

Health and Wellbeing Strategy 2016-2020 Outcome 4: Healthy Environment Report

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HWBB meeting date	30 th May 2018	Next meeting this priority outcome will be discussed	Between September and December 2018

Priority Outcome 4: Nottingham's Environment will be sustainable – supporting and enabling its citizens to have good health and wellbeing

Priority Actions: By 2020 Nottingham will be a city where:

A. Housing: will maximise the benefit and minimise the risk to health of Nottingham's citizens.

B. The Built Environment: will support citizens leading healthy lifestyles and minimise the risk of negative impact upon their wellbeing.

C. Transport: Children and adults will be able to engage in active travel.

D. Parks and green spaces: Children and adults will have access to and use of green spaces to optimize their physical and mental health.

E. Air quality: Air pollution levels in Nottingham will reduce.

Executive summary

This report informs Health and Wellbeing Board members of the progress and continuing challenges that exist locally in advancing the Health and Wellbeing Strategy Healthy Environment Outcome. The report covers the five themed areas relating to housing, the built environment, transport and active travel, parks and green spaces and improving air quality.

A. Housing

Clear strategic planning and improved housing provision can maximise the benefit and minimise the risk to health of citizens.

Progress and key areas of development include

- Establishing a common hospital discharge scheme across the STP footprint
- Engagement with the consultation and implementation of the Homelessness Prevention strategy
- Complying with the introduction of the Homelessness Reduction Act
- Introduction of the Selective Licensing scheme to regulate minimum standards for 32,000 homes in the private rental sector from August 2018
- Over the last year more citizens, who were unsatisfied with their housing conditions, have been supported than ever before

Challenges include

- Uncertainty about funding and commissioning arrangements across the system i.e. that are not specifically related to housing but can adversely impact on citizens and their housing situation / need
- Further consideration needs to be given to how the whole system can contribute to delivery of prevention initiatives that minimise the risk of homelessness

B. Built environment

The environment and the way it is planned can have significant impacts on health and wellbeing outcomes. Creating an environment in which people can live healthier lives with a greater sense of wellbeing is hugely important in reducing health inequalities.

Progress and key areas of development include

- The Nottingham Land and Planning Policies Document (LAPP) sets out a proposal to control provision of hot food takeaway premises being established near to secondary schools. Hearing sessions are anticipated to take place in September this year.
- A new Open Spaces Supplementary Planning Document aims to ensure open space contributions can be negotiated in all new housing developments of 10 or more homes.

Challenges include

- The proposal will face stiff opposition from fast food outlets and similar policies have been challenged in other local authorities e.g. Gedling District Council

C. Transport and active travel

Transport is a major source of air pollution and accelerating transition to sustainable travel options including low emission vehicle fleets will help to improve air quality and increase physical activity.

Progress and key areas of development include

- £7.8m of additional investment has been secured from 2016/17-2019/20 to support Go Ultra Low, Access Fund and Air Quality Grant initiatives that support the HWBS
- A new enhanced [Workplace Travel Service](#) offering a package of advice, grants and support services to help business and organisation adopt sustainable and low emission travel options is in place. HWBB member organisations are engaging in the programme.
- Contract awarded to Chargemaster to implement electric vehicle charging infrastructure network across Nottingham and Derby construction started in April.
- An increasing number of sustainable travel options are available to employers and citizens e.g. personalised travel plan advice, alternative business and commuting travel options, community cycle centres offering free services, organised and self guided rides and construction of pedestrian and cycle routes across the city

Challenges include

- Uncertainty over funding for 2020/21 onwards – many of the Transport initiatives achieved to date that are contributing towards a healthier environment have been dependent on successful bids for external funding.

D. Parks and green spaces

An environment that encourages walking and cycling can also support the local economy, providing a vibrant and attractive neighbourhood. Access to attractive green spaces, aside from encouraging physical activity, can also improve mental wellbeing and help support social inclusion and community cohesion.

Progress and key areas of development include

- Expansion of cycle and walking routes through parks and green spaces and new footpaths upgraded at multiple sites across the city
- Parks and open spaces infrastructure has improved with new cafes installed at The Arboretum, Wollaton park, Woodthorpe Grange Park and the Forest Recreation Ground.
- All University Campuses within the City now hold the Green Flag Status award. Twenty-two organisations have entered the Community Green Flag awards for 2018.
- Work is underway with NCH to develop a programme of new Green Flag status housing estates in the City

Challenges include

- Sustaining healthy lifestyle initiatives in parks and green spaces when external funding ceases

E. Air Quality

Air pollution adversely affects people's health. Long-term exposure to air pollution at the levels experienced in many Town and Cities in the UK, including Nottingham, causes respiratory and cardiovascular disease and lung cancer. Short-term exposure to episodes of elevated air pollution also leads to a worsening of symptoms for those with existing asthma, respiratory or cardiovascular disease, and can trigger acute events such as heart attacks in vulnerable individuals.

Progress and key areas of development include

- A wide range of initiatives across a number of HWBB member organisations including improved public transport infrastructure, eco expressway, transition to Ultra Low Emission Vehicles (ULEV), reduced single occupancy vehicle journeys
- Secured £1.1m grant funding to support the transition of Hackney and Private Hire Vehicles (taxis) to ULEV
- Greater co-ordination and participation in National Clean Air Day
- HWBB member organisations revised procurement policies to include social value, reviewing staff travel arrangements, implementing staff survey, implementing travel plans
- Reduction of carbon emitting vehicles within service fleets
- Two air quality measures are on track or meeting the recommended and target levels (see Table 2 and appendix 1)

Challenges include

- Establishing greater consistency and equity in implementing air quality improvement measures across HWBB member organisations

Healthy Environment action plan measures (summary only, further detail in Appendix1)

Table 1 showing Outcome 4: headline measures comparing Nottingham to region, England and baseline values by theme

Item	HE theme this relates to	Measure (source)	Nottingham value (data period)	Baseline (year)	Direction since time period (value)	Comparison to HWBS (baseline)	Comparison to East Midlands	Comparison to England	Comparison to HWBS (target)
1	Housing	Excess Winter Deaths Index (PHOF 4.15iii)	23.5%* (2014-17)	21.8% (2011-14)	Worse than 2013-2016 (22.9%)	Worse (21.8%)	Not compared	Not compared	Worse (18.15%)
2		Fuel Poverty (PHOF 1.17)	15.8% (2015)	14% (2013)	Worse than 2014 (13.5%)	Worse (14%)	Not compared	Not compared	Worse (13.1%)
3	The Built Environment and Transport (active travel)	Proportion of physically active adults (PHOF 2.13i)	65.3% (2016/17)	NA**	Better than 2015/16 (64.4%)	Not comparable**	Similar	Similar	Not comparable**
4		Proportion of physically inactive adults (PHOF 2.13ii)	23.3% (2016/17)	NA**	Better than 2015/16 (24.6%)	Not comparable**	Similar	Similar	Not comparable**
5		Proportion of children aged 10-11 years with excess weight (PHOF 2.06ii)	39.7% (2016/17)	37.9% (2014/15)	Worse than 2015/16 (37.0%)	Worse (37.9%)	Worse	Worse	Worse (37.3%)
6	Parks and Green Spaces	Proportion of people using outdoor space for exercise/health reasons (PHOF 1.16)	15.6% (2015/16)	7.8% (2013/14)	Better than 2014/15 (10.5%)	Better (7.8%)	Similar	Similar	Not compared no trajectory set
7	Air Quality	See table 2 below							

Source PHOF - Public Health Outcomes Framework <https://fingertips.phe.org.uk/profile/public-health-outcomes-framework>

*locally calculated based on HES data and ONS not publically available on PHOF yet so no comparison with region or England available

**the measure changed in 2015/16 see full report in appendix for details

Table 2: Showing Nottingham City Air Quality measure's performance in relation to baseline and targets 2016/17 and 2017/18. Values are annual mean readings.

Indicator and Target	Baseline	2016/17	2017/18	RAG
Air quality: reduce NO ₂ to WHO recommended and Air Quality Objective (AQO) level of 40ug/m ³ , measured locally	48	42	44	ON TRACK TO MEET TARGET (40ug/m ³) (GREEN)
Air quality: reduce PM ₁₀ to WHO recommended level of 25ug/m ³ , Air Quality Objective (AQO) level is 40ug/m ³ , measured locally	17	17	18	NATIONAL AQO AND WHO MET LOCAL TARGET (15ug/m ³) NOT MET (AMBER)
Air quality: reduce PM _{2.5} (WHO recommended level is 10ug/m ³ , measured locally)	12	12	12	LOCAL TARGET (10ug/m ³) NOT MET (RED)

Key Progress

A. Housing

Background

Housing is a priority within the Healthy Environment outcome of the HWBS because through housing strategy and good quality housing provision Nottingham can maximise the benefit and minimise the risks to health of citizens. The HWBS aims to achieve this through improving housing standards and direct support to vulnerable people who may be at risk of homelessness and to work with housing providers to support people to live healthier and independent lives at home.

