

SOUTH TEES
JSNA

Joint Strategic Needs Assessment

JUNE 2024

MISSION

We will create places and systems that promote wellbeing.

GOAL

We want to create a transport system that promotes active and sustainable transport and has minimal impact on air quality.

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1. Introduction

1.1 Mission led approach

The South Tees Health & Wellbeing Boards have agreed to a “mission-led” approach, structured across the lifecourse. Each mission is a response to a significant local challenge, one where innovation, working together and aligning resources has a big part to play in driving large-scale change. The Missions each have a set of ambitious goals that further articulate and explain the Mission.

The JSNA will provide the intelligence behind the Mission(s) – it will develop our collective understanding of the Mission(s); the issues behind and the broad contributing factors to the current outcomes experienced. We are working across the Tees Valley authorities to develop a process on that footprint that facilitates deeper engagement from the ICB.

The vision and aspirations under the lifecourse framework already exist following previous development sessions of the LiveWell Board. The lifecourse framework consists of three strategic aims – start well, live well and age well.

Vision	Empower the citizens of South Tees to live longer and healthier lives		
Aims	Start Well	Live Well	Age Well
Aspiration	Children and Young People have the Best Start in Life We want children and young people to grow up in a community that promotes safety, aspiration, resilience and healthy lifestyles	People live healthier and longer lives We want to improve the quality of life by providing opportunities and support so more people can choose and sustain a healthier lifestyle	More people lead safe, independent lives We want more people leading independent lives through integrated and sustainable support

1.2 Live Well strategic aim

There are four missions within the Live Well strategic aim. **The first mission relates to reducing the proportion of our families who are living in poverty, the second mission relates to creating places and systems that promote wellbeing, the third mission is to support people and communities to build better health and the fourth mission is to build an inclusive model of care for people suffering from multiple disadvantage across all partners.**

There are 11 goals. The focus of this needs assessment is on the third goal within the second mission which looks at creating a transport system that promotes active and sustainable transport and has minimal impact on air quality. See table below for all other goals and missions.

Aims	Mission	Goal	
Live Well	We will reduce the proportion of our families who are living in poverty.	We want to reduce levels of harmful debt in our communities	
		We want to improve the levels of high quality employment and increase skills in the employed population.	
	We will create places and systems that promote wellbeing.		We want to create a housing stock that is of high quality, reflects the needs of the life course and is affordable to buy, rent and run.
			We want to create places with high quality green spaces that reflect community needs, provide space for nature and are well connected.
			We want to create a transport system that promotes active and sustainable transport and has minimal impact on air quality.
			We will support the development of social capital to increase community cohesion, resilience and engagement
	We will support people and communities to build better health.		We want to reduce the prevalence of the leading risk factors for ill health and premature mortality
			We want to find more diseases and ill health earlier and promote clinical prevention interventions and pathways across the system
	We will build an inclusive model of care for people suffering from multiple disadvantage across all partners.		We want to reduce the prevalence and impact of violence in South Tees
			We want to improve outcomes for inclusion health groups
			We want to understand and reduce the impact of parental substance misuse and trauma on children

2. What is our mission and why do we need to achieve it?

Our Mission is “We will create places and systems that promote wellbeing”.

The mission in this set of JSNAs considers some of the key wider determinants of health. These are the role of green and blue spaces, transport and air quality, housing and social capital. In the Health Impact Pyramid, these determinants sit fundamentally in the two foundation layers – Socioeconomic Factors and Changing the Context to make individuals’ default decisions healthy.

Within the socio-ecological model of systemic change, although action will be needed at all levels of the system, there is a strong focus on affecting policy, the physical environment and the response of organisations and institutions to addressing these issues.

Housing is more than a physical structure providing shelter. They are homes where people bring up families, socialise with friends, keep possessions safe and provide personal space. A healthy home is: affordable and offers a stable and secure base; able to provide for all of a household’s needs; a place to feel safe and comfortable; and connected to community, work and services.

Housing conditions impact on our physical health. For example, a warm and dry home can improve general health outcomes and specifically reduce respiratory conditions. It also influences mental health and wellbeing. For example, children living in crowded homes are more likely to be stressed, anxious and depressed, have poorer physical health and attain less well at school.

Formal, informal and natural green spaces are increasingly recognised as important assets for supporting health and wellbeing, reducing health and social care costs, tackling health inequalities, improving social cohesion and taking positive action to tackle the climate crisis. There is also growing evidence for the importance of “blue” spaces, which is significant in South Tees with our access to the coast and freshwater environment. The green and blue environment has both wider passive benefits for our wellbeing as well as providing opportunities for specific activities, such as physical activity and mindfulness. It also has a role in recovery from ill health, for example through green social prescribing.

The way in which we move between homes, work, education and recreation, including through our green and blue environment, also provides opportunities for improving our health and wellbeing. Increasing cycling, wheeling and walking particularly for shorter journeys can help tackle some of the most challenging issues we face as a society – contributing to combating climate change, providing opportunities for physical activity, enabling contact with nature, addressing inequalities and tackling congestion on our roads. For longer journeys, public transport still brings benefits in terms of physical activity.

Although it is considered in this mission under transport because of the strong association with motorised modes, air quality is also impacted by housing and also industry and commerce. Air quality is considered the largest environmental health risk in the UK. It shortens lives and contributes to chronic illness. Health can be affected both by short-term, high-pollution episodes and by long-term exposure to lower levels of pollution. Sixty-six years after the enactment of the Clean Air Act, high profile cases are demonstrating the work still to be done to address the quality of the air we breathe.

Finally, this Mission moves away from the physical environment to consider the underpinning community assets that determine the very fabric of society. Social capital is the ‘glue’ that holds societies together. It can be defined as “the extent and nature of our connections with others and the collective attitudes and behaviours between people that support a well-functioning, close-knit society.” Research shows that higher levels of social capital are beneficial and can be associated with better outcomes in health, education, employment and civic engagement. Based on the four domains

of social capital, personal relationships, social network support, civic engagement, and trust and cooperative norms, the inclusion of social capital is one of the most exploratory and innovative parts of the South Tees JSNA process.

3. What is our goal and why do we need to achieve it?

The goal of this JSNA is “We want to create a **transport system** that promotes active and sustainable transport and has minimal impact on air quality”. The goal can be considered under three discrete but interrelated elements:

- Active travel modes – modal shift to cycling, wheeling (such as wheelchairs) and walking
- Other local sustainable, green transport modes – bus and rail travel
- Local air quality

3.1 Cycling, wheeling and walking

Increasing cycling, wheeling and walking can help tackle some of the most challenging issues we face as a society – improving air quality, combatting climate change, improving health and wellbeing, addressing inequalities and tackling congestion on our roads.

Active Travel England (ATE) [1] is the government’s executive agency, sponsored by the Department for Transport, responsible for making walking, wheeling and cycling the preferred choice for all shorter journeys. ATE’s objective is for 50% of trips in England’s towns and cities to be walked, wheeled or cycled by 2030.

ATE aims to give people greater travel choice, working alongside Local Authorities to:

- give people an alternative to driving by delivering new, protected routes and junctions, and quieter roads and neighbourhoods.
- put active travel at the heart of towns and cities, including ensuring that £3.2bn of government investment on active travel delivers to new high national standards.
- embed active travel into 1,000 major new developments, reducing local congestion.
- provide the tools to deliver ambitious active travel programmes, including training local officers and councillors in active travel delivery best practice.
- make cycling safer, including developing new solutions and guidance on safe infrastructure design based on solid insight and evidence to reduce the risk of near-misses and collisions.
- provide funding for every school that would like Bikeability training for children [2].

Concerted action to increase the opportunities for cycling and walking will help to create better places to live and work – with better connected, healthier and more sustainable communities. It will help deliver clean growth, by supporting local businesses, as well as helping an increase in prosperity. Cycling itself contributes £5.4bn to the UK economy and supports 64,000 jobs. Up to 40% increases in footfall have been demonstrated by well-planned improvements to the walking environment.

For England, a snapshot of data from 2018 demonstrated that more people were walking further and more often. The percentage of walking trips had fluctuated since 2002 but increased from 2014. In 2018, 27% of all trips were made by walking, covering 3% of all distance travelled.

Prior to the Covid19 pandemic the average distance cycled in England had been increasing – by 50% between 2002 and 2018. However, the number of cycle trips remained flat over the same period. Only 2% of trips are cycled, similar to levels in 2002. In comparison, more than a quarter of all trips made by people in the Netherlands are cycled.

The UK government’s Gear Change Strategy 2020 [3] is a comprehensive plan to promote cycling and walking in England that demonstrates the nation’s ambition to increase cycling and walking. The strategy aims to make cycling and walking more accessible, safe, and attractive to people of all ages and abilities. The plan included a £2bn investment in cycling and walking infrastructure, to fund the

creation of hundreds of miles of protected bike lanes, low-traffic neighbourhoods, bus and bike corridors, and more. The government also committed to providing free cycling training for everyone wanting it, vouchers for bike maintenance, and parking changes to discourage the school run. The Gear Change Strategy also aims to make cycling and walking a more integral part of people's daily lives. The government committed to work with local authorities to create better streets for cycling and walking, empower and encourage local authorities to promote cycling and walking, and enable people to cycle and protect them when they do.

The Gear Change Strategy is part of the government's broader efforts to reduce carbon emissions, improve air quality, and promote healthy living. By making cycling and walking more accessible and attractive, the government hopes to encourage more people to choose these modes of transportation over cars.

The **Waltham Forest Mini-Holland** scheme [4], which was part of the Mayor of London's Healthy Streets strategy, was a bold initiative to transform the borough's streets into a cycling and walking haven, inspired by the cycling culture of the Netherlands. The scheme, implemented between 2015 and 2019, involved significant changes to the road infrastructure, including the introduction of segregated cycle lanes, traffic calming measures, and pedestrian-friendly spaces. It remains one of the best examples of a coordinated approach to changing travel behaviours, combining extensive community engagement, physical measures and behaviour change.

The key takeaways from the Waltham Forest Mini-Holland scheme are:

1. Significant reductions in motor traffic: Traffic volumes on key roads in Waltham Forest have fallen by up to 56% since the introduction of the Mini-Hollands scheme in 2019. This has led to improvements in air quality, noise pollution, and road safety.
2. Research published in the Journal of Transportation Research found that after one year, people living in the borough were walking and cycling for an average of 41 minutes more per week than those living in comparable areas. Additionally, a report by King's College, funded by Waltham Forest, calculated that the scheme had added an additional 6 weeks to the life expectancy of children living in the borough.
3. Positive impact on local businesses: Despite initial concerns from some businesses about potential negative impacts on trade, the scheme actually had a positive impact on local businesses. The increased footfall and cycling activity brought more customers to local shops and businesses, boosting the local economy.
4. Community engagement and collaboration: The success of the scheme was partly attributed to the extensive community engagement and collaboration throughout the planning and implementation phases. Local residents and businesses were involved in consultations and workshops, ensuring their concerns were addressed and their feedback incorporated into the design.
5. Replicating the model: The Waltham Forest Mini-Holland scheme serves as an inspiring example of how urban environments can be transformed to prioritise cycling and walking, creating a healthier, safer, and more sustainable place.

In conclusion, the Waltham Forest Mini-Holland scheme demonstrated that significant changes to urban infrastructure can effectively promote cycling and walking, leading to a safer, healthier, and more vibrant urban environment. The scheme's success highlights the importance of community engagement, collaboration, and adaptability in implementing such transformative initiatives.

3.2 Bus and rail travel

The use of public transport may also bring about health benefits. Reducing the number of journeys made by car will assist with reducing air pollution and improving air quality. Studies have also demonstrated that using public transport can contribute to meeting the Chief Medical Officer's guidelines on levels of physical activity.

The English National Travel Survey 2010–14 was used in one study to quantify active travel as part of public transport journeys. Public transport users accumulated 20.5 min a day of physical activity as part of public transport journeys. Train users accumulated 28.1 min with bus users 16.0 min. Overall, 34% of public transport users achieved 30 min a day of physical activity in the course of their journeys; 21% of bus users and 52% of train users [5].

The study concluded that public transport use is an effective way to incorporate physical activity into daily life. One in three public transport users meet physical activity guidelines suggesting that shifts from sedentary travel modes, such as driving a car, to public transport could dramatically raise the proportion of populations achieving recommended levels of physical activity.

3.3 Air quality

The Transport JSNA is produced in conjunction with existing cross-cutting policies and guidance with the aim of improving air quality even further.

In 2022 the UK Health Security Agency (UKHSA) published new estimates for the burden of long-term exposure to air pollution in 2019 in the UK being an effect equivalent to 29,000 to 43,000 deaths for adults aged 30 and over. Air pollution comes from a variety of sources (Figure 1). It is the largest environmental health risk in the UK. It shortens lives and contributes to chronic illness. Health can be affected both by short-term, high-pollution episodes and by long-term exposure to lower levels of pollution [6] (Figure 2 [7]). There is currently no clear evidence of a safe level of exposure to air pollution below which there is no risk of adverse health effects.

Figure 1 – Sources of air pollution

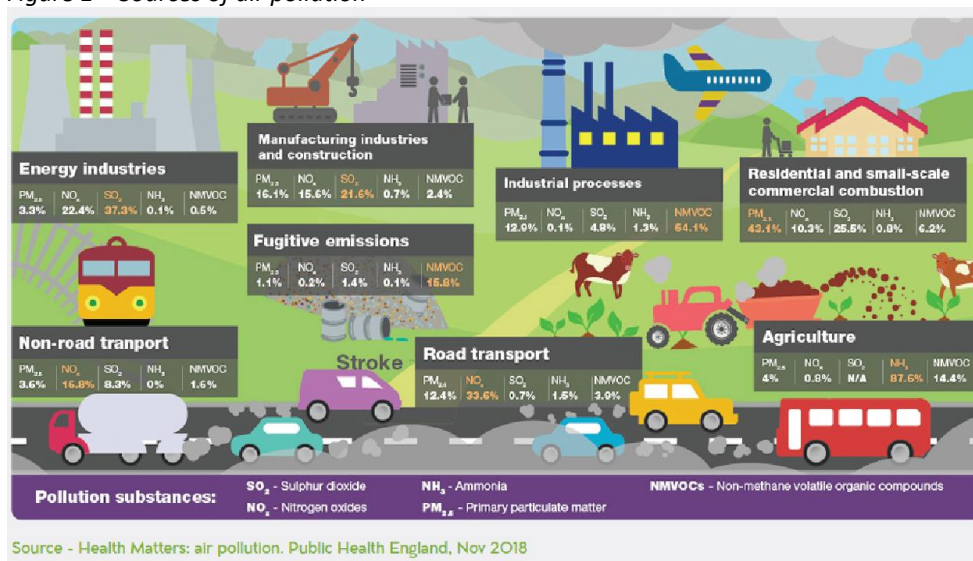
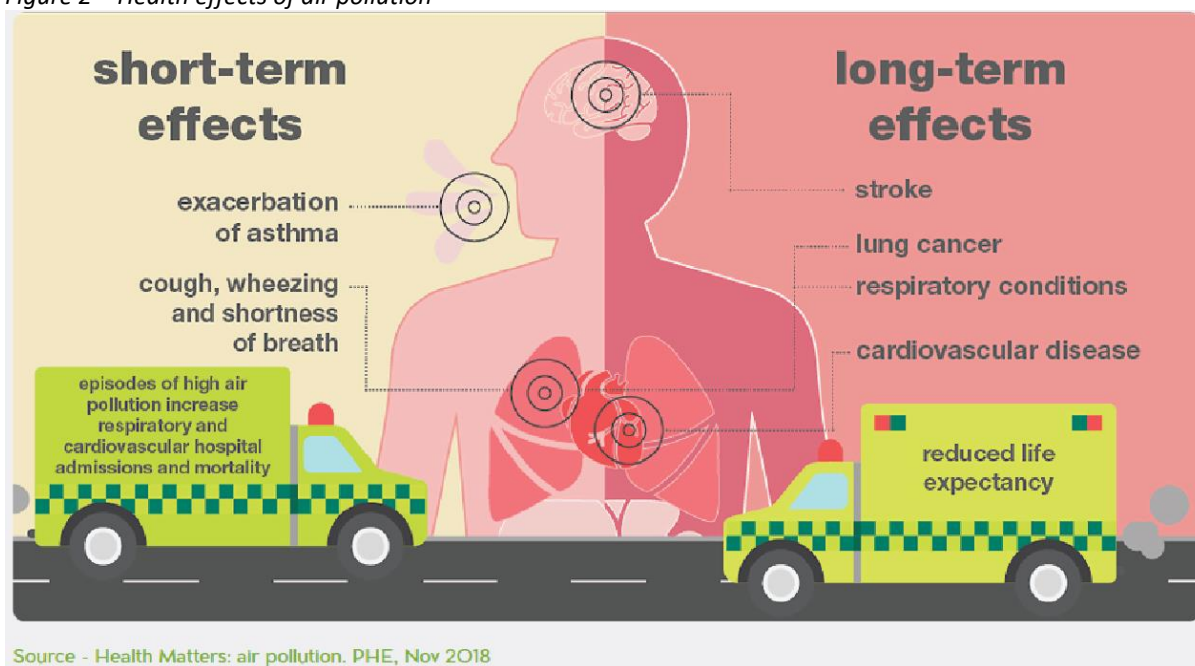


Figure 2 – Health effects of air pollution



The government has mandated that from 2023 onwards all local authorities must produce Clean Air Strategies. Middlesbrough Council and Redcar & Cleveland Borough Council have produced a joint South Tees Clean Air Strategy (STCAS) [8]. The STCAS demonstrates the Council's commitment to continuously improving air quality and sets out how residents, communities, businesses, and public sector services can work together and bring together a partnership which will drive its delivery to improve the air that we breathe.

