

Cross-sectional Analysis of Current Care Assessment Practices in the Retirement Home Sector in Ontario

by

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A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Science
in
Public Health Sciences

Waterloo, Ontario, Canada, 2025

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Title: Cross-sectional Analysis of Current Care Assessment Practices in the Retirement Home Sector in Ontario

Abstract: As the population of Canada ages, some older adults often have increased multimorbidity, disabilities, and frailty. As a result, they are at an increased risk of hospitalization, accelerated functional decline, and earlier institutionalization. As they face more disability and health challenges, the lack of sufficient primary, community, and home care services to support them leads many to move into retirement homes. Once there, residents continue to experience health challenges, likely as a consequence of ongoing inadequate primary care and insufficient services geared toward their needs. Yet, addressing the unmet needs of retirement home residents at the individual and population levels is made challenging by the lack of standardized information collection. While regulatory agencies stipulate that residents undergo a health assessment, there are no specific requirements as to their nature. A better understanding of their unmet needs can potentially guide better primary care planning and help identify the level of services required to deliver better resident and system outcomes. To begin, current care assessment practices and processes surrounding these assessments must first be characterized and understood before the introduction of a new standardized instrument can be contemplated.

Objectives: The overall goal of the thesis is to understand and compare current care assessment practices in retirement homes. These assessments are ascertained against the assessment dimensions required by the [Ontario Retirement Home Regulation Act](#) (Government of Ontario, 2010a). Specifically, the objectives of this study are as follows:

1. To understand the intake assessment processes, including:
 - a. How are these conducted and by whom?
 - b. How is the assessment information being used and by whom?
 - c. With whom is the assessment information shared?
 - d. The potential role of a standardized instrument.

2. To compare and classify the specific content of the full intake assessments being conducted using the Ontario Retirement Home Act regulations.

Methods: A multi-method research approach is employed to comprehensively address and examine the study objectives in a multi-faceted manner. The study sample comprised of all 22 retirement homes in the region of Kitchener-Waterloo (KW) of Ontario, Canada. The current care assessment practices are explored based on semi-structured qualitative interviews with retirement home key informant staff members. Furthermore, the content of current care assessments is compared against the Ontario Retirement Home Act regulations using descriptive data analysis.

Results: Overall, the findings of the study suggest variations in the KW retirement home sector assessment practices and content. The current care assessment practices are non-standardized and limitedly shared with primary care. The study results revealed that the lack of standardization of the information reporting and assessment system specific to retirement homes residents in Ontario resulted in disparities in identifying the unmet care needs of residents across the retirement home sector.

Conclusion: This study has found variability and differences in the KW retirement home sector assessment practices and content. The non-specific and non-prescriptive RHRA guidelines have contributed to this lack of standardization of assessment information collection system. This may lead to under- or over-provision of services and poor quality of healthcare in the retirement home sector.

Contribution: This project offers preliminary insights and important information about current care assessment practices to assess the needs of older adults moving into retirement homes. This is an important exploratory step in helping to improve outcomes for retirement home residents and lays the foundation for developing an assessment process that better supports care planning.

Acknowledgments

I would like to begin by expressing profound and deepest gratitude to my supervisor, Dr. George Heckman, for his exceptional guidance and steadfast support throughout the entirety of this project. Your mentorship has been instrumental in shaping my academic growth, and I am sincerely thankful for your patience, encouragement, and belief in my potential. Your constructive feedback and thoughtful direction helped me navigate moments of uncertainty and made this thesis complete but meaningful. I am truly grateful for your confidence in my ability to undertake and complete graduate-level work. Words cannot fully capture how deeply thankful I am for your unwavering support, generosity, and dedication throughout every stage of this project. You consistently went above and beyond to guide me through moments of uncertainty, offering not only your time and expertise, but also patience and encouragement when I needed it most.

Your insightful feedback and thoughtful questions challenged me to think critically, work diligently, and continuously strive for excellence. I have grown immensely under your supervision—not only as a researcher, but as a more reflective and capable learner. The confidence you placed in my abilities, even when I could not, meant more than I can express. Your belief in me made the completion of this thesis possible. Thank you for being a generous mentor, a source full of wisdom, and a compassionate guide throughout this entire process. It has been an honour and a privilege to learn from you.

