



# CARE AND CONSTRUCTION

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## Assessing Differences in Nursing Home Models of Care on Resident Quality of Life

Project Overview for Sector Workshop Participants

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## Purpose

One of the main objectives of the project, *Care and Construction: Assessing Differences in Nursing Home Models of Care on Resident Quality of Life*, is to facilitate the dissemination of knowledge and the application of research to strengthen continuing care sectors throughout Canada. As part of this objective, the project team, in collaboration with Health Association Nova Scotia, is hosting a workshop for sector representatives on November 27, 2013. This report was prepared to provide an overview of the project to workshop participants. The focus is on the background to the project, rationale, and the project design. Overall key messages from the project are included but a detailed presentation on results from the project will be shared at the workshop.

## Project Background

In Nova Scotia, the continuing care sector has been undergoing significant changes. As part of the Continuing Care Strategy, a number of new and replacement homes have been opened over the last five years. These homes include shifts in staff scope of practice and incorporate innovative physical designs (e.g., home-like settings replacing hospital-like wards). In addition to these system-level changes, individual facilities are adopting philosophies that emphasize resident-centered care. These changes have implications for residents, their families, and the staff that work in these homes.

In 2009, prompted by changes in the sector, a team of researchers and sector representatives came together to identify research questions related to the resulting new models of care. A review of the literature identified that a transition to resident-centered care, through the use of more home-like environments and new staffing approaches, has the potential to improve delivery of care and address important resident concerns. However, the impact of these innovations on resident quality of life had not been thoroughly assessed, specifically within a Canadian context.

Supported by funding from Mount Saint Vincent University (MSVU) and the Nova Scotia Health Research Foundation (NSHRF), the team put together a research proposal to examine the impact of different models of care in Nova Scotia's publicly funded nursing homes on resident quality of life from the perspectives of residents, family members, and staff.

The proposal was successful and in April 2011 the Care and Construction project began with 3 years of funding from the Canadian Institutes of Health Research (CIHR) and NSHRF. Dr. Janice Keefe, Professor of Family Studies and Gerontology, MSVU and Director, Nova Scotia Centre on Aging, is leading this team which includes academic, continuing care sector, community, and government partners.

## Incorporating Three Perspectives – Residents, Family, and Staff

In addressing the research question, the project team recognizes the importance of including the diverse perspectives of nursing home residents, their families and nursing home staff. Previous research has shown that changes in nursing home staffing approach and physical design impacts residents, family, and staff but many of these studies included only one perspective.



Studies have found differences between resident and caregiver appraisals of quality of life, yet little is understood about why those differences exist. By consulting all three groups in this project, one of the goals has been to enhance the understanding of the perception gap that may exist among them.

Previous research has tended to focus on the perspectives of family and staff. The differences found between the perspectives underscores the importance of including residents themselves in the research and in finding unique ways to include the experiences of those with dementia and other cognitive impairments. These important considerations helped shape the design of the project and plans for data collection.

## Resident Quality of Life

Research looking at nursing home residents have used different concepts to assess outcomes including resident satisfaction, quality of care, and quality of life. In developing the research questions for this project, the team chose to focus on resident quality of life as the main outcome. Quality of life can include a number of elements such as perceptions of autonomy, comfort, safety. It can also encompass elements of resident satisfaction and perceptions of quality of care.

As a measure of resident quality of life, residents, family, and staff completed the *interRAI Survey on Nursing Home Quality of Life* ©. The questions for this instrument examine a number of domains related to resident quality of life including autonomy, opportunities to engage in activities, food, and safety. The survey was tailored to the different perspectives. Residents responded from their own perspective, family responded based on *their perceptions* of the experience of the resident (their family member) and staff responded based on *their perception* of the experiences of all residents living in the home.

