Scottish Transport Applications Research

Cycling for Everyone: Inclusive cycling in cities and towns

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1. Introduction

In the UK, you are less likely to see a woman, disabled person, person over the age of 65, person from a BAME or a lower socio-economic background, cycling.

Cycling, just like other transport modes, can help people access the things they need: work, education, food, health services and recreation. Despite the obvious value to health and wellbeing of our communities and our environment, the full potential that cycling offers is not being realised. Most people in the UK do not cycle and many people who stand to gain most also face the greatest barriers to start.

For too long cycling policy in the UK has focused on the question: how do we increase the number of journeys cycled each year? However, we believe cycling investment, plans and delivery should be designed to help reduce the health, economic and societal inequities. We should focus on the people who have the greatest need.

Several intersecting groups are under-represented in this cycling community. Despite a large appetite from different demographic groups to start cycling, 85% of people aged over 65, 78% of disabled people, 76% of women, 75% of people at risk of deprivation and 74% of people from minority ethnic groups never cycle.

As part of a joint study by Arup and Sustrans, we have looked to highlight the barriers and identify opportunities for making cycling a more inclusive activity.

Our research found that whilst differences exist between different demographic groups, many of the barriers that we need to overcome to increase diversity in cycling are shared. Many solutions would help most people who do not cycle, to start and many that do to cycle more.

This paper is a summary of guidance for people working in policy and delivery of cycling across the UK published by Arup and Sustrans in July 2020 which can be accessed here: https://www.sustrans.org.uk/our-blog/research/all-themes/all/inclusive-cycling-in-cities-and-towns/

There is renewed support from all nations in the UK, following the Covid-19 pandemic, to make improvements and increase the number of people cycling. With an equal appetite from local authorities, community organisations, businesses and individuals to bring about change. However huge gaps in the diversity of people cycling remain. Investment and the wider cycling industry can too often focus on cycling as a lifestyle choice, as opposed to a necessity.

2. Methodology

The culmination of a two year study, our findings and report ("Cycling for Everyone", on which this paper is based) aims to identify the barriers to different demographic groups which are often excluded from cycling in urban areas, secure political commitment for improvements, and inform long-term implementation of infrastructure in cities and towns that enable people from all backgrounds and abilities to cycle.

This study consisted of five steps which took place in 2019 and 2020:

- A literature review of the evidence base around behaviours, attitudes, barriers and solutions to increasing participation in cycling amongst older people and disabled people and their wider socio-economic and transport contexts.
- Analysis of attitudes and behaviours in relation to cycling for older people and disabled people using Sustrans' Bike Life data from 2019.
- Focus groups in cities across the UK with women (carried out in 2017-18 by Sustrans using a similar approach), disabled people, older people, people from ethnic minority groups, and people at risk of deprivation, to better understand their travel context, barriers and potential solutions to making cycling more inclusive.
- Workshops with decision-makers, the transport sector and organisations who work with the underrepresented groups, to identify and develop solutions to make cycling better for all people.
- The development of a database of case studies of successful projects and initiatives within cities and towns where cycling is more inclusive.

3. Travel and cycling context for our study groups

Many people experience inequity. This puts people at a disadvantage in society and often means health, social and economic outcomes are worse.

Barriers to transport, including barriers to cycling, can affect lots of people but be amplified when inequities already exist.

Data from Bike Life[1] from 11 cities and city regions across the UK in 2019 suggested five adult groups cycle less:

Women

Men are more than twice as likely to cycle regularly as women, and 76% of women do not cycle. 36% of women who currently do not cycle would like to but only one in four women (27%) felt cycling safety was good in their city.

> "When I 'became a cyclist' in 2013, I felt liberated from street harassment. I was never still long enough for someone to try to harass me and even if I were, I could get away so much more quickly on two wheels. However, cycling made me more vulnerable to road traffic.
>
> This unfair trade-off between safety from street harassment and safety from road traffic danger underscores the importance of the right to safe urban mobility"
>
> Tiffany Lam, Consultant

Older People (Aged over 65)

Older people cycle less than any other adult age group and appear to be less interested in starting cycling. 7% of people aged over 65 cycle at least once a week, in comparison to 17% of 16-65 year olds. 18% of older people who do not cycle would like to start cycling whereas 30% of people aged over 65 think 'cycling is not for someone like them'.