Progress with key areas of action include:

- *Developing joint housing actions to prevent hospital admissions, reduce re-admissions, and speed up hospital discharge*

A lot of work has been done to develop a common hospital discharge scheme across the whole of the STP footprint. This has been held up as an example of good practice nationally. However, it has been difficult to secure funding for the scheme both in the City and across mid Notts.

The Hospital to Home (H2H) project in the City has been funded until March 2019. It has been extended and there is now a post based within NUH. This post is jointly funded by the County CCG and in addition to referrals within the City; we are also making referrals to the local authorities in Greater Notts. This is a new post and no data is yet available, but early indications are that this is a much valued post and is already producing some good outcomes for both health and adult social care. The 2017/18 evaluation report for the Hospital to Home project is due to be finalised soon and a headline report will be available to share with the HWB Board in May.

Status - GREEN

- *Enable local health, housing and social care partners to identify and fulfil their role in preventing homelessness, reducing repeat homelessness and meeting the health and wellbeing needs of homeless people*

The new Homelessness Prevention strategy is under development and will be available for consultation from Monday 7th May. It is a statutory requirement for the strategy to be developed by a cross-sector partnership and therefore health and adult social care need to engage with the consultation process. This includes identifying the actions that are to be owned and delivered by each sector and developing a pledge outlining their commitment to delivering activity that helps to prevent homelessness in Nottingham. It would be helpful to have a named contact point from adult social care, NUH NHS Trust and Nottingham City CCG who could help to drive this forward within the organisations.

The review of housing related support provision has concluded and contracts have been awarded. However, service development continues due to the introduction of the Homelessness Reduction Act and rising levels of homelessness (including rough sleeping).

Recently NCC have developed a bid to the Life Chances Fund to support rough sleepers into accommodation and away from emergency healthcare. All cost avoidance would be of benefit to the health and social care system further consideration needs to be given to how to maximise these

funding opportunities.

The Homelessness Reduction Act has introduced a new statutory duty on all public bodies (including health and social care) to refer people for support if they believe them to be at risk of homelessness. The Head of Housing Solutions at NCC has been delivering training to inform local stakeholders about the new legislative requirements. NCC is working with the National Practitioner Support Service (NPSS) to pilot software that supports the referral process. It would be worthwhile for health and adult social care to participate in this pilot and be informed of the processes they will need to implement when this part of the legislation comes into force in October 2018.

Status - GREEN

- *Ensuring homes are safe and well managed protecting the health and wellbeing of tenants*

The scheme of Selective Licensing bringing 32,000 homes into a framework of regulation to ensure minimum standards of safety and management has been agreed and will go live in August 2018. As well as looking at housing conditions, outcomes will include tenancy and health protection, homelessness prevention safeguarding and the ability to signpost citizens for key areas of support. As this scheme is implemented further potential benefits will be explored which could include links to for example, the hospital discharge schemes. Priorities for delivery of inspections will include the areas identified in the Building Research Establishment (BRE) report on housing condition.

A further dedicated rogue landlord team is in place focussing on the worst properties with history of poor management. As part of this and the routine work of the team there are joint operations to deliver wider benefit than housing conditions outcomes have included tenant protection, safeguarding, homelessness prevention, housing related crime responses and responses to exploitation including modern day slavery .

There has been significant work with other service areas, organisations, partners and reaching into communities especially emerging communities about housing expectations, safer homes and tenancies and the housing service offer. Visits and investigations will include partners and as appropriate community and voluntary sector support.

There has been further work on tackling excess cold including bids for supportive funding to assist landlords and tenants with property improvement

Status - GREEN

- *Develop a programme of energy efficiency works, targeting poorly performing homes, to reduce the health impacts from cold homes and fuel poverty*

The Healthy Housing Service provided by Nottingham Energy Partnership (NEP) has exceeded 100% of all of its contractual requirements delivering its key objectives around training of front line staff around fuel poverty and the impact of cold homes on health; numbers of vulnerable people referred from target groups and delivery of energy efficiency / home improvement measures such as boiler installations. Owing to budget decisions, Nottingham City Council has disinvested in the service from 31st May 2018. However, NEP have secured independent funding and will continue to provide a service across the City.

The Nottingham Fuel Poverty and Energy Efficiency Strategy is in a near final draft stage and will

be circulated when complete.

Status - Amber

Other developments / success for the HWBB to note include:

- The Hospital Co-ordinator post for the H2H project has been jointly funded by the County. There were delays in securing funding for the H2H project for 2018/19 and there is uncertainty as to whether the scheme will be funded beyond this. Early referrals are around Assistive Technology (AT) to support discharge, but also prevent admission and readmission.
- H2H project has been the subject of several national reports, including Kings Fund.
- The Healthy Environment Housing Lead was asked to give evidence at a Parliamentary Select Committee in December 2017. The outcomes from the Committee were reported and can be accessed through the following link. <https://publications.parliament.uk/pa/cm201719/cmselect/cmcomloc/370/37002.htm>
- Housing work within Nottingham has also been reported by the Kings Fund - Report on Housing and Health <https://www.kingsfund.org.uk/publications/housing-and-health>
- The H2H project featured in a report produced by the National Housing Federation <https://www.housing.org.uk/partnership-case-study-hospital-to-home-by-nottingham-city-homes/>
- The Secretary of State's approval for a Selective Licensing bringing 32,000 homes into a framework of regulation received national recognition.
- Over the last year more citizens unsatisfied with their housing conditions have been reached than ever before and the number of known properties improved is just under 500.
- A partnership Warm Homes bid for "off gas" properties to have adaptations such as modern energy efficient boilers installed has been submitted the outcome of which is pending.

Risks and challenges with delivery of the key areas of action:

- *Develop joint housing actions to prevent hospital admissions, reduce re-admissions, and speed up hospital discharge*

Uncertainty about the future of the H2H project makes it difficult to plan and can hold back innovation. It also means NCH run the risk of losing staff who are dedicated to the project. NCH are constantly evaluating the project for future funding, and we need to focus on delivery.

- *Enable local health, housing and social care partners to identify and fulfil their role in preventing homelessness, reducing repeat homelessness and meeting the health and wellbeing needs of homeless people*

The decommissioning of the dual diagnosis service is likely to increase the risk of homelessness for people who will be left unsupported. The decision seems to have been taken without consultation with the housing sector about the impact. It is also not in line with the findings of the recent research commissioned by the CCG on mental health and homelessness which recommends the provision of dual diagnosis and other multi-needs services to tackle the social exclusion that leads to homelessness.

- *Ensuring homes are safe and well managed protecting the health and wellbeing of tenants*

Priorities for delivery of inspections will include the areas identified in the BRE report on housing condition to mitigate the greatest risks. The work of Rogue Landlord team also targets enforcement action against the worst landlords.

Recommendations relating to Housing

It is recommended the HWBB note the content of the report on housing and that members of the board:

1. Identify named contacts from Adult Social Care, NUH Trust and Nottingham City CCG to help coordinate and drive input into the new Homelessness Prevention Strategy
2. Nominated officers to support the pilot of the 'duty to refer' software within the health and social care sectors
3. Consider how health, housing and adult social care can develop and deliver joint preventative initiatives that reduce the risk of homelessness, positively impact on health and wellbeing and reduce the costs to the health and adult social care system
4. Support for the selective licensing scheme from all HWBB partners
5. Recognises the role housing plays in improving health outcomes for citizens. The role housing workers can play as part of the wider workforce addressing health inequalities
6. Support the Hospital to Home project beyond March 2019
7. Enable referrals to the H2H project to maximise early intervention/prevention opportunities
8. Enable referrals for Assistive Technology services which are part of the early intervention/prevention initiative
9. Reporting any properties of concern that agencies come across

B. The Built Environment

Background

The environment and the way it is planned can have significant impacts on health and wellbeing outcomes. Creating an environment in which people can live healthier lives with a greater sense of wellbeing is hugely important in reducing health inequalities. Local building and planning policies that aim to achieve a high quality environment, non-threatening and accessible open spaces, opportunities to grow healthy food along with planning controls on access to energy dense food can encourage healthy activities and help to tackle obesity.

Progress with key areas of action include:

- *Controlling Hot Food Take Aways near secondary schools*

The Nottingham Land and Planning Policies Document (LAPP), referred to as the [Local Plan Part 2](#) was approved by NCC full council on 5th March 2018. The Local Plan Part 2, when adopted, will

- set out planning policies for Nottingham City
- guide how decisions on planning applications will be made
- allocate land for development

The Local Plan was submitted to the Secretary of State for independent examination in April 2018, and the hearing sessions are anticipated to take place in September 2018.