Through analysis of the responses, the team identified four components of quality of life that are shared between residents, family, and staff in their assessments of resident quality of life. This allowed for comparisons between the three perspectives. These factors are:

- **Care and Support:** Residents have privacy and safety when receiving care, receive service when needed, are treated with dignity and respect, and are supported to live the way they want.
- **Autonomy:** Residents have the privacy they want, decide when to do things and how to spend their time, and have control over who is in their room.
- **Activities:** Residents have enjoyable activities to take part in and that keep them mentally active.
- **Food:** Residents enjoy mealtimes and have variety in their meals.

## Involving the Province's Nursing Homes

Changes in staffing approach and physical design within Nova Scotia's nursing homes provided an ideal context to assess impacts on resident quality of life. To examine these impacts, the project team categorized the differences within the participating nursing homes. These categories are defined for the purpose of the project as the **model of care**. The three models of care are New-Full-scope, New-Augmented, and Traditional and are based on differences in physical design (new



household design vs. traditional) and staff approach (based on the variations in scope of practice of the Continuing Care Assistants (CCAs)).

**Table 1: Overview of the Project's Models of Care**

	Physical Design	Staff Approach
<b>New – Full-scope</b>	<b>New</b> Small, self-contained households	<b>Full-Scope</b> CCAs responsible for all tasks, including dietary and housekeeping
<b>New – Augmented</b>	<b>New</b> Small, self-contained households	<b>Augmented</b> CCAs provide care needs and limited dietary and housekeeping
<b>Traditional</b>	<b>Traditional</b> floors/units	<b>Traditional</b> CCAs provide only care needs, other staff provide dietary and housekeeping services

A number of the homes involved were partners during the development of the project's research proposal. Other homes were invited to participate as project study sites once funding had been secured. These homes were included to ensure representation across the three models of care. In total, 23 nursing homes acted as the study sites for the project. These sites had participation from residents, family and staff. An additional invitation was made to all the nursing homes across the province to have staff participate in the survey to ensure a large enough sample to allow for detailed analysis of experiences working in long term care. In response to this invitation, staff from 36 additional homes completed the survey.

These nursing homes, both the project study sites and the additional homes where staff participated, represent diverse locations across Nova Scotia including nursing homes from both rural and urban areas. These homes are from both the public and private sector and include not-for-profit and for-profit homes. The size of participating homes ranges from 15 beds to 474 beds. The age of the facilities ranges from 2 years to 42 years.

## Multi-method Design

A variety of data collection methods were used to assess resident quality of life from the three different perspectives. The mix of data collection methods allows the team to balance the inclusion of a large numbers of participants while also examining more in-depth contextual factors. The design included surveys, interviews, focus groups, participant observation and activity monitoring. Data was collected throughout 2012.

The two main components of the project are the *survey* of residents, family, and staff and the *case study*. These are described in more detail in the following sections.

## The Survey Design

Working groups comprised of both researchers and sector representatives from the project team met to develop the project's surveys. One survey was developed for each perspective: resident,



family, and staff. Each of the surveys included the *interRAI Survey on Nursing Home Quality of Life* © as previously described and additional questions tailored to the individual perspectives. The resident survey included questions about personal characteristics (e.g., age, gender, marital status), physical activity, general health status, and experiences in the nursing home. The family survey included questions about personal characteristics of the family member (e.g., age, gender, relationship to nursing home resident) and the nursing home resident (e.g. age, gender, physical and cognitive challenges), relationships between staff, family and residents, and experiences visiting the nursing home. The staff survey included questions about personal characteristics (e.g., age, gender, job role), indicators of the working environment such as job satisfaction, work role clarity and type of leadership among supervisors, and questions about their experiences working in the nursing home.

Residents, families and staff at the 23 study sites were invited by letter and through presentations at the nursing home to participate in the survey. A letter was sent to the family contact listed for each resident and staff were notified through various means by their employer. Health Association of Nova Scotia communicated with other facilities throughout the province about the staff survey and at those facilities where there was interest, arrangements were made for staff to access the survey. Residents completed surveys with the assistance of trained research assistants who visited the nursing homes. Informed consent was obtained from all participants. For residents, this was done in person by the research assistants. Family and staff were able to complete the survey either online or by print version. These print surveys were returned directly to the project office either via a drop off box on site or by mail.

