

Inclusive cycling in cities and towns

Stage 1 Report | June 2019





Why is inclusive cycling important?

Women, disabled people and older people, along with other demographic groups, can face deep-rooted barriers to their experience of, and interaction with, transport systems and travel. This shapes and sometimes limits individual travel choice.

Transport is at the heart of society. It is vital in getting people to work, meeting family and friends, and accessing services like healthcare and education. Inclusive transport is central to a fairer economy and society.

Our urban areas, which are almost universally designed around the car, are facing significant challenges including: air pollution, congestion, poor physical and mental health and climate change.

Cycling has the potential to improve health, air quality and congestion, and make cities more attractive and liveable.

In the late 1800s and early 1900s, cycling was a symbol of women's emancipation. Now in the 21st century, however, cycling for everyday transport is not a mainstream activity in the UK.

Cycling has the potential to play a crucial role in increasing accessibility and freedom, especially in urban areas where most journeys are shorter in length. However, cycling is not an easy option for many people. Only those brave enough to share road space with motor traffic will consider cycling – which excludes the majority of people.

Bike Life, the largest assessment of cycling in seven major UK cities, found only 30% of people living in cities thought cycling safety was good. Furthermore, only one in five felt that the safety of children's cycling was good¹.

Most people who cycle in the UK are male and aged between 17 and 49.²

If cities and towns are to normalise cycling, meet social and environmental challenges and reduce inequalities, we must begin to redesign our streets and neighbourhoods to make cycling safe, easy and attractive for everyone.

Arup and Sustrans want to support cities and towns that are more attractive, safe and accessible. This research aims to better understand how we can make cycling more inclusive for all people.

This initial report is intended to begin a conversation across sectors helping to put the needs of excluded groups more firmly on the radar of transport planners and decision makers when it comes to cycling.

¹ Bike Life, 2017. www.sustrans.org.uk/bikelife

² DfT, 2018. Walking and Cycling Statistics, England: 2017

Summary – our recommendations for inclusive cycling

Sustrans and Arup are working in partnership to better understand how we can make cycling in urban areas accessible and attractive for everyone. We want to inform policy and practice that better recognises and addresses the needs of all people who want to cycle.

This report summarises our initial findings from research undertaken across the UK. It focuses on the following demographic groups which are under-represented in cycling:

- Women
- Older people (defined as aged 65 or over)
- Disabled people

Our findings

Reviewing data from Bike Life, the largest assessment of cycling in seven UK cities we found women, disabled people and older people cycled less than the average population. However there was significant interest from these groups to cycle more.

Most people living in cities and towns across the UK face barriers to either start cycling, or cycle more. These barriers are often accentuated amongst women, disabled people and older people, along with other demographic groups that tend to cycle less.

We found most solutions benefit women, disabled people and older people collectively. They fall under three complementary themes:

Better governance

- Foster better representation of women, disabled people and older people in the transport sector and local decision making.
- Ensure transport plans and policies take into account the views and needs of women, disabled people and older people.
- Develop a culture through policy and practice that makes cycling feel attractive and relevant for women, disabled people and older people.

Improving places

- Plan routes based on the potential benefits to users, not just the number of people likely to use them.
- Develop a dense network of protected cycle routes across urban areas, supported by off-road routes and routes on quiet streets. Routes should be attractive, fully accessible, and make users feel safe and secure.
- Reduce the volume and speed of vehicles on local streets, and create streets where people walking and cycling have priority, and cars are guests.
- Integrate cycling within and around where people live and everyday destinations, including secure cycle storage and accessibility for adapted cycles.

Supporting people to cycle

- Increase access for people to electric cycles and adapted cycles, starting with extending the Motability Scheme to include cycles.
- Provide support and training for women, disabled people and older people to build their confidence in cycling.
- Promote cycling as an inclusive activity open to everyone.

Our research - how we can make cycling inclusive

Sustrans and Arup are working in partnership to better understand how we can make cycling in urban areas accessible and attractive for everyone. We want to inform policy and practice that better recognises and addresses the needs of all people who want to cycle.

