

International Journal of Population Data Science

Journal Website: www.ijpds.org



Where should I care? A data linkage study to explore the association between geographical mobility and nurse employment in the first year of practice

Iain Atherton^{1,2}, Matthew Hotopf^{1,2}, David Manley³, Richard Kyle⁴, Lucina Rolewicz³, and William Palmer⁴

¹Edinburgh Napier University, Edinburgh, United Kingdom

²Scottish Centre for Administrative Data Research, Edinburgh, United Kingdom

³University of Bristol, Bristol, United Kingdom

⁴University of Exeter, Exeter, United Kingdom

⁵Nuffield Trust, London, United Kingdom

Objectives

To identify the factors influencing nurses' geographic relocation within their first year after registration as they seek employment.

Method

In England and Wales, 630,000 nurses are listed on the professional register maintained by the Nursing and Midwifery Council. This register has been linked to the 2021 census for England and Wales, creating a unique dataset that integrates geographic, social, and professional data. The register indicates the length of time since initial registration, while migration is determined based on census responses detailing current area of residence (as of 21 March 2021) and location 12 months prior. The census also provides data on occupation and employment status, including full-time and part-time work.

Results

Patterns of nurse migration within the first year of practice in England and Wales will be analyzed and compared with those registered for 2–5, 6–10, and more than 10 years. Geographic variations in in-migration and out-migration rates will be mapped at the Government Office Region level. Logistic regression models will identify factors predicting relocation for employment among newly registered nurses, compared to those who remain in place. Employment patterns (full-time vs. part-time), caregiving responsibilities, housing tenure, as well as other socio-demographic and professional factors will be examined to assess influences on mobility, including life-course stage, within the nursing workforce.

Conclusion

Nurse relocation may contribute to localized workforce shortages. By understanding the factors that encourage stability or drive mobility, we can enhance workforce planning, funding allocations, and nursing education strategies. Policy recommendations will be provided to support recruitment and retention efforts, which are critical to delivering the NHS Long-term Plan.