Disabled people

Most disabled people never cycle (78%). 9% of disabled people cycle at least once a week, in comparison to 17% of non-disabled people. 23% of disabled people think cycling is not for people like themselves in contrast with 11% of non-disabled people

People from minority ethnic groups

Whilst safety is a significant barrier, people from BAME backgrounds experience other barriers far more than other people. 33% of people from BAME backgrounds are

> "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 focus group participant, Cardiff

not confident in their cycling skills (in comparison to only 24% from ethnic majorities), and the cost of a suitable cycle is a barrier for 20% of people from BAME backgrounds (in comparison to 15% from ethnic majorities). 32% of people from Arabic ethnic groups stated 'cycling is not for people like me' was a barrier to them cycling.

People at risk of deprivation

Safety concerns was a barrier for stopping 39% of people more likely to be at risk of deprivation from starting to cycle or cycling more. The cost of a suitable cycle (19%), and 'cycling is not for people like me' (20%) were barriers that were greater for people more likely to be at risk of deprivation.

4. Recommendations to make cycling more inclusive

While differences exist between different demographic groups, many of the barriers that we need to overcome to increase diversity in cycling are shared.

4.1 Improving Governance, Planning and Decision Making

Design cycling strategies and plans to address, and be evaluated against, how they reduce inequity

Too often transport strategies and plans set out clear aims and objectives aligned to health, social and environmental benefits but fail to align to these bold aims in their approach and investment. We need to better ensure transport and cycling plans are based on addressing the needs of residents and reducing inequity across society.

For example, cycle planning and policy has often focused on physical activity benefits for health, while not prioritising infrastructure in areas that are suffering from poor health.

Lower income households have lower levels of car ownership – female heads of house, children, young and older people, ethnic minorities and disabled people are concentrated in this group.[2] In addition, there are considerable affordability issues with car ownership that can lead to a risk of transport poverty.[3] Cycling helps people who do not have a car to access essential services and amenities.

Cycling strategies and plans however tend to focus too much on the numbers of people cycling, not who would benefit most. In England, the Cycling and Walking Investment Strategy53 and Local Cycling and Walking Infrastructure Plans do not always take account of who investment and infrastructure is aimed at and the benefits cycling can bring.

Actions:
- Design cycling strategies and plans to reduce inequity and improve outcomes for people
- Increase long-term funding for cycling
- Adopt a planning principle of 20-minute living, where all basic needs can be found within a 20-minute return walk of where people live. This ensures increased accessibility and more journeys can be walked or cycled.

Increase diversity and representation in decision-making and the transport sector

When people in power and people who govern, design and deliver transport and cycling do not represent the wider population, unconscious and conscious bias can mean decisions, policies and schemes are not designed around the needs of everyone as they are not fully understood or considered.

Women currently still lag far behind men in terms of equal representation in the House of Commons. In 2019, 220 MPs were female out of 650 seats (34%).[4] Only one in ten of the 650 MPs elected in 2019 were not White, and reports suggest there may only be five disabled MPs.[5] In Scotland in 2017 women made up only 35% of Members of the Scottish Parliament, 25% of local councillors and 6% of heads of transport bodies.[6]

Actions:
- Increase diversity in the transport sector through commitment to and investment in equality, diversity and inclusion programmes and embed these within organisational strategy and practice.
- Invest in programmes that increase the diversity of people entering the transport sector.
- Recruit a high-level and public-facing role outside of the political process, for example, a walking and cycling commissioner or inspectorate. These roles or bodies should be designed to represent marginalised groups.
- Take steps to tackle the structural issues that preserve decision-making roles for people from white, male and richer backgrounds, such as racism and inertia within society.

Improve decision making through better evidence and public engagement

Decision makers and transport planners are never likely to fully represent the diversity and views of wider society and everyone's needs. Therefore it is essential that people are engaged and listened to. At the same time, we need to ensure the evidence base upon which decisions are made is robust.

