Live Well South Tees Board

Thursday 12 March 2020, 3pm – 5pm

Redcar & Cleveland Leisure and Community Heart,

Ridley Street, Redcar, TS10 1TD

	Agenda item	Priority	Time
1.	**Welcome and introductions** *Cllr Mary Lanigan/ Cllr Antony High*		3.00pm
2.	**Apologies for absence** *Cllr Mary Lanigan/ Cllr Antony High*		
3.	**Declarations of interest** *Cllr Mary Lanigan/ Cllr Antony High*		
4.	**Minutes of Meeting 19 December 2019** *Cllr Mary Lanigan/ Cllr Antony High*		3.05pm
Development Item			
5.	**Children's Services In South Tees - Presentation and Discussion** *Sue Butcher - Interim Executive Director of Children Services* *Kathryn Boulton – Corporate Director of Children and Families*	1,2,3	3.10pm
Items for discussion			
6.	**You've Got This Pathfinder** *Mark Adams - Assistant Director Communities and Health - Public Health South Tees*	1,2	3.50pm

7.	**Director of Public Health Annual Report** *Carole Wood, Interim Director of Public Health*	1,2	4.15pm
8.	**Live Well South Tees Health and Wellbeing Board – Membership** *Cllr Mary Lanigan/ Cllr Antony High*	1,3	4.35pm
9.	**Health and Wellbeing Executive Chair's report (assurance report)** *Dr Ali Tahmassebi, Chair of Health and Wellbeing Executive*	1,2,3	4.45pm
Date and time of next meeting: **3pm - Thursday 4 June 2020**			

Priority 1 - Inequalities
Priority 2 - Integration
Priority 3 - Information and Intelligence

19 December 2019

AGENDA ITEM 4

LIVE WELL SOUTH TEES BOARD

A meeting of the Live Well South Tees Board was held on 19 December 2019 at the Health Village, North Ormesby.

PRESENT Chair: Councillor M Lanigan;
Councillors: A Barnes, B Cooper, S Kay, M Ovens, and L Westbury;
M Adams, A Baxter, K Boulton, J Bowen, L Donaghue, A Downey, D Gardner, I Holtby, J Lowe, M Milen, E Mireku, A Pierson, R Pluck, P Rice, J Sampson, A Tahmessebi, J Walker, K Warnock and C Wood.

APOLOGIES FOR ABSENCE were submitted on behalf of Councillors D Davison and M Smiles and N Bailey, M Davis, C Smith and S Johnson.

DECLARATIONS OF INTEREST

Councillor L Westbury declared a non-pecuniary interest in all items that related to South Tees NHS Foundation Trust as an employee of the Trust.

10. **MINUTES**

AGREED that the minutes of the meeting held on 26 September 2019 be confirmed and signed by the Chair as a correct record, subject to I Holtby being added to the list of those present at the meeting.

11. **NEW DELIVERY MODELS TO SUPPORT VULNERABLE PEOPLE**

The Assistant Director for Communities and Health presented a report detailing how the board could support the development of multi-agency approaches to support vulnerable people in Middlesbrough and Redcar and Cleveland. He played a short video on the Transformation Challenge.

The Board had a discussion and considered several items including:

- how partners including Mental Health Services, Social Care Departments and Cleveland Police could engage in future phases in the development of the models;
- the most effective way that other strategic groups could engage in the development of the models;
- what type of support partners can offer where resources are constrained.

As part of the ensuing discussions, the following comments were made:

- A Member commented that there were some issues with a lack of mental health services in East Cleveland. The mental health unit at Brotton Hospital had closed and residents were waiting several weeks for appointments at other locations.
- The transformation challenge had made some significant savings across organisations and services.
- A Member commented that there had been no representatives from CAMHS at the MALAP meetings since March 2019.
- A Member asked for details on the Tees Suicide Prevention Task Force and who was in post there.
- It was important that mental health and addictive services were linked into the new delivery models.
- There were a number of mental health services and pathways. A presentation could be provided to the next meeting of the Live Well South Tees Board to provide further information.
- It was important to make connections with people and give them the advice and services they required to sort themselves out.

Agreed that:

1. The report be noted and any future updates be presented to the Live Well South Tees Board; and
2. A report/presentation be presented to the next meeting of the Live Well South Tees Board on mental health services and pathways across South Tees.

12. **SOUTH TEES DELAYED TRANSFERS OF CARE (DTOC) PEER CHALLENGE REPORT AND IMPROVEMENT PLAN**

The South Tees Integration Programme Manager presented a report outlining the findings from the recent South Tees Delayed Transfer of Care (DTOC) peer challenge and the proposed plans to ensure that there is sustainable improvement in patient flow.

The Board had a discussion and considered several items including:

- the development of a draft strategy to ensure that people return home from hospital safe and well to their own homes;
- the proposed governance arrangement and support the establishment of a programme board to drive the delivery and implementation of the strategy and improvement plan;
- the emerging improvement plan and agreed to receive regular updates on its implementation.

As part of the ensuing discussions, the following comments were made:

- It was important that partners worked together to ensure the right outcome for patients.

- The Live Well South Tees Board needed to change to achieve outcomes in line with the priorities et out within both authority's corporate plans.

Agreed that the reports be noted and any future updates be presented to the Live Well South Tees Board.

13. **SOUTH TEES HOSPITALS NHS FOUNDATION TRUST BRIEFING**

The Chair of the South Tees Hospitals NHS Foundation Trust gave a presentation detailing the Quality Commission Inspection that had taken place in July 2019 and advised what was being done to improve services and outcomes within the trust. He discussed performance of the South Tees Trust in comparison to both regional and national trusts.

As part of the ensuing discussions, the following comments were made:

- An additional £2million pounds funding had been secured for equipment within the hospitals that required replacing as a matter of urgency.
- The South Tees Hospitals NHS Foundation Trust recognised the need for a lot of things to change within the trust.
- A Member commented that the trust was underfunded and that the additional funding that had been secured for much needed equipment was not adequate to what the trust actually needed for services, equipment and a new IT infrastructure.
- Local MPs were lobbying on behalf of the trust for additional funding.
- The South Tees CCG worked closely with the trust to continue delivering services.
- Hospitals in the region would continue to work together to offer residents treatments and surgery at the most local site. The Friarage Hospital at Northallerton offered a number of services and surgical procedures and this was ideal for people living in North Yorkshire to save them coming to James Cook University Hospital.

Agreed that the report be noted and any future updates be presented to the Live Well South Tees Board.

14. **TEES SAFEGUARDING ADULTS BOARD ANNUAL REPORT 2018/19 AND STRATEGIC BUSINESS PLAN 2019/20**

The Independent Chair of the Tees Safeguarding Adults Board (TSAB) presented two reports detailing the work of the board in 2018/19 and the Strategic Business Plan for 2019/10.

Members discussed the importance of partnership working and lessons could be learnt from the work that had been done by the TSAB**: - NOTED**.

19 December 2019

15. **CHILDRENS SAFEGUARDING PARTNERSHIP – BRIEIFING ON NEW ARRANGEMENTS**

The partnership Manager for the South Tees Children's Partnership presented a report detailing the new arrangements within the South Tees Children's Partnership**: - NOTED.**

12. **HEALTHWATCH SOUTH TEES - SEND REPORT**

The Chair of Healthwatch South Tees presented a report updating the Live Well South Tees Board with the work that had been undertaken by Healthwatch South Tees since the Board's last meeting.

The Health and Wellbeing Executive has received a report from Healthwatch South Tees on special education needs and disability (SEND) in Redcar & Cleveland. This consultation was in support of the implementation of the NHS long term plan.

Whilst the focus for improvement during this work was for NHS consideration, there are several factors that will inform our local priorities:

- Working with and supporting GP Practices to improve the overall experiences of parents / carers; encouraging the identification of carers and making reasonable adjustments for carers and those they care for;
- Supporting GPs to improve practice for patients with autism / learning disability and improved outcomes for associated long term health conditions, with long term treatment and management plans;
- Influencing improvements towards autism / learning disability friendly communities; and
- Direct engagement with young people to explore the causal factors of poor mental health in children and young people and their ideas for local solutions. This work will target all young people but ASD/LD can be profiled as part of this.

The Corporate Director for Children and Families thanked the Chair of Healthwatch for his report and advised that she would work closely with Healthwatch to make any service improvements**: - NOTED.**

13. **HEALTH AND WELLBING EXECUTIVE CHAIR'S REPORT**

The Chair of the Health and Wellbeing Executive presented a report and provided assurance that the Health and Wellbeing Executive was fulfilling its statutory obligations. An update was provided on progress with the delivery of the Board's vision and priorities**: - NOTED.**

14. **LIVE WELL SOUTH TEES BOARD WORK PROGRAMME**

The South Tees Integration Programme Manager presented a report detailing the work programme for the Live Well South Tees Board for the

2019/20 municipal year. She advised that she look at the number of items on future agendas as it was important that each agenda item had adequate consideration**: - NOTED.**

15. **DATE AND TIME OF NEXT MEETING**

The Chair advised that the next meeting would take place on Thursday 12 March 2020 at 3pm at the Health Village, North Ormesby.

Agenda Item 5

Children's Services In South Tees - Presentation and Discussion

Sue Butcher - Interim Executive Director of Children Services

Kathryn Boulton – Corporate Director of Children and Families

Agenda Item 6

You've Got This Pathfinder

Mark Adams - Assistant Director
Communities and Health - Public Health
South Tees

We've Got This: Delivering Our Vision

To:	Live Well South Tees Health and Wellbeing Board	**Date:**	12 March 2020
From:	Mark Adams; Public Health South Tees	**Agenda:**	6
Purpose of the Item	This item updates on progress with the Sport England programme, with reference to the successful Pathfinder Proposal to Sport England; and aims to understand the shape and role of system leadership in delivering the aim of "more people more active more often".		

1 PURPOSE OF THE REPORT

1.1. The Boards prioritised "prevention with a particular focus on exercise" as one of two priority action areas at their joint session in November 2016.

1.2 This item updates on progress, with reference to the successful Pathfinder Proposal to Sport England; and aims to understand the shape and role of system leadership in delivering the aim of "more people more active more often".

2 BACKGROUND

2.1 Prior to the establishment of the Live Well Board a joint Health and Wellbeing Board session (comprising the two separate Boards) in November 2016 acknowledged the challenges of poverty, lack of opportunity and stubborn inequalities, with a long-standing policy to shift from reactive acute care to early intervention and prevention. The Boards proposed "a greater whole system focus on prevention and education at an earlier stage as this is the only way to stem demand for services"; acknowledging that transformation requires greater scope than "service re-design" and can only succeed through involvement of communities and other sectors.

2.2 The Boards prioritised "prevention with a particular focus on exercise" as one of two priority action areas to test this approach. The Partnership established to consider the bid to Sport England developed in response to this priority-setting.

2.3 The South Tees Local Delivery Pilot (branded as "You've Got This") is one of only 12 national pilot programmes under Sport England's Local Delivery Directorate. This is a new programme for Sport England, involving a new way for them to work with partners – a much closer collaborative approach, with local Sport England staff working alongside the You've Got This team

2.4 It is a Pilot approach, which is trying to understand how we support inactive people to become active, in large numbers and in a way that lasts in the long-term. A key focus is therefore on gathering learning from the work we are proposing in South Tees.

2.5 The programme has the aim of getting "more people, more active, more often" in recognition of the contribution being active makes to the broader outcomes needed to transform the quality of life for local people and communities. It reflects the Government's ambition that physical activity not only helps to improve physical health, but also supports improved mental wellbeing, better social & community connections, improved economic wellbeing and personal development.

2.6 The national programme has several core elements each Pilot programme MUST focus on:

a. Pilots must target the 'inactive' (doing less than 30 mins of activity per week): these are the residents will get the most benefit from being more active.
b. Support the people who are furthest away from being active; particularly people within disadvantaged communities and in low National Statistics Socio-economic classifications (NS-SEC)
c. Pilots must take a 'whole system change' approach: building better connections and collaborations locally to support and enable people to become and remain active: this is vital to achieve long term impact.
d. Must be "Insight Driven" and be based on established behaviour change theory. We cannot make assumptions on the barriers and opportunities residents face.
e. Utilise a "Distributed Leadership" approach: ranging from the highest level of local senior leadership to full partnership with local communities.

2.7 The South Tees Pilot targets four "placed based" communities that straddle the border between Middlesbrough and Redcar and Cleveland but share similar assets and issues: South Bank, Grangetown, North Ormesby and Thorntree/Brambles.

2.8 We are also supporting four 'communities of interest'. These are people bound by common conditions, influence and interest. These are people waiting for surgery (Prehabilitation), people with Type II Diabetes, people attending Slimming World, and Health professionals.

2.9 The Pathfinder Proposal ("We've Got This: Delivering Our Vision"; Appendix 1) has been developed through our multi-agency Partnership and outlines our journey so far, our learning, and an overview of the deep insight we have gained and how we bring all this together to inform our future actions and investments. The Proposal received full support from Sport England's Board in late December 2019.

2.10 The learning described in the Pathfinder Proposal and plans to develop our work in this area will be covered in a brief presentation, including local voices.

3 DISCUSSION

3.1 The role of system leadership is important to delivering the system change required to support the least active to become more active. This session will explore the **culture and attitude** to physical activity within the component organisations of the Live Well Board.

3.2 The session will consider how we can create space in each organisation to discuss the role of physical activity (for staff, clients, as commissioner, as provider of services etc).

3.3 We will explore the most effective way that the You've Got This team can engage with each organisation to progress this priority area.

4 ATTACHMENTS

4.1 "We've Got This: Delivering Our Vision" full Pathfinder Proposal to Sport England

5 CONTACT OFFICER

5.1
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WE'VE GOT THIS.

Delivering our vision

#YOUVEGOTTHIS

CONTENTS

1. THIS IS WHERE WE STARTED

THIS IS WHERE WE STARTED

We started our journey with a big ambition for South Tees and our vision expressed everything we wanted to achieve; but it was simple enough for everyone to understand. We understood the value and impact that becoming active could have for our residents, but we also recognised the scale of this challenge and that no single agency or intervention had previously achieved change at population level.

We started as a small number of committed, ambitious individuals that saw an opportunity for significant investment into something we believed had the potential to enable positive change across our place. Although the concept of whole system change was relatively new, we immediately saw the power of this approach and how we could harness our collective response to stubborn inequality; all too often typified by small physical barriers and massive cultural barriers.

This had to be different to anything we had done before. We needed to create something that had real, in-built sustainability and was owned and driven by people and system leaders. It had to have a value and a currency that people and organisations wanted. The outcome of our work had to drive us towards a shared, systemic 'shift' of our perspectives, value and resources.

Whilst we applied an approach of 'proportionate universalism' in focusing our resources on specific communities of geography and interest, we knew that the underlying societal and cultural issues would need to be addressed to embed whole system change across the South Tees.

The announcement of the local delivery pilots came at a time when our thinking and investments were driven by several local factors. Preventative initiatives, community development and services like sports development were downscaling in order to shift dwindling resources within statutory services. The running and management of local authority leisure facilities were contracted to a large, national company to drive efficiency and quality improvement. Local authority Public Health provision was being merged across the two boroughs, with a joint Director of Public Health already in post.

Whole system change was presented as a challenge we had never experienced. Our understanding of our own, local system was limited and bounded by our experience of working within a rigid, performance management framework, delivering outcomes through commissioned, procured services. Whole system change would require significant collective learning and opening ourselves up to the possibility that we have created systemic problems that would only be addressed through a shared common purpose.

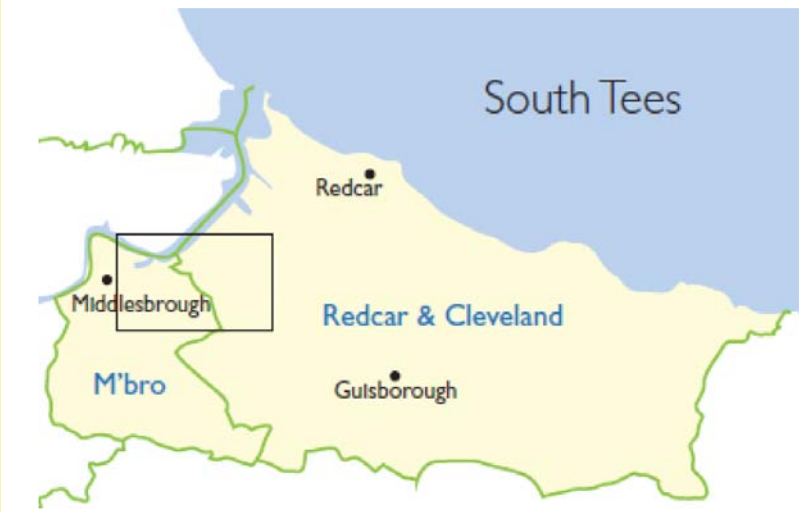
We understood that in terms of public health interventions, getting the population to be active had the greatest potential to improve the health of local people; but we lacked the platform, insight, leverage or resource to tackle inactivity at scale. Over a 16 month period, we have developed our early insight, sought support and commitment from our local leaders, built trust with partners and made the case for investment across South Tees. We built a multi-sectoral partnership that could see the potential of our ambition and our local leadership committed their support to our aspirations (Appendix 1 - You've Got This Partnership Agreement pp. 1-11). Our Pathfinder and Accelerator proposals have been developed with our Programme Delivery Partnership and outline our journey so far and our learning, an overview of the deep insight we have gained and how we bring all this together to inform our future actions and investments.

2. OUR JOURNEY AND LEARNING

2A. OUR PLACE, OUR VISION

Our Place

South Tees comprises two neighbouring unitary authorities, Middlesbrough and Redcar & Cleveland. It makes up approximately 40% of the Tees Valley sub-region, within north east England. South Tees has stark contrasts, comprising the large rural area of east Cleveland, through the coastal communities of Redcar and Saltburn and the urban conurbation that extends along the River Tees into Middlesbrough, the largest settlement of the area.



Redcar & Cleveland is 24,490 hectares and is geographically the largest borough in the Tees Valley. The borough is located south of the River Tees, with a total population of 135,200. Redcar & Cleveland is an area of immense contrasts and includes the vast industrial complexes of Wilton International, the steel industry and Teesport, as well as the attractive coastal resorts of Redcar, Marske and Saltburn, the ancient market town of Guisborough and scenic countryside edging the North York Moors National Park. Redcar is the largest town in the borough.

Middlesbrough is situated at the centre of the Tees Valley conurbation, built around the River Tees. The borough comprises the town of Middlesbrough and the surrounding villages, with some 59,000 households and a population of 135,100 within an area of 5,450 hectares. Middlesbrough is the most urbanised and densely populated local authority area in the Tees Valley. It is bounded by the River Tees to the north, the North York Moors National Park to the south, and the built-up urban areas of neighbouring authorities to the east and west. Middlesbrough's communities are amongst the most diverse in the region with around 50 nationalities are represented in the population of the town.

This unique geography reflects a broad range of diverse and challenging elements, but provides a distinct, cohesive and manageable area in which to deliver our vision and our pilot. Joint working is a key feature of the two authorities of South Tees, with many services and agencies specifically servicing the area, including: NHS South Tees Clinical Commissioning Group; South Tees Hospitals NHS Foundation Trust; and the South Tees G.P. Federation. Public leisure facilities are managed by Everyone Active on behalf of both boroughs.

Our place has significant social and economic issues which contribute to the inequality in both Council areas. However, the area also has significant community and physical assets, not least of which are the people who continually prove their resilience and strength during challenging times. We believe that the stubborn inequalities in our communities are typified by small physical barriers and massive cultural barriers across a range of issues. Systemic problems lay at the heart of these inequalities and need a long-term systemic response to support people to build activity into their daily lives; to value their health and wellbeing.

Our Vision

We have a simple vision for our place: **More people, more active, more often**. We needed a simple vision that was clear and easy to communicate; a vision that everyone could understand. We needed local people, organisations, leaders and institutions to see their place and contribution within the vision. Our vision is the foundation from which we drive system change and everything is built on this.

2B. LOCAL GOVERNANCE & LEADERSHIP

Since the formal announcement of the 12 pilot areas in December 2017, work has been progressing at a local level in collaboration with Sport England, to agree and implement the initial development phase of the pilot.

Reframing our relationships

It is important to highlight how the local delivery pilots are breaking new ground and reframing the traditional, almost transactional funder-recipient relationship. Historical funder-recipient relationships are based on principles of trust that have for over 200 years been the framework for charitable investment, where investment was managed by the recipient through a series of terms and conditions and traditional performance reporting directed by the funder. Sport England has established a radically new and far more co-productive relationship to manage this investment. Our LDP Manager from Sport England is fully integrated into our local delivery pilot and a member of our Programme Management Office, being part of all meetings, developments and decisions.

The move of Public Health to the Councils in 2013 facilitated the development of new relationships and approaches. A common approach across both Councils is the shift from a clinical model to an asset-based community development approach to both maximise use of resources and to shift population-level outcomes. This shift is further illustrated by the importance of local Health & Wellbeing Boards and for our place we have a Live Well South Tees Board to support our pilot; representing our highest level of governance. The two boroughs also share a joint Director of Public Health and jointly commission a wide range of services.

Our pilot has created a collaborative partnership (Appendix 2 - Programme Governance Diagram), reflecting a diverse, cross-sector membership to provide not only governance and strategic direction, but also to contribute knowledge, experience and resources into the programme. The partnership encompasses more than the traditional physical activity and sport sector, with voluntary groups, social enterprises, primary care providers and commissioners, private sector businesses, faith organisations and housing associations all getting behind the programme. Redcar & Cleveland Borough Council (RCBC) acts as the accountable body for our programme.

Our Programme Delivery Partnership (PDP) supports the delivery of our vision through their individual and organisational contributions. The partnership is very much in the early stages of developing; finding its way through a new way of working together and developing our shared values. The partnership meets every two months to review the progress of the pilot, but also help us to develop and shape our strategies and activities. RCBC as the accountable body can award directly to agencies within the Partnership for supplies services or works, up to the current EU thresholds (from Jan 2018 are £181,302 for Supplies and Services, £615,278 for Social and Other Specific Services) in accordance with RCBC Contract Procedure Rules, provided an exemption is signed by relevant parties in accordance with the Council's Scheme of Delegation set out in its constitution.

Where the Partnership has more than one potential provider of works or services below the EU thresholds, and cannot agree on the preferred provider, a quotation process can be undertaken between agencies within the Partnership and signed under an exemption in accordance with RCBC's Contract Procedure Rules. This approach was agreed with Sport England.

The Programme Management Office (PMO) is the engine room of the pilot. As we developed our proposal to be a pilot area, we discussed the issues faced by previous initiatives and pilots. We identified that the usual 'hatch and despatch' approach; develop a great programme idea and then float it onto someone else to deliver, was something that often-derailed good projects.

We committed to acting as the support structure for the delivery team for the duration of the pilot and beyond; providing direct support and resources from ourselves and our organisations. Membership of this group consists of senior officers of the two local authorities, the Director of a key voluntary sector partner, a Senior Manager of a commercial sector partner, a senior officer from our Active Partnership, the Sport England LDP Manager and members of the core delivery team.

These individuals have demonstrated and maintained a high level of commitment to our pilot, often in the face of increasing external pressures and demands. We also cannot under play how the local political landscape has shifted and how we have reformed connections to ensure we retain and build high level support for our vision across South Tees. We feel that we exemplify the principles and behaviours Sport England outlined as vital characteristics that should be the foundation of a local delivery pilot: distributed leadership; whole system approach; collaborative working; focused on sustainable behaviour change; co-produced and evidence-based.

2C. THEMES AND PRIORITIES

Our Communities of Place	*Our Communities of Interest*
Our geographical areas, working with whole populations across a targeted area; our wards that experience the greatest daily inequality challenges	Communities of people who share a common interest, occupation or medical condition spread across the whole South Tees area.

We knew that we needed to develop a programme that was different to anything we had done before. Our pilot had to be ambitious, but manageable in scope and size. The whole South Tees was too big as a population. We needed to be more focused. We brought partners together and we talked about what they saw as the real issues. Specific themes and local places emerged from these discussions. We applied a Proportionate Universalism approach: an approach that balances targeted and universal population health perspectives through action proportionate to needs and levels of disadvantage in a population.

We focused on the places that had the worst health outcomes in the two boroughs; sat either side of the border between the two. We defined themes; communities of interest that we considered a priority or that we had worked with at a very low level, but not had the opportunity to scale up.

Focus Wards

With a combined population of approximately 24,000, the once thriving communities of North Ormesby (IMD 2015 rank 2nd), Grangetown (6th), Brambles & Thorntree (10th) and South Bank (182nd) have witnessed significant social and economic decline. These wards were identified not only because of the significant levels of need and the stubborn health inequalities that prevail in these places, but also because of the assets, resilience and potential we believe is being unlocked within these communities. These communities have seen significant change over the last 20 years, both physical and cultural. Previous initiatives such as Single Regeneration Budget and Neighbourhood Renewal Fund have not brought about any lasting changes for these places.

Whilst the focus wards face significant challenges, there has been a strong investment in asset-based community development and there is a vibrant voluntary and community sector presence. This ranges from less formal groups to charitable organisations and faith groups. There are also significant physical assets and green spaces across the place.

Our communities of interest

This element of our local delivery pilot focuses on four specific communities of interest; populations drawn from across the whole South Tees patch. These work streams represent areas of work where small scale on the ground activity or partnerships have formed, but they have not developed beyond initial discussions or small-scale interventions.

Thematic Work Streams

These themes emerged from the discussions within our partnership. They were a set of negotiated work themes, synthesised from a larger range of potential priorities that we believed had the greatest opportunity for development and to match our ambition of change at scale. Each theme has a steering group that leads and informs the work of each community of interest.
Members of these groups represent a broad range of organisations: the local NHS trust; Clinical Commissioning Group; national agencies and local leaders across a range of occupational levels, including a Clinical Director, specialist nurses, consultants, dieticians, public health specialists and academics from a range of institutes.

Prehabilitation

Inactivity, smoking and excess alcohol all have an independent evidence base for having negative, adverse impact on surgical outcomes. Prevalence of these behaviours in patients presenting for major surgery locally is high - between 30%-50%. Complications following surgery can lead to significant morbidity resulting in an adverse effect on quality of life and reduced independence. Improvement strategies have focused on the intra-operative and post-operative phase of the treatment, however little attention has been paid to the preoperative period. Prehabilitation prescribes physical activity introduced before major surgery to improve post-operative outcomes.

Major surgery offers a teachable moment to support sustainable behaviour change. Preoperative patients quote a lack of opportunity and concerns around health as reasons for not undertaking physical activity; however, 90% are prepared to undertake physical activity with the right support. There is a significant opportunity to produce a replicable model for this audience that produces cost-effective outcomes in terms of post-operative recovery. Prehabilitation is an emerging health care concept that has huge potential for community based delivery. We are working with the other trailblazers in this field, including Manchester and Southampton, to comprehensively test new and innovative approaches to improve patient and organisational outcomes.

Individuals with or at risk of developing diabetes

The cost of diabetes to the NHS is over £1.5m an hour or 10% of the NHS budget for England and Wales. This equates to over £25,000 being spent on diabetes every minute. Approximately 90% of people living with diabetes in the UK have Type II. Each year more people are diagnosed with Type II, which is largely caused by lifestyle factors; inactivity, smoking, diet. We will work with practices across the South Tees to develop innovative ways of supporting patients to achieve remission through being more active and nutritional support.

Slimming World

Slimming World sessions are well-used across South Tees, delivering to over 6,500 members, which is approximately 3% of the adult population in South Tees. Evidence shows that these are effective at reducing body mass and improving other health measures. This work has not always been linked to physical activity; we are working with Slimming World consultants to increase the prevalence of physical activity through their members. Slimming World provide a structured, ready-made network to engage with, but we have to balance our vision with their commercial aspirations and strike a mutually beneficial position with which we can utilise to support people locally.

Health Professionals

The role of health professionals in promoting physical activity is crucial; however, engaging these groups in the promotion of physical activity is often difficult. They are uncomfortable with providing patients with anything other than generic physical activity advice and cite barriers such as lack of time, training and reimbursement for their efforts. Our prehabilitation work has demonstrated that in addition to primary care staff, only 23% of secondary care staff are aware of physical activity guidelines and only half encourage patients to get active before surgery. We want to co-design new ways of supporting Health Professionals; building their knowledge, ability and confidence to promote physical activity advice and referral. Additionally, we are working to support the redesign of a person-centred approach to Exercise on Referral across the whole geographic area of South Tees.

2D. ENGAGING OUR COMMUNITIES

Engaging our Focus Wards

We engaged with local communities during the early development of our ideas. The voluntary and community sector has faced significant challenges over the last 10 years but has remained a vital source of support for local communities and residents. Residents groups, foodbanks, youth organisations and social groups provide varying levels of support to local people, often utilising low levels of short-term funding and resources. We invested time talking to local groups about the challenges and opportunities they and their service users face. We outlined our ambition and values, describing not just the positive physical health impact of physical activity, but also the mental, social and economic benefits; benefits that aligned and contributed to their own aims and ambitions.

At this point we had no dedicated resources or staff; we drew on our partners to fuel our capacity and grow the conversation.

Our range of engagement increased with the addition of our core delivery team, a Programme Director and two Programme Officers. To demonstrate our commitment to building the capacity of the VCS and to utilise the knowledge, skills and trust of the sector, each core team member is employed by a separate voluntary sector organisation and seconded into a single team operating from one office base. Later we added an Insight & Analytics Officer into the core team to provide much needed capacity and help us to understand how to effectively use our insight. This provided the team with a greater range of local contacts through their host organisations and a presence in communities. Progress is built at the speed of trust.

Engaging communities and those people that work within them has taken a lot of time, but this has been incredibly valuable. It has allowed us to gain a greater understanding of the landscapes we are working in and the barriers we may face along this journey. We have not limited our engagement to the usual suspects; we have made a conscious effort to create a wide range of relationships by going to people where they feel comfortable and listening to them. We have connected with leaders, community activists, community organisations and charities.

This has enabled us to learn how they operate, the physical and social environment in which they exist and the support they provide. Organisations and groups have ranged from schools, faith organisations and community hubs, to housing associations, voluntary organisations and stretching our reach across a multitude of different council departments and other health sector agencies. The individuals that we worked with include kinship carers, residentsi groups and councillors, shop owners, community clubs and the local food banks.

WE'VE GOT THIS: Engaging our communities

Every time we meet someone, we take the same approach: we listen for a long time then spend a small amount of time talking about the pilot. We wanted the core team to gain as much insight as possible from the people we met. We lead the conversation and sit back and listen, learning from them what life is like for our communities and the services that support them.

Discussions and meetings covered many topics. We wanted to gather information and understand what was already out there being delivered locally, and who plays a role in leading that? We wanted to know where all this was happening and what community assets and buildings were relied upon when engaging with people.

We wanted them to talk about their issues and concerns; what do people worry about and what would people need to support them to become healthier and happier? It is impossible to know and reach everyone in a place, but we needed to gain more insight into the landscape and relationships within each area. This desire to know as much about our communities as we could led us to the development of actor mapping.

We thought actor mapping could provide us with a 'visual' depiction of the key organisations and individuals that influence a topic, allowing insight into the new and current players within a system'.

The purpose of actor mapping is to identify opportunities to improve a system's overall performance by, for example, strengthening weak connections or filling gaps in the system.

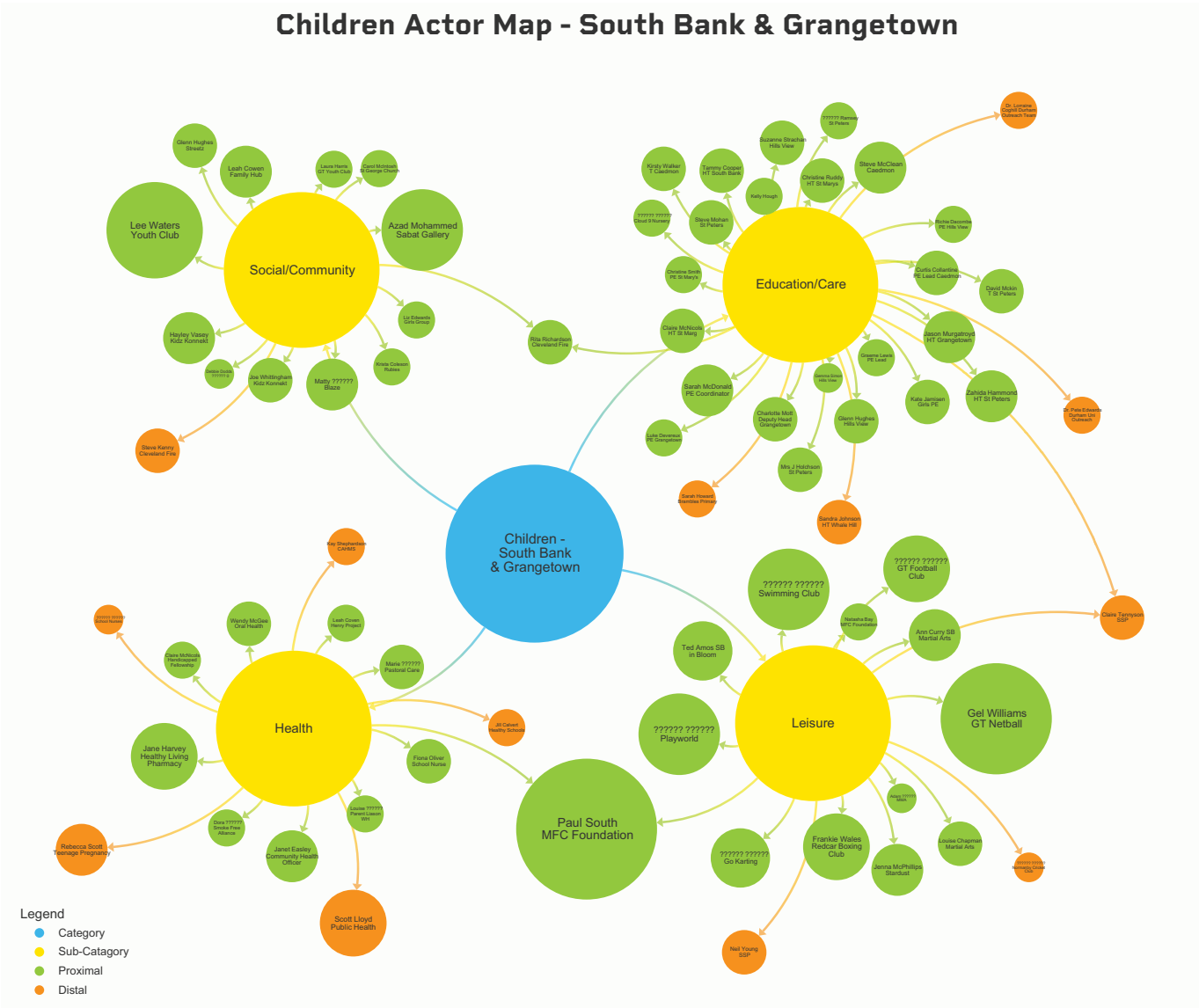
We took an academic desk exercise and from it created an interactive and engaging networking event. Inviting people from volunteers to professionals, inside and outside of our focus wards, enabled valuable cross sector engagement. The way in which the sessions were structured created an even playing field where everyone's contribution was valued.

Each map covered two adjoining wards and was divided into four themes: Leisure; Education & Care; Social & Community; and Health. Some of these services and themes are not universal, they are specifically for adults or children, so one side of the board was for adults and the other side for children.

WE'VE GOT THIS: Engaging our communities

People were asked to identify individuals located in the wards, that delivered any services or support within these themes. We also asked for services and support that may be delivered outside of the ward, but that people travelled to, such as Children's Mental Health Services. We asked how many people in the room knew this person and what they delivered in the community. This gave us a strong indication of their influence and reach, which was reflected in the final map.

Children Actor Map - South Bank & Grangetown



The resulting map produced from the workshop highlights key stakeholders in the place and their level of influence. The map also highlights the level of activity within a specific theme within the wards and this can be mapped over a period of time to show changes in the 'system' on the ground.

We also worked with health professionals, public health commissioners and third sector organisations to produce an actor map for Type II Diabetes across the South Tees (Appendix 3 - Type II Diabetes Actor Map). The process of developing the map highlighted significant gaps in provision around education, social support and specific leisure services for people with this condition.

We also took away some key learning points from these sessions:

- People working in a very small geographical area sometimes have a limited awareness of each other;
- There are perceived and actual 'gaps' in provision for both children and adults;
- Residents have a greater awareness of voluntary and community sector provision in an area than agencies.

Engaging our communities of interest

Slimming World

We viewed working with a commercial weight loss organisation as an opportunity to create a completely different relationship with a partner with national reach and with a very local presence. Teachable moments are important opportunities when trying to change behaviour; but when and how these opportunities will occur is hard to predict. People go to Slimming World because they have already decided to make a change and need help to achieve this. This is what maintains Slimming World as a business, but we knew that we could capitalize on this opportunity to nudge people towards physical activity.

Slimming World is a large commercial organisation with different people in different roles and it was unclear to us who we needed to engage with to get this work moving. Structurally, it is essentially a franchise model, with former participants running their own local groups with marketing and business support from a central office. We were persistent until we found the right contact who could make things happen. This has given us the right leads but also demonstrated to the organisation that we are committed to working with them which has established trust with the local agents and confidence in the senior management structure.

We have also learnt that this organisation reaches people from many different professions which might be useful for cross-sector working. Following difficulties engaging with nurses through the Health Professional theme, Slimming World suggested using their vast network in the future to try to recruit people during groups to have discussions and gain insight rather than following the professional route. We have been able to connect Slimming World consultants up with a wider range of people through our partnership, enabling the groups to move locations to more central, community-focused organisations. Additionally, by adding support around physical activity, walk leader training through another partnership member, we are connecting the system to more of itself.

Health professionals

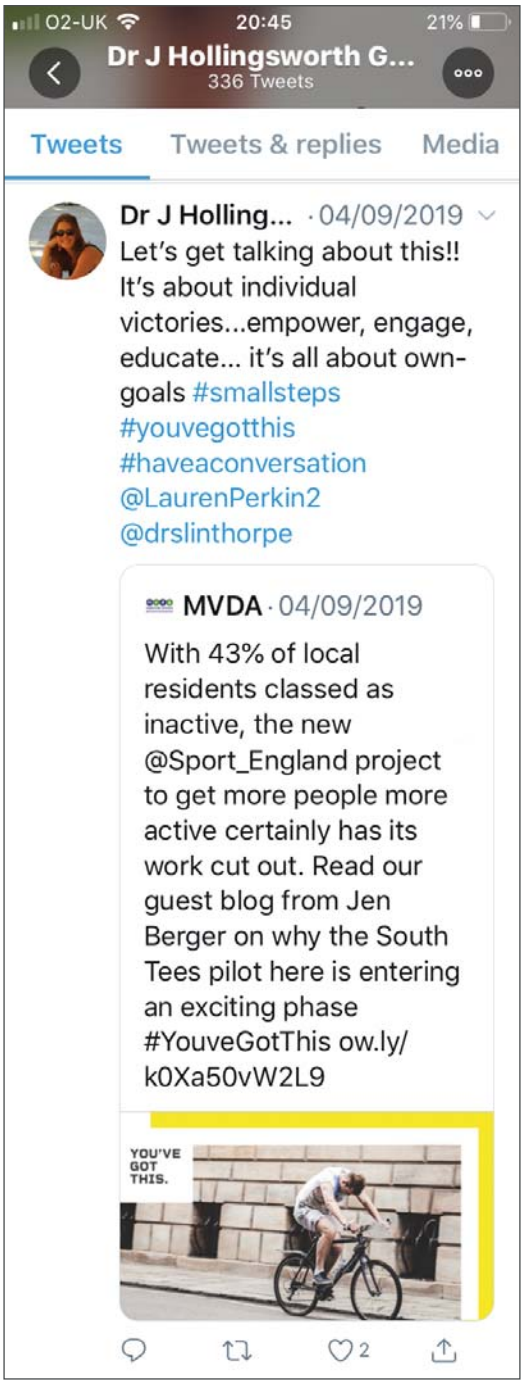
We knew that it would be challenging to get GPs on board, but we believed that they are crucial, not only in reaching a wider patient audience, but also using their trusted status to influence positive behaviour. They have an authority with patients and can provide a brief intervention about physical activity at a teachable moment.

