Pave The Way: The impact of Low Traffic Neighbourhoods (LTNs) on disabled people, and the future of accessible Active Travel.

# Foreword from Alan Benson, Chair

Transport is a means to an end. It’s not the journey that’s important, it’s the destination. Whether we travel for work, leisure or simply to buy a loaf of bread, we make choices that simplify our lives. At Transport for All we know that for many disabled people these choices are based on practicality rather than convenience. For some using a car or taxi is the only accessible option, whilst for others it may be the bus that provides this vital lifeline.

It is from this perspective, and in response to concerns from our members, that we have made the Active Travel agenda a priority. New initiatives such as No Car Day and Micro Mobility schemes present new opportunities and challenges, but much of our focus remains on long-standing and basic streetspace issues - such as pavement obstructions and a lack of dropped kerbs.

We realised that researching the impact of LTNs gave an insight into the broader topic of the barriers to Active Travel for disabled people and the context this sits within: difficult personal circumstances in the time of a global pandemic, wide societal and structural barriers, negative attitudes and stigmatisation of disability, and an increasingly hostile and inaccessible transport system.

I offer my personal thanks to everyone who took part in this project. With their insight we have created the only independent research into how disabled people are being impacted by Active Travel initiatives. I’m proud of what the team have produced. I hope that it stimulates discussion and leads to better, more accessible initiatives.

Active travel must be accessible travel.

# Executive Summary

At Transport for All, we fully support the fight for climate justice and the importance of introducing environmental initiatives that promote Active Travel such as walking and cycling. This is particularly important in light of the COVID-19 pandemic, when additional space is needed for safe transit.

However, it has been disappointing to see disabled people and their needs being used by both proponents and critics to further their political aims, with improper research and consultation leading to misinformation and inaccuracies.

One of the most controversial measures aimed at encouraging Active Travel has been Low Traffic Neighbourhoods, using tools such as bollards and cameras to reduce pollution, traffic and road danger in residential areas.

Disabled people hold both positive and negative opinions on LTNs, but they don’t feel listened to by policy makers, or that they have opportunities to share their views. COVID-19 compounds this isolation, with many disabled people shielding and/or not accessing streetspaces.

We found failures with the consultation process used to collect resident feedback, as well as with Equality Impact Assessments.

72% of participants reported issues with how changes have been communicated, including the lack of information provided, its quality or accessibility, and not receiving a warning before an LTN is installed.

With this ground-breaking report, we have consulted disabled people directly where many others have failed.

We spoke to 84 disabled people, aged 8 to 89, across a range of impairment groups. Participants were based in 19 out of the 21 London boroughs that have implemented new LTNs, plus five locations outside the capital. Qualitative data was collected using both semi-structured verbal interviews (on video call and by phone) and written questions to ensure accessibility. Responses were then transcribed and coded to produce quantitative data.

In terms of the positive impacts of LTNs, participants reported easier or more pleasant journeys; an increase in independence; a decrease in traffic danger and benefits to physical and mental health.

Criticisms included longer journey times for residents, as well as their visitors who provide care and support. This leads to travel becoming more exhausting, expensive, complicated or difficult. There were also cases of a negative impact on mental health, issues with taxis and a perceived rise in traffic danger.

Though with many disabled people experiencing genuine and meaningful benefits from the LTNs, ripping them out and returning to normal isn’t the solution.

‘Normal’ – what we had before – wasn’t accessible enough either.

The answer involves engaging with and listening to the perspectives of disabled people who have been significantly erased from the conversation. Only then can we move forward with accessible and inclusive solutions which benefit everyone, and the environment.

We recommend a series of immediate measures and long-term solutions to address the many barriers that disabled people face to Active Travel; encourage walking, wheeling and cycling; and create an accessible public transport system as a viable alternative to car use.

# Chapter 1. Introduction

## Low Traffic Neighbourhoods: The story so far

When the Prime Minister addressed the nation on 23 March 2020 to give one simple instruction – to “stay at home”– the entirety of the United Kingdom’s transport system, our streets, and the behaviours that influence how we move through our lives were thrown into disarray.

As individual journeys have adapted in response to the pandemic, the idea of Active Travel (walking and cycling), and initiatives which promote it have gained more traction. Across the UK we have seen pop-up cycle lanes installed, pavements widened, and pedestrian-only school streets implemented. One of the most prominent – and controversial – measures explored by Transport for London (TfL) and London boroughs has been the concept of a Low Traffic Neighbourhood (LTN). These schemes use a combination of bollards, planters and Automatic Number Plate Recognition (ANPR) cameras to: remove ‘through’ motor vehicle traffic on specific ‘residential’ roads in a local area; divert traffic onto main ‘distributor’ roads on the outside of the LTN; and encourage greener modes of transport, such as walking and cycling. Every resident may still drive onto their street and access their home, but it is made difficult or impossible to drive straight from one main road to the next, making short car journeys impractical and undesirable – which is precisely the aim.

Aside from a small number of schemes in specific areas that existed prior to COVID[[1]](#footnote-1), LTNs started to emerge across London in May 2020. Amendments[[2]](#footnote-2) to road traffic regulations enforced at the end of the month granted new powers to Local Authorities, allowing them to introduce Experimental Traffic Orders (ETOs) for “purposes related to coronavirus”, without consulting local residents beforehand. Widening pavements and restricting roads to certain types of traffic are two examples of initiatives - that may be implemented without consultation - given in the Government guidance[[3]](#footnote-3) issued by the Department of Transport.

By October 2020, there were around 30 km2 of new Low Traffic Neighbourhoods across 21 boroughs in London[[4]](#footnote-4).

There are now 95 LTNs created by local councils using TfL funding - part of the Streetspace for London plan - totalling £6.9 million.[[5]](#footnote-5)

In expressing their support for LTNs, councils cite improved air quality, increased opportunities to walk and cycle, and a reduction in collision rates and accidents as benefits. This is echoed by TfL, who claim the schemes deliver “safe and attractive streets” for walkers and cyclists by “preventing through traffic from using residential neighbourhoods to avoid main roads” – often referred to as ‘rat running’.[[6]](#footnote-6)

However, with whole roads closed to through-traffic, council proposals for LTNs have been met with strong criticism from local protest groups. Social media pages such as Ludicrous Road Closures and Stop Horrendous Hackney Road Closures boast thousands of followers. The former describes the schemes as ‘undemocratic’, while the latter says disabled residents have had to drive “miles out of their way and sit in hours of traffic” to attend hospital appointments and go shopping[[7]](#footnote-7). Proposals to introduce the schemes in London boroughs have prompted both petitions and counter-petitions.

While some have used peaceful protest, others have turned to vandalism. Planters in Islington and Ealing have been upturned or broken, and Hackney’s traffic counters have been damaged. Such controversy has naturally caught the attention of the London media, who have reported on LTNs extensively in recent months.

In such a frenzied and high-profile conversation about LTNs, it is disappointing that disabled people, and their needs, are being homogenised and used by both sides of the argument to further their political aims. A lack of proper research and consultation has sometimes caused misinformation and inaccuracies to arise.

While writing a detailed Twitter thread on LTNs, one council leader said “most disabled people” in the borough don’t have a car – a claim made without substantial evidence, or wider consideration for how disabled people travel. Although some disabled people may not own a car, they may use taxis or be a passenger in other vehicle when travelling[[8]](#footnote-8), as our research shows.

When a picture surfaced online showing a wheelchair user and their dog having a ‘peaceful’ day’s walk in the road of an LTN, one councillor tweeted: ‘But I thought Low Traffic Neighbourhoods were bad for disabled people?”

In Ealing, the local Green Party argued that there was evidence “quieter, safer streets are easier for those with poor mobility to get around”[[9]](#footnote-9). However, the reality – as explored in this report - is complex and nuanced.

The use of disabled people as political collateral to further arguments for or against the implementation of LTNs is not exclusive to the pro-LTN movement. In an interview with BBC Politics London in November, one Shadow Minister cited disabled people as a group they believed were

negatively impacted, “who can’t benefit from walking and cycling. They are reliant on taxis and cars and so for them, these haven’t been a great scheme.”

Our research highlights that, in reality, disabled people hold both positive and negative opinions on LTNs, but they don’t feel listened to or that they have opportunities to share their views. Others have spoken for them. Compounding this sense of isolation is the impact of COVID-19; disabled people, many of whom are shielding or otherwise not physically outside and accessing streetspaces, fear their needs are not being considered by policy makers.

# Why we have done this research

We fully support the fight for climate justice and understand the importance of introducing environmental initiatives that promote Active Travel, particularly in light of the COVID-19 pandemic when additional space is needed for safe transit. The overarching aims of the LTNs of reducing pollution, reducing traffic, and reducing road danger are of critical importance to disabled people, who we know are among the worst impacted by increased pollution levels and the effects of climate change.[[10]](#footnote-10)

Disabled people were, in many areas, not consulted on the potential impact of LTNs on their lives and travel. With this ground-breaking report, we have consulted disabled people directly where many others have failed to do so.

We do so as a disabled people’s organisation (DPO) that has been campaigning on streetspace issues for decades, pushing for more dropped kerbs, protesting against shared space and bus stop bypasses. Streetspace issues have never gotten a great deal of traction. LTNs, however, have lit the conversation on fire.

The debate may be divided and polarised, but it has shone a spotlight on streetspace, accessibility, and who our streets are for. We hope that we can use this attention to push for wider, long-term and more impactful accessibility improvements.

We believe that a lack of consultation has resulted in opportunities missed to remove the many additional barriers that disabled people face to accessing Active Travel, and that, in their current state, LTNs create multiple negative impacts on particular disabled people. These impacts are compounded and made disproportionate by the fact that disabled people’s options for alternative methods of transport are already so heavily limited.

However, with many disabled people experiencing genuine and meaningful benefits from these schemes, we don’t believe simply ripping them out and returning to normal is the way forward.

**‘Normal’ – what we had before – was not accessible enough either.**

We believe the answer is to, first and foremost, engage with and listen to the perspectives of disabled people who have been significantly erased from the conversation. By doing this, we can move forward with accessible and inclusive solutions which benefit everyone, and the environment.

# Chapter 2. Methodology

# Method

Our research question was ‘**what impact have Low Traffic Neighbourhoods had on disabled**

**residents?’**.

Due to the broad nature of our research question and the diversity of opinion we were expecting to collect, we employed qualitative research methods. We wanted to understand the emotions, experiences and perceptions underlying how disabled people felt about LTNs to identify needs and generate ideas for solutions[[11]](#footnote-11). We felt the best way to capture the diversity of opinions we expected to hear would be to use an open-ended method, rather than designing a quantitative survey through the prism of own preconceptions.

We were also deterred from using a public survey to collect opinions due to the heated and polarised nature of the LTN debate. We were aware of instances where these surveys have been ‘hijacked’ with inauthentic respondents, threatening the integrity of the data.

With these considerations in mind, we opted for the Grounded Theory (emergent design) for our research methodology, using qualitative interviews. This research method starts out with a ‘clean slate’, before adapting the coding framework based on emergent ideas and concepts that arise from interacting with participants.

# Demographics

We identified and recruited participants to interview using the following selection criteria:

* A disabled person (anyone who identifies as disabled, or having a disability, or belonging to any and all impairment groups), OR a person who provides primary care and support for a disabled person
* A person living either inside, or close to, a Low Traffic Neighbourhood, OR whose daily activities, such as their commute, would be directly affected by the Low Traffic Neighbourhood

In order to recruit participants, we used the following channels:

* An open call-out on our social media platforms (Twitter, Facebook, Instagram, NextDoor).
* Call-out to all members of Transport for All (around 400 people).
* Reaching out directly to local DDPOs in target boroughs. 57 DDPOs in total were contacted directly, via phone and email.[[12]](#footnote-12)
* Attending external organisations’ community forums (held online)
* Call-outs placed in other organisations’ newsletters.
* Targeted reach out to our members living in specific boroughs.
* Word of mouth.

Our broad range of outreach and recruitment methods – particularly our ‘drop-ins’ to community forums – reduced the amount of self-selection bias in participants, meaning we were able to speak to people with a diverse range of opinions - not just those who felt the strongest and were most likely to respond to a call-out.

We did not seek out particular responses, and we did not apply a demographic control beyond ensuring a range of impairments and locations. Therefore we do not consider our sample to be representative of all disabled people, and we did not use our data to test a hypothesis or draw conclusions. This was an ethnographic study that captured a range of opinions.

In total, we collected responses from 84 people, aged 8 to 89. We spoke to disabled people from a wide range of impairment groups. For those who have multiple impairments, we counted them in each of the categories they fell into.

* Mobility
* Chronic illness /long-term health condition
* Visually Impaired/ blind
* Deaf/ Hard of hearing
* Mental health condition
* Neurodivergent / Cognitive impairment /Learning Disability
* A parent/carer for a disabled person

We note here that there is no ideal way of formally categorising impairment. Many impairments do not fall neatly into one category, many fluctuate or affect different people in different ways. We decided to categorise impairment based on the types of barrier that person faces. The important thing is that we were consistent with our categorisation. For those we interviewed who were a carer or parent for a disabled person, we counted them as ‘carer’ together with the impairment type of the person they cared for: e.g a parent of a child with visual impairment would be counted as both ‘carer’ and ‘visual impairment’.

