

Energy Poverty Conference 2024

DATE

6th November 2024

VENUE

ESRI, Whitaker Square, Sir John Rogerson's

Quay,

Dublin 2





Reflections on recent energy poverty research in the UK and beyond

Professor Lucie Middlemiss
University of Leeds, UK.





Today's talk

Summarising insights from 2 projects:

- Wellbased: EU Horizon 2020 funded work on Energy Poverty and Health.
 - LOCATION: Latvia, Hungary, Netherlands, Spain, Turkey and UK.
- Vulnerability to Net Zero: Nuffield Foundation funded work, in partnership with Young Foundation, York and Trinity College Dublin.
 - LOCATION: UK.

LINKS:
Qualitative methods;
Lived experience;
Understanding
vulnerability and
change.



An intervention for Energy Poverty and Health



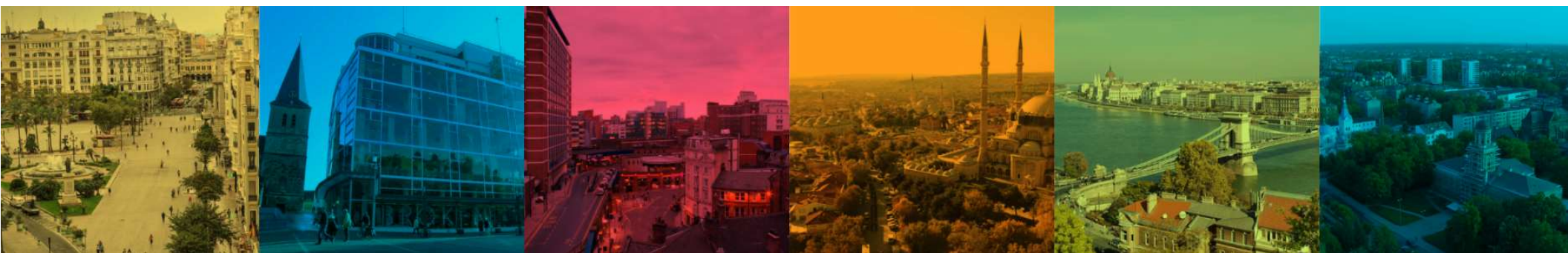
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Funded by the Horizon 2020 Framework Programme of the European Union



Presentation to ESRI Conference, November 2024

Professor Lucie Middlemiss,

co-authors: Dr Beverley Searle, Dr Pepa Ambrosio-Albala and Becky Sale,
University of Leeds





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Project outline

EU funded intervention and evaluation project to improve health and energy poverty.

- Funded by EU Horizon 2020, from 2021-2025.
- **Goal:** To improve health, wellbeing and equality by designing evidence-based urban policies for tackling energy poverty.
- **Partners:** local authorities, NGOS, researchers, universities.
- **Interdisciplinary:** medical/public health/energy studies
- **6 case study cities:** Budapest (Hungary); Edirne (Turkey); Heerlen (NL); Jelgava (Latvia); Leeds (UK); Valencia (Spain)