During this time, Primary Care Networks (PCN) were emerging, and we used the issue of social prescribing to engage clinical directors whilst working through the South Tees Clinical Commissioning Group to recruit GPs, practice nurses and practice managers into a working group.

This did not have the expected outcome with only GPs expressing an interest to take part. However, through building a coalition of the willing we have worked closely with a number of GPs across the South Tees to understand the barriers within their working life that stop conversations around physical activity.

Working with health professionals takes time; building relationships and trust with them is as important as it is with communities. Although 'buy in' from healthcare professionals and associated health sector organisations was generally because the pilot was looking to make improvements in their field of work, a lot of conversations were still had around what the longevity of the pilot looked like and what the overall aims were.

A crucial thread of our pilot is to allow people to reach their own conclusions through our discussions and collaborations; that our pilot is here to drive change and improve people's quality of life. So, ultimately the change needs to be driven by them.



Prehabilitation and Type II Diabetes

In our work across the Diabetes and Prehabilitation themes, we have invested a lot of time adapting to the working rhythm of clinicians. Time and timing are a huge factor for clinicians. Often their clinics and theatre slots are booked 6 – 8 months in advance. Trying to carve out time for meetings is difficult, particularly the amount of notice needed in order to get them around the table to progress with discussions and actions. We have had six to eight meetings where professionals did not attend, or did not respond due to their work commitments.

Working through these issues has enabled us to be more flexible in our approach, to think of other opportunities to communicate and engage, being focused on what we can achieve in smaller time slots and with fewer people. This negotiation of our working practices has proved to clinicians that we will adapt to keep them engaged and that we understand the environment they work in.

In the diabetes workstream, lead clinicians from James Cook University Hospital and Diabetes UK have responded in kind and are openly giving up capacity to support us. We have spent a lot of effort learning about how patients are affected by conditions and how to better connect with physical activity provision may be able to support them with managing their lifestyle.

Engaging Wider: Local Partners

The three shared elements of all local delivery pilots are whole system change, distributed leadership and behaviour change. These are the non-negotiables of our approach to increasing physical activity at scale. This can only be achieved in partnership, collaborating with people that share a common purpose. For the majority of people in our place, terms such as 'whole systems change' and 'distributed leadership' are not part of their language. These are new ideas and concepts that often conflict with existing processes and regulations.

To support the expansion of our shared understanding and vision, we needed to provide space and opportunity for this to happen at scale. The starting point was to construct our Programme Delivery Partnership to be the nexus of our system, connecting elements together to communicate and collaborate. The partnership would be the hub for the wider system, drawing in elements through talking and sharing; as well as providing resources, reach, energy and foresight.

We also needed to provide an opportunity to engage a broader range of individuals and organisations. This was important because although the pilot is a Sport England-funded programme, it is very different to those that have gone before it.

The pilot is proposing a different way of working and thinking. It has a different vocabulary to some extent and requires an acceptance that, if the system is to engage people who are currently inactive at scale and provide a sustainable approach; things need to change. This can be a challenging premise to adopt, as the status quo can often be a more comfortable place in which to work.

Conferences

The first pilot partner conference in September 2018 provided us with the opportunity to say this pilot is different; that this is a new way of working and this is just the start of the conversation. To underscore this message, we called it 'Something has to change – and it's us!'

One hundred and sixty people gathered in a large conference hall, providing an opportunity for partners to talk to each other about why this approach is important to achieve change at scale; what this way of working feels like; and what would the future look like.

During the conference we got people to think about what system change might mean and what part they could play in creating an active, healthy place. The most important part of the conference was that we asked people to make pledges; both personal and organisational, about what they would do around physical activity. Three months later we played their pledges back to them and asked what had happened (Appendix 4 - Something Has to Change Conference Report pp. 21).

For our second conference in June 2019 we took a more targeted approach to activity and audience. Transport, housing and planning were the 'big three' policy and influence areas we wanted people to engage with. We wanted to start a conversation that community leaders, ward members and voluntary organisations would take part in.

Just as important, we wanted the planners and policy makers in the room to engage in that conversation obstacles. We asked people to talk about what gets in the way of active travel and how can we overcome these. We asked people to think about their own circumstances and draw on their own experiences to inform the discussion. We also asked people to retrofit our four focus wards, thinking about what could be done to make our communities safer, healthier, more active places. This was a test and learn process, to find an engaging process for community consultation. This is now being explored by Redcar & Cleveland Transport Manager to embed into their consultation pathway.

As an indication of our success ninety- eight percent of delegates rated the conference as 'excellent' or 'very good' and the key message taken from the conference was that 'by working together they could make a positive change'.

Defining our intent: You've Got This

An important part of our identity is our brand. The term 'Local Delivery Pilot' is a Sport England title and their initiative. If we were to take on this work, we needed a local identity and local ownership across every element in the system. We believe that creating a social movement around physical activity is a fundamental element of success. We want to influence the way people talk about being physically active and the language they use, focusing on positive outcomes and mood.

We knew from previous work with communities that having a title that contained 'sport' or 'active' was viewed as being something for other people, sporty, active types; gym goers, runners. Other people, not us. We tried to come up with something, a title that would 'wow' everyone as a partnership, but it was clear this was not an area of expertise we had as a collective; so we worked with a local branding company to work through ideas.

They took time to get to know us, our partnership, our aspirations and our unique approach. They gave us options and as a partnership we talked about each option, exploring the merits and potential message of each.

After a great deal of debate, we decided to adopt 'You've Got This'. This was seen as a supportive statement, it didn't infer that people needed to change or that there was something wrong with them.

It communicated that we believed in their ability and capacity to do something, anything they wanted to do. We want to turn this statement into a social movement, something local people can get behind and use to express their own personal value of active living, physical activity, sport and importantly; of each other.

From this we have developed our first campaign that will feature local faces in local places and is based on the concept of Personal Bests. This campaign does not focus on the fastest, longest or highest. It focuses on doing something, anything that you didn't do before. It could be walking to work or cycling in the park and playing football with the kids. Every time you do something new, or better - you set a new personal best.

All these add up.

2E. ESTABLISHING A BASELINE

We have built our knowledge and understanding of the challenges and opportunities in our focus wards and our communities of interest in very different ways.

Our Focus Wards

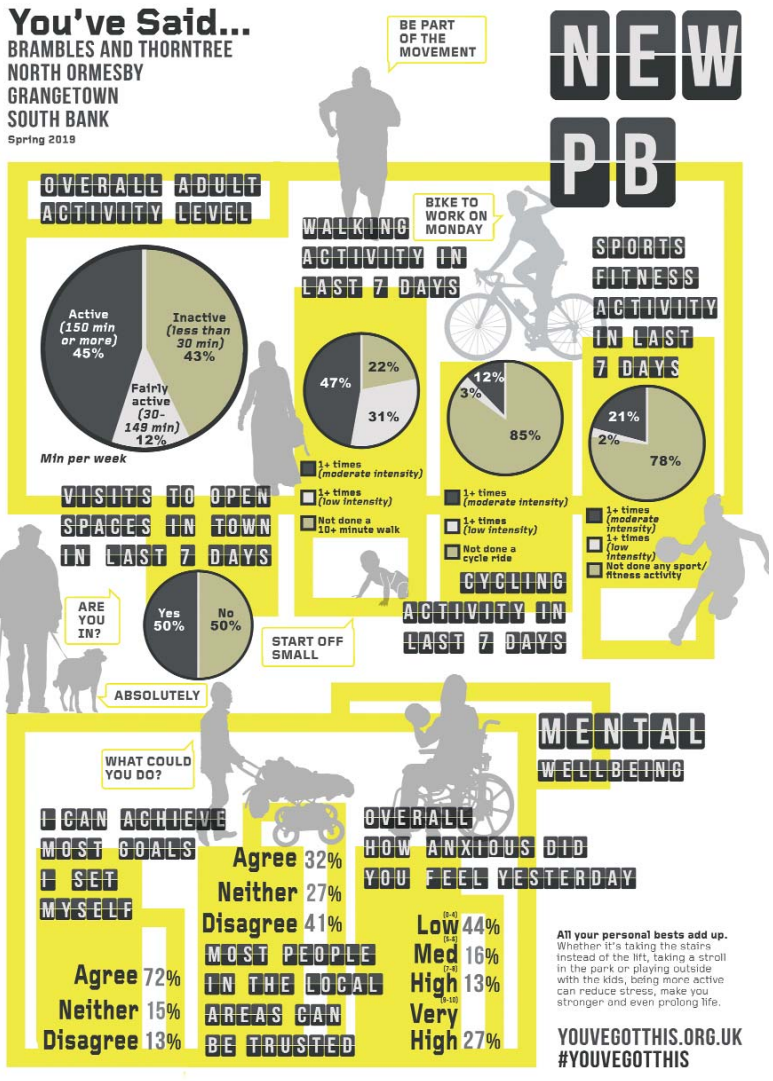
We engaged NWA Research, a social research company to collect the baseline data in our four focus wards. We were required to identify comparator areas, so four wards in neighbouring Stockton-on-Tees were selected based on IMD and other demographic information. We specified that we wanted to engage local VCS organisations (21 in the South Tees wards and 20 in the Stockton wards) to facilitate survey completion and data collection. This would increase the profile of the programme with local organisations and increase the potential of survey completion trading on the trusted status of VCS organisations. The questionnaire was designed as a self-completion survey and was initially delivered to potential respondents by the organisations involved with additional support if needed.

Interestingly, those who answered more negatively to the mental wellbeing questions were disproportionately represented in the 'inactive' category.

Overall (target and control areas combined), 42% had a physical or mental health condition or illnesses that had lasted or are expected to last 12 months or more'. 88% indicated that these health conditions/ illnesses **'have a substantial effect'** on their ability to do normal day to day activities.

To share our learning we had the data made into five infographics; one for each of the four wards and one that combined the data from all four focus wards. These infographics, which we have shared and encouraged our wider partnership to disseminate, provide an overview of the main findings in an easy-to-read and accessible format.

Our infographics highlighted wellbeing and social cohesion data as well as physical activity. (Appendix 5 - Baseline Data Infographics)



Slimming World Baseline

We engaged a district and an area manager from Slimming World and asked them to distribute the survey to Slimming World members across South Tees. A total of 815 completed surveys were returned to us; many more than we anticipated.

33% were classified as 'inactive'

14% were classified as 'fairly active'

53% were classified as 'active'

Inactivity levels for Slimming World members across the South Tees are **8%** higher than the national average

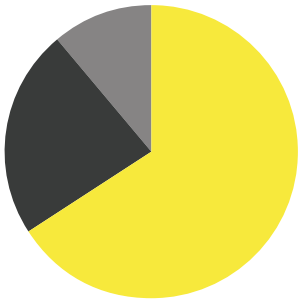
Highest Inactivity Levels

- **50%** Aged 75 and over
- **44%** long-term limiting health condition
- **40%** Other than white – British

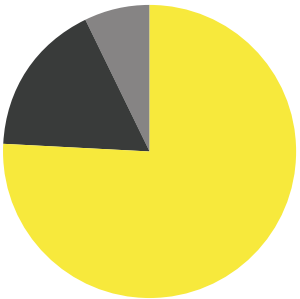
Activity/Employment Status

- **56%** Those not in paid employment
- **52%** Those in paid employment

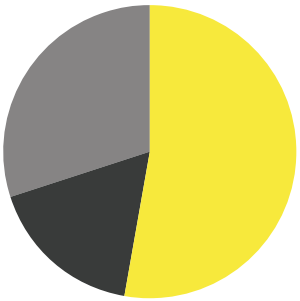
Overall, how satisfied are you with your life nowadays?



Overall, to what extent do you feel the things you do in your life are worthwhile?



Overall, how anxious did you feel yesterday?



Key: Positive Responses | Medium Responses | Negative Responses

Overall, respondents who were classified as 'active' were much more likely to give positive responses to the mental wellbeing questions.

Exercise on Referral (EoR) baseline

EoR for South Tees is delivered by two different partners; Everyone Active (the commissioned provider in Redcar & Cleveland) and Health Development (the in-house service at Middlesbrough Council). Prior to us requesting the EoR referral data, both areas had not analysed this data, so we invested time in really organising and understanding this data. Following this we were able to identify number of referrals, referring GPs and reason for referral. On average GP surgeries were referring less than 0.4% of patients on their list.

Number of Referrals	South Tees List Size	% Referred
1255	331,469	0.38%

With the most active referrer only guided 39 people to EoR, around 1% of the patients the GP will see in a year. Then we looked at the data relating to attendance at the EoR programme;

# Referred in	# Attending week 1	# Attending week 6	# Attending week 12
1255	891	383	294

We wanted to understand how frequently health professionals are having conversations about physical activity with patients, we felt this would give us insight into the confidence and prevalence of physical activity in general practice. However, there was no function to measure this within the database used by health professionals, so we devised a one question survey, *'Last week, how many conversations did you have with patients about them being more physically active?'* which was circulated through the CCG.

On average health professionals were having **10 conversations about physical activity a week, when seeing on average 150 patients.**

2F. BUILDING DEEPER INSIGHT

Our Focus Wards: Phase I

We wanted to test a very experimental approach to working with our four focus wards. Intervention mapping is a process to develop theory-based and evidence-based interventions. It was developed to answer questions about when and how to use findings from literature, behavioural theory and data from population to create an effective behaviour change intervention.

Planning behaviour change interventions is a step-by-step process that requires considerable appreciation of the complexity of the behavioural and environmental causes of the problem. Intervention mapping was something new to us but we knew that the work has to be insight led; and intervention mapping gave us a framework to do that. We contracted Teesside University to deliver this element of work.

Evaluation

Step 1: Logic Model of the Problem	• Establish and work with a planning group • Conduct a needs assessment to create a logic model of the problem • Describe the context for the intervention, including the population, setting, and community • State program goals
Step 2: Program Outcomes and Objectives – Logic Model of Change	• State expected outcomes for behavior and environment • Specify performance objectives for behavioral and environmental outcomes • Select determinants for behavioral and environmental outcomes • Construct matrices of change objectives • Create a logic model of change
Step 3: Program Design	• Generate program themes, components, scope, and sequence • Choose theory- and evidence-based change methods • Select or design practical applications to deliver change methods
Step 4: Program production	• Refine program structure and organization • Prepare plans for program materials • Draft messages, materials, and protocols • Pretest, refine, and produce materials
Step 5: Program Implementation Plan	• Identify potential program users (adopters, implementers, and maintainers) • State outcomes and performance objectives for program use • Construct matrices of change objectives for program use • Design implementation interventions
Step 6: Evaluation	• Write effect and process evaluation questions • Develop indicators and measures for assessment • Specify the evaluation design • Complete the evaluation plan

implementation

The aim of Phase I of the intervention mapping process was two fold;

- Gain a better understanding of the community
- Define a target population for each ward

This was done by conducting a rapid review, database analysis and stakeholder consultation. A report was compiled from the research undertaken by Teesside University. The findings came in three parts; the rapid review, the socio-demographic and health profiles of the four wards and stakeholder consultation.

Rapid Review

The rapid review synthesised the current evidence of the effectiveness of physical activity interventions in low-income communities. In total, seven different behavioural theories informed the various physical activity interventions piloted across 20 studies, with social cognitive theory being the one used across all age groups. Physical activity was the sole behaviour target of eleven of the twenty studies while the remaining nine combined physical activity with other behaviour targets, such as diet, sedentary behaviour, sugary beverage consumption and fundamental motor skills.

The interventions varied greatly in effectiveness, but in all cases except one where there was no notable change, some positive change was made. Fifteen of the studies focused on children while five focused on adults from the age of 16. The critical insight from this review has been that, out of the 83 behaviour change theories, only seven were used in these studies and a measurable, positive change was made in all but one.

Sociodemographic and health profiles

The data indicates that many people live chaotic and complex lives; and physical activity is not a priority for them. To gain a greater understanding of the barriers that many people living in our four focus wards face everyday we needed to consider the most recent sociodemographic data from the four wards, North Ormesby, Brambles & Thorntree, South Bank and Grangetown. This data highlights the high level issues that present the greatest health challenges in these wards and helps to form a fuller picture of the inequalities that exist in them.

CHILDREN AND YOUNG PEOPLE

Children Living in Poverty

North Ormesby
Grangetown
Brambles & Thorntree

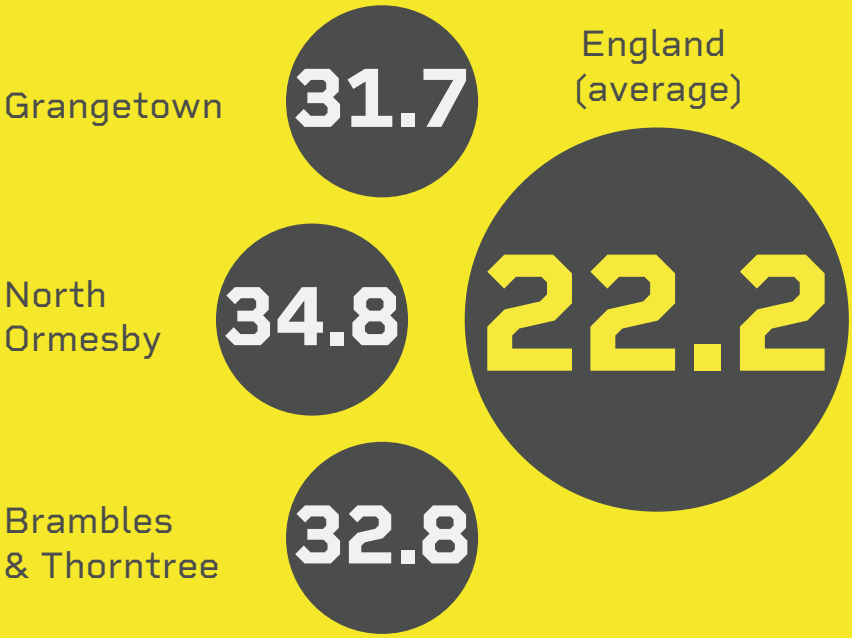
>60%

England (average)

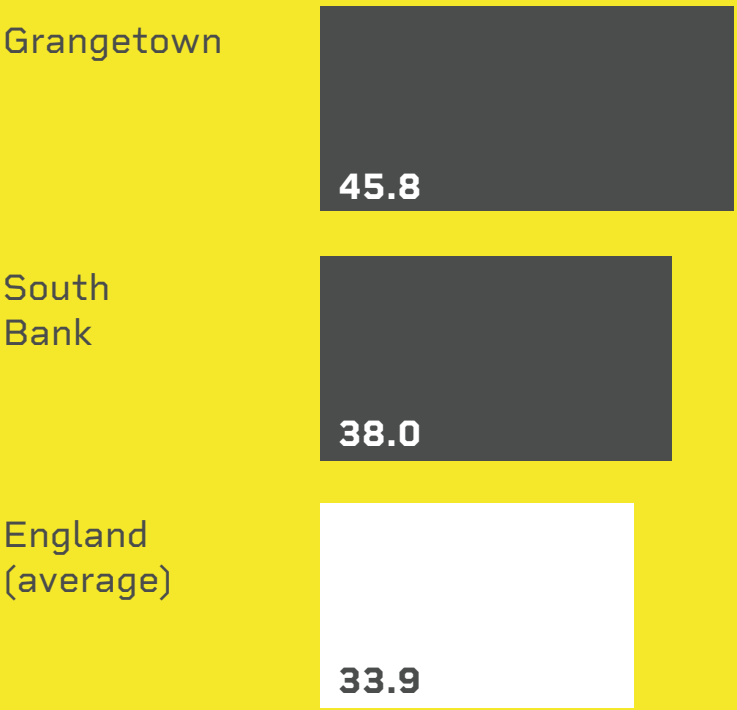
19.9%

Overweight & Obesity Comparisons (%)

Reception Age



At Year 6



#YOUVEGOTTHIS

LIFE EXPECTANCY & MORTAILITY

Male Life Expectancy

England Male **79.4** Years

North Ormesby Male **71.4** Years

Female Life Expectancy

England Female **79.4** Years

N. Ormesby Female **76.5** Years

ADULTS & OLDER PEOPLE

% of People Claiming Out of Work Benefit

2 England (average)

12.2 North Ormesby

Unemployment in North Ormesby is six times higher than the national average and that sixty percent or more children live in poverty in three of the wards. These statistics gave us the insight we needed into some of the different elements at play that might influence someone's opportunities, capacity and motivation to be active, however. What was needed next was to talk to some of the stakeholders in the four wards to see if they could provide some much needed context to these figures.

#YOUVEGOTTHIS

Stakeholder Consultation

The overall aim of the qualitative work (semi-structured interviews) was to capture the key stakeholders' perspectives and views on the knowledge of their community and value of physical activity. This included views on opportunities for physical activity in the area, and ideas of interventions to promote physical activity in their community. The discussions focused on:

- Barriers and facilitators to physical activity and sport
- Perceived gaps in physical activity provision
- Opportunities to access physical activity
- Potential engagement opportunities
- Suggestions for long- term change
- Identification of the targeted communities of interest

We considered the health data in each ward, looked at the infrastructure on the ground (number of schools, community groups, social groups, local facilities) and spoke to key people in the community to get their perspectives on each area and the strengths and issues that exist. From this we identified a population to work with in the first phase of the work. The reason for this being that the determinants of behaviour are different based on a number of factors; age, gender, ethnicity (what determines the inactivity of an older person will be different from what determines the inactivity of a young person). The PMO selected an age group for each ward:

- Brambles & Thorntree: Primary school children
- South Bank: Children in transition from primary to secondary school
- Grangetown: Adults, with a focus on low income and unemployed people
- North Ormesby: Older adults.

Real People, Real Places: Phase II

People are not numbers. The problem of inactivity cannot be solved by looking at datasets. While quantitative data can tell us the percentage of people in the wards living in fuel poverty or how many people in North Ormesby did a bicycle ride that week, it can't capture people's attitudes, emotions or stories.

The sociodemographic data highlighted just how chaotic people's lives are and the baseline data showed us how many people in the wards are inactive, but they could not give us the reasons that drove these inequalities. What was needed next was to go into the wards and speak with the people who have the knowledge: the residents.

For phase II of the intervention mapping process, researchers from Teesside University ran a total of eighteen focus groups over three months with residents from the target groups in the four wards to try and find out the determinants of their inactivity. The following section highlights some of the key insights that we gained from people in the wards during the second phase of the intervention mapping process.

SOUTH BANK:

transition from primary to secondary school

What children said...

90% of the children either would like a little, some or a lot of group sessions to improve their confidence and help them to become more active.

56.5% very often or always get involved in activities

30.4% sometimes get involved

13.0% rarely or never get involved

61% think having a role model would encourage them to be active.

- **32%** olympic athlete
- **16%** football player
- **21%** a friend
- **11%** a celebrity

What teachers said...

81% are not involved in the delivery of physical activity in the school but 91% would be willing to support children to be more active in school.

67% would definitely support the development of a timetable that helps children to plan more activity into their day or week.

27.3% would definitely provide one-to-one support for children to be active whereas a similar number would probably not provide such support.

What parents said...

All the parents have noticed changes either 'somewhat' or 'to a great extent' the physical activity levels of their child when he or she moved to secondary school.

25% identified confidence, social anxiety and alternatives other than football as barriers to their child to be active.

67% of parents consider themselves or a family member to be an active sporting role model.

25% said they would be willing to do physical activity with their child.

Open and Built Environment

Green space was enjoyed with pupils talking about the **"tons of trees to climb,"** and **"a lot of fields"** to play in, and the fact that **"all me friends live round here,"** highlighted the recurring importance of the social aspect of being active in the community.

> **"The only thing to do like mainly is go over the Astros and play football. But it's like they just kick you off at about six or seven because they need to pack up all that. But I think it should just be always open me."**

School Activity

Pupils felt that they would experience more physical activity once they moved into secondary because of events like sports days.

Community and Road Safety

Criminal activity and community safety was seen to create an environment that felt unsafe to be in:

> **"Yeah but I'm not allowed over there half the time. (questioned why?) Because people go over there with knives and guns."**

They also had concerns about road safety:

> **"People who spin round the corners in cars and full break it down the road."**

Social Scene

The lack of a social scene prevents young people from wanting to go outdoors too:

> **"I know I wouldn't go if none of my friends went."**

The volume of activities that young people engage in that don't require any physical exertion was highlighted:

> **"Playing on the Xbox I go home playing on the Xbox, literally that's all I do."**

Pupils felt that in an ideal world it would be better to, **"well like obviously not pay,"** for physical activity opportunities, but that on occasion, paying for an activity would be worth it, but only if it was a feasible amount:

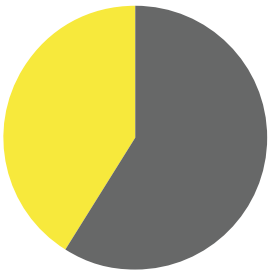
SOUTH BANK:

transition from primary to secondary school

BRAMBLES & THORNTREE:

primary school children

Children said...



59% of children said they loved being active

34% of the children said they like being active

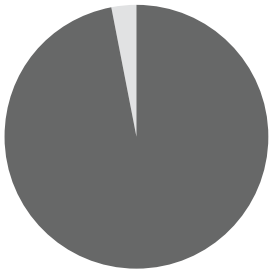
5% of the children said they hate being active

91% of the children think parents should help them to be active.

71% of the children think they should have PE homework

80% want activities in class to make them more active

Families said...

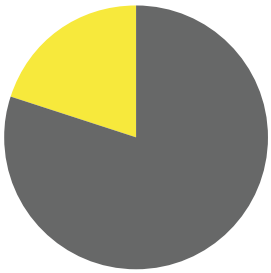


97% of parents believe physical activity is either very important or important for the general wellbeing or development of their children

71% of the parents would be willing to help their child with a physical activity.

28% were not sure if they could help.

What teachers said...



80% believe it either very important or important to promote physical activity for children in the community as well as in the school.

87% of primary school teachers are willing to support the children to be more active in the school.

80% want physical activity programmes to be provided by the school.

33% would provide one-to-one support for children to be active, while more than half were undecided.

55% of the teachers do not think the school can allocate someone to develop an individual physical activity plan for each child.

BRAMBLES & THORNTREE:

primary school children

Community and Road Safety

Antisocial behaviour was highlighted as a significant issue with the general perception that parks and community spaces suffered from high levels of vandalism, **'bigger kids break the park'** , or the number of arson attempts taking place:

> **"parks are always broken, so you can't really, so most of the stuff in there's broke."**

> **"There's dangerous people (adults) around mine, like I don't want to go into too much detail but like they have, like they chase people with weapons and all that, like round the corners and all that"**

As well as the antisocial behaviour that created a barrier to taking part in exercise, the conditions of the roads, how unsafe they were, and how they were used by some residents was seen as something that was preventing physical activity.

Open and Built Environment

The proximity of the green space was a frequent positive response from participants liking the fact that they **'live near a park'** , or **'I like living here because things are so close to me'** . They also felt like there was a lot to do and a good place to spend time with friends.

Social Scene

> **"Most of the time I'm on my own because no one ever plays out anymore."**

A reduction in young people getting active outdoors was reflected in the discussion.. These included things such as playing **"computer games at home"**, using an **"IPad" , "watching tele", "watching YouTube,"** and being **"on my phone"**; all sedentary activities that have substituted the more traditional outdoor play and increased the levels of physical inactivity amongst young people.

Family

The behaviour and attitudes of parents in supporting access to physical activity was mentioned as a barrier to taking part in sport or activity, especially if there were a lack of motivation from a parent.

> **"my dad can't be bothered so we don't go swimming"**

School Activity

> **"And the teachers always like to help you and everybody's willing to help"**

Young people felt their schools were providing good resources, such as outdoor space for physical activity. The school experience was described occasionally as "boring" or "not fun" and there was a reduction in the available time to be active:

> **"Because we used to have an hour for lunchtime and then it was forty-five minutes."**

> **"...at play time where we normally have about fifteen minutes, have about like twenty minutes so we can have like more active minutes."**

Young people were aware of opportunities to be physically active in the school environment (inside and outside of the classroom) and at home. In the outdoor school environment, a range of actual facilities was mentioned such as a MUGA, but also events such as tournaments, and certain times of the day:

> **"The MUGA helps us to be active because when we're in the MUGA, like we're all having fun, which also helps us to be active. And we're also moving around a lot, exercising."**

There was also discussion around the physical activity that some teachers were trying to introduce into lessons that are traditionally not active, such as a maths lesson which "involved jumping" and a French teacher who was trying to incorporate movement into lessons.

> **"I haven't done it (classroom - based activity "Skip to be fit") for a very long time. We done it for like maybe two or three weeks. (students like it)"**

Active Travel

The idea of utilising travel time between home and school was raised as an active opportunity:.

> **"...from my house, it's about an hour walk, but we like normally jog there or something, it takes about half an hour."**

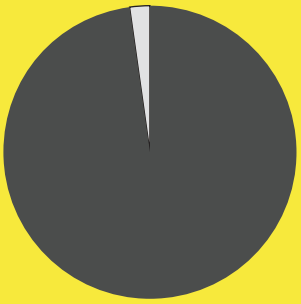
BRAMBLES & THORNTREE:

primary school children

GRANGETOWN:

Adults (17 to 65 years)

Residents said...



98% of the adults find physical activity either very important, important or moderately important

The main barriers to being active:

62% Family
49% Work
46% Time
43% Money

Local Leaders said...

67% of organisations believe it is important to promote physical activity in the community.

63% perceive money as the main barriers for adults to be active in the community. Others include family, work, lack of motivation, health issues, lack of interest, transport, time, lack of support.

48% of local leaders think their organisation would benefit from a better understanding of how to enable people to become more active.

Poverty

Both residents and people working in the area reported that many local people are living in poverty.

> **We've got a lot of hungry kids as well in our area.**

> **All our schools now do free breakfast club, cereals, bagels, fruit.**

Open and Built Environment

Participants talked about Grangetown's assets, which included buildings such as Grangetown United Community Hub, Neighbourhood Centre and the fact that the Leisure Centre is close by. However, there are also a range of activities already going on within these buildings.

> **We've got United. We're still lucky to have a library, we've got the leisure centre on our doorstep so I think we have a lot of assets and I think we've got a lot of things happening in Grangetown.**

Parents often do not feel that their child is safe using the parks without an adult and while they understand their child's need for independence, parents are often reluctant to allow them to use the parks.

Community and Road Safety

Drugs were identified as a major problem across the area. This included people dealing drugs and high numbers of people using drugs. Participants also reported that drug dealing in the area had increasedin recent years, compounding feelings of being unsafe.

> **I've gone for a run at 6 o'clock in the morning before work and I've seen drug deals happening outside my house that I didn't know was going on until I started running.**

Antisocial behaviour has resulted in residents feeling less safe in the area and has also changed their views on the area they live in. Residents also reported that the antisocial behaviour is not all attributable to children and young people and that adults are included.

The abundance of motor bikes and quad bikes used in the area was highlighted as an issue, these are not always concentrated on the green spaces but are used on the roads.

Social Culture and Attitudes

The instability of some families and lack of family cohesion is seen as one reason for the high levels of antisocial behaviour. There is also a view that quite often families do not do things together, this includes social and physical activities.

> **I see almost a culture of apathy, a culture of lack of motivation, aspiration and people getting caught up in what's the norm.**

NORTH ORMESBY:

Older adults (65 years or older)

What Older People said...

65% find being physically active harder as they grow older due to lack of mobility and poor health

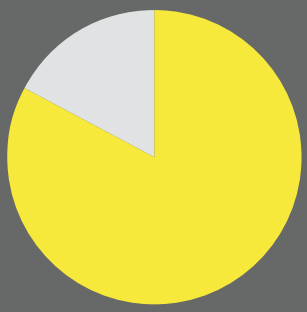
58% feel physical activity is either important or very important to them

38% believe physical activity is either moderately or slightly important to them.

What Local Leaders said...

100%

identified a lack of motivation



83%

identified health issues as the two main barriers to being active.

Open and Built Environment

There was agreement that there was a feeling of community spirit with North Ormesby, with a range of community assets that were available for the elderly population:

> **"It has a good community feel, we've got the Market on a Tuesday and Saturday, we've got local doctors', dentist, opticians', which is just over the road, good routes for the bus, and local shopping, so that's the main assets."**

Elderly individuals feel that there are not suitable activities in accessible venues for them. Certain venues which provided activities for elderly individuals are being closed or knocked down due to shortage of funds.

Poverty

It was acknowledged that lower levels of physical activity did not appear high on the list of priorities for people. Exercise did not carry the same importance as paying rent, or being able to put food on the table:

> **"you've got people who don't know how they're gonna pay their rent or feed their kids or whatever so exercise is the last thing on their mind. Whether it's activities in terms of getting active and physical or whether it's other things is probably far down the list of priorities."**

Community and Road Safety

Crime was also highlighted as an issue faced by residents in the community and seen as inevitable with the reduction in police; **"we used to have the police but due to cutbacks they don't come in now"**

Drugs and crime were seen to be at a level that affected how safe people felt in their neighbourhoods, especially at night.

> **"And again, these aren't kids. These are, you're talking, thirty five/forty year olds. It's not the kids and the youths that are necessarily the problem. And there's older people with exactly the same issues"**

NORTH ORMESBY:

Older adults (65 years or older)

NORTH ORMESBY:

Older adults (65 years or older)

Social Scene

> **"We need more longevity to build people's confidence up, to get more people involved. It does take time, it's not an overnight magic wand fix."**

The residents are very positive about the importance of doing activities in a group. They feel that it provides an opportunity to meet everyone and adds company to their rather lonely lifestyle.

> **"Because it gets people together."**

Residents are eager in using any form of activity that brings in people and creates a space to get social and enjoy the company of their neighbours and friends.

Long Term Conditions and Disability

A significant barrier to being physically active, is the perception that you can't be active due to a chronic illness or condition. In a few cases, older adults feel that these illnesses have made them stop doing the activities that they were enjoying previously. These chronic health conditions also make them dependent on care workers or attendants to help them being active.

> **"You see the disability I have, it's a chronic illness, chronic pain, so I'm limited to what I can do... before my disability took over full, you know, I enjoyed the swimming."**

Insight from Slimming World

After collecting the Slimming World baseline data, we set about organising focus groups with its members from Middlesbrough and Redcar & Cleveland. We asked them the question 'what does success look like?'. We did not expect it to elicit the range of responses that it did. As expected, several people talked about losing weight or dropping a clothes size, **but a lot talked around increased mobility** ('being able to run around after the kids without getting out of breath', and 'being able to fasten your shoe laces', for example). **Others talked about having more confidence, being healthier and happier and generally 'feeling good about yourself'.** A male participant put it quite succinctly when he said; **'it's getting your life back'.** Not all then saw losing weight as the epitome of success; but rather improved quality of life in general.

Most participants identified socialising as the main benefit of physical activity. Some of the other benefits of physical activity that participants identified were improved mental wellbeing and confidence and improved physical appearance.

A small minority of participants said that they did not enjoy physical activity because it feels unpleasant, they've had a negative experience in the past or they lack motivation.

Participants identified numerous barriers to their physical activity, as shown in the table below.

Individual barriers	Physical barriers	Perceived barriers
Unpredictable/long working hours	No childcare facilities at leisure centres	The gym is not inclusive and full of 'posers'
Body confidence issues	Activities, especially those not organised by leisure centres, are poorly advertised or there is a lack of information about activities that are on offer	Swimming pools are poorly maintained/unclean
Long-term condition/disability – anxiety, depression, arthritis, restricted mobility, diabetes, etc.	Dark nights/weather	You do not get the support you pay for at the leisure centres
Domestic duties	Classes at leisure centres are often booked out	The gym is boring
Money	No affordable childcare provision after work	Gym-goers wear designer clothes and lycra
Time		Exercise hurts your body

Participants who were already doing some form of physical activity mostly did so in a group. Some of the group sport/classes mentioned were netball, metafit, running, archery and shooting. All except one participant said that they much prefer exercising as a group because of the opportunity to socialise:

> 'I run socially. I run in a ladies' group, so I would agree. It's more about, you don't feel like you're running 5K, **you just feel you're out running the streets and having a chat and gossip.**

While some participants said that childcare facilities, free sessions and ladies' only times might encourage them to go to the gym, **most said they'd prefer activities that are not the gym.** A popular suggestion made in one of the focus groups was to **run an exercise class half an hour before the Slimming World group.**

Health Professional Insight

In the focus groups, the GP's identified, through COM-B long list (a specific behaviour change strategy), three main barriers that get in the way of them having conversations with patients about physical activity and referring more patients to EoR: **leadership, patient expectations and risk-averse culture.**

They believe that, for there to be any real change in how health professionals currently operate, practices would have to move away from more of a management model to a more flexible leadership model. What is needed are leaders, or physical activity advocates and champions, within practices who could encourage health professionals to think about physical activity and how to have physical activity conversations with patients without micro-managing them and being understanding of their needs. Leadership not management.

The GPs thought an effective approach would be to offer training (which would include motivational interviewing training, the completion of online modules, visits to EoR sites and talks by You've Got This) to GPs in the South Tees area. These GPs would then become physical activity advocates, with the stipulation that they attend future networking meetings with other advocates across South Tees. They also saw the need to appoint one GP to be its leading voice to ensure that every practice that has engaged share the same ethos.

The GPs identified the need for a programme that empowers health professionals and gives them the tools and knowledge to be the vehicles for change. This localised approach, they thought, would also make the practices involved feel part of a new and exciting community.

Patient expectations were identified as another barrier. The GPs' understanding was that, when they go to an appointment, patients often expect a 'quick-fix' and do not feel satisfied or listened to unless they leave with a green slip. If they are not prescribed medication, the GPs are sometimes subjected to verbal abuse. And this abuse does not always end when the GPs finish work. One of the GPs said they have experienced cyber bullying from a former patient who was not happy about how they were treated.

An idea the GPs had was that patients who have been prescribed EoR or given physical activity advice could be given a green-slip to make them feel like they had been heard.

Another barrier was risk-averse culture. If patients are unhappy with the outcome of their appointment, they can submit a complaint to the surgery or NHS England. The complaint procedure requires the GP involved to defend their position, resulting in extra paperwork and taking an emotional toll. The GPs said that it is often easier to take the route of least resistance and give the patient what they want, and the way practices are generally run (the managerial approach) does not necessarily encourage health professionals to think or act differently.

