

WELLBASED



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TACKLING ENERGY POVERTY AS A PUBLIC HEALTH PRIORITY: POLICY RECOMMENDATIONS FROM WELLBASED PROJECT



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ACTION FIELD

Monitoring and Evaluation

These recommendations guide local and other policymakers in shaping effective policies for a healthier, more equitable future. Local authorities play a key role in tackling energy poverty while improving public health. Although many strategies exist, this document focuses on bridging the gap between energy poverty and health—two interconnected fields but often separate policy areas. Drawing on insights from the EU-funded WELLBASED project,

it highlights the need to integrate health considerations into energy poverty policies and vice versa. A holistic approach can lead to more effective and sustainable solutions that enhance the wellbeing of vulnerable populations.

WELLBASED Policy recommendations are divided into the following five actions fields:

1	2	3	4	5
<p>Improving health by taking action against energy poverty at local level: key aspects to consider in urban programs to fight against energy poverty and its health effects</p>	<p>Governance: suggestions on how to promote collaborative frameworks for multilayer and multidimensional action at local level to ensure urban programs implementation from a Health in All Policies (HiAP) approach.</p>	<p>Capacity Building: recommendations for developing training programs for different stakeholders to identify and address the health implications of Energy poverty.</p>	<p>Monitoring and Evaluation: guidelines to track Energy poverty and health indicators, as well as the effectiveness of integrated policies and interventions.</p>	<p>Funding: considerations about funding schemes to tackle Energy poverty considering health, mainly based on the financial models analyzed within WELLBASED.</p>

This policy brief corresponds to the fourth section, **Monitoring and Evaluation**. It provides policy recommendations for monitoring energy poverty and health metrics, along with assessing the impact of integrated policies and interventions.

Energy poverty is a complex Public Health problem affecting physical and mental health of most vulnerable groups

People in energy poverty often live in homes with poor indoor air quality, damp, mold or lack of ventilation, exposed to extreme temperatures that have these impacts:

- Aggravation of **respiratory diseases** (asthma, bronchitis and other chronic lung diseases) and favour the **development of respiratory infections**, especially in children and older people.
- Increased **risk of hypertension, heart attacks and strokes**, especially in older people or those with pre-existing conditions.
- Aggravation of **musculoskeletal problems**, such as **joint pain or arthritis**, especially in older people.
- Financial difficulties, high worries about the lack of thermal comfort in the home and the feeling of inability to improve one's personal situation which leads to **anxiety, depression and chronic stress**.
- **Social isolation and stigmatisation**.
- Poor **quality of sleep** that impacts on mental health, cognitive performance and physical health (increased risk of cardiovascular and metabolic diseases).
- **Nutrition and food security problems**. Increased risk of metabolic diseases such as **type 2 diabetes, hypertension and heart disease**.
- High risk of **frailty and dependency** for older adults.

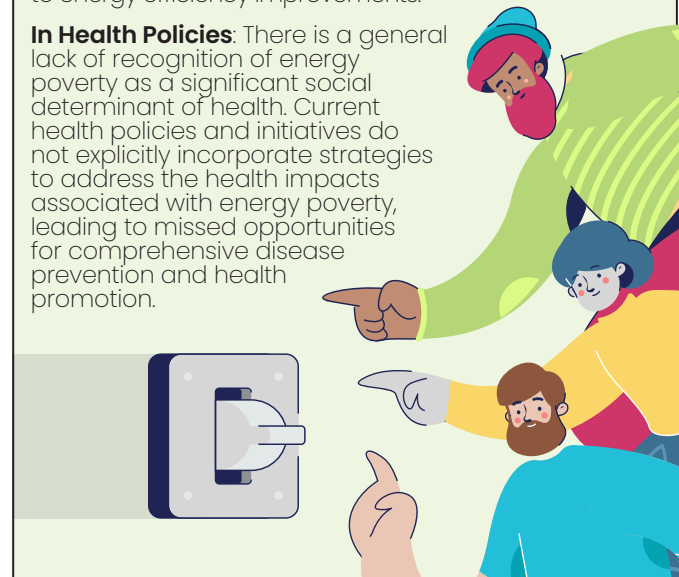
Energy poverty amplifies existing health and social inequalities.

Gaps identified in EU energy poverty and Health policies

Health and energy policies are often addressed separately, preventing a comprehensive approach to tackling the health effects of energy poverty.

In Energy Policies: While there is a growing recognition of the intersection between energy efficiency and health, explicit integration of health considerations remains limited. Policies often acknowledge potential health benefits but lack specific measures or mandates to address health impacts directly related to energy efficiency improvements.

In Health Policies: There is a general lack of recognition of energy poverty as a significant social determinant of health. Current health policies and initiatives do not explicitly incorporate strategies to address the health impacts associated with energy poverty, leading to missed opportunities for comprehensive disease prevention and health promotion.