4. Methodology

The creation of this JSNA was led by You've Got This (YGT), a Sport England funded place partnership seeking to use place-based whole system approaches to tackle physical inactivity at a population level in South Tees. The key elements of our methodology for this JSNA have been to work with partners to:

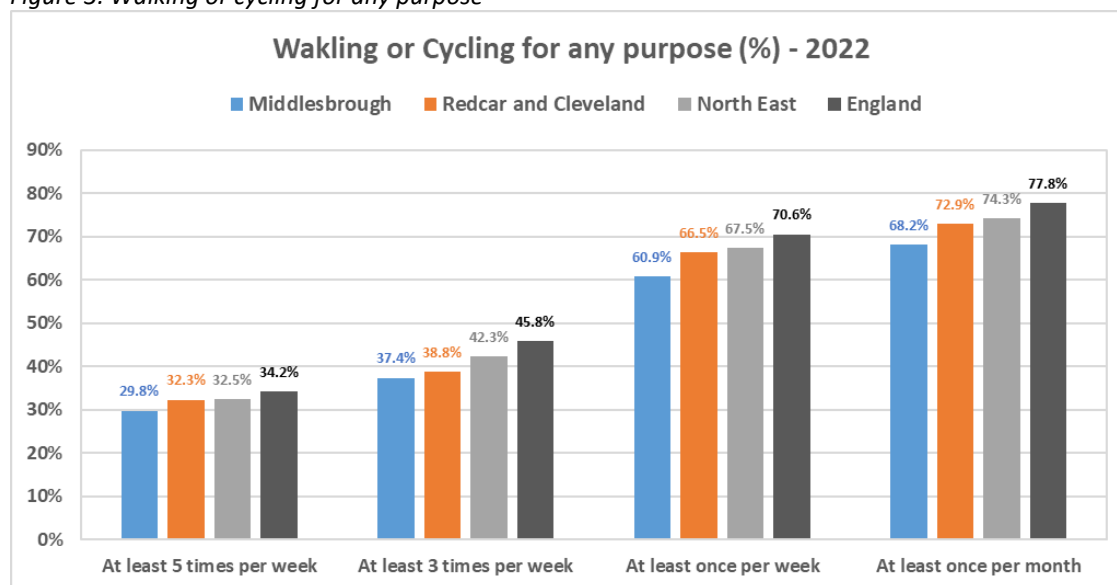
- Review strategic documents in relation to sustainable transport and air quality.
- Hold 9 structured conversations with individual stakeholders. These were then analysed using YGT's Sentiment Analysis tool and summarised in the JSNA.
- Utilise YGT's approaches to community insight gathering, including Sentiment Analysis, Storytelling and a boosted sample of the Sport England Active Lives Survey, to build a picture of community responses to sustainable transport and air quality.
- Facilitate a structured workshop session for stakeholders based on the intelligence gathering phase of the work, with a particular focus on determining the key recommendations.
- Providing an opportunity for partner agencies to comment on the draft transport JSNA.

5. Key data and drivers for change

5.1 Walking and cycling

The Department for Transport provides data based on the Active Lives Survey that shows the proportion of adults who do any walking or cycling by purpose and by frequency [9]. Both Middlesbrough and Redcar & Cleveland have lower levels of adults who walk or cycle for any purpose compared to England (Figure 3).

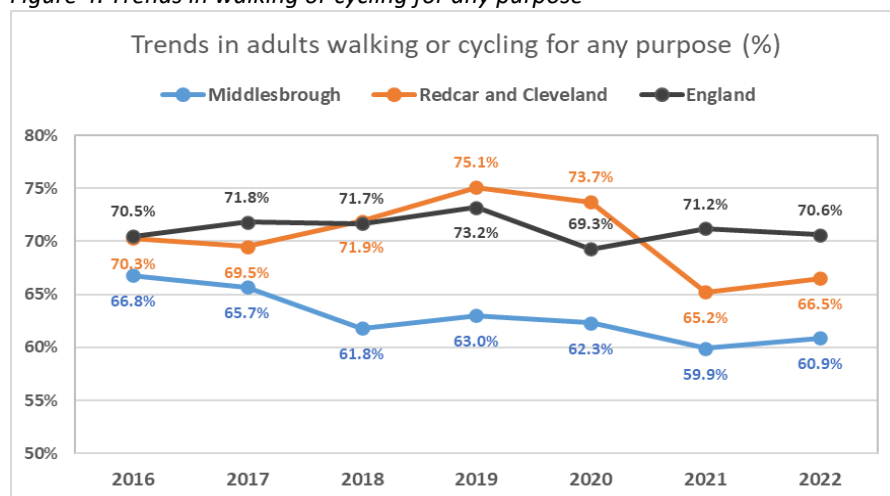
Figure 3: Walking or cycling for any purpose



Source – Department for Transport, GOV

Trends as illustrated in Figure 4 show that England has remained fairly static for the proportion of adults walking or cycling for any purpose, apart from a dip during 2020 which was most likely related to the Covid19 pandemic. Middlesbrough has seen decreases over the 7 year period (2016-22), while Redcar & Cleveland saw increases up to 2019 but has seen some significant decreases since that point. The reasons behind these reductions are not known.

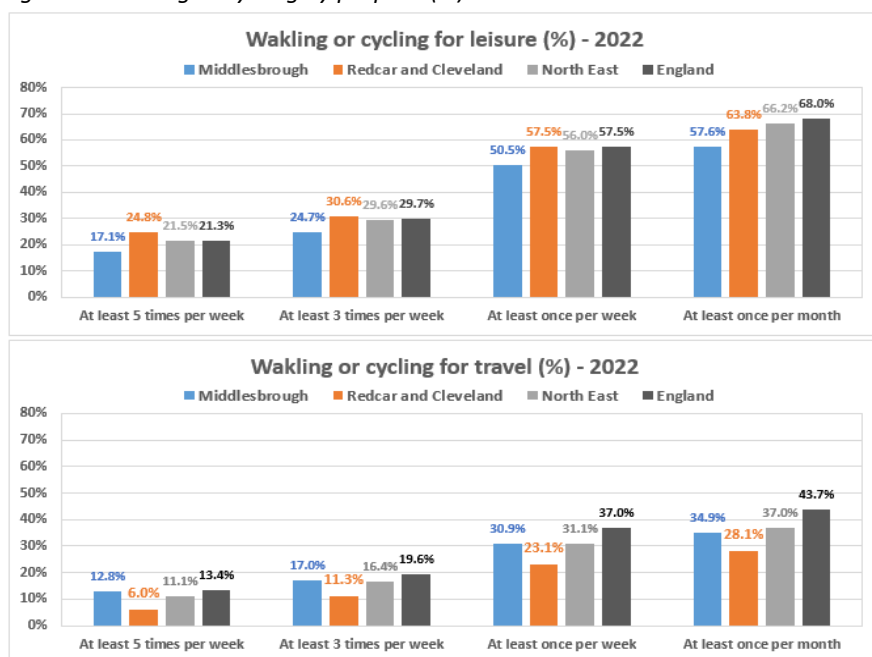
Figure 4: Trends in walking or cycling for any purpose



Source – Department for Transport, GOV

Breaking down the levels of walking or cycling by purpose helps to show the difference in activity levels locally. Middlesbrough has lower levels of walking or cycling for leisure compared to Redcar & Cleveland, regionally and nationally. Middlesbrough has similar levels of adults walking or cycling at least 5 times per week and at least 3 times per week compared to England. Levels fall when compared against England for at least once per week and at least once per month proportions. Redcar & Cleveland shows a different picture with much higher levels of walking or cycling for leisure compared to Middlesbrough and similar levels to England, however levels of walking or cycling for travel is significantly lower in Redcar & Cleveland compared to the other areas (Figure 5).

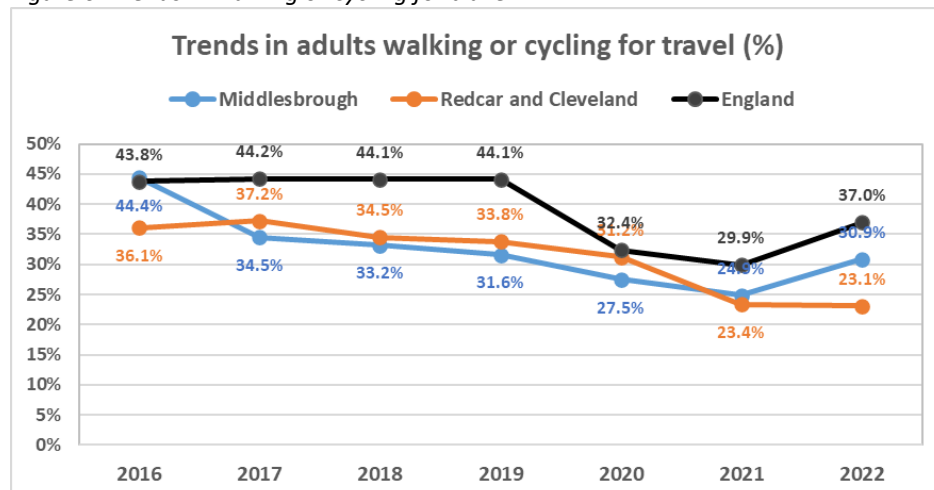
Figure 5: Walking or cycling by purpose (%)



Source – Department for Transport, GOV

Trends in walking or cycling for travel as shown in Figure 6 below highlights the significant reduction in levels nationally since 2019 with the Covid19 pandemic and the move to home working. Rates have however risen in the most recent year – 2022. Middlesbrough has seen gradual decreases over time, before 2020, but has also seen a rise in the most recent year. Redcar & Cleveland has seen decreases over time and 2022 saw the lowest rate at 23.1%. Even with the rise in 2022 in Middlesbrough, there is concern regarding the overall reduction in walking and cycling for travel over time.

Figure 6: Trends in walking or cycling for travel



Source – Department for Transport, GOV

Data was interrogated from the You’ve Got This 2023 adapted Active Lives Survey, which is run as a boosted sample in four of the most deprived wards, in terms of the IMD, in South Tees - North Ormesby, Brambles & Thorntree, South Bank and Grangetown.

The data in Figure 7 below shows responses to the question ‘During the last week (past seven days) did you walk for travel (for at least 10 minutes)?’. The results show that women were slightly more likely to walk than men. 44% of ‘yes’ responses were from residents in the 16–34-year-old age category while 19% of ‘yes’ responses came from respondents aged between 55-74 and 6% from respondents in 75 years and older demographic. In terms of respondents with a long-term condition and/or disability, only 32% had walked for travel (compared to the 68% who had no long-term condition or disability who had walked for travel).

Figure 7: Table showing responses to the question ‘During the last week (past seven days) did you walk for travel (for at least 10 minutes)?’

		During the last week (past seven days) did you walk for travel (for at least 10 minutes)?					
		Yes		No		Total	
		%	Count	%	Count	%	Count
Gender	Male	48%	594	49%	390	49%	984
	Female	52%	643	51%	390	51%	1033
	Total	100%	1237	100%	780	100%	2017
Age Group	16-34 years	44%	376	33%	180	40%	556
	35-54 years	31%	427	32%	263	31%	690
	55-74 years	19%	334	27%	255	22%	589
	75 years and over	6%	97	8%	83	7%	180
	Total	100%	1234	100%	781	100%	2015
Ethnicity (major groups)	White - British	88%	1094	88%	689	88%	1783
	White - Other	3%	33	3%	22	3%	55
	Asian/ Asian British	5%	54	5%	34	5%	88
	Black/ Black British	4%	51	4%	29	4%	80
	Total	100%	1232	100%	774	100%	2006
Ethnicity	White - British	87%	1094	87%	689	87%	1783
	Other than White - British	13%	145	13%	91	13%	236
	Total	100%	1239	100%	780	100%	2019
Paid employment	Yes (Full/ Part-Time)	47%	548	37%	265	44%	813
	No	53%	685	63%	514	56%	1199
	Total	100%	1233	100%	779	100%	2012
Long-term limiting health condition/ disability	Yes - self	32%	411	46%	360	37%	771
	No	68%	761	54%	388	63%	1149
	Total	100%	1172	100%	748	100%	1920

The data in Figure 8 below shows responses to the question ‘During the last week (past seven days) did you cycle for travel (including to work)?’ from the You’ve Got This 2023 adapted Active Lives Survey. The results show that 75% of respondents who answered ‘yes’ were male. Of the ‘yes’ responses, 46% were between the age 16-34, 41% were between the age 35-54, 12% were between the age 55-74 and 1% were 75 years and older.

Figure 8: Table showing responses to the question ‘During the last week (past seven days) did you cycle for travel (including to work)?’

		During the last week (past seven days) did you cycle for travel (including to work)?					
		Yes		No		Total	
		%	Count	%	Count	%	Count
Gender	Male	75%	57	47%	918	48%	975
	Female	25%	21	53%	1002	52%	1023
	Total	100%	78	100%	1920	100%	1998
Age Group	16-34 years	46%	28	40%	525	40%	553
	35-54 years	41%	38	31%	647	31%	685
	55-74 years	12%	10	23%	573	22%	583
	75 years and over	1%	2	7%	173	6%	175
	Total	100%	78	100%	1918	100%	1996
Ethnicity (major groups)	White - British	90%	71	88%	1695	88%	1766
	White - Other	7%	4	3%	50	3%	54
	Asian/ Asian British	2%	1	5%	85	5%	86
	Black/ Black British	1%	1	4%	79	4%	80
	Total	100%	77	100%	1909	100%	1986
Ethnicity	White - British	90%	71	87%	1695	87%	1766
	Other than White - British	10%	7	13%	226	13%	233
	Total	100%	78	100%	1921	100%	1999
Paid employment	Yes (Full/ Part-Time)	71%	55	42%	751	44%	806
	No	29%	23	58%	1164	56%	1187
	Total	100%	78	100%	1915	100%	1993
Long-term limiting health condition/ disability	Yes - self	31%	23	38%	743	37%	766
	No	69%	51	62%	1085	63%	1136
	Total	100%	74	100%	1828	100%	1902

Figure 9 below shows the combined response to the walking for travel and leisure questions by ward and by year (note that the control group is made up of four wards in Stockton that are similar in where they sit in the IMD and their demographical makeup). In 2020 and 2022 significantly more people in the target wards had walked for travel than in the control group. However, as of 2023, the percentage of people in the target wards walking for travel is the same as the control group. Rates within wards vary from year to year, but the range across the four wards only varies by four percentage points per year.