We have worked with the EoR practitioners to dig into the journey a referral will take. Each team had a different process and varying knowledge of their current pathway. We have worked closely with Everyone Active in Redcar & Cleveland to identify the current process, and the most common point people fail to return. The participants are currently only recorded at Week 1, 6 & 12. The practitioner identified that they felt the majority of people who didn't make it to week 6, failed to return after their first session. In Middlesbrough, the health development team offer a more supportive model having continued support each week of the programme. This is only offered through one centralised location with limited capacity and accessibility. They identified a need for a more flexible offer with the opportunity to refer into existing provision delivered locally and more relevant to the participants desires and ability.

Prehabilitation Insight

PREP-WELL is the UK's first comprehensive, community-based programme, specifically designed to support the health of preoperative patients. It is highly innovative in being supported and delivered through a cross health sector partnership in South Tees from Public Health, primary and secondary care (Appendix 6 - PREP-WELL Report pp. 6 & pp. 21).

The pilot ran for 12 months, from January 2018 to January 2019. Patients are able to access progressive, supervised support for several preoperative risk factors, in a 1-STOP setting, in the weeks prior to surgery. Elements of the pilot delivered the following:

- Screening by 'surgical champions' from five specialties, with quick referral once a decision to proceed with surgery had been made;
- An initial ENTRY assessment for the patient by the Project Manager, which involved: comprehensive screening for perioperative risk factors, evaluation of quality of life and mental wellbeing; objective evaluation of fitness (6 minute walk test); and nutritional status.
- A multimodal, supervised, personalised lifestyle programme based on individual risk factor profiles (e.g. exercise, smoking cessation, alcohol reduction, psychological support). Exercise was designed to improve aerobic fitness and muscle strength, whilst reducing the risk of perioperative respiratory complications through inspiratory muscle training (in those at risk). There was no charge to patients for programme participation.
- The opportunity to undertake a 6-8 week, supervised, programme in a community wellbeing hub supported by Health Trainers. Where patients couldn't attend, a home-based programme was offered.
- An expedited evaluation and optimisation of non-lifestyle risk factors identified at screening (e.g. obstructive sleep apnoea).
- An EXIT assessment, prior to surgery, to determine changes in fitness, health and wellbeing following programme completion.

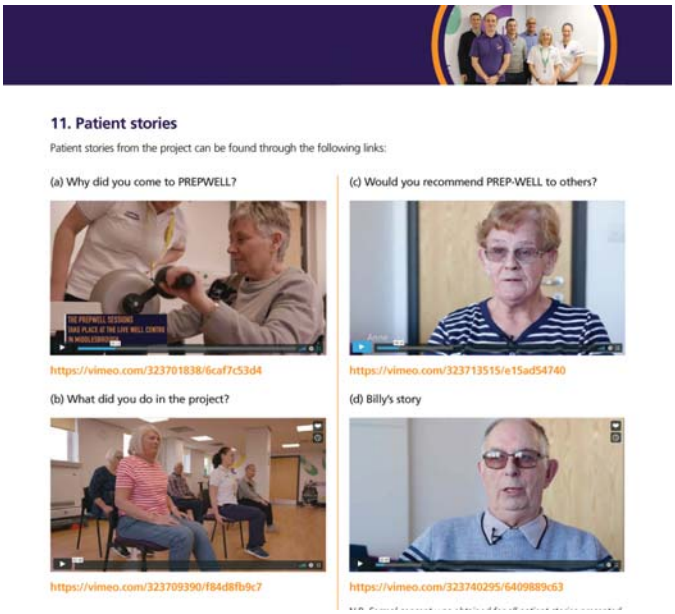
Changes in lifestyle behaviours and health indicators between programme ENTRY and EXIT were recorded. Analyses are based on data from patients who completed both assessments.

- The percentage of patients achieving the Government-recommended level of physical activity (aerobic and resistance targets combined) INCREASED from 0% to 73%.
- The mean 6-minute walk distance INCREASED 8% from 444m to 479m.
- The number of smokers REDUCED by 4% from 15% to 11%.
- The number of patients consuming >14 units/week of alcohol REDUCED from 19% to 15% at EXIT.

WE'VE GOT THIS: Building deeper insight

The majority of patients recruited gained clinically significant improvements in their health status and quality of life. Several patients initially deemed too 'high-risk' were able to have surgery by improving their fitness through participation.

The key enablers were stakeholder investment with matched project funding; patient engagement and peer-support through group settings; a central easily-accessible location for patients; and a surgical champion programme. Critically, of all the support offered, including smoking cessation, mindfulness and nutrition however, everyone identified being more active as something they could do.



A key challenge for the PREP-WELL pilot was the venue and the exercise provision being centralised. Using a single venue created a barrier for patients travelling from across the Tees Valley. This shows the need for more community-based locations and wider delivery as we use the Sport England funding.

Some of the patients share their personal experiences of going through the programme (links below):

https://vimeo.com/323701838/6caf7c53d4
https://vimeo.com/323740295/6409889c63
https://vimeo.com/323709390/f84d8fb9c7
https://vimeo.com/323701838/6caf7c53d4

73% of PREP-WELL patients moving from inactive to active

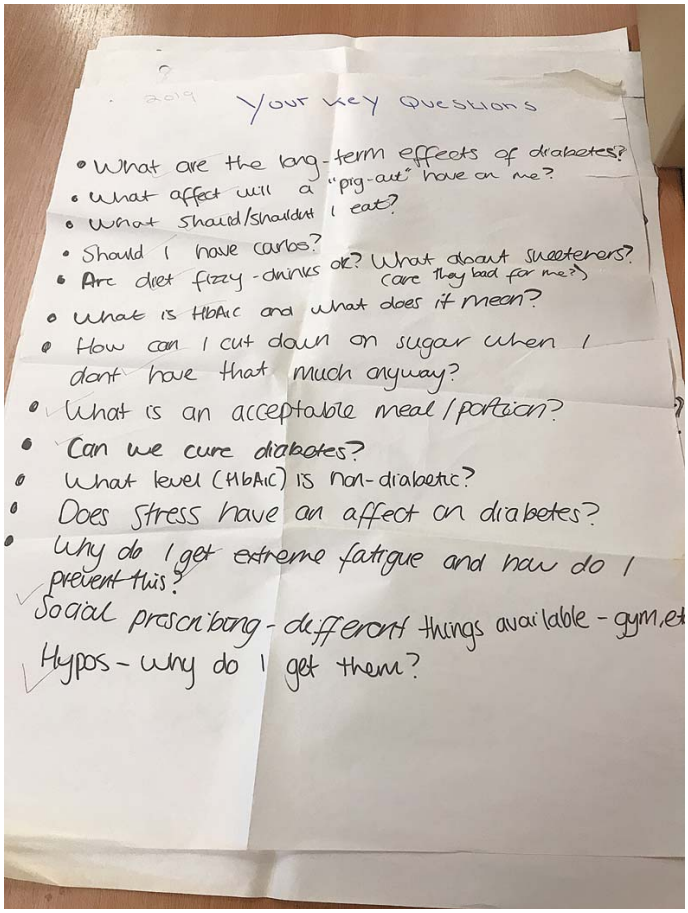
The Health Foundation pilot has demonstrated that patients gained clinically significant improvements in their health status and quality of life, with 73% of PREP-WELL patients moving from inactive to active. Additionally, the processes the pilot established have started to embed into clinical care process, across some high-risk surgical specialties. This small scale pilot has demonstrated value and impact and provides a fantastic opportunity for us to scale up this work through Accelerator investment.

Developing this model will enable us to create opportunities for a wider spectrum of patients, utilising a non-medicalised, community-based approach that utilises local, community facilities, staff and resources. Accelerator investment will support the expansion of the current pilot to allow for more high risk surgeries to have access and additional spread of this across a larger patient population; incorporating orthopaedic surgeries (6000 per year across South Tees) and cancer patients (2000 per year across South Tees) that creates a scale up of our ambition not only across larger number of people, but also across a broader range of surgical disciplines and departments within the local NHS trust.

Type II Diabetes

In 2011, Diabetes UK funded a ground-breaking study at Newcastle University that tested a new approach to weight management. 11 people with Type II Diabetes (T2D) went on a diet of around 850 calories a day for eight weeks. After two months, everyone who took part in the study was in remission from T2D. Three months later, most still had normal blood glucose control. The evidence from the study was conclusive; T2D did not have to be a life-long condition and people with T2D could achieve remission.

From this, in 2013 Diabetes UK funded the DiRECT (Diabetes REmission Clinical Trial) study: Remission of T2D using non-surgical weight management with a low-energy liquid diet and long-term maintenance. People aged 20 to 65 who were overweight and diagnosed with T2D within six years of starting the study were recruited from their GP practices across Scotland and Tyneside. Half the participants received an intensive low-calorie, diet-based, weight management programme, and the other half received the best weight loss support currently available.



This study is still ongoing, but in March 2019, the second-year results of the DiRECT study demonstrated that almost half (46%) of a group with T2D could achieve remission at 12 months by following a structured weight management programme. These results have changed perceptions of a condition previously assumed to be permanent and demanding life-long drug treatment. DiRECT's approach, delivered through routine GP care, could transform the way T2D is treated and could benefit millions of people.

While participants in the DiRECT study are encouraged to do physical activity, it was not monitored nor was there a formal or informal physical activity offer. We are taking the insight from DiRECT and looking at ways we can create a programme for people living with T2D that includes physical activity alongside dietary measures.

Recently, Diabetes UK and Sport England published 'Being physically active is easier than you think…Or is it?'. The report showed that regular physical activity reduces the risk of T2D by 40%. Research has unequivocally proven that healthy diet and physical activity can help prevent T2D and even send it into remission.

Our baseline data has told us that people living with long-term conditions are more likely than any other groups to be inactive. Our qualitative data has shown us that people living with long-term limiting health conditions, such as T2D, are often wary of being active because they think it will negatively impact their body. We know that from speaking with Diabetes specialist nurses that the condition creates a lot of worry and through DESMOND sessions, patients are frequently asking questions around the right way to eat, ways in which they should manage their condition and admitting that they want to become more active but struggle to identify where they can receive the support and opportunity (Appendix 7 - DESMOND Patient Insight).

Offering a programme for people living with T2D that encompasses nutrition and physical activity will give them the opportunity to learn about the importance of physical activity (just as the DiRECT study taught participants about the importance of nutrition) in managing their condition and hopefully shift some of the negative perceptions that some people with a long-term limiting health condition have towards it.

The most recent sociodemographic data from the four focus wards, shows that many people, particularly those from a lower socioeconomic background, live chaotic lives. While some people living with T2D might want to try the low-calorie diet before doing any physical activity, others may not be ready and want to try being more physically active first. Others might have the capacity and motivation to try the low-calorie diet and be more physically active simultaneously. This is why it's important to have a programme that is not limited to just nutrition or physical activity.

This work has been supported by the recent launch of a national campaign through Sport England, Diabetes UK and a range of other national charities: *we are undefeatable*.

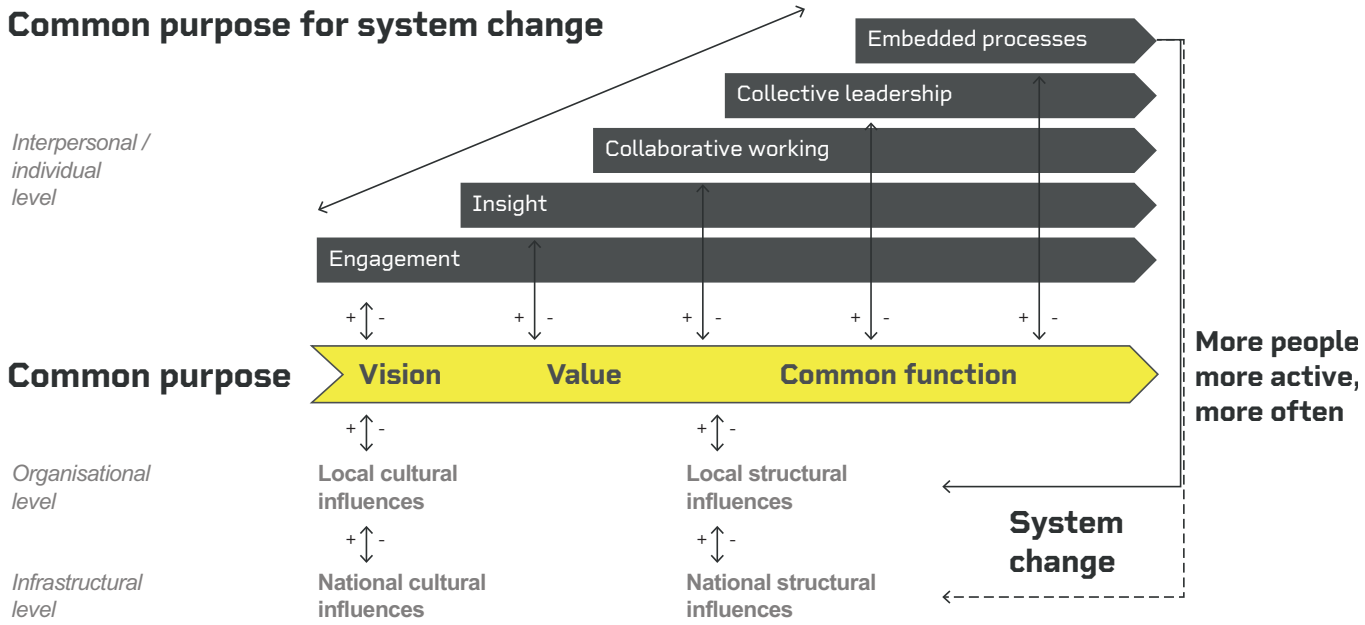
2G. WHAT WE'VE LEARNT SO FAR

We have learnt so much during the first 16 months of our programme and our thinking and assumptions have shifted significantly. Although it has sometimes felt that it has taken us longer to get to where we needed to be, it has been time well spent and it has enabled us to build our local connections and create stronger, trusted relationships in our communities. The main learning points being:

- We must continue to provide space and opportunity for people to understand our vision and value how they advocate and support physical activity in all its forms.
- Knowledge and insight is essential, but it is not always visible and there is a great deal of expectation to deliver activities; to do something that is visible.
- We started to test specific methodologies and strategies for changing behaviour, but often found that pragmatism and adaptability are what's needed to make these effective.
- Our efforts to instil the concept of distributed leadership across the place have gained ground, but it takes high levels of energy and time.
- Trying to explain the process of whole system change can be a challenge to people who are measured by performance management frameworks within the system.
- Our reflections on system change have focussed on the ever-changing interconnections between different people in different roles and places.

Together with our process evaluation team, we have co-developed a model to support learning. This illustrates our early understanding of the emergence of common purpose. (Appendix 8 - Process Evaluation Report Sep 19 pp. 10-11 & 15-17). We currently consider there to be three key elements which sustain a common purpose:

Vision + Value + Collective function = Common purpose.



These elements are shown in the model as flowing from one to another - in line with the ways in which we are seeing system change emerge. We do, however, recognise that in reality there are feedback loops. Our learning and insight have led us to establish the need for three core elements to be developed and adopted to achieve systemic shift and collective leadership:

- Maximise where vision and value align
- Support peer to peer communications where vision is recognised but not valued - e.g. we recognise GPs would be more likely to listen to other GPs or have messages that will resonate more strongly.
- Report, via Sport England and local channels, on cultural and structural barriers that can't be overcome by the pilot alone.

Changing behaviour

We are utilising three different behaviour change methodologies: the COM-B model, the Influencer model and Intervention Mapping so that insight is orientated to better understand the needs of priority populations, but we also need more insight and engagement work to understand the cultural and structural influences on behaviour.

We have built positive relationships with our academic partners and the work particularly with Leeds Beckett University and Jim McKenna, Professor of Physical Activity and Health, has been a very positive experience, shaping the way we think about behaviour change and how we build pathways that support and build personal capacity (Appendix 9 - Influencer Model).

In July 2019 we delivered a design day to challenge the way EoR is delivered within the South Tees. The Day was attended by representatives from Everyone Active, NUR Fitness and Middlesbrough's Health Development Team, who run EoR and physical activity programmes. Its objective was to get the groups to think critically about their current EoR practice by increasing the understanding of clients' potential expectations and limitations.

The teams thought about how they could improve their existing service and client retention by employing incentives and allowing for more contact time so that clients feel more encouraged and listened to. The day even posed the question of whether EoR actually needs to be as long as twelve weeks, and if a participant shows the capacity to change their behaviour, can the teams look to support that person in to the community sooner than planned?

Getting to the right people

Finding the right approach to engage is essential to reach people who are inactive. We used local contacts on the ground to help us get to the 'right people', but it was a slow process. Insight from communities can come from formal and informal methods. Information gleaned through unplanned informal meetings and 'community chats' have given us rich detail whereas formal approaches such as Actor Mapping, Intervention Mapping and Surveys has derived some useful but 'different' information. Capturing baseline data from children and young people through the use of a national survey did not generate as much data as hoped.

The real learning that has emerged is that building our insight; really understanding the lived experience of people and understanding the challenges they face is a continual and sometimes iterative process, in which we must continue to invest time and energy.

Distributed leadership

Engagement from senior leadership is a vital element to lead to redistribution of resources from partners. We have spent a great amount of time engaging with different partnerships and boards; Children and Young Peoples' Partnership, Middlesbrough & Redcar and Cleveland Health and Wellbeing Executive, etc. This work has enabled us to support their greater understanding of, and contribution in to the system and for them to think about how they view and value physical activity within their own work. This is only the first part of long term systemic change. When we are in the room they share our vision and values and its importance to their work, but it is difficult to measure the impact this is having when they are not in the room, and the significance it is having on the way they work. We explore the concept of leadership further in governance and leadership.

Building trust and capacity with partners

We have worked with an incredible range of people across different settings and places. Our experience is that when we mention Sport England, the natural assumption is that we will be delivering sport in communities and funding new sports halls.

The reality is that we won't change people's attitudes or perceptions overnight. What we need to do now is to move ourselves from being a partnership when we are in the room together, to being a partnership when we are NOT in the room together.

System change needs collective action, so taking time to get people involved is vital and for this reason we have worked with a wide range of partners to re-think how to support people to become active; starting with the development of a person-centred offer, using behavioural strategies to create more positive behaviours and supporting the development of confident and empathetic staff and volunteers.

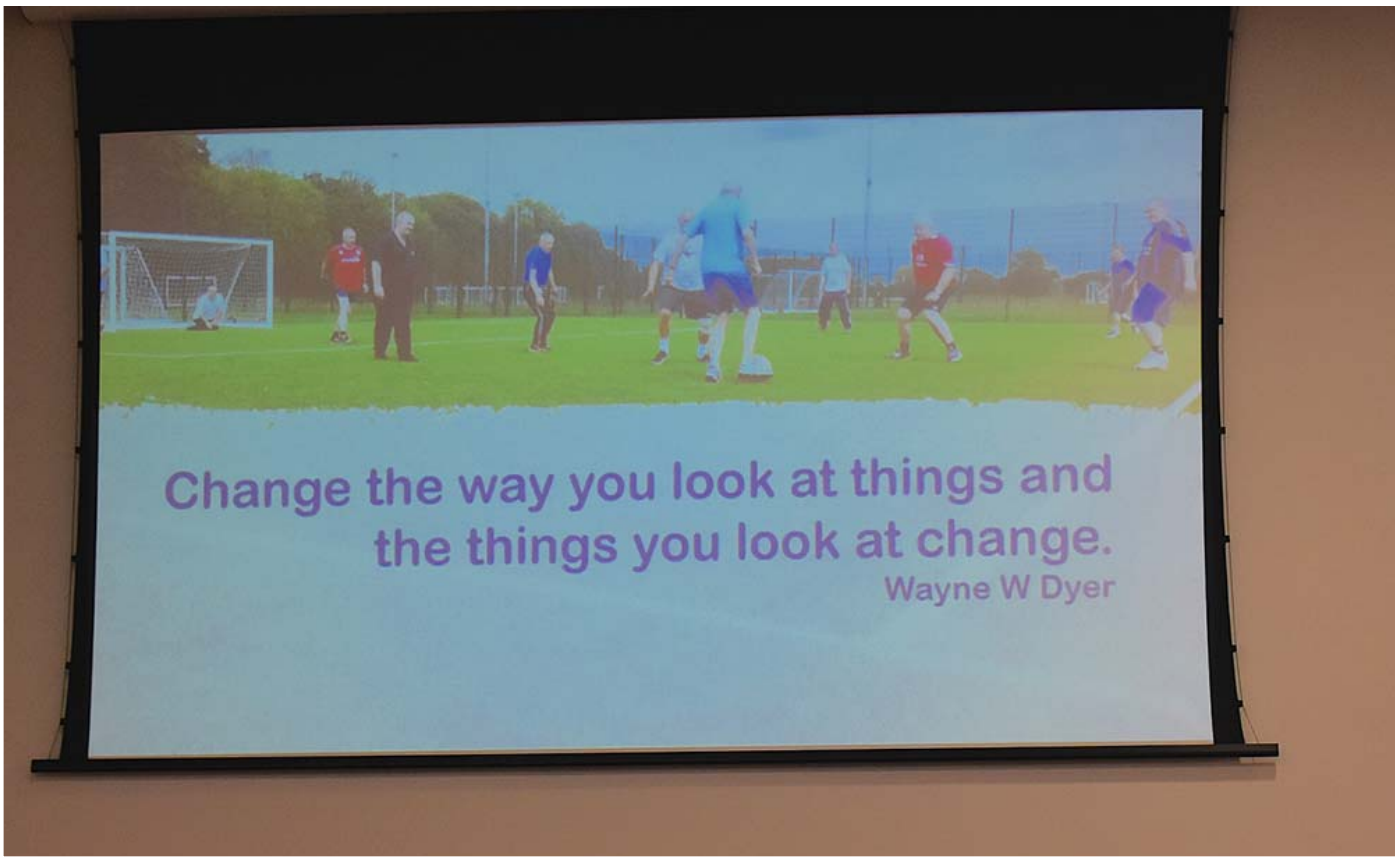
3. WE ARE MOVING FORWARD

3A. OUR PLAN FOR CHANGE

We have built a tremendous body of knowledge and understanding so far. We are not trying to build a model to 'lift and shift'; linear solutions don't work in complex adaptive systems.

What we are sure of is that people are the key and that the solutions lie in the personal, social and structural spheres. Where the right conditions do not exist, we need to create them, as a system. We have also realised that we are one small part of a much larger system, we need to remember we are not the solution, we are part of the systemic response. ***Organisations do not produce outcomes; systems do.***

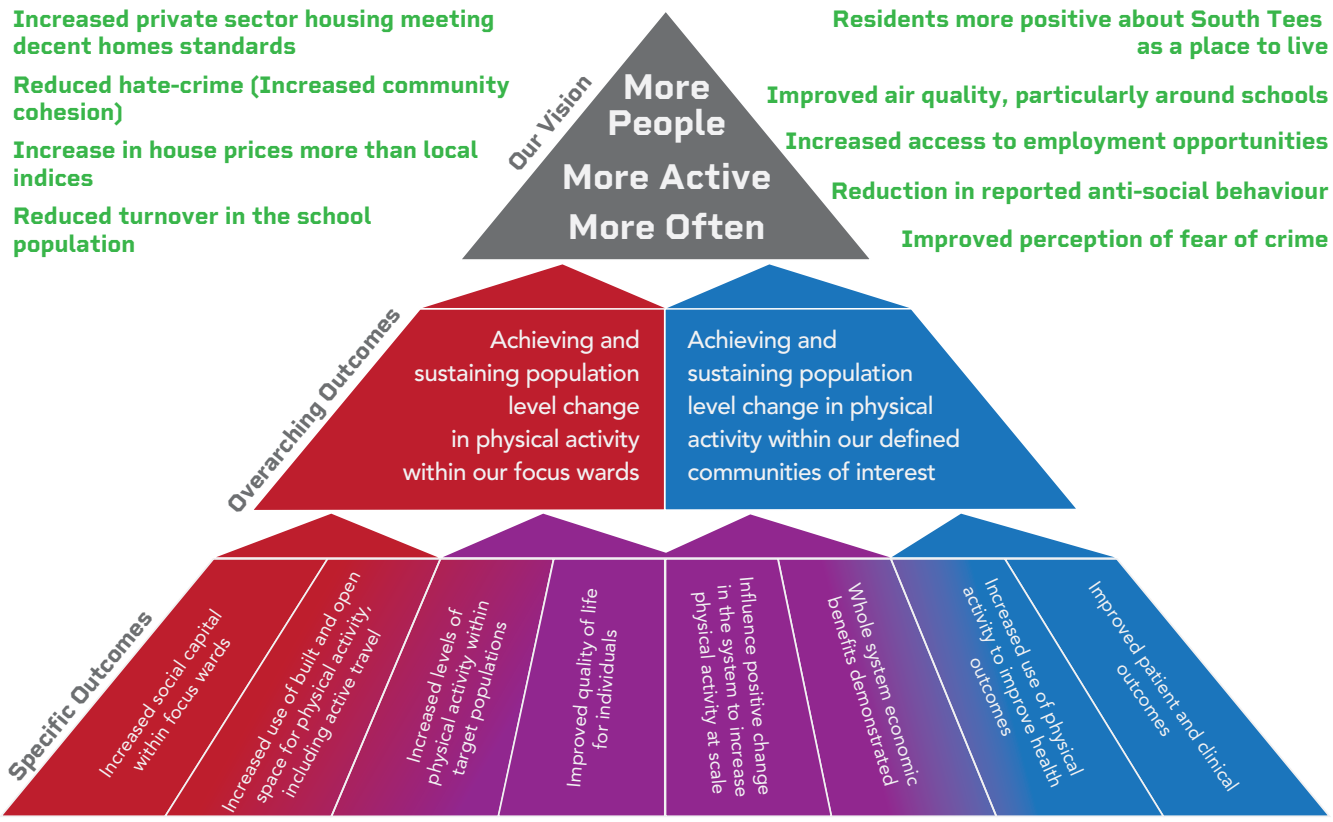
Much of what we are trying to achieve is grounded in ***co-design and co-production***, a new way of working that we are building as we go. What do we need to do to shift the system? Every discussion, decision, action and connection we make must contribute to our theory of change and link back into our vision. What are we testing - what are we learning?



3B. OUR THEORY OF CHANGE

We have a simple vision that over-arches a huge ambition and we wanted to express how we would achieve this as a pilot and as a partnership. Theory of Change defines long-term goals and then maps backward to identify necessary conditions and activities: explaining the process of change by outlining causal linkages. Our theory of change outlines how collective action through the pilot contributes to our specific and overarching outcomes to achieve our vision.

The vision is surrounded (in green) by our higher level aspirations; the much longer term outcomes we believe we can contribute to by increasing activity levels in our population.



3C. OUR INVESTMENT THEMES AND PRINCIPLES

As a partnership we needed to frame our aspirations within **Investment Themes.** These themes provide the platform for our actions to address the real issues we need to tackle; outlined in our **Key Insight** in Section 3D.

These investment themes, developed by our Programme Delivery Partnership, provide clarity and consistency for all our investments, ensuring that we remain bound to our original intent, outlined in our initial submissions. These investment themes also ensure that investments are made at all levels of the socio-ecological model: **policy; physical environment; organisations; social environment; and individual level.**

Investment Themes

- **Behaviour Change Strategies:** Investment into key elements and interventions that form our behaviour change strategies in our communities of place and across our communities of interest.
- **Community Offer:** Reframing the activity offer to provide formal and informal opportunities reflecting the changing perspectives of active living.
- **Active Travel:** Working with infrastructure, organisations and groups to promote cycling and walking.
- **Workforce Development:** Investment in the workforce including organisations, staff, volunteers and residents.
- **Open and Built Environment:** Development of greenspace, unused land or sites that have been targeted for development. Creation of play streets and working with housing and building developments to promote active environments.
- **Support for Education:** Develop work with primary and secondary schools, creating more active opportunities, within school and outside of school time.
- **Distributed Leadership and Common Purpose:** Maximise the impact of our investment into collective leadership to achieve system shift.
- **Communications and Marketing:** Extending the brand, developing our internal and external communications and delivering campaigns that drive change.
- **Community Investment:** Investment into local people and organisations that stimulates new ways to support local residents to become active.

We identified eleven principles that provide the foundation for our local programme and underpin our investments.

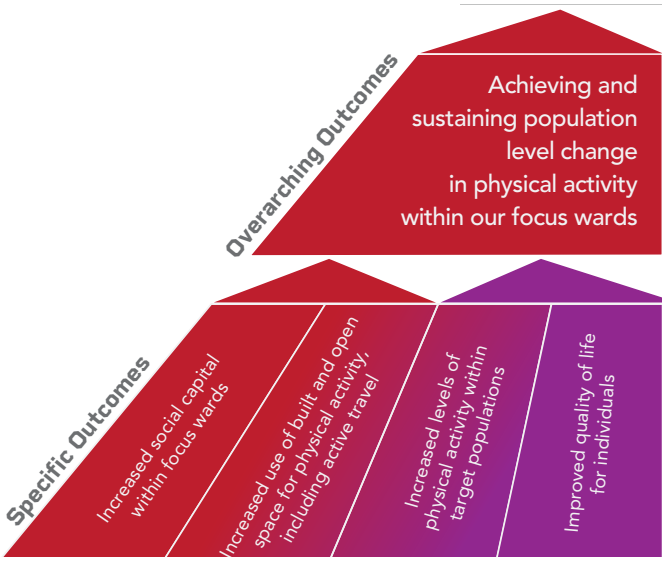
Our investments will:

1. *Meet our vision for helping the inactive become more active.*
2. *Consider individuals, communities, organisations, the environment and policy, we call this the "whole system approach".*
3. *Provide a range of ways of bringing about changes in behaviour across the whole system.*
4. *Be led by an understanding of the needs of our communities.*
5. *Be made through involving communities using co-design.*
6. *Build on the strengths and talents of communities, we call this an "asset-based approach".*
7. *Build on opportunities identified with and within communities.*
8. *Embrace innovation and encourage calculated risks to be taken to help us to do things differently.*
9. *Tackle inequalities.*
10. *Direct resources to where they are needed most, whilst ensuring that all our target communities benefit.*
11. *Create a shared vision and partnership approach that will extend beyond the lifetime of the programme.*

The following pages outline how the structure of the programme going forward delivers our theory of change. Each section outlines the outcomes we want to achieve relating to the focus wards and communities of interest. We specify the themes (barriers and opportunities) that have emerged from our insight work and which investment themes we will deliver specific actions and interventions under. We also provide some examples of potential actions that might fit within these investment themes. These are just examples to illustrate specific actions under these themes and are not exhaustive lists.

3D. TARGETING OUR INVESTMENTS

Our Focus Wards



Key Insight

Adults

- Community safety and anti-social behaviour
- Practical training and employment
- Long term conditions and disability
- Poverty

Children

- Road safety
- Community safety, vandalism and ASB
- Social scene
- School activity
- Family culture and attitudes

Investment Themes

Behaviour Change Strategies: Training, education, peer support and mentoring, campaigns, practice/skills development, empowerment and self-esteem programmes, goal setting, rewards and incentives, behavioural journalism and social movement.

Open and Built Environment: Safe spaces that might include accessible spaces, community ownership, lighting, fencing: physical enhancements that could be a community garden, walking routes, influencing planning to utilise community design.

Active Travel: Adult learn to ride, walking routes, bike refurbishment schemes, road safety measures, reducing air pollution and health through stealth.

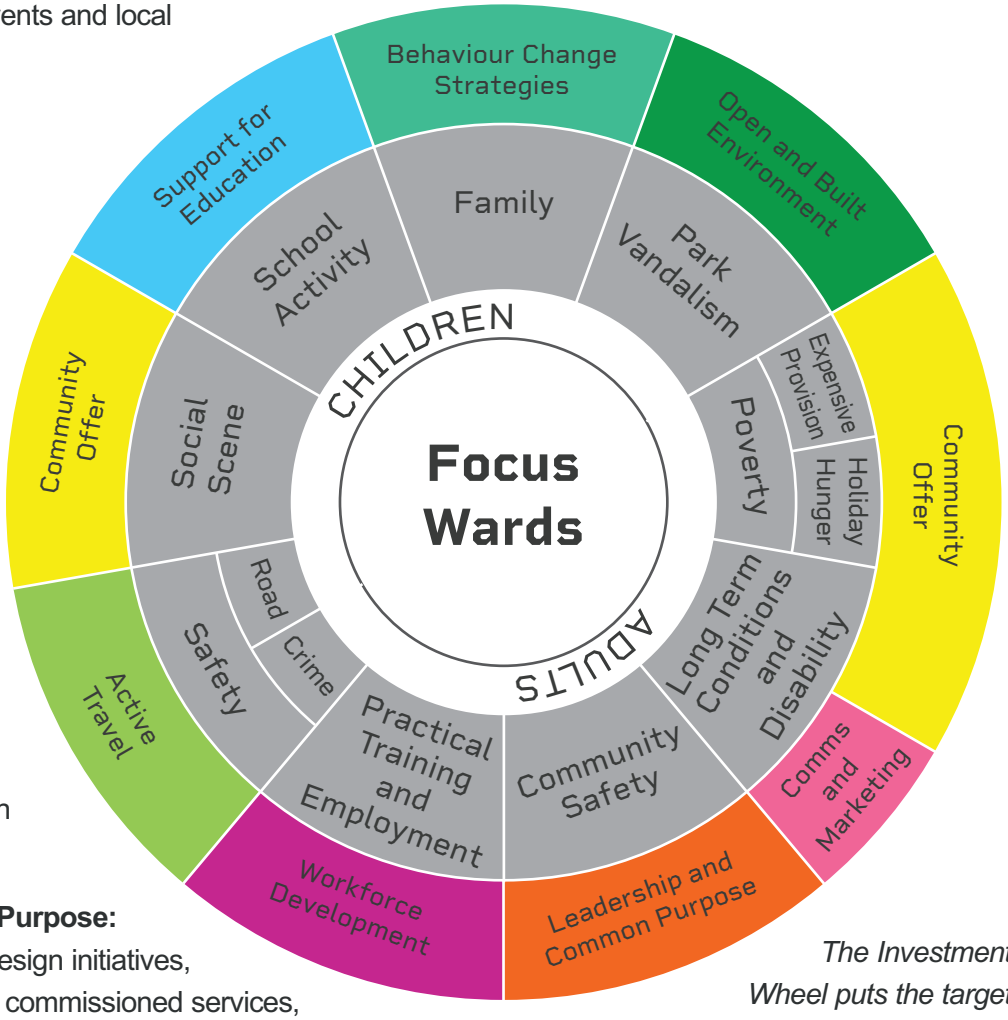
Communications and Marketing: Local campaigns, social media, events and local heroes.

Workforce Development: Volunteer development, mentoring schemes, training opportunities, social enterprise development.

Support for Education: Active schools, protecting sport and PE provision and pupils as leaders.

Community Offer: Physical activity opportunities that include active volunteering, adapted sports, community sports,volunteer led provision and mainstream provision.

Leadership and Common Purpose: Community leadership, co-design initiatives, building physical activity into commissioned services, building common purpose and community capacity.



The Investment Wheel puts the target community at the centre, surrounded by the key insights aligning with the relevant investment theme.

Communities of Interest

Health Professionals

Key Insight

- Risk averse culture
- Lack of leadership
- Patient expectations

Investment Themes

Behaviour Change Strategies: Training, education, peer support and mentoring, skills development, goal setting, rewards and incentives and social movement.

Communications and Marketing: Practice campaigns, social media and health professional champions.

Workforce Development: Practice physical activity champions, leadership schemes and training opportunities.

Leadership and Common Purpose: Physical activity local leaders programme, co-designed interventions, practice engagement scheme.

Community Offer: Traditional physical activity provision, active volunteering, adapted sports, community sports, volunteer led provision, person-centred approach to Exercise on Referral, moving away from fixed 12 week timetabled programmes and improve processes. Exit, continuation and sustainability strategies for participants.

Type II Diabetes

Key Insight

- Lack of capacity within practices
- Lack of awareness
- Physical activity options and awareness of nutrition

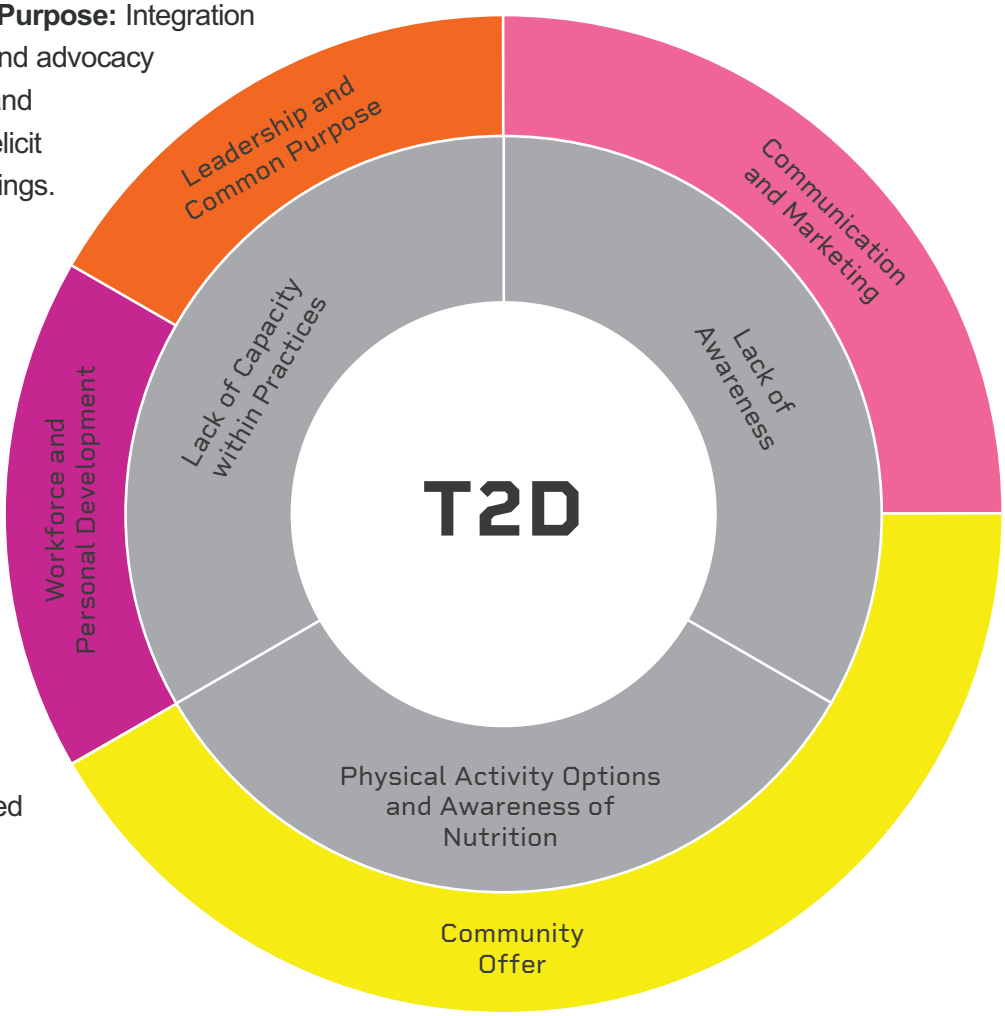
Investment Themes

Communications and Marketing: Physical activity prominent within practices, practice campaigns, social media campaigns.

