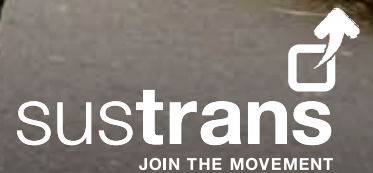


BIKE *life*

2019

Bristol





Making tracks

Our vision for cycling in Bristol



We have made huge achievements in transport in Bristol over recent years, particularly in cycling.

We were the first Cycling City in the UK, which brought high levels of investment in cycling infrastructure and promotion – doubling cycle journeys. This is just the start.

We are developing thousands of new homes and jobs and there will continue to be more people navigating an already congested network. We need to encourage more people to cycle to help minimise congestion as the city grows, but we need to ensure cycling is a realistic option and practical for more journeys.

We will continue to work with our citizens and stakeholders to identify barriers to cycling and seek to overcome them to get more people on bikes in Bristol.

Councillor Kye Dudd
Cabinet Member for Transport



Bristol is sustaining its recognition as a cycling city, continuing to attract high levels of walking and cycling to work compared with other large UK cities. As the city

continues to grow, the numbers of people walking and cycling is increasing, contributing to minimising congestion in Bristol.

I want to support cycling as a means to connect people from where they live to where they want to go for many different journey purposes. We have an air quality issue in the city and promoting cycling through better infrastructure and engagement to enable all our citizens to travel by bike, where possible, can help to tackle this issue.

We have created the One City Plan with partners and stakeholders from across Bristol to set ambitious targets to tackle congestion and increase travel by sustainable modes. Increasing cycling is fundamental to achieving these targets.

Marvin Rees
Mayor of Bristol

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6	Realising benefits	14	Solutions
8	Cycling participation	17	Improving cycling
10	Social inequality and mobility	19	Bike to the future

Introducing Bike Life

Bike Life is the biggest assessment of cycling in urban areas in the UK and Ireland. It is delivered by Sustrans in collaboration with 17 cities and city regions. Each city* reports on progress towards making cycling an attractive and everyday means of travel.

Bike Life reports every two years. In 2015 and 2017 seven cities published reports. Glasgow, Perth and Stirling followed and published their first reports in 2018.

Fourteen areas are participating in Bike Life in 2019. This includes our first London borough, Tower Hamlets, and our first city outside of the UK, Dublin Metropolitan Area.

This is the third report from Bristol, produced in partnership with Bristol City Council. The information in this report comes from local cycling data, modelling and an independent survey of 1,440 residents aged 16 or above in Bristol.** The survey was conducted by social research organisation NatCen and is representative of Bristol residents, not just those who cycle.

More details on all Bike Life reports can be found at www.sustrans.org.uk/bikelife.

Our thanks to the people of Bristol who took part in the survey and shared their stories with us.



*City is used as a shorthand for Bike Life cities, city regions and boroughs.
**Survey conducted April–July 2019.

Report summary

Bristol

Population*
459,252

Survey area



Everyone benefits when more people cycle

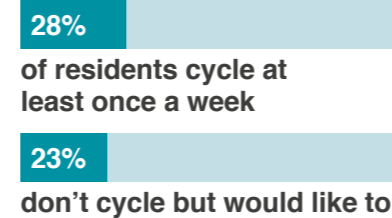
Every day, cycling in Bristol takes up to

28,000 cars off the road

Based on cycling by residents that live in a household with a car. Does not include leisure cycling trips.

- Every year, cycling:
- prevents **222** serious long-term health conditions
 - saves **15,000 tonnes** of greenhouse gas emissions
 - creates **£69.5 million** in economic benefit for individuals and the city

There is significant appetite in Bristol for cycling.

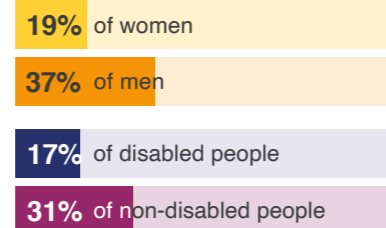


Safety concerns stop cycling being a genuine travel choice for many residents

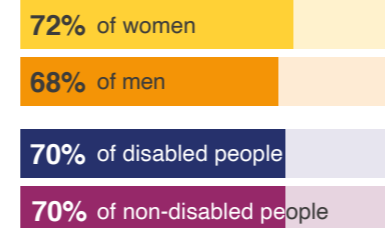
Many residents are less likely to cycle regularly, for example women and disabled people.

However, all groups want cycling safety to be improved.

Proportion of residents who cycle at least once a week



Proportion of residents who think cycle safety needs improving



To help residents to cycle more we need better cycling infrastructure

82% think that more cycle tracks along roads physically separated from traffic and pedestrians would be useful to help them cycle more

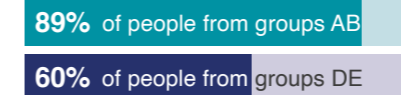
70% support building more of these tracks, even when this means less room for other road traffic**

12 miles of cycle tracks along roads physically separated from traffic and pedestrians currently exist in Bristol



People from socio-economic groups D and E are most likely to suffer the impacts of higher traffic levels,[†] yet are least likely to own a car

Proportion of residents from socio-economic groups AB or DE who have a car or van in their household



Not having a car can increase the risk of social exclusion, debt and transport poverty.^{††}

74% of residents from socio-economic groups D and E never cycle, but **35%** would like to start

This is equal to **32,000 adults**

Cycling as a mode of transport is ideally suited to urban life. Where travel alternatives are lacking, cities that are designed for cycling can help many residents access everyday services and reduce social and economic isolation.

