

**DISABILITY IN LONG-TERM CARE RESIDENTS EXPLAINED BY  
PREVALENT GERIATRIC SYNDROMES, NOT LONG-TERM CARE HOME  
CHARACTERISTICS: A CROSS-SECTIONAL STUDY (PUBLICATION)**



**NATASHA E. LANE, WALTER P. WODCHIS,  
CYNTHIA M. BOYD, THÉRÈSE A. STUKEL**

## **CONTEXT**

Long-term care (LTC) homes are publicly-funded facilities for older adults whose care needs are greater than the level provided by home care or retirement homes, but less than that provided in hospital. Most LTC home residents have some self-care disability, which is dependence on others to conduct activities of daily living, such as bathing, eating and dressing. Among LTC residents, self-care disability lowers quality of life and increases health care costs. There is limited evidence regarding the association of specific resident and LTC home characteristics with resident disability, or the extent that these associations differ by age, sex, and cognitive status. Understanding the correlates of self-care disability in this population is critical to guide clinical care and ongoing research in Geriatrics.

## **OBJECTIVES**

This study examines which resident geriatric syndromes and chronic conditions are associated with residents' self-care disability and whether these relationships vary across strata of age, sex and cognitive status. It also describes the proportion of variance in residents' self-care disability that is explained by residents' geriatric syndromes versus LTC home characteristics.

## **METHODS**

A cross-sectional study was conducted using a health administrative cohort of 77, 165 LTC home residents residing in 614 Ontario LTC homes. Eligible residents had their self-care disability assessed using the Resident Assessment Instrument Minimum Dataset (RAI-MDS) 2.0 activities of daily living long-form score within 90 days of April 1<sup>st</sup>, 2011. The primary outcome, resident disability, was measured using Activities of Daily Living long-form score, which quantifies resident disability from 0 to 28 based on degree of dependence on others. Hierarchical multivariable regression models with random effects for LTC homes were used to estimate the association between self-care disability and resident geriatric syndromes, chronic conditions and LTC home characteristics. Differences in findings across strata of sex, age and cognitive status (cognitively intact versus cognitively impaired) were examined.

## **FINDINGS**

Geriatric syndromes, such as balance impairment, urinary and bowel incontinence, pressure ulcer, severe visual impairment and severe cognitive impairment, each had statistically significant independent associations (2.5 point increase). On the other hand, having chronic conditions, such as Parkinson's, heart failure, stroke, limb paralysis or amputation, kidney disease, or mood disorder, were significantly associated with higher resident disability, but the size of these independent associations were smaller than those of geriatric syndromes (0.22-1.93 point increase). Compared to being underweight, having a healthy body mass index (BMI) and being obese were both associated with lower disability; the protective effects of not being underweight were greatest in residents with overweight BMIs. The direction and size of some of these effects were different for cognitively impaired versus cognitively intact residents. Residents' geriatric syndromes explained 50% of the variation in their self-care disability scores, while characteristics of LTC homes explained an additional 2% of variation.

## **CONCLUSIONS**

Differences in LTC residents' self-care disability are largely explained by prevalent geriatric syndromes. After adjusting for resident characteristics, there is little variation in self-care disability associated with LTC home characteristics. This suggests that residents' geriatric syndromes – not the homes in which they live – may be the appropriate target of interventions to reduce self-care disability, and that such interventions may need to differ for cognitively impaired versus unimpaired residents.

FOR A COPY OF THE FULL REPORT [CLICK HERE](#) OR VISIT OUR WEBSITE <http://hsprn.ca>