Workforce Development: Education around physical activity conversations, local physical activity offer to practices, motivational interviewing, specialist dietician support for practices and their nurses, focus on 'remission' not 'management'.

Leadership and Common Purpose: Integration of physical activity support and advocacy into Primary Care Network and individual practice policy to elicit health related economic savings. Development of embedded processes that provide a simple and clear pathway to physical activity and build capacity and choice for patient populations.

Community Offer: Provision of dietary advice to support physical activity behaviour change, an improved community offer for physical activity opportunities, active volunteering and volunteer led activities.



Prehabilitation

Key Insight

- Accessibility
- Lack of awareness
- Lack of leadership
- Lack of capacity

Investment Themes

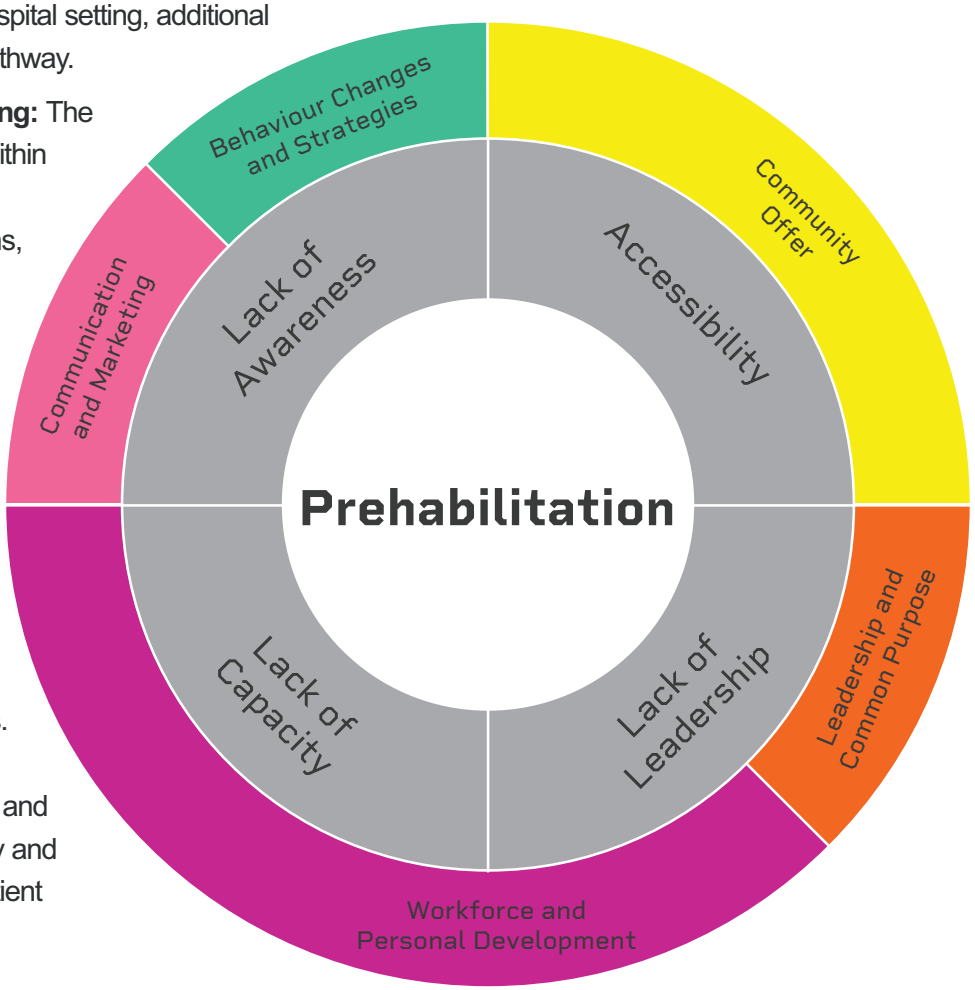
Behaviour Change Strategies: Training for staff, education and promotion, peer support and mentoring, advocacy from senior health professionals, skills development of staff and the community, goal setting, rewards and incentives, social movement.

Community Offer: The transition from prehabilitation activity in to community physical activity offers, localised community provision and a wider offer, support with activity at the home, volunteering and socially engaging activities.

Workforce Development: Upskilling and training, Public Health Champion support within the hospital setting, additional capacity to support a low risk pathway.

Communications and Marketing: The Prehabilitation offer prominent within hospitals and the community, Prehabilitation service campaigns, social media campaigns, promotion of community physical activity offer.

Leadership and Common Purpose: Integration of physical activity support and advocacy into clinical practice through advocacy by clinical champions within NHS Trusts, departmental practice to elicit health related economic savings. Development of embedded processes that provide a simple and clear pathway to physical activity and build capacity and choice for patient populations.



Slimming World

Key Insight

- Family commitments
- Lack of routine and planning
- Negative perceptions or feelings towards physical activity
- Lack of awareness of local provision
- Issues with long-term conditions and disability
- Body image and confidence issues
- Negative perception of leisure service

Investment Themes

Behaviour Change Strategies: Training for staff, education and promotion of physical activity provision, peer support and mentoring, goal setting and routine planning, rewards and incentives, social movement.

Community Offer: Traditional physical activity provision, active volunteering, adapted sports, community sports, volunteer led provision, person-centred approach at community leisure facilities and family centred opportunities.

Workforce Development: Upskilling and training for Slimming World consultants, upskilling of Slimming World members, volunteer scheme.

Communications and Marketing: Physical activity marketing that is representative of Slimming World members such as a localised This Girl Can campaign, social media, events and local Slimming World influencers.

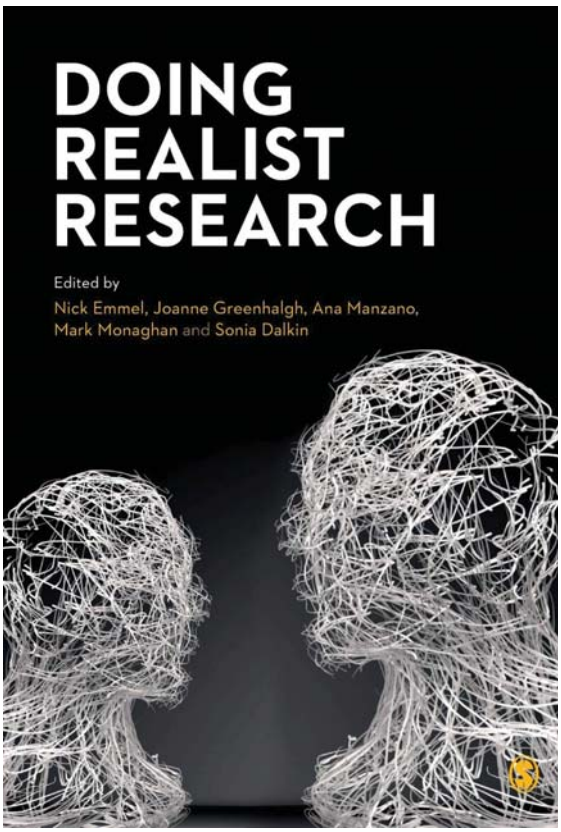
3E. MEASURING IMPACT

Process Evaluation

Sheffield Hallam University and Northumbria University are supporting our process evaluation. The process evaluation aims to gather evidence and ideas about what does and doesn't work to deliver a step change in culture, practices and processes to encourage more people, more active, more often in South Tees. It will not simply answer the question of what works but also explain **when and under what circumstances things work and crucially, why**. This will provide theories and evidence which allow South Tees to not only 'record the journey' but also the potential to learn iteratively and adapt processes to maximise Sport England's investment. Outputs will also include theories that can be transferred to different contexts.

This process evaluation is a mixed methods study focused on key stakeholders and practitioners. It is based on a realist philosophy of science, which is orientated towards providing ever more nuanced explanations of the world. To date, the evaluation team have co-designed a model with the core programme team which supports an understanding of how system change may be realised. From November 2019 an embedded, post-doctoral researcher, will be housed locally at Middlesbrough Environment City. This researcher will be supported by three academics with relevant topic, theoretical and methodological skills and experience.

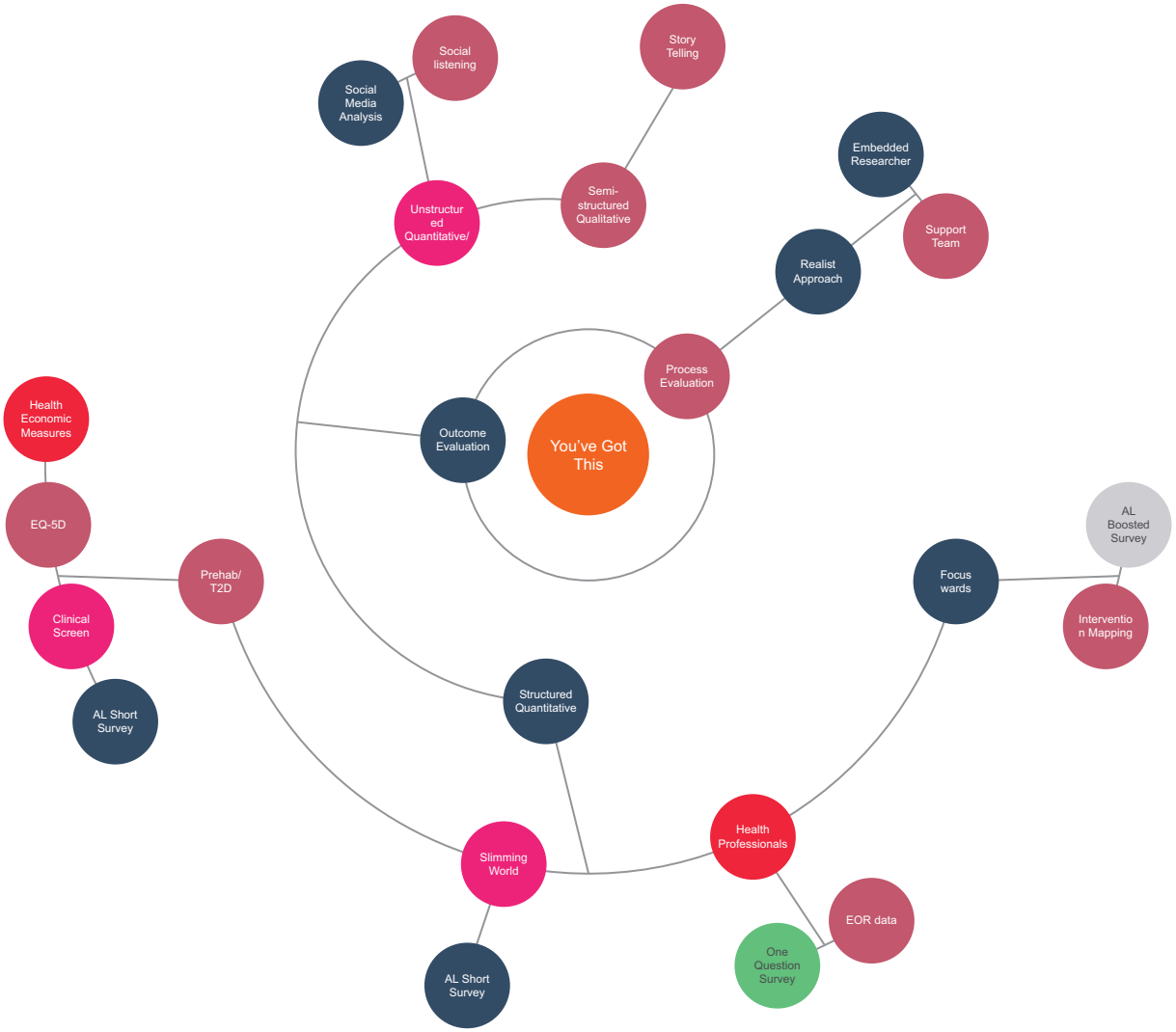
Realist programme theories will be developed to explain, in detail, how change may come about in different contexts across the systems we are working in. Throughout the process evaluation we will iteratively refine these theories as we gather data and continue to develop our understanding of the relationships between the parts of the system. Our initial theories will dictate the precise data capture methods and sample. However, we expect that we will collect data from semi-structured interviews, observations, workshops/focus groups, self-generated reflections from diaries, documentary analysis and some frequency measures, which may be repeated over time.



We will conduct an analysis of the data on an ongoing basis, utilising analysis software (NVivo) which is compatible with mixed data sources. We will iteratively refine the programme theories and update the core programme team so that they might adjust their approaches, if necessary. Formal reporting of process learning will continue six monthly in line with Sport England and IFF's requirements. This process evaluation is deliberately a core part of our whole systems approach. The embedded researcher will act as a knowledge broker and provide a conduit for our team between the theory and evidence and our ongoing practice.

Our Impact/Outcome Evaluation

For the Impact/Outcome Evaluation our approach is divided into distinct elements:



The power of stories (semi-structured, qualitative data)

Increasingly, stories are used to communicate complex narratives and can unpack the real impact and implications of change. Stories have the power to animate subtle movements and changes across the system that can either support or hinder progress at all levels. They can be used to tell the story of a person, a place or an idea. Storytelling provides a way to obtain information on outcomes from participants' experiences and viewpoints. Storytelling can also provide meaningful information that can highlight the crucial learning points and any unintended consequences. Using storytelling provides an accessible methodology to engage participants in evaluation and highlights the importance of context and its impact on outcomes. Stories are the way that many people make sense of the world and can effectively convey the learning, value and impact of You've Got This. Stories are our medium to explain how things work.

Social listening: the stirring of social movement (unstructured, qualitative and quantitative data)

The essence of social listening is monitoring various channels in order to come up with a strategy to help influence people and services. These channels are of the online and digital variety, which allows social listening to easily collect data to determine people's perceptions of their environment and things that people engage with. It is also used to surface feedback that could help to change interventions that are created to engage people and communities. We are working with Word Nerds who utilise artificial intelligence and linguistics to determine the culture and attitude of people around physical activity, active living and active travel. This will enable us to monitor the growth and spread of an emerging social movement generated through the system.

Everyone understands the need for numbers (structured, quantitative data)

To measure the potential impact of system change on specific metrics within specific communities, we are using validated instruments used at a national level, but boosted at local level. For our focus wards we are using the Active Lives Survey (ALS) in our four focus wards and four wards within another borough within the Tees Valley as a comparator. We are using the same survey for users of Slimming World, with the social cohesion question removed as it is not applicable to this community of interest. Baseline data has been obtained and will be collected annually.

For patients moving through the Prehabilitation and Type II Diabetes pathways, we are using the ALS questions without the social cohesion question, but with the addition of the EQ5D-L questionnaire, which measures quality of life across five domains. This is a longitudinal study, with patients reporting at baseline, 6, 12, 18 and 24 months. We will also conduct a cost benefit analysis for both these themes to report the scale and nature of health savings within the system.

For the health professionals theme we are using the annually reported Exercise on Referral data which details numbers of referrals, by surgery, by GP, attendances, duration of stay and reason for referral. For the health professionals we have used a 'One Question' survey which is reported at six monthly intervals.

For young people we are using the Health-Related Questionnaire developed and collated by the School Health Education Unit (Exeter University) and implemented across Middlesbrough and Redcar & Cleveland. This survey measures physical activity, mental wellbeing, trust and other health behaviours. The survey is collected on an annual basis.

DELIVERING REAL SYSTEM CHANGE; OUR ETHOS FOR INVESTMENTS.

4A. OUR ETHOS AND APPROACH

Our insight has provided a focus for our investment in relation to the nature and scope of what we will do to achieve change, but a vital element of system change must be HOW we achieve this. In our original proposals we outlined our aspiration for creating not only active communities, but also building legacy with the public and private sector to deliver whole system change. To achieve this we need to create common purpose. We need to be open to working differently; redistributing power and resource from the public sector to share with local partners and communities.

Engaging local people and community organisations to gain a deeper insight into communities built their trust with the pilot. If we want local people to have a genuine value for physical activity and take responsibility for themselves and their communities; we need to construct and nurture delivery mechanisms that require collaborative working and leadership to shift power into communities.

Our partnership agreement was developed to encompass the principles outlined in a report that examined how our thinking and systems need to adapt to a different way of working: ***A Whole New World — Funding and Commissioning in Complexity***. This report influenced our collective view of how we would operate and influence positive change in a dynamic, complex system. In her foreword, Dawn Austwick, Chief Executive of the Big Lottery Fund says:

'Our strength lies in positive collaboration, in honesty, openness and generosity in sharing what does and doesn't work'

'Those who hold power should take a collaborative and generous approach to leadership – thinking about their role as part of a bigger whole'. '…valuing learning and improving, rather than proving; asking what matters, not what's the matter; and putting people in the lead, instead of prescribing the solution'.

Elements of this way of thinking and displaying leadership can be seen the national 'Big Local' programme and is the way services are being delivered in Bolton and Plymouth.

This is the approach we believe will be instrumental in the delivery of our vision through our Pathfinder and Accelerator investments.

4B. CO-DESIGNING WHAT MIGHT WORK

We constructed our partnership agreement to enable us to enact these principles; to build strong local ownership and collaboration to deliver our vision. This agreement also enables us to work with local partners more intensively, utilising our resources collectively. Our local partners have the ability to bridge the 'empathy gap' that exists between policy and reality. Their proximity to people gives them a unique position to support the development of our investments and the delivery of the programme. Our delivery needs to be framed within our investment principles and take an asset-based approach.

Local partners will support residents and communities to develop initiatives and schemes that target the barriers and opportunities that have emerged from the insight. An example of this would be Kidz Konnekt, a local young people's charity, co-designing interventions with young people around the social aspects of being active, exploring how young people can act as influencers within their own sphere of social influence, as well as developing appropriate peer support mechanisms that help young people to become active.

The foundation of collaborating with local partners will be creating a culture of outcome-based commissioning; focusing on what we want to achieve not how it should be achieved. We want to create relationships that are based on mutual respect and trust that are bound by service level agreements but create a flexible, negotiated, collaborative approach; moving beyond the usual transactional arrangements that manage the achievement of key performance indicators.

In instances where we do not have an appropriate partner who has the skills or capacity to work with us on specific elements of delivery, we will take a more traditional commissioning and procurement approach to identify a partner who has this ability. This will also apply when specific pieces of work exceeds the financial thresholds outlined in our partnership agreement.

4C. COMMUNITY INVESTMENT PROGRAMME

Whilst our local partnership and processes provide us with a vehicle to maximise opportunities to collaborate and utilise our knowledge, skills and resources at a local level; we also have an even greater opportunity to stimulate innovation and system change at a community level through the creation of a Community Investment Programme.

We know that small investments can lead to significant change. Voluntary and community organisations have the ability to capitalise on small amounts of resource, maximising on volunteers and local good will to treble and quadruple the pound value of investment. Two of our main partners are the voluntary infrastructure organisations for Redcar & Cleveland and Middlesbrough and we have already benefited from their reach and reputations within communities. We wanted the capacity and resource to drill down into local communities to unlock the potential of people and small groups in these places. We believe we have a pool of local talent and creativity that can support our commitment to change the culture and attitude towards physical activity.

Our Community Investment Programme will comply with Sport England's legal and governance requirements but will provide easy access routes to small amounts of funding such as video applications and personal presentations. We will utilise the local voluntary sector to support people with their applications, providing real world experience and expertise, whilst also helping to form new networks and relationships. Monitoring and reporting will be appropriate to the size of grant and it will celebrate effort, commitment and attitude as opposed to performance. This programme will build capacity and trust in communities and will allow people the space and freedom to try something new and engage different people; not the usual sport and physical activity providers. It will build a whole new set of elements into the system.

These different investment mechanisms ensure we can deploy our resources in the most effective manner; not just to delivery discrete pieces of work, but using our investments to build relationships, encourage collaboration, stimulate innovation and facilitate system change.

4D. WE'VE GOT THIS

Creating our movement

It is time for us to take action using the knowledge we gained from our communities. We will continue to build our relationships with key partners and system leaders; this is critical to 'shifting the system' and to build a local, social movement that people feel part of and can take ownership of. Pathfinder and Accelerator support will provide the resources to co-design the future health and wellbeing of our target communities. We will continue to test and learn, ensuring our insight is current and relevant to the issues these communities face.

The legacy of our pilot starts from the moment we connect with people; at all levels of the system. Residents are as important as senior leaders; patients are as important as politicians. To ensure we embed distributed leadership through our place we must see and engage everyone as a potential leader. Over the next 16 months we will deliver three key outcomes;

Work with communities to co-design effective actions to address health inequalities for people and places; learning from what works and what doesn't.

Support and challenge local leaders to shape how we 'shift the system' to support people to become active in a way that 'works for them'.

Build common purpose to create a tangible, visible social movement that creates a personal, social, structural value of physical activity that feeds our aspirations and our vision.

This is our opportunity and our time to change. We understand what system change means locally and we believe we have the capacity, knowledge and commitment to make it happen here, in our place.

4E. APPENDICES

If would like to access any appendices in this document please click on the link below which will take you to all documents referenced:

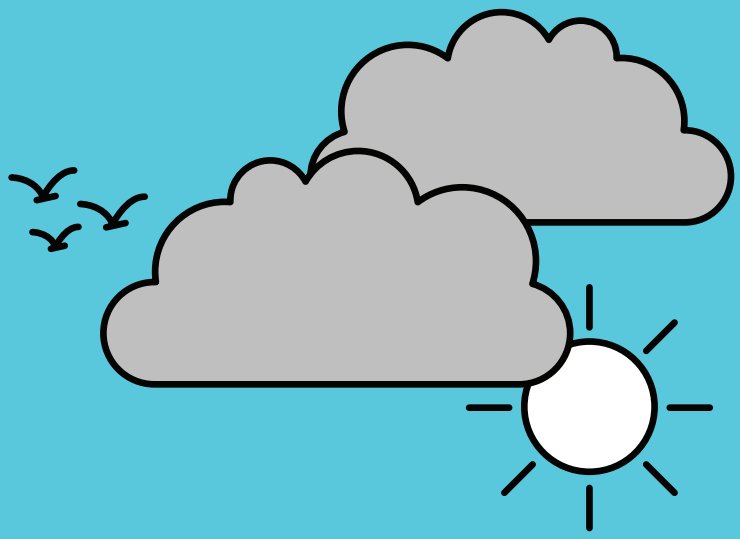
https://drive.google.com/drive/folders/11_RJ2W8vapPiSYIlarraqTgayc1AqjnG?usp=sharing

Agenda Item 7

Director of Public Health Annual Report

Carole Wood, Interim Director of Public Health

PUBLIC HEALTH
SOUTH TEES

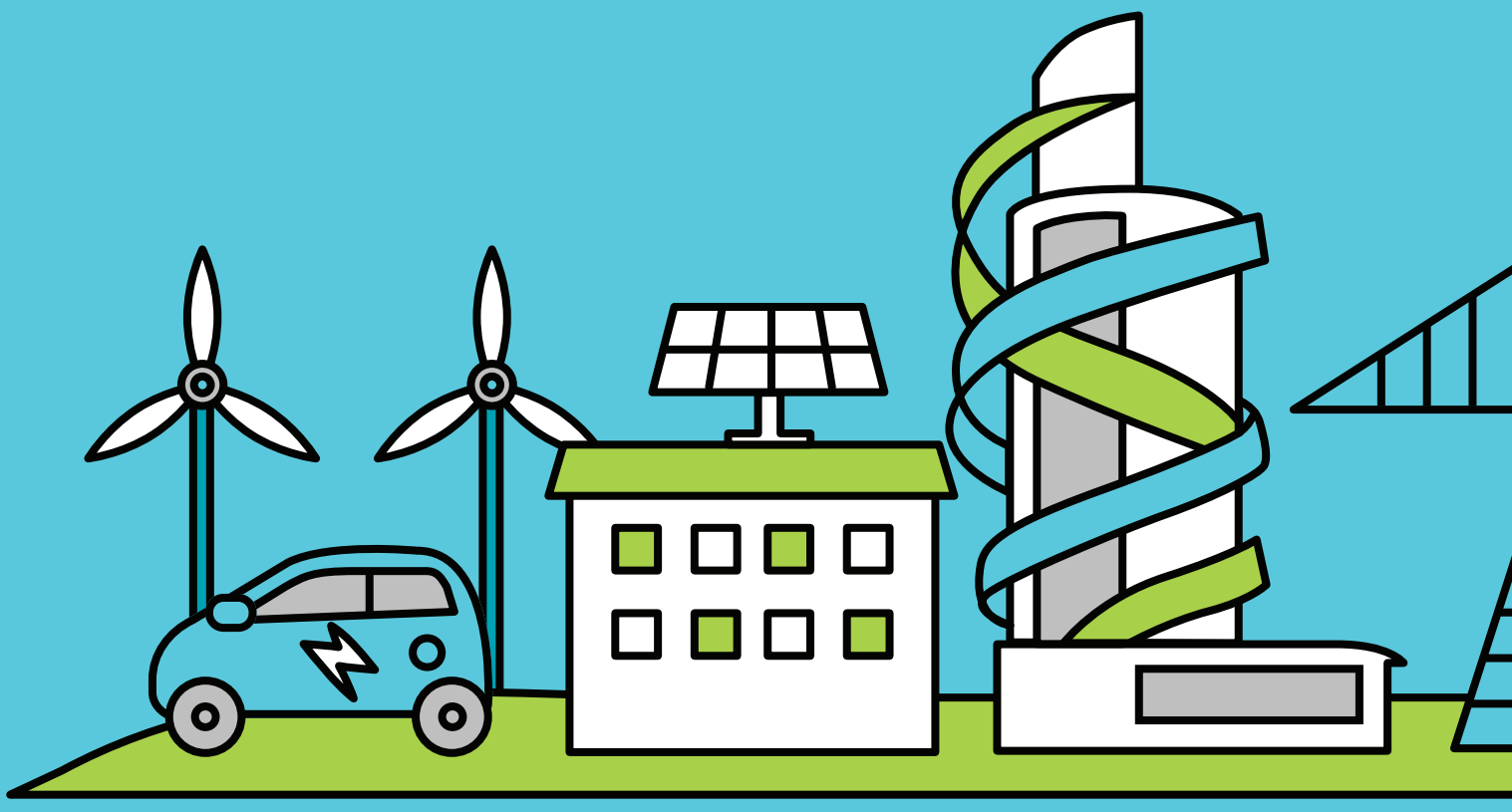


AIR QUALITY IN THE SOUTH TEES:
AS CLEAN AS IT CAN BE

DIRECTOR OF PUBLIC HEALTH ANNUAL REPORT: 2019

Middlesbrough
moving forward

this is
Redcar & Cleveland



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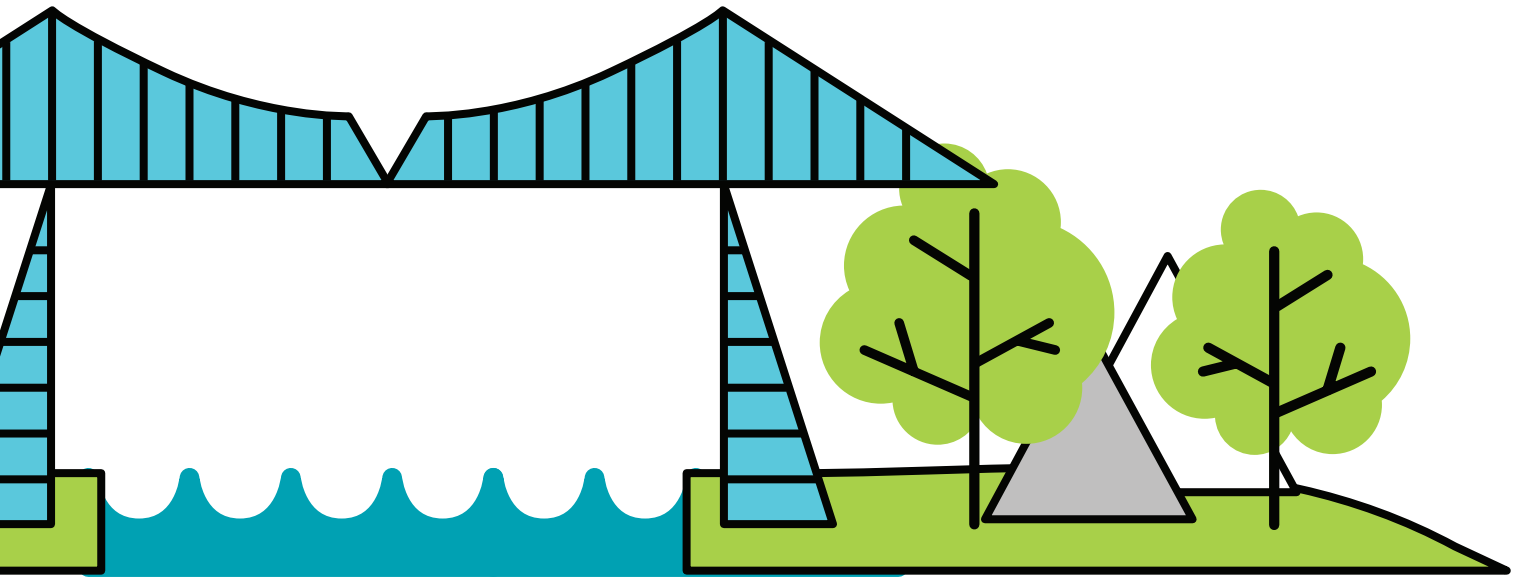
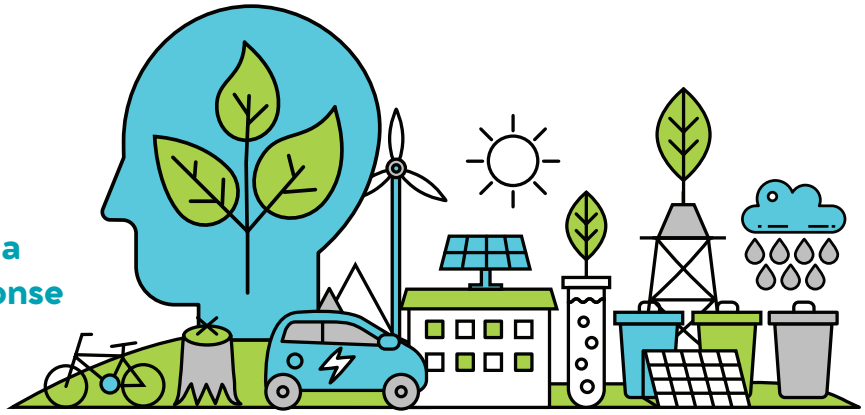


FOREWORD



Air quality is one of the most challenging public health problems in the 21st century and it requires a system-wide and community response to tackle it.

Good air quality plays a key role in good health and it is therefore important that we understand how air quality impacts on health, what contributes to worsening air quality and what action can be taken. While some of the factors which affect air quality impact at international and national levels, there is still a lot of things that can be done at local, community and individual levels to improve the air we breathe in our own neighbourhoods.

This report demonstrates that the air quality in the South Tees is good and meets the legal standards, however to protect the long term health of residents we are aiming to take all available steps to improve further.

Although we all breathe the same air, air pollution affects certain populations disproportionately - the very young, older adults, adults with pre-existing lung and heart conditions and disadvantaged communities. In this report we explore these differences showing how improving air quality is part of addressing the unfairness in health outcomes experienced in the South Tees.

The need for action on air pollution is strongly linked with action needed to tackle climate change and develop more sustainable ways of living. While air pollution can include both indoor and outdoor forms, a key challenge is to change our transport systems to reduce local road-related air pollution, and adopt new ways of getting about. Improving public transport, creating more green space and increasing walking and cycling as part of our daily lives is a key part of this, and will bring other benefits to both physical and mental health.

This report is a call to action to tackle the issue of air pollution in the South Tees. The recommendations set out how residents, communities, businesses and public sector services can work together to improve the air that we breathe. Councils in particular, with their roles in relation to transport, schools, and tobacco control are well placed to implement a variety of solutions with partners that can act to improve air quality. The development of the South Tees Clean Air Strategy is a key recommendation of the report and will bring together a partnership to drive its delivery.

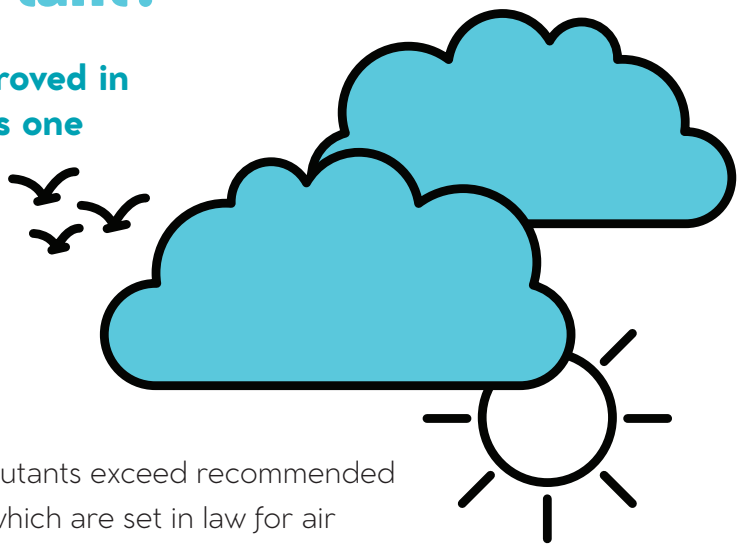
The good news is that we know what we need to do to improve the air we breathe. I hope that this report is the beginning of a collective journey for South Tees residents, communities, businesses and public-sector services to make our air "as clean as it can be."

Carole Wood
Interim Director of Public Health South Tees

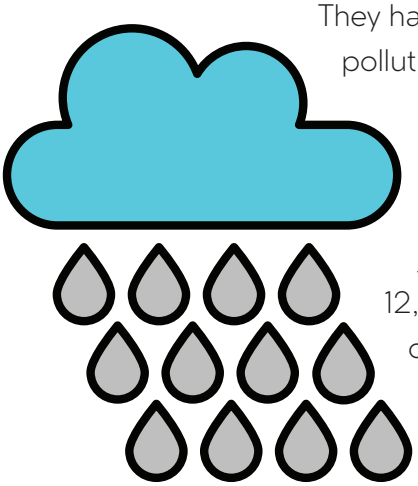
CHAPTER 1.
Why is air quality important?

Air quality in the UK has significantly improved in the last 50 years but air pollution remains one of the biggest environmental risks to health in the South Tees and in England as a whole.

The Public Health England Strategy 2020-2025 has "cleaner air" as one of its top ten priorities.



Air pollution occurs when the amount of certain pollutants exceed recommended levels. There are national and European standards which are set in law for air pollution depending on how they affect human health. However, the International Agency for Research on Cancer (IARC) has classed outdoor air pollution as carcinogenic to humans (a Group 1 carcinogen) and causing lung cancer.



They have declared that there is no clear evidence of a safe level of exposure to air pollution. Therefore, our South Tees strategy is to not just to achieve the national standards for air pollution, it is to continue to reduce air pollution and reduce our resident's exposure to it.

Air pollution is not a new problem to the UK. In 1952 the London smog, four day's of severe air pollution, saw deaths in London increase by 12,000 and a further 100,000 were harmed. This poor air quality was caused by people burning extra fuel to keep warm during a period of cold and still weather. The Clean Air Acts were introduced soon after to prevent events of this scale happening again.

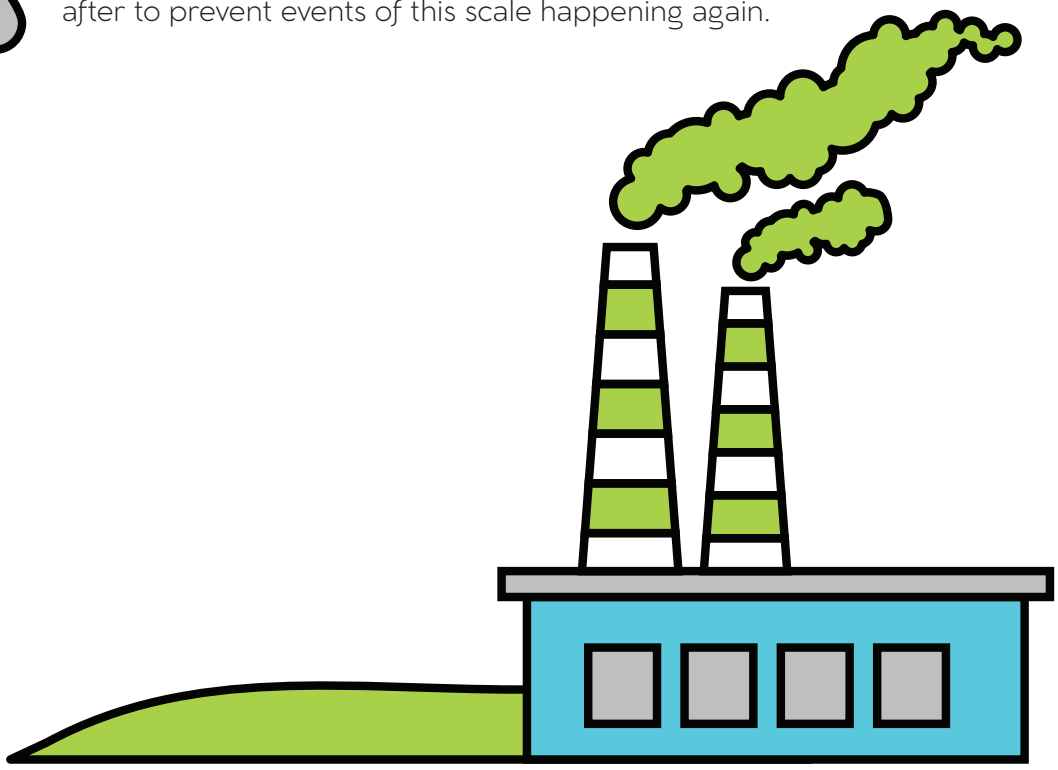
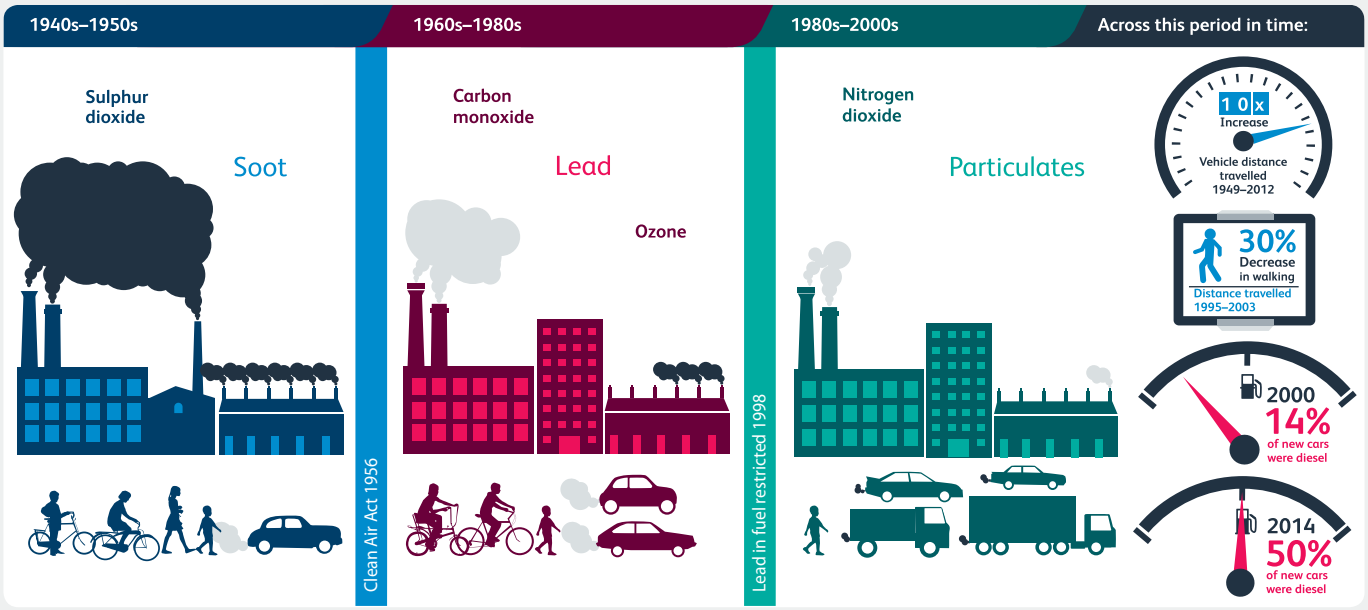


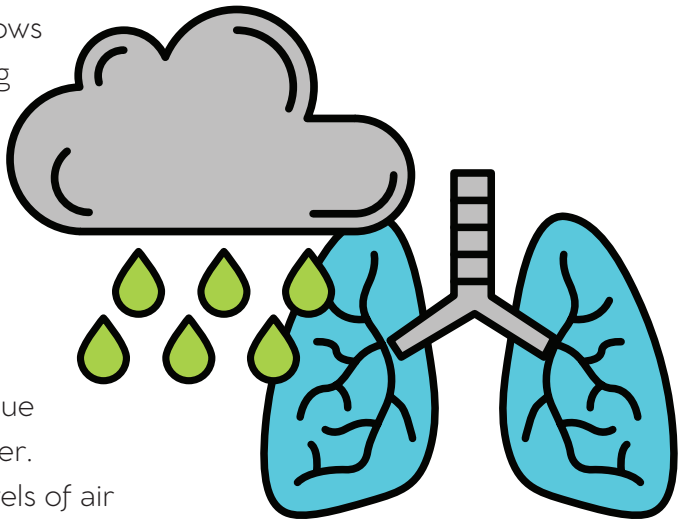
Figure 1: Exposure to pollutants over time



Source - Every Breath We Take: The Lifelong Impact Of Air Pollution. RCP, Feb 2016

Changes in the way we live, social, fuel and technology transitions have driven a huge change in air pollution and how the public exposure to air pollution is controlled. Life in the UK is very different from how it was in the 1950s.