Our aims include:

- Better understanding of the needs of demographic groups which are often excluded from cycling in urban areas
- Securing sustained political commitment to improving cycling in urban areas for everyone
- Informing long-term planning, design, delivery and ongoing maintenance of infrastructure in cities and towns that enable people from all backgrounds and abilities to cycle

Our work initially focuses on the following demographic groups which are under-represented in cycling in most UK cities and towns:

- Women
- Older people (defined as aged 65 or over)
- Disabled people

Collectively we estimate women, older people and disabled people make up between 60% and 70% of the UK population living in urban areas.³

Evidence suggests people from BAME communities and lower socio-economic backgrounds also cycle less⁴. Arup and Sustrans want to also include these groups in future research.

³ For example 64% of respondents across the seven Bike Life cities were female, aged 65+ or self-identified with a disability or long term illness.

⁴ Sustrans, 2017. Bike Life (not published)

The project

The project is split into two stages and this initial report summarises our findings from Stage 1. It is not intended to be a complete report, but a discussion paper to inform stage 2.

Stage 1:

- A literature review of the evidence base around behaviours, attitudes, barriers and solutions to increasing participation in cycling amongst older people and disabled people
- Analysis of city residents' attitudes and behaviours in relation to cycling for older people and disabled people using Sustrans' Bike Life data from 2017
- Eight focus groups in cities across the UK with disabled people and older people to better understand the travel context, barriers and solutions to making cycling more inclusive

We also include findings from similar research with women undertaken in 2017-18 by Sustrans using a similar approach.^{5,6}

Stage 2:

In stage two we will hold roundtables with experts and conduct a UK-wide survey to refine our findings and recommendations. We will also seek to include other groups known to cycle less and develop case studies of successful cities and towns where cycling is more inclusive.

At the end of this work we will develop a publication that aims to inform policy and practice across the UK and beyond.

⁵ Sustrans, 2018. Bike Life Women: Reducing the Gender Gap

⁶ Sustrans, 2018. Are we nearly there yet? Exploring gender and active travel.

Bike Life

Bike Life is the UK's largest assessment of cycling development in cities reporting every two years. Bike Life measures infrastructure provision, travel behaviour, attitudes towards cycling and the impact of cycling for people and their city.

For this research we analysed Bike Life data from 2017. This came from an independent representative survey of 7,700 residents living in seven cities: Belfast, Birmingham, Bristol, Cardiff, Edinburgh, Greater Manchester and Newcastle.

Further details are available at www.sustrans.org.uk/bikelife



Governance - progress towards making cycling inclusive

National data sets suggest clear differences exist in cycling participation between different demographic groups and more action is required to make cycling inclusive.

Men cycle almost three times as many trips, and almost four times further than women in England⁷.

More inclusive cycling can contribute towards local, national and global policy goals. Whilst national and local policy often recognises the need to make cycling more inclusive, there is little in the way of plans to make it happen.

Global policy

Globally more inclusive cycling in urban areas can contribute to many of the United Nation's Sustainable Development Goals, including:



UK policy

In the UK there is a legal obligation through the Equality Act 2010 to protect people from discrimination in wider society. This is little tested or considered however, in a cycling context. For example, the Department for Transport's new 'Inclusive Transport Strategy: achieving equal access for disabled people' mentions cycling only briefly.

National governments across the UK recognise the importance of more inclusive cycling.

Generally, when it comes to national cycling policy there is recognition that we need to make cycling more inclusive and reduce current inequalities, for example the Scottish Government's Vision for Active Travel, or the Department for Transport's Cycling and Walking Investment Strategy. However, there is little information about how governments actually seek to deliver this.

⁷ DfT, 2018. Walking and Cycling Statistics, England: 2017

Local policy in cities and towns

A mixed picture exists in city and town governance across the UK. Transport for London's new Cycling Action Plan recognises and seeks to address specific barriers faced by women, people from Black, Asian and Minority Ethnic (BAME) backgrounds, older people and disabled people. However, London is still a long way away from delivering this and most other cities are only just beginning to recognise the need to make cycling more inclusive.

Most new cycling routes are prioritised and built based on where most people want to go (i.e. maximising their use) rather than who would use them (i.e. diversifying their user base). This is the approach currently being taken by many Local Cycling and Walking Infrastructure Plans in England. A tension can exist locally between maximising overall participation in cycling and participation by people who would benefit most from cycling.