Socio-economic group is a classification based on occupation maintained by the Market Research Society. Groups A and B are professional and managerial. Groups D and E are semi-skilled and unskilled manual occupations and people not in employment.

Bristol residents believe improving their streets for cycling and walking would make their area a better place to live, work or visit

66% think more cycling would make their area a better place to live and work

66% think fewer motor vehicles on our streets would be useful to help them cycle more

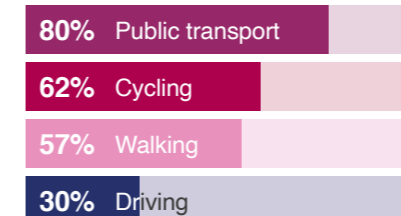
73% think space should be increased for people socialising, cycling and walking on their local high street

51% think streets outside local schools should be closed to cars during drop off and pick up times

51% think speed limits should be reduced on local roads



Residents would like to see more government spending on public transport, cycling and walking



Craig Pilkington



For many, the barrier to cycling is that they feel unsafe on the roads, so safer and more pleasant routes are important in encouraging people to cycle.



*NOMIS mid-year 2017 population estimate. This is the most recent available for all Bike Life areas.

**Please note this question has changed since 2017 from 'could mean' to 'would mean'. See Bike Life methodology for further details.

[†]Glasgow Centre for Population Health, 2013.

The built environment and health: an evidence review.

^{††}Sustrans, 2012. Locked Out Report.



Realising benefits

Why everyone gains when more people cycle

Bristol residents cycle 11 times around the world every day

66%



agree that more cycling would make Bristol a better place to live and work

29.6 million trips

made by cycle in Bristol in the past year, which adds up to

96.7 million miles

= 270,000 miles a day

Annual trips by purpose*

Leisure: 3,100,000

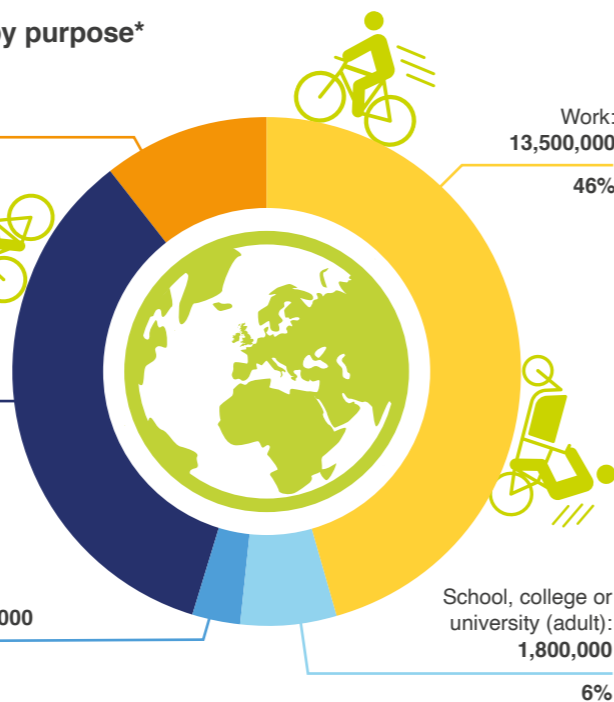
10%

Shopping, personal business and social trips: 10,300,000

35%

School (child): 860,000

3%



Cycling keeps Bristol moving

Studies show cycling frees up road space in comparison to driving.** This helps to keep Bristol moving for all road users.

28,000 return cycle trips

are made daily in Bristol by people that could have used a car

If these cars were all in a traffic jam it would tail back

85 miles

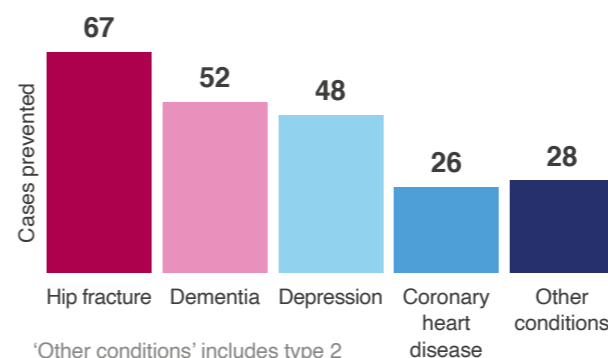
equivalent to the distance from Bristol to Warwick



*Leisure trips include adults and children. Education trips are shown separately for adults and children. All other trips are just adults.
**Litman, 2017. Evaluating Transportation Land Use Impacts. Based upon Eric Bruun and Vuchic, 1995. The Time-Area Concept.

Cycling unlocks health benefits for everyone

Cycling in Bristol prevents 222 serious long-term health conditions each year



'Other conditions' includes type 2 diabetes, stroke, breast cancer, colorectal cancer.

Saving the NHS in Bristol

£1.5 million per year



equivalent to the cost of

49,000 GP appointments

Based on Sport England MOVES tool which shows the return on investment for health of sport and physical activity.

In Bristol the physical activity benefits of cycling

prevent 27 early deaths annually

which is valued at

£94.6 million†

More people cycling improves air quality:

31,000 kg of NO_x

and

4,200 kg of particulates

(PM₁₀ and PM_{2.5}) saved annually

Around 300 deaths each year in the City of Bristol can be attributed to exposure to both nitrogen dioxide and fine particulate matter. This represents about 8.5% of all deaths in the city.