Figure 9: Graph showing the combined response to the walking for travel and leisure questions

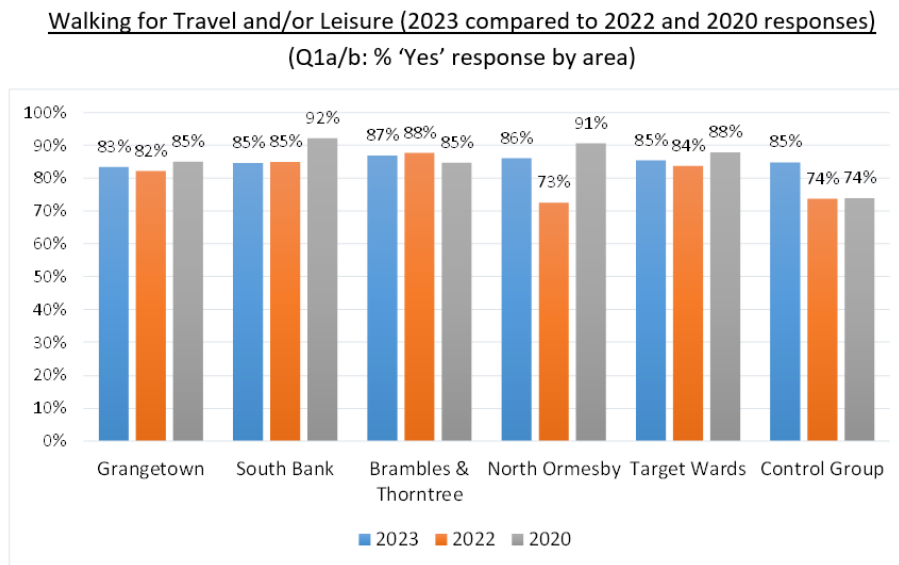
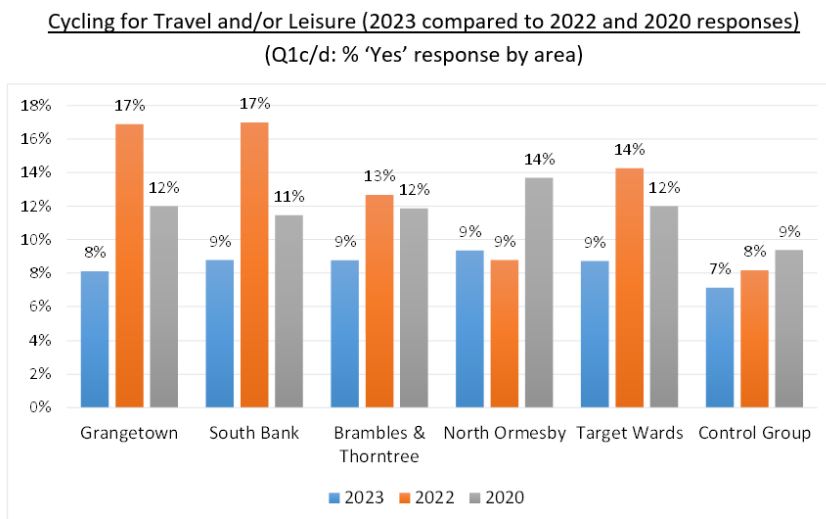


Figure 10 below shows similar trend in responses to the combined response to the cycling for travel and leisure questions. In 2020 and 2022, more people had cycled in the past week than in the control group. However, in 2023, the number of people who had cycled decreased from 14% in 2022 to 9% in 2023, which is only 2% more than in the control group for this year. Unlike for walking, the combined rate across the four wards fell substantially between 2022 and 2023.

Figure 10: graph showing the combined response to the cycling for travel and leisure questions



Across South Tees we have two voluntary sector organisations delivering Bikeability and Pedestrian Training in school settings to provide children with the necessary skills and knowledge to walk and cycle safely following the highway code. Across South Tees, 1919 young people have been trained in level one and two Bikeability, 193 have been trained in level one, 1025 children have been supported to learn to ride and 2246 children have completed pedestrian training.

5.2 Bus use

The Department for Transport provide data on the local bus sector [10]. Figure 11 below shows bus vehicle miles split by local authority supported and commercial bus operations in 2022. Middlesbrough has a higher level of bus service miles at 3.06 million miles compared to Redcar & Cleveland at 2.7 million miles. The proportion shows that Middlesbrough has virtually no local authority supported bus services whilst Redcar & Cleveland has 10.8% of bus services financially supported by the local authority, slightly lower than the regional rate of 12.9%.

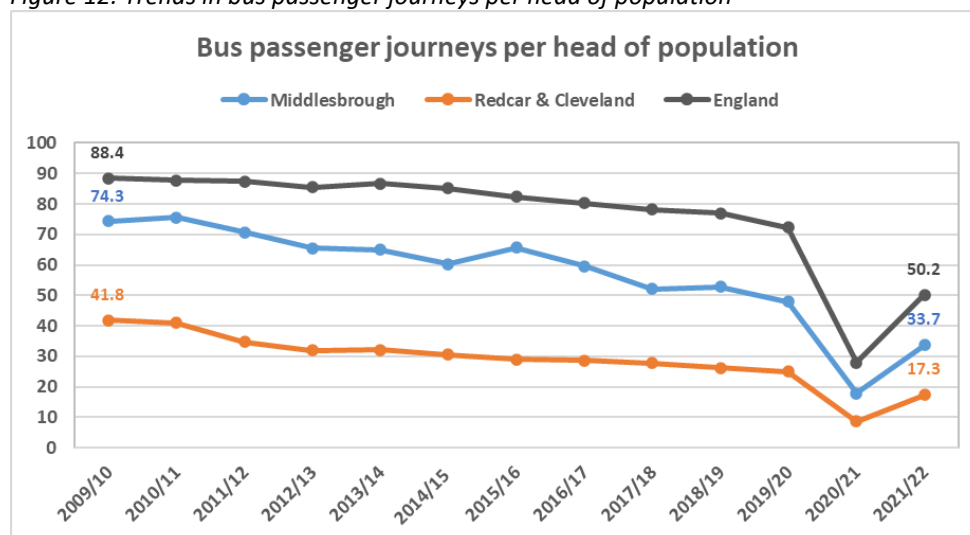
Figure 11: Bus vehicle miles (millions) by service type

Local Authority	Local authority supported	Commercial	Total	Proportion supported
Middlesbrough	0.01	3.05	3.06	0.2%
Redcar and Cleveland	0.35	2.35	2.70	10.8%
North East	7.76	63.84	71.59	12.9%

Source – Department for Transport, GOV

The dataset from the Department for Transport shows the number of passenger journeys on local bus services. In 2021/22 there were 4.8 million passenger journeys in Middlesbrough and 2.4 million passenger journeys in Redcar & Cleveland. As a rate per population the Middlesbrough value is 33.7 and Redcar & Cleveland value is 17.3. This is lower than the England rate of 50.2. Figure 12 below shows the trends in bus journeys per head of population. The rate both locally and nationally has been reducing over time, however there was a significant fall in journeys in 2020/21, understandably, during the Covid19 pandemic. The rate of bus journeys has increased but has not returned to pre pandemic levels. This is despite the introduction of the Department for Transport £2 national fare cap scheme since 2022.

Figure 12: Trends in bus passenger journeys per head of population

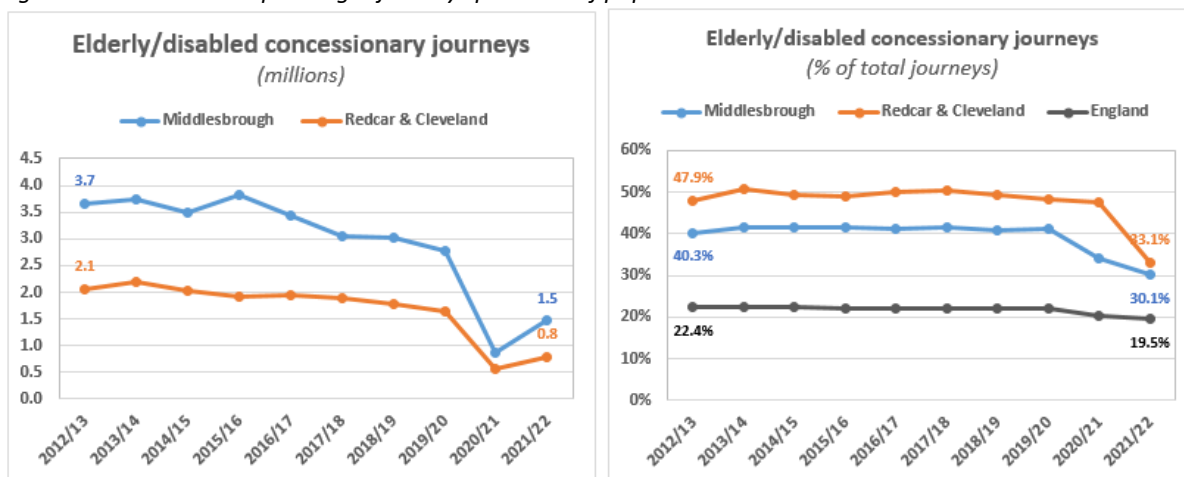


Source – Department for Transport, GOV

The dataset from the Department for Transport also shows the number of passenger journeys that were concessionary journeys for either older people or people living with disabilities. Figure 13 below shows in 2021/22 Middlesbrough had a higher number of concessionary journeys at 1.5 million compared to 0.8 million in Redcar & Cleveland. The number of these concessionary journeys had been decreasing locally for several years prior to the significant fall during the Covid19 pandemic year of 2020/21. Rates have increased in 2021/22 but have not yet returned to pre pandemic levels.

Figure 13 also shows the concessionary journeys as a proportion of all journeys. Even though Redcar & Cleveland has fewer journeys, the proportion that are concessionary is higher than Middlesbrough and both are higher than England. England saw a small decrease in the proportion after 2020/21 but both Middlesbrough and Redcar & Cleveland have seen large reductions.

Figure 13: Trends in bus passenger journeys per head of population



Source – Department for Transport, GOV

The fall off in concessionary journeys is a factor in overall reductions in bus use. Information is not available on whether concessionary pass holders are using other modes or not making journeys at all. The latter could have implications for health and wellbeing, if it is resulting in social isolation.

5.3 Rail use

The Office of Rail and Road (ORR) provides data on the estimates of station usage [11]. Figure 14 below shows the passenger entries, exits and interchanges by station in South Tees for 2021/22. Middlesbrough station has the largest number of entries and exits at 1,210,906 for the year, followed by Redcar Central station at 343,542. In South Tees only Middlesbrough station has an interchange service, demonstrating its position as a hub to access other areas locally.

Entries and exits by ticket type show the proportion of tickets that are full (all walk-up undiscounted tickets including status discount e.g. child, railcard), reduced (all walk-up discounted tickets including advance-purchase tickets and status discount e.g. child, railcard) and season (multi-use tickets). Overall across South Tees, reduced tickets were the most common at 68.9%, followed by full tickets and season tickets.

Figure 14: Passenger entries, exits and interchanges by station – 2021/22

Station Name	Local Authority	Entries & Exits - Full		Entries & Exits - Reduced		Entries & Exits - Season		Entries & Exits - Total	Interchanges
		No.	%	No.	%	No.	%		
James Cook University Hospital	Middlesbrough	9,728	36.4%	13,472	50.4%	3,544	13.3%	26,744	0
Middlesbrough	Middlesbrough	232,674	19.2%	836,354	69.1%	141,878	11.7%	1,210,906	53,435
Gypsy Lane	Redcar & Cleveland	8,862	29.5%	16,918	56.3%	4,276	14.2%	30,056	0
Longbeck	Redcar & Cleveland	10,448	26.0%	22,828	56.9%	6,840	17.1%	40,116	0
Marske	Redcar & Cleveland	9,890	22.3%	27,786	62.6%	6,730	15.2%	44,406	0
Marton	Redcar & Cleveland	5,748	29.3%	12,308	62.7%	1,582	8.1%	19,638	0
Nunthorpe	Redcar & Cleveland	8,642	24.2%	22,136	61.9%	4,980	13.9%	35,758	0
Redcar Central	Redcar & Cleveland	56,396	16.4%	256,370	74.6%	30,776	9.0%	343,542	0
Redcar East	Redcar & Cleveland	15,340	20.7%	49,376	66.5%	9,492	12.8%	74,208	0
Saltburn	Redcar & Cleveland	38,812	19.2%	146,492	72.5%	16,730	8.3%	202,034	0
South Bank	Redcar & Cleveland	13,702	45.4%	13,634	45.1%	2,862	9.5%	30,198	0
		410,242	19.9%	1,417,674	68.9%	229,690	11.2%	2,057,606	53,435

Source – Office of Rail and Road (ORR)

Figure 15 below shows the trends in passenger entries and exits by station. James Cook University Hospital, Gypsy Lane, Longbeck, Marton, Nunthorpe and South Bank in South Tees saw annual increases in entries and exits until 2020/21 and the Covid19 pandemic, where numbers across all stations fell significantly. Middlesbrough remained fairly static whilst Marske, Redcar Central, Redcar East and Saltburn saw decreases. Most stations have not returned to pre pandemic numbers apart from Redcar Central and South Bank where numbers are higher in 2021/22.

Figure 15: Trends in passenger entries and exits by station

Station Name	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
James Cook University Hospital	-	-	23,176	31,578	31,402	33,774	37,080	40,226	9,280	26,744
Middlesbrough	1,364,250	1,370,172	1,351,494	1,331,452	1,356,282	1,312,870	1,289,866	1,312,402	342,770	1,210,906
Gypsy Lane	21,900	23,716	26,398	30,338	32,996	33,298	31,204	37,046	6,982	30,056
Longbeck	40,010	41,224	40,386	43,170	45,018	47,240	47,282	49,594	10,634	40,116
Marske	79,080	78,259	79,248	76,030	74,254	73,028	64,460	64,550	13,378	44,406
Marton	9,862	10,576	10,568	13,512	13,696	13,356	14,774	25,808	5,294	19,638
Nunthorpe	22,600	24,203	32,510	35,766	35,814	34,596	36,346	44,576	7,618	35,758
Redcar Central	365,266	384,986	360,866	342,686	347,570	344,482	324,050	338,370	113,598	343,542
Redcar East	144,520	133,586	123,992	116,230	114,862	103,974	106,250	108,168	20,888	74,208
Saltburn	253,520	266,520	253,868	250,472	244,258	237,460	240,932	257,190	61,660	202,034
South Bank	4,704	12,544	22,860	21,846	23,926	21,424	23,282	27,624	11,296	30,198
	2,305,712	2,345,786	2,325,366	2,293,080	2,320,078	2,255,502	2,215,526	2,305,554	603,398	2,057,606

Source – Office of Rail and Road (ORR)

5.4 Road traffic

Understanding patterns of road transport use are essential in developing a greater understanding of other modes and developing actions for modal shift. The Department for Transport provides data showing motor vehicle traffic (vehicle miles) [12]. Figure 16 below shows the total vehicle miles in Middlesbrough, Redcar & Cleveland and England split by vehicle type. Middlesbrough has a higher number of vehicle miles at 775 million miles compared to Redcar & Cleveland at 562 million miles. Vehicle miles split by vehicle type shows that Middlesbrough and Redcar & Cleveland are very similar, with 81% of miles completed in cars and taxis. This proportion is higher locally compared to England, where there are higher rates of light commercial and heavy goods vehicle miles.

