

L. CARRAGHER, F. MARKEY, B. RODD. *Using Geographical Information Systems (GIS) to support effectiveness in home care services to older people. Gerontechnology 2010;9(2):269; doi: 10.4017/gt.2010.09.02.172.00* **Purpose** Providing home care services for a growing number of older people is an increasing concern for health care system in all developed countries, with the demands for home support far outstripping supply. In many countries, this is compounded by a lack of information to support coordination and efficiency in the decisions of administrators. There is an urgent need to maximise home care services that enable older people to remain in their communities and reduce pressures on in-patient services¹⁻³. This study uses GIS to support spatial optimisation in the delivery of home care to older people in County Louth, Ireland. The results have important implications for policy and practice, in particular with the ongoing rollout of the National Primary Care Strategy⁴ and the new Positive Ageing Strategy Department of Health and Children⁵. **Method** The distance travelled by 438 home care workers in County Louth providing services to 1,000 older people in their homes was calculated (Figure 1). Addresses for home care workers and clients were geocoded in order to determine spatial inefficiency in the allocation of care workers to clients. **Results & Discussion** Preliminary results point to the potential for significant savings in terms of the time spent by care workers travelling to clients and in travel costs for the Health Services Executive (HSE). There is much overlap in the current system with care workers often unnecessarily travelling long distances to their clients when they could have been assigned to clients much closer to them. Preliminary analysis of the potential savings on travel costs for the HSE suggests these could be up to €9 per care worker. GIS has important role to play in combating inequalities and inefficiencies in access to, and delivery of home care to older people. Full results from this study will be available in April 2010.

References

1. Parker EB, Campbell JL. Measuring access to primary medical care: some examples of the use of geographical information systems. *Health and Place* 1998;4(2):183-193
2. Prospectus. Audit of Structures and Functions in the Health System on behalf of the Department of Health and Children. Dublin: The Stationery Office; 2003
3. Houghton F. Reflection and Comment Health GIS in the mid-west: Unexpected development and directions *Irish Geography* 2006;39(1):99-104
4. Department of Health and Children. Primary Care: A New Direction. Dublin: The Stationery Office; 2001
5. Department of Health and Children (2010) National Positive Ageing Strategy (upcoming): Dublin: The Stationery Office

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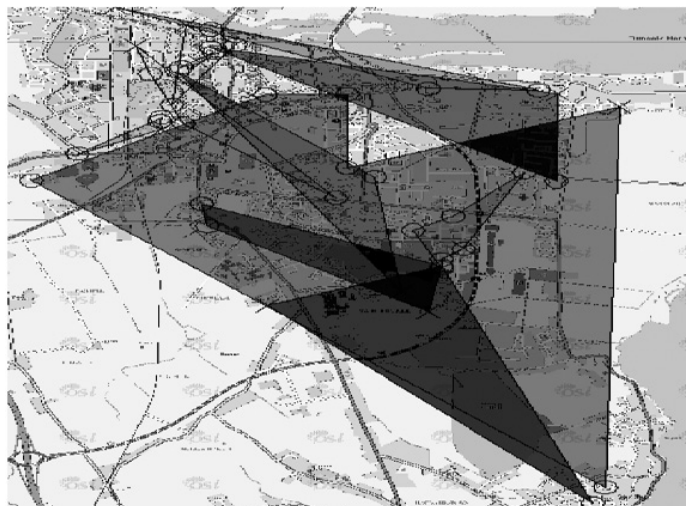


Figure 1. Current routes taken by home care workers