LSOA) for England as a whole, and the coloured bars above indicate the proportion of LSOAs in each national deprivation decile. The most deprived areas (decile 1) are shown in blue. It is important to keep in mind that the Indices of Deprivation relate to small areas and do not tell us how deprived, or wealthy, individual people are. LSOAs have an average population of just under 1,700 (as of 2017).

More deprived   **Less deprived**

Relative level of deprivation

English Indices of Deprivation 2019

NEWCASTLE UPON TYNE

Local deprivation profile

% of LSOAs in each national deprivation decile

MORE DEPRIVED

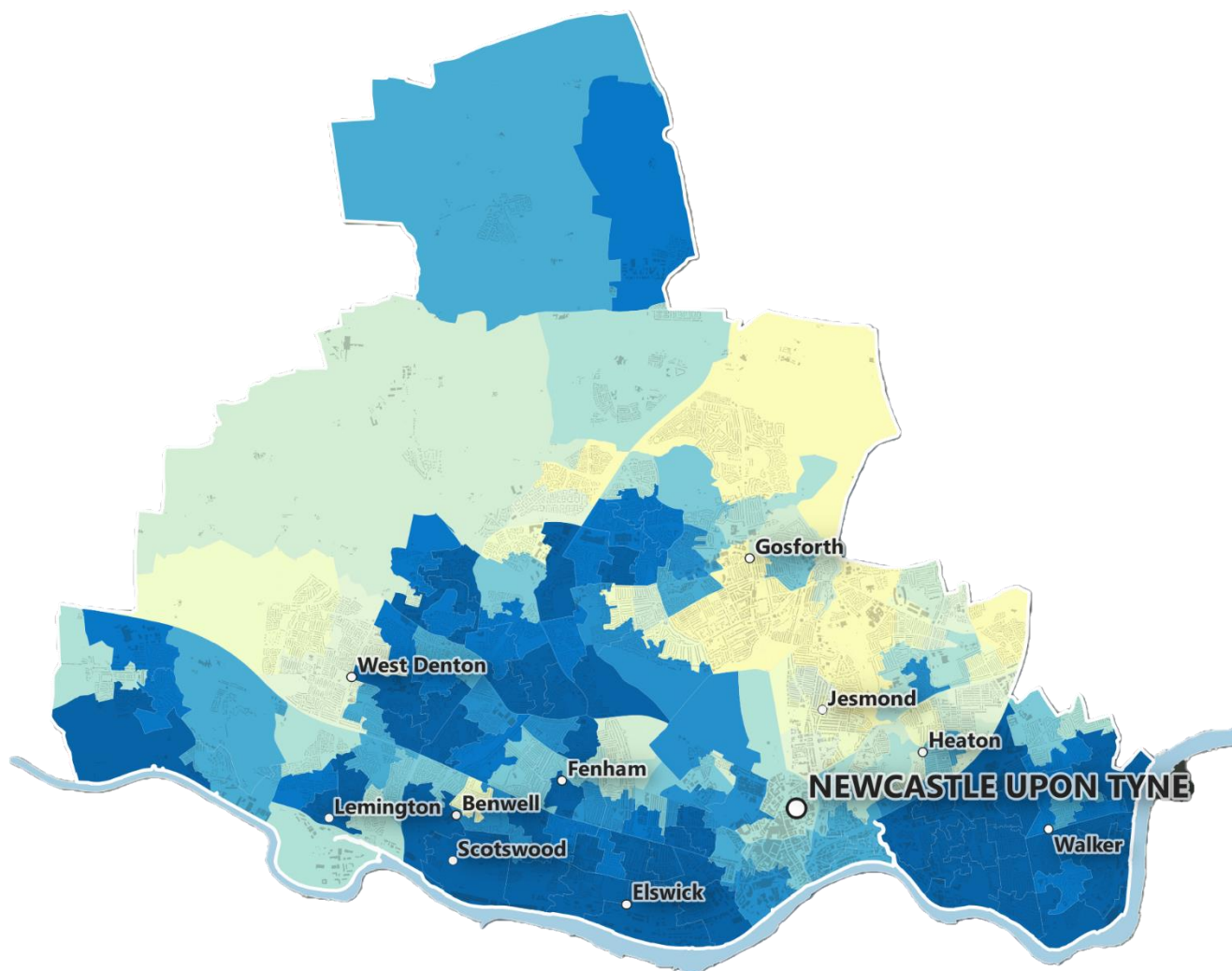| Decile	Percentage
1	25.7%
2	13.7%
3	7.4%
4	7.4%
5	8.0%
6	7.4%
7	6.3%
8	6.9%
9	7.4%
10	9.7%

LESS DEPRIVED

What this map shows

This is a map of Indices of Deprivation 2019 data for **Newcastle upon Tyne**. The colours on the map indicate the deprivation decile of each Lower Layer Super Output Area (LSOA) for England as a whole, and the coloured bars above indicate the proportion of LSOAs in each national deprivation decile. The most deprived areas (decile 1) are shown in blue. It is important to keep in mind that the Indices of Deprivation relate to small areas and do not tell us how deprived, or wealthy, individual people are. LSOAs have an average population of just under 1,700 (as of 2017).

More deprived   Less deprived

Relative level of deprivation

English Indices of Deprivation 2019

NORTH TYNESIDE

Local deprivation profile

% of LSOAs in each national deprivation decile

MORE DEPRIVED

Decile	%
1	9.2%
2	11.5%
3	16.8%
4	10.7%
5	5.3%
6	3.1%
7	11.5%
8	7.6%
9	10.7%
10	13.7%

LESS DEPRIVED

What this map shows

This is a map of Indices of Deprivation 2019 data for **North Tyneside**. The colours on the map indicate the deprivation decile of each Lower Layer Super Output Area (LSOA) for England as a whole, and the coloured bars above indicate the proportion of LSOAs in each national deprivation decile. The most deprived areas (decile 1) are shown in blue. It is important to keep in mind that the Indices of Deprivation relate to small areas and do not tell us how deprived, or wealthy, individual people are. LSOAs have an average population of just under 1,700 (as of 2017).
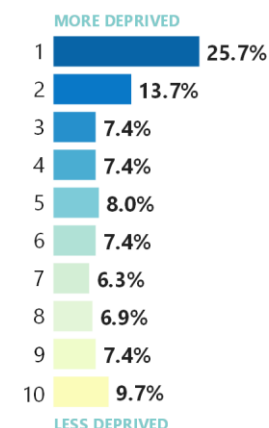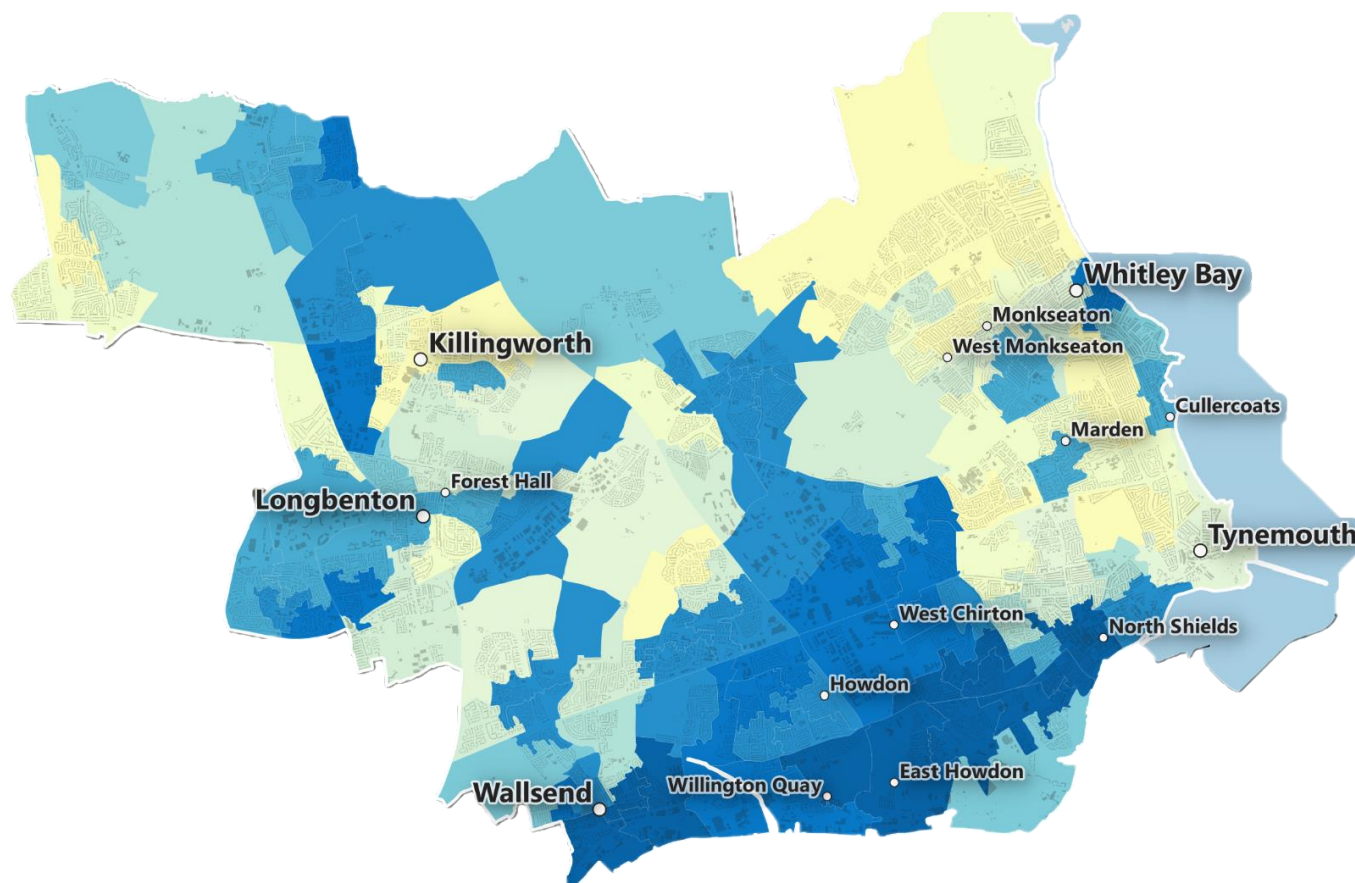
More deprived   **Less deprived**

Relative level of deprivation

English Indices of Deprivation 2019

SOUTH TYNESIDE

Local deprivation profile

% of LSOAs in each national deprivation decile

MORE DEPRIVED

Decile	%
1	24.5%
2	20.6%
3	16.7%
4	9.8%
5	6.9%
6	2.0%
7	3.9%
8	5.9%
9	8.8%
10	1.0%

