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CARELINK Wales: Examining Outcomes Trajectories for Children in Care with Synthetic Control Methodologies

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Being taken from your family and entering care is traumatic and alters life course for many children, but sometimes it may be the lesser of two-evils. This work investigates outcomes following care entry, and evaluates decisions to place children in care, rather than staying in the family home.

Health and socioeconomic outcomes will be compared between children who did and did not enter care (intervention), utilising data from the SAIL databank. Leveraging explanatory variables identified in previous work in collaboration with patient and public involvement (PPI) groups, propensity score matching was applied to control for factors associated with care entry. This ensures cases and controls had closely matched experiences in the pre-intervention period. Descriptive statistics, logistic regression, survival analysis and synthetic control methodologies were used to determine if going into care modulated the likelihood of specific outcomes.

This work is due to commence in the following months (February 2025 – September 2025). Outcomes to investigate will include but are not limited to mortality, healthcare utilisation, specific healthcare events (e.g. occurrence of depression), education outcomes and more. Anticipated research outputs include odds and hazard ratios to quantify the modified risk of outcomes following care entry. The core outputs will compare cohorts with varying risk of care entry and will evaluate the effectiveness of propensity scores and synthetic control methodologies in minimising differences between cases and controls prior to being taken into care. The synthetic control methodologies will evaluate the trajectory of outcomes measured at consistent intervals (e.g. appointments per year) and demonstrate how implementing an intervention (being placed in care), changes that path.

Through applying synthetic control and other methodologies, the aim is to show how life course is altered for children who enter care compared to controls who are highly similar prior to an intervention. These methods can be complex to apply in individual level data while retaining statistical power and record anonymity.

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