I would also like express my gratitude to the members of my thesis committee. Dr. Andrew Costa, thank you for your expert guidance on navigating assessments and for your thoughtful input, which helped sharpen the direction of my work. Dr. Carrie McAiney, your insightful contribution and qualitative expertise enriched my analysis and deepened my understanding, and I am thankful for your careful review and encouragement.

My sincere thanks go to the study participants for their willingness to contribute and volunteer their time to share their experiences of the retirement home sector. Your willingness to participate made this research possible, and and I am truly appreciative of your contribution.

Finally, I would like to thank my mother, Parveen, and my brothers, Nashit and Uzair, for their unwavering support, love, and encouragement. Pursuing my studies abroad would not have

been possible without your sacrifices and constant reassurance. I am beyond grateful for the strength and motivation your presence has provided me with every step of the way.

Dedication

I would like to dedicate this thesis to the Kitchener-Waterloo region retirement home sector staff who voluntarily shared their experiences in retirement home settings.

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List of Abbreviations

Long-Term Care (LTC)
Retirement (RT) homes
Home Care (HC)
Retirement Homes Regulatory Authority (RHRA)
interRAI Check-Up Self-Report (CUSR)
Alternative Level Care (ALC)
Activities of Daily Living (ADLs)
Instrumental Activities of Daily Living (IADLs)
Emergency Department (ED)
Comprehensive Geriatric Assessment (CGA)
Cognitive Performance Scale (CPS)
Detection of Indicators and Vulnerabilities for Emergency Room Trips (DIVERT)
Assessment Urgency Algorithm (AUA)
Self-reported Mood Scale (MOOD)
Pain Scale (PAIN)
Changes in Health, End-Stage Disease and Symptoms (CHESS)
World Health Organization (WHO)
Falls risk assessment tool (FRAT)
Montreal cognitive assessment (MoCA)
mini-mental state examination (MMSE)

“Since there is no standardization to assessments, sometimes it feels like we are doing too much and sometimes it feels like we are doing too little.”

– Anonymous Interview Participant

CHAPTER 1: INTRODUCTION

1.1: Background

1.1.1: Older People as High Consumers of Health Care Services

As the population of Canada is aging, it is estimated that by 2030, older adults in Canada will make up about 23% of the total population, an increase of 30% from 2018 (OECD, n.d.). As they age, most Canadians would prefer to age in place and live in their homes and communities independently (Petersen & Quinn, 2017; Eckert et al., 2004; Langa et al., 2001). Older adults consist of a highly heterogeneous population, and some experience major health challenges while others do not (Bergman et al., 2007; Quinn et al., 2011). Those who develop health concerns often have increased multimorbidity, frailty, and disabilities (Fried et al., 2001). Most people who are affected by frailty tend to be older. Frailty is a geriatric syndrome marked by increased susceptibility to stressors due to poor physiological reserve and accumulation of deficits (Bergman et al., 2007; Muscedere et al., 2020; Surkan & Gibson, 2018). Older people living with frailty represent a vulnerable population that is especially at risk of adverse outcomes, such as accelerated functional decline, hospitalization, and earlier institutionalization (Bergman et al., 2007; Mattison, 2020; Surkan & Gibson, 2018; Quinn et al., 2011).

As frailty, multimorbidity, and disability set in, community-dwelling older people may require additional services, such as formal and informal home care, and enhanced community care (Gill et al., 2010; Surkan & Gibson, 2018). Health and functional deficits are reported to be the most common reasons for the relocation of older adults from home to supportive housing (such as retirement home) (Franco et al., 2021; Poss et al., 2017, 2019). These common deficits include cognitive and physical impairments such as dementia, falls, incontinence, and displaying aggressive or wandering behavior (Poss et al., 2017, 2019). Older adults who have less supportive informal care systems available at their homes or experience caregiver burden, often require help with personal care, homemaking, or nursing services (Franco et al., 2021; Poss et al., 2017, 2019).

On the spectrum of healthcare services and settings for seniors, home and community care falls at one end with long term care (LTC) on the other, while retirement homes are often

conceptualized as falling in between both sectors (Manis, 2021). Home care represents an important health service that is funded publicly or privately to support living in the community (Lindberg et al., 2013; Poss et al., 2017). Services provided in home care usually involve the delivery of short-term support and nursing care after surgery or acute illness, long-term care support for chronic conditions or aging, and specialized care such as end-of-life care or rehabilitation (CIHI, n.d.). These services in Ontario encompass nursing care and support with ADLs such as bathing, toileting, wound care, preparing meals, occupational and physical therapy, personal care, and transportation (Gilmour, 2018; Home Care Ontario, n.d.; Poss et al., 2017).