LESS DEPRIVED
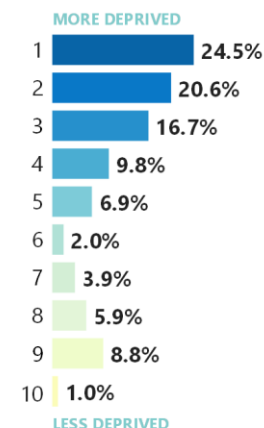
What this map shows

This is a map of Indices of Deprivation 2019 data for **South Tyneside**. The colours on the map indicate the deprivation decile of each Lower Layer Super Output Area (LSOA) for England as a whole, and the coloured bars above indicate the proportion of LSOAs in each national deprivation decile. The most deprived areas (decile 1) are shown in blue. It is important to keep in mind that the Indices of Deprivation relate to small areas and do not tell us how deprived, or wealthy, individual people are. LSOAs have an average population of just under 1,700 (as of 2017).
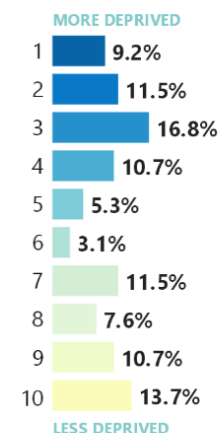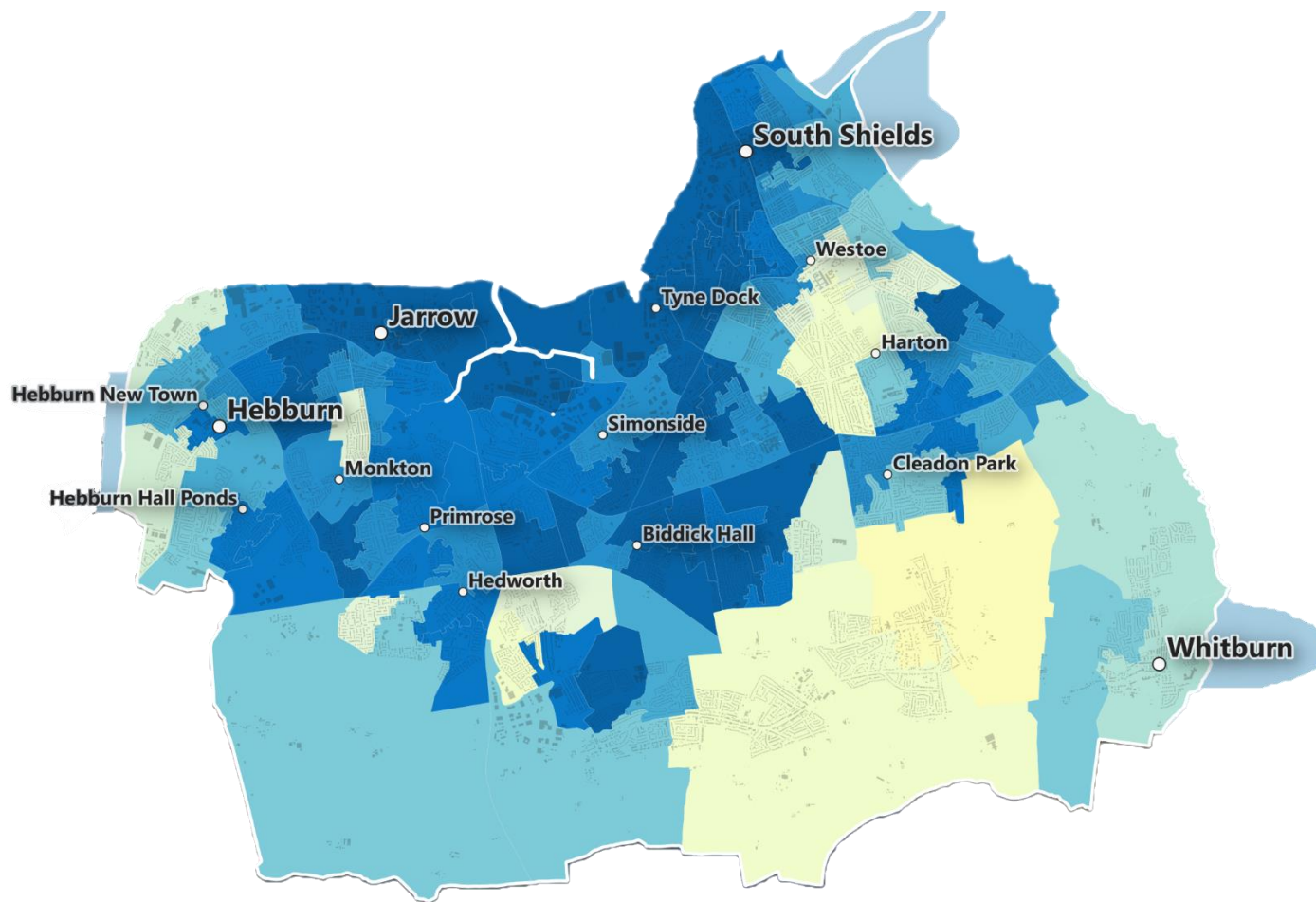
More deprived   **Less deprived**

Relative level of deprivation

English Indices of Deprivation 2019

SUNDERLAND

Local deprivation profile

% of LSOAs in each national deprivation decile

MORE DEPRIVED

Decile	%
1	22.7%
2	17.8%
3	13.0%
4	11.9%
5	8.6%
6	4.9%
7	8.1%
8	8.6%
9	3.8%
10	0.5%

LESS DEPRIVED

What this map shows

This is a map of Indices of Deprivation 2019 data for **Sunderland**. The colours on the map indicate the deprivation decile of each Lower Layer Super Output Area (LSOA) for England as a whole, and the coloured bars above indicate the proportion of LSOAs in each national deprivation decile. The most deprived areas (decile 1) are shown in blue. It is important to keep in mind that the Indices of Deprivation relate to small areas and do not tell us how deprived, or wealthy, individual people are. LSOAs have an average population of just under 1,700 (as of 2017).

More deprived **Less deprived**
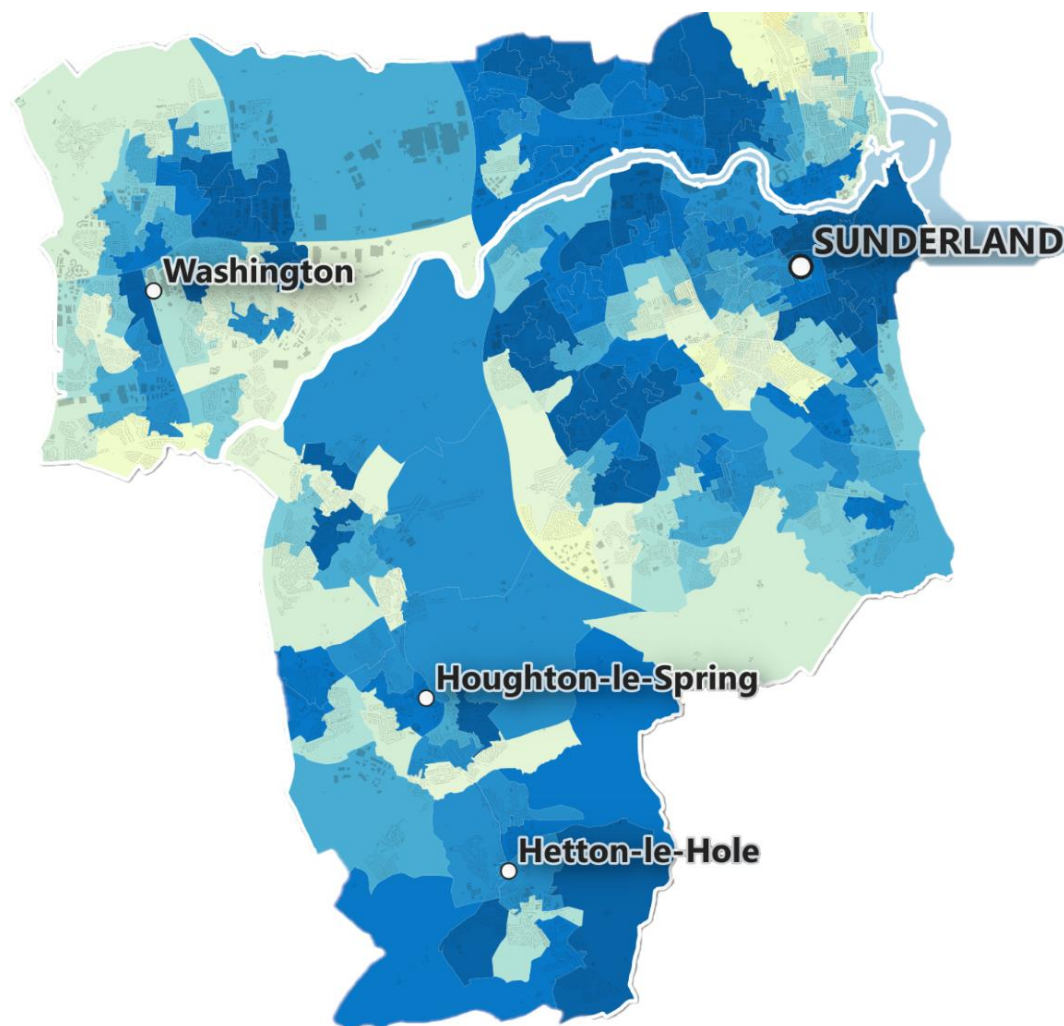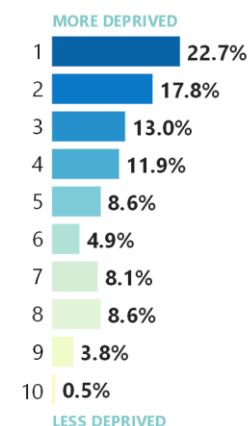
Relative level of deprivation

Unemployment

Level of employment is a key element in the makeup of deprivation rankings. The North East of England (including Tyne and Wear) is experiencing some of the highest unemployment figures in the country.

The map on this page shows unemployment amongst those aged 16 and over with the inset showing Tyne and Wear in detail. All parts of Tyne and Wear have a higher than average proportion of adult unemployment as measured through receipt of out of work benefits.

A regional labour market review in December 2019 by ONS[xxii] showed that although unemployment levels are decreasing, the North East continues to have the highest rate of unemployment in the UK (6.1%).

Unemployment amongst 16-24 years olds also remains particularly high. All parts of Tyne and Wear are experiencing levels higher than the national average.

Rate of Unemployment (%)

%

	8 to 9.1
	6.8 to 7.9
	5.7 to 6.7
	4.6 to 5.6
	3.4 to 4.5
	2.3 to 3.3
	1.1 to 2.2
	0 to 1
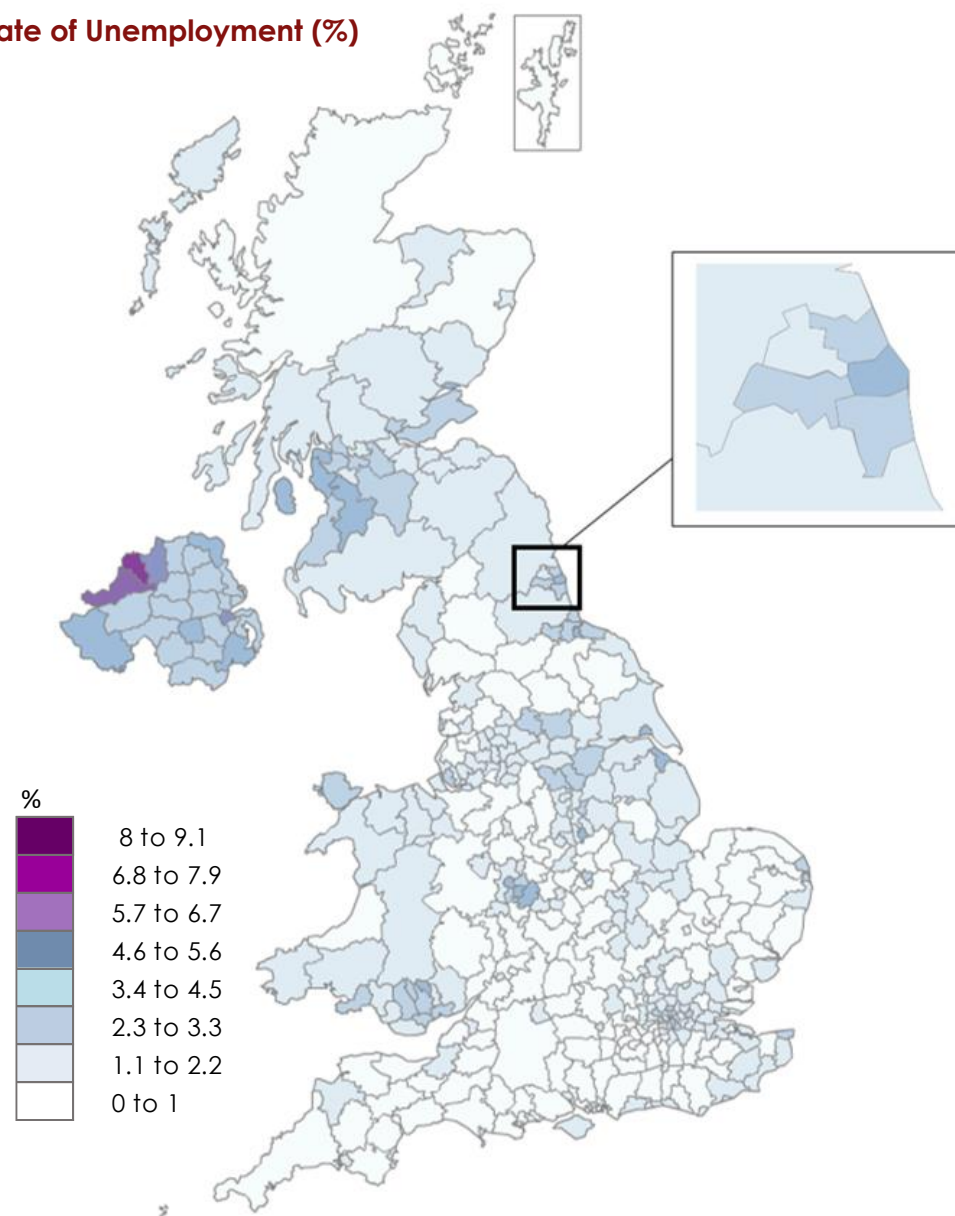
Unemployment

In recent years the percentage of workless households in England has fallen[xviii]. Although Tyne and Wear has seen an increase, some local authority areas within Tyne and Wear have followed this trend.