Surveys were completed by **319 nursing home residents:**

- **Gender:** 73% are female
- **Age:** 19% are under age 65; 39% are aged 85 and older
- **Marital Status:** 18% are married or in a common law relationship
- **Cognitive ability:** 80% residents had mild or no cognitive impairment
- **Time in Nursing home:** 14% had lived in current nursing home less than 6 months; 46% had lived in their current home for two years or more

Surveys were completed by **397 family members:**

- **Gender:** 78% are female
- **Age:** 36% are aged 65 and older
- **Employment status:** 55% retired; 27% employed full-time
- **Relationship to resident:** 64% are son or daughter of resident; 13% are spouse of resident
- **Gender of resident:** 77% female
- **Age of resident:** 5% are under age 65; 90% are aged 75 and older
- **Resident cognitive ability:** 51% experience difficulty due to cognitive ability challenges
- **Resident time in Nursing home:** 10% had lived in current nursing home less than 6 months; 42% had had lived in their current home for two years or more

Surveys were completed by **862 staff:**

- **Gender:** 91% are female
- **Age:** 44 years on average (Ranged from 16 years to 71 years)
- **Work role:** 40% were CCA/PCW; 19% were RN or LPN; 12% support services (e.g., dietary, housekeeping, support services assistant)
- **Employment status:** 66% full-time; 8% casual



- **Role tenure:** working in current role for 8 years and 9 months on average (Ranged from 1 month to 49 years)
- **Nursing home tenure** working at current home of employment for 8 years and 4 months on average (Ranged from 1 month to 48 years)

Additional data collection to support the survey analysis was done with nursing home administrators. These administrators completed surveys with details about the environment within the home, philosophies of care, and the use of specialized approaches. This provided important information about the characteristics of the homes besides the model of care used in the analysis.

Follow-up data collection was done by in-depth interviews with 15 residents and 3 focus groups with family members. These took place after the survey. Data from these interviews and focus groups provide more in-depth information about the findings from the survey.

Analysis of the survey data has been done at the individual perspective level but findings across the perspectives have been compared to identify overall messages. Analysis was done using the statistical technique called multilevel modeling. This technique enables analysis of nested or clustered data. In this analysis, residents, family members, and staff are nested within nursing homes. Multilevel modeling takes into consideration how quality of life varies between nursing homes and allows for examination of facility characteristics and person characteristics together as predictors of resident quality of life.

### The Case Study Approach

Six in-depth case studies provided an opportunity to follow participants over time and to examine the dynamics and interactions between individuals and within the broader context of the nursing home. This part of the research enables linkages between the three perspectives and includes the perspective of residents with dementia.

Each of the cases contained a care constellation. These care constellations were made up of one nursing home resident with one of their family members and a staff member who worked with them regularly. There were six care constellations from three nursing homes. Each nursing home represented one of the three models of care. The residents ranged in age from 59 to 90 years old. Half of the constellations included a resident who could not speak for themselves due to cognitive impairment. A variety of family relationships were involved, such as, sister, daughter, or spouse. Staff in each constellation were either continuing care assistants or licensed practical nurses.

Cases were followed at three points in time over a ten-month period. Each data collection point included interviews with the resident (as appropriate), family, and staff; 8 hours of participant observation with the resident; and 24 hours of resident activity monitoring.

Qualitative data was examined using a framework analysis approach which involves first developing descriptions of each individual care constellation or case. Cross-sectional and thematic analyses were then completed to allow for between-case and between-group comparisons.