Section 4 of the plan focuses on Local Services and Healthy Lifestyles states,

“The Local Plan also has an important role to play in influencing wider health and wellbeing objectives by facilitating the development of appropriate education and health proposals and supporting healthy eating. The provision of facilities such as allotments, open space and play areas provide opportunities for exercise, recreation and for citizens to grow their own fresh food (policies relating to these topics can be found within the ‘Our Environment’ section). Locational policies ensure hot food takeaways are appropriately located, particularly in relation to school age children, and can assist in tackling obesity and encouraging healthier eating behaviours.”

The proposed policy development LS1: Food and Drink Uses and Licensed Entertainment Venues Outside the City Centre stipulates that

“...planning permission will be granted for development involving food and drink uses (Use Class A3, A4 and A5) and licensed entertainment venues where it is located within an existing Centre or at least 400 metres from a secondary school unless it can be clearly demonstrated that the proposal will not have a negative impact on health and wellbeing”.

However, objections to the policy have been received from Hot Food restaurant operators and recently the Examination Inspector recommended that Gedling District Council withdraw their similar policy.

Status Amber

- *Explore options for creating built environments that enable good health, e.g. Ensure new housing development (above 10 homes) makes provision for open space.*

A new Open Spaces Supplementary Planning Document is being prepared by colleagues in NCC. This work is ongoing and aims to ensure open space contributions from new developments can be negotiated.

Status Green

Other developments / success for the HWBB to note include:

Further to the controlling hot food take away policy the Local Plan Part 2 includes policies that advance public health and healthier lifestyles in relation to enhancing the quality of existing open spaces, protection of playing fields and sports grounds, preservation of and improved access to allotments.

Risks and challenges with delivery of the key areas of action:

There is a significant (amber) risk that the Examination Inspector could recommend that the proposed Controlling Hot Food Take Aways near secondary schools policy be deleted or amended, as has happened in the case of the Gedling District Council Local Plan. In this case, it will not be possible to adopt the Local Plan with the policy in place.

Recommendations relating to the Built Environment

It is recommended the HWBB note the content of the report on the built environment and that members of the board:

1. participate in the Public Examination in order to ensure the views of the HWBB are considered by the Inspector. Local specific evidence presented by experts will be critical in substantiating the HWB strategy's approach.

C. Transport

Background

The scientific evidence regarding the impacts of air pollution on health is very clear. Transport is a major source of air pollution and accelerating transition to sustainable travel options including low emission vehicle fleets will help to improve air quality and increase physical activity.

There is also a strong Invest to Save case for supporting travel behaviour change and green fleet initiatives for Nottingham's citizens and workforce. Particularly amongst Health and Wellbeing Board partners, in terms of the scale of impact that could be achieved through workforce behaviour change for business and commuter travel and the NHS savings which would be achieved through the wider health benefits for citizens, of both improved air quality and take up of more active travel.

The collective purchasing power of HWBB member organisations can significantly influence local supply chains to adopt greener fleets through working in partnership to implement sustainable procurement and commissioning processes.

Progress with key areas of action include:

- *to secure bids for sustainable and active travel projects*

A funding package of £7.8 million has been secured for Nottingham City for 2016/17 – 2019/20 (Go Ultra Low, Access Fund and Air Quality Grant) which supports a range of initiatives and have delivered the following actions to support the Health and Wellbeing Strategy.

Status Green

- *support the development of Workplace Travel Plans*

NCC launched a new enhanced [Workplace Travel Service](#) in October 2017 offering a package of advice, grants and support services to help business and organisation adopt sustainable and low emission travel options for commuter and business trips including finance and support for transition towards electric fleet. To be eligible to access the Bronze, Silver and Gold level funding packages participating organisations need to commit to developing a Travel Action Plan including regular monitoring of travel behaviour through staff travel surveys.

A number of Health and Wellbeing Broad partners are now actively engaged in the programme. NCC has received 44 Expressions of Interest in the Workplace Travel Service and the grant scheme and to date 7 grants have been approved providing £81k of support for local organisations to install electric vehicles charge points or facilities to enable cycling.

Status Amber

- *Establish a Go Ultra Low programme for Nottingham*

The support offer has recently been strengthened by the appointment of a consortia led by Cenex

through a competitive tender to provide an ULEV business engagement package offering fleet reviews, ULEV fleet experience vehicle loans and staff engagement events.

A tender is in preparation to appoint providers for sustainable travel services including workplace engagement events employee personalised travel planning, active travel support services, driver training packages for professional drivers from summer 2018 until March 2020.

Since the launch of the Go Ultra Low Nottingham programme in October 2016, 8 high profile events have been held to engage businesses and citizens and the LEVEL training programme has provided 6 business training events in Nottingham and Derby. A further 11 engagement events and 4 training events are currently planned up to December 2018. These include a 2 day public FestEVal 29 – 30 June to offer residents and businesses the opportunity to view the latest range of electric vehicles, talk to ULEV champions, arrange test drives and find out more about the future of ultra low emission transport.

A contract has been awarded to Chargemaster for development of electric vehicle charging infrastructure network across Nottingham and Derby and construction started in April 2018 in Nottingham.

Status Green

- *to raise awareness of pollution levels and health /environmental impacts of air pollution to encourage behavioural change to reduce emissions*

The first phase of the household Personalised Travel Planning (Travel Choices) project has taken place in four areas of the City targeting households with above average car ownership in area of poor air quality.

The project has involved a team of trained Travel Advisors visiting 4,700 households in Silverdale, Old Lenton, the Park and The Meadows to talk about each household's travel needs and promote appropriate travel options. This is supported by a comprehensive Travel Choices information and incentives pack; with resources about the City's travel offer including leaflets about simple steps to improve air quality and promotion of [PHE Active 10 walking tracker](#) and public transport taster tickets. The evaluation results for phase 1 will be available in autumn 2018 and a second phase is planned for 2019.

NCC co-ordinated a citywide participation in the National Clean Air Day on 15th June including a workplace event at Loxley House promoting alternative commute and business travel options to NCC and DWP employees.

Status Green

- *Children and adults will be able to engage in sustainable and active travel and supporting an increase in community activity in local parks*

Sustainable Travel Collective has been appointed through competitive tender to deliver four Community Cycle Centres. These launched in Lenton Abbey and The Meadows in October 2017 and King Edwards Park and Bulwell in March 2018. They provide a range of cycling services twice monthly in each location from March to October to give people the skills and confidence to start cycling. All services and activities are free to City residents and are targeted at communities with low levels of physical activity. The project is funded until March 2020.

A partnership with British Cycling has secured a two year programme of cycle events, organised

and self-guided rides in Nottingham to keep people cycling, including Let's Ride, guided rides, Breeze programme for women cyclists, Go Ride programme in schools and HSBC City Ride in September.

The Nottingham Cycle City Ambition programme has delivered the following cycle network improvements funded through Local Growth Fund:

- ❖ *Western Cycle Corridor* now provides fully segregated cycle corridor from City centre to University of Nottingham/Lenton Abbey via QMC following completion of upgrade to Abbey Bridge.
- ❖ *Cycle bridge to Boots Enterprise Zone* - construction has started on a new pedestrian and cycle bridge across the Midland Main Line to link the Western Cycle Corridor and allow bus/tram passengers on University Boulevard to cross the rail line near the Tennis Centre to access the Boots/Enterprise Zone site. The route is expected to be completed in December 2018.
- ❖ *Construction of the Eastern Cycle Corridor* is now complete (bar some signing and lining) allowing cyclists to travel east from the City along Manvers Street and Daleside Road, segregated from traffic with priority over traffic at all junctions and side roads. The recently upgraded crossing connecting Manvers Street and Sneinton Greenway with City Link allows cyclists and pedestrians to cross Manvers Street in a single stage, whereas previously they were required to cross in two stages and wait on a traffic island. The Eastern Cycle Corridor forms part of the Daleside Road Improvement Scheme providing a priority bus and ULEV lane which opened in April 2018.
- ❖ *The Island Site link* – work is nearing completion on a temporary route across the site to connect City Link with Station Street removing the need for cyclists heading east - west to go on London Road and improving connections between the Eastern Cycle Corridor and Bio City with the Rail Station.

Status Green

- *Supporting actions to improve access to and use of green space*

Children's bike track and lighting – Nottingham Embankment has the first track in the Country which simulates a road environment for children. The track which includes roundabouts and traffic lights is proving very popular. In addition, lighting has been installed along the length of the Embankment Road making it a much more attractive environment for commuters and more welcoming for cyclists and pedestrians at night. The lighting turns off at midnight to preserve the corridor for bats.

Upgrades have taken place to routes across the Forest Recreation Ground (used by Park Run and cyclists) as have routes through Colwick Park.

