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Assessing access to primary care in rural and urban Wales

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Objectives

This study aimed to provide evidence related to Primary Care access for individuals in rural Mid-Wales compared to urban areas to support service planning. We addressed the research questions: do individuals register with their nearest General Practice (GP) surgeries, and how far do patients travel to attend registered GP's.

Methods

We created road network distances from each residential address in Wales to each GP surgery and linked with property and individual level data in the Secure Anonymised Information Linkage Databank (SAIL) using the Welsh Demographic Service dataset. Cohorts consisted of individuals registered to single-site Wales-based GPs who provide healthcare data to SAIL. Study groups were assigned as Mid-Wales or Urban based on a selected list of Mid Wales GP's, or urban GP location. We used descriptive statistics to examine differences for proportions of patients registered to their nearest, or a more distant GP, and distances travelled.

Results

Study groups consisted of 86,996 individuals registered at 15 GP surgeries, and 979,652 individuals registered at 136 GP surgeries for the study and comparator group respectively. 63% of the study group were registered to their nearest GP practice, compared to 45% in the urban comparison group, with wide variation within the study group across the GP's (range: 24% to 95%). Mean distance travelled to primary care for the study group was 6.3km, compared with 2.3km in the comparator group, a statistically significant difference of 4.1km (p-value <0.05, confidence intervals 4.06-4.14km). Similar variation was noted within study GP surgeries, with a range 3.1km to 9.9km.

Conclusion

In collaboration with Rural Health and Care Wales we combined administrative and Geographical data to provide evidence quantifying proportions of individuals registered to nearest GP's, and distances travelled. This is important in the context of Welsh Government and NHS strategies towards community-based services, with wider implications for those in rural areas.

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