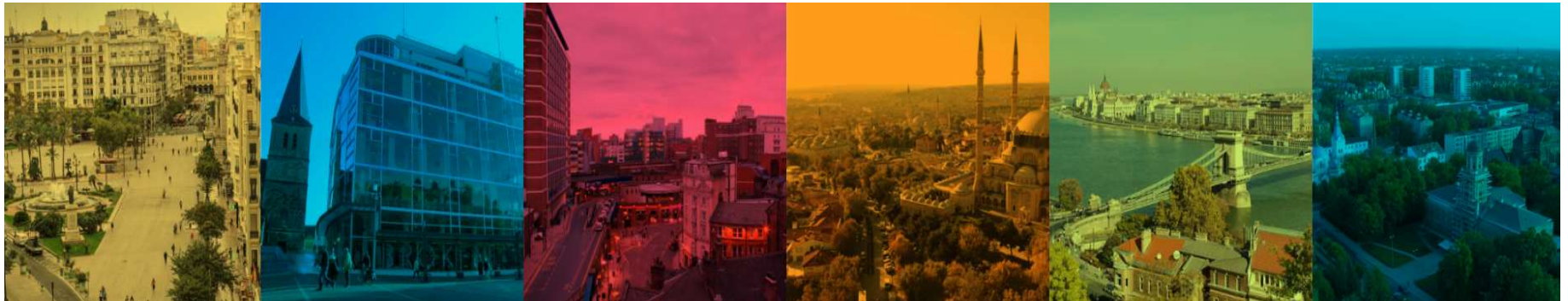
Project structure

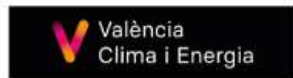
Interventions designed by cities

- Objective: to reduce energy poverty, and by doing so to improve mental and physical health.
- Local authorities working with partners to deliver change.

Evaluation led by researchers

- Objective: To evaluate the effect of interventions on energy poverty and mental and physical health.
- To understand local authority leadership in this space.





Heerlen



IN LEEDS, also partnering with



	Jelgava	Valencia	Obuda	Heerlen	Edirne	Leeds
Layer 1: individual	All	All	All		All	
Layer 2: community		Half	Most	Half	All	
Layer 3.1: building fabric					All	All
Layer 3.2: appliances			Most			
Layer 3.3: energy kit	All	All				

Layer 1: energy audit, health coaching, energy bill advice, training materials

Layer 2: group meetings

Layer 3.1: new heating system, home insulation, windows replacement, etc.

Layer 3.2: washing machine, stove, AC, fridge etc. replacement

Layer 3.3: energy kit



Research design

1. Evidence review;
2. Monitoring mental and physical health, and energy poverty responses over time in **questionnaire** (approx. 150 per city);
3. Monitoring **temperature and damp** in households;
4. Monitoring health **directly**;
5. Asking participants a range of questions about their experience of energy poverty in **qualitative interviews**.



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Qualitative part of the study

- We talked to just under 70 people across the 6 countries as they joined the intervention, and about a year later.
- ROUND 1: We asked them about their everyday lives, with an emphasis on energy, health and housing conditions in late 2022, early 2023.
- ROUND 2: We revisited them to ask about how things had changed for them in relation to the intervention in late 2023, early 2024.
- NOTE context of inflation, energy crisis, post COVID-19 recovery, climate change (summer heat), various elections – both intervention and analysis is complex.



Cartoons are from: Willand, Nicola; Middlemiss, Lucie; Tian, Suxuan (2024). Mapping cross-national conceptions of essential energy to advance housing energy justice –Comic. RMIT University. Book. <https://doi.org/10.25439/rmt.26793655.v1>

A common experience across nations...

The experience of energy poverty is very similar across the 6 nations.

- Strongly shaped by inflation and rising energy prices.
- This resulted in people cutting back spending on everything but the basics.
- Energy is a flexible cost, and lots of people cutting back to save money.
- Coping with the cold, things we are very familiar with, but important in most countries.

COLD: "I try to keep it as cool as possible, heating as little as possible of course, because then you can already get used to the cold for next year." Heerlen 6B

CUT BACK "cooking a three-course meal with an hour and a half of cooking, I think I can balance it with 'turning off' for a month. Cooking one meal takes the same amount of electricity as charging your phone." Obuda 9B

SHOCK: "the electricity was a big shock because we had a dynamic tariff and it was very good all the time, and then when the prices started to get so high, well then we were also looking at when to turn on the TV or not to turn on the TV." Jelgava 21B

BASICS: "He was going to kickboxing. It was like £63 each. I was managing before but now I can't do that because it's like £130. You think to give someone £130 we need food, we need clothes." Leeds 4B

... with some variation

Variations in:

- Depth of experience (e.g. laundry by hand in Jelgava)
- Housing conditions (e.g. cold in Leeds)
- Climate (e.g. heat in Edirne)
- Policy context (e.g. state support in Heerlen)
- Contrasting energy needs in different households (e.g. reliance on energy for life for disabled household in Valencia)

This winter it's not warm in my house... my niece living here ... when me and my daughter are going to her house, "Mummy please, her house is very warm!" but when we come back, I say ... "We are living in Siberia," you know?