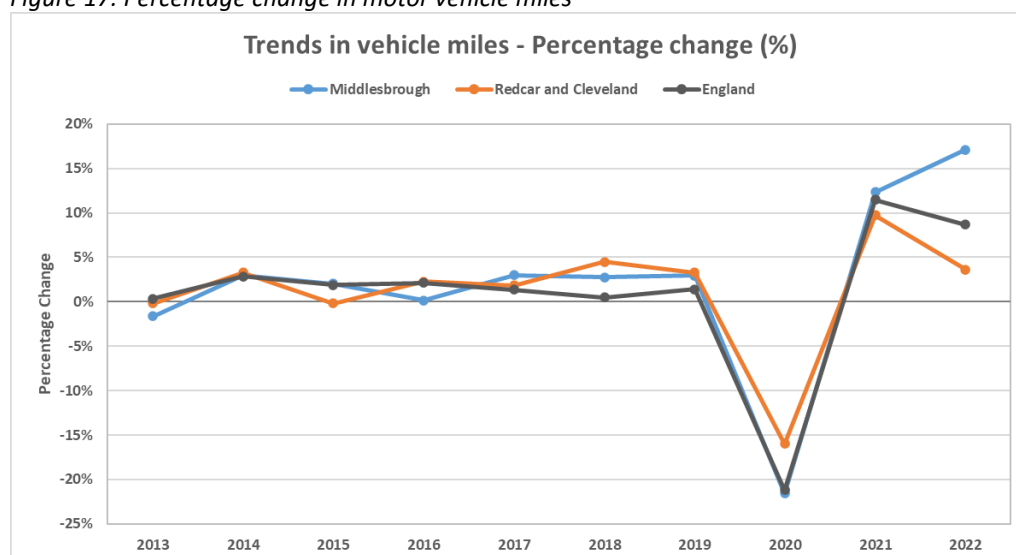
Figure 16: Motor vehicle traffic miles by vehicle type - 2022

Vehicle Type	Middlesbrough		Redcar & Cleveland		England	
	Vehicle Miles (Million)	%	Vehicle Miles (Million)	%	Vehicle Miles (Million)	%
Cars & Taxis	635	81.9%	458	81.5%	208,816	76.7%
Light Commercial	119	15.4%	89	15.8%	48,308	17.7%
Heavy Goods	21	2.7%	15	2.7%	15,143	5.6%
	775	100%	562	100%	272,267	100%

Source – Department for Transport, GOV

Motor vehicle miles has seen significant changes over recent years due to the Covid19 pandemic. Vehicle miles were gradually increasing locally between 2013 to 2019, before seeing a large decrease of 21.6% for Middlesbrough in 2020, similar to England levels and 16% in Redcar & Cleveland. Rates quickly increased the following year and the number of vehicle miles in 2022 is similar to pre pandemic levels for Redcar & Cleveland and significantly higher for Middlesbrough. These increases are in sharp contrast particularly to bus use recovery post-pandemic.

Figure 17: Percentage change in motor vehicle miles



Source – Department for Transport, GOV

Trends in the proportion of motor vehicle miles by vehicle type show that locally although cars and taxis account for the majority of motor vehicle miles, the proportion has decreased over the previous 10 years whilst the proportion of light commercial vehicle miles has increased. Heavy goods vehicle miles have remained at fairly similar levels.

Figure 18: Trends in vehicle miles by type

Year	Cars & Taxis		Light Commercial Vehicles		Heavy Goods Vehicles	
	Middlesbrough	Redcar & Cleveland	Middlesbrough	Redcar & Cleveland	Middlesbrough	Redcar & Cleveland
2012	84.6%	84.2%	12.5%	12.6%	2.9%	3.2%
2013	84.7%	84.2%	12.4%	12.8%	2.9%	3.0%
2014	84.2%	83.8%	12.8%	13.4%	3.0%	2.9%
2015	83.8%	83.8%	13.1%	13.4%	3.1%	2.9%
2016	83.3%	82.8%	13.8%	14.4%	2.9%	2.8%
2017	82.6%	82.2%	14.4%	14.9%	3.0%	2.9%
2018	82.6%	82.4%	14.4%	14.9%	3.0%	2.6%
2019	83.2%	83.0%	14.0%	14.5%	2.8%	2.6%
2020	80.2%	80.4%	16.6%	16.6%	3.2%	3.0%
2021	80.7%	80.8%	16.3%	16.2%	3.0%	2.9%
2022	81.9%	81.5%	15.4%	15.8%	2.7%	2.7%

Source – Department for Transport, GOV

5.5 Travel to Work

Travel to work is particularly significant in terms of active travel, as it provides opportunities to replace car journeys with active travel modes, increasing physical activity. This is particularly significant for shorter journeys, for example of under 10km (6 miles).

The Census 2021 provides data on the distance local populations travelled to work [13]. Data in this section excludes those not in employment or work mainly offshore, in no fixed place or outside the UK. Figure 19 below shows the number and proportion of the population (who are working) travelled to work for Middlesbrough, Redcar & Cleveland and England. Middlesbrough has the higher proportion of the population who travel less than 10km to work compared to Redcar & Cleveland and England. Redcar & Cleveland residents are travelling further distances to work. Significantly fewer

people are working mainly from home in Middlesbrough and Redcar & Cleveland compared to England. The data demonstrates that over 51,000 people in South Tees travel less than 10km to work.

Figure 19: Distance travelled to work

Distance travelled to work	Middlesbrough		Redcar & Cleveland		England	
	No.	%	No.	%	No.	%
Less than 10km	30,026	63.6%	21,405	46.2%	9,296,060	41.4%
10km to less than 30km	5,171	11.0%	11,895	25.7%	3,790,862	16.9%
30km and over	2,559	5.4%	3,068	6.6%	1,114,075	5.0%
Works mainly from home	9,451	20.0%	9,998	21.6%	8,273,365	36.8%
Total	47,207	100%	46,366	100%	22,474,362	100%

Source – Census 2021

Figure 20 below shows distances travelled to work by car availability. In Middlesbrough car ownership is lower and the proportions with no car or van in the household travel less distance to work. In Redcar & Cleveland there are higher proportions of those who own a car or van that travel a greater distance to work.

Figure 20: Distance travelled to work by car availability

Distance travelled to work	Middlesbrough		Redcar & Cleveland		England	
	No cars/vans in household	1 or more cars or vans in household	No cars/vans in household	1 or more cars or vans in household	No cars/vans in household	1 or more cars or vans in household
Less than 10km	17.7%	82.3%	11.5%	88.5%	15.9%	84.1%
10km to less than 30km	10.2%	89.8%	5.5%	94.5%	8.3%	91.7%
30km and over	12.7%	87.3%	5.6%	94.4%	7.0%	93.0%
Works mainly from home	9.9%	90.1%	5.3%	94.7%	12.7%	87.3%

Source – Census 2021

Figure 21 below shows the distances travelled to work by occupation. In Middlesbrough and Redcar & Cleveland the proportions of those who work mainly from home are highest in the top four most skilled types of occupations. The proportions of those who travel less than 10km are highest in the least skilled types of occupations.

The Census 2021 provides data on the method of travel to work. Data in this section excludes those not in employment or work mainly offshore, in no fixed place or outside the UK. Figure 22 below shows the number and proportion of the working population's method of travel to work for Middlesbrough, Redcar & Cleveland and England. Redcar & Cleveland and Middlesbrough have higher proportions of residents who use a car or van to travel to work compared to England. Middlesbrough has higher rates of those who use a taxi, who are a passenger in a car or van and who walk on foot compared to England. Bicycle journeys in Middlesbrough are very similar to England, but lower for Redcar & Cleveland.

Figure 21: Distance travelled to work by occupation

Local Authority	Occupation	Distance travelled to work			
		Less than 10km	10km to less than 30km	30km and over	Works mainly from home
Middlesbrough	Managers, directors and senior officials	51.8%	13.1%	6.7%	28.3%
	Professional occupations	51.9%	12.5%	4.4%	31.2%
	Associate professional and technical occupations	45.0%	10.5%	7.1%	37.3%
	Administrative and secretarial occupations	55.6%	7.0%	2.2%	35.2%
	Skilled trades occupations	64.3%	17.4%	10.7%	7.6%
	Caring, leisure and other service occupations	79.9%	8.4%	2.9%	8.8%
	Sales and customer service occupations	74.0%	7.3%	2.5%	16.1%
	Process, plant and machine operatives	67.9%	13.8%	12.2%	6.1%
	Elementary occupations	79.8%	11.4%	5.5%	3.3%
Redcar & Cleveland	Managers, directors and senior officials	37.3%	23.0%	7.5%	32.2%
	Professional occupations	30.4%	30.0%	6.2%	33.4%
	Associate professional and technical occupations	31.5%	23.6%	9.3%	35.6%
	Administrative and secretarial occupations	37.9%	23.3%	2.7%	36.1%
	Skilled trades occupations	48.8%	30.6%	10.8%	9.9%
	Caring, leisure and other service occupations	61.1%	24.9%	3.4%	10.6%
	Sales and customer service occupations	63.0%	19.7%	2.7%	14.6%
	Process, plant and machine operatives	47.0%	31.8%	13.6%	7.6%
	Elementary occupations	65.2%	23.9%	6.5%	4.5%

Source – Census 2021

Figure 22: Method of travel to work

Method of travel to work	Middlesbrough		Redcar & Cleveland		England	
	No.	%	No.	%	No.	%
Work mainly at or from home	9,451	16.8%	9,998	18.0%	8,273,365	31.5%
Underground, metro, light rail, tram	28	0.0%	19	0.0%	502,173	1.9%
Train	466	0.8%	556	1.0%	514,125	2.0%
Bus, minibus or coach	2,237	4.0%	1,592	2.9%	1,120,028	4.3%
Taxi	2,045	3.6%	758	1.4%	191,283	0.7%
Motorcycle, scooter or moped	95	0.2%	126	0.2%	123,727	0.5%
Driving a car or van	30,721	54.6%	33,883	60.9%	11,728,570	44.6%
Passenger in a car or van	4,051	7.2%	3,030	5.5%	1,012,583	3.9%
Bicycle	1,117	2.0%	632	1.1%	550,562	2.1%
On foot	5,100	9.1%	4,095	7.4%	1,985,715	7.6%
Other method of travel to work	991	1.8%	906	1.6%	270,045	1.0%
Total	56,302	100%	55,595	100%	26,272,176	100%

Source – Census 2021

Figure 23 below shows the method of travel to work by occupation. In both Middlesbrough and Redcar & Cleveland, the proportion of residents using the bus, minibus or coach, a taxi, being a passenger in a car or van, cycling and walking on foot to work are higher for the lower skilled type of occupations.

Figure 23: Method of travel to work by occupation

Local Authority	Occupation	Method of travel to work										
		Work mainly at or from home	Underground, metro, light rail, tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot	Other method of travel to work
Middlesbrough	Managers, directors and senior officials	24.9%	0.0%	0.6%	1.2%	1.6%	0.0%	62.2%	3.2%	1.1%	3.9%	1.2%
	Professional occupations	29.3%	0.1%	0.4%	1.2%	1.0%	0.1%	57.7%	2.5%	0.8%	6.2%	0.7%
	Associate professional and technical occupations	33.2%	0.0%	1.1%	1.6%	0.9%	0.0%	51.9%	3.8%	1.2%	4.1%	2.1%
	Administrative and secretarial occupations	33.9%	0.1%	0.5%	4.1%	1.5%	0.0%	46.2%	5.3%	0.7%	6.9%	0.8%
	Skilled trades occupations	4.3%	0.1%	1.5%	1.8%	1.0%	0.2%	71.6%	9.8%	2.2%	4.7%	2.7%
	Caring, leisure and other service occupations	7.5%	0.0%	0.7%	6.7%	7.0%	0.1%	49.8%	8.6%	1.7%	16.3%	1.5%
	Sales and customer service occupations	15.3%	0.0%	0.6%	8.9%	4.2%	0.1%	43.3%	8.6%	1.8%	16.0%	1.2%
	Process, plant and machine operatives	3.7%	0.0%	1.6%	1.6%	8.1%	0.4%	67.6%	7.6%	2.6%	2.2%	4.5%
	Elementary occupations	2.9%	0.1%	0.6%	8.2%	6.4%	0.4%	43.2%	14.2%	5.3%	17.3%	1.5%
Redcar & Cleveland	Managers, directors and senior officials	28.8%	0.0%	0.7%	1.0%	0.7%	0.1%	60.2%	2.1%	0.6%	4.1%	1.7%
	Professional occupations	31.0%	0.1%	0.6%	0.9%	0.3%	0.1%	61.9%	1.8%	0.5%	1.8%	1.0%
	Associate professional and technical occupations	31.3%	0.0%	1.5%	1.2%	0.3%	0.2%	56.5%	2.0%	0.7%	4.0%	2.3%
	Administrative and secretarial occupations	35.0%	0.0%	1.0%	3.0%	0.6%	0.1%	51.2%	4.0%	0.3%	4.2%	0.7%
	Skilled trades occupations	5.6%	0.0%	1.1%	1.3%	0.6%	0.3%	76.1%	7.1%	1.5%	3.9%	2.5%
	Caring, leisure and other service occupations	8.9%	0.0%	0.7%	5.1%	3.3%	0.1%	58.8%	6.7%	1.0%	14.1%	1.2%
	Sales and customer service occupations	13.8%	0.0%	1.3%	6.8%	2.4%	0.1%	49.1%	7.6%	1.0%	17.2%	0.9%
	Process, plant and machine operatives	5.2%	0.1%	1.5%	1.2%	1.9%	0.4%	76.1%	5.9%	1.7%	2.6%	3.4%
	Elementary occupations	3.7%	0.0%	0.9%	5.9%	2.3%	0.6%	54.9%	12.2%	2.8%	15.6%	1.1%

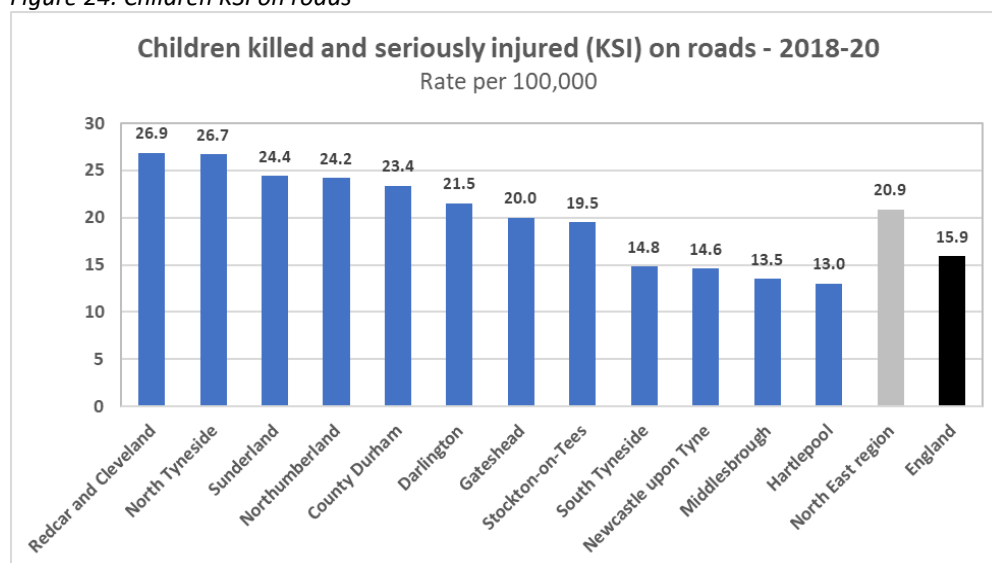
Source – Census 2021

Although the data sets are not sufficiently granular to identify, for example, the relationship between distance travelled and mode, it seems likely that a significant number of work journeys under 10km are being made by car across South tees. This is worthy of further investigation, as it may represent a significant pool of people who could use alternative modes but choose not to for reasons of practicality or convenience.

5.6 Killed or seriously injured (KSI) on roads

Motor vehicle traffic accidents are a major cause of preventable deaths and morbidity, particularly in younger age groups. The vast majority of road traffic collisions are preventable and can be avoided through improved education, awareness, road infrastructure and vehicle safety. Rates nationally have fallen over the years with a rate per 100,000 of 23.6 in 2008-10 compared to 15.9 per 100,000 in 2018-20.

Figure 24: Children KSI on roads



Source – Fingertips, OHID [14]

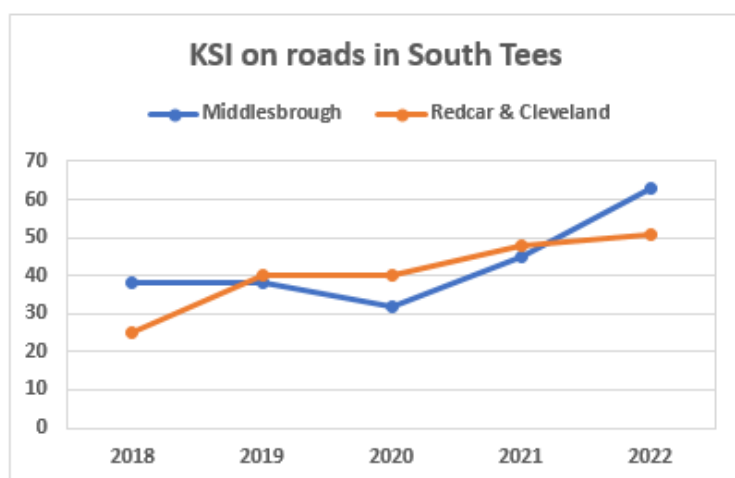
For a pooled three-year period between 2018-20, Redcar & Cleveland had the highest rate of children killed or seriously injured on roads with a rate per 100,000 of 26.9 (n=20) compared to 15.9 in England. This is the 13th highest rate for local authorities in England. Middlesbrough was slightly lower compared to England with a rate of 13.5 (n=12) per 100,000.ⁱ

Data provided by the North East Regional Road Safety Resource and the Traffic & Accident Data Unit (TADU) shows the number of killed and seriously injured children and adults on roads by location of the accident [15]. Figure 25 below shows the number of casualties on roads split by fatal and serious for a 5 year period between 2018 and 2022 for both Middlesbrough and Redcar & Cleveland.