"It has often been assumed in low-cycling countries that older and disabled people are incapable of cycling, despite evidence to the contrary from higher cycling contexts"⁸

For example building a new radial cycle route to the city centre may be good for increasing the numbers of people cycling but most people using it are likely to be men commuting. These routes may ignore the more complex journeys undertaken by women, or the fact that most people over the age of 65 are retired.

⁸ Aldred, Woodcock and Goodman, 2015. Does more cycling mean more diversity in cycling? Transport Reviews.



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Cambridge

The city of Cambridge has the UK's highest cycling levels, as well as almost equal proportions of men and women cycling to work⁹. Furthermore it is suggested in Cambridge, 26% of disabled people's commutes are by cycle¹⁰.

Cambridge has an extensive network of safe traffic free routes away from the road and more recently has been building protected cycle routes on arterial roads. Cambridge's success can also be attributed to a well-designed central traffic restraint scheme. Car parking in the city centre is very costly and it is virtually impossible to cross the city centre using a private motor vehicle, as a result of widespread filtered permeability (road closures for motor vehicles).

Making it difficult to drive and park and easy to cycle means that cycling is the quickest, most reliable and attractive option to everyone as well as being more pleasant and healthy.

⁹ Aldred, Woodcock and Goodman, 2015. Does more cycling mean more diversity in cycling? Transport Reviews.

¹⁰ Laker, 2018. 'A rolling walking stick': why do so many disabled people cycle in Cambridge? The Guardian

The travel context – for women, older people and disabled people

Women, older people, and disabled people all experience specific challenges and barriers when it comes to transport in cities and towns. Barriers that affect most people can be amplified for women, older people, and disabled people.

Many women, older people and disabled people would like to start cycling or cycle more, suggesting a strong demand and appetite if identified barriers can be overcome.

Women

Women make up 51% of the UK population¹¹.

Women's journeys around cities are typically shorter than men's. Women are more likely to use different modes of transport and involve 'trip-chaining' (multi-stop journeys) which tend to be for a balance of child care, work and household responsibilities. The root causes of these journey differences are largely structural – they are a result of the roles and responsibilities played by men and women, as well as learned behaviours or preferences that may be mediated by gender.

“I don't use my bike at all, it's sitting in the garage, still new. Now that I've got the kids, in the morning, getting up, and it's a case of getting them ready, dropping them off and then going to work, so I'm having to use the car”

Female participant, Glasgow

Women are also more likely to be worried about personal safety and experience anti-social behaviour whilst travelling¹².

“I don't like going out on my own when it's dark I would much rather get my husband to take me down to the car at night to try and get a parking space closer. I feel quite vulnerable getting out and going onto the street”

Female participant, Glasgow

¹¹ONS, 2018: Population estimates for UK, England and Wales, Scotland and Northern Ireland: mid-2017

¹²Sustrans, 2018. Are we nearly there yet? Exploring gender and active travel.

Sustrans' 2017 Bike Life survey found:

Men are twice as likely to cycle as women

- 11% of women cycled at least once a week in comparison to 22% of men

Most women never cycle

- 73% of women do not cycle

Safety is a significant barrier

- Only one in four women (25%) felt cycling safety was good in their city

Women want to cycle more

- 32% of women who currently do not cycle would like to

“Busy roads can make cycling in to town overwhelming and unsafe”

Female participant, Glasgow



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Older people (aged 65 or over)

Older people made up 18% of the UK population in 2017. This is expected to rise to 24% by 2037¹³. They have seen both their cities and transport change significantly over their lifetimes.

“You would see them walking, and on bicycles to the shipyard nobody had cars then, they couldn’t have afforded them”

Older participant, Belfast

Older people tend to make fewer journeys and may be more reliant on public transport, or destinations that are accessible by foot than other age groups. Older people felt transport had become harder in cities as car use and populations have grown. Older people are reluctant to travel during the rush hour as it gets too busy. Walking was popular for local journeys.