Workless Households					
	2014 (%)	2015 (%)	2016 (%)	2017 (%)	2018 (%)
England	15.8	14.9	14.6	14.1	13.9
Northumberland and Tyne and Wear	21.3	20.2	19.3	19.1	19.5
Gateshead	18.9	16.7	18.5	17.7	16.2
Newcastle	22.5	23.6	23.0	19.9	21.1
North Tyneside	16.0	14.3	13.6	15.1	17.1
South Tyneside	20.8	20.2	21.2	23.0	24.5
Sunderland	26.0	23.6	19.1	20.1	19.4

In 2018, out of the 201 county / unitary authorities in Great Britain, the Tyne and Wear local authority areas are ranked as follows:

- Newcastle – 22nd
- South Tyneside – 5th
- Sunderland – 31st
- Gateshead – 83rd
- North Tyneside – 68th

The North East region has the highest percentage of workless households in the country at 20%.

19.5% of households in Northumberland and Tyne and Wear are workless. This is higher than England as a whole which is 13.9%.

Unemployment

The following table shows the economic activity of households in England

	Working Households (%)	Mixed Households (%)	Workless Households (%)
England	58	28	14
North East	54	26	20
Tyne and Wear	54	27	20
Gateshead	57	27	16
Newcastle	53	26	21
North Tyneside	57	25	17
South Tyneside	50	26	24
Sunderland	52	26	19
North West	57	27	16
Yorkshire And The Humber	58	26	16
East Midlands	58	27	15
West Midlands	55	30	15
East of England	60	28	12
London	55	33	12
South East	61	28	11
South West	62	26	12

In 2018, the reasons given for not working both nationally and in the North East, are as follows

Reasons for Not Working 2018

England:
- Other: 9.8%
- Study: 12.5%
- Looking after family / home: 16.6%
- Retired early: 16.5%
- Unemployed: 12.6%
- Sick/disabled: 32.0%

North East:
- Other: 7.5%
- Study: 11.7%
- Looking after family / home: 18.3%
- Retired early: 13.6%
- Unemployed: 12.9%
- Sick/disabled: 36.0%

Legend:
- Sick/disabled
- Unemployed
- Retired early
- Looking after family / home
- Study
- Other
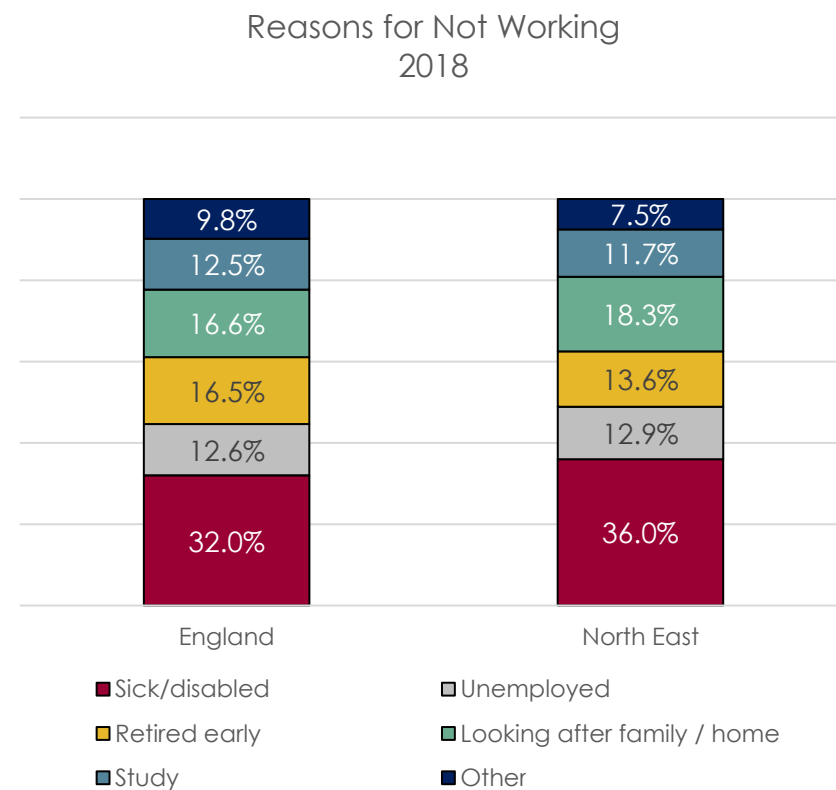
Health and Wellbeing

The health and wellbeing of the community at large and sections of the population within it, are also key elements of deprivation rankings which impact on community risk; including risk of fire and other harm.

Overall, across a range of public health indicators included in Public Health England health profiles[xix], health in Tyne and Wear is significantly worse than the national average. These indicators include:

- Adults smoking, smoking in pregnancy and smoking related deaths
- Obese children (Year 6)
- Increasing and higher risk drinking
- Hospital stays for alcohol related harm
- Drug misuse
- Male and female life expectancy
- Early deaths from heart disease and cancer

A number of these factors are also directly related to risk of fires, deaths and injuries.
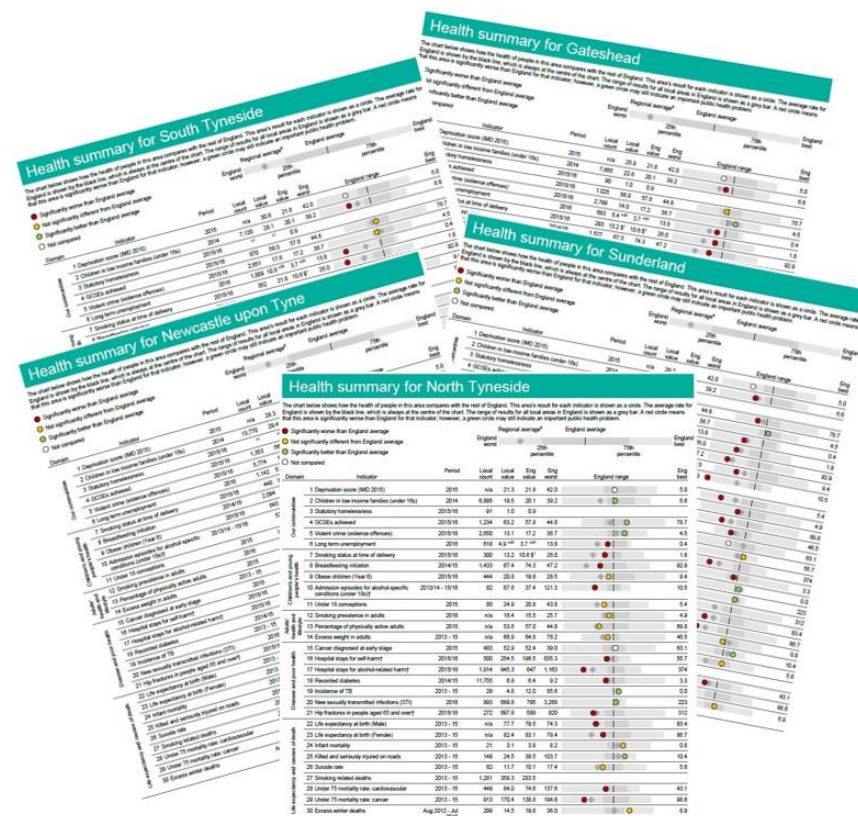
Alcohol Use

Alcohol is very much a part of the culture of the North East and has been highlighted as a serious issue.

The table below shows some key facts relating to alcohol and how our local authority areas compare to the national average[xx].

In comparison to England	Better	Similar	Worse

Indicator	Period	England	North East	Gateshead	Newcastle	North Tyneside	South Tyneside	Sunderland
Alcohol-specific mortality *	2016-18	10.8	15.7	16.9	18.3	15.2	22.1	22.1
Alcohol-related mortality *	2018	46.5	57.1	58.4	65.3	53.9	69	69
Alcohol related road traffic accidents ◊	2014-16	26.4	28.3	22.6	40.2	32.6	16.6	24.5
Number of premises licensed to sell alcohol per square kilometre	2015-16	1.3	1	3.8	9.6	6.7	6.4	5.6

(* per 100,000 population; ◊ per 1,000 population)

The rate of hospital admissions in the North East for alcohol attributable conditions per 100,000 population (2015/16) is the highest in England[xxi].

The chart below outlines the number of admissions per 100,000 of the Tyne and Wear population where the cause for admission is primarily, wholly or partly related to alcohol misuse.

Alcohol Related Hospital Admissions 2018/19

	All	Male	Female
Gateshead	3053	4104	2137
Newcastle upon Tyne	3054	4080	2136
North Tyneside	3032	4124	2139
South Tyneside	3443	4726	2364
Sunderland	3197	4467	2138
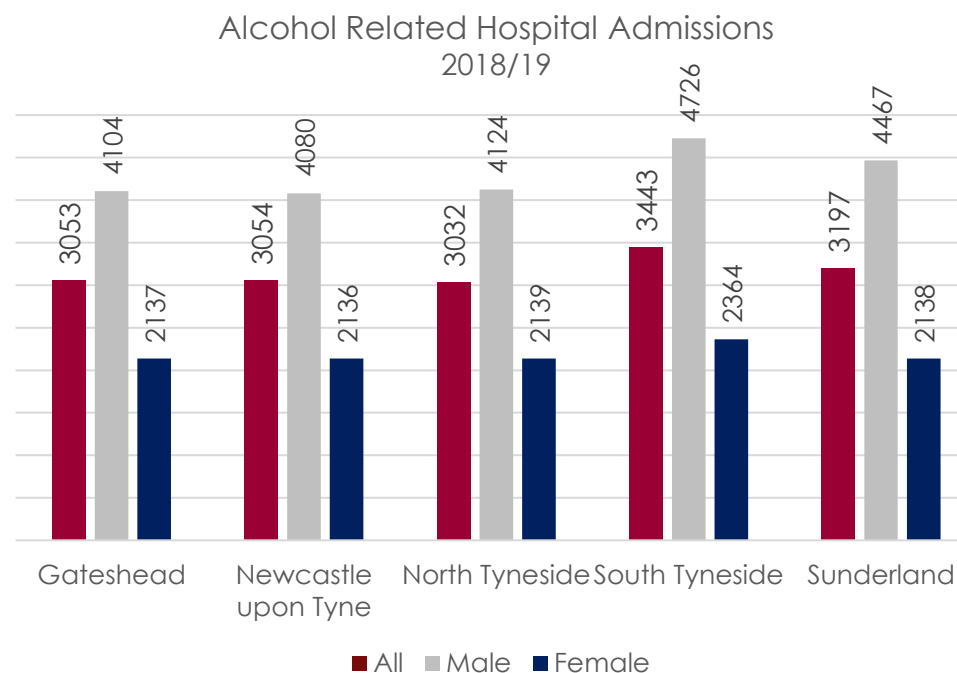
Alcohol Use

National historic statistics have shown that fire and rescue services attend a large number of alcohol and drug related fires. This is borne out by the observations of Tyne and Wear firefighters attending incidents.

