

Harmonisation of electronic birth cohort datasets Born in: South London, Bradford, Scotland, Wales

Context

- Each of the UK nations has numerous electronic birth cohort datasets that contain routinely collected administrative data and linkable datasets.
- These contain significant data about maternal, infant and child health that are valuable to evaluate health outcomes for mother and baby.
- The lack of harmonised data between cohorts is a hindrance to analyses of which policies, or components of each policy, have the optimal impact on healthcare outcomes.
- A clear understanding of the metadata/data dictionaries for each birth cohort will enable comparisons between policies and to inform changes to policy for optimal impact.

This project will map and harmonise 4 electronic birth cohorts across the UK nations: Born in Wales (BiW), Born in Scotland (BiS), Early Life Cross-Linkage in Research (eLIXIR - Born in South London), and Born in Bradford (BiB4AII).

Key activities

- The team will collate all metadata and data dictionaries from each of the cohorts, to map their similarities and differences.
- The project will compile harmonised datasets for each of the birth cohorts; ensuring they are structured in a comparable manner.
- The work will examine outcomes that can be measured across cohorts and evaluate differences.
- The team will perform discontinuity analyses of early pregnancy grants policies within each cohort and compare between each cohort.

Planned outcomes

- Harmonised datasets, linked local datasets and intervention information.
- A summary of comparable child and maternal outcomes across the birth cohorts.
- Discontinuity analysis of early pregnancy grant policies.



More information can be found at: <u>www.gla.ac.uk/matchnet</u> and on Twitter @MatCHNet_

Research Team

- Michael Seaborne (Swansea University)
- Prof Sinead Brophy, Hope Jones (Swansea University)
- Prof Lucilla Poston (Kings College London), Prof Rebecca Reynolds
- (Univ. of Edinburgh), Dr Gillian Santorelli (Bradford Institute for Health Research)

References

- 1. Reader M. The infant health effects of starting universal child benefits in pregnancy: Evidence from England and Wales. J Health Econ. 2023 May 1;89:102751.
- Popovic M, Zugna D, Richiardi L. Regression discontinuity design in perinatal epidemiology and birth cohort research. arXiv preprint arXiv:220811047. 2022;
 Ward R, Hallinan CM, Ormiston-Smith D, Chidgey C, Boyle D. The OMOP Common Data Model in Australian Primary Care Data: Building a Quality Research Ready Harmonised Dataset. 2023;
- Zeitlin J, Philibert M, Estupiñán-Romero F, Loghi M, Sakkeus L, Draušnik Ž, et al. Developing and testing a protocol using a common data model for federated collection and analysis of national perinatal health indicators in Europe. Open Research Europe. 2023;3(54):54.



MRC/CSO Social and Public Health Sciences Unit