Even though significant progress has been made in improving air quality over time, and the smog and soot of the industrial revolution have diminished, whilst the air may look clearer, further improvement is necessary. There is growing evidence that modern pollutants, such as nitric oxides (NO_x) and particulate matter (PM) are still a significant contributor to preventable ill health and early death.



The evidence of the impact of air pollutants on health shows a multitude of effects that are both wide ranging and long lasting. Every day an average adult takes 20,000 breaths, and moves approximately 11,000 litres of air in and out of their lungs, therefore it is not surprising that even low concentrations of pollutants can have health impacts over time.

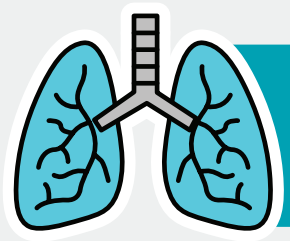
Studies show that long-term exposure to air pollution (over years or lifetimes) reduces life expectancy, mainly due to cardiovascular and respiratory diseases and lung cancer. Short-term exposure (over hours or days) to elevated levels of air pollution can also cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in respiratory and cardiovascular hospital admissions and deaths.

This has led Public Health England (PHE) to identify poor air quality as the largest environmental threat to public health in the UK, contributing to up to 36,000 premature deaths a year.

Figure 2: Scale of the problem

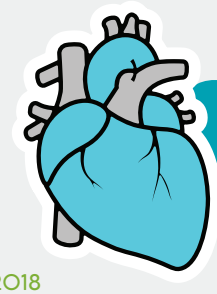
It is estimated that long-term exposure to man-made air pollution in the UK has an annual effect equivalent to:

Over the following 18 years a 1 µg/m3 reduction in fine particulate air pollution in England could prevent around:



50,900 cases of coronary heart disease

16,500 strokes



9,300 cases of asthma

4,200 lung cancers

Source - Health Matters: air pollution. Public Health England, Nov 2018

As well as the personal cost to health, the resultant problems can have impacts on hospital admissions, school attendance, and business productivity, meaning that poor air quality is also associated with substantial financial and societal costs.

- In England, the total NHS and social care cost due to very small particles in the air ($PM_{2.5}$) in 2017 was estimated to be up to £76 million
- In England, the total cost to the NHS and social care due to nitrogen dioxide (NO_2) in 2017 was estimated to be £81 million
- A recent report from PHE estimated that the total NHS and social care cost due to very small particles in the air ($PM_{2.5}$) and nitrogen dioxide (NO_2) was £42.9 million in 2017, and this could rise to £5.3 billion by 2035

A study of the cost effective actions to reduce air pollution in Central London (2012) found that for every £100 spent on measures to improve air quality, there were £620 worth of benefit.

Amongst the measures which were found to be most cost beneficial were initiatives to encourage people to make more journeys by bike or foot.

What can be done at a local level to help improve air quality?

The sources of modern pollution range from transport and other everyday activities such as industrial processes, farming, heating and cleaning homes and generating electricity which also affect air quality. These activities are an essential part of our daily lives and economy and we can't stop them. However, we can make cost effective changes both locally and nationally to make cleaner cities and a greener economy.

The introduction of policies to improve air quality have the potential to reduce and alleviate the costs of poor air quality. Many of the measures which can contribute to improving air quality are also linked to tackling Climate Change and therefore delivered together can have far reaching overall benefits.

Alongside the national measures, local leadership is essential to achieve the changes to improve air quality. Local authorities are well placed to use local knowledge, to interact with communities, develop partnerships and understand the issues on the ground to decide on, develop and implement the appropriate solutions in relation to smoke control, planning and public health. They can also consider air quality in the design of new plans and programmes and when new development or regulatory consents are issued, approaches can be considered that have the greatest potential to benefit air quality and health.

The measures that improve air quality can also offer wider public health and wellbeing co-benefits, including an improvement in overall environmental quality, increased physical activity, reducing injuries and accidents, preventing social isolation, noise reduction, greater road safety and climate change mitigation. Multiple interventions, each producing a small benefit, can act cumulatively to produce significant overall benefits.

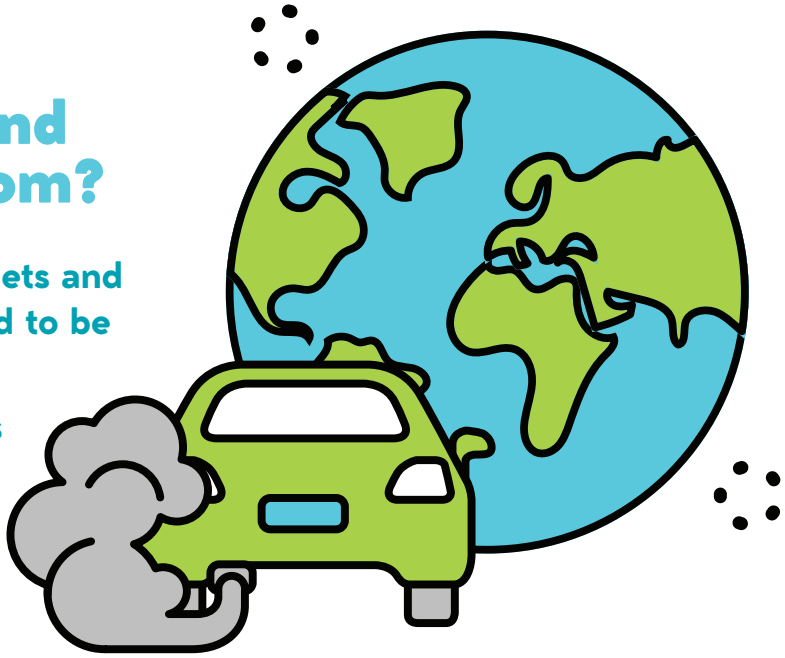
Many people living in poorer areas are often exposed to higher levels of air pollution, they may be more vulnerable to ill health and may suffer a greater negative impact. Therefore, general policies as well as interventions targeted to deprived communities to improve air quality will help to reduce health inequalities across the South Tees.

Key messages:

- Air quality plays a significant role in heath
- The sources of pollution have changed over time
- There is a cost for our health and social care systems as well as for individuals and communities due to air pollution
- Measures to improve air quality are cost effective
- Single interventions produce a small benefit, but added together they produce significant benefits

CHAPTER 2.

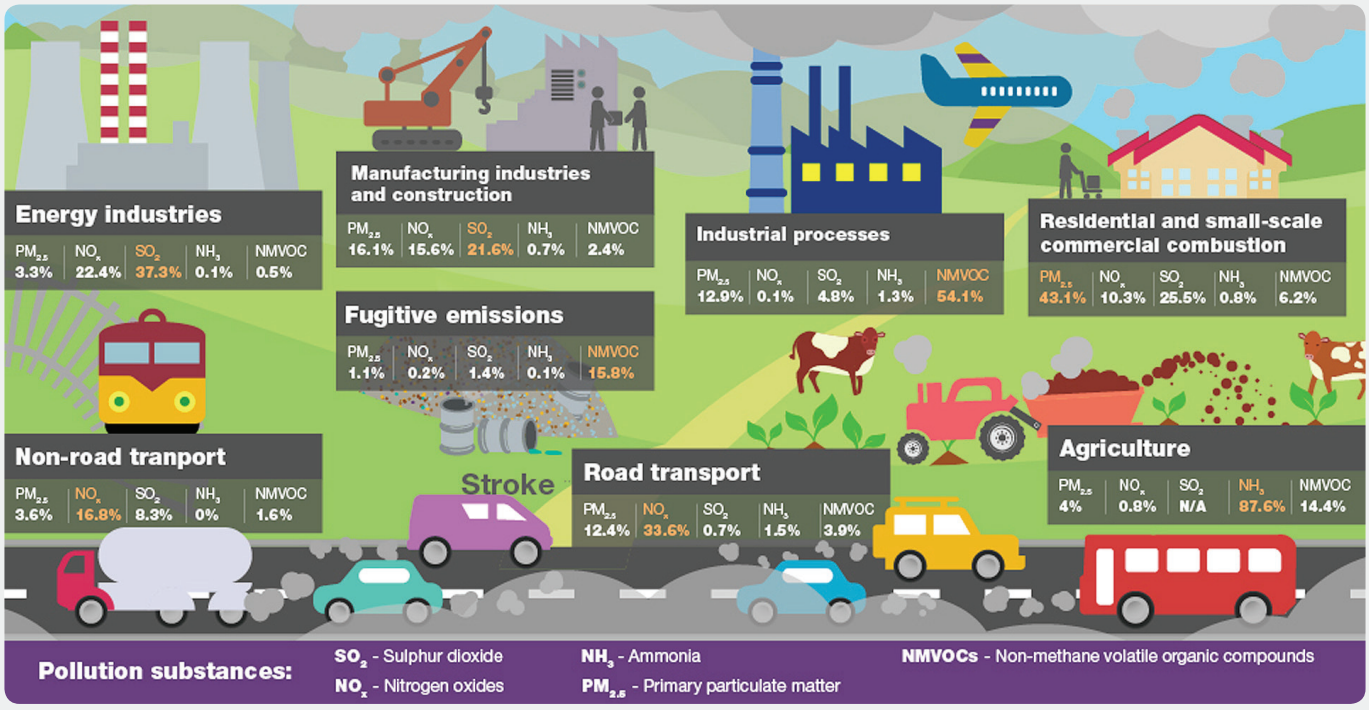
What is air pollution and where does it come from?



Air pollution is made up of gases, droplets and tiny solid particles which are considered to be harmful to health.

Air pollutants may be present outdoors or indoors and they come from a wide range of sources.

Figure 3: Sources of air pollution



Source - Health Matters: air pollution. Public Health England, Nov 2018

Pollutants monitored in the South Tees area

Historically, a wide range of pollutants were monitored in the South Tees. Air quality has improved over time, mainly due to the reduction in pollution from industrial sources along the River Tees estuary and the levels of all pollutants meet the legal standards.

Middlesbrough and Redcar & Cleveland Councils are required by law to review, monitor and assess air quality within their boroughs. Currently, in both areas there are three main pollutants which are at the core of the Local Air Quality Monitoring programme;

- Nitrogen dioxide (NO_2)
- Particulate matter (small particulate matter is PM_{10}, very small particulate matter is $PM_{2.5}$)
- Sulphur dioxide (SO_2)

In addition, in Redcar & Cleveland, ozone (O_3) is closely monitored due to the coastal position of the authority. These pollutants are described in more detail below:

Particulate matter (PM)

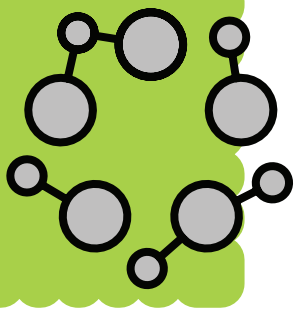
PM consists of finely divided solids or liquids such as dust, ash, soot, smoke, aerosols, fumes, mists and condensing vapours that can be suspended in the air.

PM is an urban background pollutant which often disperses over a large area. PM is naturally occurring, it is produced in different continents and countries and dispersed over vast areas, very much out of our control. In the UK only up to 55% of the total annual average $PM_{2.5}$ levels is generated from within the country, the rest comes from other sources such as Europe and wider.

Particulate matter is defined by its size.

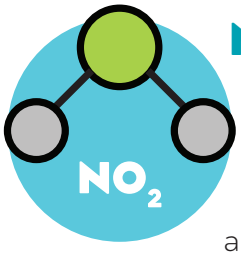
PM_{10} refers to particles that are less than 10 microns in diameter (approximately 5 times smaller than a human hair).

$PM_{2.5}$ refers to particles at least four times smaller than this.



In relation to the particulate matter which is man-made, in cities it is vehicle exhausts, particularly diesel, which are responsible for the majority of PM in the air. The particles are made up from part burnt diesel and petrol, bitumen, rubber and other waste matter from road surfaces. Other significant amounts of PM are created by construction work, engine and brakes wear and tear and domestic wood burners.

38% of PM is produced by UK households burning wood, coal and other solid fuels in open fires and stoves. The shift back towards using wood burning stoves is contributing to a higher proportion of $PM_{2.5}$ levels.

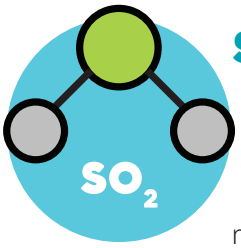


Nitrogen dioxide (NO_2)

Nitrogen dioxide (NO_2) is a gas that is often produced alongside nitric oxide (NO) by combustion processes. Together these are often referred to as oxides of nitrogen (NOx).

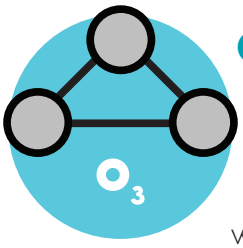
In the UK, 80% are due to vehicle emissions, particularly diesel light duty vehicles (cars and vans).The number of these vehicles have increased significantly over the last ten years. In addition the recent Volkswagen car emission scandal revealed that the emissions of many of these vehicles are higher than previously thought.

The UK Government has been taking action to reduce NO_2 levels in a number of towns and cities in the UK where levels have been found to be exceeding the air quality standards.



Sulphur dioxide (SO_2)

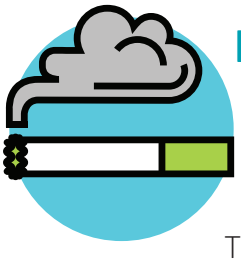
Sulphur dioxide is a gas produced by the burning of fossil fuels. Over the years the levels of SO_2 have reduced due to the reduction in the burning of coal and controls on industry processes for the release of pollutants into the air. Sulphur dioxide is a respiratory irritant - affecting people's breathing. People with asthma are most sensitive to this pollutant.



Ozone (O_3)

Ozone is produced from a combination of natural and human processes. It is not released from a single source, however it is made in the environment by the reactions between chemicals and other air pollutants in the presence of sunlight. During some weather conditions when air quality is poor, ozone can react with nitrogen dioxide and other pollutants which results in increased particulate matter (smog). Ozone levels cannot be controlled or managed locally, but it is monitored to alert the vulnerable if levels are high.

With respect to health issues, Ozone can irritate and inflame the lungs, irritate the eyes, nose and throat which can lead to cough and chest discomfort. Ozone at ground level is a harmful air pollutant. Ozone also causes distress to vegetation.



Indoor air quality

Most attention is focussed on poor outdoor air quality however, as we spend up to 90% of our time indoors, it is important to consider the quality of the indoor air we breathe and do all we can to keep it clean.

There are a number of indoor air pollutants which can be released from boilers or cleaning products, however, the most important indoor air pollutant, is second hand smoke (SHS). Second hand smoke is exhaled by smokers or given off by burning cigarettes, cigars, shisha pipes etc., which is then inhaled by others.

Whilst legislation has been put in place to control exposure in public places, we need to continue to educate people about controlling or reducing exposure to SHS in the home environment. This is particularly important to prevent the exposure of children, pregnant women and the unborn child to SHS.

The use of electronic cigarettes is increasing and whilst this is considered to be considerably less risky in terms of impact on health of the smoker and exposure to second hand smoke, the long term health impact of using electronic cigarettes is unknown.

Risks associated with smoking are generally well known.

Researchers in the Netherlands developed a method that expresses the health effects of air pollution as an equivalent number of daily passively smoked cigarettes.

Applying it to the yearly average $PM_{2.5}$ levels of 10ug/m^3 at a busy road (A66), shows that a person standing on a kerbside would have the same risk to long-term health as passively smoking 5.5 cigarettes a day.

Key messages:

There are a number of key pollutants that impact on air quality

The main contributors to outdoor air pollution include diesel vehicles and wood burning stoves

Indoor air quality is important too, the most harmful cause of indoor air pollution is smoking

CHAPTER 3.

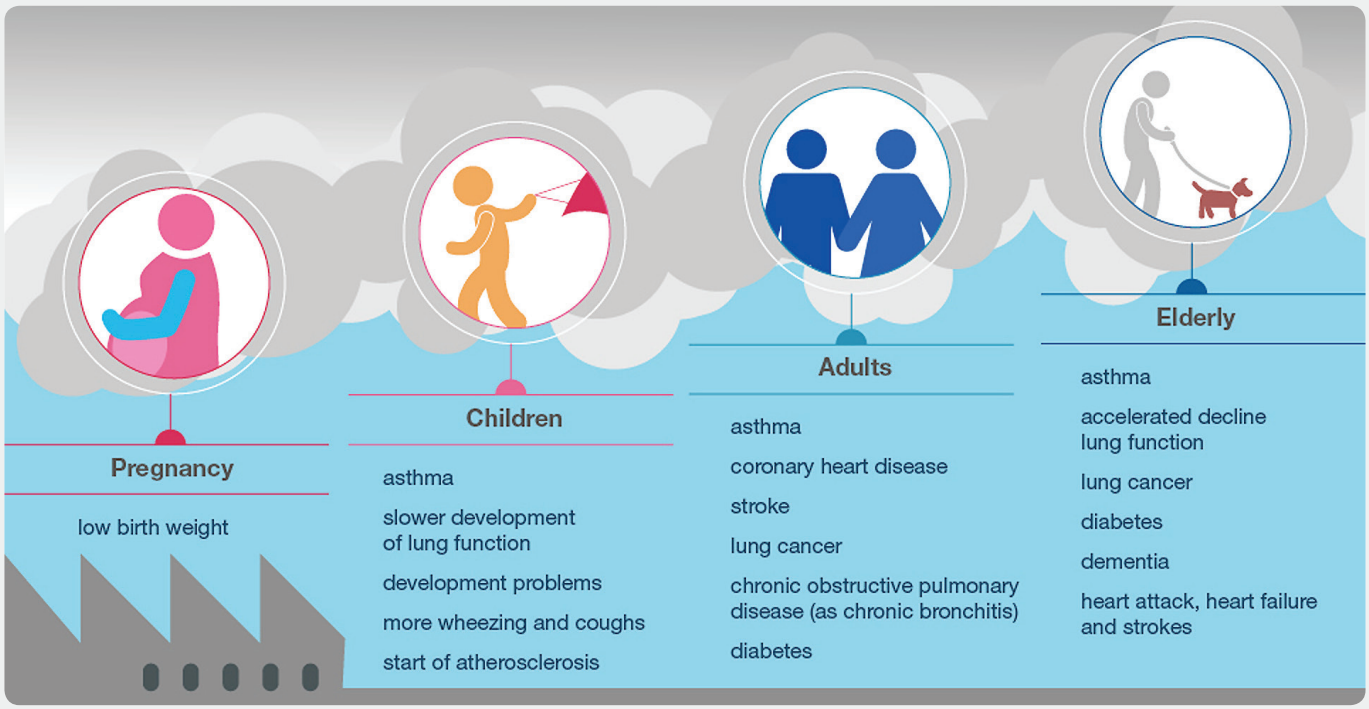
How does air quality affect health?

The risks of ill health to those people who are exposed to air pollution are dependent upon a range of factors; the health of the person, type of pollution, concentration and the length of time the person is exposed. The effects of air pollution can also be short-term or long-term.

Remember: Whilst there are national and European standards set for air pollution levels, which the South Tees meets, there is currently no clear evidence of a safe level of exposure to air pollutants.

The damage to health depends on the type of air pollutant that a person breathes. There are also some groups of people who are at greater risk from poor air quality i.e. babies and children including unborn babies, older people and those with existing medical conditions. It also depends on whether it is caused by exposure at home, at work or in the area in which they live, those who work outdoors or those who exercise frequently outside.

Figure 4: Air pollution affects people throughout their lifetime



Source - Health Matters: air pollution. Public Health England, Nov 2018

The air pollutants that are mainly responsible for affecting our health are nitrogen dioxide (NO_2) and particulate matter (PM).

How nitrogen dioxide (NO_2) affects health

Nitrogen dioxide causes irritation when it reaches the tissues in the airway. When concentrations are high a person may find that their eyes or nose may stream, they develop a new cough or an existing cough worsens. Those who have asthma may suffer from more severe symptoms and even trigger an attack. Those prone to chest infections may develop one.

Babies and children who live in areas with constant high levels on NO_2 are more likely to experience impaired lung development and are at a greater risk of developing breathing problems as an adult including the higher risk of developing asthma.

The NO_2 link to developing asthma is the most significant risk, whilst there is emerging evidence linking it to a cause of dementia, diabetes, lung cancer and low birth weight.

How particulate matter (PM) affects health

The human body provides natural protection against breathing in particulates in the air, however the fine and ultrafine types of particulate matter PM_{10}, $PM_{2.5}$ and even smaller particulates can pass through the lungs and enter the body's circulatory systems, meaning they have the strongest link to damaging health.

Evidence suggests that breathing in $PM_{2.5}$ increases the risk of developing heart disease, stroke, asthma and lung cancer.

Short-term - in high concentrations both NO_2 and PM can be a direct irritant to an individual. It can worsen breathing difficulties and irritates the eyes, nose and throat.

Poor air quality has also been associated with hospital admissions for asthma and chronic pulmonary disease (COPD).

Long-term effects of air pollution can accumulate during a person's lifetime leading to a variety of health problems or even death. In England, the Committee of the Medical Effects of Air Pollutants (COMEAP) estimated that NOx and $PM_{2.5}$ contribute to over 40,000 deaths per year.

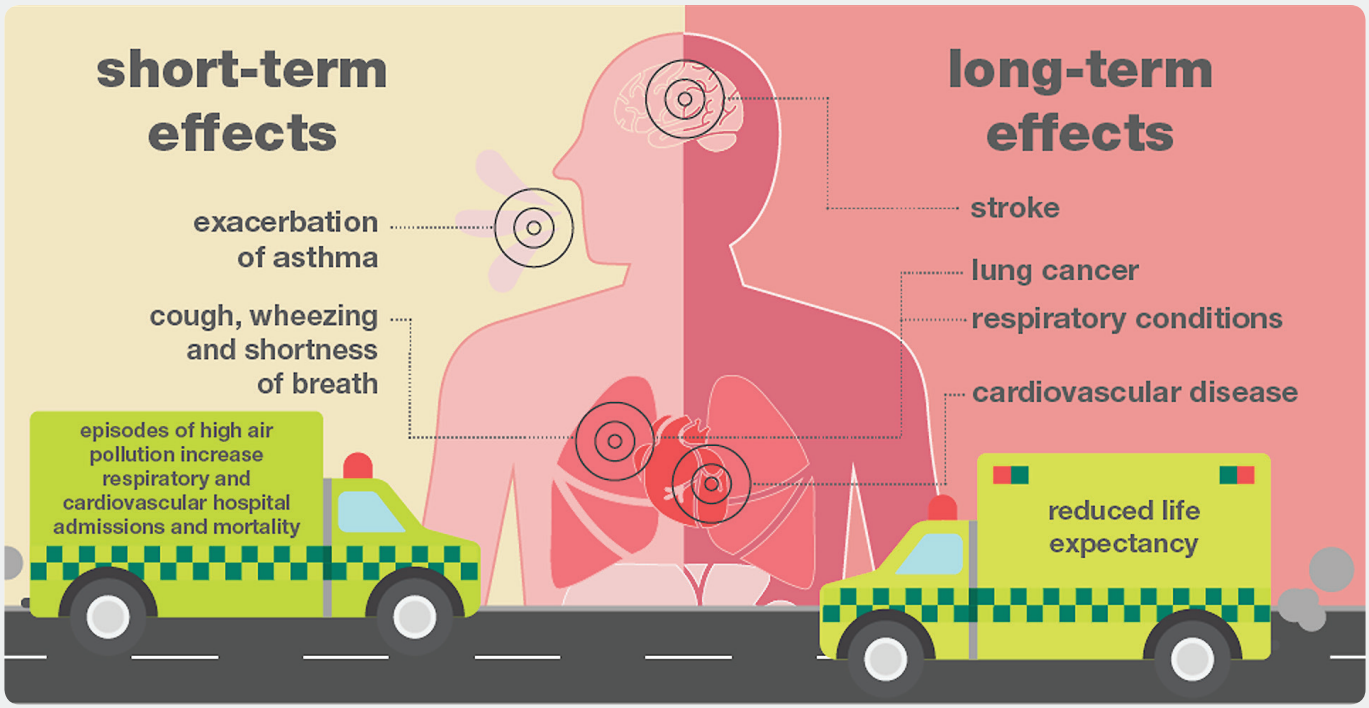
https://www.gov.uk/government/groups/committee-on-the-medical-effects-of-air-pollutants-comeap

Poor air quality does not just affect physical health but it can also be associated with affecting the emotional health and wellbeing of an individual. Long-term exposure to poor air quality can result in depression, anxiety and irritability. In turn this can affect the behaviour of a person, such as exercising and socialising.

When air quality worsens, there is an increased risk of stroke, heart disease, lung cancer, and chronic and acute respiratory diseases, including asthma increases for the people who live in those areas. When air quality improves, respiratory and cardiovascular-related illnesses decrease.

Concentrations of $PM_{2.5}$ can vary due to seasonal variations in the weather conditions, bonfires, farming practices, moorland burning etc thereby affecting a population differently at different times of the year.

Figure 5: Health effects of air pollution



Source - Health Matters: air pollution. PHE, Nov 2018

How many deaths could be prevented in the South Tees if there was no air pollution?

Air pollution rarely kills people on its own, it contributes to and makes existing illnesses worse. Poor air quality shortens people's lives.

We can estimate the number of deaths that would be prevented in a population if the exposure (in this case air pollution) were removed. "Attributable mortality" is a tool which can be used to estimate this. Using this tool it is estimated that if there was no air pollution 127 deaths would be prevented.

Compared with England, Middlesbrough and Redcar & Cleveland's fraction of attributable mortality is lower (5.1%). How air quality contributes to mortality and morbidity has not previously been as recognised as other similar risk factors such as alcohol and communicable disease.

Key messages:

- There is no safe level of exposure to air pollution
- Some people are at greater risk than others from poor air quality
- Air pollution can cause short and long term health effects

CHAPTER 4.
Health inequalities

People living on low incomes are more likely to live closer to busy roads and industry and therefore they may be exposed to higher levels of pollution.

Low income groups are also more likely to suffer from preventable long-term conditions such as heart disease, lung disease and cancer and these conditions can make them more susceptible to the harm caused by air pollution.

Therefore, the same level of exposure to air pollution will have a greater negative impact on the health of people living in disadvantaged areas than those who live in less disadvantaged areas.

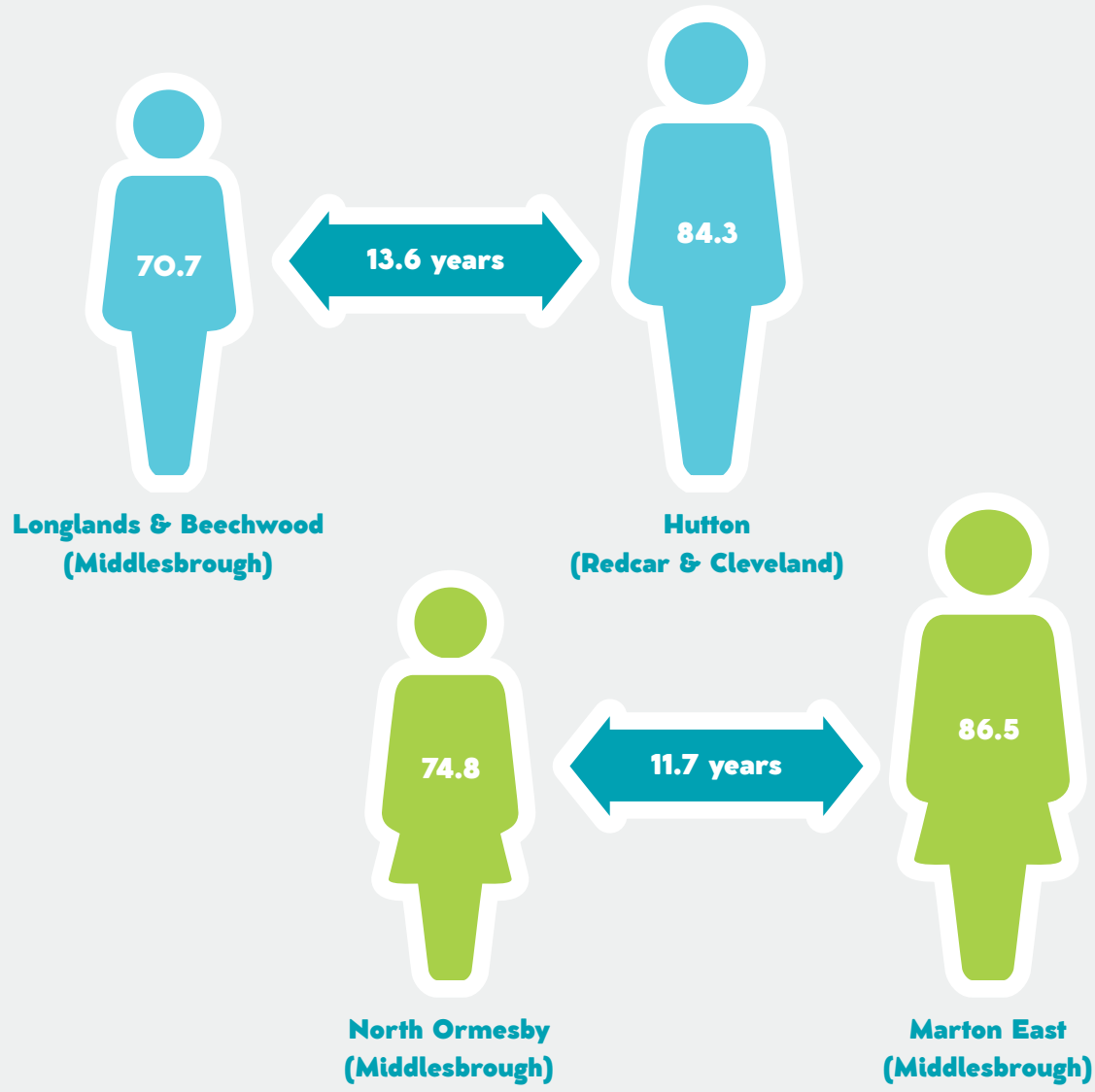
It is difficult to estimate the impact of poor air quality on the health of the population of the South Tees for the following reasons;

- There are no routine statistics which measure the combined health effects of the main air pollutants
- Air pollution is not currently recorded as a contributing cause of death on a person's death certificate
- The exposure to air pollution is a risk factor for a range of health problems, higher pollution over a longer period adds to the harm from other common risk factors such as smoking, alcohol intake, diet and obesity
- Air quality was worse in the past, some health problems seen today are attributed to the poorer air people lived or worked in many years ago and not current air quality

The health inequalities between men and women living in the South Tees

Healthy life expectancy is unequal between men and women, and between different areas in the South Tees. The health of some groups and life expectancy follows patterns of social advantage with a 13.6 year gap in life expectancy for males and 11.7 year gap for females between some of the most and least deprived wards in the South Tees.

Figure 6: Life expectancy at birth by Ward in the South Tees (2013-17)

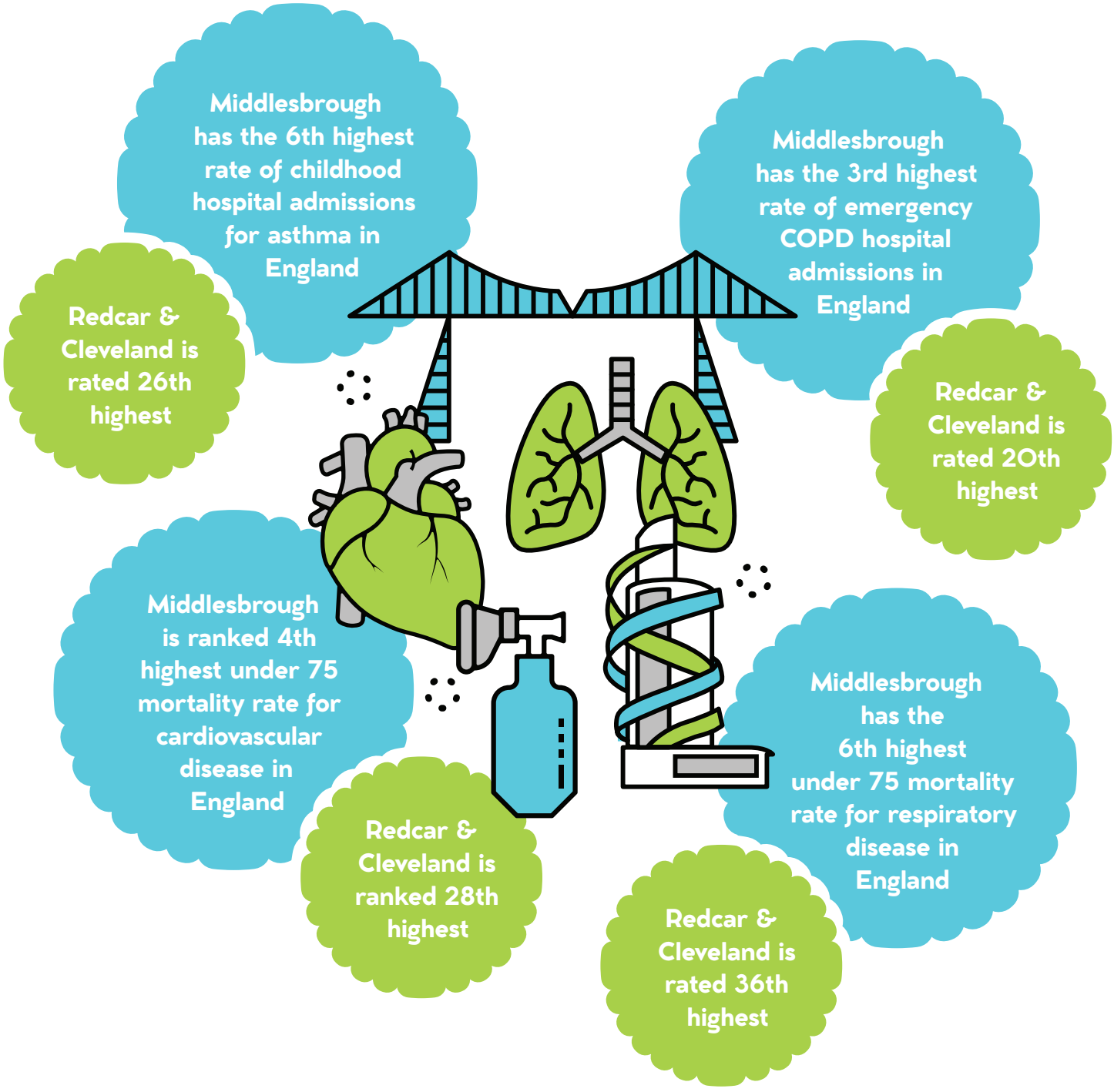


Source - Local Health, Public Health England

The health inequalities between different communities in the South Tees

In disadvantaged communities people are more likely to develop long-term health conditions and experience health problems earlier on in life. People in the most disadvantaged communities have a 60% higher prevalence than those in the least deprived areas. The main health conditions that people die from prematurely locally are cancer, circulatory diseases and respiratory diseases. Together these account for around 71% of premature deaths.

Health outcomes amongst some of the South Tees populations are poorer than average and people often have multiple health issues. These are reflected in some of our local health statistics:



It is likely that poor air quality contributes to these and a whole range of other health conditions.

Those at risk from air pollution varies considerably across the wards in the South Tees. The table below shows the rates of hospital admissions for COPD, heart disease and stroke and lung cancer incidence and comparisons against the England average. There are some wards where rates are more than four times higher than the national average and some wards where rates are significantly lower.