There was a total of 216 fatal or serious casualties in Middlesbrough over the 5-year period. Of the total 216, 3% were fatal and 97% were serious. In Redcar & Cleveland there was a total of 204 casualties, of which 8% were fatal and 92% were serious. Trends show that in both areas the number of casualties has increased with the highest numbers seen in both areas in 2022. The numbers dipped in 2020 which will be in part related to the Covid19 pandemic and lockdowns.

Figure 25: KSI on roads trends

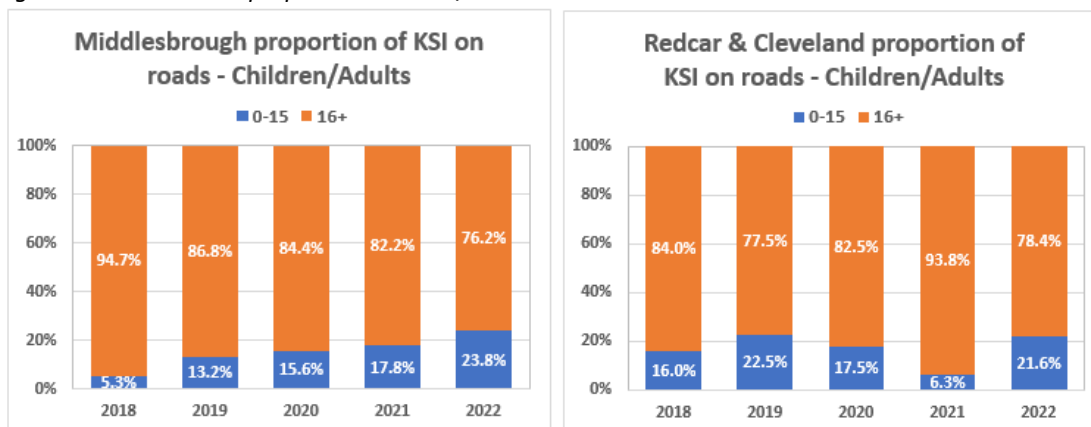
	Middlesbrough			Redcar & Cleveland		
	Fatal	Serious	Total	Fatal	Serious	Total
2018	3	35	38	1	24	25
2019	2	36	38	4	36	40
2020	0	32	32	6	34	40
2021	1	44	45	2	46	48
2022	1	62	63	4	47	51
	7	209	216	17	187	204



Source – North East Regional Road Safety Resource and TADU

In Middlesbrough for 2022, 23.8% of the casualties were children aged 0-15 and 76.2% were aged 16 and over. In Redcar & Cleveland 21.6% were for children aged 0-15 and 78.4% were aged 16 and over. Trends show that in Middlesbrough the proportion of casualties for those aged 0-15 has increased year on year over the 5 year period, however in Redcar & Cleveland the proportion has fluctuated over the years.

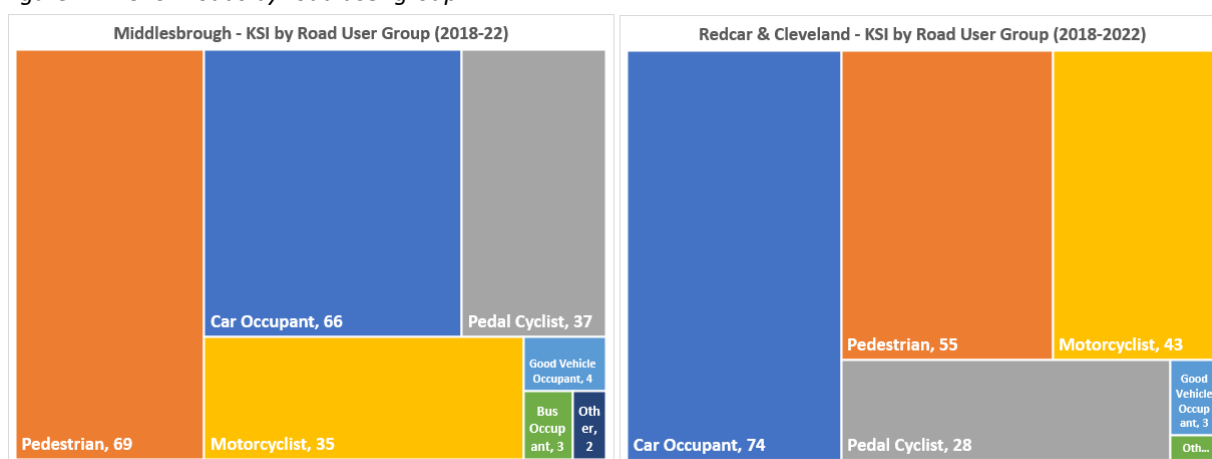
Figure 26: KSI on roads proportion children/adults



Source – North East Regional Road Safety Resource and TADU

Casualties over the 5 year period split by road user group show that in Middlesbrough the highest category was pedestrians with 32% followed by car occupants with 31%. In Redcar & Cleveland the highest category was car occupants with 34% followed by pedestrians with 25%. There are higher proportions of pedal cyclist casualties in Middlesbrough and higher proportion of motorcyclist casualties in Redcar & Cleveland. The latter may possibly reflect both the attractiveness of the area for motorcycling and the rural road network.

Figure 27: KSI on roads by road user group



Source – North East Regional Road Safety Resource and TADU

5.7 Air quality

Data provided by the Department for Energy Security and Net Zero and Department for Business, Energy & Industrial Strategy shows the greenhouse gas emissions for local authorities in England [16]. These cover territorial emissions of carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

Figure 28 below provides a breakdown of emissions in 2021 for Middlesbrough and Redcar & Cleveland, compared to England. Redcar & Cleveland has twice the level of total emissions at 1,215 kilotonnes (kt CO₂e) compared to Middlesbrough at 654. CO₂ is the most prevalent greenhouse gas emissions, accounting for 86.4% in Middlesbrough, around two percentage points higher than England (84.3%). Redcar & Cleveland has a higher proportion at 93%. Methane accounts for 12.1% in Middlesbrough but is lower in Redcar & Cleveland at 5.5%. N₂O is the smallest emission at 1.6% in Middlesbrough and 1.5% in Redcar & Cleveland. Looking at emissions per capita of population and per area, Redcar & Cleveland has much higher rates compared to Middlesbrough and England.

Figure 28: Greenhouse gas emissions 2021

	Middlesbrough				Redcar & Cleveland				England			
	Greenhouse Gas Emissions	CO2 Emissions	Methane (CH4) Emissions	Nitrous Oxide (N2O) Emissions	Greenhouse Gas Emissions	CO2 Emissions	Methane (CH4) Emissions	Nitrous Oxide (N2O) Emissions	Greenhouse Gas Emissions	CO2 Emissions	Methane (CH4) Emissions	Nitrous Oxide (N2O) Emissions
Total	654	565	79	10	1,215	1,129	67	18	309,040	260,428	35,482	13,130
%	100%	86.4%	12.1%	1.6%	100%	93.0%	5.5%	1.5%	100%	84.3%	11.5%	4.2%
Per Capita Emissions	4.5	3.9	0.5	0.1	8.9	8.3	0.5	0.1	5.5	4.6	0.6	0.2
Area (km2)	54.6	54.6	54.6	54.6	253.8	253.8	253.8	253.8	132,929	132,929	132,929	132,929

Source – Greenhouse gas statistics, GOV

Figure 29 below shows the proportion of greenhouse gas emissions coming from different sectors in Middlesbrough, Redcar & Cleveland, and England. Middlesbrough has a higher proportion of transport, domestic, waste management and public emissions when compared to Redcar & Cleveland. Redcar & Cleveland has a much higher proportion of industry emissions at 61.1% when compared to Middlesbrough and England. This reflects local geography, with the major industrial developments around Wilton and Redcar being in the Redcar & Cleveland borough boundary.

Figure 29: Greenhouse gas emissions 2021 by sector

Sector	Middlesbrough		Redcar & Cleveland		England	
	Total (kt CO2e)	%	Total (kt CO2e)	%	Total (kt CO2e)	%
Industry	62.4	9.5%	742.2	61.1%	61,007	19.7%
Commercial	23.6	3.6%	17.0	1.4%	15,107	4.9%
Public	48.6	7.4%	16.8	1.4%	13,602	4.4%
Domestic	201.3	30.8%	215.1	17.7%	79,456	25.7%
Transport	243.4	37.2%	182.3	15.0%	94,359	30.5%
LULUCF Net Emissions	2.0	0.3%	-15.4	-1.3%	-713	-0.2%
Agriculture	4.4	0.7%	41.5	3.4%	30,866	10.0%
Waste Management	68.0	10.4%	15.3	1.3%	15,355	5.0%
Total (kt CO2e)	653.7	100%	1214.7	100%	309,040	100%

Source – Greenhouse gas statistics, GOV

According to the Climate Change Committee, while local authorities are directly responsible for 2–5% of emissions in their area, they have powers or influence over roughly a third [17]. The Net Zero Strategy says 82% of the UK’s emissions are “within the scope of influence of local authorities” [18]. Given the scope of local government’s powers and responsibilities, it is increasingly being recognised as critical to the UK reaching its net-zero target. In particular, many of the funds allocated to climate action, such as those aimed at improving the energy efficiency of the existing housing stock and encouraging more sustainable modes of travel, are delivered through local authorities utilising national government funding.

Within the greenhouse gas emissions dataset, there is a subset of data which shows the CO₂ emissions within the scope of influence of local authorities. Unlike the full dataset, the dataset of emissions within the scope of local authorities excludes emissions that local authorities do not have direct influence over. The data that is removed from the full dataset is shown below:

- **Motorways** – all emissions from the “Transport (motorways)” sector have been removed.

- **EU Emissions Trading System (EU ETS) and UK Emissions Trading Scheme (UK ETS) sites** – these emissions have been removed from the “Large industrial installations” sector, with the exception of energy suppliers (e.g. power stations), whose emissions are indirectly included via the end-user estimates for electricity use. Note that not all the emissions from the “Large industrial installations” sector are produced by EU and UK ETS installations, hence the fact that there are emissions remaining in this sector in the subset.
- **Diesel railways** – all emissions from the “Diesel Railways” sector have been excluded.
- **Land Use, Land Use Change, and Forestry** – all emissions belonging to the “LULUCF Net emissions” sector have been excluded.

Removing these emissions has a significant impact on some local authorities compared to others, as some local authorities have a much higher proportion of emissions from the above sources than others. Figure 30 below shows the percentage of all CO₂ emissions which are in the scope of Middlesbrough, Redcar & Cleveland, and England. In Middlesbrough, 99.4% of CO₂ emissions are within its scope of influence, while 65% of CO₂ emissions in Redcar & Cleveland are within its scope of influence. Redcar & Cleveland also has a higher emission count per capita at 5.4 in comparison to Middlesbrough at 3.9 and England at 2.9.

Figure 30: CO₂ emissions within scope of influence of local authorities

Local Authority	Grand Total (kt CO ₂ e)	%	Per Capita Emissions (tCO ₂ e)	Area (km ²)	Emissions per km ² (kt CO ₂ e)
Middlesbrough	561.4	99.4%	3.9	54.6	10.3
Redcar and Cleveland	733.8	65.0%	5.4	253.8	2.9
England	221,022	84.9%	3.9	132,929	1.7

Source – Greenhouse gas statistics, GOV

Figure 31 below shows CO₂ emissions coming from different sectors in the scope of influence of Middlesbrough, Redcar & Cleveland, and England. Redcar & Cleveland has a much larger proportion of CO₂ emissions coming from industry at 42.4% in comparison to Middlesbrough at 10.2% and England at 18.7%. Middlesbrough has a higher proportion of emission coming from transport, at 42.5% in comparison to Redcar & Cleveland at 24.3% and England at 31.4%.

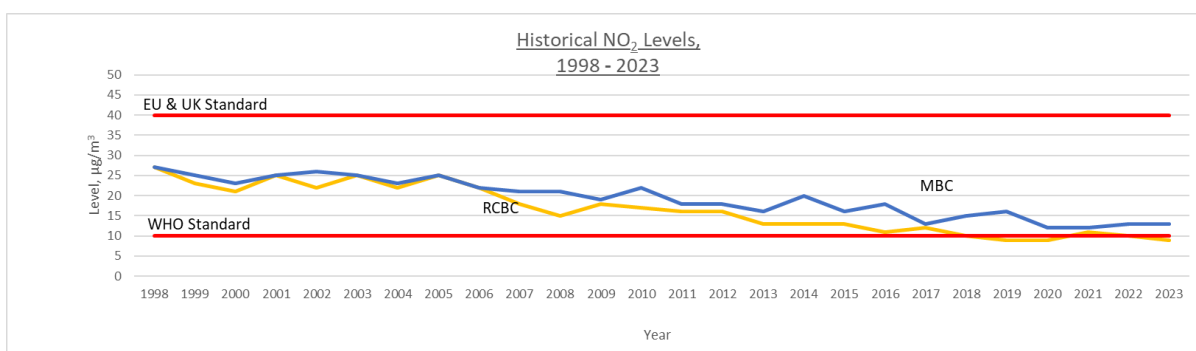
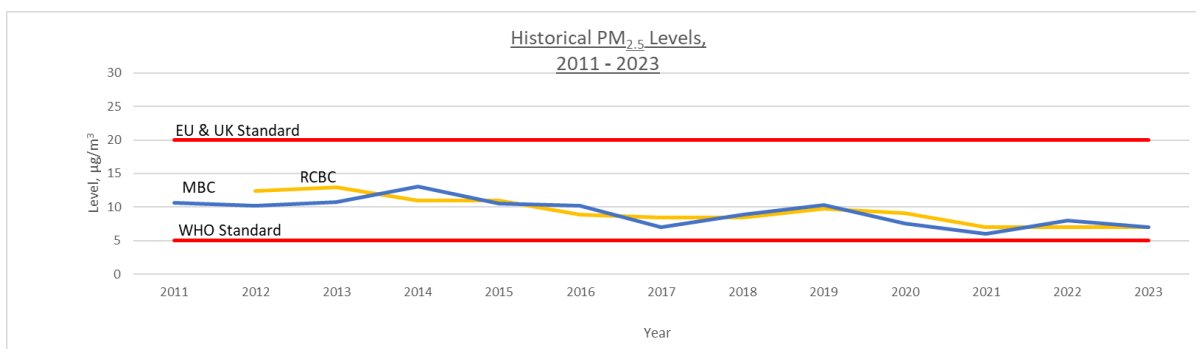
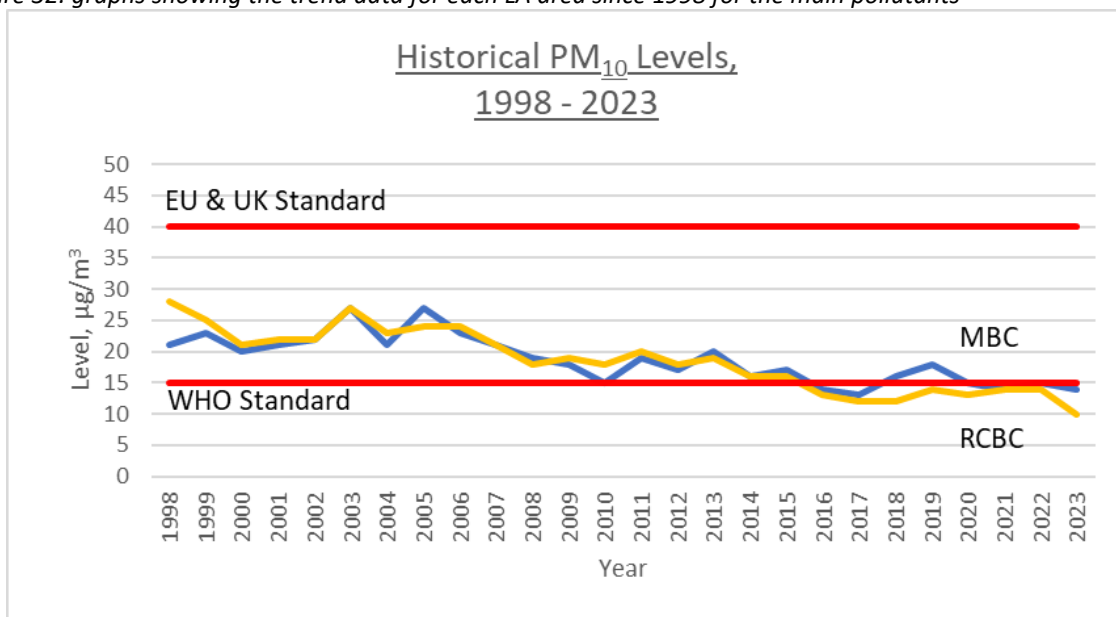
Figure 31: CO₂ emissions within scope of influence of local authorities by sector

Sector	Middlesbrough		Redcar & Cleveland		England	
	Total (kt CO ₂ e)	%	Total (kt CO ₂ e)	%	Total (kt CO ₂ e)	%
Industry	57.5	10.2%	311.2	42.4%	41,261	18.7%
Commercial	22.9	4.1%	16.5	2.2%	14,654	6.6%
Public	47.2	8.4%	16.3	2.2%	13,226	6.0%
Domestic	194.1	34.6%	206.4	28.1%	76,940	34.8%
Transport	238.8	42.5%	178.0	24.3%	69,502	31.4%
Agriculture	0.8	0.1%	5.2	0.7%	5,122	2.3%
Waste Management	0.1	0.0%	0.2	0.0%	316	0.1%
Total (kt CO₂e)	561.4	100%	733.8	100%	221,022	100%

Source – Greenhouse gas statistics, GOV

Figure 32 below which have been extracted from Middlesbrough Borough Council's (MBC) and Redcar & Cleveland Borough Council's (RCBC) annual Air Quality Status Reports [19][20] show the trend data for each South Tees Local Authority area since 1998 for the main pollutants, PM₁₀ PM_{2.5} and NO₂.