In Ontario, about 87.2% of the home care population is 65 years of age or over (CIHI, 2022). A large segment of the population receiving home care has high needs and is at risk of being institutionalized (CIHI, 2022). The lack of sufficient existing resources and staff for formal or informal home care services poses difficulty in meeting the health care needs of this growing aging population (Chen & Thompson, 2010; Home Care Ontario, n.d.; OECD, n.d.).

Faced with increasing demand from an aging population on the one hand, and a lack of adequate resources for home care services on the other, supporting and caring for the elderly living at home with chronic illness has become quite challenging (Home Care Ontario, n.d.; Lindberg et al., 2013). These challenges in the health care system have led to a considerable increase in unmet home care and support needs of older adults (Chen & Thompson, 2010). These challenges in home care are associated with detrimental outcomes including deteriorating health, diminished physical and emotional well-being, and a subsequent rise in the use of other healthcare services such as admission to nursing homes and congregate settings (Gilmour, 2018). With baby boomers reaching retirement age, the demand for home care services for older people is surging, and due to the lack of these existing services, a growing number of vulnerable older individuals move to retirement homes (Chen & Thompson, 2010; Franco et al., 2021).

1.1.2: What are Retirement homes?

Retirement homes are congregate residential care settings that provide supportive care services to primarily older adults of 65 years or over who do not need 24-hour nursing support (Costa et al., 2021; Government of Ontario, 2010; Manis et al., 2021a; Poss et al. 2019; Roblin et al., 2019). These services could include assistance with instrumental or basic ADLs such as

feeding, personal hygiene, dressing, medication management, meal preparation, bathing, ambulation, continence care, housekeeping, laundry, and social and recreational activities (Government of Ontario, 2010; Manis et al., 2021; NIA, 2017; ORCA, n.d.). Retirement homes can provide a range of heterogeneous services, varying from independent living to healthcare services, including assisted living for those who require support with some activities of daily living, or memory care (Government of Ontario, 2010; Paley et al., 2011; Roblin et al., 2019). For further details on services provided in retirement homes located in Ontario, please refer to Appendix A (Figure 1). Residents usually have their own rooms and are responsible for paying for room, board, care services, and use of shared common areas, as retirement homes are usually not subsidized by government (Closing the Gap Healthcare, 2019; Howe et al., 2013; NIA, 2017; ORCA, n.d.). Most retirement homes are private and for-profit, while some are not-for-profit (Government of Ontario, 2010a).

By contrast, LTC homes offer 24-hour nursing support but have a waiting list time of 7 months or longer in Ontario for an older adult living in a community to be offered a bed (Health Quality Ontario, 2023; Poss et al., 2017). To be admitted into LTC homes, applicants must have a care need for round-the-clock nursing, direct supervision, or monitoring (Howe et al., 2013; Roblin et al., 2019). Conversely, retirement homes do not have such strict stipulations contingent upon one's care needs for eligibility criteria, yet they do have limitations in the type of support they can provide (Manis et al., 2021, 2022; ORCA, n.d.; Roblin et al., 2019).

In addition, due to the high demand, occupancy rates, long waitlists, and strict admission criteria, for LTC, the demand for retirement homes continues to grow (Poss et al., 2017; Roblin B. 2017). As demand increases, the retirement home sector is expected to further expand (Franco et al., 2021; Manis et al., 2022; Perks & Haan, 2010; Roblin et al., 2019; Silver et al., 2018).

1.1.3: What is the important issue?

Though a growing number of older individuals are relocating to retirement homes hoping to have their needs met, they continue to face challenges once admitted (Brath et al., 2020; Manis et al., 2022, 2023). Compared to individuals from LTC homes in Ontario, retirement home residents are found to have a disproportionately higher rate of hospital admissions, ED visits, and ALC days, while having fewer contact with primary care physicians (Manis et al., 2022, 2023). In other jurisdictions, such as Alberta, residents in assisted living settings have high

rates of long-term care placement, utilization of acute care services, and use of antipsychotic medication (Hogan et al., 2014; Maxwell et al., 2013, 2015; Stock et al., 2017).

Relative to older people living in their private homes, residents of retirement home settings have higher rates of medical complexity, morbidity, dementia, cognitive impairment, depression, and isolation (Poss et al., 2017, 2019). