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Analysis of factors associated with changing general practice in the first 14 years of life in Wales using linked cohort and primary care records: implications for using primary care databanks for life-course research

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Background

Databanks of primary care electronic health records (pcEHRs) are a valuable resource for life course research, however loss to follow up due to changing general practice has received little attention.

Objective

We investigated factors associated with changing general practice (GP) in early life and continuity of participation in the Secure Anonymised Information Linkage (SAIL) databank, to which approximately 80% of Welsh practices contribute.

Methods

We analysed linked pcEHRs for 1834 (882 girls) Millennium Cohort Study participants, resident in Wales, with consent to health record linkage. We studied time from first to next practice registration using Cox proportional hazards models, and estimated mutually-adjusted hazard ratios (aHRs) for child, household and practice factors.

Findings

There were 3065 Welsh GP registrations for 1834 children. By age 5 years, 25% changed practice at least once, with 1070 (58.3%), 477 (26.0%), 287 (15.7%) registered with 1, 2, or 3+ GPs respectively by age 14 years. Changing practice was related to maternal age (aHRs; 95% CI: 0.96; 0.95,0.98), living in rural areas (0.75;0.56,0.99), initial registration with a non-SAIL-practice (2.16;1.60,2.93), recent address change (1.62;1.21,2.16), and no maternal educational qualifications (1.40;1.15,1.71). Overall, 305 (16.6%) children had never registered with a SAIL practice. Of 403 children initially registered with a SAIL practice who then changed practice, 66.7% re-registered with a SAIL practice.

Conclusions

In a nationally representative sample of Welsh children, the majority remained registered with the same practice up to age 14 years, with change in practice varying by maternal and household factors. Continuity of participation in the Welsh SAIL databank over early life is high, reflecting the high proportion of practices contributing, and the high proportion of children registered with them. Geographically contiguous primary care databanks, such as SAIL, enable a high proportion of children to be followed over time despite changing general practice.

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