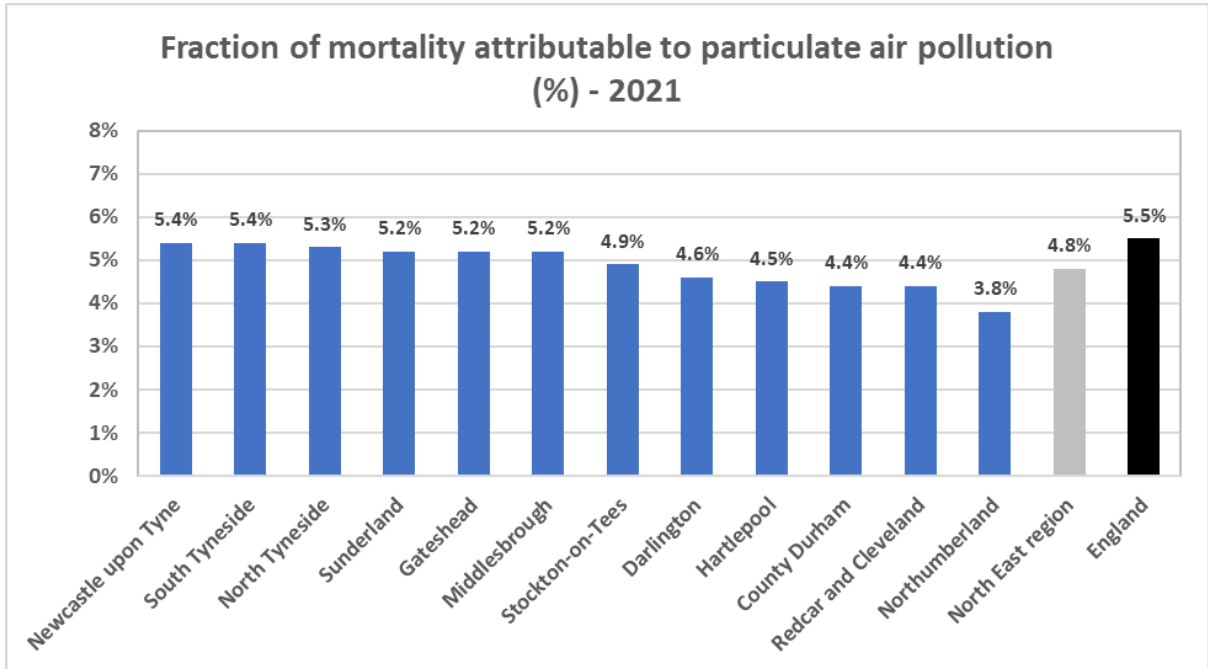
Figure 32: graphs showing the trend data for each LA area since 1998 for the main pollutants



Air quality in the South Tees consistently complies with the legal standards so therefore there is no requirement to declare any Air Quality Management Areas (AQMAs).

Figure 33 below demonstrates the fraction of mortality attributable to particulate air pollution. Both Middlesbrough and Redcar & Cleveland are below the national average. Middlesbrough is above the North East average, Redcar & Cleveland below.

Figure 33 – Fraction of mortality attributable to particulate air pollution.



6. What are we doing already in relation to this goal?

6.1 Strategies and plans

Tackling climate change has been identified as a high priority for South Tees. RCBC recognises Climate Change as a top priority in their Corporate Plan 2024-2027 [21] and has set an ambitious target for a carbon neutral borough by 2030. A sustainable transport network will positively impact upon cleaner air quality and the ability of everyone to move about sustainably, exercise and enjoy improved mental wellbeing through their experience of living and visiting South Tees.

RCBC's Climate Change Action Plan [22] to tackle its own emissions focuses on a two/three year rolling cycle, enabling changes in funding and technology to be capitalised upon.

Middlesbrough declared a climate emergency in 2019 and has ambitious targets for the Council to be carbon neutral by 2029 as an organisation. The goal is for the whole town to be net carbon neutral by 2039, well ahead of the government's 2050 target [23].

RCBC Housing Strategy is supportive of carbon neutral, exploring the use of modern methods of construction in a factory setting to increase the supply of high-quality sustainable homes in the borough. There are a wide range of environmental benefits associated with the construction of new homes in a factory setting as opposed to directly on-site including a reduction in road traffic movements from construction vehicles, leading to both congestion and pollution benefits [24].

The Tees Valley Strategic Transport Plan (TVSTP) [25] has a transport vision "To provide a high quality, quick, affordable, reliable, low carbon and safe transport network for people and freight to move within, to and from Tees Valley". RCBC & MBC Local Implementation Plans (LIPs) are part of the (TVSTP) which applies until 2030.

TVCA aims to deliver a transport system fit for the future, so that everyone can benefit from the plans for growth. The current way that Tees Valley's transport system is organised could be improved. There are several authorities and organisations involved in providing transport services, which could be better connected to each other, in order to improve provision and information for the public.

The TVSTP sets out ambitions for the transport network to be more integrated in how it is organised, managed and operated so that it is easier for everyone to plan their journeys and use the network.

The plan reflects the ambition and requirements of national and sub-national plans such as the UK Industrial Strategy, those prepared by Transport for the North and other plans prepared by the Combined Authority such as those dealing with the economy.

Tees Valley Urban Traffic Management and Control (UTMC) system has ambitions to improve the way both people and freight are moved in the Tees Valley. The system aim includes making journeys more reliable, improving the transport network and air quality [26].

TVCA is delivering a transport network fit for the future, so that everyone can access training, education and other opportunities. Their local cycling and walking implementation plan (LCWIP) [27] outlines a range of inclusive transport options for Tees Valley.

Redcar and Cleveland and Middlesbrough both have Local Implementation Plans [28] [29]. Schemes to be delivered by 2030 include improvements to passenger rail, highways, a network in good condition, travel behaviour change and walking and cycling.

Local Plans are key to sustainable development that will not negatively impact on air quality from transport or other sources. RCBC and MBC Local Plans are shaped by national and local policies and documents such as the Tees Valley Combined Authority (TVCA) infrastructure delivery plan [30] [31].

6.2 South Tees regeneration

Moving forward, major development sites at Teesworks and Wilton and the recently designated Teesside Freeport, will provide significant new employment and social and economic opportunities for residents and investors, whilst growth within town centres across the Tees Valley will uplift the area as a whole. The South Tees economy and offer is critical to the success of the wider Tees Valley area, providing an attractive residential environment, visitor offer, local amenity and employment opportunity which will unlock the wider Tees Valley levelling up and growth opportunities that exist. The Redcar & Cleveland and Middlesbrough local authority areas are both Priority 1 areas for investment, as recognised by The Department for Levelling Up, Housing and Communities (DLUHC). The Round 2 Levelling Up Fund Bids for Redcar and Cleveland have sought to capitalise on these opportunities by levelling up the more detached and rural settlements of South Middlesbrough and East Cleveland, and the more urban area of Greater Eston. In 2023, Redcar and Cleveland Borough Council (RCBC) was successful with its Levelling Up Fund Round 2 (LUF) bids for a package of measures focused on regeneration and sustainable transport interventions across the borough. In East Cleveland, economic growth prospects are currently limited by a lack of connectivity to the urban areas of Redcar and Middlesbrough and the economic potential of these.

The local LUF bids comprised a package of separate but strategically and economically interlinked project components, which provide sustainable transport and regeneration interventions to improve connectivity and the vitality of the constituency's local centres, as well unlocking significant residential growth in an area of identified housing need and diversity.

In Greater Eston the existing retail provision and leisure offer is dated, with the existing shopping precinct being built in the 1960s, now declining and no longer fit for purpose. The interventions proposed within the Levelling Up Fund bid will improve the vitality of Eston's local centre, provide leisure facilities to enable local people to live healthy and active lifestyles and increase sustainable accessibility and connectivity between Tees Valley's key economic growth areas (South Bank and Teesworks), thus allowing Eston's residents to fully benefit from the economic growth opportunities in their local centre and in the wider area.

The measures for sustainable transport and regeneration improvements covered by both RCBC bids includes:

- Eston Active Travel – delivery of a new sustainable active travel route (cycle/ footpath), linking the Teesworks/Teesside Freeport opportunity to the south of the borough of Redcar and Cleveland, including spurs to the new Eston Precinct and Leisure schemes and Nunthorpe.
- Guisborough Active travel – accessibility interventions which will improve active modes of travel between Guisborough Town Centre and Nunthorpe via the Guisborough Forest & Walkway Visitor Centre (and thus linking in to the Eston Sustainable Active Travel route mentioned above, to Teesworks), and the North York Moors National Park; Consultant to explore Footpath from Galley Hill estate to Guisborough Forest and walkway and support the council in discussions with land owners.

6.3 Other initiatives

By working collaboratively, North York Moors National Park Authority, Forestry England and Redcar & Cleveland Borough Council aim to deliver the following vision to establish a northern gateway to the North York Moors National Park, centred around the historic market town of Guisborough, improving access for the local community, businesses and visitors from far and wide.

The historic market town of Guisborough is strategically placed to meet the housing and recreational needs that will be generated. The area, which already provides a stunning, visual backdrop to Teesside will become the 'Northern Gateway' to the North York Moors National Park, providing abundant nature, connectivity and leisure opportunities for the town and communities from across Teesside.

The TVCA electric vehicle charging infrastructure project (2021-2022) [32] was allocated £2M to develop electric vehicle charging point infrastructure to encourage more people to switch to electric vehicles.

It is difficult for some people to travel to their place of work or education due to gaps in the Transport network. The TVCA Wheels 2 Work scheme 2021-2024 [33] aims to help bridge this gap; eligible individuals can hire an electric motorbike, or e-bike.

6.4 Out of scope

Finally, it should be noted that some actions fall outside the influence of the two South Tees Local Authorities:

- Introduce low emission zones. These are for areas with air quality that does not meet UK Government legal requirements and are a tool to encourage greener vehicle use.
- Require residents and businesses to:
 - switch to low carbon emitting vehicles
 - use cleaner fuel options for heating homes and businesses
 - use alternative methods to burning for disposal of dry garden waste
 - use non-toxic paint and cleaning products
- Instigate measures to facilitate an immediate and measurable reduction in air pollutant levels. Air pollution is affected by various sources, some of which are anthropogenic and others which are environmental. Air pollution is transboundary at a local, regional and continental level.

7. What do stakeholders and local people say?

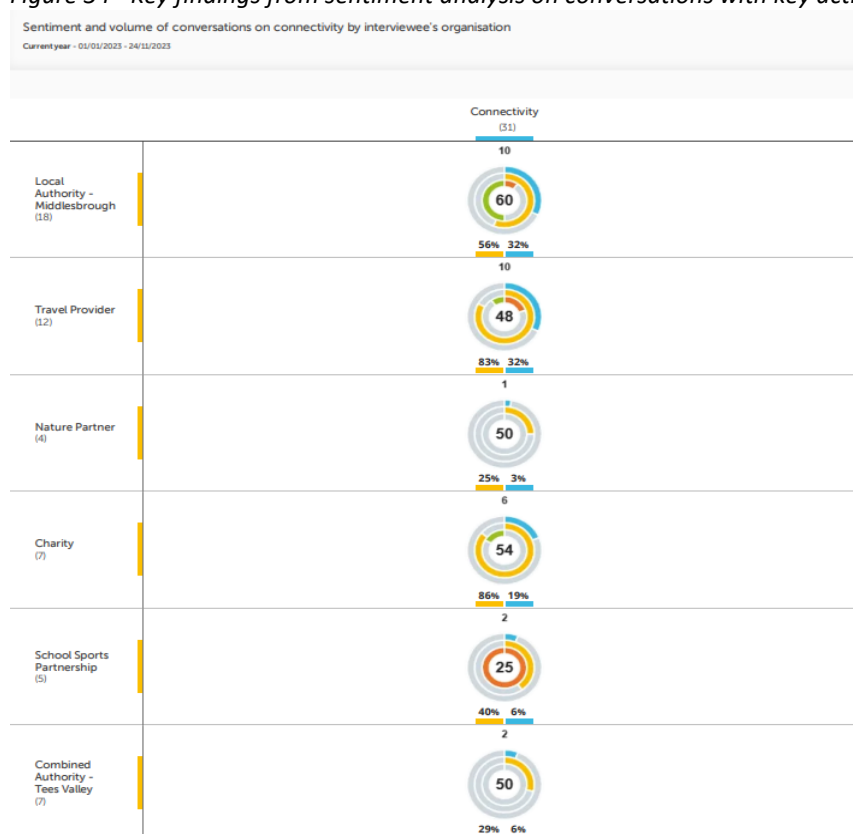
7.1 Findings from discussions with stakeholders

Conversations were held with nine active travel practitioners either individually or in small groups. These conversations took place on Teams and Sentiment Analysis was used to identify the key areas of conversation and the sentiment attached to them. The results are presented in the figures below.

Following this process the key areas were sense-checked with a wider group of 19 strategic stakeholders through a structured workshop to determine if these key areas resonated with their role and experiences and to unpick the causes of these issues further to gain greater understanding of the systemic barriers causing these blockers.

Connectivity, in the context of how groups/organisations do or do not work together around active travel, was frequently mentioned by practitioners. The visualisation in Figure 34 below shows the frequency with which connectivity was mentioned (the number at the top of each circle) and its overall sentiment score (the number in the centre of each circle) by organisation. Although the sample size is small, there is a suggestion that partners from the Middlesbrough Local Authority were more satisfied with connectivity than those from the other groups/organisations. The overall sentiment score from all six categories is neutral, suggesting that connectivity between organisations and ways of working around active travel is acceptable, but could be improved.

Figure 34 - Key findings from sentiment analysis on conversations with key active travel practitioners.



The workshop discussion on connectivity among partners in active travel emphasised several key points. Participants stressed the importance of being focus-driven, underscoring the need for a strategic and purposeful approach that was geared toward achieving specific goals, rather than issues. There was an acknowledgement that partners need to communicate better to foster effective

collaboration, and there was discussion around the lack of structured communication and how this could support them to be more connected.

The workshop participants highlighted that current collaboration takes place at a Tees Valley level, emphasising the need for more local connection. The existence of a Tees Valley Planning and Transport Planning Group was cited as a good network. However, the question was raised about the potential for better external communication within the local authorities and into the communities.