We heard from a mixture of people who do and do not hold a Blue Badge, as well as car-owners and those who do not have a car.

We interviewed people from 19 of the 21 London boroughs where new LTNs have been implemented[[13]](#footnote-13). We also spoke to people in six locations outside of London in areas with LTNs: Newcastle, Manchester, Yorkshire, Woking, Edinburgh, and Oxford.

# Interview Accessibility

Our primary method was verbal interviews held using Zoom. For participants who were Deaf British Sign Language (BSL) users, we booked an interpreter to facilitate communication. For visually Impaired participants or those who required an alternative method for other access reasons, we did one of the following:

* Held verbal interviews over the phone.
* Sent interview questions via email and accepted written responses.
* Opened a Google Form to submit written responses if they could not attend an online interview. The form was only sent to pre-vetted respondents.

|  |  |
| --- | --- |
| **Data source** | **Number of responses** |
| Zoom | 54 |
| Email/ Written | 12 |
| Phone | 9 |
| Survey | 9 |
| **Total** | **84** |

# Interview Approach

In order to collect the most insightful, authentic, and in-depth qualitative data, it was important for us to build up trust with the participants. It was vital that we created a space where they could share their experiences and opinions freely and without judgement. The interviews were 45 minutes to an hour long, and were semi-structured. They largely followed the format of 10 open ended questions, with room to divert off-course with follow-up questions to understand more about any particular point a participant was making. These gave us further insight into what the participant was thinking and allowed for greater consistency for our analysis. All 63 verbal interviews were conducted by the same researcher.

# Qualitative Coding

After conducting interviews, transcribing the conversations, and collating the written responses, we looked to turn the qualitative, opinion-based data into quantitative, number-based data we could analyse. The approach we used for this is known as coding, which sees transcripts categorised into topics using a key, with a ‘code’ given for each area discussed. As Ye Sun writes in The SAGE Encyclopaedia of Communication Research Methods (2017), “coding in qualitative research aims to uncover themes and ideas from the data, inductively create categories, and develop theoretical

concepts”. Each code is then tallied up to give a number of how many participants discussed that topic in interviews.

Our process for determining the coding framework was as follows:

1. Two researchers independently listened to a selection of the interviews, and each devised a framework of codes. The selection criteria for codes were for experiences that were felt to be useful and appropriate to quantify: specific, tangible and discrete impacts (for example, an observed increase in traffic).
2. The researchers compared their coding frameworks, discussing the merits and drawbacks of each code individually.
3. From there, the researchers compiled and agreed upon a coding framework.
4. They then trialled the coding process, listening to the same test interview and coding it using the agreed framework.
5. The researchers compared the results they had obtained. Where inconsistencies were found, the codes were discussed and modified accordingly to remove ambiguity.
6. They then did a second round of testing, coding a second test interview independently.
7. Coming back together again, the researchers compared their results for the second trial, and found they had obtained the same data, demonstrating that both coders were able to replicate the same result whilst following the pre-determined coding framework.

**An example of a code is as follows (the full coding framework is included in the Appendix):**

**Code:**

DANGER\_DOWN

**Description:**

Participant reports a decrease in traffic danger; i.e. they feel safer to cross the road or they feel safer cycling.

**Verbatim quote from transcript allocated this code:**

“It makes me feel safer; certainly, as a cyclist, it feels safer.”

Once the coding framework had been agreed and tested, all 54 transcripts and 30 written responses were coded using the key. A team of three researchers coded the data. Two researchers coded the responses, and gave each of their codes a traffic light colour signifying how confident the researcher felt the code was accurate. Any responses that were given an amber or red traffic light were ‘second- marked’ by the other researcher, to ensure inter-code reliability. The third researcher made the final decision on the codes and carried out ‘spot-checks’, checking a random series of codes that had been traffic-lighted as green.

# Analysis

Out of the 84 total responses collected, the final number of interviews we deemed eligible for qualitative data analysis was 78. Responses eligible for analysis needed to meet certain criteria, including:

* Participant lives or frequently travels through an LTN.
* Participant demonstrates awareness of what an LTN is.
* Participant provides sufficient demographic data.

In order to present the findings, we conducted various analyses of the data.

First, the data was tidied for consistency and split into themes and subthemes. Each time a theme or subtheme was present in a participant’s response, the researcher coded for it accordingly, including the exact verbatim quote in the log.

For example, one of the areas we coded for was JOURNEY\_EASY – referring to an instance where the participant reported that it is now easier for them to make their journeys. We could then pull this data and use it to state: 14% of participants reported that LTNs made their journeys easier.

During the final analysis, we counted whether a code was present in an interview, rather than counting all the occurrences of a single code within the same interview.

For the cross-analysis of demographic data, such as impairment types, and qualitative (coding) data, we chose to use pivot tables. This method was selected because it allows for an interactive analysis of insights based on customisable filters. We used pivot tables to summarise the data set and produce percentages.

In the following example, we wanted to ascertain how many participants felt that their journey became easier after an LTN was put into place in their area. We also wanted to cross-reference this with demographic data, to determine which impairment category these respondents fell under. We created a pivot table that compares the code JOURNEY\_EASY with the Impairment Type data. The table shows ‘count of’ how many respondents mentioned this code in their interview, sorted by impairment group.

|  |  |
| --- | --- |
| **Column Labels** | |
| **Values** | **1** |
| Count of Mobility | 8 |
| Count of Visual | 1 |
| Count of Deaf | 1 |
| Count of Neurodivergent | 3 |
| Count of Mental Health | 0 |
| Count of Chronic Illness | 4 |
| Count of Carer | 2 |
| Total Count of JOURNEY\_EASY | 11 |

In order to present this data, we calculated the percentage of these respondents out of how many participants there are in each impairment group in total. This showed how prevalent the code was in each impairment group, as well as across the whole sample of participants.

|  |  |
| --- | --- |
| **Impairment** | **Total** |
| Percent of Mobility | 14% |
| Percent of Visual | 14% |
| Percent of Deaf | 20% |
| Percent of Neurodivergent | 25% |
| Percent of Mental Health | 0 |
| Percent of Chronic Illness | 15% |
| Percent of Carer | 14% |
| Total Mentions | 14% |

# Limitations

Due to the restrictions we have been working under, imposed by COVID-19 and lockdown measures, we have had to rely on digital outreach, rather than offline methods such as leafletting, attending in-person mobility forums or visiting community centres. This means that we have only been able to contact and recruit participants who have some level of internet-usage, and we know that this excludes many disabled people. According to ONS figures, disabled adults make up a significant proportion of adult internet non-users. In 2017, 56% of adult internet non-users were disabled[[14]](#footnote-14), a figure which is disproportionally higher than the total percentage of disabled adults in the UK (estimated to be 22% in 2016/17)[[15]](#footnote-15). Poverty, lack of specialist training and tools, poor web accessibility, and living in institutional settings are just some examples of the barriers disabled people face to accessing the internet.

As well as this, disabled people from particular impairment groups are more likely to face barriers accessing digital spaces. The lack of web accessibility is a barrier for blind and visually impaired people, a shortage of information translated into BSL is a barrier for Deaf people, and the use of complex language and specific jargon can be a barrier for those with learning disabilities. This means that when conducting research and recruiting disabled people using digital methods, often these particular impairment groups are under-represented in the sample.

Furthermore, for some blind and visually impaired people, it can be challenging to know precisely what changes are being made in their local area, where those changes are, and where they live in relation to them. As one visually impaired participant told us:

**“I don’t know where the Low Traffic Neighbourhood starts and finishes, because I can’t see the flowerbeds, I can’t read the notices, I don’t know where the boundaries are. I can’t see the names of the roads. I can’t read a map. I only know the road is closed because my taxi driver told me he wasn’t allowed to go down that road anymore. That’s all I have to go on.”**

– *Visually impaired participant, Brent.*

In order to mitigate the issue of many disabled people not having access to internet, and disabled people of particular impairment groups being especially excluded, we did supplementary research speaking to these groups in a less formal context. The research team contacted local organisations working with these groups and attended forums, user-led support groups, and community meetings[[16]](#footnote-16) to discuss LTNs with participants. While this isn’t captured in our quantitative data, the lessons learnt from these group meetings have contributed to and shaped our report.

This is important contextual information because it applies not only to our research but to research carried out by others. Digital and online methods are being used almost exclusively by councils to consult and engage with local residents, as well as gather feedback about streetspace changes. This is part of the problem: some disabled perspectives are being completely missed.

# Chapter 3. Barriers to Active Travel and why some disabled people use cars

***“I don’t want to use a wheelchair. I can still get about with my car.”***

***- Chronically ill participant***

LTNs are, by definition, intended to make it less convenient to drive. They discourage car use, by closing roads to through-traffic and diverting motor vehicles around a longer route. This is done to make the streets more attractive for walking and cycling, in the hopes this will be enough to encourage people to take up more Active Travel journeys.

However, aside from quieter roads and in some cases new benches for resting, little more is done to remove or address the many additional barriers to Active Travel which disabled people face.

Many disabled people can and wish to make journeys by walking, wheeling and cycling. Proponents of LTNs are quick to argue that they benefit disabled people and make it easier for disabled people to participate in Active Travel. For example, in a recent document[[17]](#footnote-17) signed by several Active Travel campaign organisations - including Cycling UK, Living Streets and Sustrans - the claim is made that “LTNs and cycle lanes help disability access”. However, LTNs alone do little to solve the underlying reasons which remove the opportunities for walking and cycling from disabled people.

# Medical

It’s important for us to acknowledge that there are some instances in which it is simply not possible for an individual to walk or cycle. There are cases where, even if all the physical, societal and financial barriers were removed, the individual would still rely upon the car as the only form of transport available, for reasons pertaining to their impairment or access needs. This could be due to an individual requiring heavy equipment (for example breathing apparatus), needing to take particular caution to avoid contact with bacteria/viruses, or perhaps needing to avoid cold weather.

# Physical (Infrastructure)

***42% of our participants brought up accessibility issues with the streetspace***

***“If the LTN is meant to be about walking, why are the pavements all broken up?”***

***– Wheelchair user***

The most immediate barrier facing disabled people wanting to make Active Travel journeys is the inaccessibility of streetspace (pavements, walkways, footpaths, cycle lanes, etc.) This can be separated out into walking infrastructure and cycling infrastructure:

**Walking/Wheeling**

Anything that interrupts the easy transit along pavements and walkways is a problem for disabled people.

* Pavements cluttered by obstacles (including bins, signs, car charging points, A-boards) are very difficult to navigate for those with mobility impairments and can pose a hazard to those with visual impairments. They are also confusing and overwhelming for those who are neurodivergent. Current social distancing measures add to this issue with many businesses putting chairs and tables outside. Dockless bikes and e-scooters left in the middle of the pavement or strewn across crossings also present a hazard.
* Pavements that are steep, uneven, or bumpy are difficult to traverse in a wheelchair and can be trip-hazards. Tree roots, cobblestones, and poorly laid paving stones all contribute to this.
* The lack of dropped kerbs render entire sections of pavement/walkways no-go zones for wheelchair users, and pose a trip hazard to visually impaired people.
* A lack of alcoves or benches mean that people are unable to stop and rest.
* Hazards - such as cycle lanes that are integrated with the pavement, or a widening gap between road and pavement - are often not marked with a high contrasting colour or tactile paving. These can be easily missed, leading to injury.
* A confusing streetscape layout, with one-way systems, poor signage, shared space and excess bollards, can be distressing and anxiety-inducing.
* Road crossings must have appropriate tactile paving and dropped kerbs, be clear of obstruction from signs or clutter, and be at regular junctions to avoid overcrowding.

**Cycling**

According to Wheels for Wellbeing’s *Annual Survey of Disabled Cyclists[[18]](#footnote-18)*, inaccessible cycle infrastructure was cited as **the biggest barrier to cycling.**

The majority of the UK’s cycling infrastructure is designed with a standard two-wheel bike in mind, on the assumption that the rider is able to dismount and lift their bike where necessary.

* Narrow cycle lanes cannot be used by trikes, handcycles and other non-standard cycles.
* Steps into the cycle lane, or lanes segregated with large kerbs without regular dropped points, are inaccessible to those who cannot dismount.
* Access control barriers that are designed to prevent access to motorbikes and mopeds (for example, kissing gates or bollards) are a barrier as many disabled cyclists cannot dismount.
* Lack of continuous or joined up cycle routes force cyclists to dismount or perform tricky manoeuvres.
* The steep or uneven camber of roads is a bigger problem for those on three wheels as the cycle can easily tip over.
* Speed humps, potholes, and uneven surfaces of roads are uncomfortable or dangerous to traverse in a non-standard cycle.
* The lack of storage facilities for non-standard cycles means it is not always practical to cycle for a commute as there is nowhere to store the cycle securely.