Status Green

Other developments / success for the HWBB to note include:

NCC is working in partnership with WEGO couriers on Clean Air Delivery project to expand the EU Remourban funded home delivery project in Sneinton across the city to provide a zero emission local last mile delivery service for residents, local businesses and independent retailers including piloting a last mile parcel consolidation hub at a park and ride site.

Work is ongoing to increase the number of electric and ULEV in to NCC's own fleet including

installation of solar canopies, battery storage and vehicle to grid compatible charge points at Eastcroft depot and supporting trials of electric 7.5 tonne trucks and cage tipper vans. To support this, NCC has been successful in securing £1.5million of Early Measures funding to replace conventional diesel and petrol specialist vehicles into ULEVs, including electric cage tippers, street sweepers and up to 3 electric refuse collection vehicles.

NCC won the 2017 Ashden Award for Clean Air in Towns and Cities based on our integrated approach to transport including the introduction of the Workplace Parking Levy in 2011, the introduction of smart ticketing through the Robin Hood smartcard in 2015 and a significant electric and gas fuelled bus fleet. *“Nottingham City Council is a sustainable transport exemplar and on a par with top European cities like Berlin and Vienna. It has achieved full public transport integration and brought in a unique Workplace Parking Levy and, in doing so, has succeeded in changing behaviour as well as transforming parts of the city into quieter, less polluted zones.”* For more information go to <https://www.ashden.org/winners/nottingham>

Risks and challenges with delivery of the key areas of action:

Uncertainty over funding for 2020/21 onwards – many of the Transport initiatives achieved to date that are contributing towards a healthier environment have been dependent on successful bids for external funding. The current Local Growth Funding packages for cycle infrastructure projects end in 2018/19 and the Access Fund and Go Ultra Low programme funding ends in March 2020.

Recommendations relating to Transport

It is recommended the HWBB note the content of the report on Transport and active travel and that members of the board:

1. Continue to lead by example by taking part in the Workplace Travel Service business support programme to become early adopters of ultra-low emission fleets and sustainable commuter and business travel practices, with business case and monitoring supported by SDU Health Outcomes Travel Tool
<https://www.sduhealth.org.uk/delivery/measure/health-outcomes-travel-tool.aspx>
2. Nominate an air quality travel and infrastructure change champion within their organisation as lead contact for Workplace Travel Service and joint working on sustainable procurement good practice.
3. Agree clear and consistent messages to use with their employees and citizens to raise public awareness regarding health impacts of air quality and actions that can be taken to support cleaner air in Nottingham.
4. Participate in the ULEV and LEVEL good practice networks and business events to share their organisations' expertise with local partners and cascade through supply chains.

D. Parks and Green Spaces

Background

Creating an environment in which people can live healthier lives with a greater sense of wellbeing is hugely significant in reducing health inequalities. An environment that encourages walking and cycling can also support the local economy, providing a vibrant and attractive neighbourhood. Access to attractive green spaces, aside from encouraging physical activity, can also improve mental wellbeing and help support social inclusion and community cohesion.

In the early 2000's the government set targets to increase levels of participation in physical activity

and sport including measures for providing cleaner, safer and greener public spaces. The Marmot Review (2010) stressed the importance of maintaining access to good quality open space and improvements where it is lacking in order to help tackle health inequalities.

Public parks account for one-third of all the public green space and 90% of peoples green space use. If an area has high quality parks, it is likely that more residents will use them more often; resulting in people being more satisfied with their neighbourhood and are more likely to report better health. However, there are stark differences in the provision and accessibility of green space based on socio economic status and ethnicity. Provision of green space is generally worse (less access and lower in quality) in deprived areas than in affluent areas.

Progress with key areas of action include:

- *Support and endorse plans developments and proposals for improving access to and through Green Flag award standard Parks and Green Spaces.*

Continued expansion of cycle and walking routes through parks and green spaces, new footpaths upgraded at Forest Recreation Ground, Valley Road, The Arboretum Woodland Walk, Colwick Country Park, Bilbrough Park and Whitemore nature reserve. Improved social media platforms have been established for all major parks and a number of smaller local parks friendship groups.

Status Green

- *Identify opportunities to improve parks and green space infrastructure including Cafes, supervised toilet facilities footpaths, cycle parking, lighting, biodiversity and maintenance standards.*

New cafes installed at The Arboretum, Wollaton park, Woodthorpe Grange Park and the Forest Recreation Ground. Work is ongoing.

Status Amber

- *Work with partner organisations to deliver Green Flag improvements to land not managed by the Council.*

All University Campuses within the City now hold the Green Flag Status award. 22 community organisations have entered the Community Green Flag awards for 2018. Discussions currently taking place with Nottingham City Homes regarding the development of Green Flag Estates.

Status Green

- *Support the delivery of the Nottingham Open Space Forum (NOSF) charitable objective:- To enhance public health and wellbeing Identify and support active Parks friends groups to deliver regular healthy lifestyle activity programmes within the Park*

Prioritised local investment plans to be produced for each ward in the City. Area action plans completed and approved by each area committee. Confirmed annual programme of parks and green space improvements.

Status Green

- *Recruit and support a network of local volunteer ambassadors and activators to help promote and deliver healthy life style activities within the local community.*

Identify major land owners and negotiate opportunities to apply for Green Flag Status improvements and progress applications for Green Flag awards. Local activators engaged and helping to deliver the PARKlives Nottingham Programme to get more people active outdoors. Since the start of Parklives over 100,000 citizens have engaged with the programme.

Status Amber

- *Support an increase in community activity and involvement in local parks, including cycling.*

Nottingham Open Space Forum charitable status secured. Now holding regular open forum meetings and provide advice to park friends groups. Parklives Nottingham and Ranger led events take place at regular occasions across all parks in the City.

Status Amber

- Improve the design and quality of amenity green space located within housing areas. Seek to adopt Green Flag status for housing areas.

Develop and support local communities to actively participate in the annual Royal Horticultural Society - It's Your Neighbourhood campaign. Delivery of an annual programme of active [park based activities](#) is progressing well across the city. Work is underway with NCH to develop a programme of new Green Flag status housing estates.

Status Green

- *Ensure new housing development (above 10 homes) makes provision for open space (also in Built Environment actions)*

Work is underway to make improvements to open space in new and existing developments. New Open Spaces Supplementary Planning Document is currently being drawn up.

Status Amber

Risks and challenges with delivery of the key areas of action:

On going budget reductions will impact on future delivery of park improvements and the scale of community engagement / physical activity programmes that can take place across the City. 2018 is to be the last year of the externally funded Parklives programme delivering a free healthy lifestyle programme across the City.

Recommendations relating to Parks and Green Spaces

It is recommended the HWBB note the content of the report on Parks and Green Spaces and that members of the board:

1. Support the principle of provision of a free healthy lifestyle programme, where mass participation activities take place regularly across the City's parks continues

2. Consider ways in which more support for local communities can help maintain improvement to the parks and continue to deliver healthy lifestyle activities within the parks

E. Air Quality¹

Background

Air pollution adversely affects people's health. Long-term exposure to air pollution at the levels experienced in many Town and Cities in the UK, including Nottingham, causes respiratory and cardiovascular disease and lung cancer. Short-term exposure to episodes of elevated air pollution also leads to a worsening of symptoms for those with existing asthma, respiratory or cardiovascular disease, and can trigger acute events such as heart attacks in vulnerable individuals.

With respect to nitrogen dioxide(NO₂): in 2015 the Committee on the Medical Effects of Air Pollutants (COMEAP), published a statement concluding that:

“Evidence of associations of ambient concentrations of NO₂ with a range of effects on health has strengthened in recent years. These associations have been shown to be robust to adjustment for other pollutants including some particle metrics. Although it is possible that, to some extent, NO₂ acts as a marker of the effects of other traffic-related pollutants, the epidemiological and mechanistic evidence now suggests that it would be sensible to regard NO₂ as causing some of the health impact found to be associated with it in epidemiological studies.”

In Nottingham in 2010, it was estimated that 150 deaths (persons 25+ years) were 'attributable' to particulate air pollution (PM_{2.5}).

Particles are emitted by combustion processes (PM₁₀ - solid fuel combustion PM_{2.5} (and smaller) - internal combustion engines), road surface, road vehicle tyre and brake wear, and by secondary particle formation from chemical reactions.

'Local authorities in England have a new role to work towards reducing emissions and concentrations of PM_{2.5}, which is a very important area of focus due to the well-documented health impacts' (LAQM-TG16 Feb18).

A reduction in particle levels may therefore be achieved as a by-product of the measures to reduce levels of NO₂ and by discouraging/limiting the use of solid fuel heating systems and their replacement with ultra-low or zero emission alternative (fuel cells/electricity). Implementing physical infrastructure measures that minimise particle emissions and airborne transport include planting grass, hedges and trees to reduce entrainment and generation of particles.