From Air Quality Consultants, 2017, Health Impacts of Air Pollution in Bristol.

Cycling helps reduce the impact of our climate crisis

15,000 tonnes

of greenhouse gas emissions (carbon dioxide, methane and nitrous oxide) saved annually, equivalent to the carbon footprint of

36,000 people taking flights

from Bristol to Tenerife



Transport now accounts for 27% of the UK's greenhouse gas emissions, of which the main sources are petrol and diesel cars.

Overall the UK's emissions between 1990 and 2017 fell by 42%; however transport emissions barely changed (a 2% drop).

Department for Business, Energy and Industrial Strategy, 2017, UK greenhouse gas emissions

Cycling benefits residents and the local economy in Bristol



95p

benefit for individuals and society from each mile cycled instead of driven

In total, this adds up to:

£49.1 million

per year from people with a car choosing to cycle for transport, or

£69.5 million

annually from all trips cycled



These figures are based upon monetising the benefits and drawbacks of driving and cycling. This includes travel time, vehicle operating costs, health, congestion, infrastructure, local air quality, noise, greenhouse gases and taxation.

†Based on WHO/Europe Health Economic Assessment Tool (HEAT), which enables an economic assessment of the health benefits of cycling by estimating the value of reduced mortality resulting from specified amounts of cycling.



Cycling participation

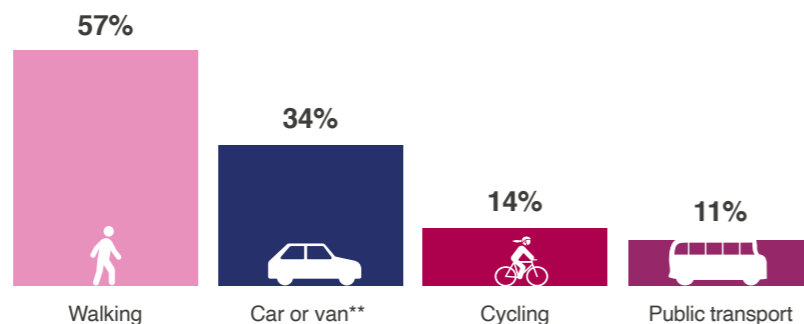
Who is cycling and how often?

Most people living in Bristol do not currently cycle

Whilst many people cycle in Bristol, participation is much lower than for other modes of travel.

When cities are designed to make cycling more attractive than other forms of transport, participation can be high. For example 29% of residents cycle five or more days a week in Greater Cambridge.*

Residents who travel by the following modes five or more days a week in Bristol



28% of Bristol residents cycle at least once a week

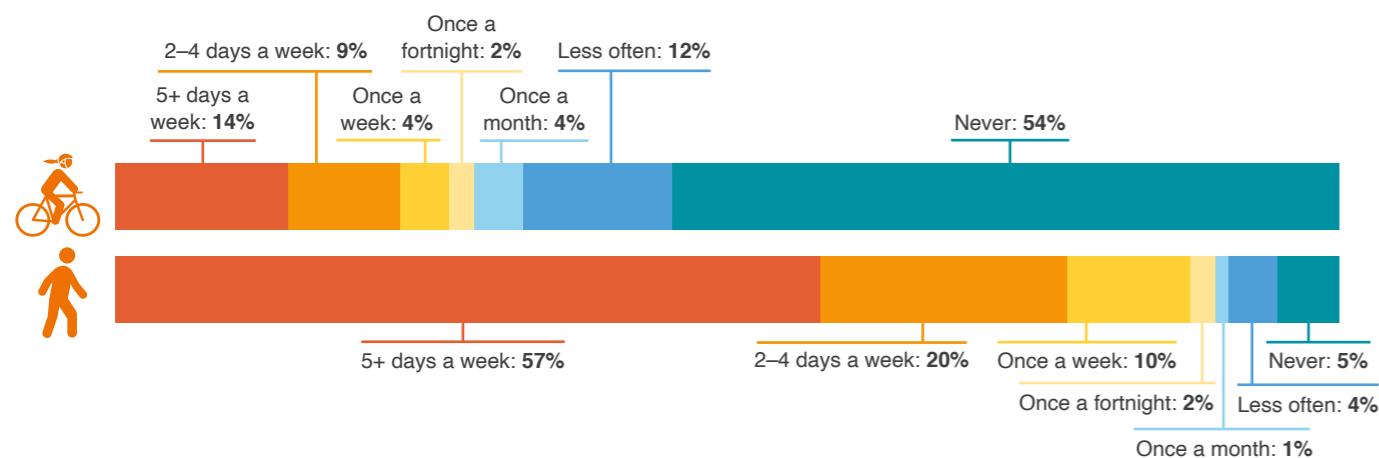
88% of residents walk at least once a week

While it's clear that improvements need to be made to the walking environment, there is at least a network of protected space – pavements.

In comparison, it is only possible to cycle to most everyday destinations if you are happy to share road space with motor vehicles.



How often are residents cycling and walking?



How inclusive is cycling?

In Bristol cycling participation of different demographic groups is not equal.

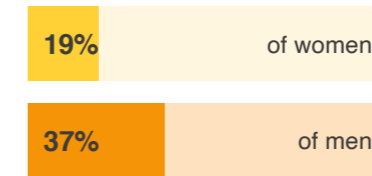
Barriers to cycling can be more pronounced for different demographic groups, however cities with high cycling rates show this is not always the case.