It is not just the poor accessibility of the streetspace that deters disabled people from walking and cycling. The wider lack of physical accessibility into businesses, workplaces, shops, venues means that it is often not practical to use a cycle or a wheeled mobility aid to get around, as it can’t easily get into the buildings the person needs to access.

***“I don’t use my powerchair to get around because the shops along my local high street all have steps – I can’t take it in with me. So I drive there instead.” – Chronically ill participant***

# Financial

Disabled people requiring specialist equipment to facilitate Active Travel journeys face a steep financial barrier. For those who cannot use a standard two-wheeled bicycle, adapted non-standard cycle options are substantially more expensive. According to Wheels for Wellbeing[[19]](#footnote-19), the cost is extremely variable, ranging from £500 for the most basic adult pedal trike, to £3500 for handcycles with e-assist (many handcyclists will require e-assist as handcycling typically has a lower manual power output than pedal cycling), and many handcycles, handcycle attachments, and cargo bikes retailing even at £6000 and £8000, but in most cases a disabled cyclist will be paying out far more than their non-disabled counterparts.

This lack of affordability is compounded by the lack of non-standard cycle hire schemes, meaning there is little opportunity for aspiring cyclists to ‘try before you buy’.

For those who are able to afford, find and acquire an adapted cycle, maintaining the equipment can also be difficult and costly. Without the option to take the cycle into any standard bike repair shop, finding repair companies with the specialist knowledge and tools can cost money and time.

While non-disabled people are able to choose whether to give cycling a go, pick up a second-hand cycle from Gumtree for £50, and keep it maintained and insured easily and affordably, this is simply not the experience of disabled, aspiring cyclists.

The financial barrier extends beyond cycling. Many disabled people do not have mobility aids of a high enough quality - or that are adequately suited to their needs - to enable them to make active journeys on foot or using a wheelchair. Many disabled people with physical and mobility impairments are not able to self-propel heavy, clunky manual wheelchairs. Therefore, they require lightweight, dynamic, sports wheelchairs, or chairs with power-assisted driving (all of which can thousands of pounds and are not typically available on the NHS)[[20]](#footnote-20). Many types of chronic illnesses can make sitting down for long periods of time painful, necessitating ergonomic orthopaedic chairs. Meanwhile, other disabled people would benefit from other occupational equipment such as smart crutches or specialist shoes, or access to guide dogs and service dogs. All of these aids are expensive, scarce, or difficult to get – more so now after a decade of cuts to public services[[21]](#footnote-21).

This significant financial barrier is imposed on a group that is already so fiscally disadvantaged. The Labour Force Survey for April to June 2020 revealed that disabled people are more than twice as likely to be unemployed as non-disabled people[[22]](#footnote-22). Research and analysis by the disability charity Scope also found that disabled people face extra costs of £583 a month[[23]](#footnote-23). In terms of poverty, the proportion of working age disabled people living in poverty (after housing costs) is 26%, which is 6% higher than the figure for working age non-disabled people. This financial barrier is therefore not only prohibitive, but discriminatory.

# Attitudinal

Even before facing the financial hurdle, many disabled people face awareness and attitudinal barriers. Cycling is not thought of by many people as an option if you are disabled, for example. The lack of education, resources and visibility of disabled cyclists mean that many individuals are not aware that things like adapted cycles exist.

For the few who have spotted disabled cyclists – either out and about or pictured in the media – representation plays a big part in discouragement. We see very few handcyclists in the media and other communications, and when we do the image is usually that of a fit and muscular ‘Paralympian’ type – the unattainable stereotype of the ‘supercrip’[[24]](#footnote-24). As one of our participants told us;

***“Handcycling… it’s not for wobbly people like me.”- Wheelchair user***

# Societal

There are several broader systemic issues that disabled people are up against when it comes to having the opportunity to walk, wheel and cycle. Our research has shown that there is a real and very present reluctance to use a wheelchair or other mobility aid. Participants told us they felt uneasy about using a wheelchair because it felt like giving up independence.

Many disabled people who have mobility impairments, are chronically ill or have a long term health condition, do have some level of ambulance. Indeed we know that many wheelchair users do not use their wheelchair the whole time and are able to walk a bit.

People who fall into this category are able to walk a little on foot, but perhaps not very far or for too long. When it comes to getting around, even for short trips around one’s local area, walking this far is not possible. Some participants reported using a car instead of a wheelchair.

***“I don’t want to use a wheelchair. I can still get about with my car.” – Chronically ill participant.***

***“I’m not there yet mentally. It’s a type of mourning, losing your health.” – Chronically ill participant.***

A lot of this could be down to prevailing negative attitudes towards disability in our culture, and the stigmatisation of wheelchairs. Many individuals, particularly those who become disabled later in life through acquired impairment, feel a need to ‘hide’ this and to soldier on. This concept, known as “passing”, has been written on extensively by disability theorists.[[25]](#footnote-25) Despite granting freedom, independence and – crucially – mobility, mobility aids are seen as objects of pity - signifiers of weakness, vulnerability and tragedy. It can be painfully difficult to even consider using an aid, as one participant recounted:

***Case Study – from a disabled cyclist***

*“I was born with my impairment, but it didn’t become apparent until late teens/early twenties - even then, it took a long time to get a diagnosis. As a kid, I remember crying about the pain in my legs, only to be told that it was ‘growing pains’. My experience, as somebody with rapidly decreasing mobility, as well as monumental levels of pain, was that all of the medical professionals I saw did not want me to use a wheelchair, and did everything they could to discourage me from using one.*

*The key event for me was when I went to HellFest in France, in 2014. Black Sabbath, Iron Maiden, Deep Purple and Status Quo were some of the bands featured on fantastic line-up.*

*At the time, I had been walking with specialist crutches. I had gone from just using a stick in the winter, to using a stick a lot, then to using crutches and finally, to using specialist crutches. I had even been offered a Zimmer frame, but it was awful. It was so frustrating to go at such a slow pace and it didn’t help with my pain at all.*

*I realised that I wasn’t going to be able to get around the festival easily. I was on the maximum permitted doses of codeine, naproxen, paracetamol and tramadol, with oramorph for emergencies. It was the most pain medication that my body would tolerate. So, I made the decision to rent a wheelchair to get around the festival.*

*I didn’t use a single painkiller that weekend.*

*When I came back home from the festival, I didn’t send the wheelchair back straightaway. I held*

*onto it, and for a while I debated what to do.*

*I ended up buying a cheap, folding piece of crap and started using it for my commute, and to get around the building at work, whilst continuing to use my specialist crutches around the office.*

*Then, I tried out a chair with a rigid frame, and it was life-changing. Suddenly I had a chair that didn't cause me fatigue when I used it. I could pick it up with one hand. It didn't have finger traps everywhere. It didn't have armrests up in my shoulders. I could actually push the damn thing without getting exhausted from the effort, and it didn't bend and twist from the motion.*

*Yet, even just switching to a rigid chair, even just accepting that, a part of me viewed it as a surrender.*

*A lot of people look at using a wheelchair as giving up - as accepting the disability. There is a huge mental block towards using one, a huge cultural disincentive and*

*discouragement. People are reluctant to use it because it means accepting that you have a disability, and for a lot of people they think that that makes them lesser. The common lexicon of being ‘confined to a wheelchair’ doesn’t help.*

*I am not confined to my chair. My chair does the exact opposite. Without it, I would be in a very bad place, given the level of pain I was in, the level of misery I felt, and not being able to think through all the painkillers.*

*When I started using the chair, my range opened back up immediately. I could start going to events again. I could go see my friends again. I now use an electronically assisted handcycle to get around, which simply attaches to the front of my wheelchair, on which I can cover miles. For me, it’s freedom.”* - ***@CrippledCyclist aka ‘Heavy Metal Handcyclist’ on Twitter.***

Of course, there are many other factors that contribute to whether someone uses a mobility aid or not, including the very real financial barrier that we have already covered. This is compounded by the lack of systems in place for providing disabled people with the specialist equipment they need. A person with limited mobility who could still walk a bit would not always qualify for a high-standard wheelchair on the NHS, but would be provided with a more basic model (usually manual) that would not be conducive to Active Travel.

The Motability scheme allows those who receive the higher rate of mobility allowance – either through Personal Independence Payment (PIP) or Disability Living Allowance (DLA) – to use the money to rent a car, scooter, powered wheelchair or Wheelchair Accessible Vehicle. Yet the scheme does not stretch to cover adapted cycles or good quality sports wheelchairs and as we know, the eligibility criteria for those benefits is very narrow and excludes many disabled people.

Deciding to use a mobility aid is a personal decision. Each disabled person is an expert in their own needs and knows what will be best for them. However, we must acknowledge the many real and present barriers and issues that may deter disabled people from using mobility aids to facilitate walking, wheeling, or cycling. Currently, Active Travel is simply not an option for many who either lack the specialist equipment, or who are discouraged by stigma and internalised ableism.

# Chapter 4: Findings: The impacts

# Overview of impacts

**General observations**

* Disabled people feel very strongly impacted
* Disabled people’s opinions are polarised
* Tension between environmentalism and disability rights activism
* Division
* Negative emotions
* Impact of COVID-19
* How have LTNs impacted Traffic levels
* How have LTNs impacted pollution levels

**Positive impacts for residents**

* Decrease in traffic danger
* Increase of independence
* Easier or more pleasant journeys
* Benefits to physical health
* Benefits to mental health

**Negative impacts for residents**

* Longer journey times for residents
  + More exhausting
  + Exacerbate impairment
  + Money
  + Taxis
* Longer journey times for visitors
* Journey is more complicated or difficult
* Increase in traffic danger
* Negative impact on mental health
* Not having other options

# **General observations**

# Disabled people feel very strongly impacted

**83% of participants felt “strongly” impacted by LTNs.**

The first and most simple observation from our research is the high degree of passion felt by our participants on this subject.

We found it easy to recruit willing participants. After putting out calls on social media and newsletters from various organisations, we were flooded with responses from disabled residents of LTNs wishing to share their experiences. We were pleased with the number of responses we were able to collect, and consider it testimony to how strongly people felt about the issue and how much they wanted to be heard.

**Opinions are polarised**

Our second observation is the diversity of opinion, and the polarising nature of this debate. Almost all of our participants felt very strongly either on one side of the argument or the other. One of our questions was designed to capture how strongly people felt impacted by the scheme, and asked participants to rate a statement from 1 to 5 according to how strongly they agreed or disagreed:

**“I feel that these changes negatively impact my sense of independence.”**

The vast majority – 83% - of our participants selected either “5 = strongly agree” or “1 = strongly

disagree”, with only a handful (17%) placing themselves in the middle.

This is important to set out, as it demonstrates the huge gap that has formed between two opposing viewpoints and experiences, with people on both sides feeling unheard and misunderstood by the other, a sentiment which has been exacerbated by the lack of clear and accessible communications, consultation, education and engagement.

**Tension between environmentalism and disability rights**

There is an existing and historic tension that exists between environmentalism and disability rights activism. Many recent environmental initiatives - for example, the ban on plastic drinking straws - caused controversy among the disability community and were seen to be inadvertently harming disabled people. Without listening to disabled voices, environmental policy-makers have often, without intent, created more barriers for disabled people, leaving many disabled people feeling left out of the environmental movement. Several participants told us how the LTN debate had made them feel

“demonised” for raising concerns about accessibility:

“It’s not like disabled people haven’t tried to be a part of this movement, but if you raise concerns, you are seen as someone who is against bikes and demonised as someone who doesn’t care about the environment.” – *Participant from Lewisham.*

“It’s created a situation where you're either pro or anti, and if you're anti, you're a petrol-head. This is the kind of dialogue surrounding it, and it's very difficult to break through. I've said numerous times: I don't drive; I don't have a car. I’m pro the environment, but just not pro the scheme because of the way it's been implemented - but that seems to be put in a box.”

*- Participant from Lewisham.*

A small number of participants sit in a more moderate position, who see the advantages of LTNs but feel that they have been poorly implemented, or feel that they solve some problems and create others. For this group, there is a sense that these deep divisions in the debate are unproductive and harmful to both the environmental and disability justice movements. It throws up the questions: **how do we bridge these divisions? How can we find common ground and move forward?**

“It's really frustrating as someone who has a lot of lived experience of Active Travel, and is broadly pro Active Travel when it's done right. The most frustrating thing is, when I'm talking about the accommodations, or adjustments for infrastructural changes needed, it's constantly like it's a zero-sum game, right? You are either one or five, you can't be two and a half […] We need to stop acting like these issues in a vacuum, we need to recognise them holistically as part of greater transport infrastructure. […] It's exhausting. When you're in the middle, and you want to find compromise, and you want to find solutions, when the slightest criticism, or the slightest positive support is seized upon…it’s doing all sides a disadvantage.”

