

Abstract citation ID: ckad160.1254
A conceptual framework for early life determinants of future multimorbidity

Sebastian Stannard

S Stannard¹, A Berrington², S Paranjothy³, R Owen⁴, SDS Fraser¹, RB Hoyle⁵, S Batchelor⁶, J Welch⁷, NA Alwan^{1,8,9}

¹Faculty of Medicine, University of Southampton, Southampton, UK

²Department of Social Statistics & Demography, University of Southampton, Southampton, UK

³Medicine, Medical Sciences & Nutrition, University of Aberdeen, Aberdeen, UK

⁴Faculty of Medicine, Health and Life Science, Swansea University, Swansea, UK

⁵School of Mathematical Sciences, University of Southampton, Southampton, UK

⁶The Alan Turing Institute, British Library, London, UK

⁷Meld-B, Southampton, UK

⁸NIHR Southampton Biomedical Research Centre, University of Southampton, Southampton, UK

⁹NIHR Applied Research Collaboration, Wessex, Southampton, UK

Contact: S.J.Stannard@soton.ac.uk

Background:

Social, biological and environmental factors in early life, defined as the period from preconception until age 18, play a role in shaping the risk of Multiple Long-Term Condition Multimorbidity (MLTC-M). There is a need for conceptual framing of these factors to inform and shape future research on aetiology and for modelling prevention scenarios of MLTC-M. We developed a conceptual framework to characterise early life determinants of future MLTC-M risk.

Methods:

The conceptualisation of determinant domains was shaped by reviewing existing research evidence and policy, and co-produced with public contributors living in the UK via two workshops, one with 8 contributors age 18-30 regardless of MLTC-M status, and one with 12 contributors age 40-65 who all self-reported MLTC-M.

Results:

Domains included: 1.Prenatal, antenatal, neonatal and birth; 2.Adverse childhood experiences; 3.Child health, check-ups and screening; 4.Developmental attributes; 5.Child education and health literacy; 6.Demographics; 7. Parent health and health behaviours; 8.Socioeconomics; 9.Parental family factors; 10.Neighbourhood, physical environment and health care systems; 11.Health behaviours and diet; 12.Religion, spirituality and culture. Some domains identified by the public contributors, such as religion, health screening, check-ups, and diet, were not well represented within the research evidence or policy documents.

Conclusions:

This co-produced conceptualisation can inform research to investigate the early life characteristics of population groups at risk of future MLTC-M, as well as policy directions towards prevention of early-onset MLTC-M. Additionally, it can shape the direction of further data collection, particularly with respect to the understudied domains identified by our public contributors.

Key messages:

- We developed a conceptual framework to characterise early life determinants of multimorbidity.
- This conceptualisation can inform future research and policy directions towards prevention of multimorbidity.