HEAT: "people sit outside until two or three o'clock... Neighbours can't sleep because of the heat. They go out and sit in front of their doors. They chat, drink tea, and such. But they wake up at 12." Edirne 11B

"Worst case scenario, I don't pay the rent for a month [...] Then I will send an email to the housing association." (Heerlen 2B)

... with some variation

Variations in:

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“The blankets and big laundry like sheets, I give my sister a wash, I wash my clothes with my hands.” Jelgava
19B

“I have to take a little device for the air I need, they gave me a device, and it has to be on 24 hours a day. And I can't cut it off until the doctor takes it off. And then I had to cut something else, turn off the TV, not have too many things on, unplug something else... That's it.” Valencia

10B

Change? Interventions had small effects

- Most pilot interventions resulted in small changes for participants and community, especially when the fabric of the building/ heating system is not targeted.
- We still see some benefits for some participants including:
 - Accessing entitlements
 - Wellbeing benefits
- In interventions that are changing the fabric of the building/ heating system we see:
 - Edirne: intervention undermined by quality and price of coal
 - Leeds: lots of positive energy outcomes, no notable change in health.

I applied on behalf of them... because of this, because I started to inform myself and I thought well, I'm going to apply for them because they are pensioners. V3A

To be realistic, we don't light the stove down (at our house). It's been a while since we did. Why don't we light it? Because there's no wood, no coal. E9B

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Well, it has improved my mood, yes... I have this feeling that someone cares about us. Just this one conversation is enough for me for a month or two months. O7A

It's a general improvement because you kind of switch the heaters on instantly. You don't have to look at the weather forecast for the next seven days... you don't have to think, "Is it going to be cold tomorrow?" It's just really, really nice to just be able to think, "It's cold, I'll switch it on. If it's not cold, I won't." L8A

The logo for WELLBASED features a small rainbow icon to the left of the word "WELLBASED" in a bold, black, sans-serif font.



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Why change happens, why things stay the same

	No change/ getting worse	Getting better
Participants	<ul style="list-style-type: none"> ➤ Participants already aware of links between health and energy; ➤ Participants already actively engaging in energy saving practices; ➤ Some health conditions not linked to energy use. 	<ul style="list-style-type: none"> ➤ Participants make new links between internal air quality and health; ★ ➤ Reinforced energy saving and ventilation practices; ★ ➤ More control over energy; ➤ Small health and wellbeing improvements.
Conditions	<ul style="list-style-type: none"> ➤ Unmet housing improvement needs still cause problems; ➤ The energy market is not serving people's needs; ➤ Inflation and low expectations reduce impact; ➤ Extreme heat due to climate change. 	<ul style="list-style-type: none"> ➤ Building renovation improved access to energy and wellbeing; ★ ➤ Improvements in access to energy through bills entitlement; ★

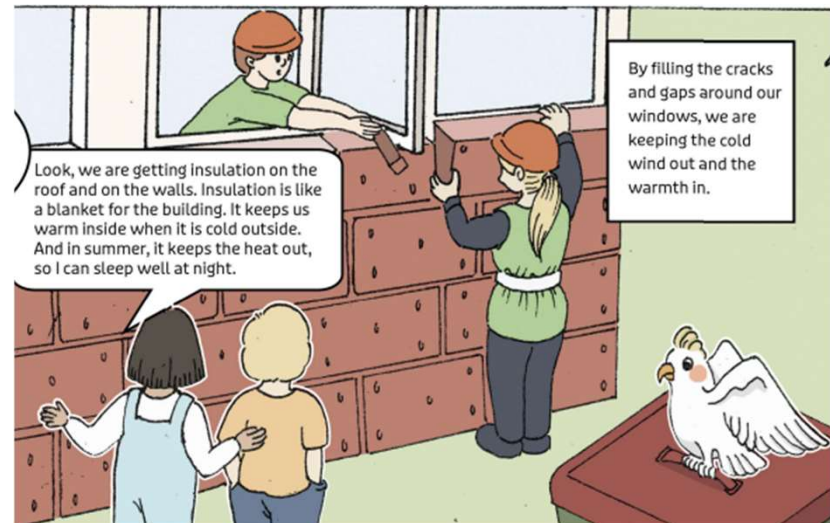


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What have we learned?