Primary fires are generally more serious fires that harm people or cause damage to property. It is estimated that of the 18,411 primary fire incidents attended by TWFRS between 2009/10 and 2018/19, 4.5% were suspected of having drug or alcohol impairment as a contributory factor. Quite often the cause is due to people drinking alcohol and then falling asleep whilst cooking or smoking.

The chart below shows the breakdown of these incidents.

Primary Fires where Drug or Alcohol Impariment is Suspected
2009/10 - 2018/19

Year	Accidental	Deliberate
2009/2010	89	22
2010/2011	72	22
2011/2012	75	20
2012/2013	68	13
2013/2014	58	19
2014/2015	72	23
2015/2016	59	9
2016/2017	53	9
2017/2018	61	12
2018/2019	59	11

■ Accidental   ■ Deliberate
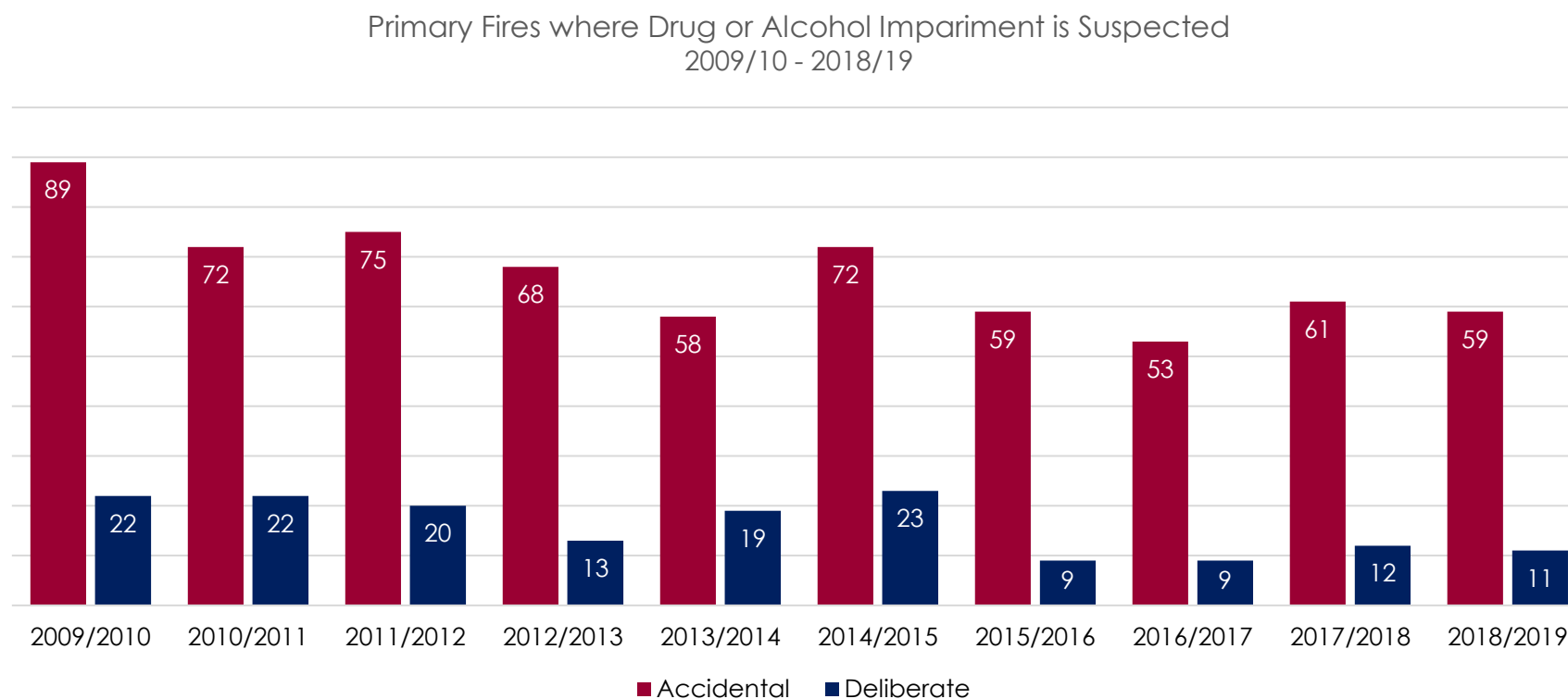
Smoking

Smoking also remains prevalent in the North East where 16% of adults are smokers[xxii]. Although smoking is on the decrease, it is still a contributory factor in the health of the region.

The table below shows the estimated prevalence of smoking by local authority area.

Mortality rates attributable to smoking are shown in the following chart with the North East experiencing a higher rate per 100,000 population then all other regions of England.

	Estimate of current smokers (%)
England	14.45%
North East	16%
Gateshead	17.8%
Newcastle	16%
North Tyneside	14.9%
South Tyneside	18.8%
Sunderland	20.2%

Smoking attributable mortality per 100,000 population (2016-2018)
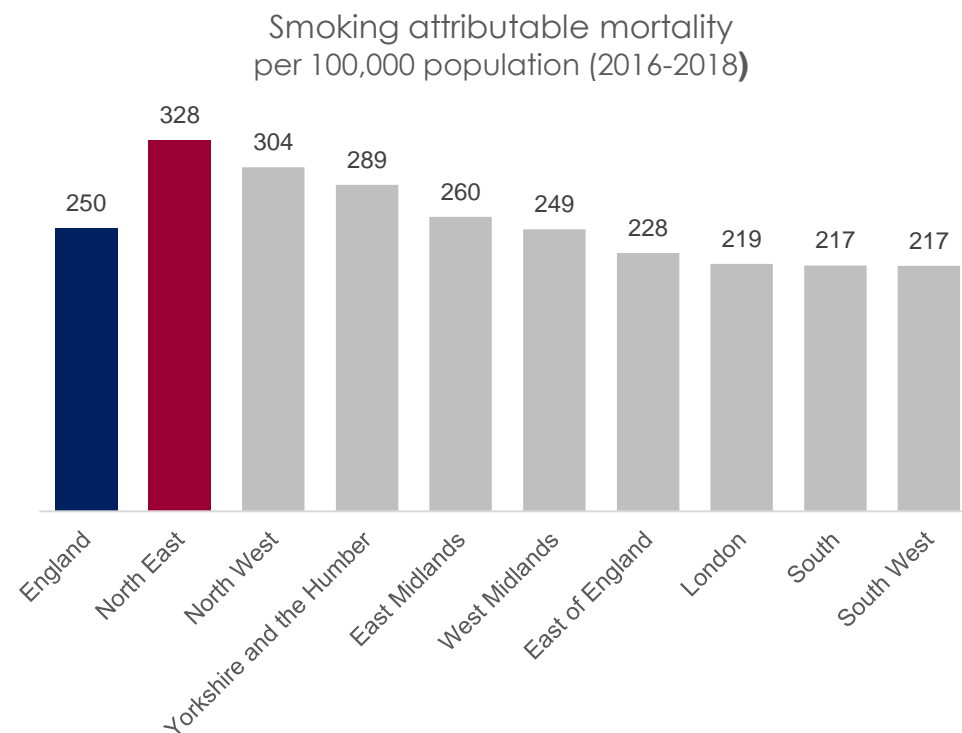
Smoking

Smoking prevalence is a risk factor for fire. Between 2009/10 and 2018/19, 5% of primary fires were smoking related. The chart below shows the breakdown of these incidents by district.

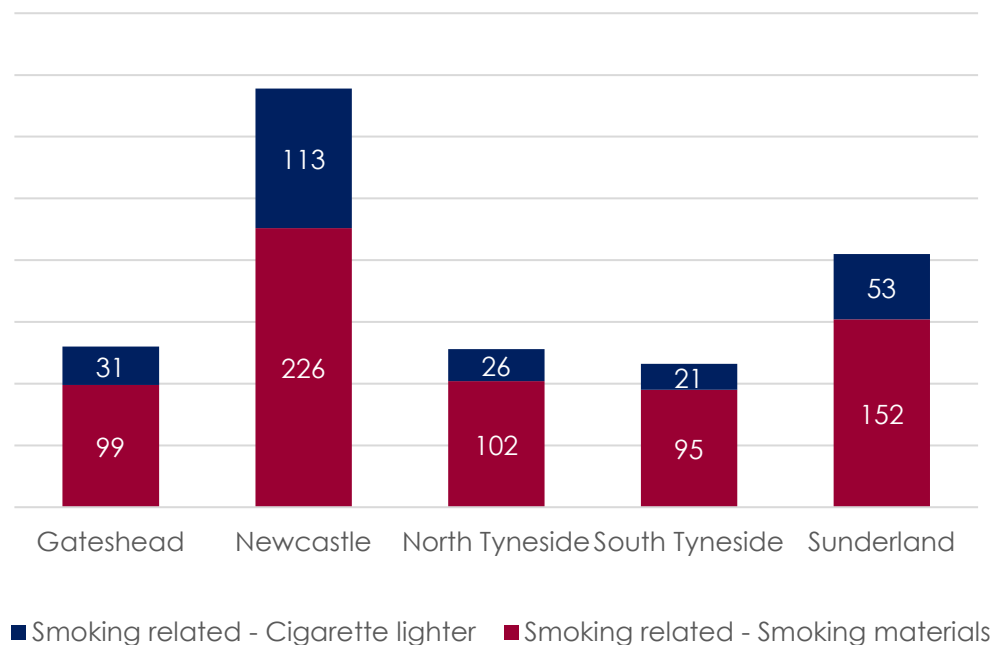Over the same period, 9% of accidental dwelling fires were smoking related.

Tyne and Wear has a relatively low incidence of fire deaths compared to other metropolitan areas. However, smoking has been a factor in a number of the fire deaths which have happened in recent years.

Our partnership document "If only we'd known …" contains a number of case studies about fire deaths including the cases of Elsie and Mark who were both heavy smokers. The document illustrates the extra assistance and advice TWFRS can give to vulnerable individuals who smoke.

Smoking Related Primary Fires Tyne and Wear
2009/10 - 2018/19

District	Cigarette lighter	Smoking materials
Gateshead	31	99
Newcastle	113	226
North Tyneside	26	102
South Tyneside	21	95
Sunderland	53	152

■ Smoking related - Cigarette lighter   ■ Smoking related - Smoking materials

'If only we'd known...'

PARTNERS FOR LIFE
Creating the Safest Community

Data Protection or Duty of Care

Tyne and Wear Fire and Rescue Service
Creating the Safest Community

Drug Use

The most recent Crime Survey for England and Wales[xxiii] indicates that drug use has fallen in England.

In 2018/19 the statistics show that:

- Around 1 in 11 (9.4%) adults aged 16 to 59 had taken a drug in the last year. This equated to around 3.2 million people. This is an increase from 2017/18 but significantly lower than a decade ago.

- Around 1 in 20 (5.0%) adults aged 16 to 59 had taken a drug in the last month, while around 1 in 9 (11.4%) of young adults aged 16 to 24 had done so.

- Around 1 in 5 (20.3%) of young adults aged 16 to 24 had taken a drug in the last year which equates to around 1.3 million people

- Around one-third (34.2%) of adults aged 16 to 59 had taken drugs at some point during their lifetime.