*- Participant from Ealing*

# Division

**33% of participants discussed how divisive the LTN issue is, or reported feelings that the LTN debate has divided local communities.**

**Boroughs with the greatest number of participants reporting division included: Ealing, Lambeth, Islington, Lewisham, and Tower Hamlets.**

On both sides of the argument, participants noted the negative impact the LTN debate has had on local communities, personal relationships and mental wellbeing:

“I feel like we've already been divided by so many things over the last few years, and this is just another route. It's so local. It feels so personal. I know people that if I were to see them, we wouldn't be able to communicate, because there would be this assumption that we stood opposite sides of this issue.” *Participant in Ealing*

“Also for me, it's divided… a community that I love and enjoyed for a number of years. Now it is very divisive. People are sniping at each other.” *Participant in Lambeth*

Many of our participants raised the topic of social media and the negative tone of these debates, which have played out largely online:

“Looking on some of the Twitter feeds […] and just some of the comments that they've made online […] everyone is being shouted down. It can get quite vitriolic and nasty too.” *Participant in Lambeth*

Disabled people feel that their needs have been politicised without their consent, adding to the frustration:

“I feel we are being really co-opted in these debates. Whether it's cycle lanes, LTNs, or banning taxis, it’s like the idea of us is utilised by either side without actually involving us.” *Participant in Ealing*

# Negative emotions

**50% of participants discussed negative emotions; i.e. feeling fear, anger, frustration, stress, anxiety, loneliness or isolation.**

Unsurprisingly, the level of division and the toxicity of debate is creating negative emotions in many of the people we interviewed. One of our participants, who is both disabled and a local councillor, told us how they have been the target of harassment and abuse from those opposed to the LTN schemes, which had left them feeling “battered”:

“The last few months personally have been the most difficult since I've been a councillor. My mental health has been battered, the abuse I have gotten and the abuse that some of my colleagues have gotten…”

It is not just the divisive tone of the debate and personal attacks that have created negative emotions. A large majority of our participants told us that they feel their concerns have been ignored, creating feelings of anger and frustration:

“It's the emotional impact of the pressure, because it sort of upsets me and it makes me angry that the needs of people like me just… I've just been totally ignored. It just feels like there's all this pressure, pressure, pressure.” - *Chronic illness, mobility, and Deaf participant, Hackney.*

Participants feel ignored principally because of the lack of consultation and meaningful engagement from the council (as we will discuss further in Chapter 5).

There is also an element of feeling discriminated against on account of being disabled:

“I feel like I’m at the bottom of the scrap heap […] completely discriminated against.” *– Mobility and chronic illness participant, Hounslow.*

# The impact of COVID-19

**6 participants discussed the emergence of negative emotions as a result of COVID-19 related issues.**

It is important to note here that not all of the negative emotions have been created by the implementation of the LTN schemes and the subsequent fallout. A great deal of fear, stress, loneliness, isolation and frustration has been created by the intense difficult circumstances we have been living through since March last year. COVID-19 has had a disproportionate impact on disabled people, who are twice as likely to die from the illness. They also face immense challenges including shielding, reduced access to healthcare and cuts to care packages. These extraordinarily difficult times have heightened disabled people's outrage and emotion at these changes, as one Hackney resident told us:

“Lockdown has really gotten to me – I'm much less tolerant than I used to be.” *– Wheelchair user, Hackney*

Many of our participants have been coping with extremely difficult personal circumstances. Several had lost loved ones, while several more were recovering from COVID and managing the symptoms of Long- COVID. One participant in Lambeth told us how she had learned of the new LTN scheme from her bed in hospital, after waking up from a COVID-induced coma that she had been in for 100 days. She even attended a Skype meeting with her local councillor to discuss her concerns from her hospital bed.

This context is important to understand for any policy or decision maker; as set out in Inclusion London’s June 2020 report many disabled people are already feeling “Abandoned, Forgotten, and Ignored’’ across many areas of their life during this pandemic. It is, for many, this context into which initiatives such as LTN’s are being received and perceived. As one participant told us:

“I was already feeling so isolated and cut off. The lockdown made it sort of worse and then, now with the road closures, I just thought, ‘that's it, my life's over’. I want to cry now, sorry.” *- Mobility, chronic illness, and mental health Participant, Islington.*

Impact on Traffic[[26]](#footnote-26)

**82% of participants brought up the topic of traffic.**

A key debate around Low Traffic Neighbourhoods has focused on traffic.

Opponents to the introduction of LTNs have expressed concerns over traffic moving onto surrounding roads as a result of these new schemes, an effect called traffic displacement, while supporters of these initiatives propose the idea of ‘traffic evaporation’, whereby traffic on these surrounding roads ‘disappears’ over time.

Analysis of past transport schemes has shown mostly positive results. In Lambeth[[27]](#footnote-27), changes to road layouts at the Vauxhall Cross Interchange reduced road capacity by 15%, with no issues with traffic displacement reported in the borough or surrounding areas. Instead, the authority found there was a reduction of between 2-8% in peak time traffic, with shorter traffic queues.

Early findings[[28]](#footnote-28) from the implementation of an LTN in Hackney, published in November, found that the initiatives had not led to a rise in traffic on nearby main roads. The council had in fact reported that on the five nearby roads, traffic eventually fell to levels similar to 2019, or lower.

Additionally, a wider study[[29]](#footnote-29) into reallocated roadspace (such as LTNs) from researchers at University College London and the University of Southampton found that in half the cases analysed, over 11% of

vehicles using the affected road weren’t seen in the surrounding areas after the scheme was introduced.

However, the study did show a small number of instances where the traffic in surrounding areas had increased, such as an LTN-style closure in Cambridge in 1997. More recently, in 2016, Waltham Forest[[30]](#footnote-30) found a increase of between 2-28% in daily vehicles in three roads bordering their traffic scheme. In October 2020, Lewisham Council announced changes to one of its LTNs following reports[[31]](#footnote-31) of increased traffic in the surrounding areas.

It was not the intention or nature of this research to determine changes in traffic. For that, empirical methods such as traffic counters need to be deployed. This project used qualitative methods to analyse residents’ feelings, emotions, ideas and experiences. We were reliant on first-hand testimony, and so our findings report participants’ perceived changes to traffic levels. There are many additional variables, impossible to control for, which may have had an effect on traffic levels in the time period the interviews took place. These include the pandemic’s effect on people’s usual journey mode, road works, and other streetspace schemes including widened pavements and cycle lanes.

Recent studies have suggested that perceived delays may be greater than actual delays. For example, a study[[32]](#footnote-32) on Waltham Forest found no evidence that the LTN was having a negative impact on fire brigade response times, despite there being a strong feeling from crews and residents that this was the case.

With that in mind:

**50% of participants reported a perceived increase in traffic levels (in some areas).**

**54% of participants reported a perceived decrease in traffic levels (in some areas).**

*Note: there were participants who reported both an increase and decrease in traffic levels. 33% of participants felt that traffic had been ‘pushed’ from one area to another, resulting in a decrease in one area and an increase in another. We did not collect data on where the participants were referring to when they discussed traffic levels, as we were not intending to collect data on traffic levels but rather perception of traffic levels. By discussing the results of the mentions of traffic within our participant sample, we do not aim to provide any accurate statistics of actual street traffic levels in areas of the UK, but rather a picture of how disabled people feel personally impacted.*

The changes in traffic levels had a different impact on participants depending on where they resided. Participants living inside an LTN who told us that traffic either decreased overall or had been pushed away also reported associated benefits (covered in the next section). However, those living on the main ‘distributor’ roads, or main roads adjacent to or running away from the LTN, and who reported either an increase in traffic overall, or that traffic had been pushed from one area into their own, reported several negative impacts associated with this (covered in the next section).

It is not within the scope of this report to draw conclusions about the effect of Low Traffic Neighbourhoods on traffic levels. We recommend that further research into immediate effects and long- term evaluation to build a clearer understanding over time.

What our research does show is the extent to which disabled people are concerned by changes to traffic, and the impact that any increase to traffic levels would have, or is having. There are certainly strong feelings toward traffic changes, as evidenced by the language used by our participants. One woman told us she feels she lives on a “sacrificial” main road.

This goes a long way to demonstrate our key message; disabled people must be consulted on changes to streetspace. As we will get onto later in the report, many Equality Impact Assessments (EQIAs) carried out for these schemes have concluded that there is ‘no impact’ on disabled people. This is far from the reality. Any change implemented which affects the movement of vehicles and pedestrians, as well as the flow of traffic, will inevitably have some sort of impact on disabled people, who feel the changes more strongly due to limited alternative options for travel.

# Impact on pollution

**41% of participants raised the issue of pollution.**

Pollution was another issue that was bought up by participants.

**23% of our participants reported an increase in perceived pollution levels.**

**22% of participants reported a perceived decrease in pollution levels.**

**18% of participants told us they felt pollution had simply been ‘pushed’ elsewhere to neighbouring**

**roads or onto the main road.**

Much like with traffic, it was not the intention or nature of this research to determine changes in pollution. For that, empirical methods need to be deployed. However, we note that pollution is a particular area of concern for our participants, as some impairment groups (predominantly those with respiratory conditions) would be adversely and disproportionally impacted by an increase in pollution.

# **Positive impacts of LTNs for disabled residents**

# There is less danger due to traffic

**18% of participants reported a decrease in traffic danger. This was reported most prominently among Deaf and visually impaired participants.**

|  |  |
| --- | --- |
| Percent of Mobility | 21% |
| Percent of Visual | 29% |
| Percent of Deaf | 60% |
| Percent of Neurodivergent | 17% |
| Percent of Mental Health | 0 |
| Percent of Chronic Illness | 19% |
| Percent of Carer | 7% |
| Total Mentions | 18% |

One of the key aims of LTNs is to reduce the number of cars on the roads within the LTN zone, making the roads safer and more pleasant to walk, wheel and cycle beside or on. In some instances this is a positive, with some of our participants reporting a decrease in traffic danger and that they feel safer walking, wheeling and cycling in their neighbourhood.

Making the streets safer for disabled residents is a particular benefit for more at-risk pedestrians, such as those with visual, auditory or cognitive impairments. A decrease in traffic danger was reported more among participants who were visually impaired or deaf than other impairment groups. Participants reported how the LTNs had made crossing roads safer:

“There used to be a significant amount of car traffic, and that would then mean I would often have to wait a long time to feel that I could safely cross even a very quiet side street […] The placement of the planters means that I now know that there are two lanes of traffic that cannot get to me. So I can cross even though I can hear traffic on the other side, because I know that that car can't turn into the road to hit me.” *- Visually impaired participant, Ealing*

Feeling safer when navigating the local area gives disabled people – and disabled children’s parents –

the confidence and freedom to make more independent journeys.

***CASE STUDY: Parent of Primary-school-age child with visual impairment - “As parents, you***

***don't want to take your child’s independence away.”***

*“He struggles in fast-moving traffic, because it just takes him a while to focus on what's around him. So the walk to school used to be quite stressful, where you'd have cars that would pull in quite quickly to let another car pass. Sometimes he'd misjudge it, and on one occasion he got knocked off his scooter.*

*Then the LTN comes in, in the middle of that road and blocks off the through-road. It's just so much calmer with very little cars on the road.*

*It has just transformed area for him.*

*It's an awful lot more pleasant all round. In two years’ time, he's allowed to walk to school by himself. It's something that we were dreading, but now suddenly, we're not dreading it as much.*

*We always thought that we didn't want to deny him the right of doing that. As parents, you*

*don't want to take your child’s independence away, and his bigger brother is doing it, so he*

*wants to be like his big brother. But we weren’t sure if we could trust it would be safe for him. Now with the LTN in place, we are feeling comfortable with the idea of letting him walk to school on his own.*

*My son is entitled to a safe walk to school every day, and that sense of independence that he*

*has now is just great.”*

This sense of independence was felt among several of our participants, across impairment groups.

**6% of participants discussed feeling more independent, or felt that they had gained more independence and freedom to travel.**

The decrease in traffic danger also brings benefits for those with mobility impairments. Fewer cars on the roads make it safer for wheelchair users to roll down the road, instead of having to use the pavements which, as we have already discussed, are often inaccessible or not suitable for wheeling.

“Since the LTN has gone in, I haven't taken the bus to Brixton once. I've gone down the middle of the road in my wheelchair along that smooth bit of tarmac.” *– Electric wheelchair user, Lambeth.*

“Since the LTN I feel much more secure going on the road. I know that that particular road is much quieter, and I feel that I have more of a right to be on the road.” *– Manual wheelchair user, Lambeth*

Even for wheelchair users who continue to drive, the LTN brings safety benefits:

“If you're not going to be actively travelling, being in an LTN is still safer for a wheelchair user getting in and out of a vehicle, which takes longer and you are often getting out into the middle of the road.”- *Wheelchair user, Lambeth.*

Decreasing traffic danger brings many benefits for disabled cyclists, too. Cycling can be stressful or dangerous for those with sensory or cognitive impairments, when one is sharing the road with cars. Participants told us how in areas where there are fewer/no cars on the road they have been granted the freedom and independence to cycle without fear.

