A Case-Based Complexity Approach to Health Inequality: Understanding Place-Based Policy to Enhance Policy Calibration

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Background

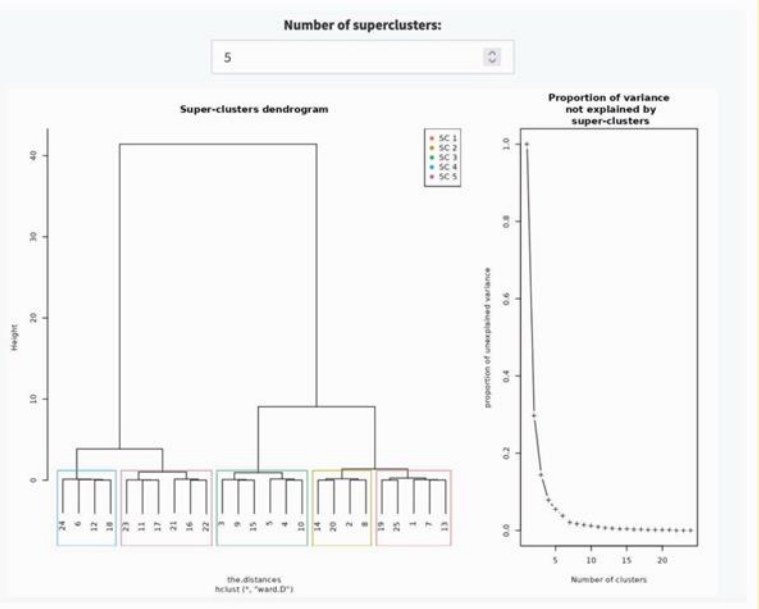
- The term health inequalities is used to:

  ‘describe the systematic differences in health associated with people’s different and unequal positions in society. In other words, the concept links the health of individuals to the structures of social inequality which shape their lives.’ (Graham, 2004: 117)

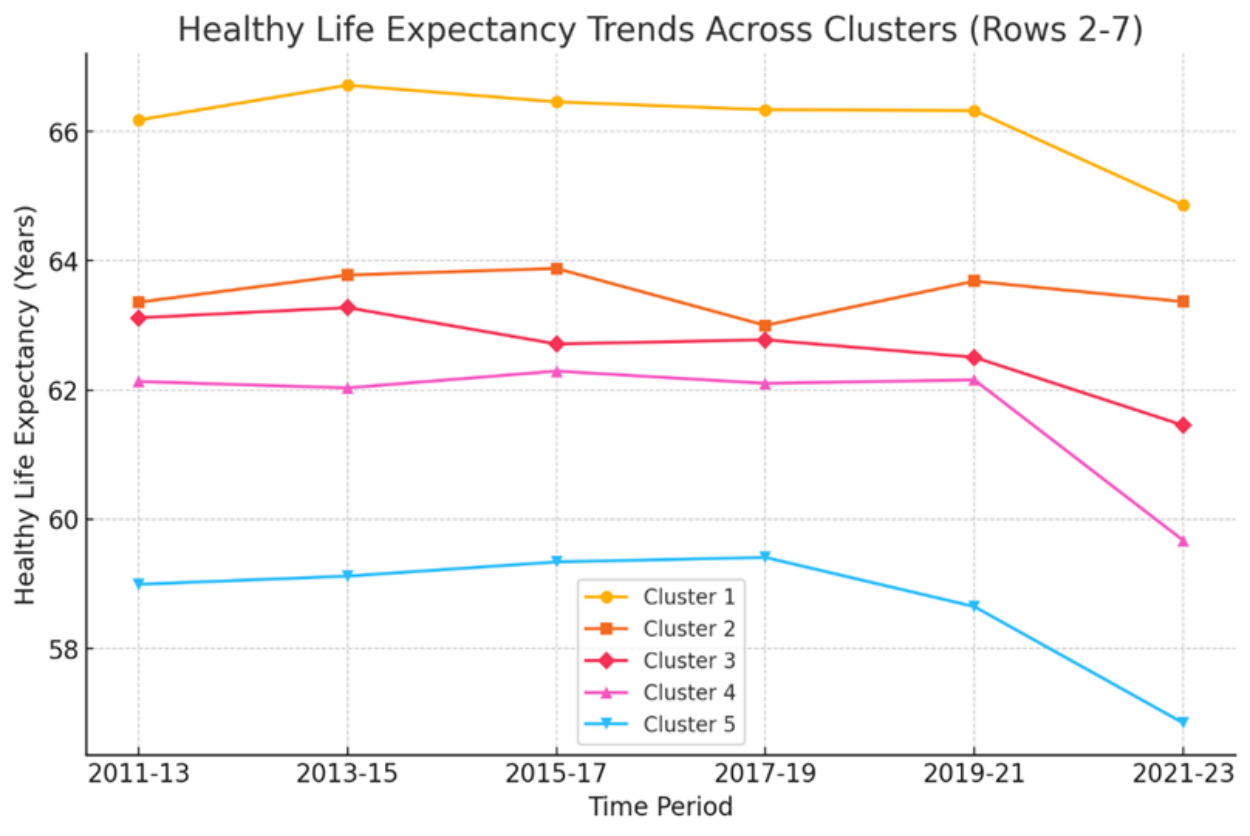
- Health inequalities *should* be analysed as emergent properties of pace-based social complexities (Wistow et al., 2015)
- However, despite some progress policy systems and research funding (in, e.g., the UK) still heavily skewed towards the medical model
- Case-based complexity (CBC) approaches can help to *disrupt* conventional understandings of health inequalities (Castellani and Gerrits, 2024)

