



EXAMINING VARIATION IN ACCESS TO POST-ACUTE HOME CARE SERVICES

What is this project about?

More frequently, post-acute health care services are being provided in clients' homes, with nurses providing the majority of this care. Previous Ontario-based research indicates that variation in access to post-acute home care services is present across regions^{1,2,3}. Although previous research supports the notion that variation in access to home care exists across Ontario, subsequent changes in the allocation, funding, and delivery of services have occurred. The aim of this analysis is to (1) determine whether regional variation in access to post-acute home care nursing services persists, and (2) identify factors affecting access to post-acute home care nursing services.

What did we do?

To examine variation in access to post-acute home care services, administrative data were analysed using multiple linear regression. Data from the Discharge Abstract Database, the Home Care Database, and the Registered Persons Database were linked. Adult patients who received at least one home care visit between April 1st, 2009 and March 31st, 2012 were included in the analysis.

The outcome of interest for this analysis was the number of nursing visits received in the first 60 days following admission to home care.

Age, sex, case mix group, living arrangement, residence type, number of hospitalizations in the

previous 30 days, hospital length of stay and previous home care utilization were included in the analysis to control for known sources of variation. The month and year of the home care admission were also included in the model.

Finally, the geographical location of care [Local Health Integration Network (LHIN)] was included to assess for the influence that variation in availability of resources may have on access.

Findings

Sample characteristics are summarized in Table 1.

Table 1: Patient Characteristics

	n = 43,624
Mean age in years (SD)	61.9 (15.0)
Percent female	46.5%
Hospital length of stay in days (SD)	5.8 (7.2)
Previous home care utilization	6.23%
Living arrangement	
Alone	11.4%
With spouse	40.2%
With spouse & other family	8.1%
With other family	7%
Other	2.7%
Unknown	30.6%
Residence type	
Private home	96.86%
Long-term care facility	0.44%
Retirement home	0.52%
Unknown	2.18%
Mean # of nursing visits	10.1 (11.6)



Table 1 continued

Number of hospitalizations in previous 30 days	
Zero	96.4
One	3.2
Two	0.3
Three	0.03
Received nursing	99.5%
Received physiotherapy	7.2%
Received occupational therapy	2.9%
Received home support	2.9%
Received care coordination	36.0%

Greater intensity of home care nursing services was associated with:

- ✓ Increasing age
- ✓ Being female
- ✓ Not living with a spouse
- ✓ Receiving care from health care providers other than nurses
- ✓ Being admitted to home care in July
- ✓ Receiving care in the North-West CCAC
- ✓ Longer hospital length of stay
- ✓ More hospital admissions in the 30 days preceding home care.

While lower intensity of home care nursing visits was associated with:

- ✓ Living in a long term care facility
- ✓ Utilization of home care services in the 30 days preceding the home care admission
- ✓ Being admitted to home care in fiscal years 2010/2011 and 2011/2012
- ✓ Being admitted to home care in February or March
- ✓ Receiving care in CCACs other than the Toronto Central or North West

How can you use this information?

The presence of variation in access to post-acute home care services across the province means that individuals may not be getting the services they require in home upon discharge from hospital. Not receiving required services can put individuals at risk for adverse outcomes such as rehospitalisation.

Variation in access across the fiscal year was also evident. This finding may be explained by the current structure of home care funding which influences service levels over the year. Due to these current funding structures, CCACs tend to restrict service levels in the first half of the year, increase service levels in the second half of the year, and then reduce services levels at the end of the year to achieve a balanced budget⁴. Improving the flow of funding to the CCACs may enable more equitable distribution of home care services over time and allow for appropriate budgetary planning for times when service needs are known to increase.

Finally, to ensure equitable access the supply of home care service providers must be adequate across the province. Although not included in the analysis, it is possible that the availability of home care nurses varies across CCACs, affecting the ability of home care service providers to offer equitable levels of care. Ensuring desirable work environments and employment conditions for home care nurses could help to achieve an adequate supply of home care nurses to provide clients with the required care⁵.



About the Researchers:

Graduate Student Investigator:

Erin Patterson RN, PhD Candidate

erin.patterson@utoronto.ca

Erin is a PhD Candidate at the Lawrence S. Bloomberg Faculty of Nursing examining variation in access to long-term home care services for Ontario seniors.

Graduate Student Co-Investigator:

Margaret Saari RN, PhD Student

margaret.saari@utoronto.ca

Margaret is a PhD Student investigating the impact of home care service utilization on outcomes for Ontario seniors.

Supervisor:

Ann Tourangeau RN, PhD

Associate Professor, Lawrence S. Bloomberg
Faculty of Nursing, University of Toronto

ann.tourangeau@utoronto.ca

Ann is an outcomes researcher, an Associate Professor in the Faculty of Nursing at the University of Toronto and an adjunct scientist at ICES.

Where can you find more information about this project?

Information regarding this project and other resources is available on

www.tourangeauresearch.com and

www.nhsru.com

¹ Coyte, P., & Young, W. (1999). Regional variations in the use of home care services in Ontario, 1993/95. *CMAJ*, *161*, 376-80

² Laprote, A., Coyte, P., Croxford, R. (2002). Access to home care services in Ontario: The role of socio-economic status. Retrieved from: http://munkschool.utoronto.ca/cphs/wp-content/uploads/2012/03/CPHS2001_Audrey_Laporte.pdf

³ McCarter, J. (2010). *2010 Annual Report: Office of the Auditor General*. Retrieved from: http://www.auditor.on.ca/en/reports_en/en10/2010ar_en.pdf

⁴ Ontario Association of Community Care Access Centers. (December, 2013). *OACCAC Pre-budget Submission 2014*.

Retrieved from: <http://oaccac.com/Policy-And-Research/research-papers-and-reports>

⁵ Tourangeau, A., Patterson, E., Rowe, A., Saari, M., Thomson, H., MacDonald, G., Cranley, L., & Squires, M. (2014). Factors influencing home care nurse intention to remain employed. *Journal of Nursing Management*, *22*(8) 1015-1026.