ISCycle 2: Inclusive Sustainable Cycling 2

CYCLING & SOCIETY

24-25/8 | Lund

Widening equity in e-bike use

Perceptions and barriers to cycling among parents and older adults in under-resourced communities



James Green, Paula R Gisbert, Anna Barrero, Louise Foley, Yvonne Ryan-Fogarty, Gülfem Cevheribucak, Emily Clubley

University of Limerick, Ireland

UNIVERSITY OF LIMERICK | Health Research

PAfH

seai SUSTAINABLE ENERGY AUTHORITY

iscycle@ul.ie | iscycle.ie



Cycling in Limerick, Ireland

- **5%** cycle on **five or more** days
- **15%** cycle on **at least one** day
  - **10%** in lowest SES group
- **40%** have access to an adult bike
  - **28%** in lowest SES group
- **55%** say access to a bike would help them to cycle more
  - 36% for ebike
  - 26% for cargo bike
  - 23% for adapted bike



Figures from the Limerick Shannon Metropolitan Area Walking and Cycling Index 2023, published by **Sustrans** and the **National Transport Authority**

Bike-to-Work scheme

Government tax-free bike initiative

- €1250 for bike
- €1500 for ebike
- €3000 for cargo (e)bike
- Higher savings with higher income tax rate

Processed by employer

- Includes people who are employed
- Excludes **unemployed**
- Excludes **retired**
- Excludes **full-time parents**
- Excludes **casually employed**
- Excludes **full-time students**

78% support financial discounts for people on low income or not employed to buy a cycle