Lesson from Wellbased for researchers and practitioners

- People experiencing EP are highly energy literate.
- People appreciate interventions that recognise them and their problems.
- Housing quality is key, and requires more substantial investment;
- The energy market is still causing problems for people - time for a rethink?
- Summer heat plays an increasingly large part in the link between energy and health.





Towards a Just Net Zero in Homes and Communities

Lucie Middlemiss*, Carolyn Snell, Emily Morrison, Yekaterina Chzhen, Tania Carregha, Samanthi Themnimulle, Anne Owen, Gill Main, Kelli Kennedy

Funded by Nuffield Foundation

Project rationale

- Some socio-economic and demographic groups will be disproportionately burdened in transition to net zero.
- Families on low incomes, in poor housing and with poor access to services are at risk.
- The impact of a net zero transition will vary regionally, with particular concern for Yorkshire and the North of England.

What will changes under NZ mean to people's everyday lives, and how can they be supported through them?



Image Source: BBC News

Project methodology

- Reviewing current literature, to establish what is known about the factors that will impact families and communities under NZ.
- Development of a framework to help conceptualise ability to participate in net zero
- Testing the framework in participatory community-based workshops to develop a co-produced, revised version.
- Further testing the framework with stakeholders across the social, welfare, economic, energy and environmental sectors, and in national and local government.

What does NZ change look like for people?

Area of daily life	Key policy changes (distilled from net zero scenarios)
Where we live	More localised energy systems; greater electricity use for heating/cooking;; increased use of smart home technology and systems; increased home energy efficiency; more flexible use of energy.
Where we go	Move to electric vehicles, phasing out of petrol/diesel; Encouraging active travel; Provi
What we do for work	More green-based industries; New skills for
What we eat	Eating practices to reduce emissions; footprint; Changed agricultural
What we do for fun	Travel less and enjoy leisure activities locally, or virtually; Increased green leisure and active travel; Reduced high carbon footprint leisure.
What we spend our money on	Some products become more expensive as a result of carbon taxes/pricing, others become cheaper; From fast to slow fashion; Second hand, repair and reuse; Reduction of waste.

**Transformative
Social Change**

NOTE: sources here are CREDS, Citizens Assembly, BEIS and CC Committee.

Where are we now re NZ (income)?

