

Travel Plan

2019 - 2023



Contents

Foreword	1
1. Introduction	2
a. Travel Plan 2019-2023	2
2. Achievements during 2013-2018	3
a. Headlines	3
b. Measure of Progress	4
c. 2013-2018 Initiatives	5
d. Acknowledgement and Achievements	10
3. Drivers of the Plan	11
a. Joint Local Transport Plan	11
b. Climate Change	11
c. Sustainable Development Policy and Management Plan	11
d. NHS Long Term Plan	11
e. Sustainable Development Assessment Tool	11
f. Expected Trends	12
g. Measures of Potential	14
h. Measuring Health Outcomes of Travel Choices	15
4. Vision and Objectives	16
a. Introduction	16
b. Vision	16
c. Goals	16
d. Objectives	16
e. Actions	17
f. Goal 1	17
g. Goal 2	19
h. Goal 3	19
5. Monitoring and Measurement	22
a. SDAT	22
b. Travel Surveys	22
c. HOTT	22
d. Travel Strategy Group	22
6. Conclusion	22

Foreword

Climate change caused by carbon emissions from sources such as vehicles, has been quoted as being a major threat of the 21st century for public health. Combined within increasing health problems associated with inactivity, more sustainable travel, particularly active means such as cycling and walking, presents a unprecedented opportunity to deliver health and climate co-benefits.

In a city where 5% of deaths can be attributed to poor air quality, efforts to encourage a move away from more polluting means of travel will also bring rewards for local health and reduce the burden on our services. North Bristol NHS Trust seeks to be a leader in the field of sustainable healthcare and through this travel plan we aspire to deliver the necessary actions to contribute to the UN's global Sustainable Development Goals.



Andrea Young, Chief Executive of North Bristol NHS Trust



1. Introduction

a. Travel Plan 2019-2023

This 2019 - 2023 Travel Plan outlines the progress North Bristol NHS Trust (NBT) has made to date and identifies the journey ahead in helping staff, patients and visitors to reach our sites. Enabling them to choose active and sustainable travel benefits them in terms of improved health and reduced costs but their efforts will also help us to reduce our environmental impacts.

The goals of the Travel Plan are:



Engage with staff, patients, visitors, local community, suppliers, partners and other stakeholders on sustainable travel and the health co-benefits; empowering them to convert to more sustainable modes of transport.



Monitor and report on the environmental and health impacts from emissions and air quality from travel/transport to our site to assess the effects and opportunities for improvements.



Provide information, facilities, processes and infrastructure to facilitate and incentivise sustainable and active travel.

With over 8,000 staff members and the additional patients and visitors who travel to site, NBT has a significant impact on local traffic flows and quality of the local environment; presenting a great opportunity for the Trust to be forward-thinking in providing safe, sustainable and accessible travel.

"The Trust is in an enviable position of having a brand new facility with purpose-built secure cycling facilities and good public transport links. Over the past 15 years we have been encouraging firstly staff and later the public to reach our sites by more sustainable means of transport. During this time we have seen a significant movement away from single-occupancy vehicle journeys. Over one third of our staff are prepared to endure Bristol's hills to reach our sites by bicycle and by foot.



Despite our out-of-town location our Southmead site is served by over 39 buses per hour at peak times, which is testament to the design of our transport interchange and the desire by staff and patients to use these services. We anticipate a significant amount of change over the next 5 years as ownership of electric vehicles increases, measures to reduce emissions within the city are introduced and further improvements in cycling and public transport infrastructure are completed. With this in mind we have prepared a travel plan that encourages our existing trends but also seeks to influence the remaining percentage of single occupancy vehicle drivers. For the first time we will also seek to influence other forms of transport to our site such as deliveries from key suppliers." *Simon Wood (Director of Facilities)*



2. Achievements in 2013-2018

a. Headlines

Throughout the 2013-2018 Travel Plan lifespan, NBT has remained committed to encouraging staff, patients and visitors to choose sustainable and active ways of travel when travelling to and from our various sites. Influencing patient and visitor travel has remained a challenge but good progress has made with encouraging our staff into alternatives to the private car. Our achievements below have been made possible by the actions of our staff, patients and visitors.

Aims:

- To reduce the number of Single Occupancy Vehicle (SOV) journeys made to the hospital
- To improve the travel choices and make them safe and accessible to all
- To encourage healthier, environmentally, sustainable travel choices

Targets:

To achieve the target of and maintain single occupancy staff journeys to work below 55%

To reduce single occupancy patient and visitor journeys to the hospital

To limit the levels of on street parking by staff and visitors on roads within a 500m radius of the hospital to no more than 30% of the total on street

Achievements:

SOV for staff commuting reached an all-time low of 37% in 2018.

Patient and visitor travel has been constant at 83% SOV.

In 2014-15 a Bristol City Council survey found that more than 30% of parking in the vicinity of the Southmead site was attributable to staff/patients/visitors.



b. Measure of Progress

The Trust has conducted its own staff travel survey in previous years (September), together with participating in a region-wide TravelWest survey organised by local authorities (March). The results are used to monitor the effectiveness of our efforts and to identify areas for improvement. The TravelWest survey results are used, amongst other things to influence the development of infrastructure to support sustainable travel.

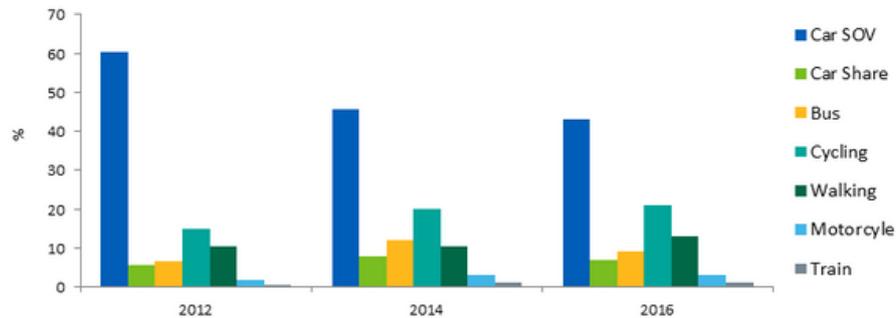


Figure 1. Travel to Work Survey results.

In 2016 the Trust undertook a staff Travel to Work survey, similar to that of 2012, to identify the modes of transport staff members choose for commuting. The comparison between the 2012 figures (before Travel Plan 2013-2018) and the 2016 results (see Figure 1) identifies a decrease of 17.3% in Car Single Occupancy Vehicle journeys. This result is paired with an increase of 14.3% in Sustainable and Active Travel modes (cycling, walking and running, public transport, car-sharing, motorcycling and train.)

This result is confirmation of our commitment and success in encouraging and facilitating sustainable and active travel; reducing the Trusts' environmental impacts and improving the health and wellbeing of staff members.

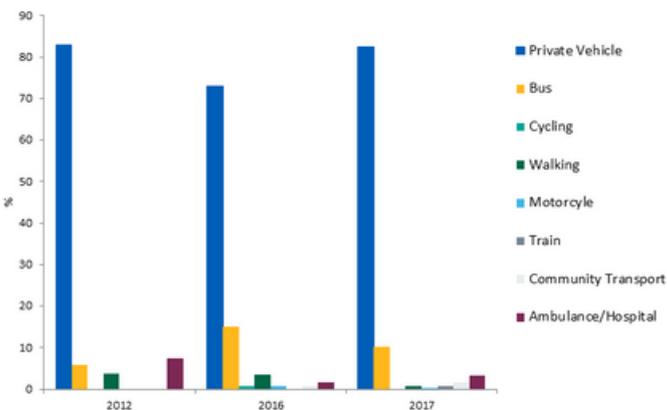


Figure 2. Patient and Visitor Travel Survey results.