Progress with key areas of action include:

- *Reduce emissions from HWBB partner organisations' transport and buildings; contributing to a reduction in nitrogen dioxide (NO₂) and particles, assisting local authorities to meet national air quality targets. Promote and publicise action and measures that improve air quality amongst service users, partner organisations and suppliers. Reduce current emissions by organisation.*

Progress is being made due to a range of national and local NCC strategies and policies to promote

- Public transport - (Local Transport Plan) (Eco Express Way)

- Active travel - (Local Transport Plan, Cycle Ambition, Safe Routes to School, Eco Express Way)
- Reduce single occupancy private car journeys - (Local transport plan)
- Transition to Ultra Low and Zero Emission vehicles
- Study into potential of Clean Air Zone in Nottingham currently underway.
- Trial of fuel cell technology underway to demonstrate viability of technology to replace commercial gas fired boiler plant (DEFRA grant funding), with opportunity to trial fuel cell technology for residential gas fired boilers.

Nottingham City Council's strategy and projects to increase and promote energy efficiency measures include:-

- Communications and awareness raising
- Clean Nottingham (2017) – promoting clean/zero emission from public transport to improve air quality
- National Clean Air Day June 2018 – NCC and Health supported event
- Greener Housing project – energy efficiency and reduced emissions elements continuing through 2018-20.
- Clean Air Zone awareness raising (March 2018)
- British Lung Foundation Breathe Easy Week 18th -24th June (Joint activity with Environmental Health)
- Clean Air Day 21st June (Joint activity with Environmental Health and Public Health)
- FestEval Nottingham's Ultra Low Emission Vehicle event 29th and 30th June
- Local Air Quality Management submission to DEFRA for 30th June 2018
- Clean Air Zone – public consultation June-July 2018
- New Nottinghamshire Air Quality Strategy website due Summer 2018

NHS Nottingham City CCG have:

- Revised procurement policy, to include a Social Value weighting which incorporates environmental consideration (including air quality) into service specification development and procurement
- Reviewing travel facilities for staff and changing staff travel behaviour
- Changing taxi booking process
- Promoting public transport and providing more information so that staff can make more informed decisions
- Limiting the need for long-distance travel to reduce train usage

Other developments for general environmental sustainability:

- New kitchen boilers which save energy
- Changing printing facilities, to reduce amount printed
- Reviewing waste and recycling arrangements, with a view to increasing recycling and reducing general waste

Nottinghamshire Healthcare NHS Trust

- The Trust undertook its first all staff travel survey in January this year and the responses are currently being reviewed. Approximately 5% of staff responded and on first analysis, there

seems to be some key messages/opinions emerging which will help shape future action on this agenda going forward.

- NHFT has produced, in line with current National Planning Policy Framework a Travel Plan for Hopewood - the Trust's new CAMHS (Child and Adolescent Mental Health Services) and Perinatal Services campus in Nottingham. The travel plan encourages the use of sustainable travel, and its overall objective is to reduce the environmental impact of transport associated with travel to and from the site. However, this has been expanded to include:
 - ❖ Reduce single occupancy car usage for all users when travelling to and from the site
 - ❖ Manage car parking demand so that on-site parking can be reduced
 - ❖ Promote and facilitate alternative sustainable modes of travel for all users, including walking, cycling, bus and car sharing
 - ❖ Achieve 100% staff awareness of the Travel Plan
 - ❖ Monitor the effectiveness of the Travel Plan initiatives and modal shifts of all users over 5 years after occupation of the new site.
- The Trust will be supporting/promoting National Clear Air Day 2018 and encouraging site teams across the Trust to engage with a number of awareness raising activities including health walks in green space for example, to support the national Sustainable Health and Care Week campaign in June.
- The Trust continues to promote Liftshare, its Cycle to work scheme and discounted bus travel passes which are available for use within the city. The Travel Survey did highlight that work is needed around raising awareness of these options so this will be a priority over the coming 6 months.
- The Trust hopes to be able to expand the number of Electric Vehicle charging points available to staff across its sites.

East Midlands Ambulance Service

EMAS have implemented the following initiatives to reduce emissions and improve Air Quality, and reduce public health impact of our operational business:

- Board approved 5 year 30% carbon reduction target against 2014/15 baseline
- Board approved environmental policy statement and sustainable development plan (SDMP)
- Clinical model to support 'Hear & Treat' and 'See & Treat' to ensure patient received best possible care remaining within the community.
- Operational in July 2017, optimising resources sent to scene to ensure patient receives highest possible quality of care
- Over the last three years, EMAS has included over 300 newer healthcare and operational vehicles into its fleet. These newer vehicles have reduced the carbon we emit per km travelled by EMAS' emergency healthcare vehicles have reduced by 9.1% from 200 g/km to 182 g/km. We have continued to invest in newer less polluting vehicles. In addition, the fuel we used per 999 calls we received reduced by approximately 20% from 4.8 litres in 2014/15 to 3.8 litres in 2017/18
- As part of our commitment to comply with the Carter Review recommendations we have invested over half a million pounds in energy efficiency initiatives across our premises, these have contributed to the reduction in electricity (4%) and gas (19%)
- Between 2013/14 and 2017/18, the average carbon emitted per km travelled by EMAS' emergency healthcare vehicles have reduced by 9.1% from 200 g/km to 182 g/km. We have

continued to invest in newer less polluting vehicles.

- Approximately 40,000 miles (3.2%) of EMAS business miles were avoided by car sharing. Car-sharing contributed to 12.5 tonnes of CO₂e avoid 15% reduction in this aspect our carbon footprint compared to our 2014/15 baseline.
- 4% of business miles were travelled by ultra-low emission vehicles (ULEVs)
- Actively encouraging all operational staff to switch off emergency vehicles whenever they are not in use, or plug these vehicles into shore-lines (a device used to charge the electrical systems within these vehicles) whenever the vehicles are parked within EMAS' premises.
- EMAS encourage the use of ULEVs, currently there are 14 lease vehicles within our grey fleet. Approximately 50,000 miles (4%) of our 2017/18 business miles were travelled by this ULEV.

Nottingham Trent University

- Regular staff and student travel survey
- 2017 survey 80% of all trips to campuses for education and employment purposes were by sustainable transport (non-car)
- Travel planning has been taking place since 1990s with campus travel plans in place for all 4 NTU sites
- NTU supports the Nottingham Go Ultra Low campaign promoting use of EV. NTU has 14 charging points in place over 3 campuses
- The NTU fleet is becoming increasingly more sustainable, with all security vehicles and a number of maintenance fleet now ultra-low emission
- Car sharing is promoted and run through NTU Liftshare
- Developed a robust model hierarchy in favour of sustainable transport promoting public transport use, walking and cycling
- NTU benefits scheme enable staff to discounted season tickets for all main Nottingham transport providers
- Cycle to work scheme
- NTU cycle hire available for staff and students
- Discounted student public transport season tickets

Nottingham University Hospital NHS Trust

The following are the developments at Nottingham University Hospitals NHS Trust (NUH) in its financial year 2016/2017 in relation to air quality improvement.

Promotion of Sustainable Transport

- NUH continues promoting its Travel to Work scheme, which aims to make access to NUH via public transport more attractive for NUH staff. In 2017/18 membership to the scheme grew by circa 25% in the number of staff acquiring an annual public transport pass through the scheme.
- NUH continues promoting active travel via a number of initiatives including Dr Bike, Cycle to Work scheme, bike maintenance classes and roadshows aiming to promote health, wellbeing and active travel.
- NUH continues supporting the Medilink Bus service which is estimated displaces circa 700 tCO₂ from road emissions.

- NUH actively promotes the use of park & ride sites linked to the Medilink Bus service to reduce vehicles circulating within the City.
- NUH continues supporting a car-sharing platform for staff to find car-sharing partners.

Air Quality Improvements

- Shift from coal to gas as main means to heat City Hospital Campus. Since August 2017, NUH has made its gas boiler house the leading heating infrastructure, making its coal-fired boiler house the backup heating infrastructure. This has reduced the emission of particulates and has reduced the Trust's carbon footprint by circa 8,000 tCO₂. This has a positive impact on the local air quality.
- NUH was an active partner and collaborator during the promotion of the Clean Air Day in June 2017, organising a roadshow to promote sustainable travel.

Infrastructure work

- NUH is working on the business case to replace the heating infrastructure at City Hospital Campus with a sustainable solution. This will see NUH completely moving away from coal, and producing on-site electricity. The project specifies that at least 5% of energy produced on campus come from renewable sources which will be delivered via photovoltaic panels, air source heat pumps and biogas).
- NUH inaugurated in summer 2017 the bridge connecting the Tram stop at QMC with the main building, increasing access to QMC services via this public transport service.
- NUH continues working in partnership with Nottingham City Council to install in each Hospital Campus a NCC cycle HUB.