CONTEXT AND CHALLENGES

Importance of Monitoring Data: Comprehensive data on health and energy poverty is essential for diagnosing challenges, setting local targets, and evaluating the effectiveness of urban strategies. However, significant gaps remain in local-level health and energy-related databases.

Integration of Health and Energy Indicators: Although the link between energy poverty and health is well-established, urban indicator systems rarely combine these areas. Progress at the EU level includes promoting multidimensional indicators based on data from SILC and EUROSTAT instruments, along with climate-health observatories that track metrics such as mortality due to extreme weather.

Strengthening Data Systems:

- At the local level, monitoring data on health, energy poverty, and social determinants of health is crucial to evaluate interventions, identify intra-urban disparities, and set priorities for action.
- At the EU level, a clear and updated overview of energy poverty and its associated health impacts should be available for each Member State to inform evidence-based policies.

This integration and strengthening of data systems will provide the foundation for more effective, targeted, and equitable policies addressing energy poverty and its health impacts.

CONCRETE ACTION POINTS

1 Establish Energy Poverty Observatories with a Health focus

Promote transnational, national, regional, and local observatories to monitor energy poverty and its impact on health, or alternatively, develop health observatories that incorporate energy poverty within a holistic approach to social determinants of health. They could be a forum for discussion and sharing best practices.

2 Use urban platforms to visualize localized data

Develop urban platforms to analyze energy, socio-economic, and health data at the district or neighborhood level, helping to identify intervention areas by correlating parameters like energy poverty, building energy efficiency, and health conditions such as chronic respiratory diseases. Try to bring data together from already existing databases, where possible.

3 Disaggregate data to capture vulnerable population groups

Ensure data collection is broken down to reflect the experiences of specific groups disproportionately affected by energy poverty, such as women, children, older adults, and people with disabilities.



*** CONCRETE ACTION POINTS**

4 Select meaningful health impact indicators for energy poverty

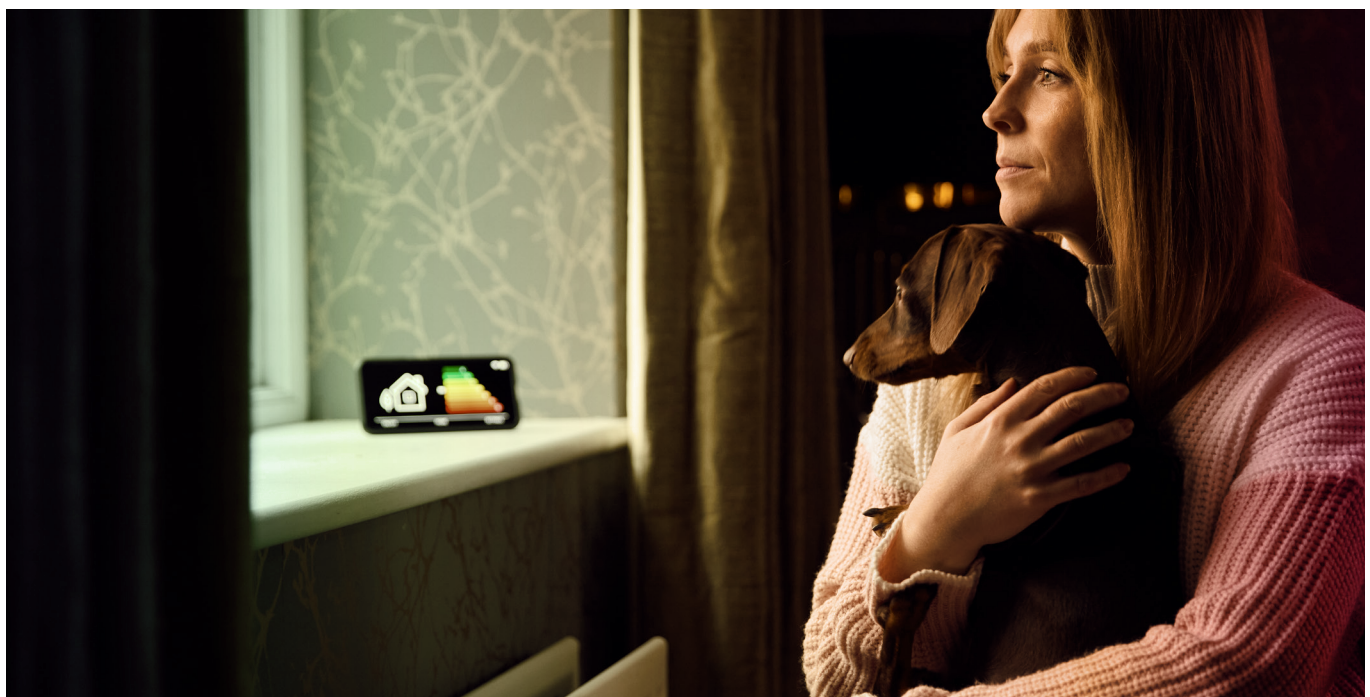
Use indicators from resources like the **Energy Poverty Advisory Hub dashboard** (e.g., causes of death, excess winter mortality, chronic diseases) or the **EU Climate and Health Observatory** (e.g., vulnerability to heatwaves, including older people) to monitor health impacts effectively.