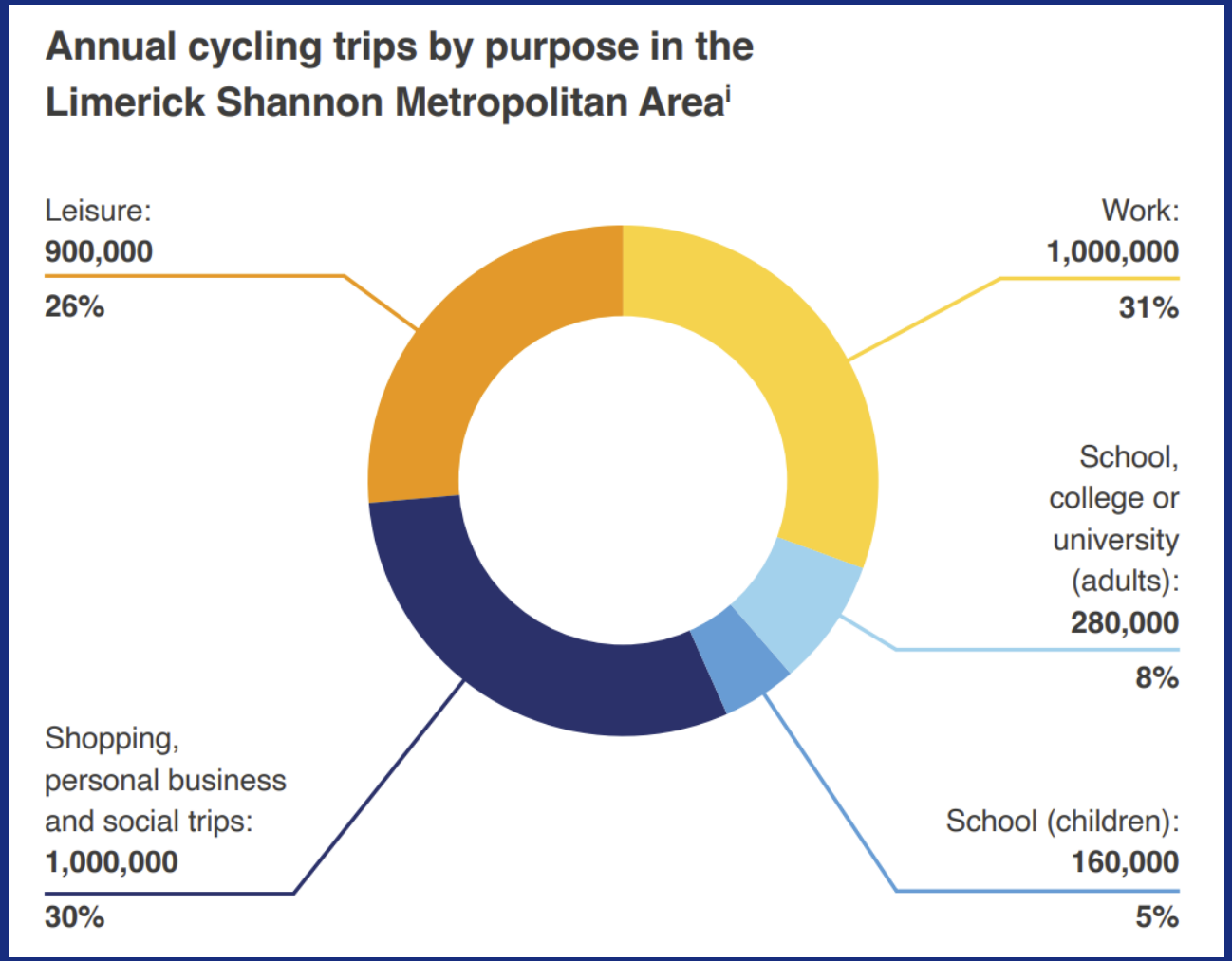


Figure from the Limerick Shannon Metropolitan Area Walking and Cycling Index 2023, published by **Sustrans** and the **National Transport Authority**

Inclusive Sustainable Cycling 2:

Widening equity in ebike use



TRANSPORT REVIEWS
2025, VOL. 45, NO. 3, 433–454
https://doi.org/10.1080/01441647.2025.2474556

Routledge
Taylor & Francis Group

Check for updates

E-bikes and travel b
experimental studi

Guillaume Chevance[a,b], Je
Hanne Beate Sundfør[g], As

[a]Univ Rennes, Inserm, EHESP, IRSE
Rennes, France; [b]ISGlobal, Barcelo
Columbia, Kelowna, BC, Canada; [
[e]School of Allied Health, Universit
Centre, Health Research Institute,
Oslo, Norway

ABSTRACT
Transitioning from private c
to reducing transport relat
promoting physical activity
referred to as e-bikes, play
However, the environmen
depend on the modes they
obtained when private cars
and meta-analysis target

Proceedings of the ITRN2023 | *31st August & 1st September, ATU Sligo*

Foley, Ryan, Woods, Fitzpatrick, Murphy, Green
ISCycle ebike loan intervention

Examining the effect of an ebike loan intervention on transport behaviour in an urban area in Ireland – an update on the Inclusive Sustainable Cycling (ISCycle) project

Dr Louise Foley*
University of Limerick
louise.foley@ul.ie
*Corresponding author

Prof Colin Fitzpatrick
University of Limerick
colin.fitzpatrick@ul.ie

Abstract

Background

Active travel is a co-beneficial health beh
impacts relating to the environment and c
novel opportunity for active travel in sit
assistance from the electric motor, ebike
case of e-cargo bikes, can be configured
offer a potential replacement for private

Check for updates

STUDY PROTOCOL

Cycling among people experiencing socio-economic disadvantage: a scoping review protocol

[version 1; peer review: 2 approved]

Louise Foley[1,2], Shauna O'Mahony[1], Yvonne Ryan-Fogarty[3], Catherine B Woods[2,4], Katie Robinson[1,5], Colin Fitzpatrick[6], James Green[1,2]

Author details

ALL METRICS
581 VIEWS
38 DOWNLOADS

Get PDF
Get XML
Cite
Export
Track
Share

Abstract

Introduction

Active mobility, such as walking, wheeling, and cycling, is a low-carbon transport mode and a source of physical activity. Cycling, as a form of active mobility, is associated with physical and mental health benefits, transport cost savings, and improved air quality. During the transition to sustainable mobility, equitable outcomes depend on opportunities for active mobility reaching across our societies. This review will chart what is currently known about cycling among people experiencing socioeconomic disadvantage.