Figure 7: Hospital admissions due to conditions related to air quality in South Tees

Area	Emergency Hospital Admissions*			Lung Cancer Incidence **
	COPD	Heart Disease	Stroke	
England	100.0	100.0	100.0	100.0
Middlesbrough	**211.8**	**110.3**	**129.0**	**169.5**
Acklam	58.3	64.5	94.6	90.9
Ayresome	186.1	112.5	108.9	226.2
Berwick Hills & Pallister	381.8	146.4	156.0	242.1
Brambles & Thorntree	450.7	150.5	145.5	251.6
Central	328.0	197.5	193.1	241.0
Coulby Newham	166.9	84.9	135.0	148.9
Hemlington	173.4	105.2	114.6	144.6
Kader	56.2	70.9	97.2	97.4
Ladgate	159.4	46.8	117.8	156.8
Linthorpe	140.9	128.6	123.2	136.0
Longlands & Beechwood	369.2	144.9	158.8	211.5
Marton East	62.8	78.0	110.7	109.1
Marton West	55.2	67.7	117.0	78.7
Newport	382.2	154.8	153.7	270.8
North Ormesby	451.1	162.2	154.0	251.6
Nunthorpe	62.8	78.0	110.7	109.1
Park	152.0	108.1	132.9	166.7
Park End & Beckfield	403.4	135.9	134.4	234.9
Stainton & Thornton	173.4	105.2	114.6	144.6
Trimdon	71.5	82.1	121.3	108.7

Area	Emergency Hospital Admissions*			Lung Cancer Incidence **
	COPD	Heart Disease	Stroke	
England	100.0	100.0	100.0	100.0
Redcar & Cleveland	**157.0**	**88.9**	**114.1**	**136.3**
Brotton	105.7	81.8	94.5	101.8
Coatham	188.4	109.1	144.4	198.3
Dormanstown	185.7	101.2	112.0	162.6
Eston	215.6	117.7	134.3	178.7
Grangetown	481.5	105.0	187.6	234.3
Guisborough	225.0	70.2	110.8	135.3
Hutton	60.3	70.6	102.4	65.5
Kirkleatham	205.0	87.7	156.6	130.5
Lockwood	149.9	65.5	104.2	104.2
Loftus	163.0	74.3	111.8	107.5
Longbeck	110.4	92.5	88.5	121.0
Newcomen	159.5	89.9	124.8	183.8
Normanby	157.5	106.4	111.1	127.4
Ormesby	134.3	94.0	109.6	165.9
Saltburn	83.4	87.1	96.9	124.3
Skelton	152.0	106.0	112.3	174.3
South Bank	225.6	87.7	117.4	166.9
St Germain's	110.4	92.5	88.5	121.0
Teesville	262.8	105.4	137.9	191.4
West Dyke	92.2	70.7	102.1	96.8
Westworth	89.3	59.9	105.9	86.7
Zetland	119.7	81.9	114.7	125.8

* Standardised Admission Ratio (SAR) estimate of admission rates relative to the national pattern and takes into account differences in a population's age and sex

** Standardised Incidence Ratio (SIR)

Source - Local Health, Public Health England

Key messages:

Some groups are more likely to experience greater harm from pollution - e.g. it can worsen some health problems which are more common in our poorest areas

There are significant levels of inequality across communities in the South Tees

This scale of this harm is linked with deprivation, our more deprived communities would benefit the most from improved quality air

CHAPTER 5.
How good is the air in the South Tees?

The geography of Middlesbrough and Redcar & Cleveland local authority areas is very different. Middlesbrough is a compact urban area whilst Redcar & Cleveland covers a much wider rural landscape which also incorporates full coastal coverage across the east of the borough.

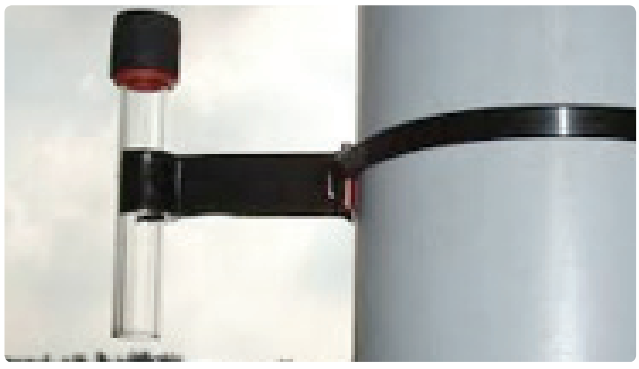
Although there are differences, there are common sources of air pollution arising from traffic utilising shared roadways which run through both authorities, domestic heating appliances and industrial chimney stack emissions. In both local authorities the primary source of air pollution is from traffic sources, however in Redcar & Cleveland, there are additional sources including the coastal influence which has the potential for high levels of naturally occurring particulates during times of strong north-easterly weather.

How is air pollution monitored in the South Tees?

Air pollution is monitored at three static monitoring stations. Two are located in Middlesbrough at Breckon Hill School and Macmillan College and one in Redcar & Cleveland located in Dormanstown. These stations measure particulate matter (PM_{10} and $PM_{2.5}$), oxides of nitrogen (NOx), sulphur dioxide (SO_2) and ozone (O_3).

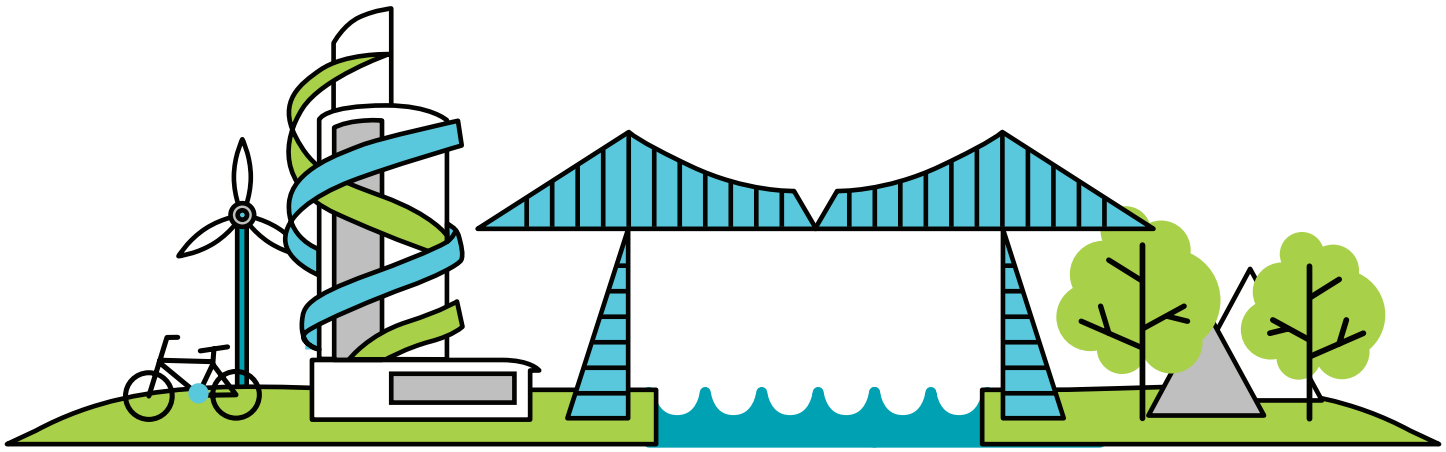
They are automatic monitoring stations which means that their data automatically feeds hourly and daily into a national monitoring network and is available to view on the Defra website uk-air.defra.gov.uk.

Examples of South Tees air quality monitoring equipment



In 2018, in addition to the automated monitoring a network of 43 diffusion tubes were located across the South Tees.

Diffusion tubes use simple technology to measure the levels of NO_2 in the air. Every month the tubes are swapped for new ones and the exposed tubes are sent away to a specialist laboratory to find out how much NO_2 was in the air during this period.



How good is the air in the South Tees?

The measurements from both the automated stations and the diffusion tubes show that the air quality in the South Tees area is good.

When local authorities finds that air pollution is too high they are required to declare an Air Quality Management Area (AQMA) and have plans in place to reduce air pollution. Neither Middlesbrough or Redcar & Cleveland have been required to declare an AQMA. Every year both local authorities submit their Air Quality Annual Status Reports (ASR's) to Defra to provide assurance that the measurements undertaken and conclusions reached are acceptable for all sources and pollutants.

Particulate matter, nitrogen dioxide, sulphur dioxide, and ozone are the pollutants of the most concern from a health perspective, and are focussed on in these reports.

The ASR for 2019 and previous reports can be found at:

Middlesbrough:
https://tinyurl.com/ASRmbro

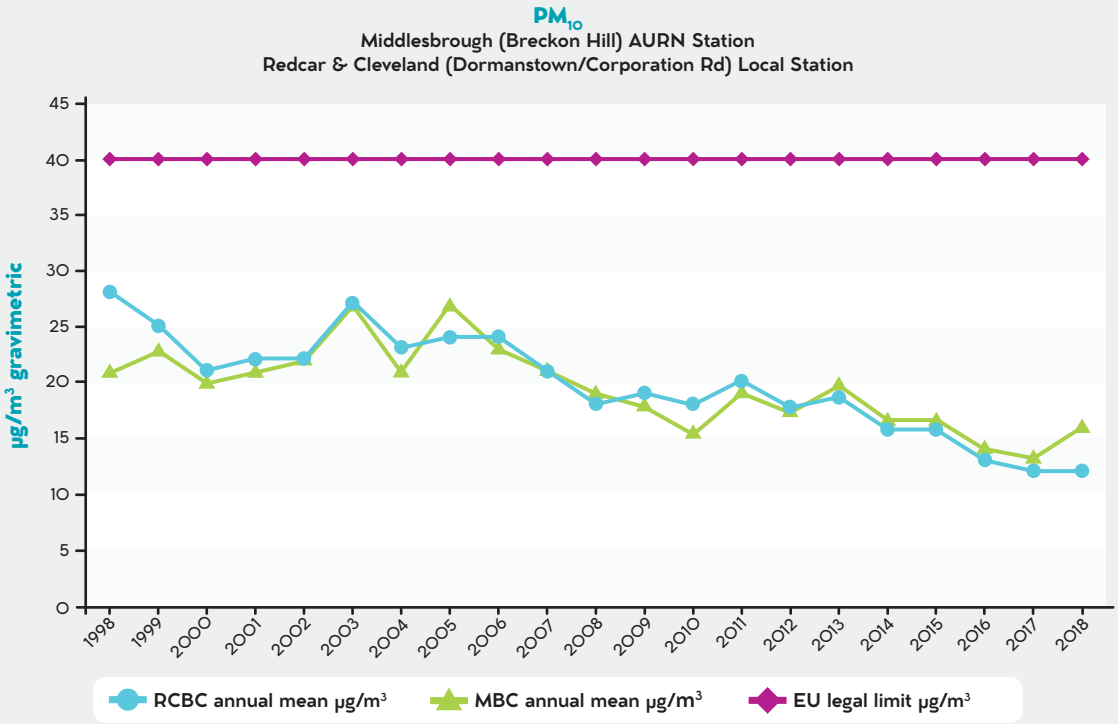
Redcar & Cleveland:
https://tinyurl.com/ASRredcar

Particulate matter ($PM_{2.5}$ and PM_{10}) in the South Tees

The following graphs show the trend in the annual average levels of PM_{10} and $PM_{2.5}$ in the South Tees authorities.

Figure 8: The trend in levels of $PM_{2.5}$ in Middlesbrough and Redcar & Cleveland

Figure 9: The trend in levels of PM_{10} in Middlesbrough and Redcar & Cleveland



The level of µg/m³ shown on the graphs is the EU legal standard for $PM_{2.5}$ and PM_{10}.

What does this information mean?

- These graphs show that the levels of particulate matter have been reducing over the years and they are well below the national legal standard in both Middlesbrough and Redcar & Cleveland
- In Middlesbrough, the PM_{10} average has fallen by 24% in the last 20 years
- In Redcar & Cleveland, the average PM_{10} has halved in the last 20 years

How do the levels of particulate matter across the South Tees compare with the rest of the United Kingdom?

Figure 10 and 11 show the levels of $PM_{2.5}$ and PM_{10} across the country and show that the South Tees have some of the lowest levels in the country.

Figure 10: Particulate matter (PM_{10}) national map, 2018

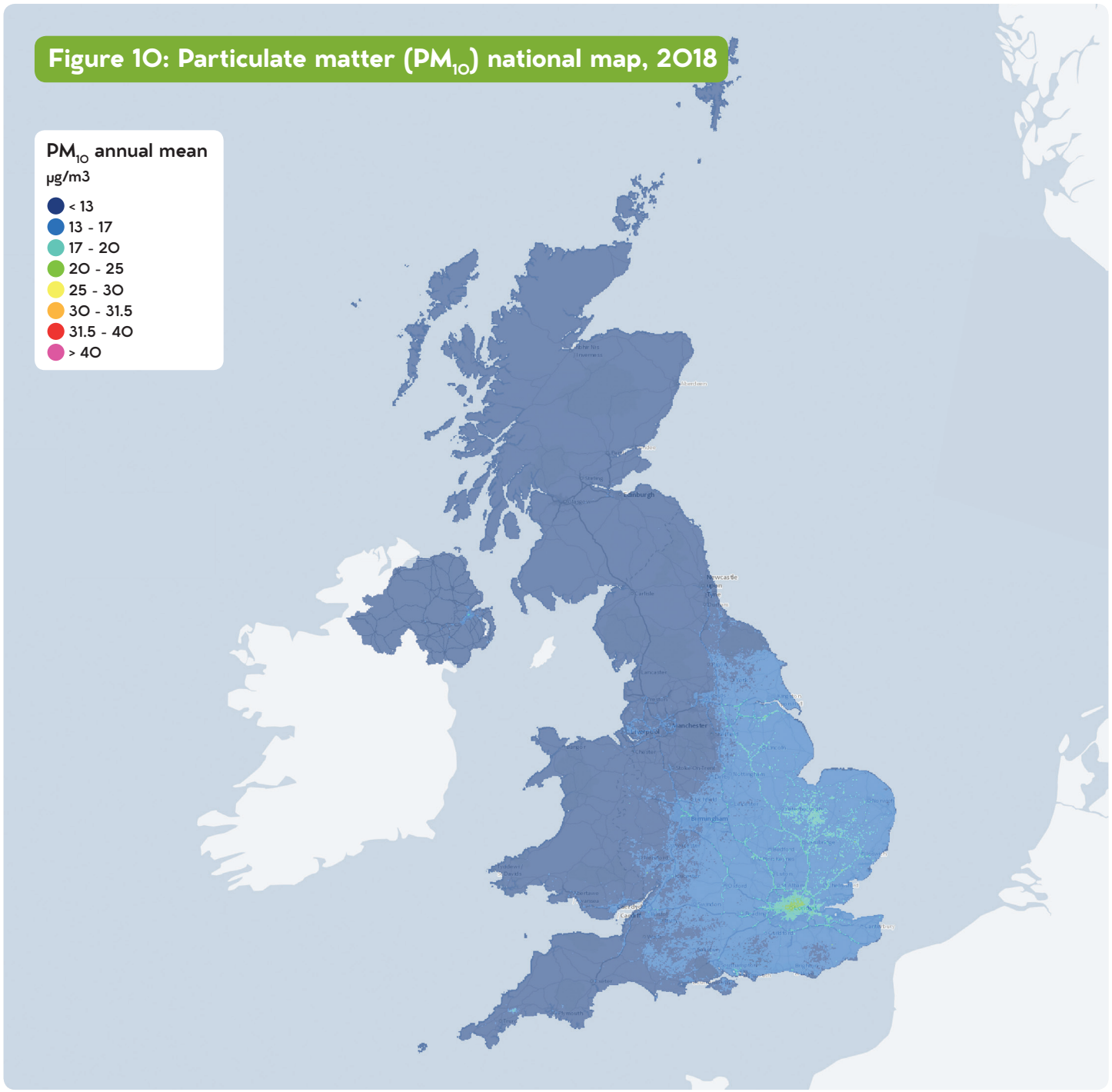
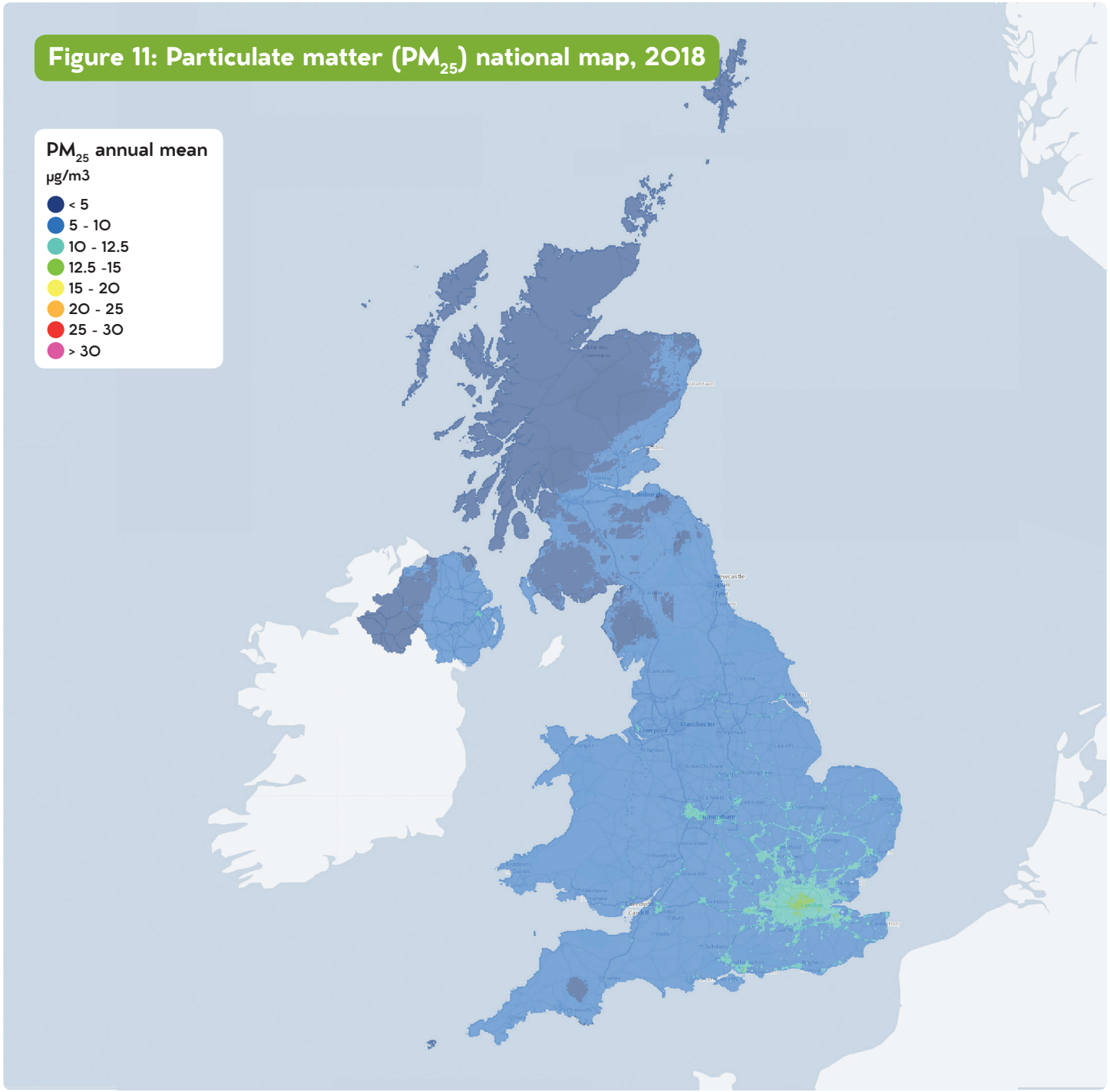


Figure 11: Particulate matter (PM_{25}) national map, 2018



However, as figure 12 and 13 show there is one occasion each year when the levels of PM rise significantly due to the higher than usual levels of open burning!

Figure 12: Particulate matter (PM_{10}) Bonfire Night peaks in Middlesbrough

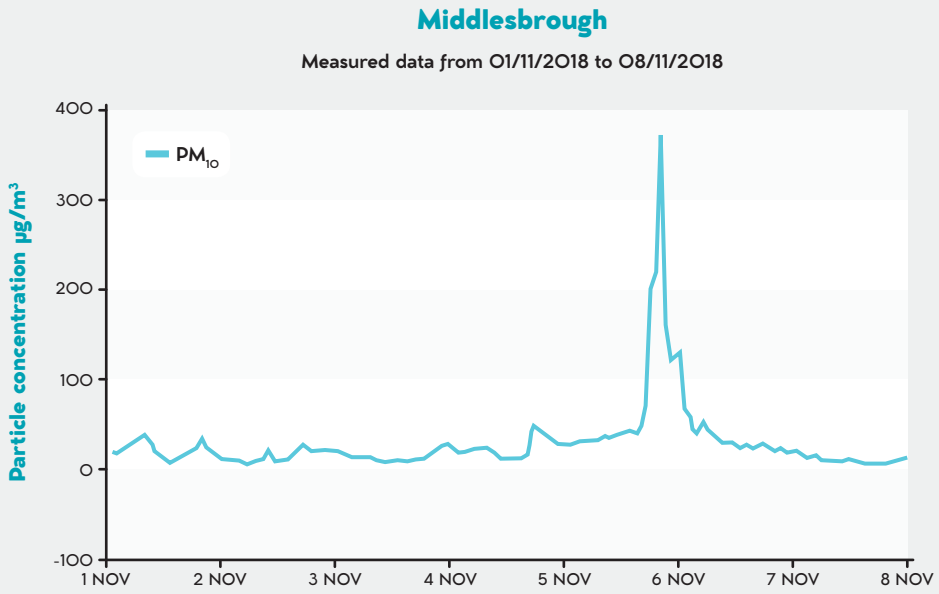
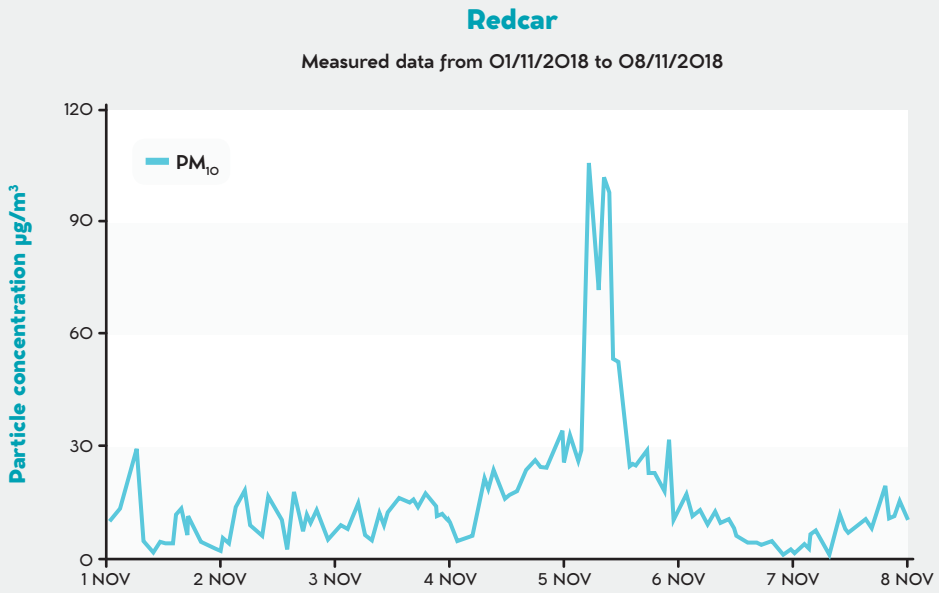


Figure 13: Particulate matter (PM_{10}) Bonfire Night peaks in Redcar & Cleveland

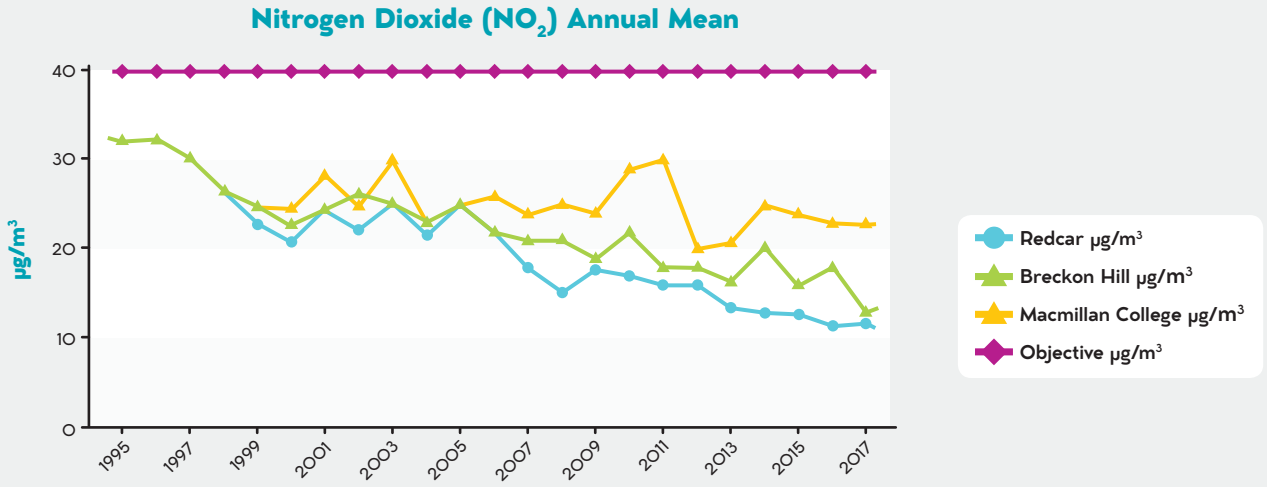


Although there has been a significant reduction in PM_{10} levels across both authorities, due to the association with serious long term health problems, it is our priority to continue to reduce to even lower levels.

Nitrogen Dioxide (NO_2) in the South Tees

Figure 14 shows the trend in the average levels of NO_2 in Middlesbrough and Redcar & Cleveland measured at the automated sites. Middlesbrough has two sites where the levels of NO_2 are measured, and there is one site in Redcar & Cleveland.

Figure 14: Nitrogen dioxide levels in Middlesbrough and Redcar & Cleveland since 1995



The level of 40µg/m^3 shown on the graph is the legal UK standard for NO_2.The diffusion tubes located across the South Tees also provide measurements of the levels of NO_2 across the area.

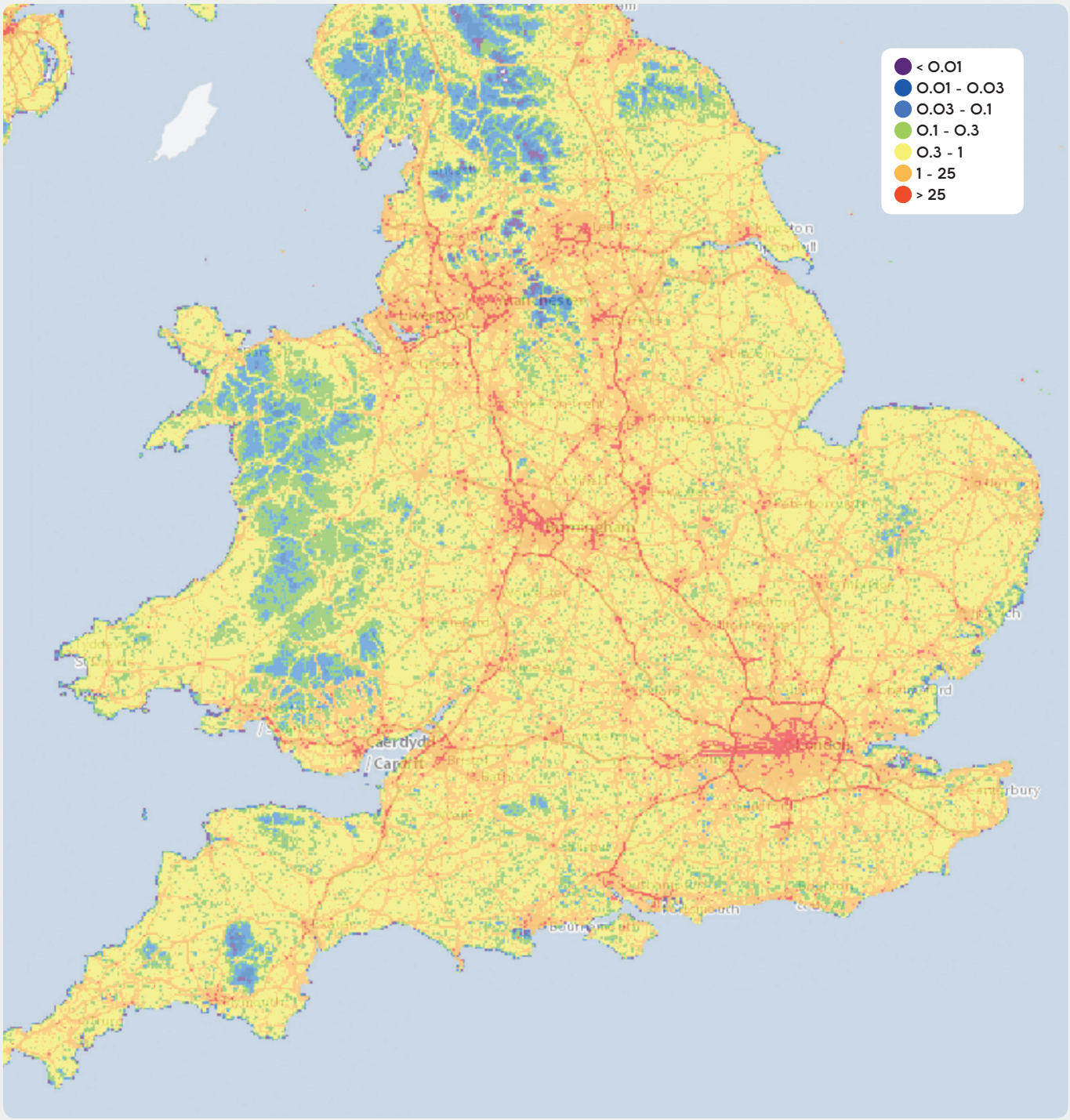
What does this information mean?

- These graphs show that the levels of nitrogen dioxide have been reducing over the years
- The annual average levels of NO_2 across the South Tees are well below the national standard

What are the NO_2 levels like in the rest of the UK?

Figure 15 shows the levels of NO_2 pollution measured on major road networks across the UK. It clearly shows the impact of transport on the levels of this pollutant and why London is so often in the headlines about its NO_2 levels.

Figure 15: NO_2 pollution across UK major road networks



Source: https://naei.beis.gov.uk/emissionsapp

In Middlesbrough in 2017, as part of the UK Government's Plan to tackle levels of NO_2 two main transport routes on the A66/A19 were identified as potentially exceeding the national standard for NO_2. In July 2017 the council started a process of local air quality modelling to establish the NO_2 levels and to develop a local NO_2 Air Quality Action Plan. In December 2018 the Secretary of State confirmed that the two locations in Middlesbrough met the air quality standard for NO_2 and that no further action was needed. Air quality monitoring is still required and it will continue at the two identified transport routes to ensure levels are within the standard.

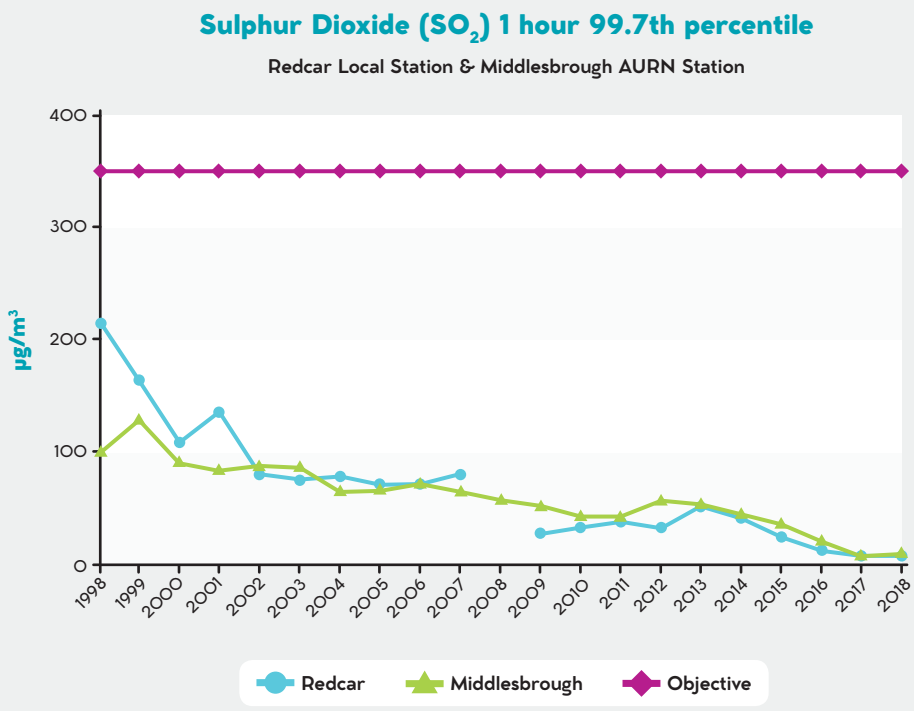
In Redcar & Cleveland prior to 2014, the data has not indicated any exceedances of the national standard for NO_2.

Sulphur Dioxide (SO_2)

Sulphur Dioxide (SO_2) concentrations have been measured across the South Tees since 1993.

Figure 16 shows the trend in average SO_2 concentrations in Middlesbrough and Redcar & Cleveland since 1998.

Figure 16: Trend in average SO_2 concentrations in Middlesbrough and Redcar & Cleveland since 1998



What does this information mean?

The levels meet the national standards and this trend will continue across the South Tees. There is no significant domestic coal burning and the main sources of SO_2 arise from the industrial chemical facilities and other industry located to the north and east. These emissions are now far lower than in previous years due to older plant closures and the requirement for lower sulphur fuels.

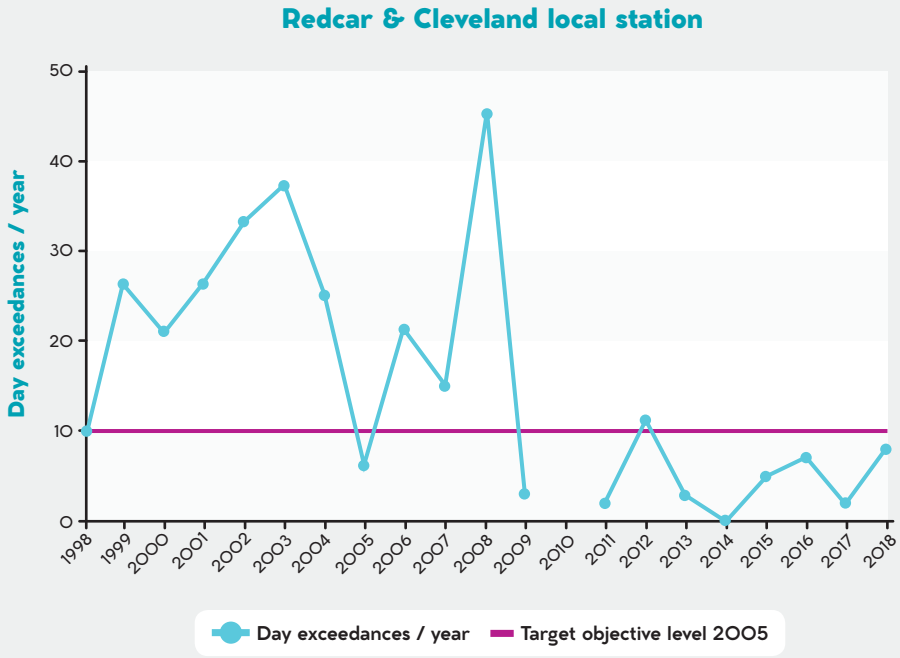
Ozone

Ozone (O_3) is a more complex pollutant, produced by the reaction between other pollutants in the air and sunlight. Therefore, ozone levels are the highest in the summer, can travel long distances and reach high concentrations far away from the original pollutant sources. There are long-term levels set for monitoring ozone level. These are not legal levels however it is still expected that all necessary measures should be taken to meet the target levels.

Ozone levels tend to be highest in coastal regions, due to the pollutants which are blown in from Europe. Therefore, as Middlesbrough is not a coastal authority ozone levels are not monitored.

Figure 17 shows the trend in the number of days each year when ozone levels have exceeded the target level in Redcar & Cleveland.

Figure 17: Ozone (O_3) day exceedances per year



What does this information mean?

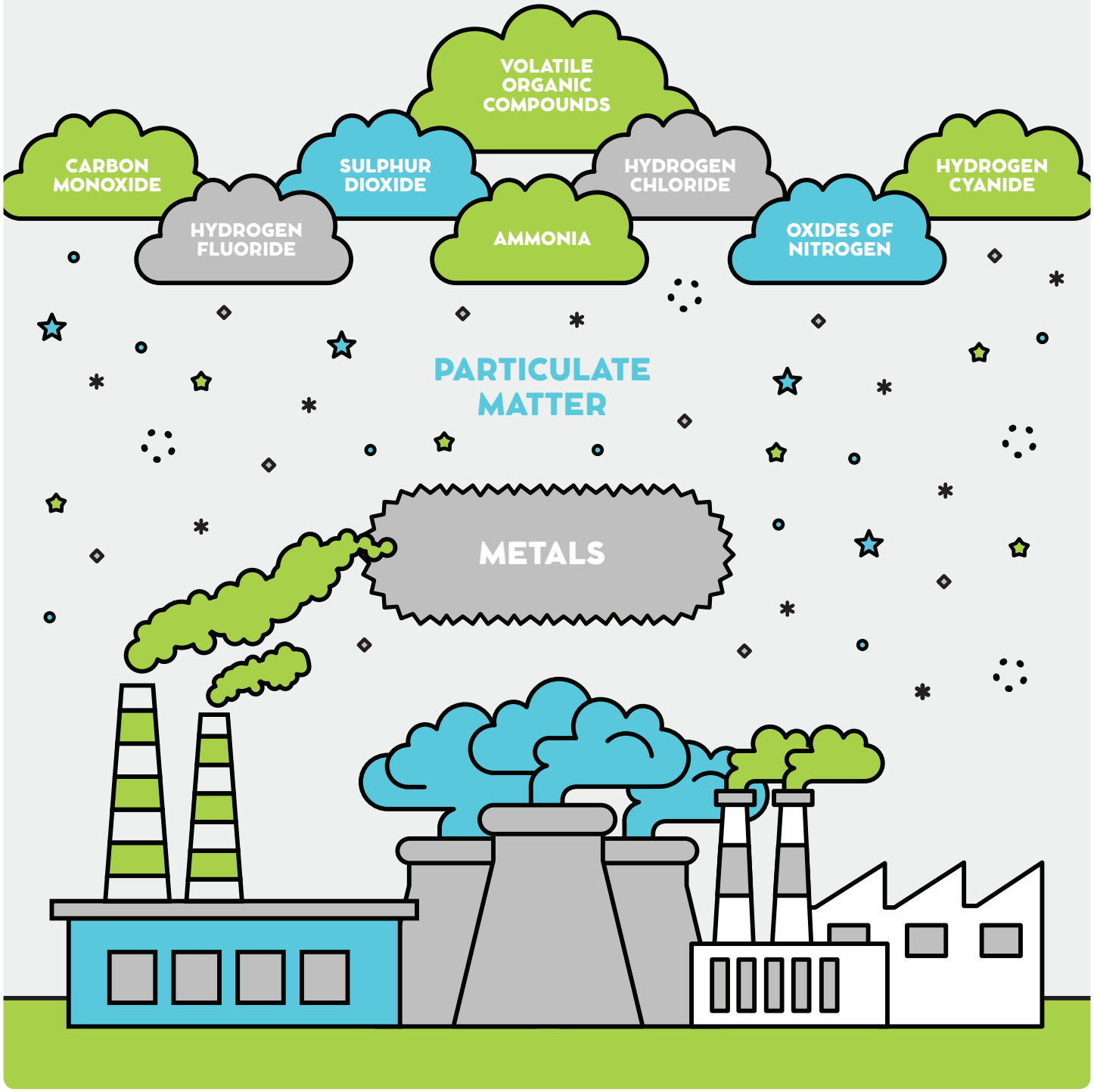
- Ozone levels have fluctuated over the years however since 2012, Redcar & Cleveland has not exceeded the target objective of 10 days of exceedances per year
- Ozone is very spatially and seasonally dependent and levels are heavily influenced by prevailing coastal winds from Europe, therefore it is difficult to control the levels of ozone locally
- The pollutants from vehicles, industry, power plants, and products such as solvents and paints react in the atmosphere to form ozone. Keeping the levels of these other pollutants at a low level, which can be achieved locally, helps to keep ozone levels low

Controlling the pollution from industry and other processes in the South Tees

Some industries and businesses are required by law to monitor the levels of air pollution they produce. Permits are issued either by the Environment Agency or the local authority, depending on the type of process. The Environment Agency issue permits for those processes which have the potential for a greater environmental impact such as chemical plants.