If we are to normalise cycling for people, we should design improvements for people that do not already cycle. However, these are the people that are least likely to respond to a consultation on cycling.

Women are typically more likely to shoulder a greater proportion of unpaid work alongside paid work.[7] People in lower paid employment often have multiple jobs which can be part-time or zero hours.[8] Both women and people on lower incomes often have less free time, limiting their opportunity to participate.
IT literacy, access, and language are also common barriers to responding to a consultation.

> "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 focus group participant, Glasgow

Actions:
- Improve consultations to be more representative
- Employ other engagement techniques for better representation
- Improve the evidence base for policy

4.2 Creating Better Places for Everyone to Cycle in

Improve road safety, primarily through protected space for cycling, and low-traffic neighbourhoods

The main reason most people do not cycle in the UK is because they think it is dangerous. Bike Life, the largest assessment of cycling in cities and towns found only 38% of residents feel that their city is a good place to cycle.[9] Almost three quarters of urban residents (74%) think safety for cycling needs to be improved.

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People cycling have to share roads with motor vehicles for most urban journeys in cities and towns in the UK. This puts many people off cycling or limits journey choice to routes that are perceived to be safe, for example off-road leisure journeys. Our main roads lack protected space for cycling, and levels of traffic have increased on quieter, residential roads partially as a result of the use of in-car navigation apps to beat congestion.[10]

Risk is not shared equally. The chance of being in a collision is often worse for certain people:

- Women report more near misses when cycling than men.[11]
- The consequences of a collision can be greater for some older and disabled people.[12]
- A lack of familiarity and personal experience of cycling from older generations can reduce perceived levels of safety.
- People living in disadvantaged areas are more likely to live in proximity to high volumes of fast-moving traffic and have higher levels of on-street parking. This increases road traffic risk.[13]

> "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"
>
> Focus group participant with reduced mobility, Greater Manchester

Actions:

- Provide protected space as part of a cohesive cycling network
- Implement low-traffic neighbourhoods to cater for all journeys
- Implement other measures to make cycling safer

Address personal safety and harassment

Increased harassment exists in the UK in relation to ethnicity, gender and disability. Studies show that women experience disproportionate levels of sexual and general harassment in public compared to men.[14] Women are more likely to experience and be concerned about physical and sexual assault.[15] Women are also more likely to be abused and harassed by drivers when cycling[16]. For many disabled people, harassment is also a commonplace experience.[17]

Concerns over personal safety connected with increased visibility may exist amongst people from ethnic minority groups.[18] People from more deprived communities are also more likely to be affected and fear crime.[19]

Institutional harassment and racism is a societal issue and is deeply challenging to overcome. Between April 2018 and March 2019, there were 4 stop and searches for every 1,000 White people, compared with 38 for every 1,000 Black people.[20] Being Black should not mean you are assumed to be a criminal,[21] being disabled should not mean you cannot get exercise in fear of your benefits being taken away.[22]

The transport sector has a role to play in reducing it, both in working to reduce inequity in mobility and transport, but also to work with people who are unfairly persecuted, government and institutions like the police.

91% of people at risk of deprivation, 90% of older people, 90% of disabled people, 89% of women and 89% of people from ethnic minority groups think reducing anti-social behaviour or crime is important for improving cycling safety.   Bike Life, 2019[23]

Actions:

- Improve route planning and ensure a choice of routes is available
- Improve the design of infrastructure and places
- Eradicate harassment, including institutional harassment and racism

Ensure cycling infrastructure is fully inclusive

The Equality Act (2010) places a duty upon the public sector to protect people from discrimination in wider society. Local services should be designed to be inclusive for all users. Yet, across the UK, much of our cycling infrastructure does not meet this duty.

The width of cycle lanes and tracks and the space provided for turning circles are often not wide enough to use many types of adapted or cargo cycles. Other obstacles include ramps which are too steep to use, cambers on the path and steps to navigate.