## Overall Messages

Analysis of the survey data and case study data will be presented at the Sector workshop. Findings support a number of key messages about resident quality of life:

- Residents, staff and families perceive a positive quality of life for residents in Nova Scotia's nursing homes.
- Newer models are perceived to have a positive impact on quality of life but a number of factors associated with resident quality of life can be present regardless of the model of care.
- Regardless of who we talked to – residents, family or staff - relationships and homelikeness are key elements in supporting resident quality of life.
- Certain aspects of the working environment within nursing homes are associated with staff perceptions of resident quality of life.
- Overall there are similarities in how the three different perspectives view resident quality of life but each has unique insights.

## Questions to Consider

Based on the messages and results from the project, there will be opportunity at the November 27th workshop to discuss implications for the sector. Some of the questions for reflection are:

- What is the relevance of these results for my organization? For my role? For the long-term care sector?
- What further questions do these results raise?
- What can be done at the policy, practice and education levels to enhance the things that support resident quality of life?

## Sharing results

The main focus of the workshop will be to share results on the overall research objective of the project, which is to assess differences in nursing home model of care on resident quality of life. This workshop is one piece of the project team's commitment to share results from the study. Some results have already been shared in presentations and site specific reports on staff responses for participating nursing homes. In the upcoming months presentations will be made at some of the nursing homes where individuals participated and at industry and academic conferences. Reports and articles for academic and industry audiences will also be shared.

The data collected by the project provides a wealth of information to explore a number of topics of relevance to nursing home care and the experiences of residents, family and staff. Members of the team and students are developing work on additional research topics. Some of these include:

- Exploring how various staff mix configurations impact resident quality of life
- Identifying opportunities for and attitudes towards physical activity for nursing home residents
- Examining how the experience of resident aggression impacts nursing home staff
- Understanding the role of family in the lives of nursing home residents and how involvement changes over time
- Exploring the impacts on resident autonomy through staff relationships and interactions
- Discussing the differences among residents, family members, and staff on features of nursing homes that are identified as "homelike"



- Evaluating the usefulness of longitudinal qualitative research methods within nursing homes
- Examining the impact of resident and environmental characteristics on resident personal relationships
- Looking at how the physical design of the nursing home impacts residents with cognitive impairment

## Project Team

The project team represents diverse disciplines and partners including nursing homes, health and community agencies, and government. The Care and Construction Project Team include:

- Janice Keefe (Principal Investigator, MSVU and Nova Scotia Centre on Aging)
- Kevin Kelloway (Co-Principal Investigator, Saint Mary's University)
- Ann McInnis (Principal Knowledge User, Northwood)
- Grace Warner (Co-Investigator, Dalhousie)
- Lori Weeks (Co-Investigator, University of Prince Edward Island)
- Margaret McKee (Co-Investigator, Saint Mary's University)
- Marie Earl (Co-Investigator, Dalhousie)
- Melissa Andrew (Co-Investigator, Dalhousie)
- Robin Stadnyk (Co-Investigator, Dalhousie)
- David Haardt (Co-Investigator, Dalhousie, until June 2013)
- Debra Boudreau (Knowledge User, Tideview Terrace)
- Donna Dill (Knowledge User, Nova Scotia Department of Health and Wellness)
- John O'Keefe (Knowledge User, Northwood)
- Lloyd Brown (Knowledge User, Alzheimer Society of Nova Scotia)
- Margaret Merlin-Wilson (Knowledge User, Harbourview Lodge Continuing Care Centre)
- Shelia Martin (Knowledge User, Harbourview Lodge Continuing Care Centre, until December 2011)
- Sherry Keen (Knowledge User, Windsor Elms Village)
- Arlene Morrison (Collaborator, Alderwood Rest Home)
- Bernadette Gatien (Collaborator, Health Association Nova Scotia)
- Chris LaBreche (Collaborator, Shannex)
- Marian Casey (Collaborator, Shannex)
- Tracy Bonner (Collaborator, Rosecrest Communities)

The participation of these partners has strengthened the relevance of the research for the sector and has supported the integration of knowledge translation throughout the life of the project.

## Acknowledgements

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