This is a particular benefit for those cycling on adapted cycles:

“So the advantage of LTNs for me as a hand cyclist are that I am not having to squeeze down traffic. I am wide. I am not the shape that people expect me to be, and I am faster than people expect me to be. I also can't dismount.” - *Wheelchair user, outside London.*

# There is less noise

**17% of participants reported a decrease in noise. This topic was particularly prominent in the responses of deaf and neurodivergent participants.**

|  |  |
| --- | --- |
| Percent of Mobility | 16% |
| Percent of Visual | 14% |
| Percent of Deaf / HOH | 20% |
| Percent of Neurodivergent | 33% |
| Percent of Mental Health | 13% |
| Percent of Chronic Illness | 7% |
| Percent of Carer | 29% |
| Total Mentions | 17% |

Quieter streets bring several benefits for particular impairment groups. For those who are autistic or have other similar sensory and cognitive impairments, noise itself can be an access barrier to using the streets. Quieter roads mean less chance of experiencing uncomfortable sensory overload.

“I’m very sensitive to noise […] I wear noise-cancelling headphones. Now there are quieter roads, leading to more pleasant journeys.” *– Autistic participant, Greenwich.*

Less noise also benefits visually impaired residents, who rely on auditory signals more than others to determine when to cross the road, and being able to hear these more clearly contributes to them feeling safer in their neighbourhood:

“I cross a road by hearing for a pause in traffic sounds, so I always want to cross the road when it sounds as quiet as possible. When there's a busy period, or there's lots of traffic around, it could take 20 minutes until I feel safe, because I can't see that you can quickly look across before this car turns in - I can just hear cars. Then I don't want to cross because I don't necessarily know what's coming if there's just ambient high levels of traffic noise.” *– Visually impaired participant, Ealing.*

# Easier and more pleasant journeys

**14% of participants reported that their journeys had become easier or more pleasant.**

Related to a perceived decrease in traffic danger and traffic noise, several of our participants reported that their journeys had become easier or more pleasant - a change that is most welcome to a group which experiences daily barriers and inconveniences due to inaccessible environments:

“There are many things that can be quite overwhelming about being autistic. The LTN means there are less cars [sic], which is less overwhelming, so I’m feeling less stressed, which means I’m burnt out less. It's just one of a combination of things that can help and it's nice to not have.” – *Autistic participant, Lambeth.*

Participants told us that easier journeys mean disabled people find themselves with more confidence and freedom to go out, explore, and try out new routes.

“It makes journeys less daunting.” *Mobility participant, Southwark.*

“It's encouraged me to be more adventurous by going through areas I don't necessarily know. It's really helped me to become more confident about finding new routes, testing [out] new routes and times where they're not so busy anyway.” *Wheelchair user, Lambeth.*

“We're calling it Sunday cycling adventures, and it's just such, such fun, and it is really helped. It's really helped me to become more confident.” *Wheelchair user, Lambeth.*

# Benefits to physical health

**4 participants reported a positive impact on physical health and wellbeing.**

Several of our participants told us that, as a direct result of the LTN measures, they were making more Active Travel journeys in their local area - either by walking, wheeling, or cycling - and that this was benefitting their physical health.

“I am doing loads more exercise, going back to that. I'm getting my heart to exercise - that's the main thing that I do this for, is to get my heart to pump. That’s hard to achieve as a wheelchair user with limited mobility.” *Wheelchair user, Lambeth.*

“I have limited muscle, especially in my right thigh area, so I don't move very quickly, and I get out of breath. And I'm supposed to be doing some recovery exercise. [The LTN] was fantastic. I was out with my wife doing zigzags around the neighbourhood. Now that it’s been taken out, I’m doing much less activity.” *Mobility participant, Wandsworth*[[33]](#footnote-33).

# Benefits to mental health

**5 participants reported a positive impact on mental health.**

In a similar vein, participants who reported feeling able to make more journeys: exercising more, having more freedom and independence and finding navigating around their local areas easier and more pleasant, told us the impact all of this was having on their mental health.

“I always used to hop into my car and be in my bubble. I wasn't even realising how disconnected I was from my local community. Cycling has given me that - the fact that I can actually see and be seen by local people. For my mental health, it's actually really interesting as an additional thing that I didn't even realise I was missing.” Wheelchair user, Lambeth.

# **Negative impacts of LTNs for disabled residents**

# Increase in journey time for residents

**77% of participants reported an increase in their journey times (any mode).**

By their very nature, LTNs are designed to discourage car use. They make it inconvenient to use the car for short journeys by diverting cars away from through-routes and onto main roads, thereby increasing the journey time. While proponents of LTNs argue that the increase in journey time is insubstantial, our participants have reported quite considerable increases.

“For example, going to Tescos. I actually took note of how long it takes now for me to go to Tescos. To drive there it now takes me 22 minutes, while before it was under 10 minutes.” *- Chronically ill/mobility participant, Lambeth.*

“A simple four-minute journey, which I plan for because everything is painful for me now, takes me 20 minutes, one way.” *- Chronically ill/mobility participant, Lambeth.*

“Well, I did to go to the chemist at the end of last week, and where it normally would take me about five to seven minutes, it took me three quarters of an hour.” *- Chronically ill/mobility participant, Lewisham.*

Not only are these considerable increases in their own right, they are on top of the existing delays disabled people face in their day-to-day lives due to inaccessible transport. Disabled people are time- poor, and journeys already take so much longer:

“As a disabled person it takes you so long to get from A to B. You end up with what I call ‘transport-related anxiety’. Instead of it taking 35 minutes to get from A to B if I was a non- disabled person, it takes me an hour and 15 minutes because I've got to take a super slow bus instead of the Tube.” *Wheelchair user, Tower Hamlets*

Our research shows that disabled people feel disproportionally impacted by these increased journey times. While an additional 15 minutes to a journey time may be considered insignificant, this is on top of every other way that disabled people are inconvenienced and discriminated against.

“Why should it take me 20 minutes longer than everyone else because I can’t use a bike?”

*Chronically ill participant, Lambeth.*

One Deaf participant, who uses a relay service to make telephone calls, expressed concern that the emergency services wouldn’t get to her in time – as a result of delays caused by the relaying of information while making the call, compounded by the introduction of the LTN.

Increasing journey time also means having to include delays in plans, changing routines and creating stress for those who are already time-stretched:

“I have noticed, especially when we're trying to get to medical appointments, we're having to allow longer times. I've just sent off a client of mine to an appointment, and she's left an hour early for what should be a 20-minute car journey, because we know it will take longer. So [instead of] having to get to an appointment at 10am, which would have been absolutely doable before, you're now having to leave at 9, which means you then need to get the client out much earlier. When you're caring for kind of every element of that client's needs, that takes a long time and a lot of care - especially with clients with epilepsy and a proneness to stress or anxiety. You've got to be really careful that you're not triggering these things by making allowances for longer journey times and rushing them out. But communicating that to clients that have profound and multiple learning difficulties often pulls them out of the routine that they're relying on, so that's quite a big difficulty for us.” *- Carer for a learning disabled adult, Camden.*

Regardless of the exact percentage increase in journey time, longer journey times also bring additional, secondary impacts for disabled people in the following ways:

**Longer journeys are more exhausting**, and for many disabled people with conditions that cause fatigue, it also means having less energy to do what you need to do when you arrive.

“Everything has taken me considerably longer to do, and obviously is leaving me more tired at the end of it. Even my journey to and from work takes longer and leaves me more zonked by the end of the week. It accumulates at the end of the week, and I just sort of collapse on the tenth week. The more tired I am, the more likely I am to have episodes of hemiplegic migraine. It’s just basically pure fatigue and my brain just shuts down.” *- Chronically ill participant, Islington.*

Many of our participants told us that due to the length of their journeys now being too energy-draining to attempt, this had in itself become an insurmountable barrier to leaving the house at all, leading to them feeling ‘trapped’ indoors.

**More time spent in the car can exacerbate or trigger some impairments.**

**20% of participants reported that the LTN has had a negative impact on their physical health, or that their impairment has been worsened.**

Our participants reported a range of physical or psychological issues that were bought on by longer car journeys:

“I have spinal stenosis and spondylolisthesis, I have [asthma, I have] osteoarthritis and I have a not very good hip replacement. So I find sitting for a long time in one position really causes me a lot of back pain - it causes me a lot of stiffness in my joints and muscles.” *Chronically ill and mobility participant, Hackney.*

“I suffer from Crohn’s disease, which means sometimes I need to get to a bathroom very, very quickly. I was in absolute agony and distress, [for] some 45 minutes, unable to get to a bathroom or get home, because they’ve closed the road.” - *Chronically ill participant, Tower Hamlets.*

“Now the bus doesn't get us there in time and he gets very distressed. He gets distressed and agitated at the bus stop, and distressed on the bus. I think due to his autism, he can't really be flexible […] He realises the buses are half an hour late and he finds that difficult to cope with. He will start shouting and screaming.” - *Parent of an autistic child, Lewisham.*

“Because the traffic was so bad, I got very, very anxious, so I just gave up and came home. Now it's very, very difficult to get through, because not only is the traffic incredibly bad now - so therefore it takes longer - if you have anxiety, by the time you get there you’re shaking.”

*- Mental health participant, Hounslow.*

**More money is spent on petrol or in taxi fares**

**26% of participants raised concerns over an increase in money spent on petrol or taxis.**

A rise in journey times also come with an associated increase in petrol or taxi fares. With disabled people being more likely to be unemployed or on a lower income (ONS, 2020), and with the many additional costs associated with being disabled (Scope, 2019), this extra expense is an issue.

“It costs an additional seven pounds being stuck on the boundary road to the LTN in my area.” “It’s difficult and the extra petrol… I mean, how am I expected to afford the extra petrol for

another 15 minutes on every single drive?”

“Well, I have to think carefully. I’m on Universal Credit and I have to think carefully about how

I’m going to get somewhere, because if it involves a long journey using more petrol, then I

probably won’t go.”

**It creates issues for taxis.**

**15% of participants raised concerns about the impact of LTNs on their ability to use taxis.**

Proponents of LTNs argue that “access will be maintained” and therefore taxis will be able to access a property. However, the detour involved, and consequential longer journey times to get there, sometimes means that taxi drivers ask disabled people to meet them at the other end of the street, or simply refuse to pick up altogether.

This is a real fear for those who rely on a door-to-door service - particularly blind and visually impaired passengers who may struggle to locate a taxi parked further away - and also for people with limited mobility who cannot walk short distances.

“It made it really difficult for me to get places, because I was using taxis to get around. And obviously, because it took [the driver] so much longer, sometimes it ended up that [the driver] wouldn’t want to wait in traffic to get to me*.” – Visually impaired participant, Redbridge.*

“How am I going to walk the length of that road? I’m blind and I need assistance. The taxi driver is going to swing up at the top of the road, park, wait for two seconds while you pay them, and then they’re off. And you’re left at the beginning of a road, but you don’t know where they’ve pulled in. And you don’t know where exactly at that point you are.” *– Visually impaired participant, Brent.*

Participants also raised their concerns about a similar effect on other door-to-door services like Dial-A- Ride and TaxiCard.

# Effect of increased journey time on visitors providing support or care

**27% of participants reported concerns about an increased journey time for visitors.**

An increase in journey time not only affects the disabled residents of the LTNs, but also any visitors who travel to that person. Participants told us that that this is having an impact on the care and support that disabled residents are receiving. Carers, personal assistants (PAs), district nurses and support workers who need to travel from client to client are delayed, meaning each appointment is late and some are missed altogether.

“I lose more than an hour [of care] a week because my PA can’t get to me.” *Mobility participant, Islington.*

“My physio was delayed twice, by over two hours, since the introduction of the LTN. And just trying to get around from you know visit to visit, she said there were two or three people that she wouldn’t manage to make that day. Because by the time she got to me, she was two hours late.” *– Mobility participant, Lambeth.*

“When I first came out of hospital, I had carers and district nurses having to take care of me and change my dressing, and they couldn’t get to me on time. They were meant to come to me at 8:30 so they could get me breakfast, because initially I couldn’t do that for myself [..] I had different nurses changing my dressing for my tracheotomy and they couldn’t get to me. I’ve got about 27 tablets that I have to have a day and a lot of them are in the morning after food. They contain morphine tablets and nerve-ending painkillers, so a lot of them have to be taken with food and I have to take them in an order. Not once in the six weeks did any of my carers get to me in time, and that was mainly because of them being caught [in traffic]. … On not one occasion did I get my morning medication on time.” *- Wheelchair user, Lambeth.*

Carers themselves are worried about the effect longer journey times will have on them, when they are already under so much pressure.

“It’s the juggling that gets you.” - *Carer for elderly mother with Alzheimer’s, Lewisham.*

According to research[[34]](#footnote-34) by CarersUK published in October 2020, 81% of carers are providing more care since the coronavirus pandemic. Due to the disproportionate impact of COVID-19 on disabled people, many people who require care have seen their needs increased, while many local services have been reduced or closed entirely. Longer journey times on top of this has left carers feeling stretched.