55% of all cycling trips in the Netherlands are made by women. Furthermore, people over 65 make 24% of their trips by cycle, higher than the percentage reported for any other age group over the age of 26.

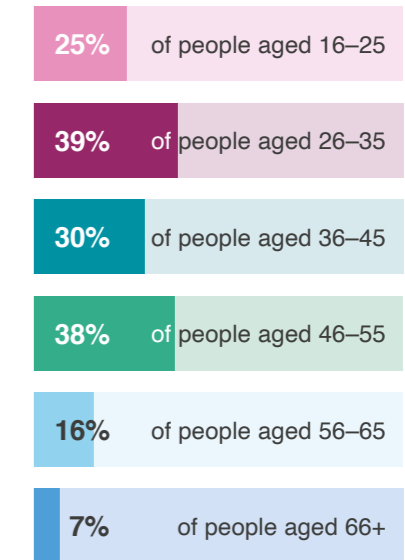
Pucher and Buehler, 2008. Making Cycling Irresistible Transport Reviews, Vol. 28.

Proportion of Bristol residents in different demographic groups who cycle at least once a week

Gender



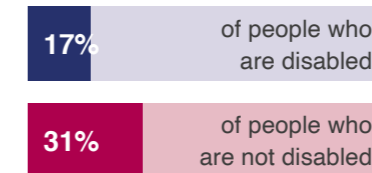
Age



Ethnicity



Disability



Abiir Shirdoon, Cycle Instructor, Life Cycle UK



I learnt to ride a bike as a child but stopped when I was about 12 and didn't start again until I was living in Bristol as an adult. I joined in with a Kidical Mass ride, aimed at giving mums confidence to ride with their children, and from there I haven't looked back.

I trained as a Cycle Instructor with Life Cycle UK in 2018. I work in schools to help children gain confidence on their bikes using the Bikeability programme. My goal is to work with women too, to encourage them to ride more. I don't see many women like me riding bikes in Bristol and I think that is due to confidence and self-consciousness. I want to help other women realise that they can ride a bike and no one will stare.

By training other people to feel confident on a bike, I feel like I can do something small to help them change their lives for the better.





Social inequality and mobility

Cycling's potential to help people

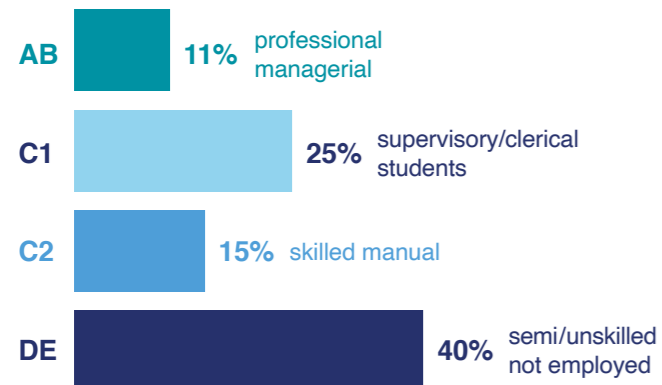
Mobility is about accessing basic, everyday needs that help people live well

Mobility enables people to access employment, education, fresh food, green space and healthcare. Mobility also enables people to see family, participate in their community and to have a voice in society.

And yet, mobility for many people in the UK is neither equal nor inclusive.

People who do not have a car can find it challenging to reach everyday services in areas where travel alternatives are lacking

Proportion of residents from each socio-economic group* who do not have a car or van in their household



25% of the population of Bristol are from the socio-economic groups D and E. That's around **110,000** people in total.

Groups D and E are semi-skilled and unskilled manual occupations, homemakers and people not in employment.

Many disadvantaged neighbourhoods have fewer local amenities and poorer public transport provision.** This combination means that everyday services may be harder to reach. Cycling could help accessibility.

Many residents from socio-economic groups D and E would like to start cycling

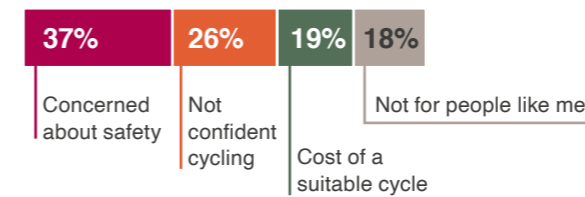
35% of residents from groups D and E in Bristol would like to start cycling

9% of residents from groups D and E in Bristol currently cycle at least once a week

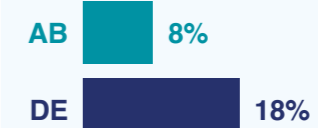
In comparison, **37%** of residents from groups A and B cycle at least once a week

However, many barriers prevent people from these groups cycling

Reasons why Bristol residents from socio-economic groups D and E do not cycle or why they cycle less often



Proportion of residents from socio-economic groups who think cycling is not for people like them



Being a 'cyclist' can be associated with a certain type of person and characteristics.

Cycling has potential to reduce social and economic exclusion

Cycling could help many residents access employment, healthcare and everyday services, but only if we make cycling attractive, safe and easy for everyone.

At a relaxed pace you can cycle over 4 miles in 25 minutes. So, cycling can be ideally suited to urban life, especially as an option for people who do not own a car and live further away from public transport.