Status Amber

Other developments / success for the HWBB to note include:

- Nottingham City Council won an Ashden Award in 2017 for their work to reduce air pollution in the city. [Nottingham City Council | Ashden Award Winner 2017 | Ashden.](#)
- Clean Air Zone early measure funding award (2018) to retrofit Euro 5 buses to Euro 6 standard.
- New Taxi Licensing Strategy (2017-2020) to require and ensure transition from old diesel vehicles to Ultra-Low Emission Vehicles (ULEV) by 2025. <https://www.nottinghamcity.gov.uk/media/456172/taxi-strategy-feb17.pdf>
- NCC has received £1.1m grant funding to support the transition of Hackney and Private Hire Vehicles to ULEV. Funding is being invested into creating a dedicated taxi charge point infrastructure network. Site visits commence May 18 to investigate suitable locations. Further funding has been secured to provide a ULEV taxi try before you buy scheme. This project is currently in development and plans are being explored with Coventry City Council who have received funding to deliver a similar initiative.
- NHS Nottingham City CCG's Large Out of Hospital procurement included a 16% Social Value weighting, 4% of which was specifically about the environment impact of the bidding

organisation and service delivery.

Risks and challenges with delivery of the key areas of action:

The combustion of carbon containing (mainly fossil) fuels and surface/tyre/brake wear are responsible for a large proportion of urban nitrogen dioxide (NO₂) and particle pollution.

It is therefore necessary to target emission reduction at:

1. *Fixed sources*: Energy efficiency and alternative (fuel cell, Ground Source Heat Pump, Solar Hot water, LED/sensor lighting etc.)
2. *Commercial vehicles*: LGV/Taxis – transition to hybrid, ULEV, pure EV.
HGV - retrofit to Euro 6, transition to hybrid/EV when developed.
3. *Private motor vehicles*: Transition to active travel, public transport. Transition of 'necessary private vehicle use' to hybrid/ULEV/EV vehicles. Reduction in vehicle ownership/Transport as a Service.

Currently the following barriers/risks exist across the system:

1. Alternative technology capital expenditure costs are a barrier to their adoption by Local Authority/NHS. Current LA/NHS business models are not able to calculate savings/return on investment to support a business case to adopt alternative technologies.
2. The availability/scalable/reliability of suitable alternative technologies are a potential barrier to acquisition.
3. Perceived limited (but ever increasing) choice of vehicles, range, charging infrastructure – this should not be considered a risk beyond 2020. The reason for this is that the funding of the infrastructure will be in place. Construction commenced in April 18 with the aim of installing 230 charging points across Nottingham City.
4. Partner procurement policies may require amendment to specify environmental performance of suppliers.
5. Staff resource to ensure Clean Air project delivery
6. Ongoing Communication of Air Quality messages, requires staff, material and media resource.
7. Reduced budgets limit public realm greening (e.g. 'soft' measures such as tree planting, hedges, planters).

Recommendations in relation to Air Quality

Greater progress to delivering air quality improvements can be realised through partner organisations implementing initiatives such as staff travel plans, mileage reduction, fleet transition to Ultra Low Emission Vehicles, estate energy efficiency measures (such as improved lighting and heating ventilation and air conditioning) facilitating low/zero emission and active travel choices by service users and suppliers.

It is recommended the HWBB note the content of the report on air quality and that members of the board:

1. Seek assurances that HWBB organisations are committed to contributing to improving air quality
2. Identify named persons within Nottinghamshire Police, Nottingham City Homes and the local Universities responsible for sponsoring air quality improvement and emission reductions and share current plans with the Air Quality Partnership
3. Establish commitment to implement Health Outcomes Travel Tool (HOTT) <https://www.sduhealth.org.uk/delivery/measure/health-outcomes-travel-tool.aspx> across HWBB member organisations and identify persons responsible for implementation

Appendix 1

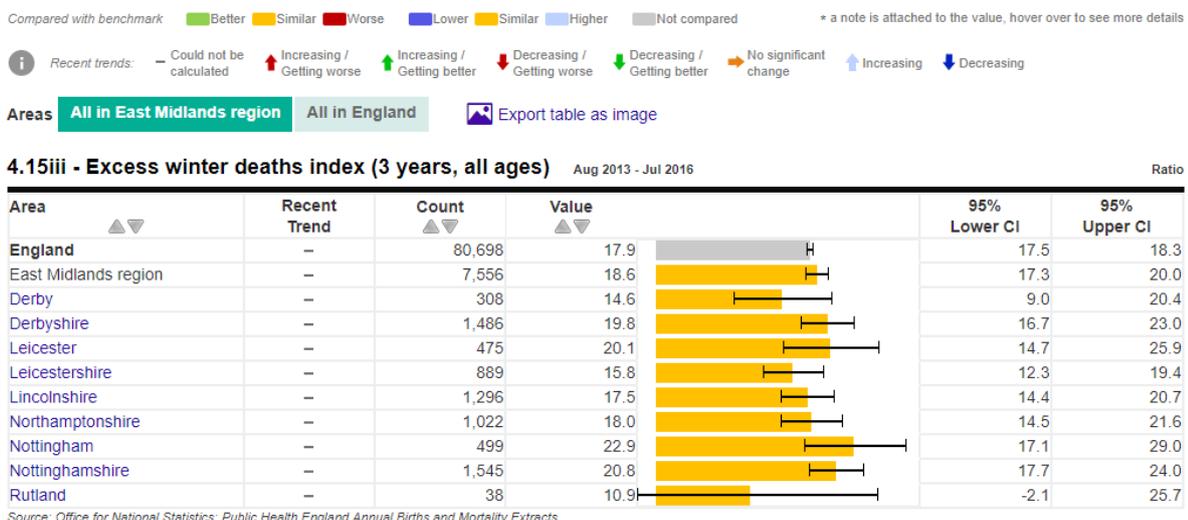
The Health and Wellbeing Strategy's Healthy Environment action plan includes the following headline measures (separated out here by each of the five priority themes). A brief overview of the measure and why it is important is given along with analysis of the direction the measure is going (better or worse) compared to the England and the region where appropriate and in relation to the targets set in the action plan where applicable. It is important to note whilst the data presented is the latest data available for some measures this is more than one year old and that the current situation could have changed for better or worse.

A. Housing

The Excess Winter Deaths Index (EWD Index) indicates whether there are higher than expected deaths in the winter compared to the rest of the year. The measure adopted in the HWBS is [PHOF 4.15iii](#) excess winter deaths index for a three year period relating to all ages.

Figure 1 shows that Nottingham City had an EWD Index of 22.9% for 2013-16 with an average of 499 more deaths in the winter period than would be expected from the rate of death in the non-winter months or between 1/4th and 1/5th more deaths in winter than non-winter.

Figure 1: Excess winter deaths index all ages showing Nottingham, East Midlands and England for 2013-16



The value for Nottingham (22.9%) is statistically similar to that of England (17.9%) and the East Midlands (18.6%). The Nottingham value is slightly higher (worse) than the 2011-14 baseline

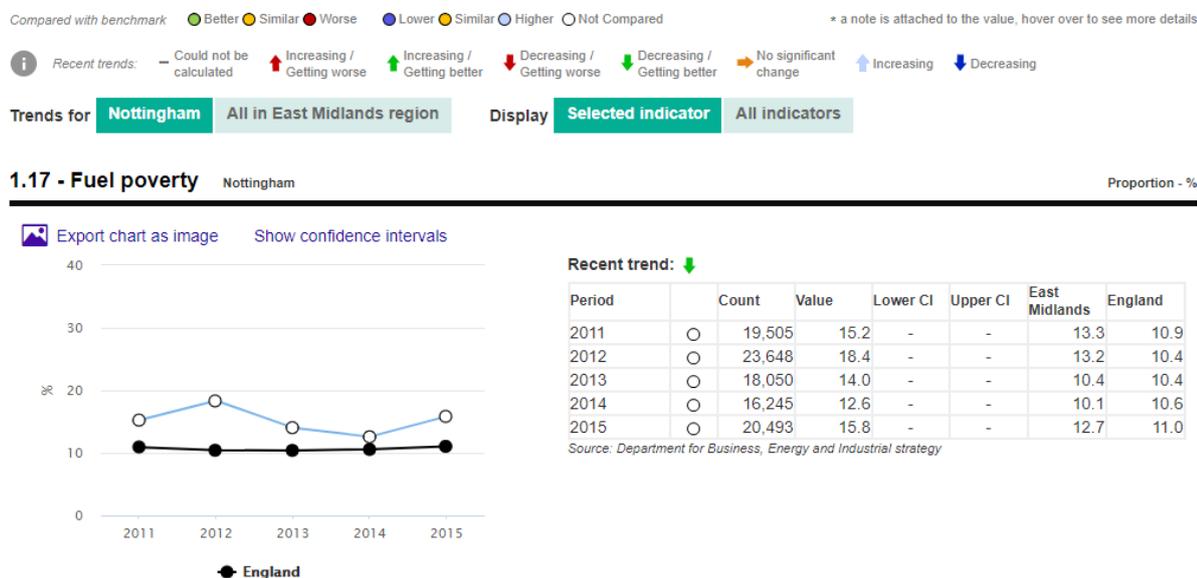
data of 21.8% and the target of 18.15% for this year of the strategy. However, the excess winter deaths index is lower than that of the three year period (2012-15) where there were 567 (26.3%), or slightly more than a quarter more deaths in winter than the non-winter period in Nottingham. Whilst not yet available from PHE, locally calculated data based on Hospital Episode Statistics and ONS indicates that there were 515 excess winter deaths (23.5%) for the more recent period August 2014 – July 2017 which is slightly more (worse) than 499 deaths (22.9%) reported in 2013-16. However, it is not established whether this is significantly different.