Drug use is a risk factor in fire, although it is not considered to be as prevalent a risk factor as smoking or alcohol use.

National Statistics show that in 2018/19, the North East region ranked top in the country for the number of hospital admissions per 100,000 population for drug use[xxiv].

|	Total	Number of admissions per 100,000 population	Male	Female
England	**18,053**	**33**	**8,923**	**9,127**
North East	1,400	54	760	635
North West	3,555	50	1,730	1,825
Yorkshire and the Humber	1,965	37	975	985
East Midlands	1,515	32	750	765
West Midlands	1,860	32	940	920
East of England	1,610	27	740	870
London	1,210	13	625	590
South East	2,365	26	1,045	1,315
South West	2,075	38	950	1,120

Mobility

The physical mobility of members of the community is anecdotally a risk factor for fire and also for ability to raise the alarm or get to safety should a fire occur, although incident analysis does not find a significant statistical correlation between mobility and fire injuries in Tyne and Wear.

Whilst Tyne and Wear has the lowest population of metropolitan fire authority areas, census data 2011 shows that the percentage of individuals in our population who have a long term illness or disability is one of the highest. This is broken down into those whose day to day activities are limited a lot, those whose activities are limited a little and the sum of both.

When looking at the percentage of the population whose day to day activities are limited a lot, Tyne and Wear is ranked 2nd highest of the metropolitan areas. When looking at the percentage of the population whose day to day activities are limited a little, Tyne and Wear is ranked 1st.

The map on this page is based on census data and shows the percentage of the population whose day to day activities are limited by ward. Byker and Walker in Newcastle and Hendon, Redhill and Hetton in Sunderland are the areas with the highest proportion of individuals who describe themselves as having limited activity.

% population day-to-day activities limited

- [6.2,18.6)
- [18.6,20.8)
- [20.8,22.7)
- [22.7,24.8)
- >= 24.8
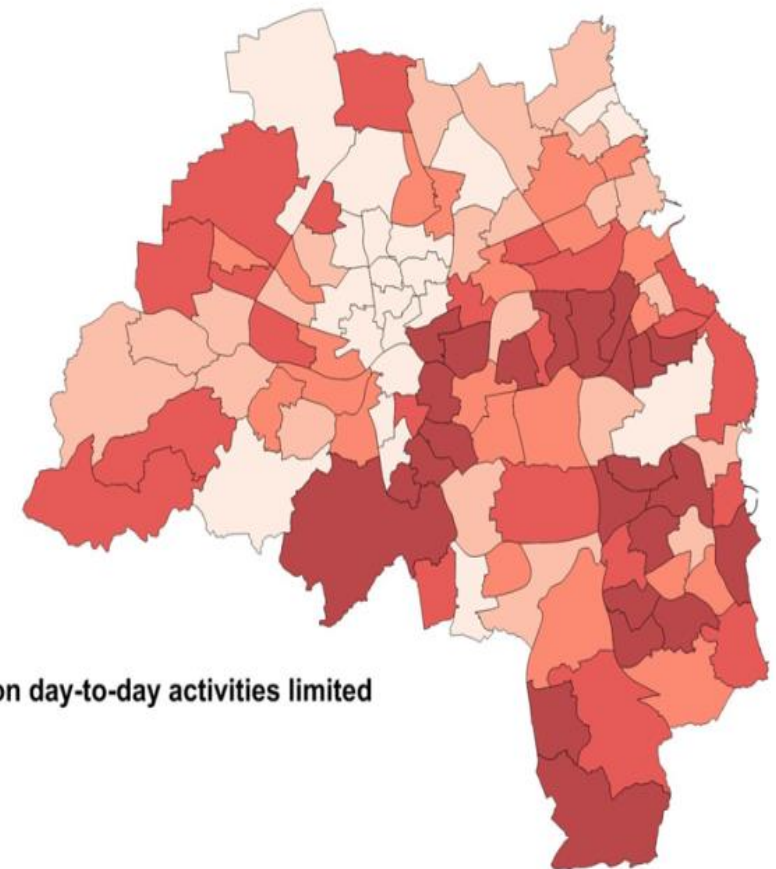
© Crown copyright and database rights [2013] Ordnance Survey [100018986]

Obesity

In 2017/18 there were 710,562 admissions to hospital where obesity was a factor. This is a 15% increase on 2016/17.

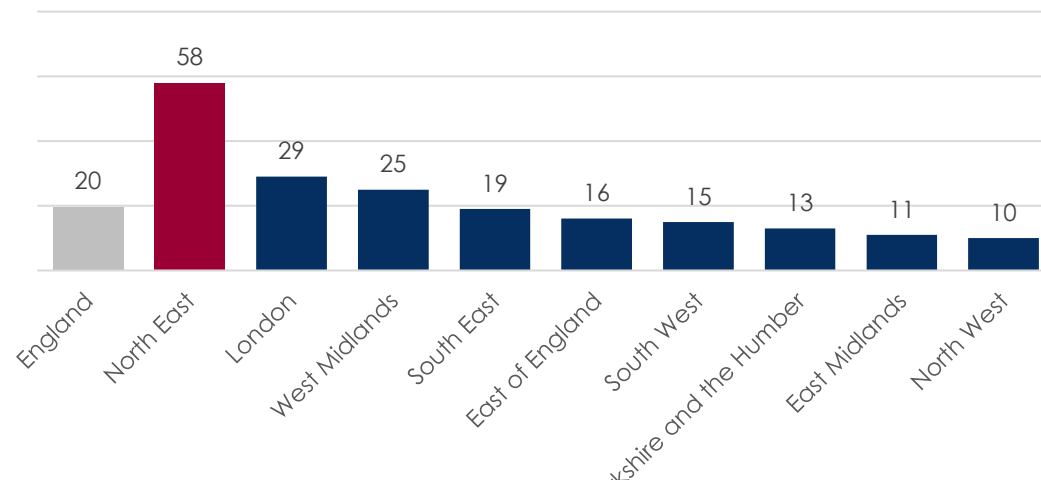In 2017 29% of adults were classified as obese.

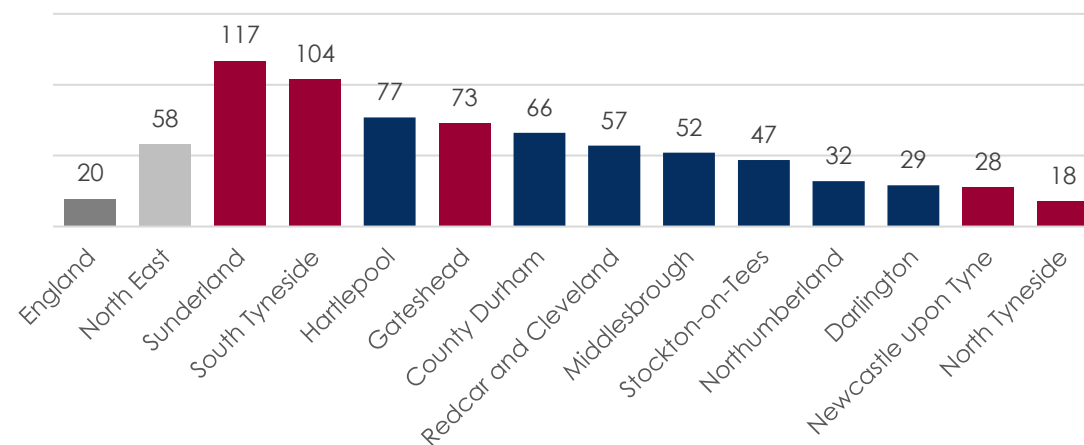In 2017/18 20% of Year 6 children were classified as obese.

The North East has a higher level of obesity than any other area of the country, with Sunderland and South Tyneside the highest within the North East[xxv]. This is shown in the following charts which illustrates obesity related hospital admissions based on the patient's region of residence.

Obesity is linked to a number of health issues as well as to mobility; although not representing a significant part of TWFRS' operational workload, the number of bariatric rescues has increased in recent years - this requires particular skills and training.

Hospital Admissions Related to Obesity
per 100,000 population 2017/18

England	North East	London	West Midlands	South East	East of England	South West	Yorkshire and the Humber	East Midlands	North West
20	58	29	25	19	16	15	13	11	10

North East Hospital Admissions Related to Obesity
Per 100,000 population 2017/18

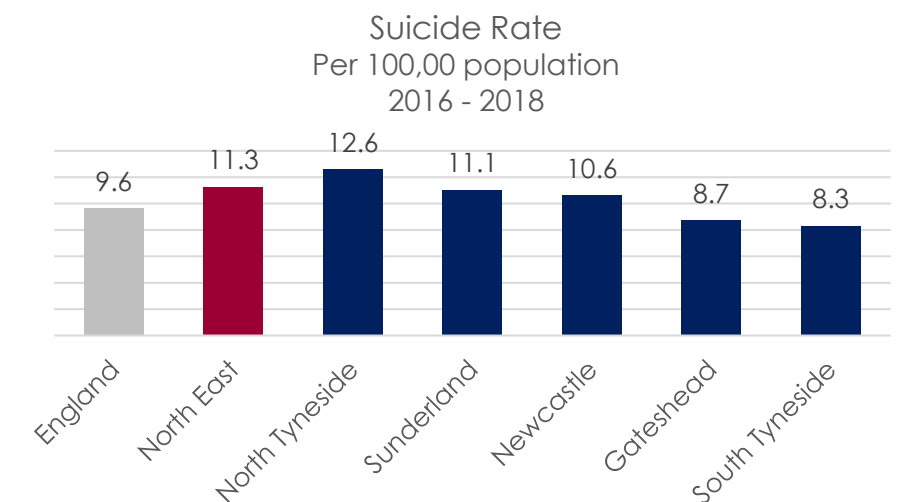| England	North East	Sunderland	South Tyneside	Hartlepool	Gateshead	County Durham	Redcar and Cleveland	Middlesbrough	Stockton-on-Tees	Northumberland	Darlington	Newcastle upon Tyne	North Tyneside
20	58	117	104	77	73	66	57	52	47	32	29	28	18

Mental Health

Public Health England publish local profiles associated with mental health[xxvi]. Some of the indicators relating to Tyne and Wear are shown opposite.

The table shows the figures for the North East Clinical Commissioning Groups (CCGs) alongside the Cumbria and North East NHS region and the average for England as a whole.

Some noticeable indicators include depression and anxiety prevalence and the rates of hospital admissions as a result of self harm; where the rate across nearly all local CCGs is worse than the national average.

Indicator	Period	England	Cumbria and North East NHS	NHS Newcastle & Gateshead	NHS North Tyneside CCG	NHS South Tyneside CCG	NHS Sunderland CCG
Long-term mental health problems (GP Patient Survey): ◊ (aged 16+)	2018-19	9.9	--	13.4	12.3	12.2	13.2
Depression and anxiety prevalence (GP Patient Survey): ◊ (aged 18+)	2016-17	13.7	--	17.3	15.7	17.1	17.8
Hospital admissions for mental health conditions	2017-18	84.2	95.5	82.9	93.9	135.1	166.6
Suicide rate *	2016-18	9.6	--	9.1	12.5	7.6	10.6

In comparison to England | Better | Similar | Worse |

(* per 100,000 population; ◊ % of respondents; º % of practice register)

Suicide Rate
Per 100,00 population
2016 - 2018

| England	North East	North Tyneside	Sunderland	Newcastle	Gateshead	South Tyneside
9.6	11.3	12.6	11.1	10.6	8.7	8.3

Wealth

Wealth is a key determinant of wellbeing.

The most recent Wealth and Assets Survey[xxvii] covers the period from April 2016 to March 2018 and combines property wealth, physical wealth, financial wealth and private pension wealth to calculate overall household wealth.

The report shows that:

- The North East has the lowest median household total wealth with a value of £172,900, as shown in the map opposite[xxviii].

- Households in the North East had the lowest aggregate net property wealth value.