25-minute cycling distance from The Galleries

Cycling would enable **350,000** people to travel from their home to The Galleries in less than 25 minutes, including **79,000** people from areas that are among the 20% most deprived in England.



Rowan Heath, participant in the Julian House Build-a-Bike course



I took part in the Julian House Build-a-Bike course as I was looking for structure in my day and wanted to learn new skills. I've been unemployed for a while and am in recovery from addiction. The course gave me somewhere I needed to be and something to focus on, which has been really helpful.

I found the process of rebuilding a bike from scratch quite therapeutic. The bike needed a lot of work doing to it. I stripped it right back and rebuilt it and now it works like new. I got to keep the bike at the end of the course and now I use it to get all around the city.

The course at Julian House has given me skills I've never had before and helped build my self-esteem and confidence. I've put my name down to volunteer so that I can help others do the same.

*Adapted from TravelTime platform, travel time maps (isochrone shapes): qgis.traveltimeplatform.com. Uses a baseline cycling speed of 10mph and takes into account type of cycle tracks and junctions but does not include gradient.

**Glasgow Centre for Population Health, 2013. The built environment and health: an evidence review.



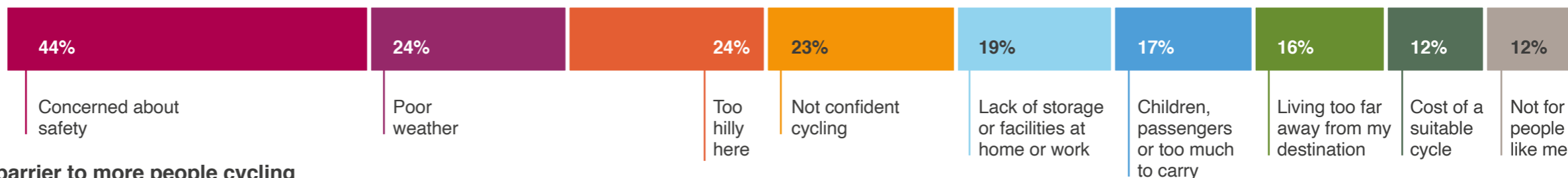
Barriers

What is stopping Bristol residents cycling more?

44%

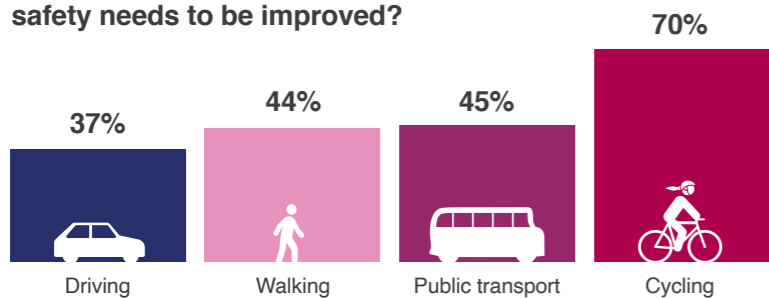
think Bristol is a good place to cycle. But many barriers to cycling exist.

Reasons why some residents do not cycle or why they cycle less often



Safety is the single largest barrier to more people cycling

For which modes do residents think safety needs to be improved?



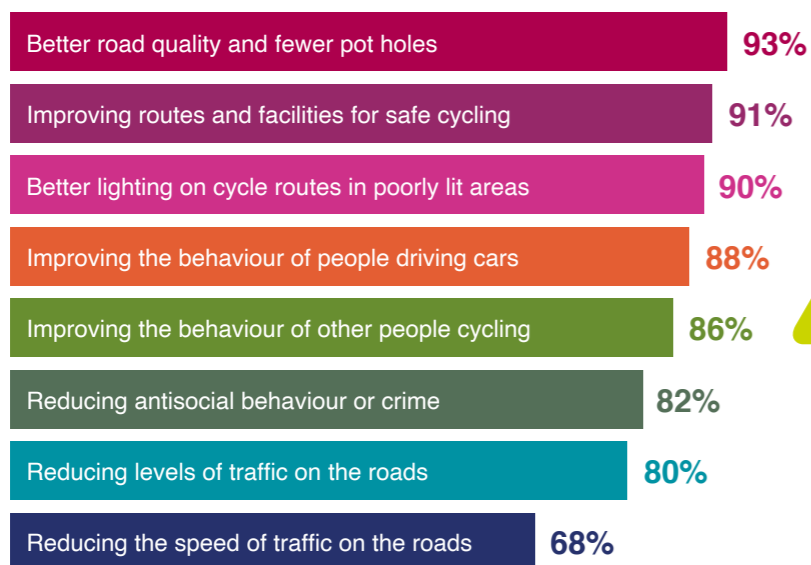
31%

of residents think cycling safety in Bristol is good

14%

think children's cycling safety in Bristol is good

Which issues do residents think are important for improving cycle safety in Bristol?



19%

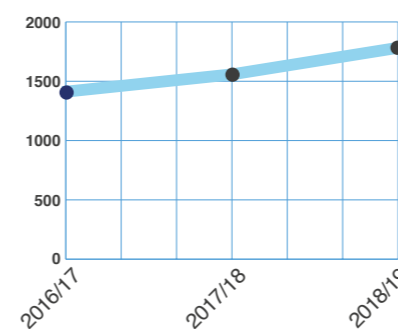
of Bristol's streets are without 20mph speed limits*

82%

of households are further than 125 metres from routes that are considered good practice**

Secure cycle storage is important at home and when out and about

Reported cycle thefts



There were **1,782** reported cycle thefts in Bristol in 2018/19.

