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Examining a "Household" Model of Residential Long-term Care in Nova Scotia

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Abstract

In 2006, Nova Scotia began to implement its Continuing Care Strategy which was grounded in a vision of providing client-centered care for continuing care clients, including residents of nursing homes. Considerable evidence pointed to the benefits of the "household" model of care—which led the province to adopt the smaller self-contained household model as a requirement for owners/operators seeking to build government-funded new and replacement nursing homes. The specific goals of the reform (the adoption of the household model) included increasing the proportion of single rooms, improving the home-likeness of the facility, and more generally, providing high-quality care services. The reform was influenced by recognition of the need for change, rapid population aging in the province, and strong political will at a time when fiscal resources were available. To achieve the reform, Nova Scotia Department of Health released two key documents (2007) to guide the design and operation of all new and replacement facilities procured using a request for proposal process: The Long Term Care Program Requirements and the Space and Design Requirements. Results from a research study examining resident quality of life suggest regardless of physical design or staffing approach high resident quality of life can be experienced, while at the same time recognizing that the facilities with "self-contained household" design and expanded care staff roles were uniquely supporting relationships and home-likeness and positively impacting resident quality of life.

La Nouvelle-Écosse a lancé en 2006 la mise en oeuvre de la Stratégie pour les Soins de Longue Durée, bâtie sur l'idée de procurer des soins centrés sur le client pour ceux ayant besoin de soins de longue durée, y compris les résidents des institutions. Les avantages du modèle de soins dit de "domicile" étaient amplement démontrés empiriquement, ce qui a conduit la province à imposer aux propriétaires ou opérateurs cherchant à construire ou rénover des institutions de long-terme financées par le gouvernement un modèle de logement autonome de petite taille. La réforme (adoption du modèle de domicile) avait pour objectifs spécifiques d'accroître la proportion de chambres simples, de rendre l'institution plus proche d'un domicile privatif, et, plus généralement, de procurer des services de très bonne qualité. La réforme a été motivée par la reconnaissance d'un besoin de changement, le vieillissement rapide de la population de la province, et une forte volonté politique à une époque où les ressources fiscales étaient encore abondantes. Pour réussir la réforme, le Ministère de la Santé de Nouvelle-Écosse a publié deux documents clé (2007) détaillant la conception et le fonctionnement de toutes les institutions créées ou rénovées à travers un appel d'offres: les normes du programme de soins de longue durée, et les normes d'espace et d'agencement. Une étude mesurant la qualité de vie des résidents a montré que, si une qualité de vie élevée pouvait être atteinte quels que soient l'agencement physique et la dotation en personnel, les institutions organisées en domiciles autonomes et confiant plus de responsabilités aux

soignants étaient idéalement placées pour encourager la socialisation et le sentiment d'être chez soi, et influencent donc positivement la qualité de vie.

Key Messages

- There is growing attention to culture change within long-term care which involves transitioning from a model which focuses on *treatment* to one that focuses on *care*, while meeting medical needs. The social and physical environments of the residential long-term care setting are of significance to the notion of culture change.
- Residents, family and staff rated resident quality of life more positively in facilities that featured household physical design and care staff working to full scope.
- Practices that support home-likeness and relational care, regardless of model of care, will contribute to enhanced resident quality of life.

Messages-clé

- *L'attention se porte de plus en plus vers un changement culturel dans les soins longue durée, ce qui implique d'évoluer d'un modèle centré sur* les traitements *vers un modèle centré sur* le soins, *tout en répondant aux besoins médicaux. L'environnement social et physique de l'établissement de soins de long-terme joue un rôle important dans ce changement culturel.*
- *Les résidents, leur famille et les employés considèrent que la qualité de vie est meilleure dans les établissements construite sur l'agencement physique de type "domicile" et confiant plus de missions aux soignants.*
- *Les établissements encourageant le sentiment d'être chez soi et les soins relationnels, contribuent à l'amélioration de la qualité de vie des résidents, quel que soit le modèle de soins.*