Methods: A CBC approach to understanding health inequalities

- Dataset – longitudinal place-based dataset (N=141)
- N=40 factors relating to social complexities and trajectories of place, e.g., SDH, indices of deprivation and policy-related health outcomes (largely from PHOF).
- Analyses:
  - Combined male and female healthy life expectancies into a single score for each LA.
  - COMPLEX-IT – k-means cluster analysis and self-organising map (SOM), a form or machine learning



HLE Clusters trends: Complex trajectories within a national context of austerity and declining health



Cluster 1 – Resilient affluence: Low deprivation and positive SDH.

Cluster 2 – Resilient equilibrium: High levels of economic and social wellbeing.

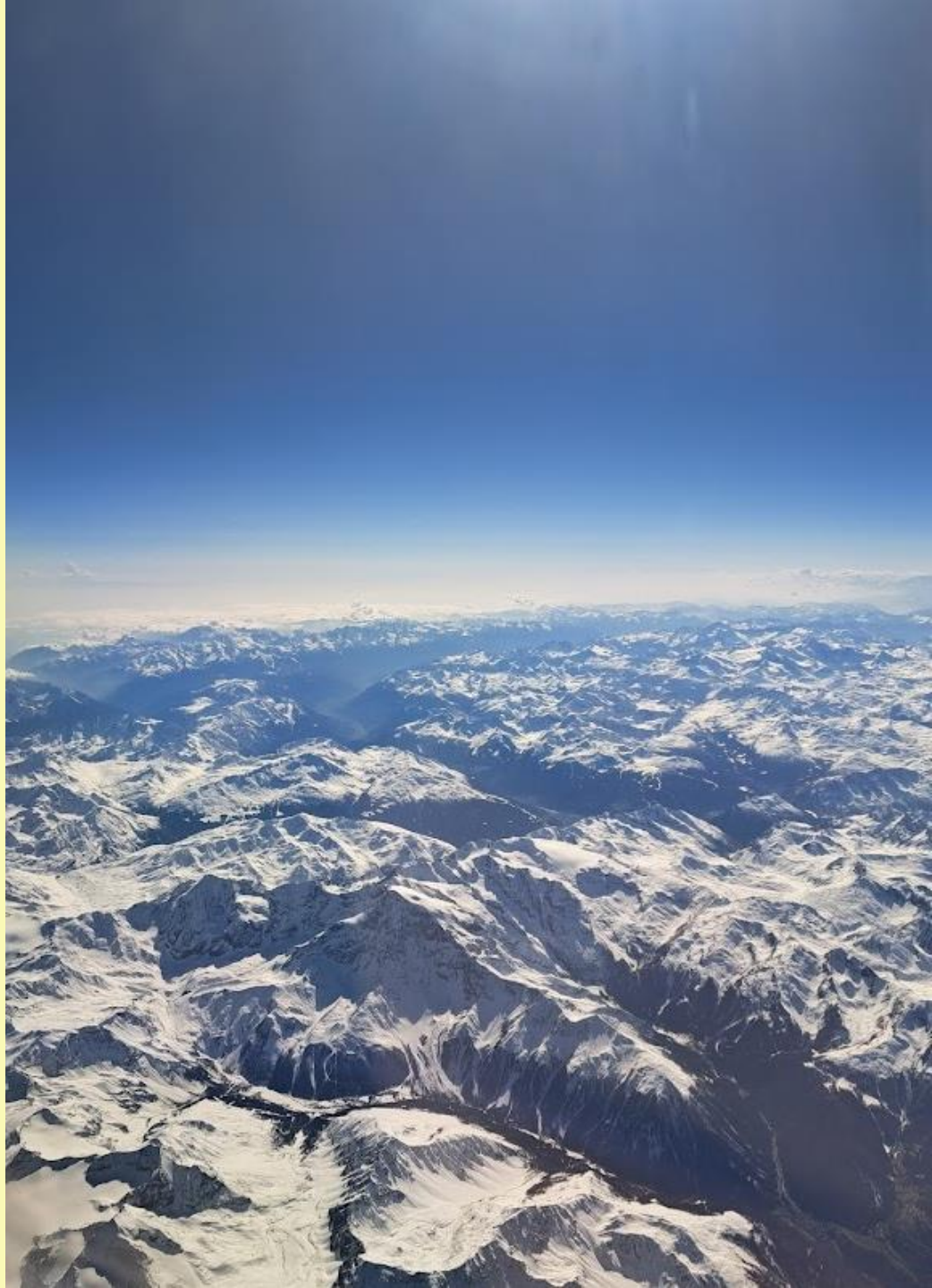
Cluster 3 – Struggling to hold ground: High deprivation, improving economic activity and gains in preventable health outcomes.

Cluster 4 – Declining social wellbeing: Poor SDH and average deprivation.

Cluster 5 – Entrenched disadvantage: High deprivation and poor SDH.

Discussion

- We have identified distinct clusters of health inequalities requiring different theoretical and policy responses:
  - E.g., Cluster 3 – resilience through policy and governance systems?
- These are also nested within a national system:
  - Learning across clusters – 4 & 5 from 3.
  - Interventions may exacerbate inequalities between clusters
    - Health inequalities are *dynamic* and *moving targets*.
    - *Resilience* of clusters 1 & 2
  - Despite the complexity – choices at the centre impact on the local, e.g., austerity, lack of adequate regional and local economic development strategy and declining health overall.



Concluding points

- **Health inequalities:**
  - Are not static gradients of deprivation but emergent properties of complex, place-based social systems.
  - Are place-based and contextually nested within wider systems
  - Are dynamic and evolve along different pathways
  - Require policy that is place-sensitive to these differences and yet aware of national trends, knock-on effects and the ways that interventions in once place impact another
- Case-based complexity,:
  - CBC, with its configurational approaches (such as clustering or QCA) provide a 'tin-opener' (see, Blackman et al., 2011) for qualitative interpretation and policy calibration.
  - CBC can reconcile the tension between locality-specific and national policy coherence – pathways for multi-level governance
  - Developing a CBC rubric for health policy:
    - Multi-level and trajectory-based, interdisciplinary and multi-method