For every **127** people who own an adult cycle in Bristol, there was 1 reported cycle theft in the past year.

There is a public cycle parking space for every **26** people who cycle in Bristol.

18%

of residents think the security of public cycle parking is good.

Security can also be a risk at home, especially in flats where storage inside the property can be harder.

*Excluding motorways.

**These are defined as routes that are traffic-free and away from roads, and cycle tracks along roads physically protected from traffic and pedestrians.



Simon Wood, North Bristol NHS Trust



As the largest healthcare service provider in the South West, with over 8,000 staff making regular journeys to our sites, North Bristol NHS Trust impacts local traffic flows.

By enabling employees to choose to cycle to work, we can help reduce the numbers of vehicles on the road, decreasing local congestion, carbon emissions and air pollution.

For our employees, cycling provides a reliable journey time and a cheaper alternative for getting to work. It also helps people to achieve the NHS-recommended minimum 150 minutes of moderate-intensity activity each week.

The health benefits of cycling include reduced risk of chronic illnesses like heart disease and stroke, while also boosting mental wellbeing and keeping body weight under control.

For an employer, this can help reduce the number of sick days, in turn reducing staffing pressures and improving staff morale.

All these benefits add up, which is why we installed cycling facilities at our new Brunel Building.





Solutions

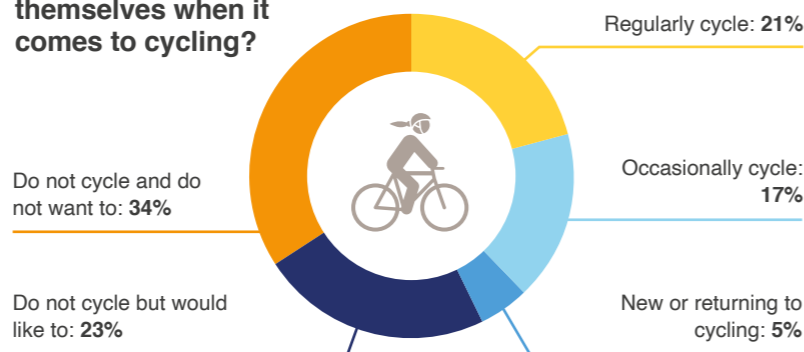
What would help Bristol residents to cycle more?

Many Bristol residents want to cycle

50%

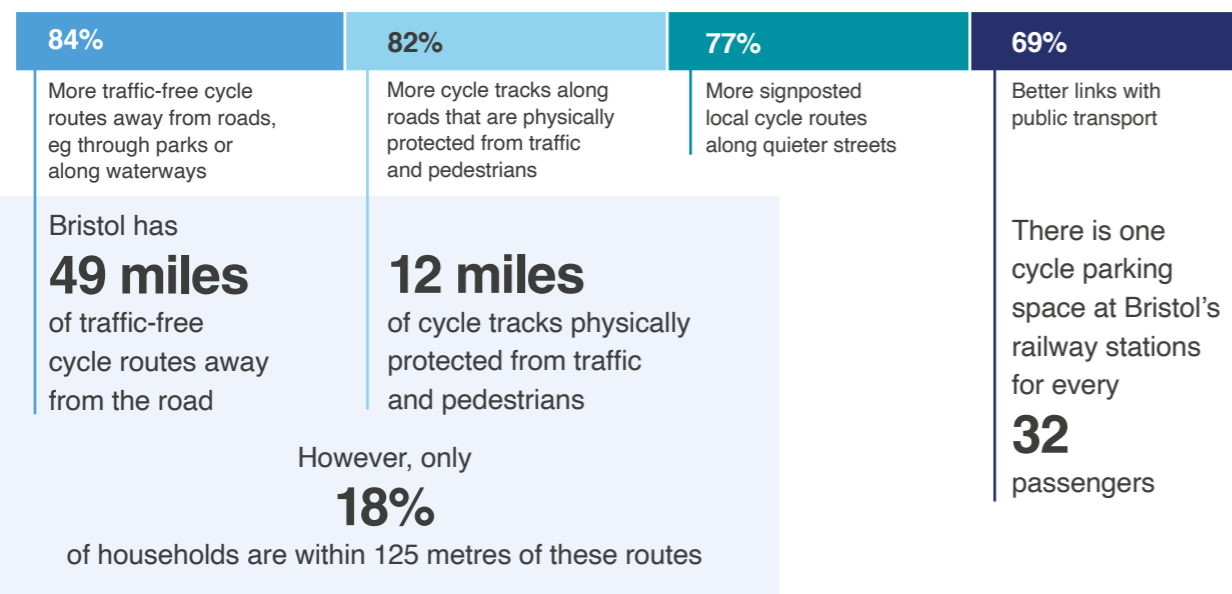
of residents feel that they should cycle more

How do residents see themselves when it comes to cycling?



Residents want improved cycling infrastructure

What proportion of residents would find infrastructure improvements useful to cycle more?



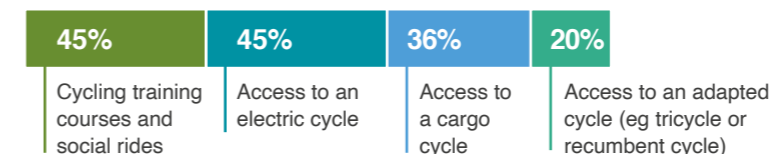
70%

of residents support building more protected on-road cycle tracks, even when this would mean less room for other road traffic*

A and B roads have higher levels of traffic so these are where physical separation is most useful for cycling. In total, **98 miles** of these roads exist in Bristol.