Older people were very positive about having access to a free bus pass, although views about local bus services varied depending on coverage, frequency and reliability of buses. There was a sense that privatisation of bus services hasn’t helped.

“[Free bus passes] make us go out. We don’t just sit around in the house, we go out and we do stuff. In the summertime people go out on day trips and it doesn’t cost you anything”

Older participant, Belfast

¹³ ONS, 2018: Overview of the UK population: November 2018

Sustrans’ 2017 Bike Life survey found:

Older people cycle less than any other adult age group

- 7% of people aged 65 or over cycle at least once a week, in comparison to 18% of 16-64 year olds

Less interest exists amongst older people to start cycling

- Two-thirds of older people do not cycle and do not want to cycle, although 15% would like to start cycling

Older people do not think cycling is safe

- Only 21% of people aged 65 or over think cycling safety in their city is good

Older people tend to take different journeys

- Older people are far less likely to cycle for work and more likely to cycle for fitness or enjoyment or shopping than younger adults

“I’m frightened to cycle as my reactions aren’t as quick. I can’t pedal as quick and therefore I can’t react and get out of problems or avoid difficulties”

Older participant, Belfast

Unlike women and disabled people the appetite from older people to start cycling is lower. However we know from countries like Denmark, the Netherlands and Japan that cycling participation amongst older people can be high with the right environment. Physical activity declines rapidly amongst older people; 42% of people aged 55 and over are inactive compared to 29% of the population as a whole¹⁴. With rising numbers of older people in the UK it’s therefore important that older people are encouraged to cycle. The rise of electric-cycles and focus on older people is helpful in this regard.

¹⁴ Sport England 2018.

Disabled people

In 2017 there were 13.9 million disabled people in the UK, approximately 22% of the population¹⁵. There is a large crossover between older people and disabled people; 45% of pension age adults are disabled¹⁶. Our research focused on the following impairments: reduced mobility, learning disabilities, deaf or hearing loss, partial sight, or mental health problems.

Barriers to transport and the wider built environment can restrict choice for disabled people when considering travel options, for example steps for people with reduced mobility or a lack of accessible information for people who are partially sighted or deaf.

“You haven’t really got a choice, you have to adapt when it comes to travelling. You have to plan in advance and try and find the easiest way for yourself”

Participant with reduced mobility, Greater Manchester

Barriers can affect people’s confidence to travel, especially during busy or crowded times. At their worst, barriers can push people to stay at home and not travel at all.

“I rely on my sight so much – it’s all visual. I just makes me nervous that I can’t hear a car coming. I can’t run in the dark as I can’t see and it affects you so much”

Deaf or partially deaf participant, Cardiff

Sustrans’ 2017 Bike Life survey found:

Disabled people are less likely to drive

- Disabled people are less likely to have access to car (62%) in their household than non-disabled people (85%)

Most disabled people never cycle

- Only 7% of disabled people cycle at least once a week, in comparison to 19% of non-disabled people. 84% of disabled people never cycle

¹⁵ Family Resources Survey 2016/17

¹⁶ Family Resources Survey 2016/17

There is strong appetite to start cycling

- One third of disabled people (33%) currently do not cycle but would like to

Disabled people think more people cycling would improve their city

- 66% of disabled people agree their city would be a better place to live if more people cycled

“The fear of being knocked off scares me more than anything, especially as my back is very precarious. If anything happened to me, yeah it fills me with quite a lot of anxiety. I wouldn’t want to have any more operations than I have already had”

Participant with reduced mobility, Greater Manchester





“For me it’s a confidence thing. I’ve had several operations on my back, I’m pretty much bionic. Whenever I’ve had an operation my recovery is quite slow.

I am ready to go back to work but my mobility has been affected. There’s times where I’ve had to use a wheelchair or been on my crutches. Literally transport is a no-no for me because my confidence is so badly hit by it. And there’s been times when I am crying to my husband that I don’t want to leave the house because I couldn’t see how I could get myself from home to work.

The stress of it felt like too much, and it doesn’t feel like we have got enough in place to help. There is a lot that needs doing and I don’t know, across the board whether assessments have been done. But it doesn’t seem it’s the case because there’s so many problems and issues.