Figure 35 below shows the volume of types of active travel mentioned during the conversations by practitioners and their attached sentiment scores. Cycling was mentioned most often by practitioners (showing up in 74% of the data). Most of the practitioners involved in these interviews had work that was directly linked to some form of cycling (ranging from programmes such as Bikeability, to working with cycling in general), which has contributed to the higher number of mentions. Bus travel has the fewest mentions, due to most practitioners not being involved in bus services. 'Bus' also has the lowest sentiment score, with some issues that have contributed to this being failed funding bids and loss of some government subsidisation, and a feeling of a lack of priority when it comes to buses (potentially affecting their reliability).

Figure 35 - Volume of types of active travel mentioned during the conversations with practitioners.

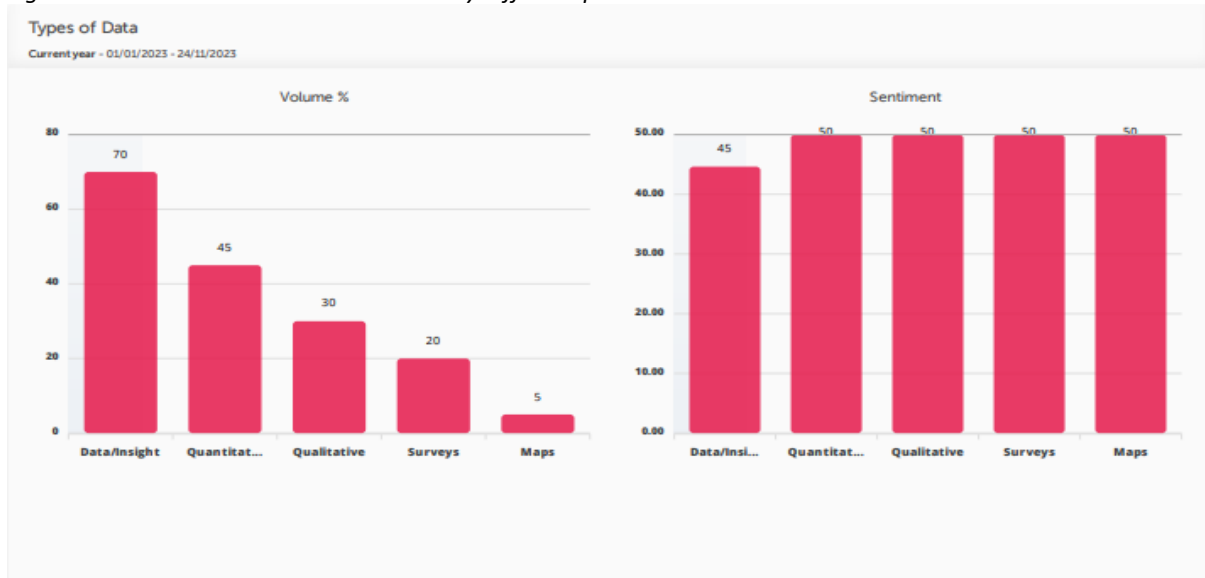


The workshop considered community engagement, revealing a predominant trend of 'doing to' rather than 'doing with.' This has been driven by challenging timeframes and decision-making processes, with a sense of urgency to 'get it done,' often resulting in less collaborative and participatory methods of community engagement. While there has been some community engagement, participants acknowledged the need for more detailed information regarding a deeper understanding of community knowledge, including culture/ethnic diversity, education levels and habitual behaviours.

Furthermore, the workshop highlighted an issue of limited engagement levels, with community members not actively participating in the design and decision-making processes. Recognising the importance of creating spaces that make people feel safe, the workshop participants expressed a collective desire to embed a new approach to delivering community engagement—one that involves speaking first, delivering, and then sense-checking with the community.

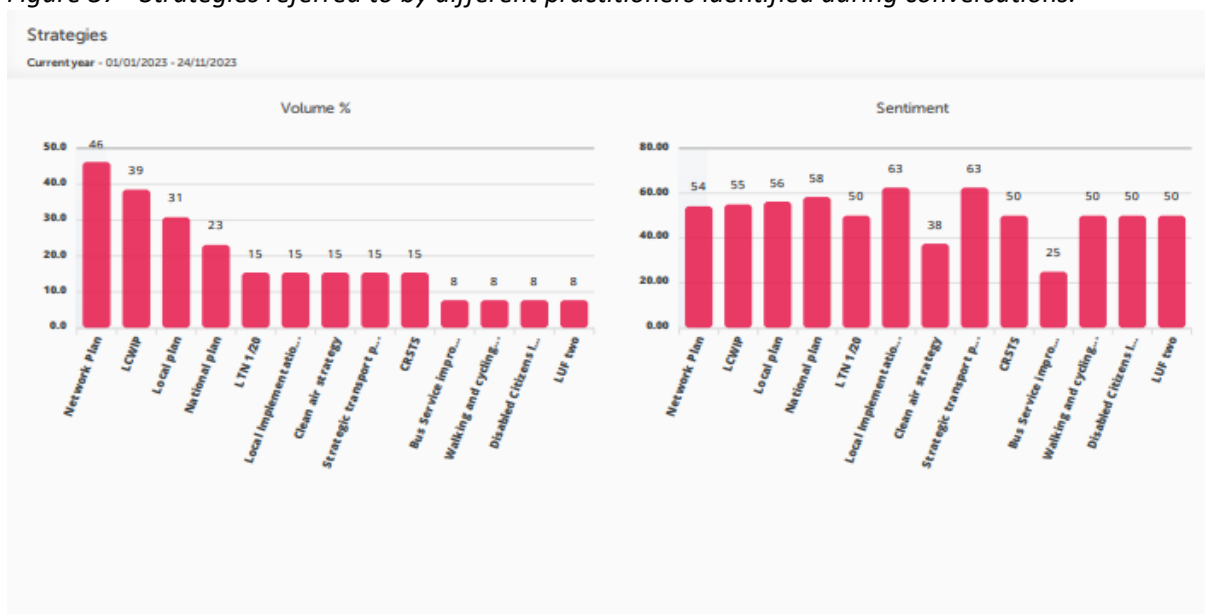
Figure 36 below shows the data collection methods that were mentioned in the nine conversations. Quantitative approaches (in 45% of the data) were mentioned the most frequently followed by qualitative approaches, 'surveys' (which is kept separate as surveys can be quantitative or qualitative, or a combination of both) and maps.

Figure 36 - Data collection methods used by different practitioners.



In the conversations, practitioners discussed the strategies that inform their work. Figure 37 below shows the strategies identified by the practitioners and their attached sentiment score. The most often mentioned strategy was 'Network Plan' (mentioned in 46% of the data), followed by Local Cycling and walking Implementation Plans (LCWIP) (in 39% of the data) and 'Local Plan' (in 31% of the data). Overall, there were thirteen strategies mentioned by practitioners during the course of the conversations.

Figure 37 - Strategies referred to by different practitioners identified during conversations.



The workshop discussions on current strategies revealed a critical emphasis on the need for more explicit implementation directions and a stronger connection of strategies. Participants delved into the intricacies of policy and strategy, questioning the prescriptive nature of existing approaches. The

discussion highlighted concerns about the tangible outcomes and practical delivery plans associated with the strategies in place.

A significant discussion in the workshop was around political resilience within the delivery of strategy. While ambition is a driving force behind the transformative strategies, the pervasive influence of loud voices often dominates the decision-making process, which hinders creative and forward-thinking approaches. The challenge intensifies when faced with local disinterest, where initiatives are perceived as wasteful expenditure.

Figure 38 - Barriers mentioned by practitioners during conversations.



Figure 38 above shows the types of barriers when working with active travel that were identified by practitioners (note that ‘general’ includes any mention of keywords, such as ‘challenge’, ‘barrier’, etc.). The most common barrier identified by practitioners (appearing in 58% of the data) is ‘Geographical/environmental barriers’. This barrier includes mentions of issues around infrastructure and the geography of the area. Practitioners mentioned the need for more active travel routes and of a better quality. The next commonly mentioned barrier was ‘Budget/funding barriers’. This includes conversations around lack of funding and working to a tight budget.

‘Authority barriers’ were the next most mentioned. This includes conversations around political involvement and the local authority. Fourth on the graph is ‘Safety’. This barrier includes conversations about how safe active travel routes are and how safe they are perceived to be. The fifth most commonly mentioned barrier is ‘barriers relating to ways of working and working conditions’. This barrier includes mentions of issues relating to capacity and workload. Overall, eleven barrier categories were identified, which highlights the scale of the issues facing practitioners working in active travel.

Other findings from the workshop were:

- There was a clear passion and enthusiasm from the stakeholders for the work and specifically for the potential for sustainable transport to tackle the climate crisis, contribute to increasing physical activity and improving air quality.
- Whilst there is a good range of data available, most of what is known is quantitative and focussed on modes of transport used. Relatively little is known about the how and why people

travel by different modes, which could be an area for further exploration – for example the reasons for the reduction in use of bus transport by concessionary passholders. Qualitative data collection offers new opportunities to improve the depth of our understanding of the why and how. The range of data available is also increasing, for example camera vehicle counters and using mobile phone intelligence to assess movement along particular routes or through spaces. These new advances identify the need for more coordinated use of data and data sharing to maximise the value of the data in decision-making.

- Greater connectivity between policy, strategy and practical implementation would be beneficial.
- Some concern was expressed around the processes of community engagement and whether these were sufficiently robust – “done to, rather than with”. This could mean that only the loudest voices are heard.
- One barrier identified is that much is still designed around motor vehicles, especially the private car. This takes preference over other modes.
- Rising levels of motorist aggression have been observed since the pandemic – to both cyclists and bus drivers.

7.2 Commuter cyclists survey

In 2020, a Commuter Cycling Insight Study was undertaken by Groundwork North East and Cumbria, Middlesbrough Environment City and Redcar and Cleveland Voluntary Development Agency. The aim was to understand what encouraged individuals to commute by cycle to work and, also, what prevented them commuting by bike. This was a small study with 26 participants and was focussed on those already cycling. Although not statistically significant, the study provides some insights into the behaviours of commuter cyclists and the issues they face.

In response to the question ‘How often do you cycle to work, school or training?’, the majority of respondents who did commute by cycling said that they did so every day (61%). Some respondents mentioned seasonal differences or that the recent pandemic has affected their cycling habits, for example working from home.

The majority of respondents did have access to a car (68%) while 32% did not, indicating that most respondents who commuted by bicycle did so not because of lack of access to a motor vehicle, but because it was their preferred method of travel. When asked what their ‘favourite benefit of cycling to work’ was, the vast majority (82%) said ‘health’ while a smaller percentage said either ‘financial’ or ‘time’.

Figure 39 below details how participants responded to how safe they felt in different situations. The results show that respondents felt most unsafe when ‘cycling around roundabouts’, ‘when you are cycling in with other traffic’, ‘turning right off a main road’, ‘at crossroads,’ and ‘using cycle lanes marked on the main carriageway’ (results are presented here in order from least safe to most safe). Respondents felt most safe when ‘using cycle lanes separated from the main carriageway’, ‘turning left off a main road’, and ‘at traffic lights’ (results are presented here in order of most safe to least safe). When asked if they used cycle lanes 13 respondents answered sometimes and 6 yes.

Figure 39 – South Tees participant responses to safety in different situations

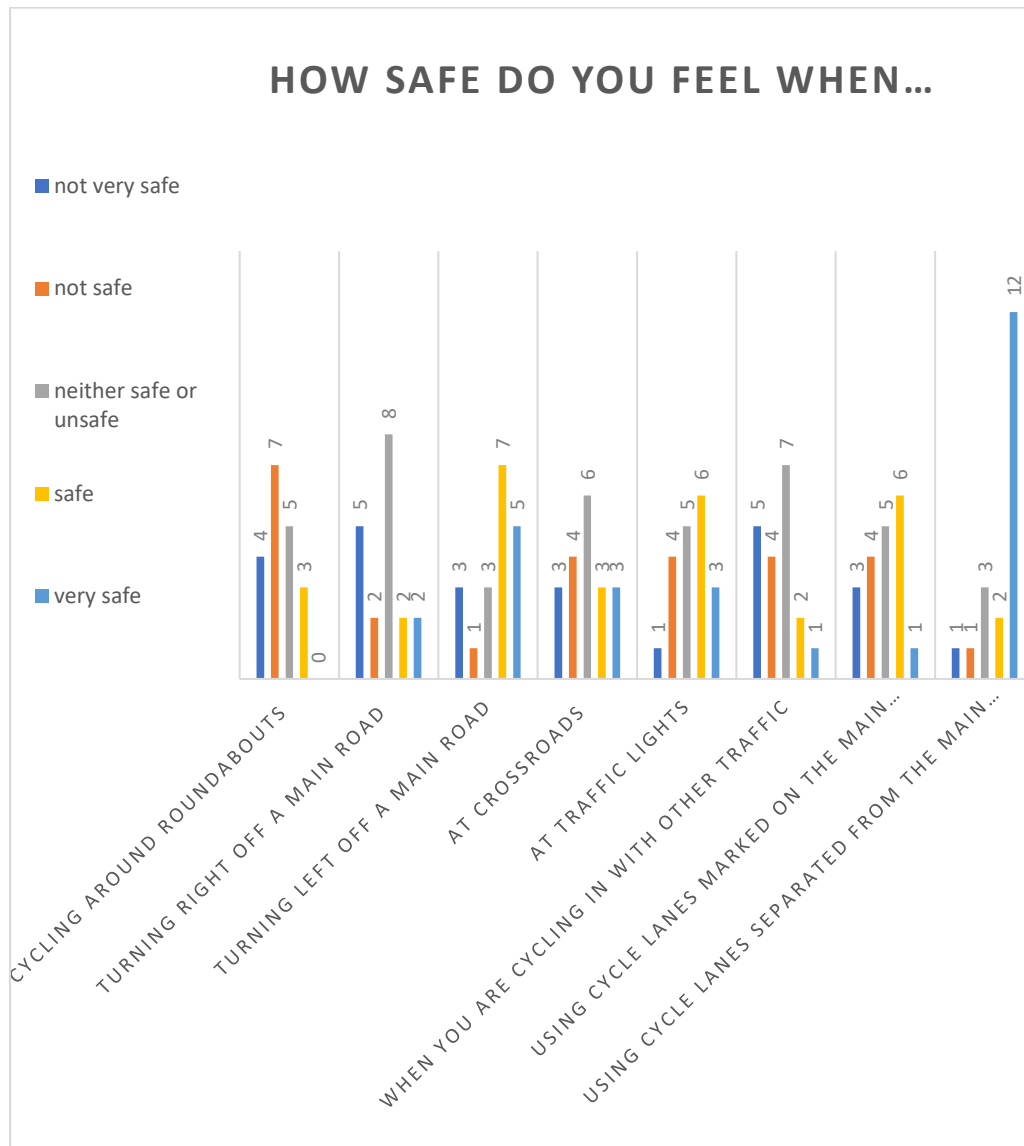
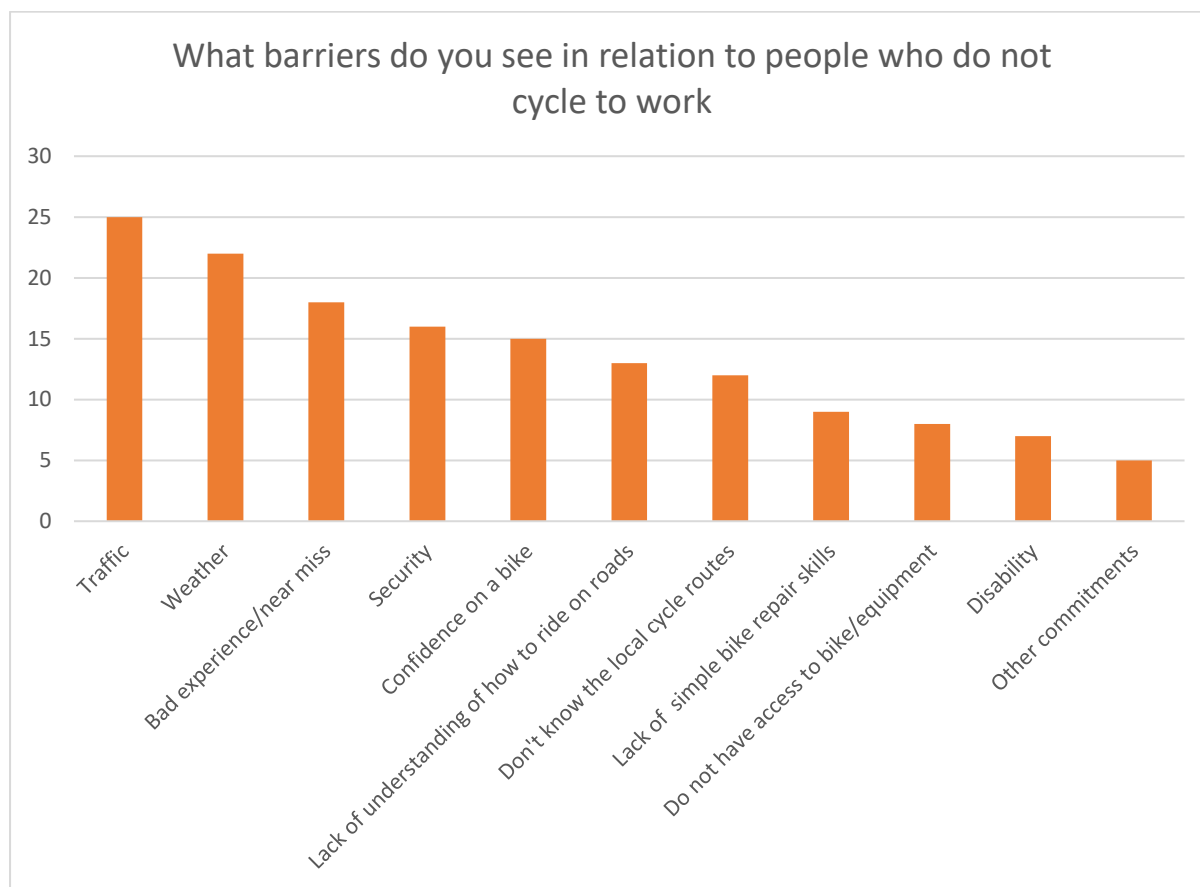


Figure 40 below details responses to the question ‘What barriers do you see in relation to people who do not cycle to work?’. Respondents gave a variety of reasons – from ‘traffic’ and ‘weather’ to having a bad past experience or near miss, infrastructural barriers, such as ‘security’ (this refers to the ability to safely store/lock up a bicycle), and individual barriers, such as a lack of confidence on a bike.