“From the point of view of my clients, we will bend over backwards to facilitate those learning needs. But as I said, it does ultimately impact both the clients and the carers that care for them.” - *Carer for learning disabled adults, Camden.*

# Journey is more complicated/ difficult

**46% of participants reported that their journeys had become more difficult for them**

In addition to a journey taking more time, participants reported that their local journeys had become too difficult and confusing, with many disorientating changes and diversions. When a journey is too difficult and overwhelming, it becomes an unsurmountable barrier to leaving the house, meaning people sometimes feel trapped and isolated. Those with lack of energy, or with sensory, processing, or cognitive impairments, are particularly affected by this. Participants discussed an increase in feeling stressed related to travel or traffic, “traffic stress”, telling us it is “overwhelming - I get easily burnt out”.

It’s important to note here that change itself can be an access barrier. Disabled people are masterful at adapting and proficient at navigating barriers - they often have built up ‘mental maps’ of the most accessible routes for them. Sudden and drastic changes to these routes make these mental maps redundant and can be very disorientating.

“I rely on the familiarity of routes. When things change I feel lost, disorientated, overwhelmed and confused.” - *Autistic participant, Lambeth.*

“That's why I think I can say that I feel more anxious than ever at the moment, because there's all these different pressures at a time when you just want things to be a little easier, rather than a lot more difficult. I'm sure to someone else that sounds very personalised, but I think it's absolutely about disability, because we know what it's like to have to try and plan journeys and what to do.” *- Mental health participant, Islington.*

“In terms of planning, yeah, I mean, I feel lost - absolutely lost in this area” *- Neurodivergent participant, Lewisham.*

# Increase in traffic danger

**33% of participants reported an increase in traffic danger - for example, feeling unsafe crossing roads.**

Contrary to the aims of the LTNs, 33% of our participants reported an increase in traffic danger, and that they felt less safe as a pedestrian or a cyclist. However, this is perhaps not a direct result of the scheme itself, but rather the reactions of drivers to the initiative. Participants reported instances of drivers ignoring the signs and driving through the barriers, or of an increase in ‘road rage’ and dangerous driving. There were also several reports of dangerous cycling.

“A [bollard] had been vandalised and removed from the middle of the blocking. This meant that a car sped through it at speed, like, whipped around a corner and drove through it. They are then often taking a really sharp turn around the corner, because they’re having to squeeze through the gap. This means they’re taking them at more speed and more suddenly, often, because they're like, ‘well, if I quickly zip through now, no one will see’. That is putting me at more risk.” - *Visually impaired participant, Ealing.*

“The driving quality has just gone through the floor because everyone's absolutely furious.”

*- Wheelchair user, Camden.*

# Negative impact on mental health and negative emotions

**17% of participants reported that the LTN has had a negative impact on their mental health.**

Many of our participants reported that the LTN, and the associated impacts that it had had on them, had left them feeling isolated, lonely, and scared.

“It’s really affected my mental health, because I don't have the freedom that I used to have. I just feel like I'm stuck in the house, and it's just, ‘God, what? Why can't [I] go to my local shop?’ I feel like I'm being caged in like a canary. It's nice to get away from the four walls that you're stuck in, but we don't do that anymore - for the last six to eight weeks.” - Mental health and mobility participant, Islington

“I'm actually more anxious that I don't know this area anymore. I don't know the area I live in, and that is a direct impact of so many changed roads.” *Neurodivergent participant, Lewisham*

“I have Post Traumatic Stress Disorder, which means I don't like being stuck or trapped. It upsets me dreadfully.” *– Wheelchair user, Hackney*

Many participants also told us about the impact the LTN was having on their independence, with 19% of participants reporting that the LTN had caused this to decrease.

# Many disabled people have no other options: “It’s a complicated maze of measures.”

**42% of participants raised issues with streetspace. (eg: lack of dropped curbs, uneven pavements, poor cycle lanes, pot holes, street clutter, e-bikes)**

**53% of participants raised issues with of public transport (eg: buses, trains, Tube)**

**45% of participants discussed barriers disabled people face to Active Travel/cycling (for example: high cost of adapted bikes, education, cultural attitudes, impairment-based.)**

A common theme of our research is disabled people feeling a great sense of injustice and unfairness at LTN measures, because there is such a distinct lack of alternative options for transport.

In some of the areas where LTNs have been introduced, participants have told us that the streets are very unfriendly. They say uneven pavements, trees and tree roots, lack of dropped kerbs, street clutter and dockless bikes all contribute to it being very difficult and exhausting to get around by foot, wheelchair, or cycle.

The public transport system is also inaccessible; in London, just 80 out of the 270 Underground Tube stations have some level of ‘step-free’ access. However, only around half of these can be accessed independently, with the other half requiring the use of ‘manual boarding ramps’, which often don’t appear. Buses continue to prove challenging, with recent reports of broken ramps or wheelchair users being refused boarding when the priority bay is taken. Service refusals to visually impaired customers with guide dogs are also a big problem when accessing taxis and private hire vehicles.

“So how do I get to St Pancras? I can’t take the Tube as none of the Tube stations in Camden are accessible. Buses aren’t great for us who are ‘vulnerable’ at the moment, particularly as they’ve only got one space for wheelchairs. People are currently standing in these to be at a safe distance, so are less prepared to move, meaning driving was my only real option. That has been taken away from me, because of the difficulty of extra time.” *– Wheelchair user, Camden.*

“I had to go up to Guy’s Hospital, in order to have treatment and physiotherapy. The only way I could get there was to drive to Blackheath station, because my local station here, [Hither] Green, did not have disabled access. My local bus stop is further away than I could walk, and then I would have the problem of folding my rollator up on the bus.” *Mobility participant, Lewisham.*

The LTNs have proliferated at a time when many disabled people are not using public transport due to the COVID-19 pandemic – many are shielding and cannot risk close contact with other passengers.

**19% of our participants expressed feeling hesitant to use public transport due to COVID-19.**

“I can't particularly catch a bus at the moment. I'm in a high category for risk, so I wouldn't go

near public transport.” *- Chronically ill participant, Hounslow.*

Another issue is that for many disabled people who have battled through the arduous process of applying for and getting a Blue Badge - or perhaps getting set up with a Motability vehicle - it feels like all of that effort has been wasted.

“Finally getting a Blue Badge was a huge amount of freedom for me – and now suddenly it’s

been taken away.” *- Chronically ill participant, Lambeth.*

“Getting my Blue Badge was like the biggest revelation of independence I'd ever felt for so long. My husband had to drive me everywhere prior. Getting my Blue Badge just opened up my world. I was so excited, and I just feel it's all been taken away again. It means that taken away my friendship circle, my independence and my social life.” *– Chronically ill participant, Hounslow.*

For many disabled people, walking or cycling is unavailable to them. Their local Tube station is inaccessible and buses and taxis are marred with issues, meaning driving feels like the only option. As one Islington resident put it, “it’s a complicated maze of measures”.

# Chapter 5: Findings: Engagement, Consultation, and EQIAs

# Lack of engagement and communication

**72% of participants reported frustration at the way in which the changes have been communicated. For example: the lack of information provided, the quality or accessibility of information, and not receiving a prior warning to an LTN being installed.**

A key factor in determining the success of a scheme, and how well it is received by local disabled residents is the level of engagement and communication done by the council. Our research has shown this has varied dramatically. Some boroughs had robust channels of communication with their residents and lots of engagement, while in other areas, residents reported received no prior warning.

A handful of LTN schemes were designed and implemented (or partially implemented) before the start of the COVID-19 pandemic and the changes to the requirements regarding consultation. In these instances, there was a lengthy period of consultation with local residents. Plans were thoughtfully drawn up and carefully executed.

In the areas that installed LTNs after the amendments to road traffic regulations, and thus did not consult with local residents, there is a greater feeling of discontent.

Many participants told us that they were not notified ahead of the LTN being put in, and that they first discovered the changes when they tried to drive their usual route home and found they couldn’t:

“It was just the shock of suddenly, ‘Oh, there's loads of roads closed? Is there work being done or something? I don't know what's going on’, so I think that's the context. That's a really important point for me: is that everybody is complaining that there's not been enough information - but for me, it was like I had none.” *Participant from Lewisham.*

As we have covered in our previous section, change itself poses a barrier to many disabled people - having to adapt journeys or plans can be very disorientating and exhausting. With such dramatic and sudden changes being implemented, the lack of prior notice and communication has left a lot of disabled residents feeling angry.

Another issue is the lack of accessibility in the communications provided. Where leaflets have been

posted through doors, these haven’t been in an accessible format:

“I think we got a letter through - not in a format that I could access, of course - and actually, my partner said it looked like a PDF scanned image that had been dropped into a Word document. It was actually really blurry and difficult for even him to see. It’s annoying, because I would actually rather like to choose to walk on LTN-only streets, but without an accessible map of that, it’s hard.” *– Visually impaired participant, Ealing.*

LTNs are a fairly new concept, with a lot of the language involved being quite jargonistic. Many of the communications have been difficult to understand, particularly for those with cognitive impairments and Deaf BSL users for whom written English is not their first language:

“How I found out was I went past a shop and I saw a sign. I thought, ‘what is that?’ I didn't really understand the sign. I couldn't understand what it meant, so I looked at the council’s website. There’s lots of jargon in there. For example, the word traffic filter – what does that mean? I’ve never come across that before, so I asked the neighbour to explain. They basically said, ‘yeah, it was new jargon’, and they didn’t fully understand it either. So it’s really confusing, the information that they provided. I really think that it’s just not suitable for Deaf people, the way that it’s been presented. Then it’s not accessible for you to be able to respond to it or give feedback. I mean, for me, it needs to be interpreted into sign language, because when you read the information, you can then see it translated by an interpreter and fully digest it. Also, this happened so quickly as well, and trying to find out what’s going on and pick up the information – that’s really difficult too” *– Deaf participant, Ealing.*

# Lack of consultation – leading to poor implementation

As these schemes are being implemented using an Experimental Traffic Order, there is no legal imperative for councils to conduct a full consultation.

Instead, the changes have been made, and councils have instated a period of monitoring - collecting feedback from residents in a variety of methods. Much of this is done online, with many councils accepting feedback submitted via the ‘Commonplace’ website.

We have found some aspects of Commonplace website to be inaccessible to screen-reader users, and during a partial review, noted the following issues:

* The labels and images do not include descriptions, so screen-readers will not decipher meaning.
* Users are asked to drop a pin on a map, but this is not described, so users do not know where on the map their cursor is.
* The layout of pages, and information on the pages, means it is difficult to navigate around.

This has not only left disabled residents feeling angry and ignored (as we have discussed in the previous chapter) but in some instances, has also had the effect of the LTN being implemented with poor standards of accessibility.

There have been several occasions where the planters, used in an LTN to block roads, have been placed in such a way that would cause obstruction to wheelchair users and visually impaired people:

“They are blocking dropped kerbs in several places, or the quality of dropped kerb is so poor -

or so inadequate - that the positioning of the planter will block it, regardless of its position in the road.”

Other issues include a lack of tactile signage to indicate changes to the flow of pedestrians, bollards and planters being placed too close together and thus meaning non-standard cycles and wheelchairs cannot pass through, and the new signs and street objects (planters, modal filters, bollards) being confusing and disorientating to those with cognitive impairments.

# Equality and Impact Assessments (EQIAs)

Although not compulsory under the Equality Act 2010, an Equality Impact Assessment can demonstrate that a public body has considered the effect a policy or decision may have on certain groups – such as disabled people. It can also help to prove that an organisation has due regard to the need to: eliminate unlawful discrimination; harassment and discrimination; promote equal opportunities between those who have a ‘protected characteristic’ (such as disability) and those who do not; and build good relations between these two groups. These considerations are required under Section 149 of the Equality Act, known as the Public Sector Equality Duty.

We have analysed a range of Equality and Impact Assessments (EQIAs) undertaken by local authorities concerning the LTN changes being made. We believe that many EQIAs are failing to properly identify the impacts that LTNs are having on disabled residents, or make suggestions for how best to mitigate these.

Several have demonstrated a lack of necessary expertise and knowledge in accessibility and barriers facing disabled people. One borough’s EQIA stated: “As part of these proposals, an Equalities Impact Assessment was carried out and showed no group would be adversely impacted based on the potential outcome of this consultation”, which is contrary to our own research and interviews with disabled residents in that area.

Another borough’s EQIA acknowledged the negative impact the LTN will have on disabled residents:

*“Although access to all addresses is maintained as part of the scheme, disabled residents or visitors may rely on private cars, private vehicles for hire, or taxis more for their local trips and so may be inconvenienced by longer journeys. Longer journeys may also involve higher costs.”*

However, they then go on to point to the existing London Taxicard Scheme as a means to offset these costs:

*“This will offset some of the increase in costs resulting from slightly longer routes as a result of*

*the scheme.”*

This is insufficient, as the London Taxicard scheme is an existing initiative to offset the existing barriers and additional costs that disabled people face. By bringing in additional impacts, additional mitigation measures become necessary.

There are also a multitude of issues with the Taxicard service, which has come up several times in our interviews, which we will be investigating further in a separate piece.

Many boroughs struggle to determine how many disabled people live in any particular area, due to inadequate demographic metrics. One borough’s EQIA defines disability as “people who are receiving Attendance Allowance, Personal Independence Payment and Disability Living Allowance from the

Department for Work and Pensions”, which is far too narrow. This means there is a discrepancy between how many people are presumed to be impacted, and how many disabled people are actually experiencing impacts.