These barriers can be frustrating for everyone, however they can stop some people from being able to complete a journey by cycle. Disabled people and older people may be more likely to need to use an adapted cycle which require more space and are much heavier than a basic bicycle. Women are more likely to travel with children[24]. Infrastructure is not always suitable and can be harder to use when using a cargo cycle, trailer, or cycling with a heavier bicycle with children.[25]

Whilst a wide range of guidance on cycling infrastructure exists, this results in a wide variety of practice on the ground, often even on the same route, which can be dangerous, exclude access, or be confusing to users.

Actions:
- Remove barriers on existing cycle infrastructure
- Ensure inclusive design standards are set and followed
- Embed inclusive design and engineering practice

Better integrate cycling at home, at destinations and with public transport

Not having a secure space to store cycles at home is a barrier for many people, especially those who live in smaller homes, flats in multiple occupancy buildings, or those with stepped access. On average, people on low incomes live in smaller homes with less storage space.[26] In London 13% of ethnic minority households were found to be overcrowded in London, compared with 5% of white households.[27]

It is also challenging if you use an e-cycle or an adapted cycle. Women make more journeys with children[28] and may be more likely to use a cargo bike. Furthermore people with reduced mobility may find it more difficult for to remove cycles from storage due to reduced strength and or dexterity.

People on low incomes are more likely to live in areas of higher crime and fear crime.[29] This is likely to lead to greater concerns for cycle security. Having secure space to store cycles at work or other destinations is also a barrier for many people.

Greater cultural expectations exist for women than men in terms of appearance, and a lack of workplace facilities can be a barrier to women cycling.[30]

Cycling to public transport hubs is often difficult, especially where cycling infrastructure does not exist. Public transport hubs typically only have parking for standard cycles, step barriers also exist, and security is often poor. Older people and disabled people are often reliant on public transport.

Actions:

- Improve secure cycle storage at home, prioritising flats and multiple occupancy buildings
- Improve cycling facilities at destinations
- Improve integration with public transport

Prioritise infrastructure where transport options are poor, especially where this coincides with multiple deprivation

Prioritisation of new cycling infrastructure in the UK tends to focus on routes that are likely to have the highest potential for cycling. These tend to almost always be radial journeys into the city centre for commuting purposes. However these are also routes more commonly used by men.[31]

Exclusively taking an approach that focuses on radial routes into the city or town centre is likely to ignore the needs of other people. For example people aged over 65 are more likely to be retired, and disabled people are less likely to be in employment,[32] and therefore may have more varied journey patterns. Women are more likely to make multi-stop trips, often by different modes.[33]

> "Although learning to cycle can be a quick process, chances that an adult BAME woman is likely going to pick up her bike and ride immediately from attending a cycling course are very slim. This is due to a number of limitations that include: low numbers of BAME women cycling, socio-economic factors, cycling infrastructure to make cycling from one's front door to school runs, work, etc. I think improving diversity in cycling will be a bonus to inclusive cycling."
>
> Jolly Oluka, Development Officer, SCOREscotland Green Futures

Furthermore, better data on trips to the centre tends to exist, for example from cordon city data counters. There is often a lack of data, and therefore understanding, of other trip patterns. Only 35% of cycle trips are commuter trips. 35% are for shopping, personal business and social trips, 18% are for leisure, and 12% are for school, college and university.[34]

Evidence from the USA suggests cycling infrastructure tends to disproportionately serve wealthier neighbourhoods.[35] While we are not aware of similar data from the UK, other aspects of cycling provision, such as public cycle share schemes, can also reinforce a focus on the city centre, and exclude other areas and people.

Actions:
- Prioritise cycle routes upon 'need' as well as the number of potential people cycling
- Improve reach and inclusivity of public cycle share schemes

4.3 Welcoming and supporting all people to cycle

Use inclusive language and imagery, and ensure cycling is welcoming and celebrates diversity

The relative visibility of cycling and how it is represented in the media and sport means cycling often has strong associations with identity. This can be attractive to some people who 'fit' this perceived identify, whilst alienating many others[36].

Despite this, Bike Life found significant interest and demand from many groups who tend to cycle less.