- The North East region has one of the lowest ownership rates of households of all regions.

- Households in the North East had the lowest value of aggregate physical wealth.

- The North East have one of the lowest percentage rates of households with wealth in private pensions.

Median household Wealth (£)

	>£300,000
	>£260,000 & <£300,000
	>£220,000 & <£260,000
	>£180,000 & £220,000
	<£180,000

The North East had the lowest median household total wealth at £172,900

The South East had the highest median household total wealth at £445,900
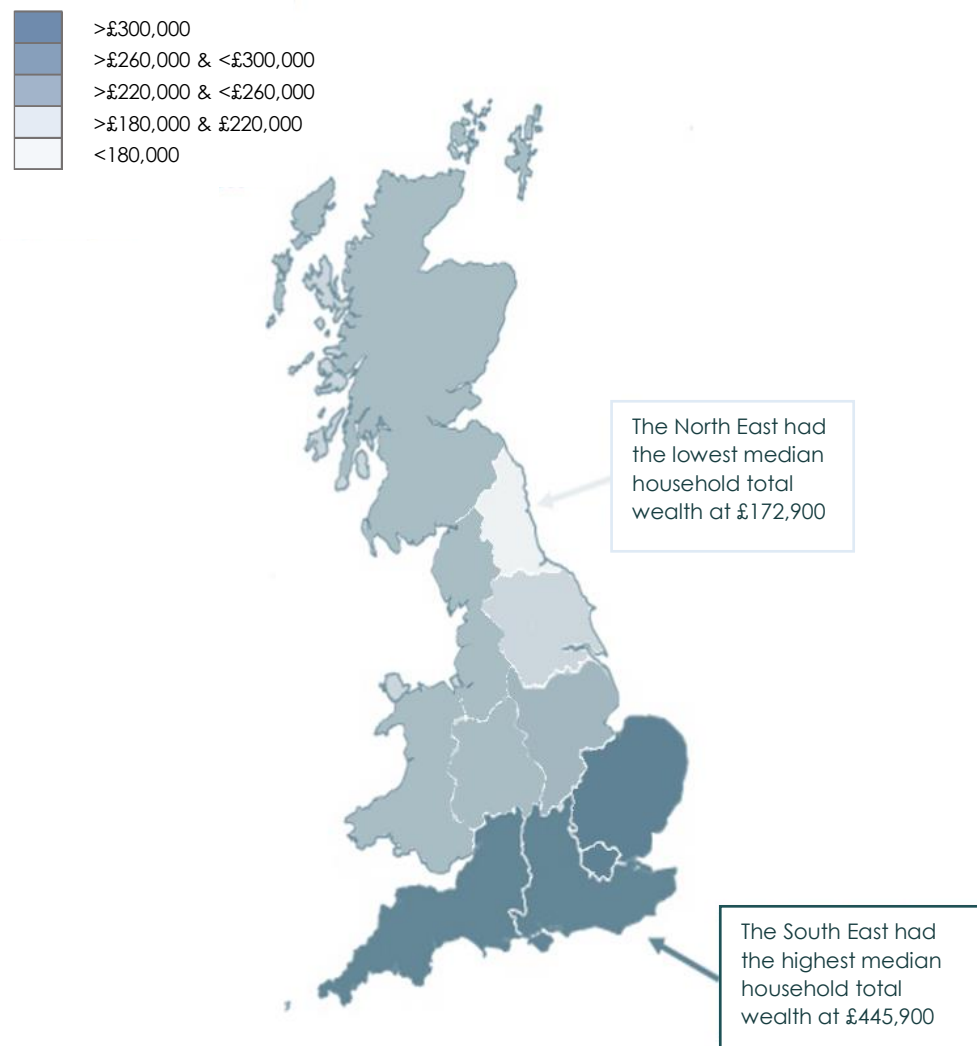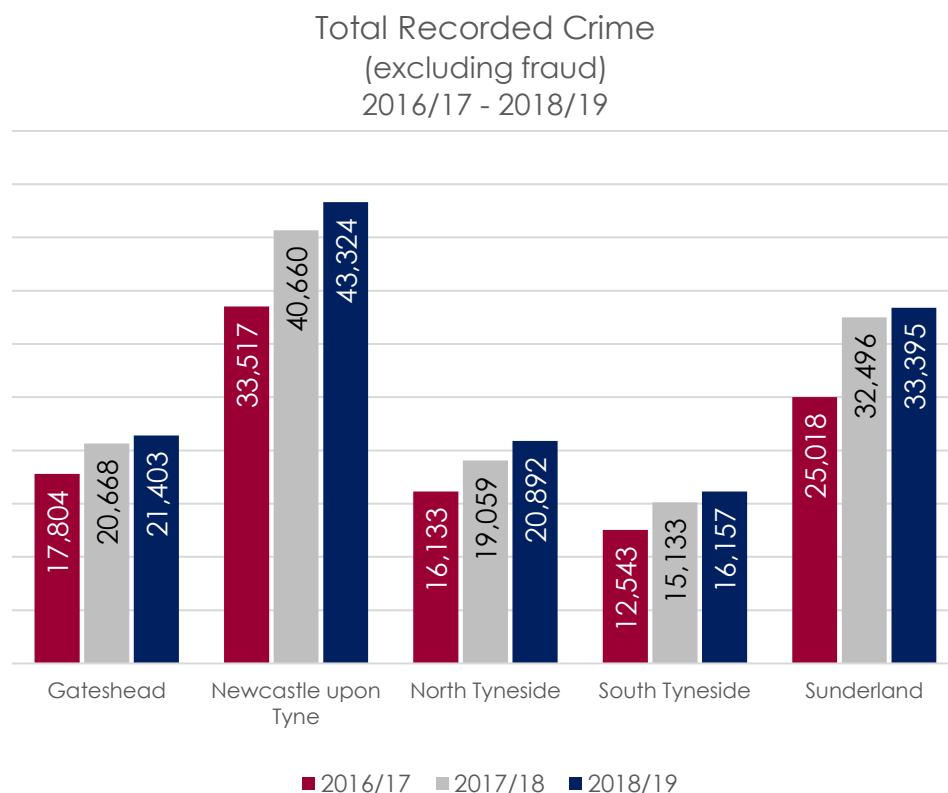
Crime and Anti-social Behaviour

The level of crime and anti-social behaviour (ASB) in an area also features in the makeup of deprivation profiles and community risk. Northumbria Police have produced a Police and Crime Plan for 2017 – 2021[xxix] which sets out how they will work with local authorities and community safety partnerships to reduce crime in the Northumbria area.

The chart opposite shows the total of all recorded crime (excluding fraud) between 2016/17 and 2018/19 in our local authority areas[xxx].

The Home Office has placed a duty on all partners to work together using the public health approach to community-wide issues, advocated by the World Health Organisation (WHO), focusing on serious violence, including homicide, drug-related crime and crime involving weapons, with the aim of addressing the root causes of violent behaviour.

TWFRS recently worked with the Police and Crime Commissioners Office and other partners from the NHS, Local Authority and justice system to produce a Violence Insight Report.

The insight summary is an important part of an evidence-based strategy to planning and then delivering prevention programmes. It concentrates on identifying and quantifying violence and its effects but also investigates the drivers and mitigating factors involved, at local authority and Northumbria Police area level, placed within the national context.

Total Recorded Crime (excluding fraud) 2016/17 - 2018/19

Area	2016/17	2017/18	2018/19
Gateshead	17,804	20,668	21,403
Newcastle upon Tyne	33,517	40,660	43,324
North Tyneside	16,133	19,059	20,892
South Tyneside	12,543	15,133	16,157
Sunderland	25,018	32,496	33,395

Crime and Anti-social Behaviour

In terms of ASB the national trend is downward[xxxi], which is shown in the graph below.

The chart also illustrates that the North East and the Northumbria police area, which includes Tyne and Wear, lags behind England as a whole.
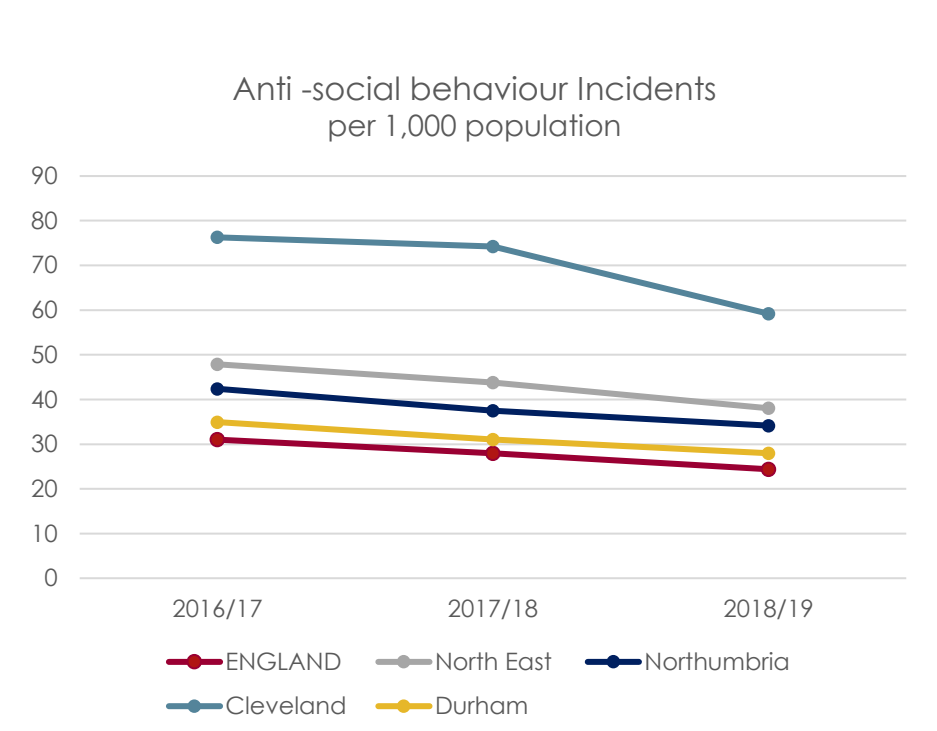
The table below shows the highest ranked Police Force areas.