We have also seen a lack of understanding of the range of ways in which disabled people are affected. Many boroughs point to the fact that many disabled people don’t drive or own a car, presuming they will not be impacted by road closures. Yet, as our research has demonstrated, disabled people are impacted whether they have a car or not:

We believe the issue of inadequate EQIAs is due in part to the lack of meaningful engagement and consultation with disabled people.

# Chapter 6: Recommendations

# Solutions

It is clear from our findings that, although some disabled people are experiencing benefits as a result of LTNs, many disabled people are being disproportionally and negatively impacted, compounded by the many existing barriers that disabled people face in many aspects of their lives. In addition, disabled people are often prevented from accessing the Active Travel measures that LTNs are meant to encourage, meaning they have no option but to drive and are then penalised for doing so.

LTNs, in their current format, are too much ‘stick’ and not enough ‘carrot’: they bring negative impacts for those who continue to use cars, and too few incentives or changes that increase disabled people’s opportunities to access Active Travel. The lack of consultation and meaningful engagement with disabled residents has created a toxic and divided atmosphere where disabled people feel ignored and demonised.

However, some disabled people do benefit greatly from these schemes, and the aims of reducing pollution, reducing traffic, and reducing road danger are important to disabled people. We don’t believe ripping them out and returning to normal is the way forward. Indeed, the ‘normal’ we had before was not accessible enough either. Instead, what we need is a series of short-term measures to address and mitigate the negative impacts arising from LTNs. This needs to happen alongside some wide-reaching long-term solutions - to address the many barriers that disabled people face to Active Travel and to encourage take up of walking, wheeling and cycling, and to create an accessible public transport system as a viable alternative to car-use.

Local authorities and transport bodies alike must demonstrate that co-production with disabled people is at the heart of all consultations and policy-making.

**Suggestions for steps to mitigate impact:**

* **Meaningful engagement with disabled people** in the community, including consultation with disabled residents. Meaningful outreach must be done to find these people to speak to and consult. For schemes that have been implemented with no consultation and no EQIA, a retrospective equalities analysis should be undertaken by a professional with expertise in disabled access, and co-produced with disabled residents where possible. The EQIA should be specific to the scheme, and detailed and thorough enough to identify the problematic areas and put forward solutions to mitigate impact.
* **Accessible communication:** Local Authorities and Transport for London need to communicate the LTN changes to local residents clearly and thoroughly. Information about the schemes must be jargon-free and easy to understand, and must acknowledge and address disabled residents’ concerns. All communications must be available in a range of accessible formats, and steps should be taken to reach those who do not have internet access. When councils are seeking feedback online, they must use tools that are screen-reader friendly and accessible, and must endeavour to collect feedback in different ways to accommodate disabled people where appropriate.
* **Accessible implementation:** we recommend that a full audit is undertaken for each scheme to ensure compliance with accessibility standards, including preventing planters from blocking dropped kerbs, ensuring planters/bollards are placed far enough apart to allow wheelchairs through, sufficient tactile signage, etc.
* **Softer approach:** In some areas, it may be appropriate to trial timed closures, or alternatively a gradual phase in of restrictions (rather than all at once). This could only be done so long as these changes are communicated extremely efficiently to ensure residents are confident about what changes are happening and when.
* **Dispensation for disabled people:** We suggest that ANPR cameras are used to filter traffic, allowing access for specific vehicles. It is important to note that not all disabled people who require accommodations have a Blue Badge. Of our participants, only 51% hold a Blue Badge. For that reason, we recommend Local Authorities implement a scheme that grants dispensation for disabled people requiring accommodation to access their home by any vehicle they choose, including taxis. This should be independently arbitrated by an organisation or individual with expertise in access and trained in Disability Equality.

**Suggestions for measures to enable Active Travel and reduce barriers to public transport:**

Our vision is for disabled people to be able to travel freely and with independence door to door, with the same options for modal or active travel as non-disabled people. To achieve this we want to see sustainable, seismic improvements to the design and delivery of all transport and urban infrastructure and systems. In an ideal world, more disabled people would not rely on a car as there would be other accessible modes available. This will not happen quickly but we urge our transport planners and policy makers to take steps now, and to implement our solutions to increase access and reduce impact for disabled people.

**Infrastructure:**

* Accessibility upgrades to pavements, cycle lanes and roads - as part of any and all streetspace initiatives - as a matter of urgency, and as a priority for all streets. These include: dropped kerbs, flattened and tarmacked pavements, tactile signage.
* Investment in wider accessibility upgrades to the public realm, so that public transport is an  
  accessible and viable alternative to car-use. These include: a commitment to level boarding for all trains, improvements to signage across all networks, two wheelchair accessible spaces on buses.

**Policy:** A commitment to expediating national policies that prioritise accessibility to streetspace. For example:

* A nation-wide ban on pavement parking.
* Strict regulation of A boards, dockless bikes and e-scooters.
* An accessibility standard for cycle lanes that would exclude the use of obstructions such as bollards.
* A commitment that concessionary travel for disabled people will never be rescinded.

**Engagement and Representation:**

* We want to see a culture shift in how disabled people are consulted by the transport sector; we want a professional, paid, co-production model with disabled people’s needs and rights being a driver for change.
* A commitment to high-profile campaigns including representations of disabled cyclists/pedestrians in communications and media.

**Investment:** We want to see a shift in the options available to disabled people through strategic investment in reducing the cost of active travel options to include:

* Subsidised adapted cycles (handcycles, tandems, recumbent, e-bikes, cargo bikes, etc.)
* Widely available and affordable hire scheme/ loan schemes for adapted cycles.
* Subsidised good quality wheelchairs.
* Repurposing the Motability scheme so that it can offer disabled people the option of leasing an adapted cycles or good quality ‘sports’ wheelchair in lieu of a car or mobility scooter.

**Innovation:** We would like to see innovation in active travel options for disabled people as a priority for investment including support for organisations researching accessible micromobility options. We would welcome the improvement of services such as TaxiCard and Dial-A-Ride and investment in solutions that are up to date and respond more closely to the changing needs in passenger usage.

Transport for All is an organisation that pushes for this ideal world where disabled people can travel freely, and we work willingly and collaboratively with bodies and companies in the transport sector to achieve this. Here is how we work:

**Embedded Access – Our Behavioural Change Model**

At Transport for All our model of co-design and co-production puts disabled people at the heart of our work; all our work is by, with and for disabled people who face daily barriers to accessing transport. As a membership organisation with a history of grassroots activism we speak not on behalf of, but as the people affected by the issues we challenge. We've secured paid work for disabled consultants with a growing list of transport providers modelling our process of co-designing/producing which has an immediate impact on policy decisions and service delivery. Lived experience presented in a professional and relatable way is a turning point for those who hold power, and this is what we do.

* We ask councils and transport operators to engineer a behaviour change in their work by actively acknowledging that a lack of representation in staff teams affects their output, and that they take steps to address this.
* We ask that those who make decisions on behalf of residents are trained in the Social Model of Disability and use this a framework for service and infrastructure design and delivery.
* We ask that Equality and Impact Assessments are co-produced with the people who they refer to and viewed as an opportunity for creative development, honest appraisal of impact and a way of holding service providers to account on their promises.

# Suggestions for further research

**The impact of wider environmental initiatives on disabled people:** following on from this ground-breaking research, we would like to see further studies done into the impacts of wider environmental initiatives on disabled people, including other streetspace schemes, cycling initiatives, and green transport policies.

**Traffic and pollution:** We recommend that empirical research is done into the effect of LTNs on traffic levels and pollution levels: both the immediate effects and long- term evaluation to build a clearer understanding over time. We suggest that Transport For London is best placed to do this, as they will be able to compare trends across the whole of London including boroughs where no such schemes have been implemented.

**The state of accessible transport in the UK:** We want to see a large-scale study undertaken to build up a national picture of the options, opportunities, solutions, and innovations in the accessible transport world, across both the public and private sectors.

**Intersections:** We have identified a need for further research to be done to understand any disproportionate impact the Low Traffic Neighbourhoods, and other environmental initiatives, may be having on disabled people whose identity intersects with another form of marginalisation, particularly race, socio-economic status, and cultural background.

**Issues with Blue Badges:** Given that just over half of our participants did not have a Blue Badge at the time that we interviewed them, there is a need for research to be done to ascertain why so many disabled people are without, and which elements of the eligibility criteria, application process, and assessment need improving. We recommend this research be carried out across multiple local authorities.

**Issues with door-to-door services**: Many of our participants bought up issues with door-to-door services such as Dial-A-Ride and the London Taxicard scheme. With these services being pointed to as alternatives to car usage, it is important that research is done to identify the issues and devise solutions.

# Acknowledgements

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Our research was supported by a fantastic Advisory Group of academics, experts, and professionals from across the worlds of transport, policy, the charity sector and the environmental movement. These individuals provided their invaluable guidance, advice, and insight, and very kindly evaluated our draft and provided feedback.

This report features the wonderful illustrations by the disabled artist Dandy Doodles. You can see their work on Instagram @dandydoodlez

We would also like to thank the Transport for All board and staff team for their support and hard work on this report. With particular thanks to Katie Pennick who has been the driving force for this report.

# Spotlight pieces

# **The ambition of LTNs – Living Streets**

Who are our streets for?  The pandemic response meant that our towns and cities, designed around cars, saw a huge reallocation of road space to walkers and cyclists. This, the need to get to Net Zero carbon emissions, and new government funding for Low Traffic Neighbourhoods (LTNs) is causing a fundamental rethink in transport and city design.   
   
In 1970, there were 13 million vehicles on Britain’s roads. Last year, that number had nearly trebled to 38 million vehicles, which drove around 329 billion miles. Streets were once playgrounds, but our research shows that [60% of 4-11 year-olds never play out on their local streets](https://www.livingstreets.org.uk/news-and-blog/press-media/rising-traffic-driving-children-off-local-streets). At Living Streets, parents have told us they want safer crossings and slower cars in order to feel safe walking.

LTNs use cameras and physical barriers to stop rat-running through residential areas. LTNs are slowing traffic and creating space to gather and play. Some have caused controversy and sparked online culture wars.

So what are the facts?

1. The public support them. Recent research revealed that for every person opposed to changes to their local streets, [6.5 people are in support.](https://www.bikeisbest.com/press-release-yougov-study-shows-public-support-cycling-investment)
2. LTNs reduce congestion, with some people making fewer particular trips, combining multiple trips into one, travelling at a quieter time or switching to walking or cycling. The increased congestion that is sometimes seen is temporary and usually disappears as people switch to alternative modes of travel.
3. LTNs are good for business.[Living Streets’ Pedestrian Pound](https://www.livingstreets.org.uk/media/3890/pedestrian-pound-2018.pdf) report found that shoppers on foot can spend up to six times more than those who arrive by car.

For more about Living Streets and Low Traffic Neighbourhoods, read ‘[The urgent case for more walking and cycling’.](https://www.livingstreets.org.uk/media/5886/the-urgent-case-for-more-walking-and-cycling-waca-report.pdf)

# **Streetspace access issues for blind and visually impaired people – RNIB**

Walking is the main mode of travel for blind and partially sighted people, who will have fewer transport options available to them than others. In our recent survey, nearly 90% of blind and partially sighted respondents said that it is important or very important to them to be able to make walking journeys independently, without a sighted guide.

They also tell us that cluttered pavements and 'shared use’ street designs where pedestrians share space with vehicles (like bus stop bypasses) can be a particular challenge. Areas with level surfaces but no kerbs separating vehicles from pedestrians are difficult, too, alongside those with few accessible pedestrian crossings.

Quiet or silent vehicles like cycles, electric cars, and e-scooters can be particularly difficult to detect, therefore bicycles and micromobility vehicles like e-scooters should be kept off pavements and rules enforced. Adding sound will mean they are more detectable, especially when crossing the road.

If walking becomes impossible because the streets are inaccessible, there is a significant risk that blind and partially sighted people will ‘self-exclude’ from areas they can no longer access, shutting off parts their community to them. This would be an unacceptable loss of independence and exclusion.

# **Streetspace access issues for autistic people – Ambitious About Autism**

Streetspaces are often created without hidden needs in mind. While there might be physical barriers to stop someone stepping into busy roads and clear rules about road crossings, there is less clarity about how space is shared.

For autistic people who may struggle with or have differences in communication, sensory processing and information processes, there is a need for clarity, honesty and concision. Rules should be clear and adhered to by all, spaces shouldn’t be cluttered and signage should direct someone using visual means. Autistic people are often not autistic alone, but have other conditions that co-occur, like dyslexia, dyspraxia, learning disability, epilepsy and a range of mental health or physical health conditions.

For an autistic person who is hypersensitive to noise, a busy auditory environment with a combination of busy roads, road crossings, high streets and streets used by multiple road users can lead to sensory overwhelm.

Sensory overload can mean a meltdown or shutdown which leaves the person vulnerable, and needing to be supported to somewhere safe to recover from the overload or overwhelm. Moving vehicles, other pedestrians and road users, advertisements, buildings, street structures, paving choices and everything else that creates the street space can become overwhelming and ultimately exclude people from using public spaces.