1 BRIEF DESCRIPTION OF THE HEALTH POLICY REFORM

In 2006, Nova Scotia began to implement its Continuing Care Strategy (Nova Scotia Department of Health 2006), which was grounded in a vision of providing client-centered care for continuing care clients, including residents of nursing homes. The Department of Health and Wellness did not have chronic care or extended care facilities beyond nursing homes to support individuals in need of long-term care and did not (and still does not) fund any supportive housing or assisted living arrangements. The Continuing Care Strategy called for more long-term care (nursing home) beds and enhancements to its aging facilities. In response to a growing body of evidence calling for change in the culture of long-term care (Calkins 2002; Kane 2001; Kane *et al.* 2003; Ronch 2004), the province adopted the "household" model of care in new and replacement government-funded nursing homes—a model of care which included requirements for both physical design and staffing approach. The household model, as defined by Nova Scotia officials, is also known as "clusters" or "pods" or "neighbourhoods" (Boyd 2003; Kane 2001; Schwarz, Chaudhury, Tofle 2004). While specifications regarding layout and number of residents per neighbourhood/pod/cluster can vary, Nova Scotia officials required new and replacement facilities operating under the province's *Homes for Special Care Act* to incorporate small "households" of 9-16 residents. Households were to have their own common kitchen and dining area, living room space and private bedrooms. To support the household concept, the government increased staffing ratios within the household-modeled facilities to enable a consistent complement of staff in each household to provide a broader range of supports to residents—from light housekeeping and meal preparation to personal care. This approach to staffing within the households aimed to enhance familiarity among residents, families and staff. While this concept of smaller, self-contained, more home-like environments had been examined in other contexts (Cioffi *et al.* 2007; Lum *et al.* 2008; Schwarz *et al.* 2004), empirical evidence in the Canadian and more specifically, Nova Scotian long-term care context was limited. A nationally funded research team sought to address this paucity through its research examining the impact of different models of care on resident quality of life.

2 HISTORY AND CONTEXT

In Nova Scotia, nursing home design had evolved little over the past 30 years, with new and existing nursing homes incorporating a medical/institutional design characterized by large units, long hallways and few private rooms. In response to growing demand and a commitment to keep individuals in their homes, in the 1990s and early 2000s, the province turned its attention to the development of a comprehensive home care program. As a result, minimal public resources were targeted at the long-term care sector.

In the development of the 2006 Continuing Care Strategy, the need to replace older

facilities and increase long-term care capacity was recognized. Taking into account changes among residents in the level of frailty and medical complexity (as recently supported by McGregor and Ronald 2011), decision-makers took this opportunity to consider innovations in the use of physical space and staffing approach that would meet both residents' clinical needs as well as social needs such as support, meaningful engagement and relationships (Grabowski *et al.* 2014). The investment the province intended to make in long-term care necessitated study of other jurisdictions, nationally and internationally, for best practice. Evidence pointed to the benefits of a more home-like environment with private rooms, decentralized bathrooms, dining and leisure spaces (Schwarz *et al.* 2004; Cioffi *et al.* 2007; Lum *et al.* 2008)[1]—which led the province to adopt the household model as a requirement for owners/operators seeking to build government-funded new and replacement nursing homes.

3 GOALS OF THE REFORM

The vision of the Continuing Care Strategy was, "[t]o have every Nova Scotian live well in a place they call home." Explicit goals of the investment in long-term care included adding nursing home beds, and in particular a higher proportion of private rooms. A second explicit goal of the reform was to move from the institutional model of care to more of a social model of care to enhance quality of life for older adults. The goal to improve the home-likeness of nursing homes was actualized through physical design and approach to care. While not explicitly stated, strongly implied in the vision statement of the government was to provide high-quality continuing care services.

4 INFLUENCING FACTORS

The province's Continuing Care Strategy was driven by a number of factors including the recognition of the aging population in Nova Scotia (Nova Scotia Senior's Secretariat 2005), and with it the expectation of more individuals requiring assistance. There was also a growing perception within the provincial government that the future consumers of continuing care services (i.e., the baby boomers) may have different expectations of support compared to previous generations. Moreover, specific to the long-term care sector, it was recognized that the province's more than 80 licensed facilities were aging, and nursing home licensing agents reported a need to change the way care was being provided. These realizations, coupled with ongoing public demand and an amenable fiscal landscape, provided the conditions for government officials to proceed with plans to expand and enhance the long-term care sector. To optimize this opportunity, the province searched for best practice in nursing home design and care delivery. The household model of care emerged as receiving attention internationally and in the research community. It was lauded for its positive impact on

[1]Department staff also consulted with peers from other jurisdictions.

resident, family and staff experience (Cioffi *et al.* 2007; Lum *et al.* 2008; Schwarz *et al.* 2004). Moreover, the emphasis on a home-like design aesthetic appealed to decision-makers, and supported the vision to have Nova Scotians live well in a place they call home (Nova Scotia Department of Health 2006).