It should be noted that these are ASB incidents reported to the police for each Police Force area. There is no accurate overall measure of ASB across different organisations.
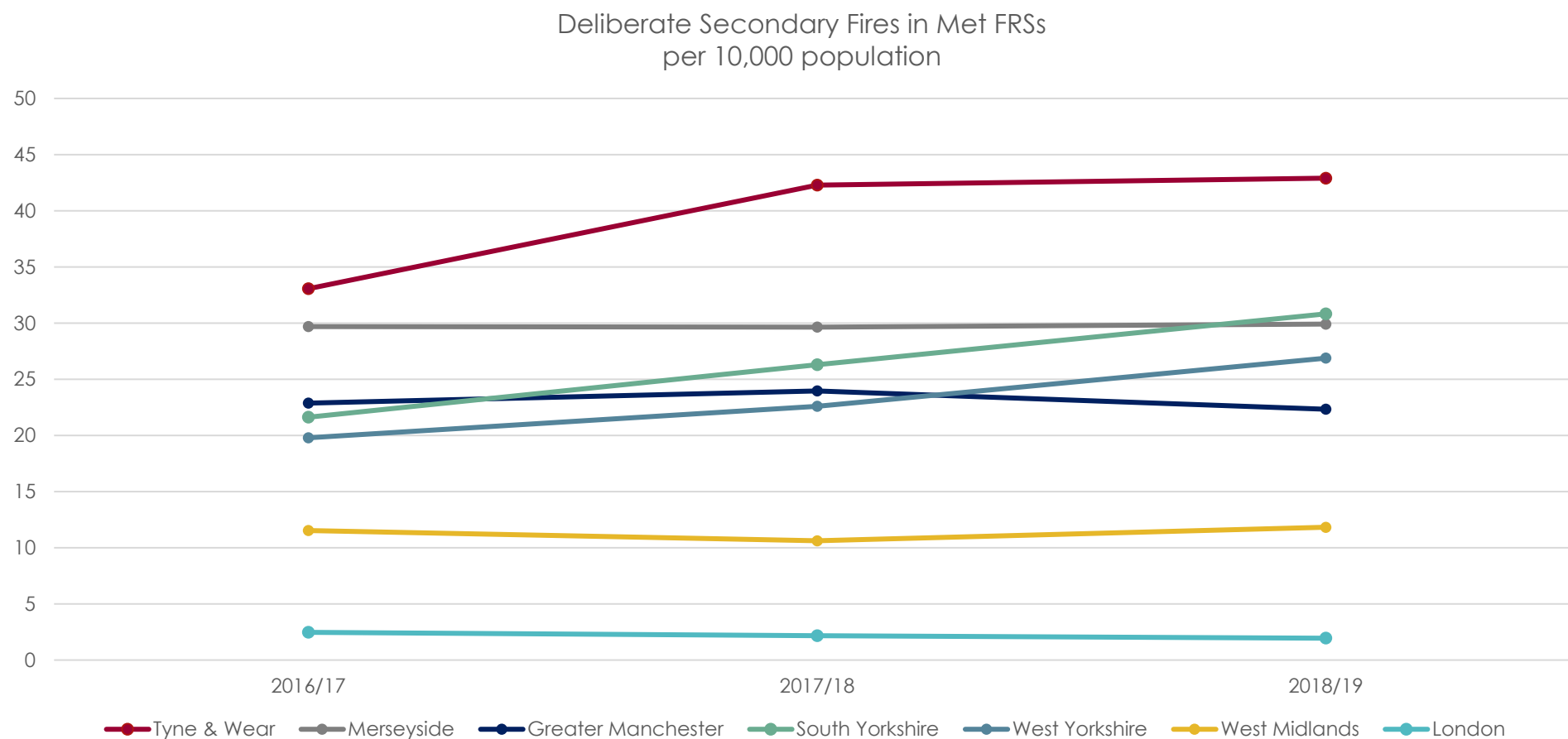
Anti -social behaviour Incidents per 1,000 population

Police Force	ASB per 1,000 pop
Cleveland	59
Derbyshire	38
West Mercia	35
Northumbria*	34
Lancashire	34
Gloucestershire	32
Staffordshire	32
North Yorkshire	31
Dorset	31
Northamptonshire	29
South Yorkshire*	29
Metropolitan Police*	28
Durham	28
Nottinghamshire	28
Bedfordshire	26
Essex	26

* Met FRS

Crime and Anti-social Behaviour

Tyne and Wear's level of deliberate secondary fires per 10,000 population remains proportionately very high. The chart below shows TWFRS in comparison with the other Mets.

Deliberate fires represented 76% of all fires in Tyne and Wear in 2018/19 against a national average of 45% in the same year[xxxii]. Although these fires tend to have a lower impact than other fire types, the likelihood of them occurring is clearly a major element in the fire risk facing Tyne and Wear.

Deliberate Secondary Fires in Met FRSs
per 10,000 population

Legend: Tyne & Wear, Merseyside, Greater Manchester, South Yorkshire, West Yorkshire, West Midlands, London
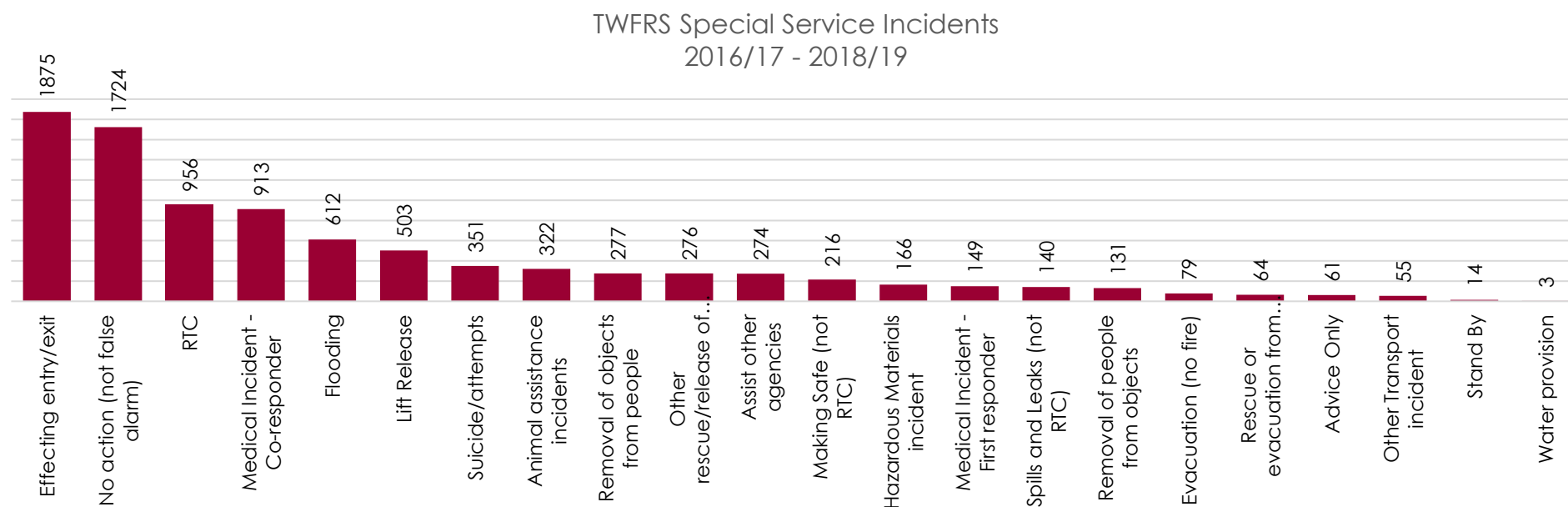
Special Service Incidents

The graph below shows the number of special service incidents attended by TWFRS over a three year period.

Road Traffic Collisions (RTCs) account for a high number of the "special service" rescues undertaken by TWFRS, as indicated below.

In 2018, the number of reported road deaths from road traffic collisions in Great Britain reduced by 0.5% in comparison to 2017[xxxiii]. In Tyne and Wear there has been a reduction of 4 deaths.
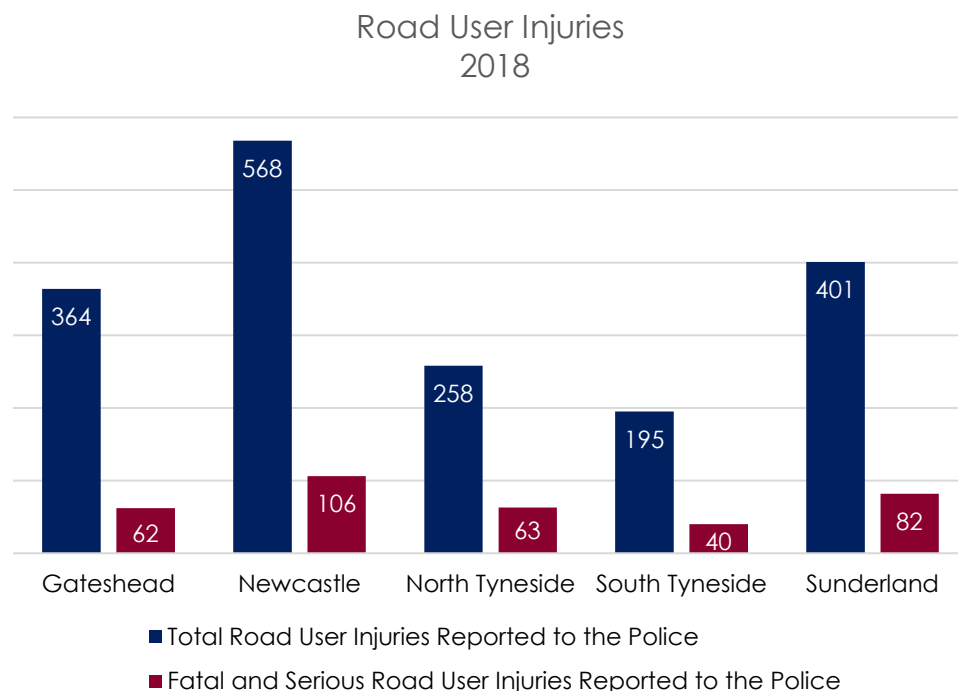
The number of reported casualties in Great Britain in 2016 continues to see reductions. Tyne and Wear saw a 1% decrease when compared to 2017, the lowest figure for the county over the last five years.

In 2018, England experienced a decrease of 5% in the number of reported road traffic collisions. This downward trend is mirrored in Tyne and Wear where there has been a decrease of 1.8%[xxxiv].

TWFRS Special Service Incidents
2016/17 - 2018/19

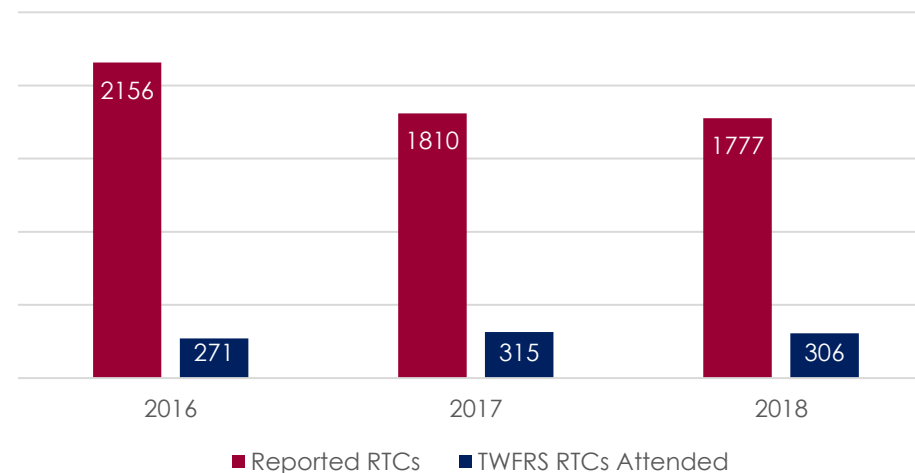| Category	Value
Effecting entry/exit	1875
No action (not false alarm)	1724
RTC	956
Medical Incident - Co-responder	913
Flooding	612
Lift Release	503
Suicide/attempts	351
Animal assistance incidents	322
Removal of objects from people	277
Other rescue/release of...	276
Assist other agencies	274
Making Safe (not RTC)	216
Hazardous Materials incident	166
Medical Incident - First responder	149
Spills and Leaks (not RTC)	140
Removal of people from objects	131
Evacuation (no fire)	79
Rescue or evacuation from...	64
Advice Only	61
Other Transport incident	55
Stand By	14
Water provision	3

Special Service Incidents

The chart below shows the comparative number of reported collisions across Tyne and Wear. When comparing the total reported collisions and the number of TWFRS incidents it is clear that TWFRS are not called upon to assist at all road traffic collisions.

Road User Injuries 2018

- Total Road User Injuries Reported to the Police
- Fatal and Serious Road User Injuries Reported to the Police

Reported RTC's and TWFRS RTCs Attended

- Reported RTCs
- TWFRS RTCs Attended

All Tyne and Wear authorities had better than average casualty rates given both the number of miles travelled on their road networks and the relative sizes of their populations, showing that the North East can be said to have a very safe road network when compared to the rest of England.

However a total of 2,139 people were injured in road traffic collisions in Tyne and Wear during 2018 of these 353 people were killed or seriously injured[xxxv].

Special Services

UK climate projections[xxxvii] estimate the impact of different carbon emissions scenarios on temperature and precipitation over different time periods. The levels of uncertainty in these projections are very high however, it is estimated that for the North East in terms of precipitation, the impact of a medium increase in carbon emissions compared with the 1961-1990 baseline could be as shown in the table below.