A lot has changed in 2020 and at quite a fast pace, but that doesn’t mean that someone’s processing speed changes. Often, we see information not in plain English or an easy read format, which means people are excluded from finding out vital information. Having information in a form you can understand is imperative for everyone, but this has not been the case for autistic people. Changes to street layouts can disrupt familiar routes and now make what used to be safe, unsafe.

# **The impact of COVID-19 on disabled people – Inclusion London**

COVID-19 has brought to the fore existing issues that Deaf and Disabled people have been facing in society for several years. Our research highlights how society has consistently not valued or prioritised the needs of Deaf and Disabled people.

Inclusion London’s first report – Abandoned, Forgotten and Ignored – used data from 300 survey responses and discussed issues Deaf and Disabled people faced at the beginning of the pandemic. They struggled to access food and medicine, experienced increased levels of mental distress, found government information inaccessible and guidance confusing, had their social care reduced or cut and felt their lives were not valued as healthcare resources were rationed and Do Not Resuscitate (DNR) notices applied. The findings remain relevant as ongoing issues throughout the pandemic.

Our ‘Lockdown Lifting’ survey, which received over 500 responses from Deaf and Disabled people across the country between July and October 2020, has further revealed the impact that COVID-19 is having on their lives.

Additionally, Deaf and Disabled people have had issues with access to healthcare, with treatments delayed or cancelled. This has caused devastating and, in some cases, irreversible damage to their health. They have experienced discrimination in employment, with employers refusing to furlough them or provide reasonable adjustments for homeworking. They have been experiencing financial difficulties due to the high cost of online deliveries. They are being failed with the provision of social care, through cuts and increased charging by local authorities, as well as experiencing issues employing care staff through Direct Payments. They are struggling to navigate streetspace, due to social distancing measures such as reduced pavements for more cycling lanes. They are experiencing extreme isolation and loneliness, especially those that have been shielding since March. These issues were not inevitable and could have been mitigated.

# **The benefits of Active Travel for disabled people – Wheels for Wellbeing**

Wheels for Wellbeing supports measures to make it easier to walk and cycle in London, so long as these are implemented accessibly for all.  This is because Disabled people need easier, safer, cheaper ways to move, especially given the threats to our lives represented by COVID-19. The Chief Medical Officer recommends we all do a minimum of [30 minutes of physical activity](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/829889/4-physical-activity-for-disabled-adults.pdf) for our long term physical and mental health, but Disabled people find that opportunities to do this are limited.

Cycling can get us active. It can also provide a mode of transport and/or a leisure activity. Like swimming, it’s non-weight bearing. It’s easier than walking and therefore very accessible. It can be done on two or three wheels, in tandem and/or with battery assistance. Wheelchair users can turn their wheelchairs into handcycles by adding an attachment to the front of it, or hop on the front of a wheelchair tandem to experience the exhilarating power of the wind in their hair.

[In London](http://content.tfl.gov.uk/travel-in-london-understanding-our-diverse-communities-2019.pdf), 17% of Disabled people already sometimes use a cycle (compared to 18% for non-Disabled people). Nationally, [33% of Disabled people](https://www.sustrans.org.uk/our-blog/news/2019/june/one-third-of-disabled-people-in-uk-cities-would-like-to-start-cycling/) who don’t cycle would like to. [Our own survey](https://wheelsforwellbeing.org.uk/wp-content/uploads/2020/07/WFWB-Annual-Survey-Report-2019-FINAL.pdf) highlights the top three barriers to more Disabled people cycling:

* The cost of specialist cycling equipment
* The inaccessibility of cycling infrastructure for wider/longer cycles and for cyclists who can’t dismount and walk their cycles
* The fact that Disabled people are not recognised nor represented as cyclists.

We believe that more accessible cycling infrastructure - good quality, protected mobility lanes; step-free cycle parking designed with non-standard cycles in mind, et cetera - will give many more Disabled people the option to travel actively for some or all of their journeys, thus improving our health and wellbeing

# **How longer journey times impact people with chronic illness – Pippa Stacey**

People with chronic and fluctuating illnesses often have to plan every single element of their life. When you have only a limited amount of useable energy, it becomes essential to be smart in how it’s used.

One of the most important condition management techniques for people with chronic illnesses is known as pacing, an approach reported by patients with fatigue-related chronic illnesses to have the greatest positive effect on symptom impact (Geraghty et al, 2019)1. In this context, pacing is the practice of breaking tasks down into component parts and spacing them out throughout the day, to avoid over-exertion at any given time. One of the key elements of this approach is resting before a person feels their energy levels drop, in order to prevent a painful exacerbation of their symptoms.

Having to plan and pace so carefully means that travel and transport can be particularly difficult for chronically ill people. Any deviations in a chronically ill person’s typical journey, such as a few extra minutes or even seconds of walking or standing, can disrupt their pacing routine and the ability to rest before they become fatigued. This, in turn, can debilitate them to a point where it takes days, weeks or months of increased suffering before they recover from this additional exertion. These things can even lead to a relapse of their condition.

An extended journey via car or public transport can be similarly painful. Even if a person is sitting down and outwardly appears to be comfortable, the noise stimuli of engines or other passengers plus the motion of moving can be equally as debilitating - despite this suffering often not being immediately visible to others. As such, an increase in journey time would disproportionately affect chronically ill people and their ability to safely manage their condition during day-to-day life.

# **The impact of isolation on older people**

London’s isolation crisis didn’t start with COVID-19 and there is, of course, no vaccination for isolation or loneliness. Research published before the pandemic showed that there were 198,000 older Londoners who can go for up to a month without seeing a friend.

Isolation is complicated and has been exacerbated by this crisis. A range of factors put some more at risk than others. For the 44% of Londoners over 75 who live alone,2 accessible transport can bring vital opportunities for social connection. However, more than one in ten people in this age group say they never use public transport and don’t have a car.

The pandemic has seen increasing numbers of older Londoners feeling trapped at home. Since the start of the crisis, Age UK teams have consistently identified isolation as one of the top challenges facing this group. Good transport should be a key tool in the battle against isolation, but the fear of infection has had a huge impact on confidence to travel. Older Londoners made up just 5% of the overall increase in TfL passenger numbers when measures were relaxed in the summer of 2020.

For many, shopping trips provide an opportunity to socialise, but increasing anxiety - often exacerbated by confusing public messages - saw people decrease their trips to the shops during the first wave. Connecting with others and taking part in activities online has been a lifeline for many during the pandemic, particularly for those shielding. However, whilst 2020 saw an acceleration in the digital skills of many, those isolated and without digital access were left facing exclusion from opportunities to socialise online and other forms of support.

1. For example, in Hackney and Waltham Forest (under a different name to LTN). [↑](#footnote-ref-1)
2. The amendments introduced will remain in force until 30 April 2021. [↑](#footnote-ref-2)
3. GOV.UK (2020): https://www.gov.uk/government/publications/making-traffic-regulation-orders-during- coronavirus-covid-19/traffic-regulation-orders-guidance-on-the-traffic-orders-procedure-coronavirus [↑](#footnote-ref-3)
4. With thanks to Rachel Aldred for this data: <http://rachelaldred.org/research/mapping-londons-new-ltns/> [↑](#footnote-ref-4)
5. Transport For London data (FOI included in Appendix) [↑](#footnote-ref-5)
6. Transport for London (unknown): <http://content.tfl.gov.uk/lsp-app-six-a-supplementary-guidance-ltns-v1.pdf> [↑](#footnote-ref-6)
7. Stop Horrendous Hackney Road Closures/Twitter (2020): <https://twitter.com/horrendoushack1/status/1309435643655839745?s=20> [↑](#footnote-ref-7)
8. TFL data shows that disabled people are less likely to travel by car as a driver, but only slightly less likely to travel by car as passenger (see Fig. 9) <http://content.tfl.gov.uk/technical-note-14-who-travels-by-car-in-london.pdf> [↑](#footnote-ref-8)
9. Ealing Green Party (2020): [https://www.ealinggreenparty.org.uk/2020/08/21/low-traffic- neighbourhoods/](https://www.ealinggreenparty.org.uk/2020/08/21/low-traffic-%20neighbourhoods/) [↑](#footnote-ref-9)
10. UN Environment Programme (2019): https://www.unenvironment.org/news-and-stories/story/how-climate- change-disproportionately-impacts-those-disabilities [↑](#footnote-ref-10)
11. Maxwell JA (2020). The Value of Qualitative Inquiry for Public Policy. Qualitative Inquiry [↑](#footnote-ref-11)
12. Full list of DDPOs contacted in the Appendix. [↑](#footnote-ref-12)
13. LTNs defined as area where there would have been substantial reduction of motor traffic new to new modal filters implemented between March-September 2020, and measures that remained in place end of October. Rachel Aldred’s research. [↑](#footnote-ref-13)
14. ONS (2019) Exploring the UK’s digital divide [↑](#footnote-ref-14)
15. Ibid. [↑](#footnote-ref-15)
16. A list of these groups attended included in the Appendix. [↑](#footnote-ref-16)
17. Walking and Cycling Alliance (2020): The urgent case for more walking and cycling in the UK [↑](#footnote-ref-17)
18. Wheels for Wellbeing (2020), Annual Survey of Disabled Cyclists: [https://wheelsforwellbeing.org.uk/wp- content/uploads/2020/07/WFWB-Annual-Survey-Report-2019-FINAL.pdf](https://wheelsforwellbeing.org.uk/wp-%20content/uploads/2020/07/WFWB-Annual-Survey-Report-2019-FINAL.pdf) [↑](#footnote-ref-18)
19. Wheels for Wellbeing (2019) A Guide To Inclusive Cycling: [https://wheelsforwellbeing.org.uk/wp- content/uploads/2019/12/FINAL-v3.pdf](https://wheelsforwellbeing.org.uk/wp-%20content/uploads/2019/12/FINAL-v3.pdf) [↑](#footnote-ref-19)
20. As evidenced by the prevalence of Crowdfunders set up by disabled people trying to pay for specialist equipment. “A fourfold increase in the number of disabled people forced to use a crowdfunding site to buy their wheelchair undermines a basic tenet of the NHS, campaigners say” The Guardian (2017): <https://www.theguardian.com/society/2017/jul/19/wheelchair-pay-yourself-disabled-people-crowdfunding> [↑](#footnote-ref-20)
21. Frances Ryan (2019) Crippled: Austerity and the Demonisation of Disabled People [↑](#footnote-ref-21)
22. ONS (2020) Labour market status of disabled people [↑](#footnote-ref-22)
23. Scope (2019) Disability Price Tag: <https://www.scope.org.uk/campaigns/extra-costs/disability-price-tag/> [↑](#footnote-ref-23)
24. Silva CF, Howe PD (2012): The (In)validity of Supercrip Representation of Paralympian Athletes. Journal of Sport and Social Issues. [↑](#footnote-ref-24)
25. “…trying to fit in the nondisabled world, "passing" -- at great cost.” Nadina LaSpina (1998). Disabled Women: The Forging of a Proud Identity. <http://www.disabilityculture.org/course/keynote.htm> [↑](#footnote-ref-25)
26. Further research collected online in this article. ([Source](https://londonlivingstreets.com/2019/07/11/evaporating-traffic-impact-of-low-traffic-neighbourhoods-on-main-roads/)) [↑](#footnote-ref-26)
27. Vauxhall Cross interchange – Lambeth ([Source](https://ec.europa.eu/environment/pubs/pdf/streets_people.pdf)) [↑](#footnote-ref-27)
28. Hackney ([Source](https://news.hackney.gov.uk/ltns-have-not-caused-a-rise-in-nearby-main-road-traffic-early-analysis-shows/)) [↑](#footnote-ref-28)
29. UCL and Southampton ([Source](https://nacto.org/docs/usdg/disappearing_traffic_cairns.pdf)) [↑](#footnote-ref-29)
30. Waltham Forest ([PDF](http://www.enjoywalthamforest.co.uk/wp-content/uploads/2016/09/2017-08-23-WV-report-FINAL.pdf)) [↑](#footnote-ref-30)
31. Lewisham ([Source](https://londonnewsonline.co.uk/lee-green-low-traffic-neighbourhood-set-to-be-reversed-this-week-after-surge-in-traffic-in-surrounding-streets/)) [↑](#footnote-ref-31)
32. Rachel Aldred, Anna Goodman, Anthony A. Laverty (2020): <https://osf.io/preprints/socarxiv/jathq/> [↑](#footnote-ref-32)
33. Wandsworth removed the LTN after less than one month due to backlash [↑](#footnote-ref-33)
34. [https://www.carersuk.org/images/News\_and\_campaigns/Behind\_Closed\_Doors\_2020/Caring\_behind\_closed\_doo rs\_Oct20.pdf](https://www.carersuk.org/images/News_and_campaigns/Behind_Closed_Doors_2020/Caring_behind_closed_doo%20rs_Oct20.pdf) [↑](#footnote-ref-34)