For patients and visitors, comparisons between the 2012 and 2017 survey results (see Figure 2) show a small increase of 0.5% of patients and visitors travelling by private vehicle. On going encouragement will be done through patient appointment letters and via the external internet travel pages. We will also track the implementation and removal of bus routes to identify any correlation between the provision of public transport and the choice of travel mode to site. We will look to investigate options for collecting patient travel information that cover a broader section of people

over a longer time period, to improve on the current annual 'snapshot' surveys. In 2017, there was a decrease of 0.1% in patients and visitors travelling by a sustainable and active mode of transport which identifies the need for the Trust to better encourage and promote alternative travel to our patients and visitors who are able.

Business Mileage

The number of miles travelled for business purposes (e.g. patient home visits, meetings, training, etc.) has been steadily decreasing over recent years (see Figure 3), predominantly due to the loss of an area of service provision that necessitated frequent travel to patient homes and community settings. In 2018 the new Hospital at Home team was launched so it is anticipated that there will be an increase in business mileage associated with this service but in turn this will avoid the need for the public to travel to our sites to visit their relatives/friends.

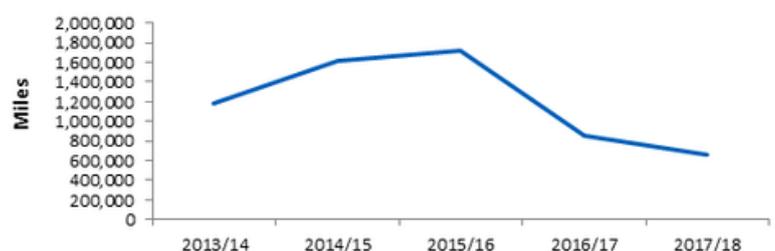


Figure 3. Trust Business Mileage between 2013/15 and 2017/18

c. 2013-2018 Initiatives

This section explains what we have been working on over the past 5 years and the key learning points to take forwards into 2019-2023.

Southmead Hospital Redevelopment

The Trust has seen considerable change since the 2013-2018 Travel Plan was written. Frenchay Hospital was relocated with the majority of departments moved to the redeveloped Southmead site in 2014, followed by the completion of Phase 2 in 2016. Approximately 4,000 staff members were relocated to the new hospital; bringing with them both challenges and opportunities for travel choices. All staff members who were required to relocate were offered Personal Travel Plans in order to ensure they were aware of the different travel options available; making the move easier and reducing concerns over new commutes.

A new public car park has opened on the Southmead site together with additional spaces being converted from staff parking to public meaning more patients and visitors are able to find a space on site. Equally, the large staff car parking area to the rear of the Brunel building has opened and staff who are not entitled to a parking permit are encouraged to pay to park in a nearby leisure facility to reduce impacts on local on-street parking. In 2016 on-street parking within 500m of the site that was deemed to be by our staff, patients or visitors was calculated to be just 3.24%, which is evidence that our efforts to provide sufficient car parking and access to alternatives is being effective.

In addition to this, the Bristol Enablement Services at Cribbs Causeway has opened and a large contingent of staff that worked in the Child and Adult Mental Health service have been lost as the service has been taken over by another provider. These changes have had an impact on commuting and the number of journeys undertaken for business purposes.



Photographs showing some of the sustainable travel facilities which were incorporated into the redevelopment of the Southmead Hospital site. Top Left: Pathology Cycle Store, Top Right: Brunel Staff Motorcycle Parking in the Multi-storey car park, Bottom Left: The Brunel staff Cycle Centre, Bottom Right: Brunel staff Changing Rooms.

TravelSmart

The travel advice bureau, set up in 2010, advises staff of the sustainable and active travel options available. The scheme is run by the Sustainable Travel Coordinator; whose role moved from the Travel, Parking and Security Team, over to the Sustainable Development Unit in 2016. Under this new structure, TravelSmart solely focuses on the benefits and encouragement of sustainable and active travel whilst parking information and management continues to be provided from the Security and Parking Team. Sustainable Travel is now widely understood to be of strong value in improving health and wellbeing and is linked to multiple sustainability projects across the Trust and forms a key part of the Trust's health and wellbeing offering. We have created a dedicated TravelSmart inbox and phone number to allow staff, patients and visitors who have queries or concerns regarding their travel to the hospital, to voice their opinions, get helpful information and obtain personal travel advice. TravelSmart promotes the facilities and benefits of sustainable travel through many communication channels available via the NBT Communications Team (e.g. Message of the Day, The Bulletin, Twitter (including a dedicated Sustainability account), Facebook, and emails).



Examples of communication channels used by TravelSmart. Top: Message of the Day, Bottom: The SDU Twitter page.



Key Learning Point

- Engagement and helping people to understand the links between healthier lifestyle choices such as cycling to work, and the associated health benefits (e.g. fitness, less air pollution, fewer accidents), is key.

Cycling

Our achievements in providing cycling facilities have exceeded the 2013-2018 targets and none is more evident than the 1240 cycle parking spaces NBT currently offers - more than double the 2013 target of 600. The Brunel Cycle Centre was built to provide secure, undercover cycle parking with personal lockers, showers, changing facilities and a bike pump. An additional secure cycle store was created outside the Pathology Building in 2015, followed by three cycle shelters located by the Emergency Department. The creation of secure staff bicycle parking has released the cycle hoops outside the main hospital building entrances for use by visitors and patients. In 2013, we introduced a loan bike scheme which allows staff to 'try before you buy'. The 23-strong fleet contains standard, folding and electric bikes. We continue to provide cycle mileage allowance for business journeys, a bike purchase scheme, travel roadshows and we partner with local companies to provide discounts, bike maintenance sessions and free cycling lessons. We have supported Bristol City Council in the creation of a dedicated 'Quietway' to bring cyclists and pedestrians to the Southmead site via quieter and traffic-free routes.



- Secure and local bike parking infrastructure with supporting facilities, together with an opportunity to trial a different way of travelling before committing to a change, is of value to our staff and has resulted in sustained behaviour change.



Public Transport

NBT is an advocate in encouraging the use of public transport to our hospital sites. The Trust, together with our local authorities has worked with bus providers to ensure services are financially and socially accessible for all. We have installed three new bus stops outside the Brunel Building and an internal bus waiting area with real-time information displayed. This has resulted in Southmead Hospital becoming one of the largest interchanges in North Bristol, providing access across the city not just to people visiting the Southmead site but also to our local communities. To support the use of these services we have promoted discounted tickets to staff which has increased the uptake of this travel mode with many of our staff being updated on information and changes through the Public Transport User Group.



39

buses per hour serving Southmead hospital; directly onsite and nearby bus stops (at peak times)



- Bus stop provision, accurate and timely information and signposting to cheaper ticket options and offers, directly impacts on bus use.

Walking and Running

A large number of personal lockers, showers and change facilities across the Southmead site have been provided so that staff can arrive at their workplace having showered and/or changed and with their belongings safely stowed. We have embedded our work to promote active travel within the Trust's Health and Wellbeing offerings to staff and patients, and supplemented the active commute by offering 2 guided lunchtime walks each week. To ensure the ease of access to site we have worked to enhance entrances and routes through our Southmead site. In particular we have worked with Bristol City Council to use the remainder of the section 106 funding to improve the Kendon Way entrance. The removal of the old site gates and the installation of bollards has created a safe and segregated access for cyclists and pedestrians and now signals an attractive end to the new Southmead Quietway route.

- Safe, accessible sites with sufficient facilities, together with encouragement to incorporate walking as part of other means of travel (e.g. park and stride, hop off one stop early) deliver multiple benefits.



Motorcycles

The Trust continues to provide free motorcycle parking bays for a growing number of motorcyclists across our sites. The construction of the Brunel building provided the opportunity to create our first dedicated secure, undercover motorcycle parking bays for staff. The Motorcycle User Group has been created to allow the Trust to communicate with motorcyclists and to gather staff motorcycle details in case of issues or emergencies.



- Further facilities (e.g. ground anchors) are required across the site to extend the secure parking we offer motorcyclists.



Since 2014 the Trust's charging points have been visited 855 times with a total of 9,292kWh of electricity being used to charge vehicles.

Electric Vehicles

The Southmead site received and installed an electric vehicle charging point in 2014 through a local authority project (Source West) to widen the local charging network. It is publically available and is now Trust-owned. In 2018, through partnership with South Gloucestershire Council, a further six charge points were installed in the Brunel multi-storey car park; providing charging facilities for staff, disabled users and the general public. All seven charge points are part of the national network and visible to the network members. The Trust has an Electric Vehicle User Group through which it communicates news and information to staff EV users.

- Electric vehicle ownership needs to be monitored to ensure further charging points are installed in line with demand.



Car Sharing

A Car Sharing Passenger Permit was introduced alongside the revised permit scheme in 2017, in order to encourage and incentivise car sharing to members of staff. This permit scheme allows car-sharers to make use of the 50 new dedicated parking bays which are conveniently situated on site. The Guaranteed Ride Home policy ensures that if the lead driver leaves work for an unexpected emergency, the passenger is still able to get home.

- Deciding to car share is the most difficult change for staff to make and encouraging them to do so, is an area where there is still significant opportunity.



CO2 Reduction

78.00 Tonnes



Money savings

£45,281



Mileage savings

399,105 miles

Total CO2, Money and Mileage saved through the Trusts online car-sharing platform.

Business Travel

NBT aims to ensure that all staff members have the option of commuting sustainably even when their role requires them to make journeys during the working day. In 2015, the Trust reduced the number of car club providers on site but retained the same number of available vehicles. We now have 3 hybrid vehicles permanently based at the Southmead site which enable us to reduce business travel carbon emissions. Analysis of car club vehicle trials at other NBT sites has confirmed a demand for this service. The 3 cars are not sufficient however to accommodate all staff travel so the vast majority of miles undertaken are in private cars. The Trust's Expenses Policy requires that staff utilise the most economical and sustainable modes of transport for business travel, thereby encouraging use of public transport or cycling, however this is at the manager's discretion.



- There is a need for more pool vehicles however the centralisation of this as part of all Trust fleet vehicles would be a more efficient and cost-effective solution.



Car Parking

In 2016 the Car Parking Policy was reviewed and updated in order to reflect the needs of the new hospital and allow effective management. A new 420-space multi-story car park was also completed in the same year which allows patients to park in close proximity to the main hospital building. It also includes undercover public cycle parking. In 2017, the Car Parking Policy was once more updated and included a new category of permit for car-share passengers. The revised permit scheme allows the Trust to ensure parking is managed and controlled whilst supporting the equal prioritisation of sustainable transport options. Robust enforcement regimes have been introduced to ensure that parking charge notices are followed up. Members of staff who want to park on site are required to meet particular criteria before a permit is granted or before moving onto a waiting list for permits. Criteria (see Figure 4) include not living within 2.5 km (10 minute cycle/25 minute walk - dark green) or 5 km (20 minute cycle or 1 hour walk - light green) radius of site or living outside of a public transport corridor which would enable them to reach site in 30 minutes or under (blue). Those who are unsuccessful in their applications are encouraged to seek the advice of TravelSmart who advise on the different travel options available, with the intention of discouraging non-essential car trips. As a contribution to maintaining the car parks, patients and visitors are required to pay to park on site.



Figure 4. Map of criteria in the Parking Policy.

- In order to ensure that the site roads continue to run smoothly an active car park management approach is needed. This ensures that car parks are used correctly and that roads are kept clear of traffic at all times.



Fleet Vehicles

Fleet vehicles are currently managed individually by the departments which require them (e.g. IM&T, Medical Records, Estates, Porters, Transport Services) with a total of 70 separate vehicles being used by Trust staff for business use. Only 19 of these are Trust-owned with the remainder being leased. The largest user of vehicles is the Trust's Facilities department using 39 vehicles to provide services from catering deliveries through to waste bin transfers. The Bristol Centre for Enablement is the second largest user leasing a total of 22 vehicles. We have not been able to progress opportunities to consolidate the use of fleet vehicles but plan to investigate this in the 2019-2023 Travel Plan.

- A Trust-wide, shared, larger and more efficient fleet would enable greater use of pool vehicles by staff for business use and thereby reduce the carbon emissions and costs associated with this activity.



Procurement

All Trust business cases require the completion of a Sustainability Impact Assessment (SIA) which includes consideration of travel-related impacts. Equally our business planning process requires consideration of resource use (e.g. fuel) and carbon emissions (e.g. emissions from fleet, journeys required etc.) These requirements will encourage the purchase of more efficient vehicles and a closer examination of any service changes which may result in a greater need for transport.

- Completed SIAs will be monitored to ensure that the options that reduce transport/travel emissions are being identified and considered.
- More work is required to quantify the emissions and impacts associated with key suppliers.



Proactive Engagement

TravelSmart proactively engages with staff members through various communication channels including a weekly slot for the Message of The Day; providing consistent information on the sustainable active travel facilities NBT offers for staff members. The Sustainable Travel Coordinator has organised and run numerous, annual TravelSmart Stalls offering advice and information about the facilities and initiatives NBT has to offer as well as inviting external travel organisations on site to better promote sustainable travel across Bristol.

- An ongoing presence (e.g. display material) in areas of high footfall would provide an opportunity to raise awareness and provide information between events.



Sustainable Models of Care

As explained earlier, completion of Sustainability Impact Assessments encourages the consideration of travel/transport as part of planned changes to care models. There are many examples of where technology has been used to reduce the need for patients to come to our sites, for example: renal telemedicine consultations, respiratory Skype/telemed consultations, MyPregnancy App, the Hospital at Home service and local health facilities (e.g. Cossham birth centre).

Figure 5 below, highlights one of the health benefits associated with a move away from high dependence on personal vehicles and inefficient vehicles towards more sustainable forms of travel and transport. These benefits have been quantified through using the Health Outcomes of Transport Tool in section 3.g.