Figure 40: responses to the question 'What barriers do you see in relation to people who do not cycle to work?'



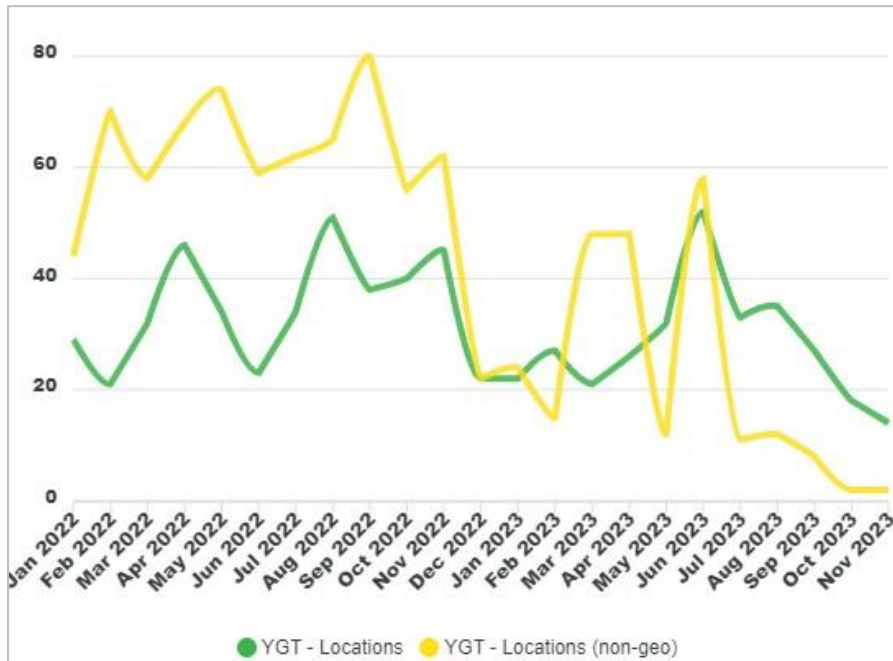
Participants were asked about their own experience with local cycle tracks. Issues identified included:

- Cycle tracks that just petered out, leaving cyclists having to merge with speeding traffic.
- Cycle tracks which are not fit for purpose – it was felt that a badly marked narrow cycle track was more dangerous than the absence of a cycle track as drivers assume that the track is sufficient.
- Cycle tracks which are blocked.
- Cycle tracks are often at the edge of the road and are often uneven and difficult to ride.

7.3 Sentiment Analysis on local Twitter (X) conversations about cycling

Figure 41 below shows the Volume of local Twitter conversations about cycling. The yellow line, which is called 'locations non-geo', is quite broad and draws in conversations that mention cycling in the context of the two LA's that make up South Tees, Middlesbrough and Redcar and Cleveland, and/or a town in the South Tees. An example, taken from the data set, of a comment that would fall under 'locations non-geo', is a resident commenting 'I was out cycling today and was very impressed by the smooth, pothole free, stretch of road... Any chance that this standard could be replicated on the rest of the roads in and out of Guisborough?.' This is considered 'locations non-geo' as it mentions cycling and a town name. The green line, which is called 'locations', operates at a more granular level. It draws in online conversations that mention cycling in relation to a school, organisation, place of worship, etc. in the South Tees. An example, taken from the dataset, is a local school writing 'One of our pupils achieving their goals, in half an hour, at our bike ability club. Using #MAGICAL habits to create magical moments!!' - this comment would show up in the data as 'locations' as it was written by a local school and mentions a term ('bike ability') that relates to cycling, but does not mention Middlesbrough or Redcar and Cleveland or a town in the South Tees.

Figure 41: the volume of local Twitter conversations about cycling



The graph shows that the volume of local Twitter conversations spiked in the summer months of 2022 before dropping in November 2022. This might not be surprising, considering weather changes. However, while the volume of conversations spiked again during May-June 2023, the volume was not high or as sustained as the previous year, dropping again in August.

Figure 42 below shows the Sentiment score attached to the local Twitter conversations about cycling over the course of a two year period:

Figure 42: The sentiment score attached to the local Twitter conversations about cycling



The overall sentiment scores of the conversations for this period are: 40% positive (a Sentiment score of over 50%), 35% neutral (a Sentiment score of 50%), and 25% negative (a Sentiment score lower than 50%). The graph shows that conversations classed as 'YGT – Locations' had a Sentiment score between 64% and 53% for the first 11 months until Jan 2023, when the Sentiment score dipped to under 40% before spiking to 65% in the month of March. Conversations classed as 'YGT – Locations (non-geo)' did not follow this dip in Sentiment in January. However, the Sentiment score for those conversations also spiked in March 2023.

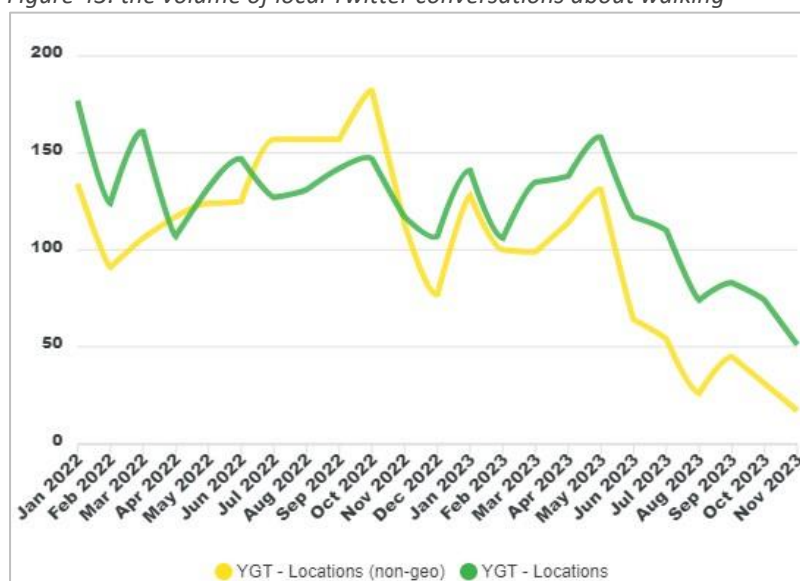
Insight from South Tees residents over a 4 week period (24th October – 24th November 2023):

- Lack of bike parking and accessible bike parking, with one disabled resident saying that there is no accessible bike parking for her trike – “Speaking of which, (at my workplace) there's no accessible bike parking outside. The bike lockers are too narrow for trikes and you need to be able to lift it as it's vertical storage.” Residents said they had to chain their bikes to railings.
- Potholes were identified as an issue, with one resident saying - “I was out cycling today and was very impressed by the smooth, pothole free, stretch of road... Any chance that this standard could be replicated on the rest of the roads in and out of Guisborough?”
- There were comments that the local cycle paths are not fit for purpose (specific area not known).
- The benefits cycling can have in managing long-term conditions – “I cycle because I struggle with public transport and can't drive. It's also a great way of managing the pain and fatigue that comes with HEDS.”
- Some local schools talked about how they were involved in Bikeability training for their students and were encouraging students to cycle.
- Initiatives to increase cycling, like Wheels2Work, were mentioned.
- The importance of cycling and getting outdoors has in managing mental health – for example: “It's the simple things that help our mental health swimming in a river, fishing, walking on the beach or a safe cycle ride.”
-

7.4 Sentiment Analysis on local Twitter (X) conversations about walking

Figure 43 below shows the Volume of local Twitter conversations about walking over a two year period.

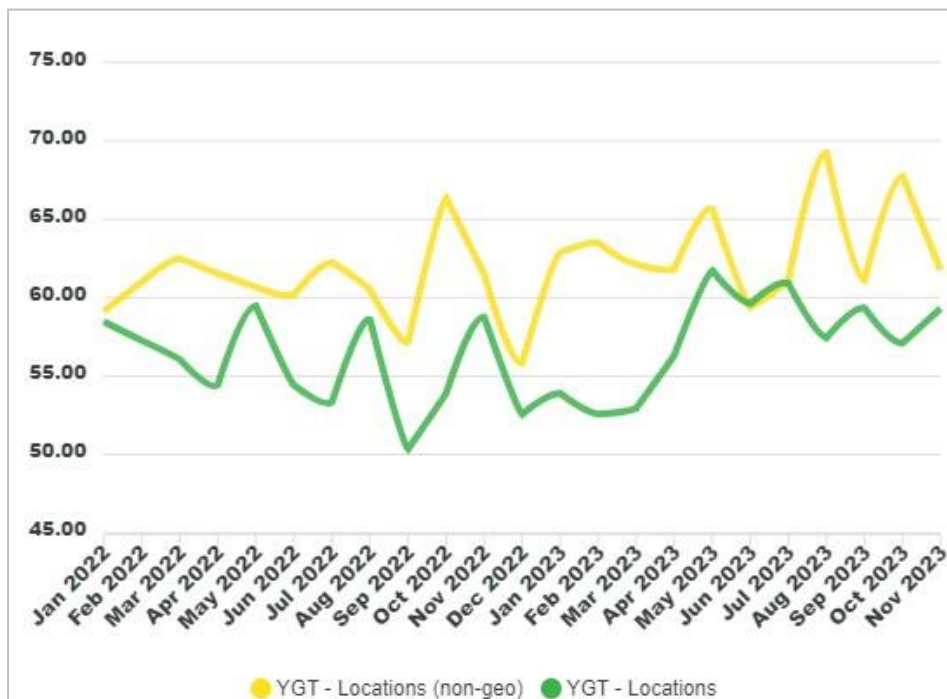
Figure 43: the volume of local Twitter conversations about walking



September 2022 saw the biggest spike in the Volume of local Twitter conversations about walking. It is worth noting that September 2023 saw a much lower volume of conversations about walking and marks a steadily decreasing trend.

Figure 44 below shows the Sentiment score attached to the local Twitter conversations about walking over the same period. Unlike the conversations about cycling, where the Sentiment score by month regularly dropped under 50%, conversations about walking have stayed positive with the slight exception of the month September 2022 where conversations classed as 'YGT – Locations' were 'neutral' for a short period of time.

Figure 44: The Sentiment score attached to the local Twitter conversations about walking



Insight from South Tees residents over a 4 week period (24th October – 24th November 2023):

- Middlesbrough Environment City offering walk leader training.
- Residents enjoying walking in local parks, green spaces, and blue spaces.
- The announcement that Walking with Snowmen trail will be returning to Middlesbrough.
- The wellbeing benefits of walking outdoors.
- Walking to the towns and shops.
- Residents including picking up plastic on their beach walks.
- Thorntree Academy introducing Family Walking Days.
- Residents taking part in sponsored walk in local green spaces and countryside.

8. What are the key issues?

8.1 Increasing cycling and walking

Declines in levels of cycling and walking in South Tees are issues of significant concern, especially considering the supportive policy framework and the clear commitment and enthusiasm of practitioners to increasing walking and cycling. Using the Waltham Forest Mini-Holland scheme [4] as an example, areas that could be investigated with further work in South Tees could include visible leadership, approaches to community engagement, and understanding impact.

The data suggest that there is significant opportunity to increase cycling and walking within South Tees, including for shorter work journeys (of less than 20km round trip), many of which still seem to be made by car. Understanding of the reasons behind the low levels of cycling and walking in South Tees require further research over a longer time period.

8.2 Bus use

The continued decline in bus use is an issue, especially if this is resulting in increased use of the private car. Of particular concern is the slow recovery in concessionary passholder use since the pandemic, which has the potential to create wider negative health impacts, such as increasing loneliness and isolation.

8.3 Data collection and management

Current data is predominantly quantitative and focussed on modes of all transport used. Much less is known about the how and why people travel by different modes, which is an area for further exploration. Qualitative data collection offers new opportunities to improve the depth of our understanding of the why and how. As the range of data available increases, more coordinated use of data and data sharing to maximise the value of the data in decision-making will be needed.

8.4 Air quality

From the data sets it is clear that South Tees has a good level of air quality, which consistently complies with the legal standards so therefore there is no requirement to declare any Air Quality Management Areas. The introduction of the new joint South Tees Clean Air Strategy (STCAS) will assist with maintaining air quality. However, increasing levels of motor vehicle use may be challenging.

9. What are the recommendations?

1. *Cultural Shift and Tackling Perceptions:* Foster a shift in perceptions and culture surrounding transportation. Addressing the actual issues related to active travel is crucial. More work is needed to understand the fall particularly in cycling and bus use. This involves debunking common misconceptions and perceptions about the inconvenience or impracticality of walking or cycling, and wider perceptions about the use of the private car, for example as convenient or a status symbol. Additionally, tackling gender stereotypes within the realm of active travel is pivotal. Promoting inclusivity and highlighting that these modes of transportation are suitable for everyone, regardless of gender and age, can play a significant role in reshaping attitudes. Beyond these tangible steps, instigating a cultural shift is essential. This involves challenging ingrained perceptions and norms surrounding transportation by promoting active travel as a socially responsible and forward-thinking choice.
2. *Influencing decision making:* Securing buy-in from decision makers is paramount to instigating transformative changes in the realm of the goal. This involves not only garnering their support but also ensuring allocation of adequate resources to influence changes in policy and investment aligned to community priorities. Furthermore, to encourage public buy-in, there must be a concerted effort to make travel on public transport, particularly buses, more attractive and aligned to the key values of the whole community.
3. *Low Emission Corporate Fleets:* Explore the ability to implement zero-emission practices within fleet management systems. Specifically, we will investigate the viability of transitioning to a fleet composed entirely of electric with a longer range. Simultaneously, closely monitor advancements in alternative fuel sources, such as hydrogen, even though current technologies may not be fully developed for immediate integration.
4. *Connection of Active Travel and Public Transport:* Bring together the work of Active Travel and Public Transport together to explore how to connect the public transport and active travel options together to support joint travel opportunities.
5. *Stakeholder and Business Connections:* Engage with organisations to implement flexible solutions around work times to enable active travel as well and work to implement suitable infrastructure to support sustainable travel opportunities.
6. *Additional Insight and Research:* Further build our insight and research into some of the barriers and drivers to active and sustainable travel, for example through collaboration with the South Tees HDRC.

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