The fuel poverty measure [PHOF 1.1.7](#) identifies the proportion of households that are considered to be fuel poor, whereby they experience above average (the national median level) fuel costs and were they to spend that amount they would be left with a residual income below the official fuel poverty line. The key elements that determine whether a household is fuel poor include – income, fuel price and fuel consumption (which is dependent on the quality of accommodation and lifestyle of the occupants).

There is evidence that these drivers of fuel poverty are strongly linked to living at low temperatures and evidence shows that low temperatures are strongly linked to a range of negative health outcomes (Marmot, Wilkinson, PHE, NICE QS117).

Figure 2 identifies that 20,493 (15.8%) households in Nottingham experienced fuel poverty in 2015 (latest reported data). This proportion is higher (worse) than in 2013 and 2014. This proportion is also higher than the regional and national figure although no comparison is made with England so it is not possible to report whether the difference is statistically significant or not.

Figure 2: Proportion of Nottingham, East Midlands and England households living in fuel poverty 2011-2015



B. The Built Environment and C. Transport

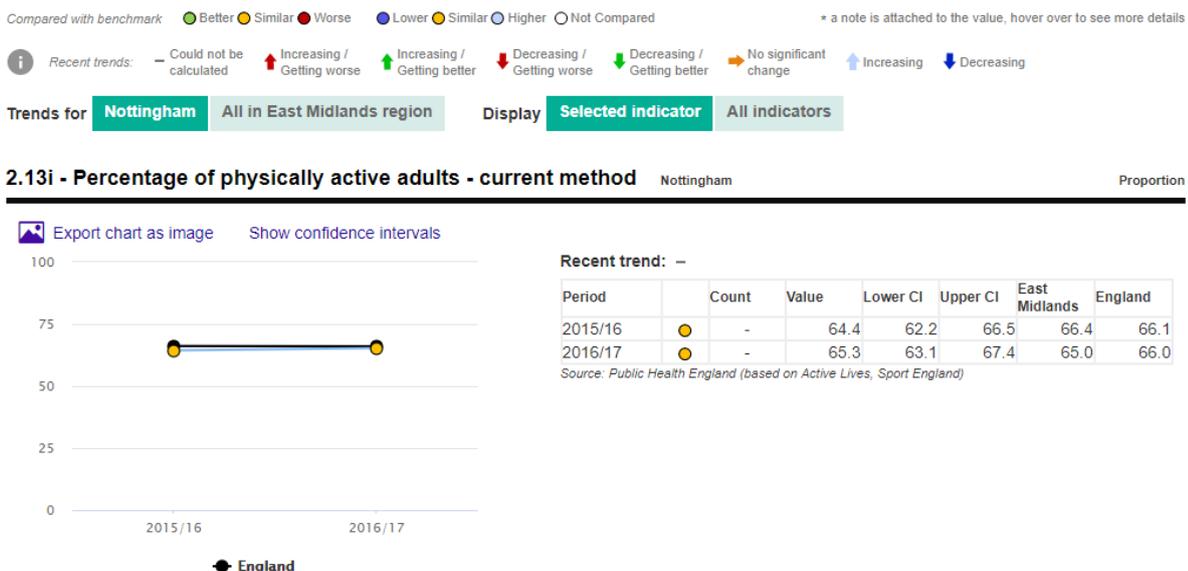
The measures in the Healthy Environment Action Plan for these two themes relate to increasing the proportion of adults who are physically active and decreasing the percentage of adults that are inactive. In addition to this, the desire is to see the proportion of children aged 10-11 years

with excess weight to reduce. Further information on trends and performance against these measures can be found [here](#).

Changes to our built environment, enabling access to parks and open spaces and leisure facilities and shifting how people travel in and around the city for work and leisure can contribute to increases in how physically active citizens are overall. The proportion of adults that are physically active remains fairly consistent over the period of the HWB strategy so far. The measure calculates the percentage of adults (aged 19+) that meet the Chief Medical Officer’s recommendations for physical activity which is 150+ minutes of moderate intensity activity per week.

In 2015, 55% of adults in Nottingham were physically active. This is statistically similar to that of the East Midlands and England and has been consistently around this proportion since 2012 (range 52% to 56.5% during this time). In 2016, how the measure is calculated changed consequently comparisons to the trajectory set in the Environment action plan are not plausible. In 2016/17 (under the current method) 65.3% of adults were physically active up from 64.4% in 2015/17. This continues to be statistically similar to the proportion of physically active adults across the East Midlands and England (Figure 3).

Figure 3: Proportion of physically active adults in Nottingham, East Midlands and England 2016/17



Physical inactivity is defined as the proportion of adults (19+) engaging in less than 30 minutes of physical activity per week. Figure 4 shows the proportion reduced slightly in Nottingham between 2015/16 (24.6%) and 2016/17 (23.3%). This improvement shifts Nottingham from being statistically significantly worse than that of England to now being similar to that of England and the East Midlands. The way this measure is recorded also changed in 2016 and historically the proportion of adults that were physically inactive Nottingham was statistically significantly higher (worse) than England.

Figure 4: Proportion of physically inactive adults in Nottingham, East Midlands and England 2016/17

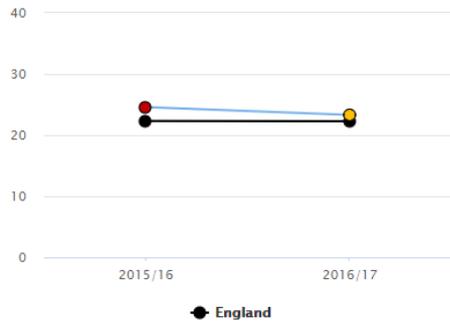
Compared with benchmark: Better (green), Similar (yellow), Worse (red), Lower (blue), Similar (yellow), Higher (blue), Not Compared (grey). * a note is attached to the value, hover over to see more details

Recent trends: - Could not be calculated, ↑ Increasing / Getting worse, ↑ Increasing / Getting better, ↓ Decreasing / Getting worse, ↓ Decreasing / Getting better, → No significant change, ↑ Increasing, ↓ Decreasing

Trends for **Nottingham** All in East Midlands region Display **Selected indicator** All indicators

2.13ii - Percentage of physically inactive adults - current method Nottingham Proportion

Export chart as image Show confidence intervals



Recent trend: -

Period	Count	Value	Lower CI	Upper CI	East Midlands	England
2015/16	-	24.6	22.7	26.6	22.5	22.3
2016/17	-	23.3	21.4	25.3	23.1	22.2

Source: Public Health England (based on Active Lives, Sport England)

The proportion of children experiencing excess weight (including overweight and obese) has increased nationally over the last ten years. This trend also exists for Nottingham however the proportion of 10-11 year olds (primary school year 6) with excess weight in Nottingham is consistently higher (worse) than that of England and the East Midlands (figure 5). The current proportion 39.7% is both higher (worse) than the target 37.3% set in the Healthy Environment Action plan and has increased since the baseline year 2014/15 (37.9%).