Residents want more support to cycle

What proportion of residents would find more support useful to cycle more?



61%

of residents have access to an adult pedal cycle



Kellie Walters,
Personal Assistant at Arcadis



When I started working for Arcadis I was determined to commute by bike. I'd spent years commuting in my car and was fed up with the stress of sitting in traffic. I quickly caught the cycling bug and, in summer 2018, I set up Arcadis Bristol Cyclists (ABC), a group for everyone in my office who cycles, whether for work or pleasure.

My employers have been hugely supportive. They see the benefits of encouraging staff to cycle: healthier and happier staff, lower absenteeism, and a real feeling that the company is committed to our wellbeing. Since ABC was founded we've been able to offer free breakfasts to cyclists, a free Dr Bike service, and an on-site cycle repair kit.

Staff say they love the community spirit our bike group brings to the office, and that it gives them confidence that they are supported as cyclists. However we still face barriers to cycling in Bristol.

More investment is needed in safer routes. Segregated cycle routes such as the Bristol and Bath Railway Path and the cycle lane on Baldwin Street make a tangible difference to safety, and give people the confidence to get on their bikes.

Now I've started cycling I can't see ever stopping. For me it's the perfect mix of practicality and activity, and I feel so much healthier than before.

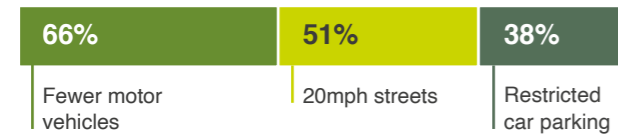


*Please note this question has changed since 2017 from 'could mean' to 'would mean'. See Bike Life methodology for further details.

Residents think fewer motor vehicles would help increase cycling and make their area a better place

A reported cycle injury occurs once every **420,000 miles** cycled around Bristol. Whilst injuries are relatively rare, sharing the road with motor vehicles is unattractive for most people.

What proportion of residents would find traffic management measures useful to cycle more?

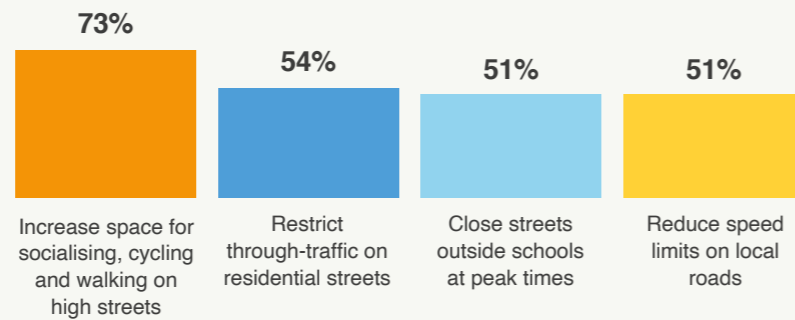


61% of residents think there are too many people driving in their neighbourhood

81% of all streets in Bristol are 20mph*

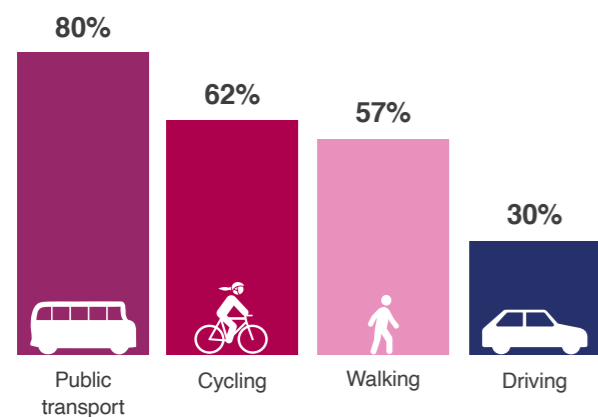


Proportion of residents who support measures to make places better for people



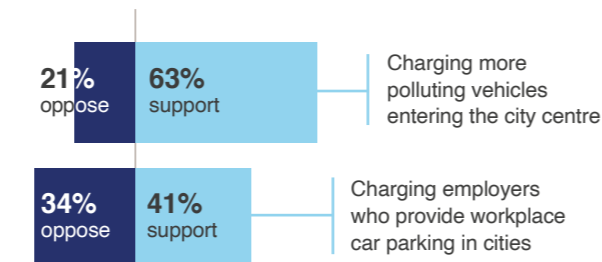
Residents want more investment in public transport, cycling and walking

Proportion of residents who would like to see more government spending on different types of transport



Public support exists for some policy measures that could be used to help fund walking, cycling and public transport

Proportion of residents who support and oppose traffic management measures



Investing in provision for cycling is good value for money, and gives greater returns than many alternatives. For example, the £150 million English Cycling Cities Ambition Grant programme secures approximately £5.50 in benefits for every £1 spent. This is typical for cycling schemes in the UK, and compares favourably with most other transport schemes.



Improving cycling

How has Bristol been developing cycling?