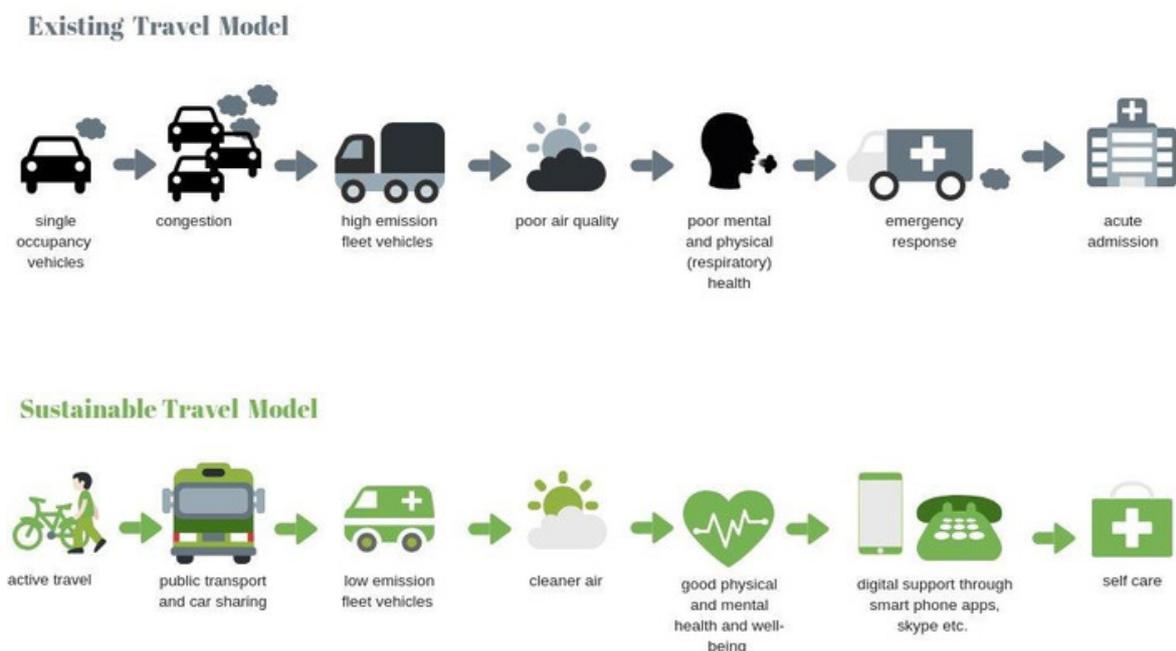


Figure 5. Sustainable Healthcare Infographic

- More work is required to raise awareness of the sustainability (and health) benefits that arise from any change in service that results in a need for less travel.



Sustainable Travel in Health and Wellbeing

NBT acknowledges that sustainability dovetails with health and wellbeing and understands that sustainable travel can improve both physical and mental health of staff, patients and visitors. In 2016/2017, the Trust established a Pathway to Wellbeing working group and delivery plan to promote the health and wellbeing of our staff, patients and the local community through the improvement and provision of access to high quality green space, the arts, the environment, healthy food choices, and exercise. Through proactive engagement, communication and implementation, we encourage staff to think about how their travel choices impact on their personal health and wellbeing and also on the visitors, patients and local community.

- The *Lets Walk North Bristol* walking map highlighting routes between local GP surgeries, nearby greenspaces and the Southmead site was well received by NBT clinicians and could be duplicated for other local GP surgeries not currently covered by the map.



Working Together

Over the past 5 years we have continued to build relationships with stakeholders, including North Bristol SusCom. Through this partnership the Trust has greater representation in influencing commitments to capital expenditure for improved transport in the wider Bristol and South Gloucestershire region. Membership of and communication with a number of groups enables us to keep up to date with local travel information and share best practice. Through this relationship and working directly with the local authorities, TravelSmart has accessed multiple grants and match-funding.

travelwest+

Bristol Workplace
Travel Network

BWA

Bristol Walking Alliance

NHS

National Performance Advisory Group

- Sustainability Leads
- Car Parking and Travel Planning Network



- Maintaining existing partnerships is essential for keeping up to date with external impacts which may effect journeys to our sites; allowing us to be reactive and resilient. Continuing to engage with our stakeholders will help identify opportunities for further improvements.



d. Acknowledgements of Achievement

Our commitment and work in supporting sustainable travel throughout the previous Travel Plan has been recognised by a number of awards.

2015: Public Sector Sustainability Awards: Runners up in the Best Transport/Travel Plan Project.

NHS Sustainability Awards: Highly Commended

2016: TravelWest Sustainable Travel Awards: Winner in Most Improved Workplace, Winner of Organisation of the Year and Highly Commended in Sustainable Travel Champion

TravelWest Travel Plan Accreditation: Silver Star Level



2017: Placed on the West of England Green 50 List.

TravelWest Sustainable Travel Awards: Shortlisted in the Sustainable Travel Champion

2018: Sustainable Health and Care Awards: Highly Commended in Travel and Logistics.

TravelWest Sustainable Travel Awards: Shortlisted in Long-term Commitment to Sustainable Travel

3. Drivers for the Travel Plan

a. The Joint Local Transport Plan

As a major employer in the city of Bristol, we have a responsibility to support the goals of the Joint Local Transport Plan (JLT). The NBT Travel Plan supports the JLT vision of an affordable, low carbon, accessible, integrated, efficient and reliable transport network to achieve a more competitive economy and better connected, more active and healthy communities. More details can be found on the JLT website:

www.travelwest.info/projects/joint-local-transport-plan



West of England Joint Local Transport Plan 3 Progress Report 2015/16

travelwest+

b. Climate Change

As a healthcare provider dealing with ill health arising from poor air quality, the Trust has a duty to do what we can to reduce the 25% of local carbon dioxide emissions that are attributed to transport (Bristol Transport Strategy Consultation 2018). Endeavours in this area will also contribute to our efforts to adapt to and mitigate the impacts of climate change, which the World Health Organisation cites as the biggest threat to world health in the 21st Century. Through encouraging active travel for staff, patients and visitors the Trust also hopes to contribute to a reduction in the 67% of adults in the region who are at an increasing risk of ill health due to low physical activity (Joint Local Transport Plan 3 2011-2026).

NHS

c. NHS Long Term Plan

The NHS Long Term Plan, published in January 2019, outlines the commitments the NHS has made to reduce the impacts of air pollution. The Plan commits the NHS to reduce both business mileages and fleet air pollutant emissions by 20% by 2023/24 with at least 90% of NHS fleet using low emission engines (and 25% being Ultra-Low Emissions) by 2028.

The NHS Long Term Plan



d. Sustainable Development Policy and Management Plan



The Trust has a Sustainable Development Policy (SDP) which commits us to reducing the impacts associated with travel, prepare our community for climate change and to engage with staff, visitors, patients and the local community on the financial, social and health benefits of sustainable development. This policy and the associated Sustainable Development Management Plan (SDMP) are influenced by the national Sustainable Development Strategy for the Health and Social Care System – Sustainable, Healthy Resilient People and Places, in particular the need to focus on carbon hotspots such as travel and logistics.

e. Sustainable Development Assessment Tool (SDAT)

The national assessment and benchmarking tool for sustainability in healthcare is the Sustainable Development Assessment Tool (Figure 6).

The tool consists of 296 statements against which the Trust assesses itself. The statements are grouped into categories with 32 relating to travel and logistics. Each statement also supports one of the 17 UN Sustainable Development Goals.