The following infographic shows the wide range of pollutants that are monitored by industries in the South Tees and regulated by permits issued by the local authorities and the Environment Agency.

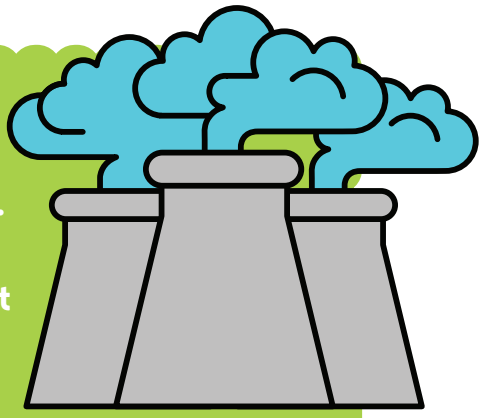
Figure 18: Industrial stack pollutants monitored aross the South Tees



Emission limit values

These are the maximum levels of the pollutants which are allowed to be released.

The levels are set according to each type of industry and are based on the health impact of the pollutants and the techniques which are available to improve emissions.



In 2018, in the South Tees area 65 businesses were issued with permits, 11 of these businesses are permitted to release pollutants to the air from their stacks within the emission limit. During this period, there was only one process which breached the emmission limit value.

In 2018 the Environment Agency was responsible for regulating a further 35 permits held across the South Tees. All of the Environment Agency's regulated processes met the emission limit values.

What does this mean?

- The monitoring and regulating of the industrial processes across the South Tees has been in place for a long time and good working relationships have been established
- If the conditions of a permit are not been met then the industry are subject to tighter regulatory control and enforcement action is taken where appropriate
- There is a high level of compliance in the industrial sector and the permit process and their responsible approach means that they do not present a risk to air quality standards in the South Tees

Key messages:

Air quality in the South Tees is good and it is meeting national standards

Though the environments in Middlesbrough and Redcar & Cleveland differ the main causes of pollution in both areas is traffic

Air quality in South Tees has improved in recent years

A local authority has responsibility for issuing permits to control certain types of industrial pollution

CHAPTER 6.
What are we doing to improve air quality?

Everyone can do something to help improve air quality.

Both Middlesbrough Council and Redcar & Cleveland Councils have a wide range of activities, plans and strategies delivered by many different services and organisations which aim to improve air quality. Close working and good communication is needed to make sure that air quality is considered across a broad range of different agendas.

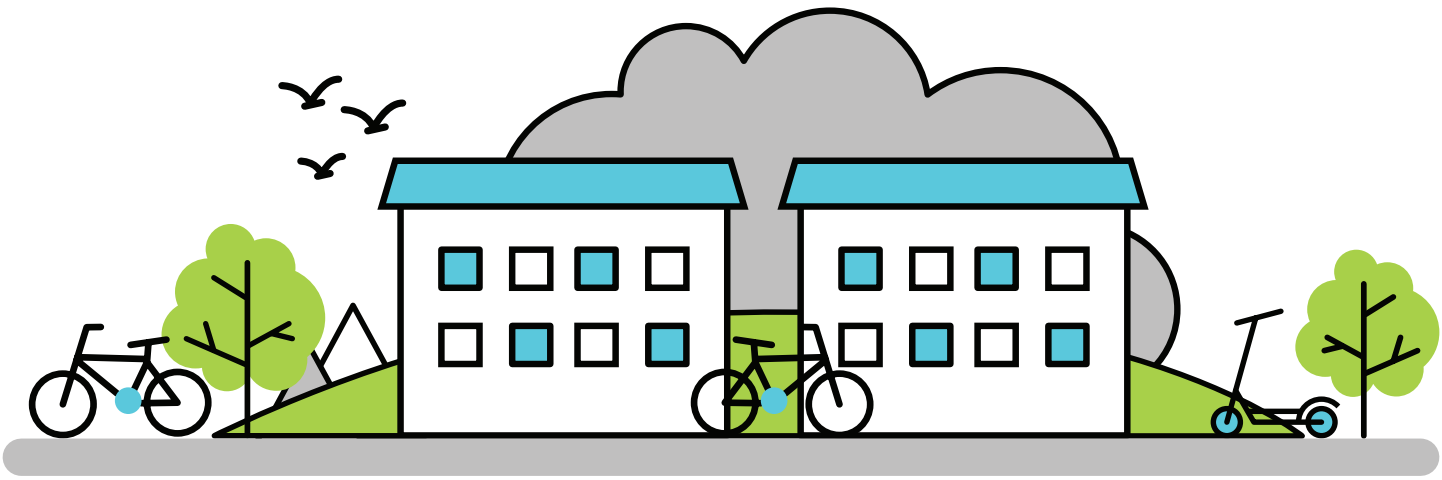
Promoting travel alternatives

Bike it

- Encouraging the use of bikes
- Free, indoor secure cycle centre for town centre bike parking is located in Middlesbrough Bus Station Transport Hub providing showers, lockers, help and advice
- Pool bikes provided via Yorkshire Bike Library
- Bike-ability for primary school children
- Middlesbrough Bike Academy providing cycle maintenance training

Walk it

- Cycling and walking initiatives are widely promoted across the South Tees
- Child pedestrian training delivered across all primary schools



Travel it - different ways of travelling

- Work based travel plans are available to any Middlesbrough-based organisation This is picked up as part of planning conditions for large developments
- Agile working supported by both councils helps to reduce unnecessary travelling to work
- Both councils support dedicated journey planning across the Tees Valley via **connectteesvalley.co.uk** and **letsgoteesvalley.co.uk**
- Joint working with the Job Centre to promote journey planning for those seeking employment
- Promotion of **liftshare.com** - publicly available car sharing website to reduce single occupancy car journey

Public transport - use it

- Promotion of rail and bus travel across the South Tees
- Bus fares and ticketing system - including concessionary fares and introduction of contactless payment terminals
- Continue to work with bus operators to develop improved bus corridors

Manage it - managing traffic and the environment

- Traffic calming initiatives to keep vehicle speeds low
- Variable Messaging Signs used alert drivers to traffic problems and assist in managing the traffic
- 20mph zones to improve pedestrian safety
- Bus lanes to keep buses moving at busy times and improving reliability
- Considering the introduction of engine idling controls to reduce exposure to air pollution around schools
- Tree planting schemes to naturally reduce the levels of air pollution

Clean it - promoting low emission transport

- Prioritising the purchase of low emission vehicles (Euro 6 spec) as part of the council's fleet renewal programme
- Redcar & Cleveland Council has purchased 10 fully electric small panel vans with zero emissions to replace 10 diesel vans, and is purchasing 8 x 7.5ton Euro VI vehicles for use within the Highways Team
- Taxi licensing policies have an age restriction on vehicles and/or an emission standard
- Installed EV charging points at 7 locations - car parks - Seafield House & Cat Nab and council depots Grangetown, Dormanstown and Skelton and at Skelton Youth and Community Centre. Middlesbrough has 38 EV charging points across the town

Promote it - encouraging people to do things differently

- Websites are used to promote all sustainable transport information
- Walking, cycling, guided route maps and public transport information is available
- Campaigns to raise awareness and understanding of the use of wood and multi-fuel stoves and fireplaces and how they contribute to the release of particulate matter and NO_2
- Support annual Clean Air Day campaigns, the UK's largest air pollution campaign
- Attended major events to raise awareness and understanding of air pollution and to gain public perception of what causes air pollution and what needs to be done to improve air quality

Plan it - transport planning and infrastructure

- Improved public transport hubs
- Installation of a new rail station at James Cook University Hospital to support passenger facilities
- Rail improvements to Darlington and Middlesbrough rail stations, ensuring they are ready for the new services
- Improving rail links between the Tees Valley and the rest of the country including key airports and ports
- Improving the East Coast Main Line, catering for future growth in both freight and passenger numbers across the north
- Improvement of the Northallerton to Teesport rail line
- Introducing newer trains, such as the high speed rail train
- Created a new and improved cycling set-up
- Middlesbrough Council 10 year infrastructure plan for walking and cycling improvements
- Improvements of the highway network to address bus route inefficiency
- Redcar & Cleveland Council have installed 14,500 LED street lights. Middlesbrough have installed 17,000 LED street lights
- The Tees Valley Strategic Transport Plan - to grow the local economy and transport to help deliver growth and support sustainable transport

Major road improvements to relieve traffic congestion

The A19 corridor is being enhanced to improve journey times and reliability to major centres in the north and across the UK.

A Tees River Crossing feasibility study is underway.

Improvements for the East - West A66 corridor from the A1(M) to Teesport

Middlehaven Dock Bridge has been built as part of a regeneration scheme. This creates a gateway to Middlehaven enhancing access to the A66 and Riverside Park.

The A66 throughabout to improve traffic flow and reduce congestion.

Urban vegetation

Urban vegetation can directly and indirectly affect local and regional air quality by altering the urban atmospheric environment. The ways in which trees affect air quality are through:

- Temperature reduction and other microclimatic effects
- Removal of air pollutants
- Emission of volatile organic compounds (VOCs)

Recent research suggests that the planting of trees along the sides of roads could reduce NO_2 concentrations in addition to providing visual improvements (Defra).

In Middlesbrough there are plans to plant at least 15,000 trees.

Redcar & Cleveland declare a climate emergency.

Redcar & Cleveland Borough Council have declared a borough-wide climate emergency with aspirations to become carbon neutral by 2030. The carbon dioxide levels in Redcar & Cleveland are one of the highest in the UK. Following a similar approach, the authority has signed up to the UK100 to move towards 100% clean energy by 2050. These declarations demonstrate Redcar & Cleveland's commitment to improving air quality and tackling climate change.

Many of the sources of both CO_2 and local air pollution are the same including vehicle exhaust factory chimneys, energy and heating.

Great benefits can be realised if both issues are tackled in an integrated way. Hence the Carbon Capture Utilisation and Storage initiative being looked at and funded by the oil, gas industries and the Government.

Carbon Management Funding has been used to implement LED lighting across the borough and also funded IT server replacement, heating/convector upgrades, secondary glazing, loft and cavity wall insulation.

The council's electricity supplier has been asked for all future electricity supplies to be from renewable sources.

Your views on air quality are important to us

Two events were held to get the views of businesses, the public and others on air quality.

Clean Air Strategy Consultation Event March 2019, Middlesbrough Football Club

What did we learn?

- Sustainable transport policies are already being encouraged and developed within organisations
- There is interest in active travel, car sharing and promoting fuel efficient driving and journey planning
- Measures are already being implementing to increase the energy efficiency of buildings to reduce pollution
- More information was needed on national legislation and local policy plays an important part to improve air quality
- There are barriers to improving air quality such as improved access and information on grant funding, investment for infrastructure for a greener fleet
- There is a need for sharing of knowledge around the subject and the need for improved public awareness of the issues

Clean Air Strategy Consultation March 2019

"Improve technology around the infrastructure for ultra-low emission vehicles"

"Improve existing fleet to reduce pollution from vehicles"

"Invest in public transport services to allow them to be more accessible for all"

"Invest in public transport to assist modal shift away from domestic car use"

"Increase promotion and uptake of ultra-low emission vehicles"

"Provide more education"

"Share information to make people more aware of the impacts of their own actions on air pollution"

Public Consultation, particularly engaging children through craft to gain further valuable insight into their opinions.

September 2019, Festival of Thrift

What did we learn?

Question: Can you give air pollution the green light?

Residents gave green lights to the moors and along the seafront. They gave red lights to major roads and industrial areas. Interestingly, there was a mention of odours arising from sewage which the public recognise as a form of air pollution.

Question: What do you think causes air pollution?

Residents thought that air pollution is caused mainly by transport, followed jointly by industry and burning fossil fuels.

Question: How can we stop air pollution?

Residents said we can stop air pollution by stopping burning fossil fuels, and jointly using renewable energy for transport, cleaner technology and reduce/reuse/recycle.

Question: If you were in charge of the world what would you do to make sure we breathe clean air?

Residents said they would change legislation, switch to sustainable energy, stop large scale deforestation, prioritise public transport and protect against oligarchs.

A South Tees Clean Air Strategy

Both Middlesbrough and Redcar & Cleveland locally are demonstrating their commitment to improving air quality by developing the first joint South Tees Clean Air Strategy which aims to put air quality at the heart of council decisions and priorities.

As a result of the work carried out to engage with the public, organisations, businesses and others the following priority area are proposed for the South Tees Clean Air Strategy: -

Priority 1 - Planning for cleaner air

- Develop our policies and practices to identify how they can improve air quality
- Transport infrastructure and environmental improvements that work to reduce pollution
- Enforce proposed new legislation around open fires, wood burners and multi-fuel stoves
- Investigate existing pollutant sources to target future actions and intervention

Priority 2 - Reducing vehicle emissions

- Explore improvements that can be made to the council fleet using cleaner more fuel-efficient vehicles
- Work with bus companies to encourage the introduction of a cleaner bus fleet
- Promote the implementation of ultra-low emission vehicle infrastructure
- Explore opportunities with businesses and organisations to encourage the use of cleaner commercial vehicles

Priority 3 - Raising awareness

- Explore opportunities to lead by example within our authorities to promote and improve air quality in South Tees
- Engage with businesses, organisations, residents and visitors to promote the benefits of low emission technology, smooth driving, speed reduction, anti-idling, active travel and public transport
- Encourage action at a community level to link air pollution to specific locations such as busy roads, junctions, shopping areas, hospitals or schools
- Provide support and advice around new technologies
- Identify funding streams that are available to the local authority, businesses and residents to improve air quality
- To present positive messages around the actions and choices residents make that will lead to cleaner air

Priority 4 - Promoting active travel and modal shift

- Investigate measures that improve the uptake of public transport
- Promote modal shift away from traditional car use and active travel

Let's Go Tees Valley

Let's Go Tees Valley arranged a Commuter Challenge from 16 to 22 September 2019.

They encouraged people to leave the car at home for a week and try greener, healthier ways to get to work. With the benefits that by walking, cycling or catching local transport local people will be moving more, driving less and feeling better and fitter as a result. Fewer cars also means better air quality so they will be doing their bit for the community and the environment too.

People were asked to register and prizes were given away throughout the week, with the main prize draw won at the end of the challenge. By working together we can make sure we meet our air quality targets for the Tees Valley.

Let's Go Tees Valley are carrying out a longitudinal study over 4 years to encourage local people to use more sustainable transport.

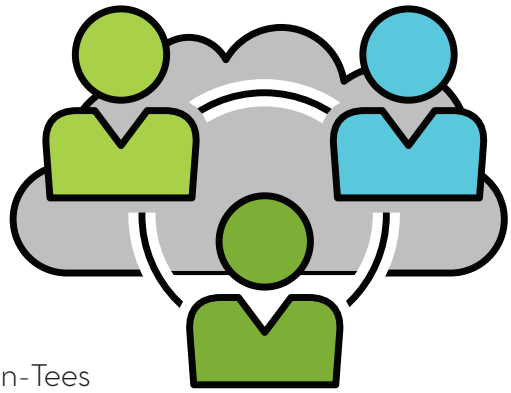
Key messages:

Improving air quality requires action across a whole range of partners and communities no one organisation can tackle this issue alone

There is already a lot of support in place to enable individuals and organisations to make positive changes

The first clean air strategy for the South Tees is in development and 4 key priorities for action have been identified

Working with other partners



On a day to day basis and in the development of the South Tees Clean Air Strategy we engage with a wide range of partners in a number of different forums.

Tees Valley Environmental Protection Group

Middlesbrough and Redcar & Cleveland Borough Councils, together with colleagues from Darlington, Hartlepool and Stockton-on-Tees Borough Councils work together under the Tees Valley Environmental Protection Group to review air quality on the wider Tees Valley level.

Tees Valley Combined Authority

The South Tees area is part of the Tees Valley Combined Authority, which in conjunction with other neighbouring authorities, takes a strategic view of transport planning within the Tees Valley area to improve transport and the economy.

The Tees Valley Combined Authority's Strategic Transport Plan is currently in draft form and is due to be published in spring 2020 for public consultation. It will include further details on plans up until 2026. Part of the remit of the strategy is to take into consideration the environmental impact that transport has upon the area.

There are a number of local documents which will support the Strategic Transport Plan including:

(i) A Tees Valley Road Strategy
a programme of local highway improvements to support strategic priorities, which include supporting housing and employment growth

(ii) A Tees Valley Freight Strategy
identifying the investment priorities to facilitate planned freight growth across the Tees Valley and beyond

(iii) A Tees Valley Rail Strategy
outlining further enhancement of local rail services to build on franchise improvements and our recent investment in station facilities

(iv) A Tees Valley Bus Strategy
to develop the bus route network and build on the recent Tees Valley Bus Network Improvements investment. The Bus Services Act will provide the opportunity to work with operators to develop the necessary future network

(v) A Tees Valley Walking and Cycling Strategy
continued development of a complementary programme of cycling, walking and other sustainable transport measures to support economic growth as well as health and wellbeing

All five partner local authorities will produce individual transport implementation plans that will set out local measures to be delivered by each of the boroughs.

CHAPTER 7

Making a difference – what we all can do to make our air cleaner

We know that the air in the South Tees is good but we are trying to make it "as clean as it can be." We need your help!

We can all make the air cleaner by introducing small and simple changes to our behaviour and what we do in our everyday lives.

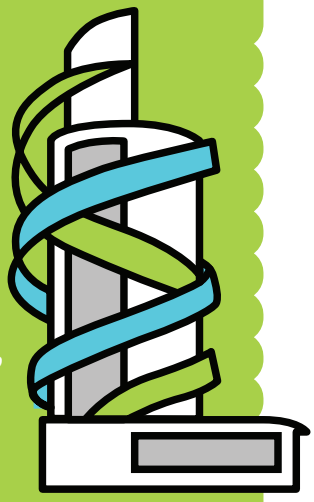
"Make public transport a priority, less cars, walk. Stop reliance on cars, stop use of dirty diesel"

Festival of Thrift

A survey of travel needs in 2018 for Redcar & Cleveland shows -

62% of respondents work or go to school or college in Redcar & Cleveland, 21% in Middlesbrough and 8% in Stockton-on-Tees.

22% of respondents live less than a mile from their place of work, school or college, 36% live between 1 mile and 4.9 miles, 25% live between 5 miles and 9.9 miles and 16% live 10 miles or further.

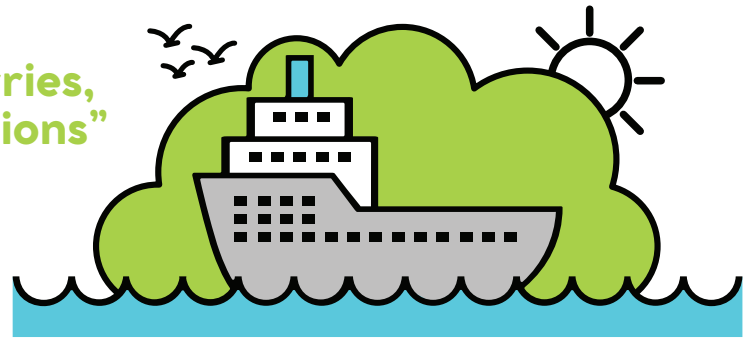


What you can do differently when you are getting around...

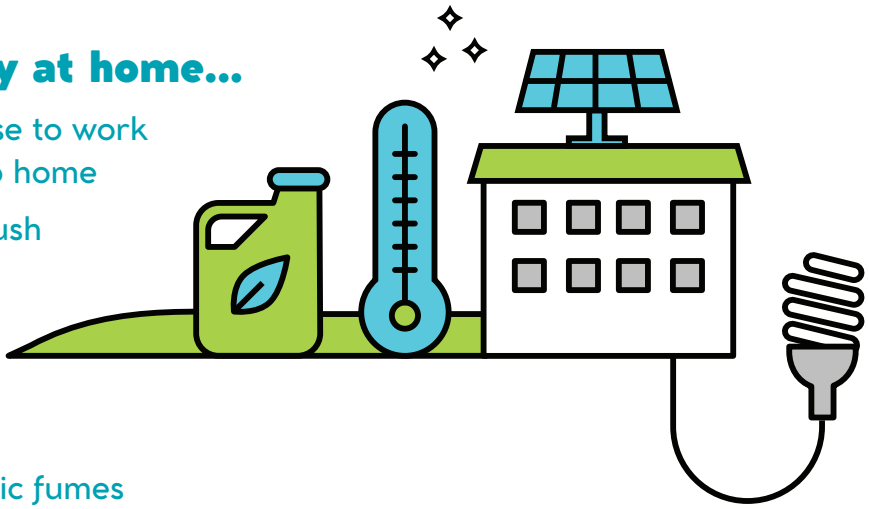
- Drive your car less, and walk or cycle and feel the benefit from the exercise
- Bikes, mountain bikes, road bikes, hybrid, fold up bikes, e-bikes and accessories may be available through your employer's cycle to work scheme
- Use less congested transport routes if you are cycling or walking
- Use public transport more
- Use park and ride when it is available
- Drive less by combining journeys in one trip
- Switch off vehicle engines when not moving, especially outside school gates
- If travelling in very busy traffic set the car to recycling the air inside the car to reduce the levels of pollutants
- Avoid driving at peak times as congestion increases the levels of particulate matter in the air
- Make use of the variable messaging system at key locations on the road network which warn drivers of delays so alternative routes can be found to reduce congestion
- Purchase a vehicle that has an automatic cut-out to turn off the engine when stationary as this reduces emissions
- Make sure tyres are inflated to the correct pressure, a difference of 15 psi (1 bar) can increase fuel consumption by 6% and therefore increase pollution. Inflating tyres to the correct pressure saves money too
- Avoid excessive speed, this reduces pollution
- Pay greater attention to engine emission levels, downsize if practicable
- Consider converting from a diesel or petrol to an electric vehicle
- Lift share is an option. Look at this website - **liftshare.com/uk**
- Join a car club and share journeys with others. It saves money too!
- Purchase an electric scooter, electric bike, moped or motorbike. They are eco friendly, easy to charge, not taxed, cheap to run, low maintenance, road legal, low noise and no smells. Your workplace may have a purchase scheme
- Make use of video conferencing instead of travelling to conferences, meetings and events

"Less flights and ferries, enjoy more staycations"

Festival of Thrift



What you can do differently at home...



- If you can, work from home or choose to work from a branch office based nearer to home
- Use tools without motors - shears, push mowers
- Purchase environmentally friendly heating systems
- Do not burn garden waste
- Do not burn materials that cause toxic fumes
- Reduce the use of wood and coal - or switch to a cleaner burning modern wood stove. Burn quality wood or smokeless fuels on open fires instead of wet/green wood or house coal
- Use paint and cleaning products with fewer or no volatile organic compound
- Take notice of local air quality - this is particularly useful for vulnerable individuals who can take steps to use this information to manage symptoms, in consultation with their GP
- Install solar panels on available roofs
- Switch to energy companies that source energy from renewable sources and also plant trees
- If you smoke get support to quit through your local smoking cessation service **stopsmokingsouthtees.co.uk**

Make a pledge

Why not make a pledge to do one thing to make a change and improve air quality?

By joining forces our small changes in behaviour multiply and together they can bring about much bigger changes which can have positive health benefits for each and every one of us. By making these changes now we will be making sure future generations can benefit from breathing clean air.

"In the year 2030, we will be in a position where we set off an irreversible chain reaction beyond human control, that will most likely lead to the end of civilisation as we know it"

Greta Thunberg

No one is too small to make a difference, Penguin, 2019

Key messages:

There are lots of things we can all do to improve air quality

Action at an individual level is key - everyone can make a difference

Small changes in our everyday lives can have significant health, social and environmental benefits

CHAPTER 8.
Recommendations

Whilst there are lots of activities being carried out and plans underway to improve air quality there are some key areas which require further action to make sure we continue to work towards cleaner air.

The South Tees Clean Air Strategy will provide the framework for key partners including the public to work together. Recommendations are for Middlesbrough and Redcar & Cleveland Councils.

- Establish a South Tees Clean Air Partnership to develop and deliver the South Tees Clean Air Strategy
- To continue to monitor air quality proactively to ensure that potential hotspots of poor air quality are detected early and that measures are put in place to make improvements
- To engage with the public on air quality matters, provide information and awareness raising to empower them to change their behaviour and consider its impact on cleaner air
- To engage with businesses to raise awareness of how they impact on clean air and how they and their employee's behaviour can maximise their contribution to cleaner air
- To continue to lobby for national measures to improve air quality and access to funding at a local level to develop and implement initiative and projects which will contribute to cleaner air
- To continue to work towards a smokefree South Tees

Responsibilities and governance

South Tees Public Health is a joint service between Middlesbrough and Redcar & Cleveland local authorities. The recommended actions from this Director of Public Health 2019 Report will be incorporated into the South Tees Clean Air Strategy and associated action plan.

It is proposed that the delivery of the Clean Air Strategy will be through a South Tees Cleaner Air Partnership and monitored through the governance structure of both local authorities, the joint Health and Wellbeing Board and external partners.

CHAPTER 9.
At a glance

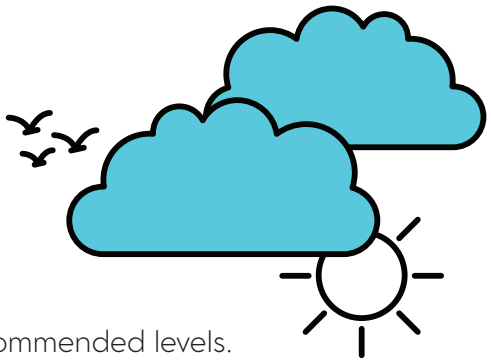
This chapter provides a short "at a glance" summary of each of the chapters within this report for quick referencing.

Air quality is one of the most challenging public health problems in the 21st century and it requires a system-wide and community response to tackle it.

Good air quality plays a key role in good health and it is therefore important that we understand how air quality impacts on health, what contributes to worsening air quality and what action can be taken.

While some of the factors which affect air quality impact at international and national levels, there is still a lot of things that can be done at local, community and individual level to improve the air we breathe in our own neighbourhoods.

CHAPTER 1.
Why is air quality important?



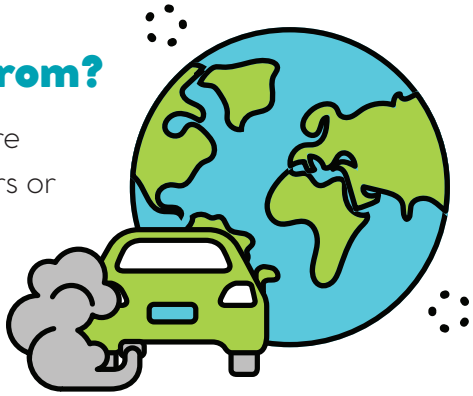
Air quality in the UK has significantly improved in the last 50 years but air pollution remains one of the biggest environmental risks to health in the South Tees and in England as a whole.

Air pollution occurs when the amount of certain pollutants exceed recommended levels. There are national and European standards which are set for air pollution depending on how they affect human health.

However, the International Agency for Research on Cancer (IARC) has classed outdoor air pollution as carcinogenic to humans (a Group 1 carcinogen) and causing lung cancer. They have declared that there is no clear evidence of a safe level of exposure to air pollution. This report demonstrates that the air quality in the South Tees is good and meets the legal standards, however to protect the long term health of residents we are aiming to make our air "as clean as it can be."

Some of the activities which produce air pollution form an essential part of our daily lives and economy and are difficult to stop. However, cost effective changes can be made both locally and nationally to make cleaner cities and a greener economy.

CHAPTER 2.
What is air pollution and where does it come from?



Air pollution is made up of gases, droplets and tiny solid particles which are considered to be harmful to health. Air pollutants may be present outdoors or indoors and they come from a wide range of sources. The sources of modern pollution range from transport and other everyday activities such as industrial processes, farming, heating homes and generating electricity which also affect air quality.

Middlesbrough and Redcar & Cleveland Councils are required by law to review, monitor and assess air quality within their boroughs. Currently, in both areas there are three main pollutants which are at the core of the Local Air Quality Monitoring programme;

- Nitrogen dioxide (NO_2)
- Particulate matter (small particulate matter is PM_{10}, very small particulate matter is $PM_{2.5}$)
- Sulphur dioxide (SO_2)
- In addition, in Redcar & Cleveland, ozone (O_3).

Whilst most attention is focussed on outdoor air quality it is also important to consider the quality of indoor air.

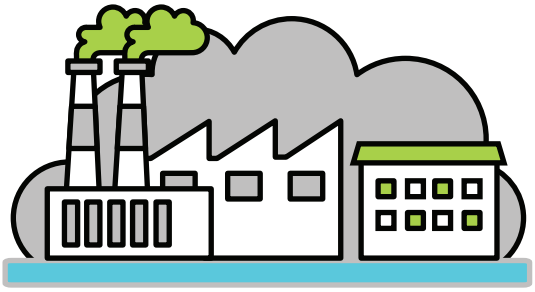
CHAPTER 3.
How does air quality affect health?

The risks of ill health to those people who are exposed to air pollution are dependent upon a range of factors; the health of the person, type of pollution, concentration and the length of time the person is exposed. The effects of air pollution can also be short-term or long-term.

Whilst there are national and European standards set for air pollution levels, which the South Tees meets, there is currently no clear evidence of a safe level of exposure to air pollutants.

Some people are at a greater risk from poor air quality eg babies and children including unborn babies, older people and those with existing medical conditions. Different pollutants affect health in different ways. Daily updates on air quality are available to the public.

CHAPTER 4.
Health inequalities



People living on low incomes are more likely to live closer to busy roads and industry and therefore they may be exposed to higher levels of pollution.

Low income groups are also more likely to suffer from preventable long-term conditions such as heart disease, lung disease and cancer and these conditions can make them more susceptible to the harm caused by air pollution. We have to consider that the same level of exposure to air pollution will have a greater negative impact on the health of people living in disadvantaged areas than those who live in less disadvantaged areas.

CHAPTER 5.
How good is the air in the South Tees?

The geography of Middlesbrough and Redcar & Cleveland local authority areas are very different. Middlesbrough is a compact urban area whilst Redcar & Cleveland sprawls across a much wider rural landscape which also incorporates full coastal coverage across the east of the borough.

Air pollution is monitored across the South Tees at three static monitoring stations and also through a network of 43 diffusion tubes. The measurements from the static sites and diffusion tubes show the air quality in the South Tees is good. The trends in measured pollutants show that they have been significantly decreasing over time. Industrial processes in the South Tees are also monitored and regulated to ensure their emissions meet the required standard.

CHAPTER 6.
What are we doing to improve air quality?

Everyone can do something to help improve air quality. Both Middlesbrough Council and Redcar & Cleveland Council have a wide range of activities, plans and strategies delivered by many different services and organisations which aim to improve air quality. Close working and good communication is needed to make sure that air quality is considered across a broad range of different agendas.

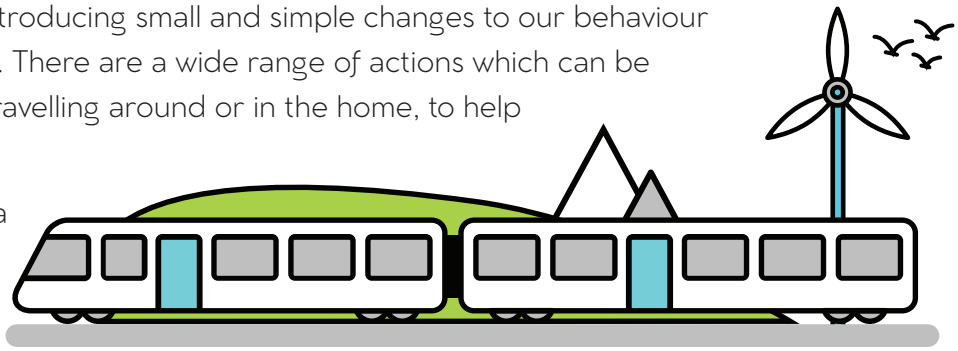
There are a wide range of activities underway and planned to help improve air quality:

- Promoting travel alternatives
- Managing travel and the environment
- Promoting low emission transport
- Transport planning and infrastructure

We are in the process of developing a Clean Air Strategy to engage with partners to ensure air quality is a consideration in the council and other partners' delivery plans.

CHAPTER 7.
Making a difference - what we all can do to make our air cleaner

We know that the air in the South Tees is good but we are trying to make it "as clean as it can be." We can all make the air cleaner by introducing small and simple changes to our behaviour and what we do in our everyday lives. There are a wide range of actions which can be built into everyday life, whether it is travelling around or in the home, to help make air quality even better.



The public are encouraged to make a pledge to do one thing to make a change and improve air quality.

ACKNOWLEDGEMENTS

Thank you to the officers in Middlesbrough Council and Redcar & Cleveland Council who have helped to produce this report, in particular Helen Armstrong, Bob Cowell, Erika Grunert, Judith Hedgley, Tracy Hilton, Leon Kay, Esther Mireku, Catherine Parker, Alistair Stewart and Carole Wood.

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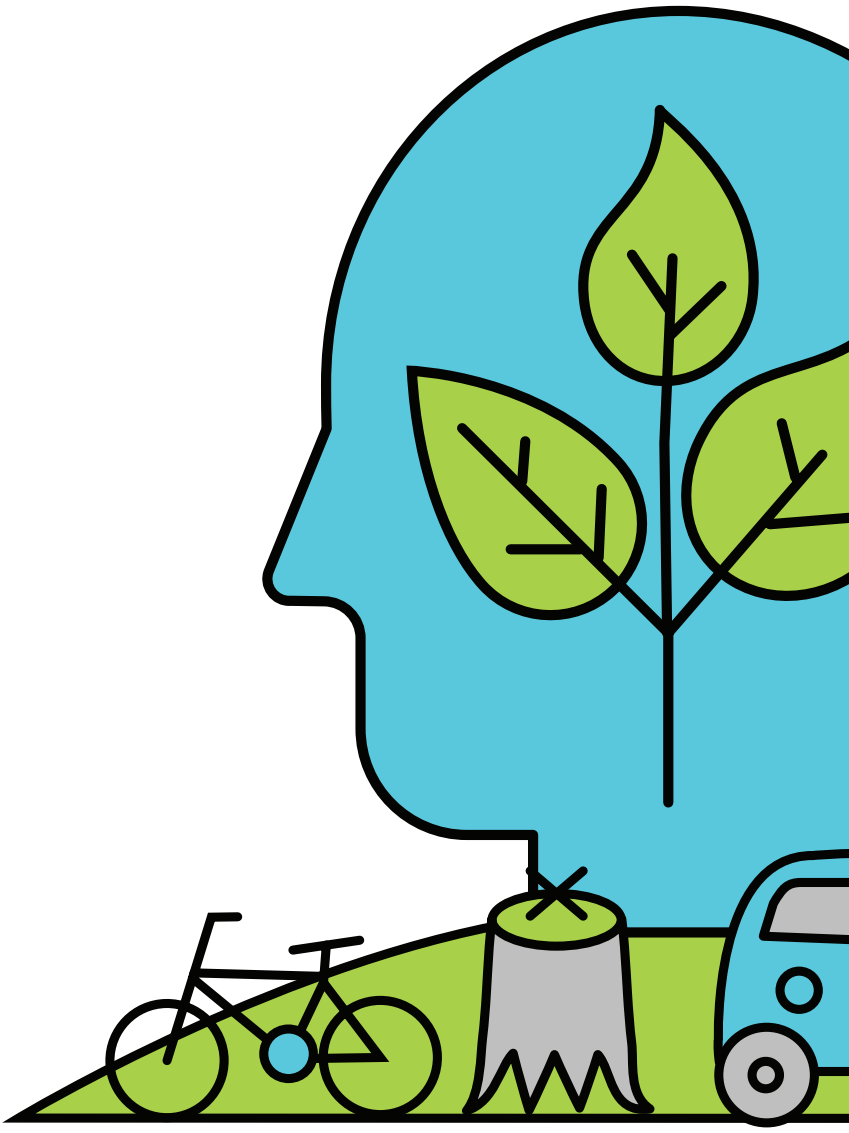

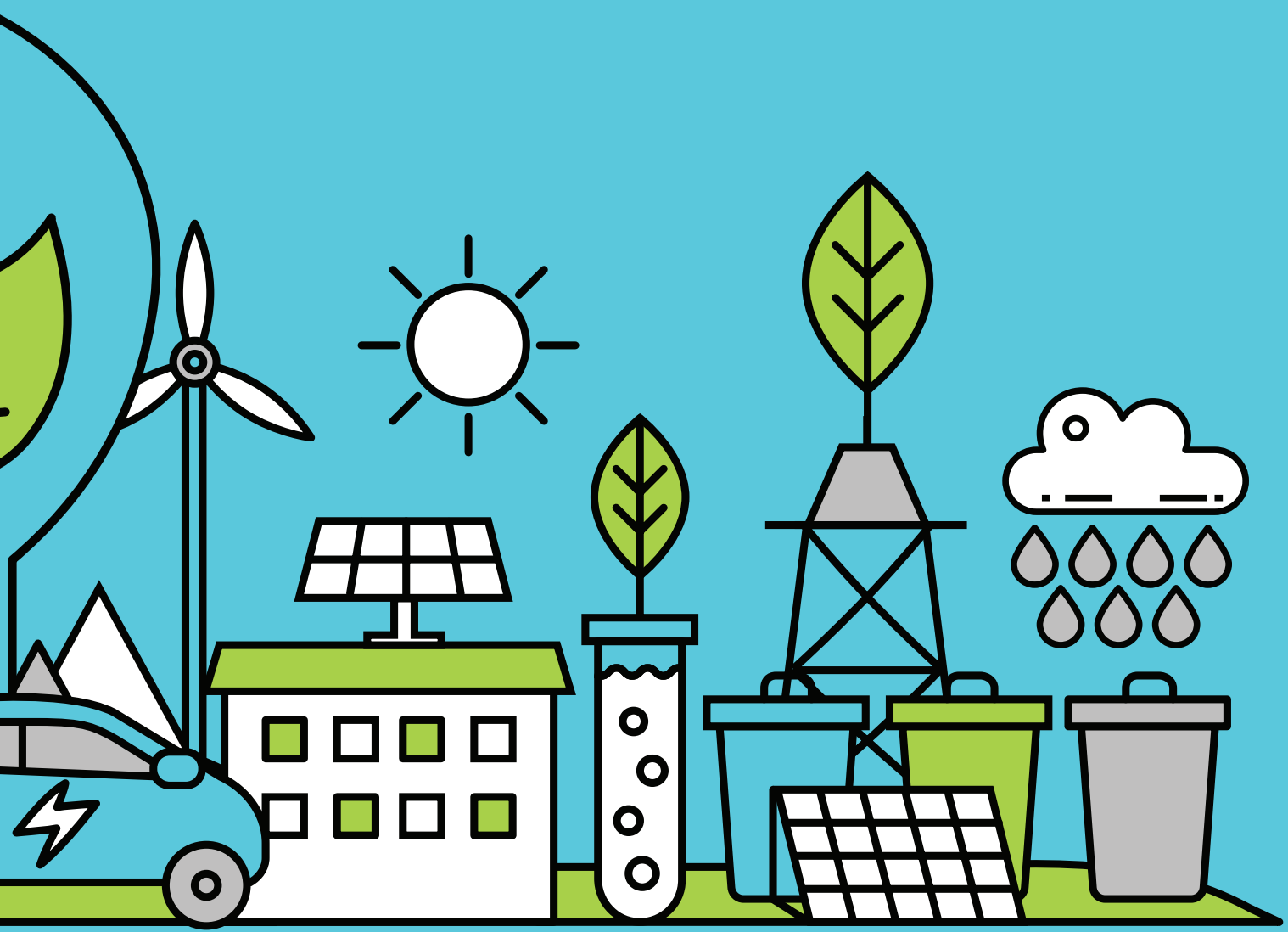

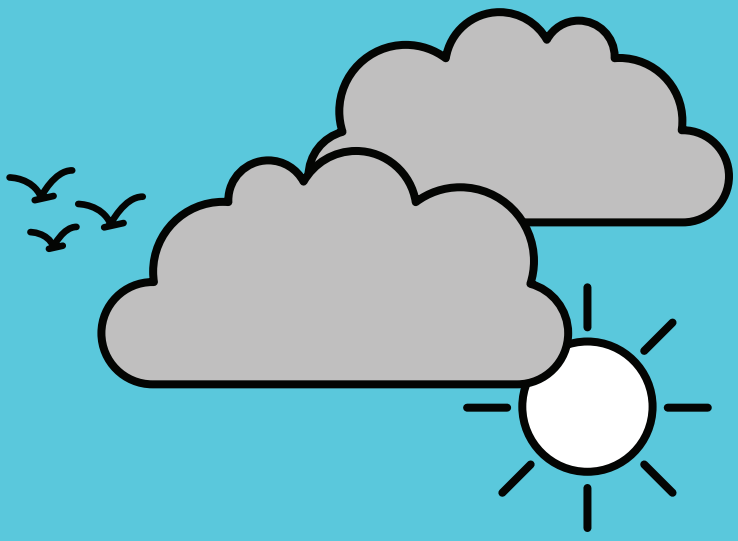

Agenda Item 8

Live Well South Tees Health and Wellbeing Board – Membership

Cllr Mary Lanigan/ Cllr Antony High

Live Well South Tees Health and Wellbeing Board - Review of Membership

To:	Live Well South Tees Health and Wellbeing Board	**Date:**	12th March 2020
From:	Cllr Lanigan and Cllr High	**Agenda:**	8
Purpose of the Item	The purpose of the report is for the South Tees Health and Wellbeing Board (HWB) to consider reviewing its membership		
Summary of Recommendations	That Live Well South Tees Health and Wellbeing Board consider the membership of the Lived Well South Tees Health and Wellbeing Board and make recommendations to Middlesbrough Council and Redcar & Cleveland Council.		