Between 2015 and 2018 Bristol saw £12.8 million of investment in projects to improve strategic cycling links. The Cycle Ambition Fund Programme has supported development of key routes, providing better connections to destinations across the city. It's also enabled improvements in more deprived areas that have previously suffered from underinvestment. This investment has led to 6.5 miles of new cycling infrastructure across the city, meaning that Bristol is now served by 12 miles of cycle tracks that are physically separated from traffic and pedestrians, and 49 miles of traffic-free cycle routes away from the road.

The West of England has invested £6.9 million between 2017 and 2020 in a major behaviour change and promotion programme.

This involved working with businesses, communities and schools to promote cycling through a range of initiatives, including match-funded grants for businesses, loan bikes for public use, cycle training and bike maintenance workshops. Further funding is being sought to continue this programme beyond 2020.

Highways England is also investing in infrastructure improvements and behaviour change projects in and around the Avonmouth Severnside Enterprise Area, with the aim of better connecting local residents with employment opportunities.

This investment is paying off, as more people in Bristol are now cycling at least once a week (28% in 2019). And there is appetite for further investment: Bike Life in 2019 shows that 62% of Bristol citizens would support more spending on cycling. Spreading investment across the city means that Bristol is leading the way in terms of diversity in cycling. Increasingly more women and greater participation from minority ethnic communities is helping to bring cycling to everybody.

*Excluding motorways.

Protected paths in the city centre

In 2018 Bristol City Council completed work to develop a two-way dedicated cycle track on Baldwin Street and another on Prince Street, making it easier for people to cycle in the city centre. These tracks are used regularly by commuters: the Baldwin Street track is used for almost 3,000 trips per day and 43% of all inbound traffic in the morning peak is now bicycles. Prince Street saw over 4,000 bike trips per day in 2018. Bike Life in 2019 shows demand for more dedicated cycle paths. 82% of people said more physically protected cycle tracks along roads would help them to cycle more.

Connecting South Bristol to the city centre

The Filwood Greenway is a 2.6-mile route that connects South Bristol to the city centre. Bristol City Council upgraded the route as part of the Cycle Ambition Fund programme, introducing a new segregated section along Whitehouse Street and enhanced cycle provision through Victoria Park. The project also improved the Northern Slopes Park, introducing a high quality shared space and widening the existing path to three meters.

The new and improved route gives communities in South Bristol an attractive and healthier alternative for travel. It creates better links between some of Bristol's more deprived neighbourhoods – where other travel options are limited – with the city centre. Cycling rates on Whitehouse Street almost doubled (95% increase) between July 2017 and July 2019, and walking rates increased by 161% in the same period.

Supporting people to get on bikes

The Bristol Family Cycling Centre at Hengrove Park provides people of all ages and abilities the chance to ride a bike in a traffic-free environment. The facility supports a diverse range of riders including children and families, people with physical impairments and learning disabilities, and those training for sports events.

The regular programme includes inclusive cycling sessions open to everyone, learn to ride for children and adults, BMX coaching, disability sessions, and national standard cycle training.

Since opening in spring 2016, the centre has gone from strength to strength, registering 18,438 visits in 2018 and 2019. As well as its importance to adjacent communities that are among the top 10% most deprived in the country, the centre has a large catchment area, attracting visitors from across the city, neighbouring local authority areas and the wider region.



Bike to the future

Our ambition and plans to make it happen

Bristol has ambitious plans to become carbon neutral by 2030 and reach compliance with government NO₂ air pollution limits in the shortest time possible. Cycling has been acknowledged as playing a critical role in reaching these targets.

There is clear support for investment in cycling in the city. The recent consultation on Bristol City Council's Transport Strategy asked people to prioritise between different types of transport improvements, and the results identified 'cycling improvements' as the most popular measure. This is consistent with the findings of Bike Life 2019, which show 82% of residents would find the development of more protected cycle lanes useful to help them cycle more.

The West of England Joint Local Transport Plan consultation launched in spring 2019 and calls for cycling and walking to be the 'preferred' travel choice for shorter trips in the region. It is expected that the plan will set new targets for cycling in the region when it is published in 2020.

The region is also developing a Local Cycling and Walking Infrastructure Plan (LCWIP) to set out an investment programme over a 15-year period. The plan will be the region's

first jointly shared cycling and walking plan and is evidence of strong partnership working between the councils.

In addition to government funding, Bristol will look to harness investment from the West of England Combined Authority (WECA). Devolved funding to WECA will help the city prioritise cycling improvements over the long term and provide a consistent and reliable funding stream.

Developer funding is also expected to play a greater role in financing cycle improvements, with large-scale housing projects planned at Cribbs Patchway, Hengrove and Lockleaze among others.

To complement the regional LCWIP, the City Council will develop local cycling policy. The Council will engage residents to shape Bristol's aspirational cycle network, understand how we get better representation in cycling across all groups, and explore in greater detail the types of improvements that people want to see at the neighbourhood and city levels.

Notes on terminology and methodology:

The attitudinal survey was conducted from April to July 2019 by independent social research organisation NatCen.

The survey is representative of all Bristol residents, not just those who cycle.

Changes to the survey methodology and questions, and to the model to estimate trips cycled, mean that 2019 figures are not directly comparable with figures reported in 2017. These changes were made to future-proof the methodology.

Rounding has been used throughout the report.

More information and a detailed methodology are available at www.sustrans.org.uk/bikelife

Sustrans is the charity making it easier for people to walk and cycle.

We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute. Join us on our journey. www.sustrans.org.uk

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For further information including:

Local maps, guides, training, loan bikes, news and events, visit betterbybike.info