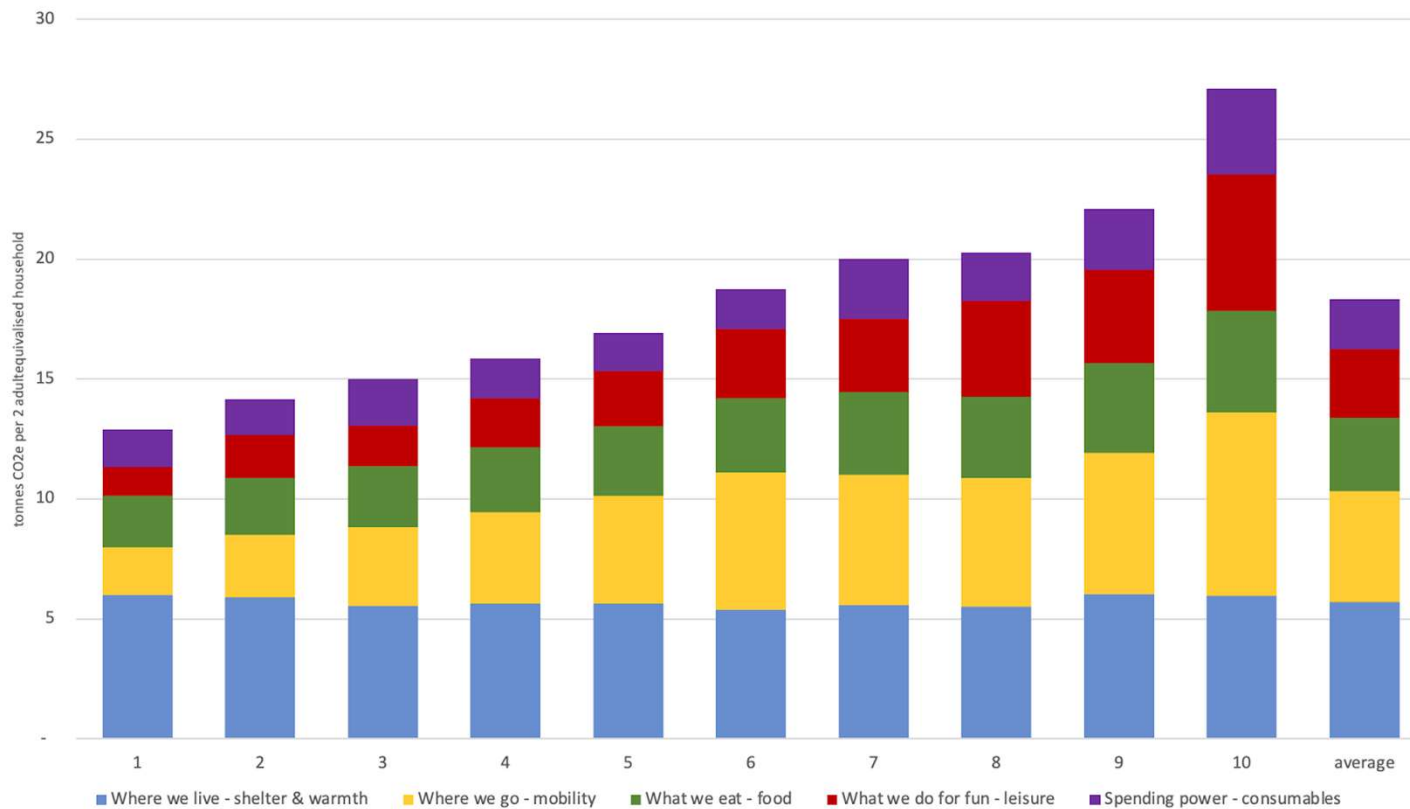
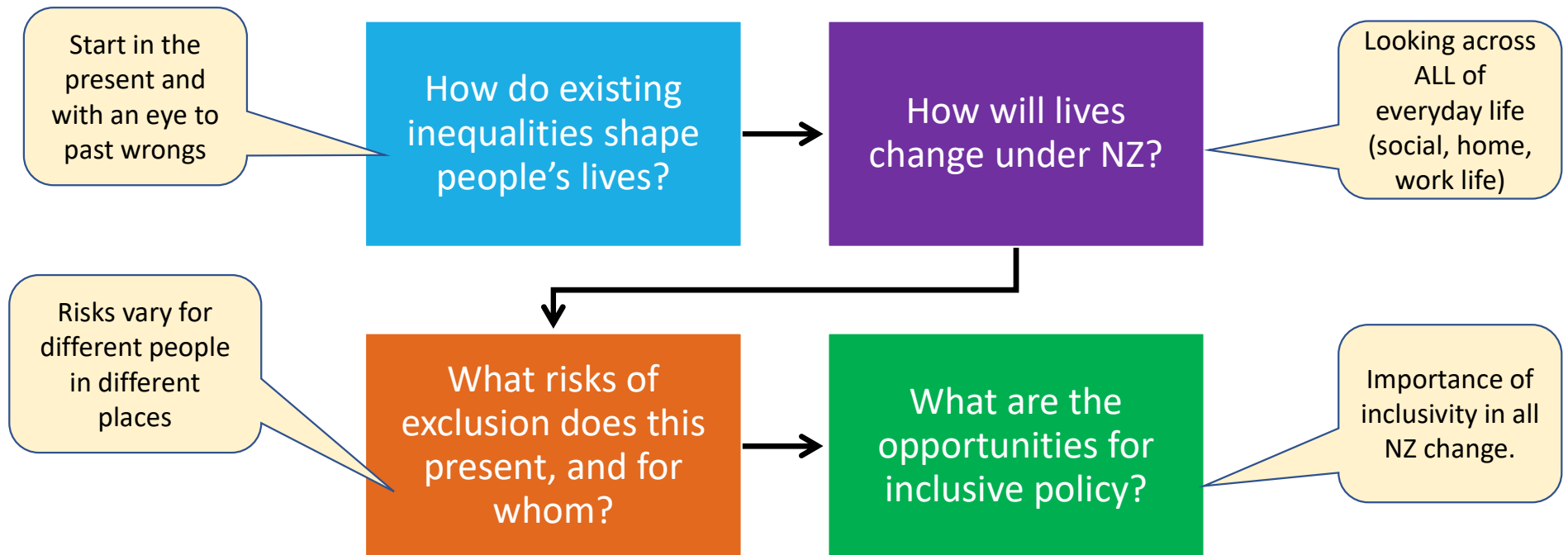