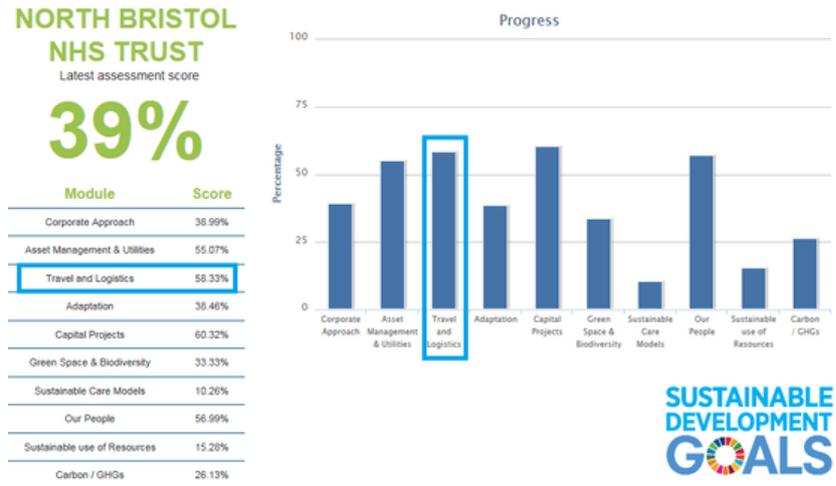


Figure 6. NBT's current progress in the SDAT for the Travel and Logistics category.

The goals supported by the Travel and Logistics category include the following:



Some of the statements within the SDAT that support these goals include:

- We have assessed our transport and travel and have calculated the carbon footprint of our business travel (all road, rail and air) and patient transport services. (goal 13)
- We have a board approved business travel policy to support sustainable travel choices and this is communicated to staff. (goal 11)
- We have a Board approved healthy/active travel plan, developed in coordination with staff, patients, users, clients, visitors and local communities, to encourage active travel. (goal 3)
- We have implemented and advertised electric vehicle charging points at our key sites and they can be accessed by staff, patients and visitors. (goal 11)
- We can evidence at least one example of using new technologies or innovations to minimise travel in the delivery of our services (e.g. telemedicine, Geographical Information Systems, freight consolidation). (goal 12)
- At least 10% of our fleet and pool vehicles are fully electric i.e. on the government Go Ultra Low approved vehicles or similar government approved EV list. (goal 11)

The aims and targets of this Travel Plan will seek to support progress towards these statements, as described in the associated Travel Plan Action Plan (separate document).

f. Expected Trends and Influences

Over the coming years there are several factors that may influence travel locally and within the city of Bristol and beyond and which will have consequences for journeys to Trust sites.

Bus Funding

As part of the hospital redevelopment, a fund was set up to support public transport coming to the Southmead site. This fund has been used to subsidise journeys that are not deemed commercially viable by the transport operator but which are essential for allowing staff to reach site in time for the 12 hour shift start and finish times.



The funding for supported morning/evening/weekend journeys across 4 bus routes will come to an end in the 2019-20 financial year and this may result in the operators deciding to remove these journeys from the timetable. For staff using these services and who are without access to private vehicles, this will present significant difficulties in reaching site, with the main option being active travel or car-sharing. TravelSmart will assist these individuals in finding an alternative method of commuting. The Trust may see an increase in SOV journeys for those current bus users who switch to car use if the bus services cease.

Clean Air Zone

Bristol City Council is proposing a city-centre clean air zone which will involve charging the owners of the most polluting vehicles to drive through an area of the city which has high levels of air pollution. This will impact on anyone travelling to Trust sites who passes through the zone but also deliveries to and between sites, community staff travelling into the area to see patients and travel to/from city-centre locations for business purposes.



www.cleanairforbristol.org



Workplace Levy

The City Council is also considering the introduction of a workplace levy whereby organisations are charged for the provision of car parking spaces for staff. If the levy were to be applied to NBT then the cost will either be passed on to staff, in which case current permit holders may choose to give them up in favour of parking in nearby streets, or the Trust absorbs the cost which will impact on our budgets.

Severn Bridge Tolls

In late December 2018, the tolls were removed from the Severn and Prince of Wales bridges. Staff who avoided these fees by catching the train to Parkway station or using bus services may decide to use their car instead, which may increase the levels of SOV but also presents an opportunity to encourage car-sharing.



Electric Vehicle Ownership

Electric vehicles and the supporting infrastructure has been increasing steadily over recent years and this is predicted to grow more rapidly within the timescale of this Travel Plan. If growth continues in this way (see Figure 7) there will be an increased requirement for infrastructure including work-place and community charge points.



Figure 7. Data from BP Chargemaster.

g. Measures of Potential

The Trust commissioned Liftshare to produce a scoping report which analysed staff postcodes and identified the availability of potential alternative modes of travel. The report findings were based on anonymous postcode data correct as of April 2018. The Trust has a large variety of shift patterns that staff can work and due to the nature of the data available to us to use, three reports were created based on three key shift times (0700-1900, 0800-1600 and 1900-0700) and for staff travelling to the Southmead site.



17% of staff members live within a walkable distance of Southmead (capped at 1.5miles)



66% of staff members live within a distance which could be cycled (capped at 6miles)



92% of staff members live within a 1 mile radius of greater than 9 other staff members

Even given a large caveat (not all staff work these shift patterns, are based at Southmead, have access to a car/bicycle or can share because of caring responsibilities), this highlights a clear potential to increase both car sharing and cycling (see Figure 8). However to achieve the maximum benefits these conversions need to be from SOV users rather than other modes of travel.