Demographic group	Do not associate cycling as an activity for people like them	Do not cycle but would like to start
Ethnic minority groups	16%	55%
More likely to be at risk of deprivation (socio-economic groups D and E)	20%	38%
Women	17%	36%
Disabled people	23%	31%
Older people (aged over 65)	30%	18%

We found evidence to suggest that:

- Being a 'cyclist' can be associated with a sport, physical fitness and Lycra owning, or as an activity predominantly done by white men.[37]
- Many people worry about their age, weight, safety or cycling with children (Focus Groups).
- Cycling is not seen as feminine, and culturally there is still an expectation to meet physical appearance expectations.[38]
- Keeping up with other people cycling can be off-putting for older people and disabled people (Focus Groups).
- For many people cycling is associated with being a mode of transport for those who cannot afford an alternative.[39],[40]
- Low rates of participation can be self-perpetuating – people from ethnic minority groups may be more likely to turn to activities with a higher ethnic minority presence (e.g. football) than join a cycle club (focus groups).

> "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 focus group participant, Belfast

Actions:

- Use inclusive language and imagery
- Welcome all people who want to cycle and celebrate diversity

Ensure cost is not a barrier to access a cycle

Whilst cycling is cheaper than driving, the initial outlay to purchase a cycle can be too much for many people. Support exists to reduce the cost through the Government's Cycle to Work Scheme, however this excludes anyone not in work and many people in work but on the National Living wage. Women, disabled people, older people and more deprived households are less likely to be in work, and typically in lower-paid jobs.[41]

The cost of a cycle can also be prohibitive amongst people on lower incomes or not in work. It is also much harder to purchase a cycle with poor credit ratings. People do not just consider the upfront cost of a cycle but also have concerns over security and insurance in the longer term. The cost and maintenance of a cycle is associated with lower cycle ownership in minority ethnic communities.[42]

Older people and disabled people may have a greater need for more costly adapted cycles and electric cycles. Cycles are also not included in the Government's Motability Scheme, despite cycles being used as mobility aids for many disabled people.[43]

The purchasing experience of buying a cycle can be a daunting experience for some people. Perceptions exist that you should be an expert which puts people off asking questions.

> "I used the Cycle to Work Scheme and my employer had a leader board, with rewards – this was good. Employers are trying, but it's not enough."
>
> Focus group participant, Newcastle

Actions:
- Ensure cost is not a barrier for anyone to purchase a cycle
- Improve the purchasing experience

Offer free cycle training for all children and adults

Many people have never learnt to cycle or are not confident enough to cycle in their city or town, especially on roads. Some people may have migrated to the UK from countries where cycling is less practiced, or not practiced amongst certain groups, such as women. They may be less aware of how to find support and language barriers may exist.[44]

National programmes to help people cycle, such as the DfT Access Fund, often focus on education and employment, thereby excluding people who are retired or are less likely to work.[45] They also do not exist in all places. In addition, training to ride in a group, as part of a socially-led ride, with others helps to develop confidence, skills and knowledge.

66% of people from ethnic minority groups, 63% of people more likely to be at risk of deprivation, 57% of women, and 55% of disabled people would find cycle training helpful to start cycling or cycle more (Bike Life, 2019)

Actions:
- Free cycle training for all people
- Build confidence, and make cycling fun

5. Conclusions

In the UK, you are less likely to see a woman, a disabled person, a person over the age of 65, a person from a BAME or a lower socio-economic background, cycling. Men on average cycle 2.5 times more trips and four times as far as women, and male adults in their forties cycle the most. We need to accept that, as a sector, we need to improve.

Our recommendations are designed to support people in local government and the transport sector including designers, planners, engineers and decision makers make cycling a more inclusive activity for everyone.

It is a call for people working in this sector across the UK to ensure cycling is inclusive and helps address wider inequality within cities and towns. Whilst our recommendations are primarily focused on the UK, they are equally applicable in cities and towns across the world.

There are many successful and inspiring examples where cities have made cycling more inclusive. With the right political will, investment and knowledge, cycling can help people from all backgrounds, ethnicities, ages, abilities and genders.

In summary:

- All urban design, including cycling, is not neutral, it either perpetuates or reduces social inequity
- Everyone should have the choice and freedom to cycle and be able to access the things they need to live well
- Cycling, as for all transport, is not an end in itself, it is a means to an end

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