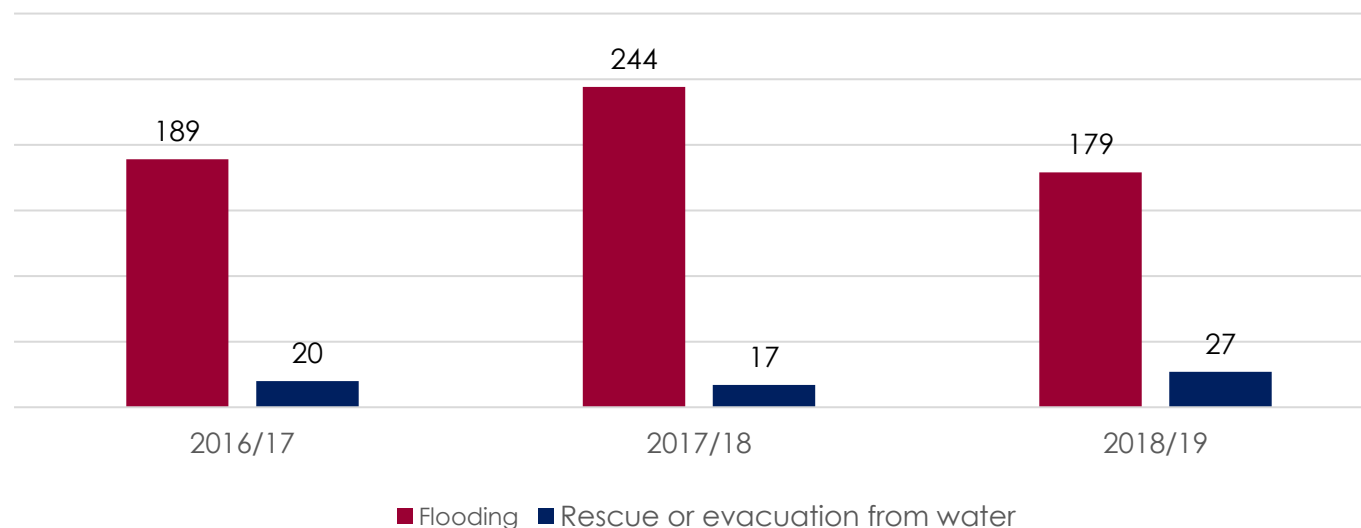| Decade	Winter mean precipitation (central estimate)	Summer mean precipitation (central estimate)
2020s	+4%	-6%
2050s	+11%	-15%
2080s	+14%	-18%

Special Services

Environmental challenges will continue to influence our operational response. Floods in particular are listed among the highest risk incidents in the Local Resilience Forum's Community Risk Register[xxxvi]. TWFRS's High Volume Pumping and Swift Water Rescue assets are part of the regional mitigation for such incidents.

The chart below shows the pattern of flood and other water related incidents in recent years.

Along with partners in the Local Resilience Forum, the Service makes extensive use of risk data from the Environment Agency in developing plans and procedures. This data includes:

- Detailed river network
- Flood alert areas
- Surface water flooding
- Surface water flooding from a 1 in 30 year event (similar to that experienced in 2012)
- Surface water flooding from a 1 in 200 year event
- Flood map (flooding from rivers and the sea)
- Flood warning areas
- Groundwater vulnerability
- Reservoir flooding

TWFRS Flooding / Rescue from Water Incidents

Bar chart showing flooding and rescue/evacuation from water incidents:
- 2016/17: Flooding 189, Rescue or evacuation from water 20
- 2017/18: Flooding 244, Rescue or evacuation from water 17
- 2018/19: Flooding 179, Rescue or evacuation from water 27

Legend: Flooding, Rescue or evacuation from water

Special Services

The Flood and Water Management Act 2010 provides for better, more comprehensive management of flood risk for people, homes and businesses, helps safeguard community groups from unaffordable rises in surface water drainage charges, and protects water supplies to the consumer and created a responsibility for local authorities to take the lead in the management and coordination for flood risk.

Climate projections suggest that extreme weather will happen more frequently in the future, this act aims to reduce the flood risk associated with extreme weather.

Further information is available via the links below in relation to Flood Risk Management for Tyne and Wear.

- Gateshead Flood Risk Management

- Newcastle Flood Risk Management

- North Tyneside Flood Risk Management

- South Tyneside Flood Risk Management

- Sunderland Flood Risk Management

The Environment Agency[xxxvii] considers that there is no coastal flood risk in Tyne and Wear and limited river flood risk is confined to particular areas as shown in the map below.
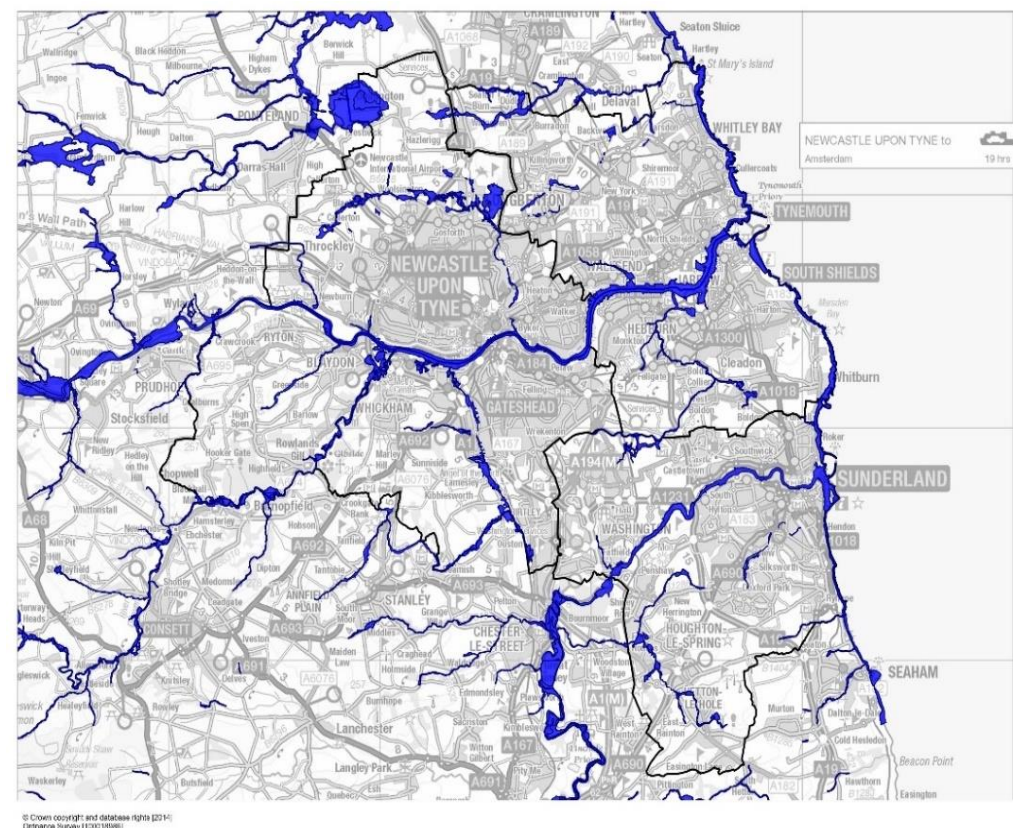
Industrial Risks

Tyne and Wear has a relatively low number of sites registered under Control of Major Accident Hazards (COMAH) regulations 2015 however, by their nature they pose more significant risk to the local community than other industrial sites.

Northumbria Local Resilience Forum's (LRF) Community Risk Register indicates mitigating actions for risk related to COMAH sites, including on and off site emergency plans for top tier sites and onsite procedures for other sites. These sites are not detailed in this document for reasons of security.

Multi agency exercising of plans is carried out every three years with full participation from TWFRS. Familiarisation with these sites is also part of firefighter training.

Premises

All industrial premises are assigned a risk category and inspected according to this through the Service's Risk Based Inspection Programme. In this way the service offers support, advice and if necessary, enforcement under the Regulatory Reform (Fire Safety) Order 2005.

Pollution and Contamination

The LRF Community Risk Register lists a number of pollution or contamination risks as High including pollution of controlled waters and accidents involving the spillage of fuel or explosives.

The Fire and Rescue Service has a key role in preventing / mitigating such incidents including exercise of regulatory powers and use of mass decontamination assets.

Building Collapse

The LRF Community Risk Register lists Building Collapse as a high risk and notes the Fire and Rescue Service's role in mitigation through Urban Search and Rescue (USAR) capability, working alongside partners.

[i] Gov.UK COVID-19 Dashboard - 31

[ii] https://leftfootforward.org/

[iii] Public Health England - Disparities in the risk and outcomes of COVID-19

[iv] Coronavirus and vaccination rates in people aged 70 years and over by socio-demographic characteristic, England: 8 December 2020 to 11 March 2021

[v] ONS.GOV.UK Deaths involving COVID-19 by local area and socioeconomic deprivation

[vi] World Obesity Federation. Covid-19 and obesity: the 2021 atlas. March 2021. https://www.worldobesity.org/

[vii] CLG report on link between deprivation and risk. Office for National Statistics. Region and Country Profiles: Population & migration 1 March 13

[viii] Census 2011

[ix] Guardian Datablog

[x] 2013 Region and Country Profiles: Population & migration 1 March 2013. Sub regional – population estimates & projections, 2001 to 2021

[xi] Fire Statistics Monitor April 2018 to March 2019

[xii] NOMIS Table LC2101EW

[xiii] NOMIS Table KS206EW

[xiv] 2014-based Household Projections: England, 2016-2041

[xv] www.gov.uk, Dwelling Stock, Live Table 100

[xvi] https://www.hesa.ac.uk/stats

[xvii] www.newcastle.gov.uk/planning-and-buildings/planning-policy/core-strategy-and-urban-core-plan

[xviii] www.northtyneside.gov.uk

[xix] www.southtyneside.gov.uk/article/9065/Local-Development-Framework

[xx] http://www.sunderland.gov.uk/CHttpHandler.ashx?id=19080&p=0

[xxi] www.gov.uk/govenrment/statistics/english-indices-of-deprivation-2019

[xvii] Regional labour market statistics in the UK: Feb 2020

[xviii] ONS, Workless households for regions across the UK, 2018

[xix] Public Health England health profiles 2019.

[xx] https://fingertips.phe.org.uk/profil/local-alcohol-profiles

[xxi] Statistics on Alcohol England (2019 (LAPE)

[xxii] https://fingertips.phe.org.uk/profile/tobacco-control

[xxiii] Statistical Bulletin: Drug Misuse: Findings from the 2019 Crime Survey for England and Wales.

[xxiv] Statistics on Drugs Misuse: England 2019

[xxv] Statistics on obesity, physical activity and diet, England 2019 (NHS Digital)

[xxvi] http://fingertips.phe.org.uk/profile-group/mental-health/profile/common-mental-disorders.

[xxvii] Wealth in Great Britain Round 6: 2016 to 2018, ONS

[xxviii] Contains OS data © Crown Copyright 2015 Source ONS licensed under the Open Government Licence v3.0

[xxix] Northumbria Police, Police and Crime Plan 2017-2021 (http://www.northumbria-pcc.gov.uk/v2/wp-content/uploads/2017/03/Police-and -Crime-Plan-2017.pdf)

[xxx] ONS, Crime Statistics

[xxxi] ONS, Crime in England and Wales, year ending March 2019

[xxxii] Home Office Incident Statistics: England 2018 to March 2019

[xxxiii] Department for Transport, Reported Rod Casualties in Great Britain 2018 annual report.

[xxxiv] www.gov.uk, table RAS10014

[xxxv] www.neroadsafety.org.uk Benchmarking of North East Local Authorities' Road User Casualties Against the Rest of England, 2018

[xxxvi] Community Risk register for the Northumbria Resilience

[xxxvii] Environment Agency website: Risk of Flooding from River and Sea, ukclimateprojections.metoffice.gov.uk

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