Generating evidence to inform more equitable schemes



Scoping review of international literature

Cycling among people experiencing socio-economic disadvantage



Focus groups with (a) parents and (b) older adults

Understanding the local context to identify and respond to relevant barriers



Trialling an ebike loan programme

Collecting qualitative and quantitative evidence to understand diverse impacts

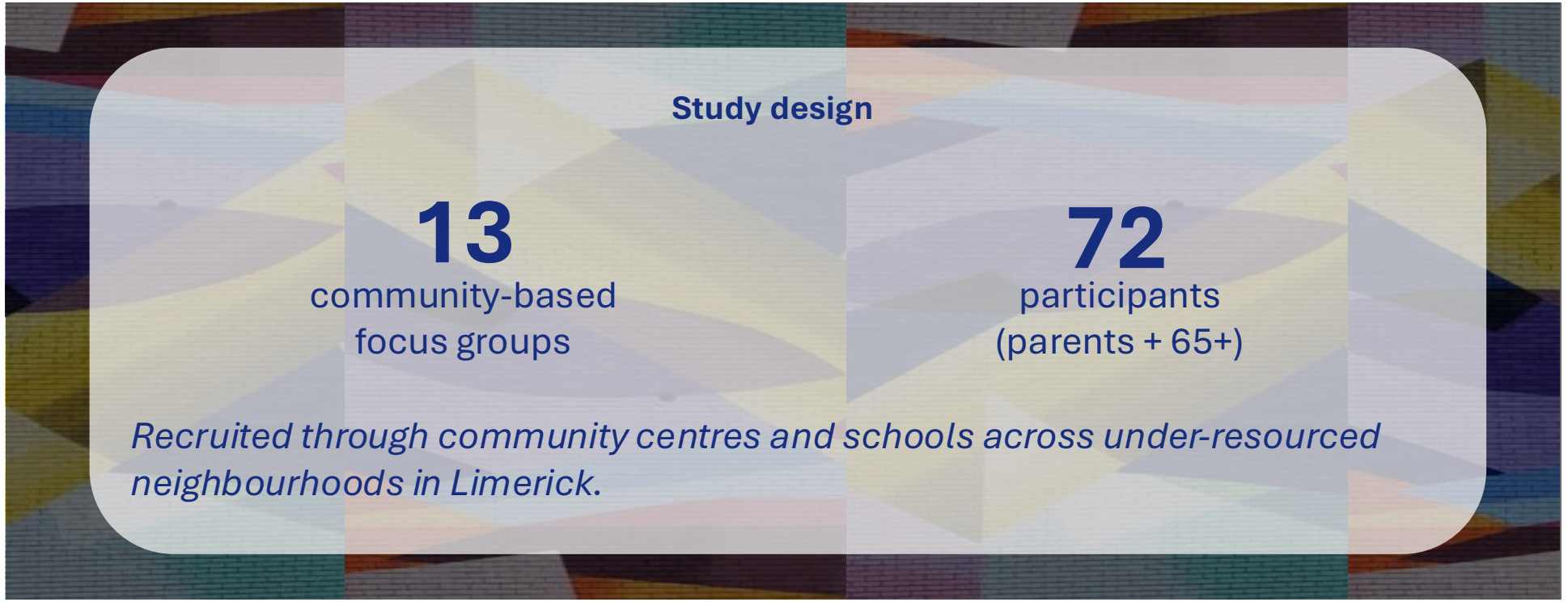


Environmental impacts of ebiking

Studying opportunities for repair, emissions reductions, end-of-life management

Focus groups

Methodology



Structure of the Analysis: Codes to Themes

502

coded mentions - older adults (65+)

455

coded mentions - parents

A unique parent dimension: Behaviour and Habit Change - a 5th theme, 4% of all parent mentions (39 total), with no equivalent in the older-adults framework.

