

# Individuals with sensory and cognitive impairments face additional challenges compared to those with cognitive difficulties alone: Analysis of interRAI data from home care and long-term care

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## INTRODUCTION

Sensory losses and cognitive impairments are highly prevalent in older adults (65+) and are associated with difficulties in communication, mood and functional ability<sup>1</sup>

The main object of the study was to understand the relationships between sensory and cognitive impairments

## METHODS

- Secondary analysis was completed on:
  - ❖ A sample of Ontario home care clients (n=291,824) using the Resident Assessment Instrument for Home Care (RAI-HC)
  - ❖ A sample of long-term care (LTC) residents (n=110,578) using the Minimum Data Set 2.0 (MDS 2.0)
- For individuals with multiple assessments, the most recent assessment completed between 2009-2014 was chosen for analysis
- In each sample, individuals were separated into eight mutually exclusive sub-groups;
  - ❖ No impairments
  - ❖ Hearing impairment (HI)
  - ❖ Vision impairment (VI)
  - ❖ Dual sensory impairment (DSI)
  - ❖ Cognitive impairment (CI) only
  - ❖ Combination of sensory and cognitive impairment
    - CI + VI
    - CI + HI
    - CI + DSI

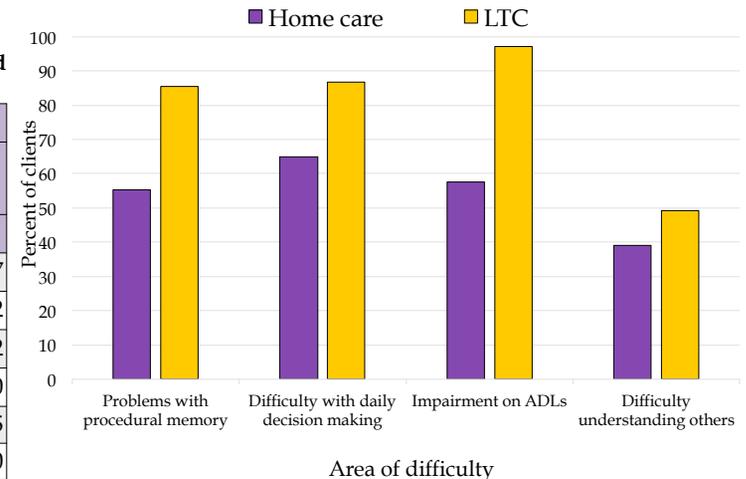
## RESULTS

**Table 1: Characteristics of home care clients with CI only and CI + DSI**

|   | Home care          |                   |
|---|--------------------|-------------------|
|   | CI only (n=54,029) | DSI+CI (n=49,452) |
|   | %                  |                   |
| Aged 85 +                                       | 34.1               | 64.7              |
| Female  | 66.0               | 62.2              |
| Widowed/separated/divorced                      | 52.9               | 63.2              |
| Self reported loneliness                        | 13.0               | 17.0              |
| ADL impairment                                  | 42.7               | 57.5              |
| IADL impairment                                 | 71.3               | 82.0              |
| Moderate/severe difficulty understanding others | 25.1               | 38.0              |

**Table 2: Characteristics of long-term care residents with CI only and CI + DSI**

|   | Long-term care     |                   |
|---|--------------------|-------------------|
|   | CI only (n=31,142) | DSI+CI (n=30,349) |
|   | %                  |                   |
| Age 85+   | 53.4               | 75.8              |
| Female  | 70.3               | 71.8              |
| Widowed/separated/divorced                      | 63.3               | 70.3              |
| Purses involvement in life of facility          | 22.9               | 14.0              |
| At ease interacting with others                 | 56.4               | 44.3              |
| ADL impairment                                  | 93.1               | 97.1              |
| Moderate/severe difficulty understanding others | 27.7               | 49.2              |



**Figure 1: A comparison of clients in home care and long-term care with all three impairments (CI + DSI)**

## DISCUSSION

- Compared to all other sub-groups, clients with all three impairments (CI + DSI) were more likely to report loneliness, have reduced social engagements and greater functional impairment
- Older adults with CI + DSI were more likely to have impairments in functional dependence, skills for daily decision-making and communication, compared to individuals with CI alone
- Sensory and cognitive impairments are highly prevalent in both home care and long-term care settings and are potentially modifiable making them an important target for interventions to reduce negative health outcomes

### References

1. Pinto JM, Kern DW, Wroblewski KE, Chen RC, Schimm LP, et al., (2014) Sensory function: insights from Wave 2 of the National Social Life, Health and Aging Project. J Gerontol B Psychol Sci Soc Sci 69 Suppl 2: S144-153.