5 HOW THE REFORM WAS ACHIEVED

In keeping with the practice of the Nova Scotia government to procure new services through an open Request for Proposal (RFP) process, an RFP was issued in 2007 to acquire 804 new long-term care beds. The requirements set out in the first RFP were informed by sector consultation, and through what was learned from previous builds. That same year, nine nursing homes were approved for replacement. A subsequent RFP was issued in 2009, and was modified to reflect the learnings from the first RFP, which included a cap on the size of the household and some hours for designated dietary and environmental staff while still maintaining a care staff to resident ratio that was above the provincial minimum. The facility owners were given first option to submit a proposal on their respective homes. The Nova Scotia Department of Health released two key documents to guide the design and operation of the facilities procured using the RFP process: The Long Term Care Program Requirements (Nova Scotia Department of Health 2007a) and the Space and Design Requirements (Nova Scotia Department of Health 2007b). The documents set out minimum facility and program requirements and were intended to complement one another to provide direction for care and services, as well as physical environment.

Prospective and established long-term care providers consulted with architects to identify ways to incorporate the province's space and design requirements into their proposals, and ultimately into their facilities. Providers also grappled with strategies to meet the province's new staffing requirements. The majority of long-term care facilities in Nova Scotia employed a staffing model that has designated staff for resident care, for food service, and for housekeeping/laundry. In the traditional staffing model, Continuing Care Assistant (CCA—Nova Scotia's direct care staff) ratios were based on a minimum of 2.45 hours of care per resident per day (see Table 1).

The province enlisted the support of a procurement consultant who assisted in the development of the program, space and design guidelines used in proposal evaluation and eventual selection (Nova Scotia Auditor General's Office 2011). The RFPs resulted in 12 providers being selected to construct 24 facilities across the province. The first nursing home, constructed as a result of the RFP, incorporating the new design and program standards, opened in the spring of 2009.

With the construction of the new and replacement facilities, the household concept and the concomitant desire to enhance familiarity between staff and residents, the province adopted two new staffing models—full-scope staffing and augmented-traditional staffing.

Table 1: Direct Care Staffing Ratios for Traditional, Augmented-traditional and Full-scope Facilities

Staffing Model	Per resident/per day	Per day/per household
Traditional	2.45 hours	N/A
Augmented-traditional	3.00 hours	40 hours
Full-scope	3.33-4.17 hours	50 hours

To calculate the direct care staff needs for facilities adopting the full-scope staffing approach, 24-hour coverage per household and 2.45 hours of care per resident were used as a base. An additional 10 hours per day per household were added, as the direct care staff would be responsible for light housekeeping and food service. Using the household size of 12-15 residents, this resulted in 50 hours of CCA time per household per day for nursing homes adopting a full-scope model of care.

The augmented-traditional staffing model—a hybrid of the full-scope and traditional staffing models—was adopted by the replacement nursing homes. The household size remained small but environmental and dietary staff were added to the households to assume the "non-care related" duties assigned to the direct care staff in the full-scope model. As a result, households were staffed at either three hours of direct care staff care per resident per day or 40 hours of direct care staffing per household.

While some providers focused on the uptake of new hires to meet the new ratio requirements, others focused on re-organizing existing staff. In the end, eleven new facilities implemented a full-scope model of care, with all replacement homes and additions implementing the augmented-traditional model.

6 EVALUATION

The implementation of the reform in Nova Scotia presented an ideal laboratory to examine the impact of this policy direction for long-term care (specifically, differences in physical design and staffing approach) on resident quality of life. In the Fall of 2012, a team of researchers and decision-makers in Nova Scotia began gathering data as part of a three-year nationally funded research study entitled, "Care and construction: assessing differences in nursing home models of care on resident quality of life." This was not undertaken as an evaluation study, but rather as a research study to understand the impact of different models of care on resident quality of life from three distinct perspectives: residents of nursing homes, their family members, and staff. Data collection took place across 23 Nova Scotia nursing homes, representing three distinct models of care. The three models of care were: *1*) *new full-scope*: household design, care staff responsible for all tasks including significant dietary and daily housekeeping; *2*) *new-augmented*: household design, care staff provide care needs and limited dietary and housekeeping; and *3*) *traditional*: floor/unit design, care staff provide only care needs, other staff provide dietary and housekeeping services.