EXAMPLES OF HEALTH IMPACT INDICATORS FOR ENERGY POVERTY MONITORING:	
<ul style="list-style-type: none"> • excess winter/summer mortality 	<ul style="list-style-type: none"> • exposure to older people to heat waves
<ul style="list-style-type: none"> • causes of deaths 	<ul style="list-style-type: none"> • population affected by unwanted loneliness and isolation
<ul style="list-style-type: none"> • population reporting chronic diseases and pain (asthma, other chronic respiratory and cardiovascular diseases, musculoskeletal problems, etc.) 	<ul style="list-style-type: none"> • use of health services
<ul style="list-style-type: none"> • mental health: anxiety, stress and depression levels 	<ul style="list-style-type: none"> • dwellings comfortably cool/warm in summer/ winter time
<ul style="list-style-type: none"> • sleep quality 	<ul style="list-style-type: none"> • dwellings equipped with air conditioning/ heating facilities
<ul style="list-style-type: none"> • population vulnerability to extremes of heat 	<ul style="list-style-type: none"> • in-door temperature, humidity and CO2 levels

If possible, disaggregated by gender and age to capture specific vulnerabilities.

5 Foster cross-sector collaboration to develop indicator systems

Engage professionals from energy, housing, and health sectors to co-design holistic strategies, leveraging shared expertise and stakeholder input during the establishment of indicator systems.



*** CONCRETE ACTION POINTS**

6 Measure intervention outcomes with ex-ante and ex-post indicators

In energy poverty interventions, especially home renovations, incorporate comfort and wellbeing indicators (e.g., temperature, humidity, sleep quality) and link funding schemes to health and wellbeing metrics.

Energy poverty interventions should not be assessed solely on energy and Green Houses Gases savings. Some interventions may increase energy consumption but still bring significant social and health benefits. Therefore it is needed to expand monitoring frameworks to include these broader impacts.



7 Capture broader wellbeing improvements in energy assistance programs

When providing energy assistance, include indicators that measure community support benefits, reductions in loneliness, and increased personal agency to assess broader wellbeing impacts.

8 Create platforms for professionals to share information

Establish the necessary platforms and other mechanisms to allow sharing information between professionals from different fields (GPs, social workers, energy coaches, etc.) to identify people at risk of energy poverty and refer them to the appropriate resources.

9 Strengthen energy poverty data collection at the EU level

Encourage comprehensive data collection across all Member States under a common EU framework within National Energy and Climate Plans, Social Climate Plans, and energy poverty Strategies, with a focus on health impact indicators.





CONCRETE ACTION POINTS

10 Regularly update and expand EPAH indicators

Ensure EPAH indicators are up-to-date and consider adding new metrics, such as excess summer mortality (for summer energy poverty), mental health impacts (e.g., depression, anxiety), and social parameters (e.g., loneliness).

11 Regularly update and expand EPAH indicators

Address energy poverty and health monitoring within the broader context of climate challenges, tracking impacts like heat islands, pollution and extreme events, while assessing improvements from energy transition measures such as renewable energy adoption, energy-efficient buildings, energy communities, climate shelters, etc.





REFERENCES

European Commission (2023): **Recommendation (EU) 2023/2407 of 20 October 2023 on Energy Poverty.**

European Public Health Alliance (2024): **Powering Health Equity: Integrating Health for Effective Energy Poverty Policy.**

Gouveia, J.P., Bessa, S., Palma, P., Mahoney, K., Sequeira, M., (2023). **Energy Poverty National Indicators: Uncovering New Possibilities for Expanded Knowledge.** EU Energy Poverty Advisory Hub, DG Energy. European Commission.

Stevens, M., Van Grieken, A. et al. (2024): **Final Analysis Report**, Deliverable No. D4.3, Wellbased, Grant Agreement No. 94509

World Health Organization (2023): **Generating and working with evidence for urban health: policy brief.** Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO

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FURTHER READING:

[D3.4. WELLBASED Final Report on the Implementation of the Urban Program](#)

[D4.2. WELLBASED Intermediate Analysis Report](#)

[D4.3. WELLBASED Final Pilot Sites Analysis Report](#)

[D4.5. WELLBASED Report from the qualitative study](#)

[D5.1. WELLBASED Analysis of existing and alternative financial models](#)

[D5.5. WELLBASED Policy Recommendations](#)

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