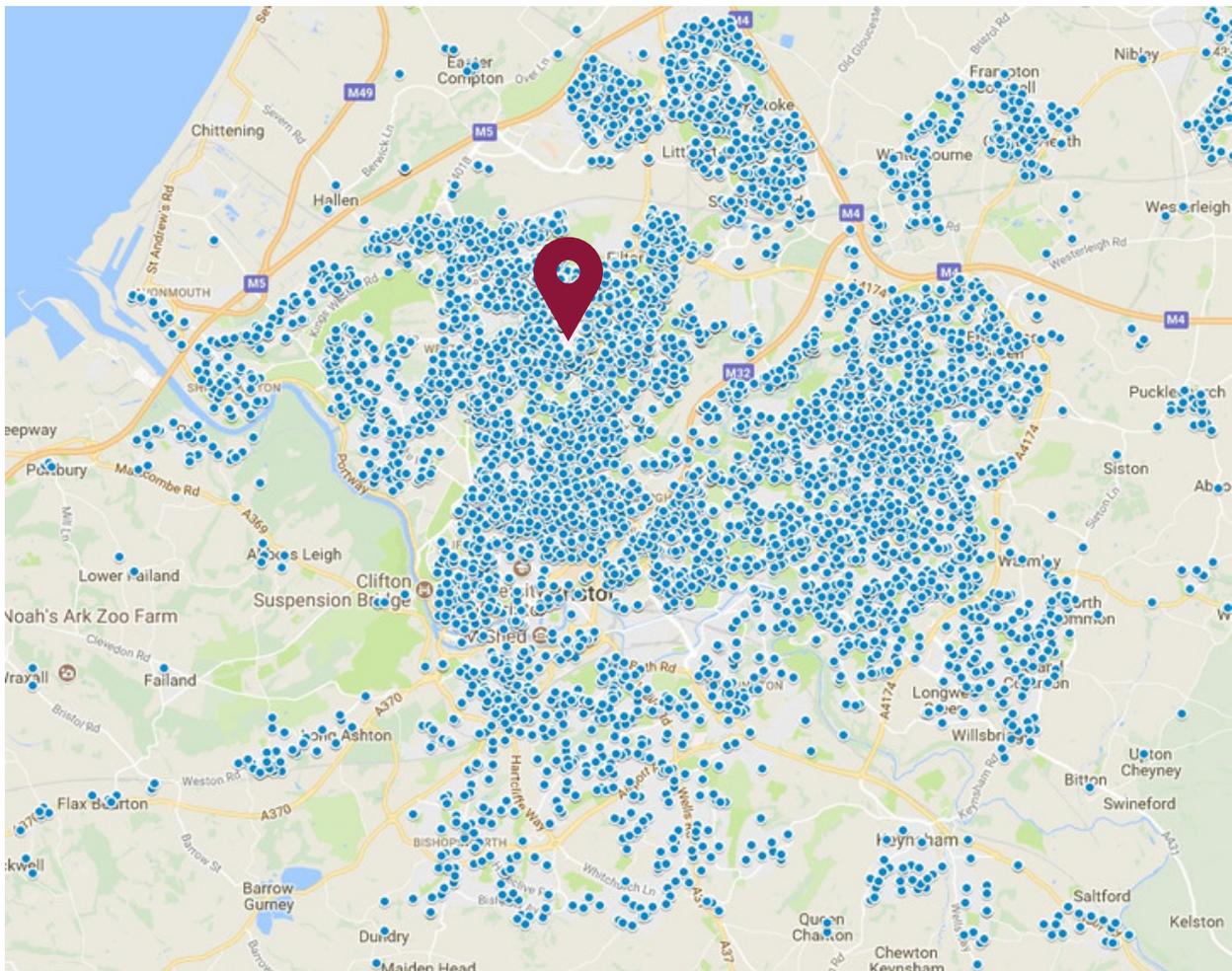


Figure 8. Scoping map identifying clusters of postcodes where NBT staff live. Each dot represents a postcode where 1 or more staff members reside e.g BS10 5NB. The red location icon identifies Southmead Hospital location.

h. Measuring the Health Outcomes of Travel Choices

We have used the Sustainable Development Unit's Health Outcomes of Travel Tool (HOTT), to explore the benefits and impacts of increasing car-share and cycling rates over the next 5 years.

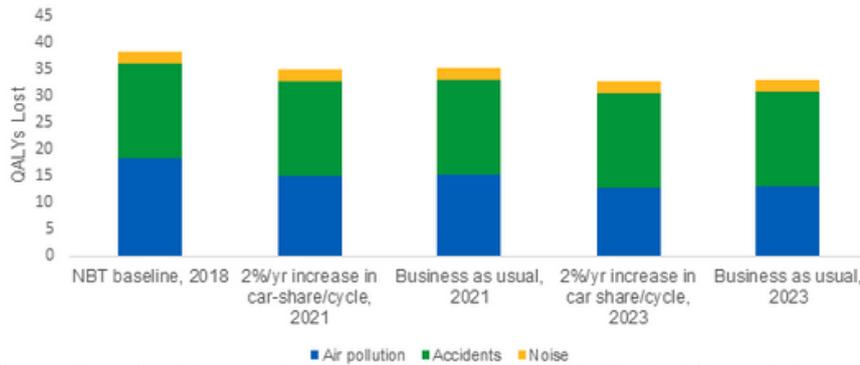


Figure 9. The number of QALYs lost if various scenarios occur throughout the lifecycle of this Travel Plan.

The graph above (Figure 9) shows the total numbers of quality adjusted years of life lost due to the air pollution, accidents and noise associated with travelling to our sites. A quality adjusted life year (QALY) is defined as a measure of the state of health of a person or group in which the benefits, in terms of length of life, are adjusted to reflect the quality of life. One QALY is equivalent to 1 year of life in perfect health. The negative impacts associated with travelling to our sites are highlighted by the number of QALYs lost on the graph below. In 2018 this figure stands at 38.3. The graph also shows how the numbers of years lost would be reduced if we were to achieve the target of a 2% increase in both cycling and car-sharing every year until 2023.

To measure progress an interim target for 2021 has also been profiled. If we achieved 2% increases in both modes annually then by 2021 the numbers of QALYs lost would be reduced to 35.16 and by 2023 the impact would have been reduced to 32.56. The rate of improvement reduces over time because of an in-built assumption that the polluting nature of vehicles on the road will have reduced (e.g. greater use of hybrid/electric, Euro 4 and Euro 6 engine vehicles.)

If we were to achieve the 2% increase annually across both cycling and car-sharing the Trust would also make savings of 107 tonnes of carbon dioxide equivalent (carbon dioxide and other greenhouse gases) compared with a 'business as usual' approach.

Figure 10 highlights the breakdown of carbon emissions from staff commuting, patient/visitor travel, business mileage where staff use their own cars (grey fleet) and business mileage using other modes (e.g. air, bus, taxi and rail). The largest elements are firstly patient and visitor travel (4,997 tonnes of carbon dioxide in 17-18) and staff commuting (2,692 tonnes).

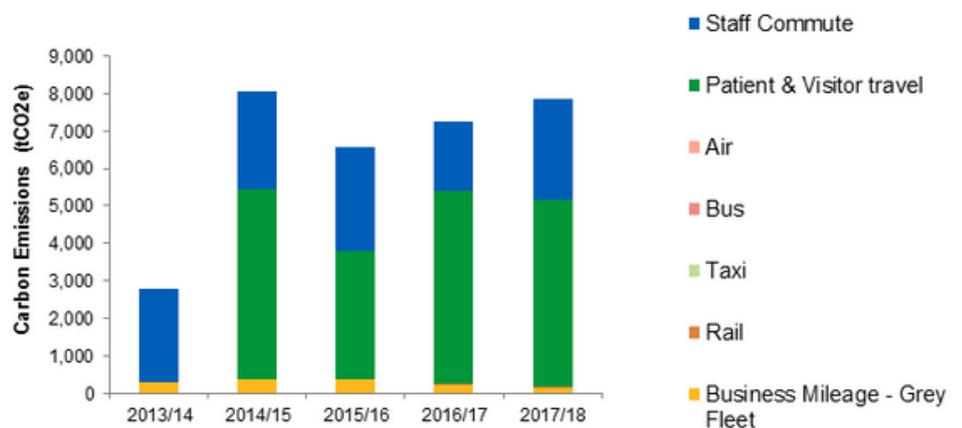


Figure 10. Carbon emissions from different travel related carbon sources in the Trust.

If we were to achieve the target of a 2% increase annually across both cycling and car-sharing the Trust would make savings of 107 tonnes of carbon dioxide equivalent (carbon dioxide and other greenhouse gases) compared with a 'business as usual' approach. The benefits for air pollution would also be positive with levels of nitrous oxide attributable to staff commuting and business travel dropping from 5.49 tonnes per year currently to 3.44 tonnes in 2023 and particulates being reduced by 62%.

4. Vision and Objectives

a. Introduction

Whilst supporting the Joint Local Transport Plan, the aims of the Trusts' Travel Plan 2019-2023 reflect the objectives set out by the UN Sustainable Development Goals which have been adopted by the NHS Sustainable Development Unit; with progress being assessed through the Sustainable Development Assessment Tool. This Travel Plan will apply to the staff, patients and visitors of the Trust and to any other organisations with a presence on the site, such as other Trusts and Universities. The themes and principles within the plan shall, where relevant, apply to all of the Trust's sites.

b. Vision

Our vision is to be a leader in the field of sustainable healthcare; promoting and actively supporting sustainable modes of travel to improve health and wellbeing and mitigate against the impact of climate change.

c. Goals



Engage with staff, patients, visitors, local community, suppliers, partners and other stakeholders on sustainable travel and the health co-benefits; empowering them to convert to more sustainable modes of transport.



Monitor and report on the environmental and health impacts from emissions and air quality from travel/transport to our site to assess the effects and opportunities for improvements.



