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EVALUATE

Pathways to energy vulnerability: insights from a qualitative study in Central and Eastern Europe

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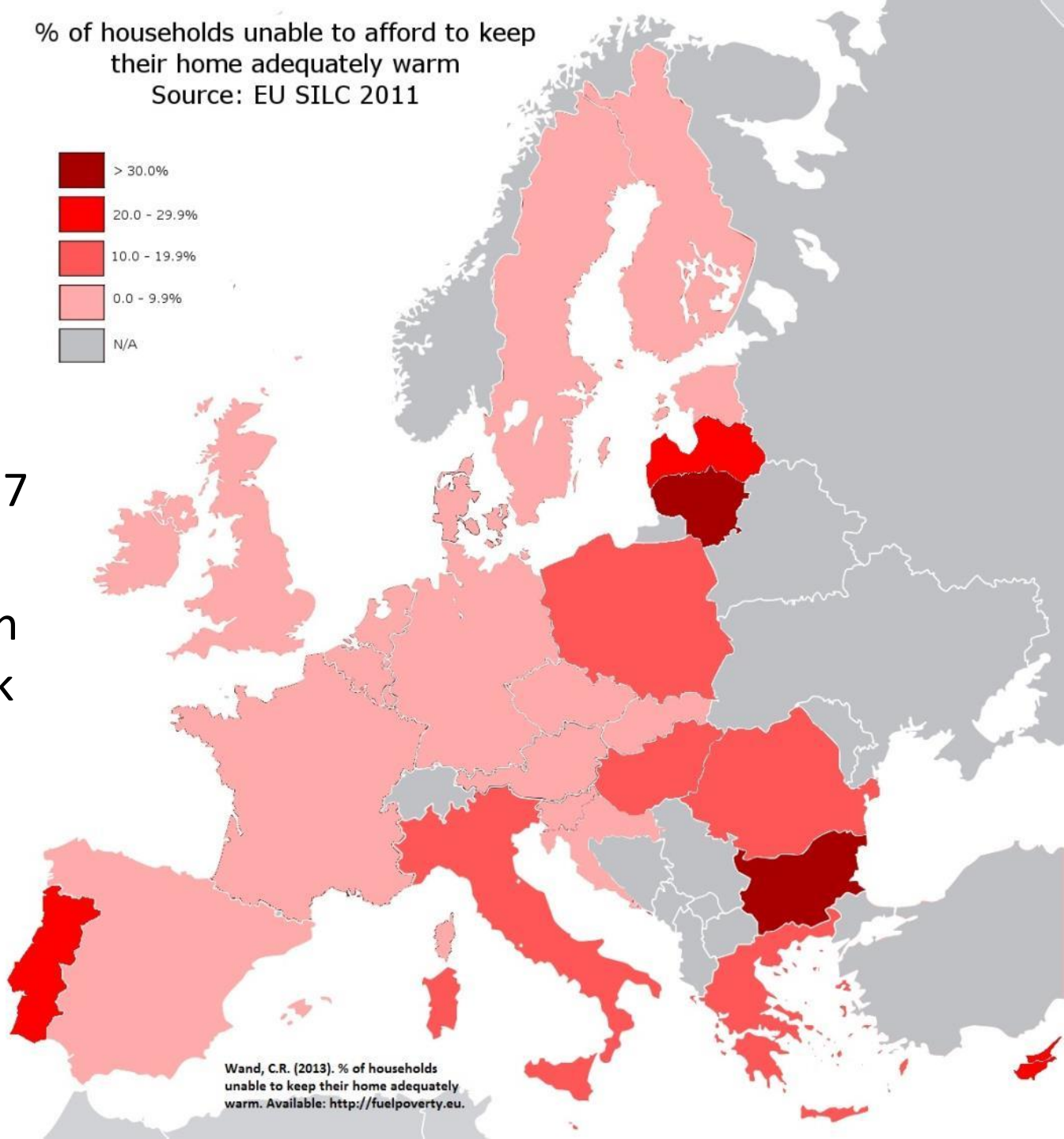
Energy poverty in the EU

- **52 million + households** in EU27 (Thomson, 2015)
- Central and Eastern Europe most at risk



The EVALUATE study

- Energy Vulnerability and Urban Transitions in Europe (EVALUATE)
- Five-year ERC funded project, 2013 - 2018

Aims:

- To **establish the driving forces of urban energy poverty** in the post-socialist states of Eastern and Central Europe
- To determine **which types of households are vulnerable to the condition**