And it’s a shame as you should be able to get from a to b and no matter that level of your mobility be confident that you can get there in a reasonable manner.”

Participant with reduced mobility, Greater Manchester

What is stopping people from cycling?

Most people living in cities and towns across the UK face barriers to either start cycling, or cycle more. These barriers are often accentuated amongst women, disabled people and older people, along with other demographic groups that tend to cycle less.

These barriers all have a part to play in the stages of someone's journey towards everyday cycling.

1 Having the confidence and desire to cycle

- Many women, disabled people and older people have experienced cycling in the past, but now lack the confidence to cycle.
- They do not see people like themselves, e.g. other women, disabled people and older people cycling in their neighbourhood.
- Many people had negative experiences with other people cycling or driving.
- Some people felt that they couldn't keep up with other people cycling and would get in the way.

2 Access to a suitable cycle and supporting programmes

- Many women, disabled people and older people were not aware of the range of available electric or adapted cycles on the market.
- There was a lot of interest in adapted cycles but cost, access, security, and the lack of other people using them, are barriers.
- Funding for programmes to help people cycle tend to focus on education and employment, thereby excluding people who are retired or do not work.

3 Ability to cycle locally for leisure

- Many women, disabled people and older people who did cycle only cycled locally for leisure.
- This meant they could choose their own routes through parks, along canals or using quiet local roads.
- There were heightened concerns about cycling on roads and being involved in an accident, especially for anyone with disabilities or being or feeling frail.

4 Ability to cycle for everyday journeys, e.g. to work, the shops and other services

- Women, older people and disabled people tend to have greater concerns over road safety and don't want to share road space whilst cycling with cars and lorries.
- A lack of seamless protected cycle routes or quiet streets stop women, older people and disabled people from cycling.
- There is often a lack of design consideration to ensure cycle infrastructure is suitable for all types of cycles.

Solutions – our initial recommendations for more inclusive cycling

Based on our research so far we have identified recommendations for everyday cycling in cities and towns to overcome the barriers listed above. Whilst we found some barriers and solutions were specific to different demographic groups, the majority of solutions were sought after by women, disabled people and older people collectively.

They fall under three complementary themes: better governance, better places and supporting people to cycle.

Better governance

We need to ensure women, disabled people and older people are represented in political processes, policy development and transport planning.

“If they want people to cycle more they need to accommodate them”

Deaf or partially deaf participant, Cardiff

We need more women, disabled people and older people in the transport planning sector and government leadership. We also need to better consult and engage women, disabled people and older people during planning and consultative processes and ensure their views are adequately represented in resulting strategies and plans.

“They should get us together and talk to people to find out what they want?”

Participant with reduced mobility, Greater Manchester

We need to ensure people see people like them in strategy documents, on the covers of leaflets, local cycling campaigns and in advertising for new routes. This will ensure we develop a culture of everyday cycling that is inclusive and welcoming for all people.

Our recommendations:

- Foster better representation of women, disabled people and older people in the transport sector and local decision making.
- Ensure transport plans and policies take into account the views and needs of women, disabled people and older people.
- Develop a culture through policy and practice that makes cycling feel attractive and relevant for women, disabled people and older people.

What could this look like in practice?

- Achieve a 50/50 gender split in city leadership teams or senior transport planning roles.
- Develop design standards for cycling that include adapted cycles.
- When developing cycling plans ensure that excluded groups are fully engaged and listened to.
- Extend the Blue Badge Scheme so that cycles can be legally recognised as a mobility aid.

Improving places

We need to ensure our cities, towns and neighbourhoods are designed to make cycling attractive, safe and accessible for everyone.

This means improving infrastructure for cycling including dedicated space physically protected from traffic and separated from people walking.

“Leyton High Road [a new local physically separated cycle track] – it’s good now it encourages cycling, and I see more people cycling including children and young people”

Participant with partial sight, Waltham Forest

On local streets where protected space is impossible we must reduce car volume and speed and create zones which prioritise people. We need to go beyond routes in and out of the city centre and create a dense joined up network for cycling which links where people live with everyday destinations across our cities and towns, including cycle parking. This must be fully accessible for all types of cycles.