Both studies mapped data across four shared domains:

- Barriers
- Practical Needs
- Perceived Benefits
- Facilitators & Actions

Coding Landscape: Shared & Group-Specific Codes

Domain	Shared by both groups	Older adults (65+)	Parents
Barriers	Confidence, Fear of cycling, Physical limitation, Car dependency, Weather, Theft concern, Infrastructure quality, Perceived usefulness, Stigma	Age limitations (reflexes, eyesight), Negative past experiences (accidents), Battery fire-safety fears	Practical routines (lunches, gear) · Children's safety · Home storage (terraced housing)
Perceived Benefits	Physical & mental health, Environmental benefits, Car substitution, Social interaction	Nostalgia/positive past experiences, Maintaining independence in older age	Economic ownership (vs. car tax/insurance/NCT), Wellbeing tied to children
Facilitators & Actions	Safe dedicated infrastructure, Secure destination parking, Financial incentives, Regulation & enforcement	Regulation & enforcement emphasis (39% of facilitator mentions)	Education & training emphasis (42%) · School-based "bike bus"
Practical Needs	Safety gear (helmets, hi-vis), E-bike / road-safety education	Trikes / three-wheelers (balance & stability), light weight	Cargo bikes with weather covers · Multi-child capacity · Foldable / storable designs
Behaviour & Habit Change	-	*N/A (theme not present in this framework)*	Generational change, Parental anxiety about children's lost independence



Barriers: Infrastructure

> *Another thing is a big problem in the county because of the width of the roads. You're taking your life in your hands because they're problem roads.*
>
> **Older adults focus group**

> *Most of the lanes are very narrow. It should be wider, I think.*
>
> **Parents focus group**



Barriers: The cultural image of e-bikes

> *We see the boys come around with fancy, expensive e-bikes — they're not delivering pizzas… they get away with it.*
>
> **Older adults focus group**

> *They either work for Just Eat or Deliveroo, delivering takeaways - or they're a drug dealer.*
>
> **Parents focus group**



Barriers: A felt lack of enforcement

> *I don't think it's the bikes themselves. I think it's the policing of the bikes. The laws related to the bikes and enforcing the laws that are related to the bikes. There's a big lack, a big lack in that at the moment.*
>
> **Older adults focus group**

> Calls for existing rules to be enforced by police (pulling up riders without helmets or riding illegally in a bike lane).
>
> **Parents focus group**



Barriers: Low confidence and Need of training

> *Well, I suppose you'd have to build up confidence in yourself before you actually get even on the bicycle.*
>
> **Older adults focus group**

> *I would, but I wouldn't be very confident - you'd have to build your confidence, so you need to know that you can hit the brakes at an instant.*
>
> **Parents focus group**



Perceived Benefits: Wellbeing & Family utility

Older adults and personal wellbeing

Physical health
- Staying active and capable as they age.

Memories
- Positive recreational memories from earlier in life

Autonomy
- A means to preserve independent mobility as they age.

> *It would just make you feel good, that at my age I'm capable of still doing it.*

Older adults focus group

Parents and family utility

Economic lifeline
- Replacing the cost of car ownership (tax, insurance, fuel, NCT) for low-income families.

Mental benefits
- The school run as active time for children and parents to clear their heads before the classroom/work, instead of stressful car traffic.

> *To run a car, it's insanely expensive (tax, insurance...*

Parents focus group



What participants said they would need to cycle

1. Training to build confidence

2. Supported cycling opportunities

3. Safety & visibility equipment

4. Suitable bikes

Next steps

- Deliver the programme to (a) parents, and (b) older adults, living in lower income communities

- Evaluate the impacts of the programme using qualitative and quantitative methods:
  - Baseline interviews
  - GPS logging of transport mode use
  - Data-prompted follow-up interviews
  - Environmental aspects of ebiking

Conclusions and next steps

- Observing a **meaningful impact** on the research participants

- Generating high-quality evidence to affect equitable **policy change**

- Promoting the research and implications to an **international context**



Thank you!



This research has been funded by the Sustainable Energy Authority of Ireland under the SEAI Research, Development & Demonstration Funding Programme 2023, Grant number 23/RDD/979

CYCLING & SOCIETY Annual Symposium

ISCycle

UNIVERSITY OF LIMERICK OLLSCOIL LUIMNIGH

PAfH
Physical Activity *for* Health
HRI Research Cluster
University of Limerick

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Contact us: *iscycle@ul.ie*
Follow us: *@iscycle_ie*
Website: *www.iscycle.ie*