For the full study, multiple methods were incorporated including a survey, interviews and focus groups. This allowed the team to balance the inclusion of many participants while also examining contextual factors. The research also had a strong integrated knowledge translation component which had knowledge users engaged in all aspects of the research from development through to dissemination. This evaluation is based upon the survey results only, as they offer evidence about the extent to which the household concept, Nova Scotia's policy direction, impacts resident quality of life. Resident quality of life, the dependent variable for the survey analysis, was assessed using four domains from the interRAI Resident Quality of Life© instrument (RQOL); Food, Care and Support, Autonomy and Activities (Godin *et al.* 2015). Surveys were completed by 319 residents, 397 families and 862 staff across 23 study sites, representing the three models of care described above.[2] For more information on study design, see Keefe *et al.* 2015.

Bi-variate analysis indicated average scores of resident quality of life were positive in all three models. Residents, family and staff rated resident quality of life more positively in the models of care that featured the household physical design and expanded care staff roles (i.e., new full-scope and new-augmented) when compared to traditional homes. However, these relationships did not hold when other variables were controlled for.

To better understand what was contributing to differences in resident quality of life, factors were examined from each respondent perspective (resident, family, staff) using multilevel modeling,[3] including the variable model of care (new full-scope, new-augmented, traditional). The regression models demonstrated that model of care did not directly influence resident quality of life, but rather a host of intervening variables—specific to each sample group—were in fact impacting perceptions of resident quality of life. In other words, across the three perspectives, whether facilities were classified as new full-scope or traditional, did not emerge as a significant variable in relation to resident quality of life. For residents, four factors were significantly associated with positive resident quality of life. These factors included their self-assessed health status, feeling as though they lived in a home-like environment and had meaningful relationships, and whether they had experienced staff bonding. For family and staff, a home-like environment, and experiencing open and respectful relationships were significantly associated. Further, several factors that contributed to a positive perception of resident quality of life for staff were related to working environment. These included experiences of role clarity and skill use, transformational leadership among supervisors, and working in a nursing home with household design and full scope of practice.

That model of care did not emerge as being a significant predictor of resident quality of life for any of the three perspectives was an unanticipated finding for the researchers. However, variables that measured "home-likeness" and "relationships" (objectives of the full-scope model) were significant predictors of resident quality of life. To further examine

[2]The survey for staff was completed by staff in the 23 study sites as well as other nursing homes in Nova Scotia.

[3]This technique enables analysis of nested or clustered data.

the influence of model of care on resident quality of life, indirect effects were tested through the mediators of relationships, home-likeness and support for autonomy (staff only). When model of care was examined in isolation of other variables two key factors—home-likeness and relationships—emerged. While model of care in the context of other variables did not emerge as a significant factor, characteristics of the models of care that contained households and full scope of practice did predict positive resident quality of life. This suggests that resident quality of life can be enhanced regardless of model of care, while at the same time demonstrating that household design and expanded care staff roles uniquely support relationships and home-likeness. These two factors, along with the working environment contribute to understanding the impact of model of care on resident quality of life.

7 STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

Table 2: Analysis of SWOT at the Time Household Design Reform was Adopted in 2006

Strengths	Weaknesses
• There was growing evidence that the household design supported culture change in long-term care. • The introduction of new nursing home beds in the province was greatly needed.	• As the new model of care was fully supported at the governmental level, support at the delivery level was mixed. • The household model of care was actualized in different ways across the province, as each provider had the freedom to incorporate the province's requirements in a way that suited their facility.
Opportunities	**Threats**
• The adoption of this new model of care could situate Nova Scotia as leading innovation in residential long-term care. • The household model of care provided continuing care staff with the opportunity to maximize their training by providing full scope of care to residents.	• There was no context-specific (Canadian or Nova Scotian) evidence to support the adoption of the household design.

Table 3: Analysis of SWOT in 2014, Eight Years After the Adoption of the Household Design Reform

Strengths	Weaknesses
• The household model of care is associated with higher resident quality of life, although indirectly.	• Evaluating the impact of the household model was challenging as each provider actualized the physical design requirements in different ways. • Implementing a full scope of practice for care staff was hampered by provincial policies regarding food handling.
Opportunities	**Threats**
• There is potential for all nursing homes, regardless of model of care, to improve resident quality of life by focusing on relationships and creating a home-like environment.	• The new full-scope model of care nursing homes have a larger footprint, per bed, compared to traditional (671.2 square feet/bed versus 877.4 square feet/bed), increasing the cost of construction.

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