1 PURPOSE OF THE REPORT

1.1. The purpose of the report is for the South Tees Health and Wellbeing Board (HWB) to consider reviewing its membership

2 BACKGROUND

2.1 Health and wellbeing boards were established under the Health and Social Care Act 2012 to act as a forum in which key leaders from the local health and care system could work together to improve the health and wellbeing of their local population. They became fully operational on 1 April 2013 in all 152 local authorities with adult social care and public heath responsibilities.

2.2 Health and wellbeing boards are a formal committee of the local authority charged with promoting greater integration and partnership between bodies from the NHS, public health and local government. They have a statutory duty, with clinical commissioning groups (CCGs), to produce a joint strategic needs assessment and a joint health and wellbeing strategy for their local population.

2.3 The Health and Wellbeing Board has the following four statutory duties:

- The Board must have a Health and Wellbeing Strategy for its population in place
- The Board must produce a Joint Strategic Needs Assessment (JSNA) to inform planning and commissioning
- The Board must produce a Pharmaceutical Needs Assessment (PNA) for the area
- The Board must oversee the Better Care Fund (BCF) and promote the integration of health, public health and social care where appropriate

2.4 The board must include a representative of each relevant CCG and local Healthwatch, as well as local authority representatives. The local authority has considerable discretion in appointing additional board members. In most cases, health and wellbeing boards are chaired by senior local authority elected member

2.5 In July 2018 Middlesbrough and Redcar and Cleveland Health and Well Being Boards agreed to come together and form the Live Well South Tees Health and Wellbeing Board.

2.6 The Live Well South Tees Health and Wellbeing Board membership is as follows

- Leader of Redcar & Cleveland Council (Chair),

- Deputy Mayor of Middlesbrough Council (Chair),
- Chief Executive Middlesbrough Council,
- Chief Executive Redcar & Cleveland Council,
- 3 Cabinet Members from Redcar & Cleveland Council,
- 3 Executive Members from Middlesbrough Council,
- Nominated Elected Member from Middlesbrough Council,
- Nominated Elected Member from Redcar & Cleveland Council,
- Chair of NHS South Tees Clinical Commissioning Group (STCCG),
- Chief Officer NHS South Tees Clinical Commissioning Group (STCCG),
- Director Adult Social Care and Health Integration for Middlesbrough,
- Corporate Director for Adults and Communities for Redcar & Cleveland,
- Executive Director of Children's Services for Middlesbrough,
- Corporate Director of Children's Services for Redcar & Cleveland,
- Director of Public Health for Middlesbrough and Redcar & Cleveland,
- Senior representative of the local HealthWatch,
- Chief Executive of South Tees Hospitals NHS Foundation Trust (STHFT),
- Chief Executive of Tees, Esk and Wear Valley NHS Foundation Trust (TEWV),
- Senior representative on behalf of Middlesbrough and Redcar Voluntary Development Agencies,
- Senior leader on behalf of Coast & Country Housing and Thirteen Housing Group,
- Chief Constable Cleveland Police,
- Chief Fire Officer Cleveland Fire Service

2.7 At the time the Board was established it was agreed to simply merge the membership of the two existing Boards and review of membership at a later date. The Chairs of the Live Well South Tees Health and Wellbeing have now requested that the membership be reviewed with a view to reducing the number of Elected Members and considering the appointment of an Independent Chair.

7 RECOMMENDATIONS

7.1 That Live Well South Tees Health and Wellbeing Board consider the membership of the Lived Well South Tees Health and Wellbeing Board and make recommendations to Middlesbrough Council and Redcar & Cleveland Council.

8 BACKGROUND PAPERS.

8.1 No background papers other than published works were used in writing this report.

9 Contact Officer

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Agenda Item 9

Health and Wellbeing Executive Chair's report (assurance report)

Dr Ali Tahmassebi, Chair of Health and Wellbeing Executive

South Tees Health and Well-being Executive Assurance Report

To:	Live Well South Tees Health and Wellbeing Board	**Date:**	12th March 2020
From:	Dr Ali Tahmassebi – Chair South Tees Health and Wellbeing Executive	**Agenda:**	9
Purpose of the Item	To provide South Tees Health and Wellbeing Board with assurance that the Board is fulfilling its statutory obligations, and a summary of progress in implementing the Board's Vision and Priorities.		
Summary of Recommendations	That Live Well South Tees Health and Wellbeing Board: • Are assured that the Board is fulfilling its statutory obligations • Note the progress made in implementing the Board's Vision and Priorities		

1 PURPOSE OF THE REPORT

1.1. To provide South Tees Health and Wellbeing Board (HWB) with updates on progress with the delivery of the Board's Vision and Priorities and assurance that the Board is fulfilling its statutory obligations.

2 BACKGROUND

2.1 To support the Board in the delivery of its priorities a South Tees Health and Wellbeing Executive has been established. The South Tees Health and Wellbeing Executive oversees and ensures the progress and implementation of the Board's work programme and creates opportunities for the single Health and Wellbeing Board to focus on the priorities.

3 PROGRESSING STATUTORY HEALTH AND WELLBEING BOARD FUNCTIONS

3.1 The next section of this report sets out progress the Health and Wellbeing Executive has made against the Board's statutory functions.

3.2 *Better Care Fund Planning 2019/2020*

3.2.1 Assurance has been received for Middlesbrough and Redcar & Cleveland Better Care Fund 2019/20 plans.

3.2.2 The table below provides an update on 2 South Tees wide BCF funded schemes:

Single Point of Access - Adults	The Single Point of Access Multi-Disciplinary Team (SPA MDT) went live on 15th January 2020. The aim is for this new SPA model to become the point of contact for any health and social care professional seeking advice on the best outcome for an

	individual. This could be to step up care to avoid a hospital admission or help with complex discharges. The SPA Manager and integrated health and social care call handlers are supported by an MDT comprised of a community nurse and a therapist, a mental health nurse and social workers. During this initial test phase, GP Practices from 3 Primary Care Networks across South Tees are using the service. Referrals so far have helped to test processes and signpost referrers to the correct services where appropriate. Future plans include the SPA MDT supporting with complex hospital discharges and referral, broadening the MDT membership to ensure all care options are incorporated (e.g. housing and the voluntary sector) and extending the MDT availability to A&E, Acute and Community Hospital staff, 111, NEAS, CHESS, Police, and other Community Health & Social Care Services.
Support to Care Homes	Enhancing health of care home residents continues through the infection control, end of life, nutrition and medicines optimisation support. The Care Home Education and visiting Support Service (CHESS) is in place to respond to referrals from care homes and avoid unnecessary admission of residents to hospital. BCF funding is in place for this support until at least March 2021. A Care Conference is being organised in June 2020 which will offer the opportunity for South Tees Care Home and Domiciliary Care staff to receive advice and training on a range of topics including delirium care, infection control, nutrition and more.

3.2.3 *Performance against metrics*

The performance dashboard provides a high level summary of performance against each of the BCF metric targets as at Quarter 3 2019.

3.2.4

Metric	BCF Target 2019/20		Quarter 3 Performance
METRIC 1 – Permanent admissions of older people (aged 65 and over) to residential and nursing care	MBC	1018	Both are achieving the target although there is still a demand for places due to growing population aged over
	R&CBC	902	

homes per 100,000 population			65 living longer with long term and complex health needs
METRIC 2 – Proportion of older people (65 and over) who were still at home 91 days after discharge from hospital into reablement/ rehabilitation services	MBC	87%	Both are achieving the target
	R&CBC	82%	
METRIC 3 – Delayed transfers of care from hospital per 100,000 population (Quarterly target shown)	MBC	725	Long standing DToC performance issues within the South Tees system are resulting in this indicator not being achieved. The DToC Peer Challenge has informed a DToC improvement plan across all stakeholders and a Programme Board to take forward plans has been established.
	R&CBC	983	
METRIC 4 – Total emergency admissions into hospital	MBC	20,995	Both are achieving the target. There are a range of projects in place to support STHFT and reduce unnecessary attendances.
	R&CBC	19,248	

3.2.5 *Better Care Fund 2020 onwards*

The 2020/21 BCF Policy Framework and Planning Requirements are due for publication in February. Allocations have already been issued. Provisional planning and allocation of funding is already underway and consideration will be given to any new or amended schemes which could potentially help deliver against the metrics above and further support closer integration.

3.3 *Health Protection and Assurance*

3.3.1 Under the Health and Social Care Act reforms introduced in 2013, a range of public health functions and statutory duties were integrated within Local Authorities and are additional to the existing public protection duties. This move brought with it responsibilities across the three domains of public health – health improvement, health protection and healthcare public health. The health protection element of these statutory responsibilities and the mandatory responsibilities of the DPH are as outlined below.

a) The Secretary of State's public health protection functions;
b) Exercising the local authority's functions in planning for, and responding

to, emergencies that present a risk to public health;

c) Such other public health functions as the Secretary of State specifies in regulations;

d) Directors of Public Health (DsPH) will be responsible for the local authority's public health response as a responsible authority under the Licensing Act 2003, such as making representations about licensing applications; and

e) Local Authority DsPH "will have a duty to ensure plans are in place to protect their population including through screening and immunisation.

3.3.2 A full report about how the DPH has discharged these duties in the past year is attached as appendix 1 of this report.

3.3.3 Currently, the

4	**PROGRESS AGAINST SOUTH TEES HEALTH AND WELLBEING BOARD PRORITIES**
4.1	The Board's agreed vision and priorities are to: Empower the citizens of South Tees to live longer and healthier lives. With a focus on the following areas key themes: a. Inequalities - Addressing the underlying causes of inequalities across the local communities; b. Integration and Collaboration - across planning, commissioning and service delivery; and c. Information and Data – data sharing, shared evidence, community information, and information given to people.
4.2	Set out below is a summary of the progress the Executive has made towards achieving each of the Boards priorities to date.
4.3	**PRIORITY 1 - Inequalities - Addressing the underlying causes of inequalities across the local communities**
	4.3.1 Best Start in Life - Sector led Improvement I. Getting families off to the Best Start is crucial; a child who gets off to a good start will have better health thought their life, achieve more at school, have a much stronger chance of being in stable employment during their life and have more money to put back into the local economy. II. A healthy start to life does not solely benefit the child and their family, the financial benefits are that people are much less likely to need costly acute health and social care services throughout their life too. Having the 'Best Start' means that mothers have a healthy pregnancy and that they are supported with appropriate preventive health and social care during their child's early years (generally up to the age of two). III. The Best Start in Life System Led Peer Review tool was developed by a range of health professionals in the North East and was led by Public Health England's

	Children's and Young People's partnership. IV. The health and wellbeing board executive was provided with an update on the initial self-assessment for South Tees. Subsequent actions have been agreed to ensure that appropriate leadership and governance is put in place to improve the health of children during the first 1000 days of life.
4.4	**PRIORITY 2 - Integration and collaboration**
4.4.1	**South Integrated Care Partnership Long Term Plan**
	I. The South Tees Health and Wellbeing Executive were presented with the South Integrated Care Partnership's Long Term Plan. II. The 'South ICP' is one of four ICPs in the North East and North Cumbria Integrated Care System. It covers a population of 847,000 with the following statutory organisations involved: III. **Four CCGs** - NHS Darlington CCG, NHS Hartlepool & Stockton CCG, NHS Hambleton, Richmondshire & Whitby CCG, NHS South Tees CCG. IV. **Three NHS Foundation Trusts** - County Durham and Darlington NHS Foundation Trust (Darlington site), North Tees & Hartlepool NHS Foundation Trust, South Tees NHS Foundation Trust. V. **Six Local Authorities** – Darlington, Hartlepool, Middlesbrough, North Yorkshire, Redcar & Cleveland, Stockton. VI. **One Mental Health and Learning Disabilities Trust** - Tees, Esk & Wear Valley NHS Foundation Trust. VII. **Two Ambulance Trusts** - North East Ambulance Service NHS Foundation Trust, Yorkshire Ambulance Service. VIII. It has been set up to focus on 'place' and ensure the sustainability of services for the local population that meets quality, clinical and financial standards whilst tackling the challenges faced regarding recruitment and staffing shortages. The aim of the ICP is to improve health and wellbeing, ensuring people have the best possible outcomes and this will be done through building on the strong foundations in place and working together across health and social care. IX. A System Narrative Plan, Delivery Plan and Strategic Planning Tool have been developed and submitted to NHS England to show how the South ICP will deliver the objectives set out in the Long Term Plan. These were circulated to members for reference. X. The Executive was assured that the plans were developed with engagement with partner organisations including the development of OGIMs (Objectives, Goals, Initiatives and Measures) for priority areas.
4.4.2	**Adult and Social Care Single Point Of Access**

XI. The Health and Wellbeing Executive received an update on progress around the new South Tees Single Point of Access model.

XII. The Adults Joint Commissioning Board endorsed a new SPA model which brings together an integrated co-located multi-disciplinary team (MDT) of professionals from South Tees partner organisations consisting of STHFT Community Nursing and Therapies, TEWV Mental Health Services, Middlesbrough and Redcar & Cleveland Social Care Services. This will create one single point where professionals needing to access health and/or social care services for a complex individual can contact without having to navigate their way through the existing maze of access points. This new model is supported by a SPA manager and integrated health and social care call handlers posts funded from the Better Care Funds.

XIII. The model aims to reduce the amount of time people spend in hospital by having better, more coordinated care in the community to facilitate hospital discharge, increase the proportion of older people living independently at home and prevent unnecessary hospital admissions.

XIV. The MDT went live on the 15th January 2020 following a successful launch event involving staff, stakeholders and partner organisations. During the current planned soft launch period the MDT service is available to 3 Primary Care Networks across South Tees. 20 referrals had been received which were allowing the testing of processes, collation of data and swift signposting of referrals to the correct services. The benefits of a MDT have already been observed which include reduction in duplicate referrals, saving time for professionals and a holistic review of the individual's needs to determine the best outcomes.

XV. Future plans for the SPA MDT include:

- Extending the service to all South Tees GP Practices
- Development to incorporate the function of single point of referral and support with complex discharges
- Broadening MDT membership to ensure all care options are incorporated (e.g. housing, voluntary sector)
- Availability of live bed status of all community beds and capacity in community services
- Taking referrals from A&E, Acute and Community Hospitals, Community Nursing & Therapies, 111, NEAS, CHESS, Police, and other Community Health & Social Care Services.
- Becoming a single point of contact for care homes to access services for residents and for end of life and falls pathways.

XVI. Executive members were supportive of the model and progress so far, recognising the benefits that organisations working together can bring for the individual and for the services involved. It was agreed that careful monitoring of capacity was needed with next stages phased in gradually. Patient feedback alongside recording

	of trends and analysis of any gaps in service will help develop the model.
4.4.3	**Risk Register** The Health and Wellbeing Executive have worked together compile a partnership risk register. The risks identified relate to the shared vision and priorities of the Live Well South Tees Health and Wellbeing Board i.e. risks that could prevent the attainment of the vision and aims. The risk register will be reviewed six monthly to ensure that the risks remain relevant and that planned mitigation actions are in place with planned action taken according to timescales.
4.5	**PRIORITY 3 - Information and Data**
4.5.1	The Live Well South Tees board identified one of its priorities as better use of intelligence and data to inform decision making, commissioning and service improvements. In order to take this forward, the health and wellbeing board executive agreed to the development of linked multi-agency datasets to inform our population health management (PHM) approach.
4.5.2	A population health management project board has been constituted to progress with this work. The membership of the board includes specialists in epidemiology, data quality & analytics, academics (statisticians), data protection and information governance leads and commissioners. It has been agreed to link datasets for people aged 85years and over as a pathfinder.
4.5.3	The pathfinder project will provide an understanding of questions such as: - Who is accessing services? E.g location in South Tees, ethnicity, etc - What services are they accessing? - Where are they accessing services? - When are they accessing services? - What pathways of care are in place for them? - How much is it costing the system for their care? - How often are they accessing services? - What outcomes of care are we achieving for them? - How easy is it to link our datasets based on our current practices of data capture, coding, identification etc? - What level of analytical capacity and capability do we require in South Tees for PHM
6	**RECOMMENDATIONS**
6.1	That Live Well South Tees Health and Wellbeing Board: • Are assured that the Board is fulfilling its statutory obligations • Note the progress made in implementing the Board's Vision and Priorities
7	**BACKGROUND PAPERS.**
7.1	No background papers other than published works were used in writing this report.

8 **Contact Officer**

Kathryn Warnock – South Tees Integration Programme Manager

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Meeting	Live Well South Tees Board
Date	12 March 2020
Title	Health Protection Assurance Report 2019
Responsible Officer	Carole Wood, Interim Director of Public Health, South Tees
Purpose of Item	To provide Live Well South Tees Board assurance on the arrangements and plans in place for protecting the health of the local population in Middlesbrough and Redcar & Cleveland.
Summary of Recommendations	
That Live Well South Tees Board: • Receive the health protection assurance report for South Tees for information.	

Purpose of the Report

1 This paper sets out the means by which the Director of Public Health is assured that the health of the population of Middlesbrough and Redcar & Cleveland is protected. In doing this, it lays out the statutory duty placed on Local Authorities for health protection and outlines the role of the Director of Public Health (DPH). It also presents the multi-agency arrangements that has been implemented for South Tees, which draws together key health protection programmes and identifies where assurance has been sought in this area of key responsibility. Finally, the paper will identify areas where this assurance could be strengthened.

Statutory Responsibilities

2 Under the Health and Social Care Act reforms introduced in 2013, a range of public health functions and statutory duties were integrated within Local Authorities and are additional to the existing public protection duties. This move brought with it responsibilities across the three domains of public health – health improvement, health protection and healthcare public health. The health protection element of these statutory responsibilities and the mandatory responsibilities of the DPH are as outlined below (detailed in Appendix 1).

a) The Secretary of State's public health protection functions;
b) Exercising the local authority's functions in planning for, and responding to, emergencies that present a risk to public health;
c) Such other public health functions as the Secretary of State specifies in regulations;
d) Directors of Public Health (DsPH) will be responsible for the local authority's public health response as a responsible authority under the Licensing Act 2003, such as making representations about licensing applications; and
e) Local Authority DsPH "will have a duty to ensure plans are in place to protect their population including through screening and immunisation.

The key elements of health protection

3 Health Protection can be viewed as falling into three main areas:

- Prevention
- Planning, preparedness and response to incidents/outbreaks
- Surveillance

Prevention

4 Local authorities have always had duties and powers to tackle environmental hazards. The move of local public health functions from the NHS into local government opened up new opportunities for joint working across the Council to tackle areas where there are potential threats, including food-borne infectious diseases and environmental hazards as well as preparedness for emergencies that have an impact on the public's health.

5 The local leadership of the DPH plays an important part in ensuring that the local authority and local partners are supporting preventative services that tackle key threats to the health of local people.

Some examples of this preventative role include:

- ensuring that screening and immunisation programmes are quality assured and meet the needs of the local population;
- ensuring there are integrated services in place to prevent and control tuberculosis;
- commissioning measures to minimise drug-related harm, such as transmission of blood-borne viruses among injecting drug users;
- developing local plans to monitor and prevent transmission of sexually transmitted diseases, to control outbreaks and to foster improvements in sexual health;
- developing local initiatives to raise awareness of risks of infectious diseases
- working with environmental health colleagues who regulate businesses providing tattooing, cosmetic piercing, semi-permanent skin-colouring, electrolysis and acupuncture so as to reduce risks of harm;
- preparing for extreme weather events such as heatwaves and flooding with a view to preventing and/or reducing the impacts on health, such as the impact on mental health and wellbeing of flooding;
- advising on preparation of cold weather and heatwave plans; and
- working with environmental health colleagues to improve local air quality.

Planning and preparedness

6 Effective planning is essential to limit the impact on health when hazards cannot be prevented. The legal duty under the NHS Act 2006 to protect the population will rest with the Secretary of State and will be discharged through Public Health England, which will provide the specialist health protection expertise to support local agencies in developing their plans to respond to public health emergencies and incidents.

7 Upper tier and unitary local authorities have duties in relation to emergency planning as Category 1 responders under the Civil Contingencies Act 2004. There is also a statutory requirement placed on them to take steps to protect the health of their geographical population from threats ranging from relatively minor outbreaks and health protection incidents to full-scale emergencies.

8 The DPH will therefore provide advice, challenge and advocacy to protect the local population. Responsibility for responding appropriately to this advice (and accountability for any adverse impact if that advice is not heeded) rests with other organisations.

9 However, local authorities have a key lever to improve the quality of health protection plans through the effective escalation of issues. This includes raising issues locally, with the partner concerned, or with the health and wellbeing board, or directly with commissioners if there are concerns about commissioning of prevention services.

Surveillance

10 Surveillance can be defined as "the continuing scrutiny of all aspects of the occurrence and spread of disease pertinent to effective control in order to inform and direct public health action". The Local Authority receives this information from a range of sources including Public Health England and NHS England. This is monitored to inform decisions for local action.

11 Public Health England ensures that an integrated national, regional and local surveillance capacity able to identify and track outbreaks across the country is maintained. Public Health England (PHE) ensures that all relevant partners, including DsPH and local public health teams, are kept fully informed of trends and possible threats. A summary of this work is outlined in the PHE annual report. Local authority public health and environmental health teams play a vital role in local surveillance, for example, through bringing individual cases to the attention of Public Health England. Public Health England North East also produce an annual report on key health protection issues which adds to local surveillance data and ensures that the DPH has key intelligence on major issues of importance.

Health Protection Plan and governance

12 The DPH and public health team regularly deal with health protection issues. These vary greatly in topic and scale, but all fall to the DPH's assurance under the statutory responsibility to protect the health of the population of South Tees. To illustrate this, some of the issues this year have been:

- Seasonal flu vaccination programme for Middlesbrough and Redcar & Cleveland and commissioned care staff.
- A cluster of Tuberculosis in Middlesbrough was investigated and prevention plans put in place to avoid further transmission. On world tuberculosis (TB) day, education sessions were arranged with GP's, health visitors and maternity services. Awareness raising sessions and specific work was also

implemented with targeted at risk communities to remain a priority for immunisation and early access to treatment.

- An observed increasing trend in Syphilis across Tees. A multi-agency group chaired by the PHE consultant in health protection investigated and appropriate steps were taken for further media campaigns and education for health professional. Other measures included contact tracing to prevent reckless transmission.
- A scrap yard fire where the population health of the public health needed to be considered. It was identified that there was no major threat to population health in this case, but many such cases can result in protective measure being taken.
- Fire at the Marton Country Club in Middlesbrough and SSI site in Redcar & Cleveland. In the case of the Marton Country Club, national experts were called on for support due to identification of asbestos within the structure of the building and the widespread smoke debris. In the case of the SSI incident the DPH was the STAC (scientific and technical advisory cell) chair.
- Colleagues from PHE support the national work for anti-microbial resistance to include reducing supply through prescribing practices, reducing demand through public awareness programmes and wider infection control across communities.
- Allergens have been a key area of focus in our action plan to be given much more visibility. This was incorporated into Food Safety Week. The teams have been sending out information to restaurants and takeaways and a number of food samples have been taken to monitor compliance.
- Work has been done with the Environment Agency colleagues on bathing water quality in our 6 coast lines. An application has been submitted for the blue flag in Saltburn.
- The Health Protection Team at Public Health England investigated a total of 39 outbreaks or public health incidents across South Tees during 2019. The majority of these were outbreaks of viral gastroenteritis in care homes. These are common occurrences, and the Health Protection Team offers advice and support to care homes in controlling these outbreaks.
- The Health Protection Team received over 1,000 statutory notifications of cases of infectious diseases across South Tees in 2019, of which more than 600 required public health action or advice which the Health Protection Team provided.
- The beginning of the seasonal flu season saw a high number of people reporting flu like symptoms, particularly in schools, which led to school closures in some cases. School closures are not routinely advised as a public health measure, but may be required if, for example, there are not sufficient numbers of staff at work to run the school safely.

13 In order to capture the breadth and complexity of these far ranging responsibilities and to ensure assurance, the DPH has brought together a multi-agency health protection assurance board with a health protection plan on a page for implementation (appendix 3). The plan provides an oversight of health protection and Emergency Preparedness actions and assurance mechanisms. It includes a focus on:

- Effective screening and immunisation arrangements are in place to support prevention, early detection and treatment of disease

- Prevention and management of outbreaks and communicable disease
- Strategic regulation interventions including environmental hazards
- Effective emergency response and recovery arrangements are in place.

14 The plan also identifies where assurance that key actions to protect health are reported to including:

- Range of reports from Public Health Oversight Group for screening and immunisation programmes across the North East (NE)
- Reports from NHS England (NHSE) on quality assurance and any incidents
- Outbreak control reports from PHE
- Healthcare acquired infection control group
- Health protection committee
- Emergency plans
- NE Local Health Resilience Partnership Annual Assurance Process

15 A South Tees health protection workshop is also held on an annual basis to engage wider community partners and help develop community resilience to protect the health of our population.

Health Protection Assurance

Areas where assurance is strong

Screening and Immunisation

16 Within the area of immunisation and screening, overall South Tees performs well with the childhood immunisations and breast and cervical cancer screening performing above or at the England average. For example, vaccination coverage of 12 months old infants for PCV (**pneumococcal conjugate vaccine**) is generally above 95% since 2013/14. South Tees consistently performs above national target of 95% for 12 month old children vaccinated with the 6-in-1 vaccination, DTaP/IPV/Hib (**diphtheria and tetanus toxoids and acellular pertussis adsorbed, inactivated poliovirus and haemophilus B conjugate vaccine**). Rates of 5 year old children vaccinated with the MMR1 (**measles, mumps, and rubella**) vaccine have generally been higher than the national target for the last three years in South Tees. Rates of Breast Cancer screening in South Tees have now matched the overall England rate in 2017/18.
Cervical screening rates in South Tees have been similar to or higher than the England rate for the last 4 years. Diabetic eye screening uptake, and the issue of results within 3 weeks of screening are both consistently above the national target and have been for several years at STHFT. Rates of antenatal infectious disease screening for HIV (**human immunodeficiency virus**) have increased at STHFT to a rate above the national target (over 99%). New born and infants receiving a physical examination have increased from below to acceptable threshold to meeting the threshold at STHFT in the last 12 months.
In addition to this, the Local Authority has been successful in a bid for money from the Cancer Alliance to provide extra support to those communities where there are

inequality of uptake for cancer screening. The South Tees approach is now being rolled out across the North East region. The South Tees co-ordinated seasonal flu programme is another area of good practice.
Embedded as appendix 2 of this report is a full analysis of the screening and immunisation uptake in South Tees.

Communicable Disease Control

17 South Tees performs very well with its prevention and management of communicable diseases. There is very strong partnership working between Public Health Team, dedicated Infection Control Team, Public Protection teams for both councils and a highly professional local team at Public Health England.

18 In addition, the commissioned sexual health service is taking part in the national trial of PrEP (**pre-exposure prophylaxis**) which provides medication that protects against contracting HIV in vulnerable individuals.

Emergency Preparedness, Resilience, Response and Recovery

19 In the area of Emergency Planning, Resilience, Response and Recovery, both Local Authorities play an active role in planning and exercising with all partners and has a valuable resource in the Cleveland Emergency Protection Unit (CEPU). There is also good co-ordination across partner organisations through membership of the Local Resilience Forum (LRF).

20 In addition, a lead DPH co-chairs the Local Health Resilience Partnership which ensures that the NHS have robust plans in place for emergency situations and is also the lead DPH in the region for health protection in prisons.

21 These organisations and bodies provide a level of assurance to the DPH that the system is robust. This is particularly true working with external agencies. Further evidence of assurance is outlined in the health protection plan.

Areas where further assurance is needed

Screening and Immunisation

22 Uptake in cervical screening is declining nationally, partially since the roll out of the HPV (**Human papillomavirus)** vaccination programme' however locally rates are fairly stable. The HPV vaccination programme has prompted the NHS to look at redesigning the frequency of the screening test for those people who have been vaccinated. Locally, we have a programme of work to improve uptake of the HPV vaccine. Vaccination rates for Rotavirus in 12 month old infants have been below the 95% target rate since monitoring of the indicator began in 2017/18. Vaccination rates for all diseases for 12 month and 24 month of age infants have decreased in quarter 1 of 2018/19.
Rates of the Hib (**Haemophilus influenza type b**) /Men C (**Meningitis C**) Booster vaccine in 24 month old infants have been below the national target since the beginning of 2017/18. Dtap/IPV Booster rates have been consistently lower than the national target of 95% since 2013/14, with the exception of one quarter in 2016/17. Rates for this booster have been at their lowest since the beginning of 2017/18.

Bowel cancer screening rates in South Tees have been lower than the England rate.

23 Feedback and early communication about key screening and immunisation issues has improved but could be strengthened further. NHSE is leading the way to establish a Tees screening and immunisation oversight group. NHSE also provide the DPH with more specific South Tees information of any concerns or actions. E.g. inequalities in uptake of childhood immunisations.

Communicable Disease Control

24 There are still areas of clarity required particularly on meningitis vaccination and screening of Tuberculosis for international students at Teesside University.

Emergency Planning, Resilience, Response and Recovery

25 Key issues where further assurance is need include:

- Uptake of seasonal flu immunisations;
- Excess winter death plan;
- Impact of Brexit; and
- Community resilience to respond to emergencies.

26 These areas of further action and assurance are being addressed and form key actions in the health protection plan.

Next Steps

26 To develop a South Tees health protection assurance dashboard to help with further prioritisation moving forward and to continue to implement the current action plan.

Recommendations

27 It is recommended that, the Live Well South Tees Board:

- Receive the health protection assurance report for South Tees for information.

Contact officer(s)

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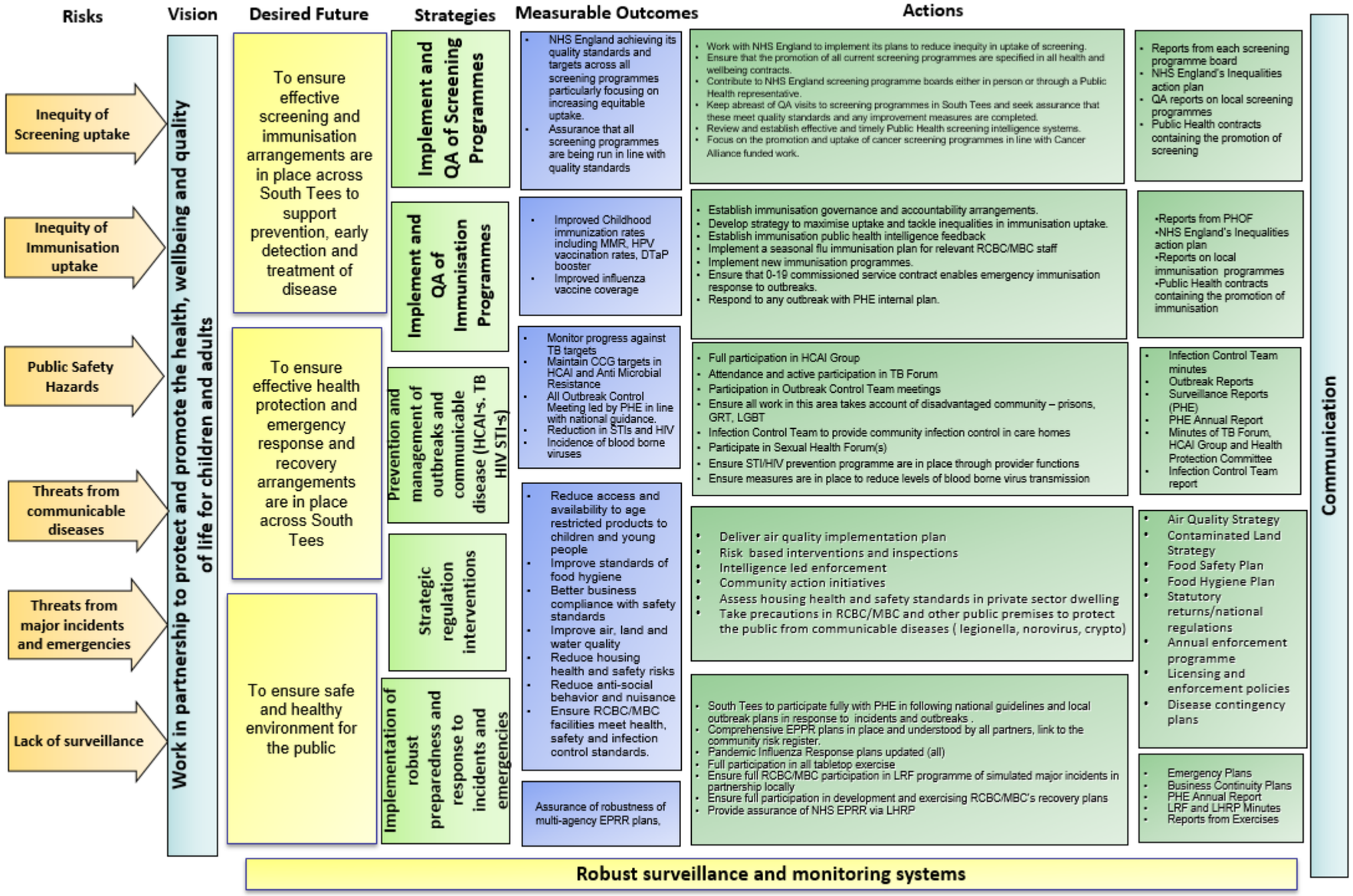
Appendix 1: Health Protection Statutory Duties

Mandatory Responsibilities of the DPH;	**Legislative origin**
1. Any of the Secretary of State's **public health protection or health improvement functions**	Section 73A (1) of the 2006 Act, inserted by section 30 of the 2012 Act. These include services mandated by regulations made under section 6C of the 2006 Act, inserted by section 18of the 2012 Act.
2. Exercising the local authority's functions in planning for, and responding to, **emergencies that present a risk to public health**	Section 73A(1) of the 2006 Act, inserted by section 30 of the 2012 Act
3. **Such other** public health functions **as the Secretary of State specifies** in regulations	Section 73A(1) of the 2006 Act, inserted by section 30 of the 2012 Act
4. DsPH will be responsible for **the local authority's public health response as a responsible authority under the Licensing Act 2003**, such as making representations about licensing applications	Through regulations made under section 73A (1) of the 2006 Act, inserted by section 30 of the 2012 Act. This function is given to local authorities by sections 5(3), 13(4), 69(4) and 172B (4) of the Licensing Act, as amended by Schedule 5 of the 2012 Act.
5. LA (**DsPH**) "will have a duty to ensure **plans are in place to protect their population including through screening and immunisation**	National screening and immunisation programmes. Letter from DH, 23.08.2012, p5.

Appendix 2: Screening and immunisation assurance report

APPENDIX 3: HEALTH PROTECTION– SOUTH TEES PLAN ON A PAGE



List of Acronyms:
CCG – Clinical Commissioning Group
DTaP – Diphtheria and tetanus toxoids and acellular pertussis adsorbed
EPRR - Emergency Preparedness, Resilience and Response
GRT – Gypsy, Roma and Traveller
HCAI – Healthcare associated infections
HIV – Human immunodeficiency virus
HPV – Human papilloma virus
LGBT - Lesbian, gay, bisexual, and transgender
LHRP – Local health resilience partnership
LRF – Local resilience forum
MBC – Middlesbrough Borough Council
MMR – Measles, Mumps and Rubella
PHE – Public Health England
PHOF – Public Health Outcomes Framework
RCBC – Redcar and Cleveland Borough Council
QA – Quality assurance
STI – Sexually transmitted infection
TB - Tuberculodis