“Bike lanes are only built for a standard sized bike”

Deaf or partially deaf participant, Cardiff

Our recommendations:

- Plan routes based on the potential benefits to users, not just the number of people likely to use them.
- Develop a dense network of protected cycle routes across urban areas, supported by off-road routes and routes on quiet streets. Routes should be attractive, fully accessible, and make users feel safe and secure.
- Reduce the volume and speed of vehicles on local streets, and create streets where people walking and cycling have priority, and cars are guests.
- Integrate cycling within and around where people live and everyday destinations, including secure cycle storage and accessibility for adapted cycles.

“Cycle lanes end too quickly. They don’t last very long, and you’re back on the road again. I think they’re great, because there are segregated cycle paths. They’re safe, but the fact that they make them run for half a mile is pointless”

Female participant, Glasgow

What could this look like in practice?

- Dedicated space for cycling exists across the city or town
- Cycle routes to areas poorly served by public transport are prioritised
- Organisations and businesses provide cycle parking for their employees and customers
- On-street cycle hangars for people living in flats



Supporting people to cycle

Finally we must do more to support people to cycle in their city. This starts with access to a suitable cycle.

“I am coming to terms with my condition and people have said to me why don't you get a mobility scooter but I can't quite bring myself to do that. Whereas if I had an adapted bike or something I think I would feel less disabled and feel a bit cooler. I would feel more confident getting out and about”

Participant with reduced mobility, Greater Manchester

Not everyone is in employment and we need to make the excellent Cycle to Work scheme accessible for people who may be in education, unemployed or retired. We also need to make it easier to access adapted cycles, including electric cycles and cargo cycles which are often more expensive.

“I've been mountain biking for many years and I want to try an electric mountain bike because there's things I can't do anymore and my kids are leaving me for dead. I'm going to try one of these if it means I can be there with the kids”

Older person, Edinburgh

There is demand for more cycle training and social programmes. Most people we spoke to have cycled in the past but need to build their confidence again either through training or having access to led-rides on safe cycle routes with people like them.

There is support for campaigns which help to normalise cycling by showing it is for everyone. People think cycling is not for them as there is not visibility of disabled cyclists or older cyclists in the media or on the street. Campaigns should also seek to raise awareness amongst people that already cycle of the need to be accommodating for all riders and levels of confidence.

Our recommendations:

- Increase access for people to electric cycles and adapted cycles, starting with extending the Motability Scheme to include cycles.
- Provide support and training for women, disabled people and older people to build their confidence in cycling.
- Promote cycling as an inclusive activity open to everyone.

“You wouldn't have to keep looking behind you – [Rear view mirrors for cycles] it's a good idea”

Deaf or partially deaf participant, Cardiff

What could this look like in practice?

- Cycle to Work scheme expanded to include unemployed or retired people
- Develop a 'This Person Can' campaign for inclusive cycling
- Social cycle rides for women, older people and disabled people
- Disabled people can access cycles through the Motability Scheme
- Roll out of electric or adapted cycles as part of city cycle share schemes

“Driving used to be a lot easier. Since the implementation of Mini-Holland and road closures journeys can be three times the length. This can change my behaviour – I will leave the car at home as it’s a no brainer to walk or use public transport”

Participant with mental health problem, Waltham Forest

“In Amsterdam cyclists are seen to have precedent. Cars have to stop and bikes are separate from the road. Kids being taken to school on bikes and elderly people would also cycle. No one had fancy bikes – it’s just basic and normal”

Deaf or partially deaf participant, Cardiff

Next steps – our plans for 2019-20

We intend this initial report to be used as a discussion document that challenges the urban transport sector to think more about how we can design our cities and towns to be more inclusive for cycling.

In Stage 2 we hope to reach out to stakeholders across the UK and beyond to:

- Better understand the needs of people from BAME and lower socio-economic backgrounds
- Identify global case studies to illustrate what ‘good practice’ looks like.
- Bring representatives from local and national government, including transport planners and decision makers, around the table with organisations representing groups currently excluded from cycling in urban areas, to build on and refine the recommendations presented in this report.
- Test our recommendations with women, older people and disabled people in urban areas across the UK.

If you would like to inform Stage 2, please contact us:

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