Figure 5: The percentage of children aged 10-11 years with excess weight in Nottingham, East Midlands and England 2006/7 to 2016/17

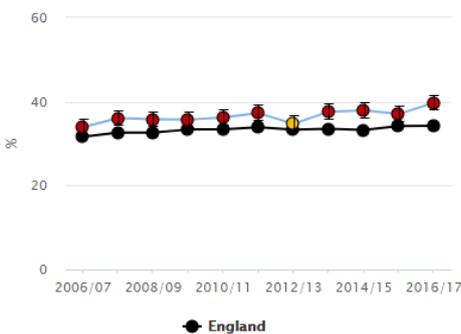
Compared with benchmark: Better (green), Similar (yellow), Worse (red), Lower (blue), Similar (yellow), Higher (blue), Not Compared (grey). * a note is attached to the value, hover over to see more details

Recent trends: - Could not be calculated, ↑ Increasing / Getting worse, ↑ Increasing / Getting better, ↓ Decreasing / Getting worse, ↓ Decreasing / Getting better, → No significant change, ↑ Increasing, ↓ Decreasing

Trends for **Nottingham** All in East Midlands region Display **Selected indicator** All indicators

2.06ii - Child excess weight in 4-5 and 10-11 year olds - 10-11 year olds Nottingham Proportion - %

Export chart as image Hide confidence intervals



Recent trend: ↑

Period	Count	Value	Lower CI	Upper CI	East Midlands	England
2006/07	809	33.9	32.0	35.8	*	31.7
2007/08	1,002	36.1	34.3	37.9	31.7	32.6
2008/09	967	35.8	34.0	37.6	32.3	32.6
2009/10	967	35.7	33.9	37.5	32.9	33.4
2010/11	943	36.2	34.4	38.1	32.4	33.4
2011/12	978	37.3	35.4	39.1	33.2	33.9
2012/13	871	34.7	32.9	36.6	32.7	33.3
2013/14	1,034	37.6	35.8	39.4	32.2	33.5
2014/15	1,070	37.9	36.2	39.7	32.4	33.2
2015/16	1,084	37.0	35.3	38.8	33.3	34.2
2016/17	1,315	39.7	38.1	41.4	33.5	34.2

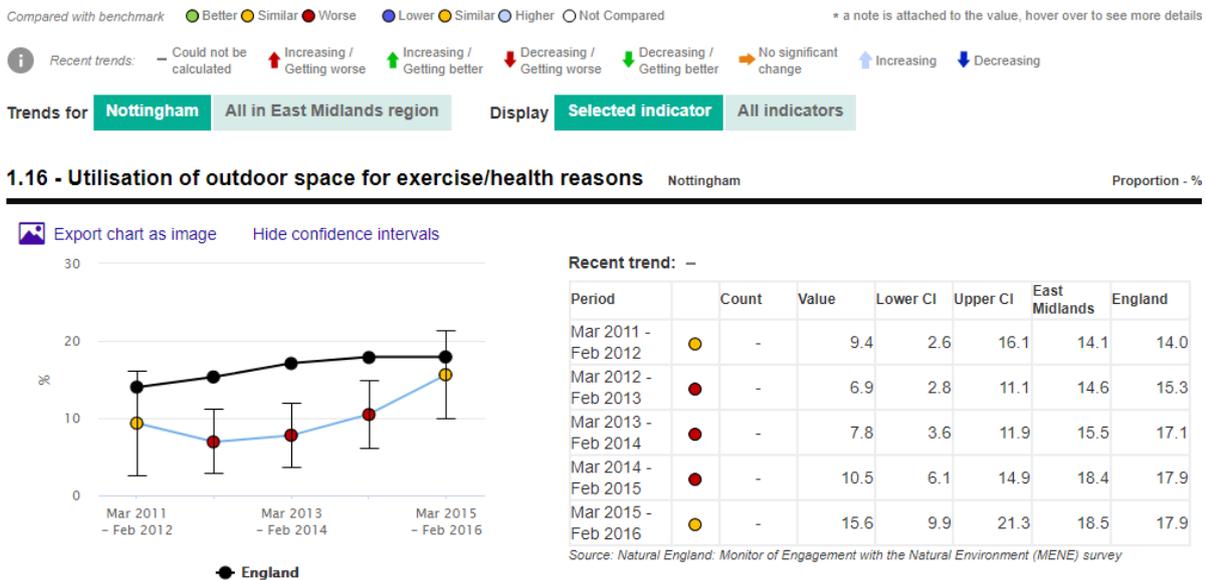
Source: NHS Digital, National Child Measurement Programme

D. Parks and Green spaces

People using outdoor space for exercise and health reasons ([PHOF 1.16](#)) is the measure on the Healthy Environment action plan. This measure of access to outdoor space is a weighted (using standard demographic weights age, sex socioeconomic status etc) estimate of the proportion of residents in each area taking a visit to the natural environment for health or exercise purposes. There is evidence to suggest that green spaces have a beneficial impact on physical and mental wellbeing and cognitive function through both physical access and usage.

Figure 6 shows that since 2011 fewer people in Nottingham have made use of outdoor space for exercise and health reasons than the regional and national average. However, more recently 2015/16 the proportion of people in Nottingham has increased to 15.6% which is now not statistically different to the England average and is similar to other local authorities across the East Midlands.

Figure 6: Proportion of people using outdoor space for exercise/health reasons in Nottingham, East Midlands and England 2011/12-2015/16



E. Air Quality ⁱ

There is a close relationship between exposure to high concentrations of small particulates (PM₁₀ and PM_{2.5}) and increased mortality and morbidity. When concentrations of small and fine particulates are reduced, related mortality will also go down – presuming other factors remain the same. Small particulate pollution has health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed. Therefore, the WHO guidelines aim to achieve the lowest concentrations of particulates possible.

Table 2: Showing Nottingham City Air Quality measure's performance in relation to baseline and targets 2016/17 and 2017/18

Indicator and Target	Baseline	2016/17	2017/18	RAG
Air quality: reduce NO ₂ to WHO recommended and Air Quality Objective (AQO) level of 40ug/m ³ , measured locally	48	42	44	ON TRACK TO MEET TARGET (40ug/m³) (GREEN)
Air quality: reduce PM ₁₀ to WHO recommended level of 25ug/m ³ , Air Quality Objective (AQO) level is 40ug/m ³ , measured locally	17	17	18	NATIONAL AQO AND WHO MET LOCAL TARGET (15ug/m³) NOT MET (AMBER)
Air quality: reduce PM _{2.5} (WHO recommended level is 10ug/m ³ , measured locally)	12	12	12	LOCAL TARGET (10ug/m³) NOT MET (RED)

Table 2 shows three air quality measures and Nottingham City's performance since baseline and against target and WHO recommended levels. The 2017/18 nitrogen dioxide (NO₂) locally recorded reading of 44µg/m³ (micrograms per cubic metre of air) shows Nottingham's nitrogen dioxide levels have reduced by 4µg/m³ from a baseline score of 48µg/m³. Whilst this value has increased from 42 to 44µg/m³ between 2016/17 and 2017/18 this remains on track to achieve the Air Quality Objective and WHO recommended level of 40µg/m³ over the life of the HWBS.

PM₁₀ is airborne particulate matter with a diameter of less than or equal to 10 micrometres which can enter the respiratory system and are consequently referred to as "inhalable" particles. Nottingham's PM₁₀ level for 2017/18 is 18µg/m³. This is lower than the national Air Quality Objective level (40µg/m³) and the WHO recommended level (25µg/m³). However, locally the aim for this measure is to reduce this further to 15µg/m³ which is not yet achieved.

Finally, airborne particles smaller than $PM_{2.5}$ penetrate into the lungs and are considered “respirable”. The WHO recommended level for $PM_{2.5}$ is $10\mu\text{g}/\text{m}^3$ which is not yet realised in Nottingham ($12\mu\text{g}/\text{m}^3$) and further action is required in order to achieve this target as the current level recorded locally has been static since the baseline reading.

i PM10 is airborne particulate matter with a diameter of less than or equal to 10 micrometres which can enter the respiratory system and are consequently often called “inhalable”. Those smaller than $PM_{2.5}$ can penetrate into the lungs and are often called “respirable”. The concentration of Nitrogen Dioxide, a brown gas, with the chemical formula NO_2 is measured in micrograms in each cubic metre of air ($\mu\text{g m}^{-3}$). A microgram (μg) is one millionth of a gram. A concentration of $1\mu\text{g m}^{-3}$ means that one cubic metre of air contains one microgram of pollutant.

Nitrogen dioxide, particles and carbon dioxide are the main pollutants emitted when fossil fuels e.g. natural gas, oil/petrol are combusted to power vehicles and provide heat and electricity for industrial, commercial, public/third sector/NHS and domestic use. Therefore reducing emissions can effectively reduce emissions that contribute to global climate change and local air pollution that impact on health and wellbeing. An emission reduction target (in addition to air pollution concentration targets) ensures practical measures to reduce emissions are being taken/demonstrated by HWB partners.

Highest annual mean concentration of nitrogen dioxide (NO_2) monitored at the facade of a residential property (an air pollution sensitive receptor) and annual mean particle PM_{10} and $PM_{2.5}$ concentration monitored in the Nottingham City Area. These enable direct comparison with the Air Quality Regulations, Air Quality Objectives and WHO guideline values. Each year’s targets were chosen to reflect the predicted effects of energy efficiency measures (in conjunction with Nottingham/Nottinghamshire’s Air Quality Strategy and Action Plans) and demonstrate how incremental progress can be made to achieve the Air Quality Regulation targets/Air Quality Objectives and World Health Organisation guideline values to protect health, by 2019/20.