Conceptualising the drivers of energy poverty

Conditions that can lead to energy poverty:

- High energy prices
- Low household incomes
- Poor energy efficiency of home and appliances
- Inability to access to appropriate energy carriers
- (In)flexibility of the built environment and heating systems
- Energy needs and practices

Need to understand **structural/systemic processes** that underpin the manifestation and distribution of these conditions

Temporal dynamics

Research design

- Focusing on 4 cities: Skopje, Budapest, Prague, Gdansk.
- Mixture of quantitative and **qualitative methods**

Methods

- 20-40 households in each city
- Recruited through **purposive sampling** strategy
- Multiple household visits and in-depth interviews
- Energy diaries
- Energy efficiency audits

During an interview in Prague, 2016

Results & analysis

Pathways to vulnerability: emerging themes

- Energy efficiency – very poor condition of some buildings
- Access – lack of modern heating systems in some households
- Flexibility (and suitability) of built environment
- Dynamics of household needs and incomes
- Influence of cultural norms and expectations

Embedded in context at multiple scales

Household 1: Flexibility, needs and domestic heating

Alina is in her late 20s. Has an MA degree and works in the City Office of Gdansk. Lives in small 1950s apartment, heated via district heating.

She has relatively low-heating needs:

> "Most of the evenings I spend doing my hobby. I dance a lot (3 times a week), learn Russian and spend time with my friends."

Little control over her heating bills:

> "Here, if you put the heater off, you pay the same price … I can't do anything with heating. All decisions depend on the housing association."

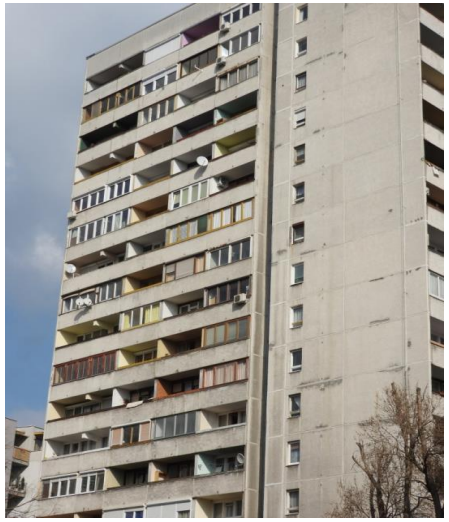
And finds it difficult to achieve a comfortable temperature:

> "I have to turn off the heater, otherwise it is stuffy. It is very little dwelling … This dwelling achieves hot temperature very fast, the same with the cold temperature."

Household 2: sunlight exposure and space cooling

5 person family (2 parents, 3 children) living in a tiny apartment in a high-rise block in Budapest

Excessive heat on hot days

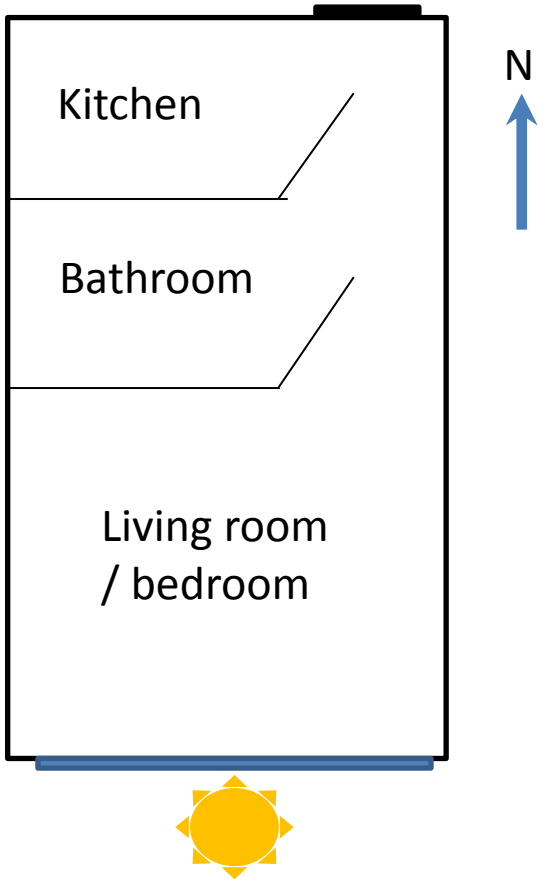


Material factors:

- **Large, south-facing window**
- **Lack of shading, and little ventilation**
- Lack of parks or other neighbourhood infrastructure that provide shading