Provide information, facilities, processes and infrastructure to facilitate and incentivise sustainable and active travel.

d. Objectives

The following objectives have been chosen to enhance the current positive travel mode trends and to encourage improvements in areas where there is still considerable potential.



1. Reduce SOV by 4% per year



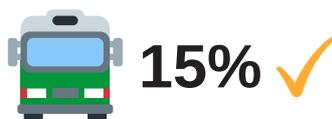
2. Increase numbers of cyclists by 2% per year



3. Increase numbers of lift-sharers by 2% per year



4. Maintain current walking figures



5. Maintain public transport use



6. Increase fleet electric vehicles by 2% per year



7. Reduce QALYs lost by 3% per year



7. Reduce business mileage by 4% per year

Figure 11 identifies the 2018 baseline for each objective, the 2023 target and how we will measure our progress.

Objective	Baseline	Target	Measure
Reduce SOV journeys by 4% per year	37%	29.60%	Capture through Travel to Work Survey
Increase numbers of cyclists by 2% per year	20%	22%	Capture through Travel to Work Survey
Increase numbers of lift-sharers by 2% per year	7%	7.70%	Capture through Travel to Work Survey
Maintain current walking figures	16%	16%	Capture through Travel to Work Survey
Maintain public transport use	15%	15%	Capture through Travel to Work Survey
Increase fleet electric vehicles by 2% per year	11%	20%	Monitor via the SDMP
Reduce QALYs lost by 3% per year	38%	33%	Monitor using the HOTT
Reduce Business mileage by 4% per year	658,443km	526,755km	Monitor via Payroll

Figure 11. Baseline, Targets and Measures for the Travel Plan Aims.

e. Actions

To meet each of the objectives which have been established to achieve the goals of the Travel Plan, a number of actions will be delivered. As many of the actions support more than one objective, the actions are set out under each goal. The next section goes through the initiatives we will implement to support these goals and objectives. Icons of the UN Sustainable Development Goals are presented at various points to identify how the Travel Plan will support the goals.

f. Goal 1



Engage with staff, patients, visitors, local community, suppliers, partners and other stakeholders on sustainable travel and the health co-benefits; empowering them to convert to more sustainable modes of transport.

Sustainable Travel Leads

The Sustainable Development Unit which sits within the Facilities Directorate, supported by the Security and Parking team, will ensure the Travel Plan is implemented across the Trust. Training and attendance at external events will be supported to ensure continual sharing of best practice and innovation.

Supporting Travel Choices

After the success of the last 8 years, the travel advice bureau (TravelSmart) will continue to provide advice and information to staff with increasing support given to patients and visitors. Multi-modal sustainable and active travel options will be encouraged as flexible and expected ways to commute to work.



Communication and Engagement

The engagement of staff, patients and visitors is a vital tool in raising awareness of the benefits to sustainable active travel. The Sustainable Travel Co-ordinator will continue to hold awareness events, through TravelSmart, on a variety of days, times and locations offering advice and information to staff, patients and visitors about the cost savings and personal benefits of sustainable modes of commuting.



Staff, patients and visitors who are able, will be encouraged to travel to our sites on foot and NBT will participate in national awareness days to engage staff with walking, running, cycling, motorcycling, public transport and car-sharing. The use of more innovative engagement tools will be explored

Health and Wellbeing

Sustainable active travel will continue to be promoted as an important part of improving the health and wellbeing of everyone. TravelSmart will be included in NBT’s other Health and Wellbeing campaigns, as a facility which can help staff members improve their personal resilience through being active.



Social Prescribing/Delivery of Services

As part of our work we will seek to increase the prescribing of walking and cycling as an alternative or to compliment, other interventions, as recommended by NICE guidance. The health and wellbeing benefits will be promoted and routes will be identified through the Let’s Walk North Bristol walking routes maps and leaflets. In particular we will encourage the inclusion of walking and cycling in chronic disease pathways. (Public health guideline PH41). This is particularly relevant for patients living locally within the Southmead ward as levels of physical exercise are some of the lowest in the city with only 45-52% of people getting enough regular exercise (JSNA Data Profile 2018). The Trust will work with local community groups in the Southmead area to create another walking map, highlighting the routes through the north west of the hospital.

Collaborative Infrastructure and Travel Improvements

With Southmead Hospital being one of the largest public transport interchanges in North Bristol, the Trust will continue to encourage staff, patients, visitors and the local community to use public transport when travelling to our sites and around Bristol. With links to the city centre and other parts of the city, we will continue to work in partnership with Bristol City Council, South Gloucestershire and local bus companies to ensure services are efficient, safe and accessible for all. Where and when our sites are poorly accessed by public transport, the Trust will continue to lobby public transport providers to improve provision.



The Trust recognises the importance of working with stakeholders and partners to reduce the environmental impacts and maximise the health benefits achieved through sustainable travel. In particular we will continue to work with other local organisations through membership of the North Bristol SusCom group to reduce congestion and support the development of a fully integrated, sustainable transport network for North Bristol. Existing relationships with local authorities will be maintained and we will seek to further develop links with local transport providers to maximise the provision of services into areas with high numbers of staff and patients.

Contractors and Suppliers

We will seek to influence contractors and suppliers in their use and choice of transport.



g. Goal 2



Monitor and report on the environmental and health impacts from emissions and air quality from travel/transport to our site to assess the effects and opportunities for improvements.

Business Travel and Mileage

The Trust will aim to bring sustainable and active travel to the forefront of business travel arrangements. We will seek to further understand the Trust's business travel patterns and needs, and build on existing policy requirements to use the most economical and environmental modes of transport. A business travel review will be undertaken with the aim of understanding current patterns and staff will be proactively encouraged to use public transport where economical and practical; consequently reducing SOV business journeys.

Environmental Impact Targets

We will assess the impacts of our vehicle options (carbon dioxide, nitrous oxide and fine particulates) as part of our procurement to assess which would be the most sustainable option.



We will first establish the carbon footprint (greenhouse gases and air pollution) associated with the delivery of goods and services to our organisation and will then set a target to reduce these impacts. Where contracts involve transportation, for example deliveries, the tendering suppliers will be asked how they intend to reduce the emissions associated with delivering to our sites. Key contracts will have carbon dioxide (CO₂) and nitrous oxide (NO_x) reduction targets which will be monitored using the Sustainable Development Unit's Health Outcomes of Travel Tool (HOTT).



Fleet, Pool Cars and Transport

Where vehicles are required, there will be a minimum specification introduced (Euro4 petrol and Euro6 diesel) with electric or hybrid vehicles being chosen wherever feasible.

h. Goal 3



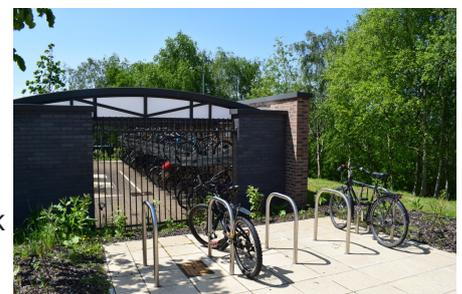
Provide information, facilities, processes and infrastructure to facilitate and incentivise sustainable and active travel.

Active Travel Facilities

Entrances on each side of the Southmead site allow the site to be entered from each direction with pedestrian and cycling access-only site entrances at two sides. The site has wide pavements lined with trees and direct routes between all buildings creating an aesthetically pleasing area to walk around. Change and shower facilities will continue to be available to all staff to use.