Figure 1: Equivalised 2-adult household Carbon Footprints (2018 data - University of Leeds)

- Spending power
- What we do for fun
- What we eat
- Where we go
- Where we live

THE BIG IDEA: Key questions for an inclusive transition



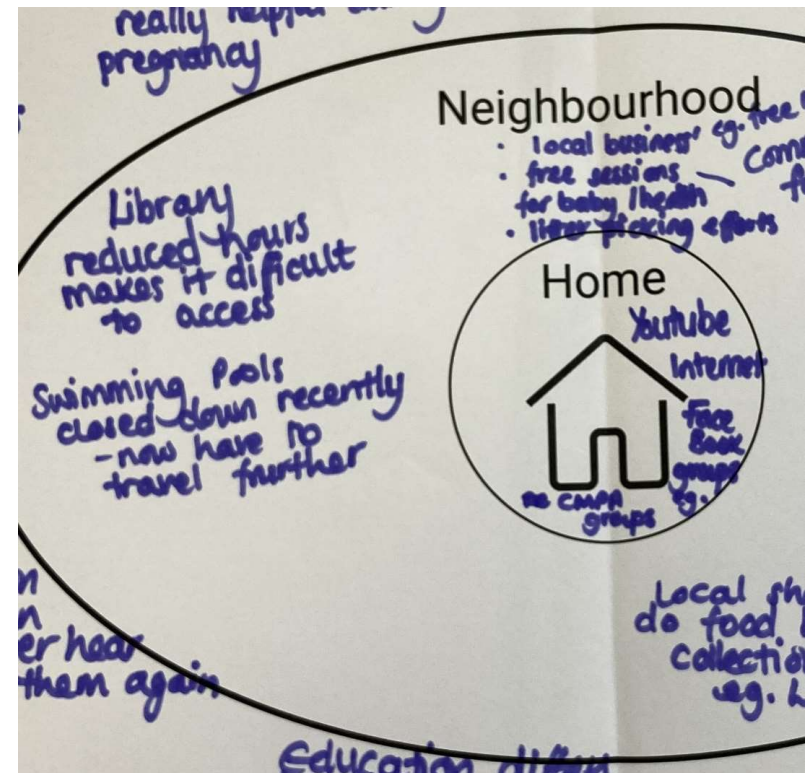
Key insights from our work in Leeds and Newcastle

3 critical factors shape people's ability to engage in next 3 slides

1. Place, local services and infrastructure

What?

Where people live, the associated services, transport and other infrastructures that serve that place, and the employment available in that place.



Example from our data

Constraints: “When you come from a deprived estate and you're living on the bread line, obviously, I feel my resistance to give up our car, if I did give up the car, it would significantly have a massive impact on our children's... basically what we can do for them... things like being able to participate in sports club, in after school clubs. The fact that these things aren't on your doorstep and you do need to be able to toddle about to give them life skills and opportunities.” (Leeds, 355)

2. State of house and home

What?

Quality or state of repair of home, (in)ability to change the home, how the home is used, who lives there and what are their practices and preferences.