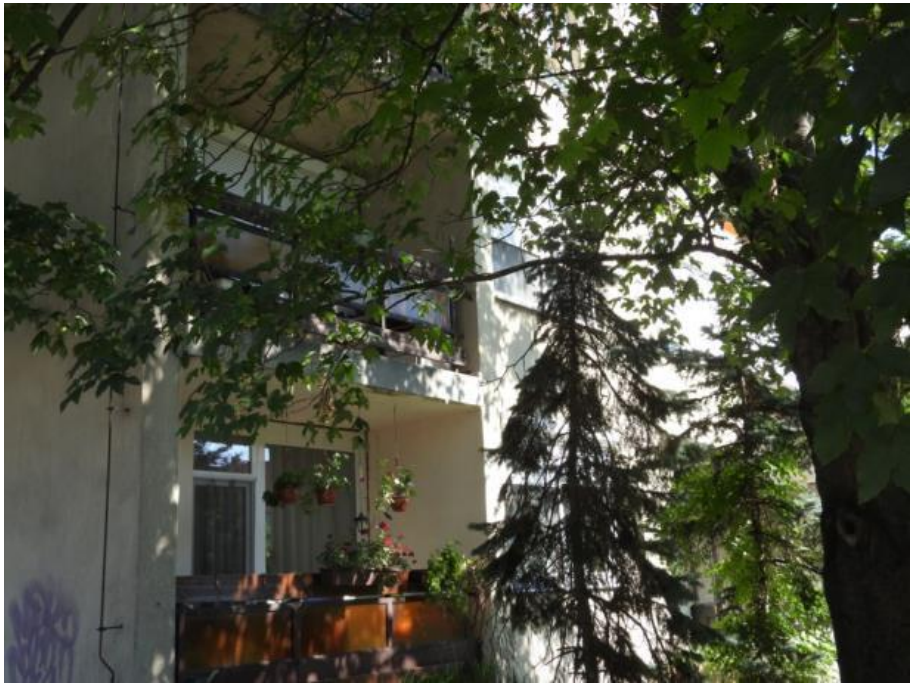
Intersect with:

- low-income
- several dependent children not yet at school
- rented apartment



Other households less exposed to sunlight:

- Small windows
- Outside shading and/or shutters
- Ventilation



Household 3: Sunlight exposure, domestic lighting and needs

JH (mid 30s) lives with his wife and 2 small children in a late 19th century building in Prague 7. Both with university diplomas. He works occasionally for the local municipality.

Lack of light due to built environment design:

> "I don't like that it can be very dark because the flat is on the first floor and the houses in this area are pretty high"

Relation with particular household needs:

> "I think it depends on your daily routine …it is depressing to be at home with a small baby and it's dark during the whole day…it affects your psychological stability… if you are at work and spend more time there it's different, you do not notice it that much."

The hall in the JH's building, 2016

Household 4: impact of broader political/economic agendas

Family of four: mother, father (40s), two children (one at school). Live in a rented 1980s 'panel building' in Szeged, Hungary

> "98% of the time I am concerned about whether I can pay all my energy bills, these are the highest bills that we have in our household."

Inefficiency: Old appliances, lighting, windows. Mould on walls suggests lack of insulation

Flexibility: district heating materially and institutionally inflexible. Rented apartment so unable to change much:

Energy prices: rapid increases in Hungary since 2006 → restructuring of energy utilities (post-socialist transitions), reliance on natural gas imports

Needs: several dependent children

Income: Both parents work full time. She has a 'public employment' job:

> "which means 8 hours employment for less money than the minimal wage and I do not get any governmental aid. I can apply for the family tax cut after one of my children who is still in school."

Social and cultural dimensions

- Many participants didn't know what 'energy poverty' was, didn't talk about it with friends
- Policy marginalisation
- 'Struggling' considering a private, and perhaps shameful, issue. Linked to wider discourses around individual responsibility, the undeserving poor
- Attachment to obsolete, but multifunctional appliances

→ help or support not accessed or not available

'I have been planning to change this storage heater for a long time, but I use it for heating, drying clothes, ... you can also seat on it..it makes me feel so comfortible' (63 year old pensioner from Skope, 2016)

Conclusions

- Energy poverty can take multiple forms, not only the inability to keep warm, and impact upon multiple demographic groups

- Material, economic, and socio-cultural factors intersect to (re)produce energy poverty – can encompass but also go beyond the narrow triad of drivers

- These factors are contextually embedded at a variety of scales – specific causes for different households are therefore somewhat variable and contingent.

Thanks for listening!

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