Cycling will continue to be promoted and supported as an alternative mode of travel; ensuring that the facilities are fit for purpose and efficient for demand. We will look to expand or upgrade our facilities if/when demand increases. Secure cycle parking sheds, cycle hoops, showers, and change and locker facilities will remain available to staff. We will seek to provide better facilities to visitors i.e. secure cycle parking and change facilities.



The Trust's Estate Strategy sets out the development of the estate which falls outside of the land and buildings managed by our PFI contractor. Further development is planned over the next 5 years and beyond which will see new and refurbished infrastructure and buildings. The strategy requires consideration of sustainable development and sustainable travel and the Master Plan for the Southmead site incorporates improved pedestrian, cycle and public transport access including work to create a new cycle and pedestrian route into the Hospital from Southmead Road (completion scheduled in mid-2019).



Proposed Pedestrian Routes

The success of the public realm depends on high quality pedestrian routes between key spaces throughout the site.

The new masterplan proposals include a new secondary connection via Memorial Park to the new key space within the East Quarter. It is envisaged this could include a 'tree trail' and contemplative spaces.

The new key routes will include a pedestrian square with a retained TPO tree that acts as an extension to the green space in front of Brunel, that is not fronted by vehicular routes. This is connected by a dedicated tree-lined public avenue to the new key public space within the East Quarter.

KEY
 Proposed Pedestrian Routes
 Proposed New Key Space

To ensure cycling is seen as a flexible and accessible option for all, we will look to provide facilities such as car bicycle racks, allowing staff who live further afield to take multi-modal journeys.

Supporting Travel Choices

Cycling will be promoted and supported as an alternative mode of travel; ensuring that staff are aware of the support available to them. Free bike loans, the cycle to work scheme, cycling mileage and bike maintenance sessions will continue to be supplied. A cyclist 'Buddy Scheme' will be introduced which will partner new or nervous cyclists with someone who is more experienced to offer support on their commutes. The Trust will 'investigate the creation of a Cycling to Southmead map, highlighting the various cycle routes that could be taken from different parts of the city. We will continue to encourage the development of further 'Quietways' for our cyclists and walkers.



A recent scoping report (see page 14) identified that 92% of staff members live within a 1 mile radius of more than 9 other staff members who are potential car share matches. This identifies the need for greater awareness and understanding of the potential of car sharing between staff. The Trust will promote the flexibility and benefits of car sharing to all staff members, using online matching websites to simplify the process of finding a car share match. As demand increases, we will allocate more priority parking and aim to reach 200 dedicated spaces.

Although the Trust understands that motorcycles are still a source of pollution, their use will continue to be encouraged as a solution to congestion. The Trust will continue to work with local authorities to promote motorcycle safety training and with local suppliers to offer taster events, incentives and discounts. We will encourage the uptake of electric motorcycles and provide a greater quantity of ground anchors or similar, to improve motorbike security on all sites. A motorbike 'Buddy Scheme' will look to be established whereby new motorcyclists can be shadowed by more experienced riders on their first commute. The Trust will continue to engage with users through the Motorcycle User Group

Business Travel and Mileage

We will continue to provide pool cars as an aid for staff who choose to commute sustainably but are required to travel during the working day. An increased awareness of the pool car scheme may subsequently require an increase in vehicles on site which the Trust will aim to resource. The existing fleet of 3 pool vehicles together with all Trust owned and leased vehicles will be reviewed with the intention of centralising vehicle procurement, management and responsibility. Detailed mileage information will be maintained for all Trust vehicles with monthly mileage and carbon reporting being established. We will use proven techniques such as 'miles per gallon' league tables, driving tips and driver training to encourage more efficient driving amongst regular users.

We will conduct a scoping study which identifies the Trust's current pool vehicles, remaining lease periods and user requirements, together with potential alternatives to our existing approach, to determine the feasibility of a centralised pool vehicle system.



Delivery of Services

To support the existing ethos of 'care closer to home' we will continue to examine our approaches to service delivery in order that the need to come to the main hospital site can be avoided wherever possible. We will design our care models as Sustainable Models of Care (see page 9) and consider the use of technologies to support this aim.



Improved Air Quality

The Trust already has video conferencing facilities which will be further promoted. However this will be further explored particularly with other members of the Sustainability and Transformation Partnership to examine opportunities to reduce business travel and improve air quality across the region.

Electric Vehicles

We will facilitate more charging points as and when demand increases and additional capacity is required. As the government pushes for no new sales of petrol and diesel cars by 2040, local deals on 100% electric cars will be promoted to staff through awareness events and communication channels.

If the situation arises in which the Trust centralises its fleet, the new fleet will be to a minimum sustainability specification with at least 20% being fully electric.



Car Parking

With continuing site development plans allowing the possibility of car park expansions, the Trust will look to increase the amount of parking spaces available for both staff and public in order to aid the demand on the available car parks on site. In 2019, Parking Services will conduct an assessment of the site wide signage in order to ensure that all information is correct and up to date, this should aid in further traffic reduction, ensuring that all car parks are easy to find and simple for users.

The Parking team will continue to streamline all car park management systems and strategies to offer the best parking experience possible. The Trust will investigate the use of new technologies such as Variable Message Signage and counting systems in order to improve the management techniques being used. To improve the management of the staff parking permit systems we will be looking into new technologies in order to allow the staff members to take full management of their parking payments. Parking Services will look to remove the need to manage the permit fees from payroll and aim to introduce a user controlled system, where staff members could pay as they park and top up their parking using a 'digital wallet system'.



5. Monitoring and Measurement

a. Sustainable Development Assessment Tool (SDAT)

We will monitor and assess our travel and transport annually using the SDAT.

b. Travel Surveys

The Trust will continue to measure the travel choices made by staff through participating in the Travel to Work Survey organised by the local authorities. By participating in a region-wide survey, the journeys made by Trust staff and their consequential impacts will not only inform our decisions but will be seen in a wider, pan-region context and be used to validate and deliver supportive infrastructure developments in our area.

Patient and visitor travel choices will be recorded each year through various methods to ensure a higher participation rate which provides reflective and useful data. We will report on progress quarterly to the Trust's Travel Strategy Group, annually to the Trust Board and publically via our Sustainable Development Management Plan and Annual Report. Our annual performance data will also be shared with the national Sustainable Development Unit, BNSSG Clinical Commissioning Group and reported to the Department of Health (ERIC).

c. Health Outcomes of Travel Tool

We will use the tool to annually review the progress of our targets; updating the data to reflect changes in SOV and sustainable travel modes to identify the impacts on Quality of Life Year adjusted.

d. Travel Strategy Group

The Travel Strategy Group will monitor progress against the Travel Plan Action Plan at our quarterly meetings.

6. Conclusion

The Travel Plan 2019-2023 sets out work required to create a hospital which is safe, sustainable and accessible to all.

Through understanding external influences, staff, patient and visitor travel choices and mode potentials, we will have the knowledge to take the necessary steps to reduce the environmental, social and financial impacts of travel to our sites. We will seek to engage and educate staff, patients and visitors on the health, wellbeing, financial and environmental benefits of active and sustainable travel whilst simultaneously delivering reductions in congestion, air pollution and carbon emissions. We also commit to engaging with our supply chain and contractors to reduce the impacts of the transport associated with the delivery of goods and services to our sites. Combined, we hope that our efforts will lead to a reduced contribution to climate change and a more resilient and sustainable community.