Example from our data


Constraints: “I work from home... that’s probably going to be quite hard in winter and I’m thinking of relocating to the library a lot of times just because it’s in the flat with a hoodie on” (Leeds, 7)

3. Money

What?

People were unable to make investments, high upfront costs make choices impossible, people are very sensitive to risks, people upset about technicalities of grant funding.

Household portrait



Description of your household in the transition to Net Zero:

I would like to use less energy in the future, for example save electricity and gas power usage. Try to recycle the plastic and paper packages, specially from online shopping. ^{My green spaces} ^{residence} jobs for my household will bring us more chances to save power and transition to Net Zero.

and finding members

Social participation: 0 to 100 (filled to ~40)

Economic participation: 0 to 100 (filled to ~10)

Political/civic participation: 0 to 100 (filled to ~20)

Education, culture and skills: 0 to 100 (filled to ~40)

Superpower: My household happy to use solar power

Resistance: The land level will resistance us from that.

Example from our data

Constraints: “They say, ‘Oh, well, we're gonna give you ... nearly two thirds to call it 6000... Yeah, we will give you 4000 quid.’ But how many people have got that 2000 pounds in a bank account?... it's like a false promise.” (Leeds, 479)

Putting inclusivity at the centre of climate

Policy implications

- Improving enabling infrastructure in place: e.g. transport, leisure.
- Centring homes as a key site of change.
- Creative finance required to allow people to engage.

15-Minute Neighbourhood



Housing
(i.e., low, medium and high rise)



Retail, Commercial and Health Services
(e.g., grocery stores, pharmacies, doctor's offices)



Public Service Facilities
(e.g., recreation facilities, libraries, indoor community centres)



Education
(e.g., schools, licensed child care)



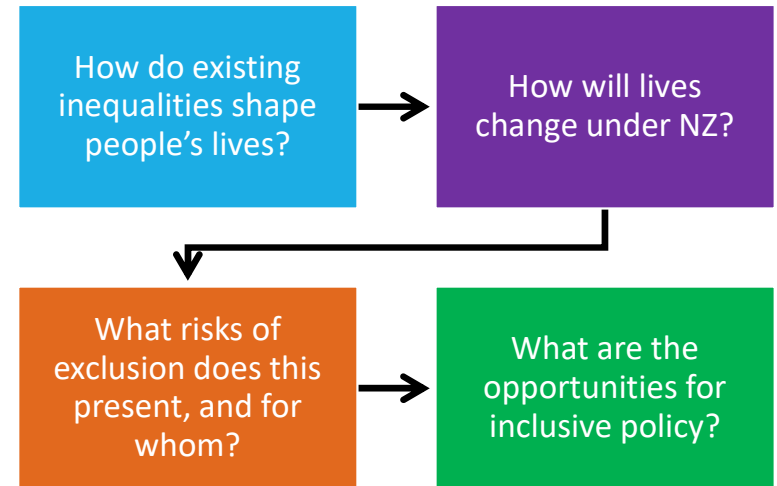
Parks and Greenspaces
(e.g., playgrounds, pathways)



Sustainable Mobility
(e.g., cycling facilities, sidewalks, transit)

Conclusions

- NZ agenda offers opportunities for progressive change.
- An inclusive, just transition is possible but requires proactive, progressive, well-designed, forward-thinking, cross-departmental policy;
- Placed-based and people-centred policy essential.




Cross-cutting conclusions

- Evidence from everyday life is hugely useful, and encourages people-centred action;
- Home and housing is key in addressing both EP and NZ;
- Places – cities (in different nations) and neighbourhoods also shape what change is possible;
- Both EP and NZ policy can benefit from socially inclusive thinking.



Thank you for listening! 

- Lucie Middlemiss, University of Leeds
- Find me on LinkedIn – I would love to connect. 

Co-authors:

Wellbased: Dr Beverley Searle, Dr Pepa Ambrosio-Albala and Becky Sale

NZ Vulnerability: Carolyn Snell, Emily Morrison, Yekaterina Chzhen, Tania Carregha, Samantha Theminiulle, Anne Owen, Gill Main, Kelli Kennedy

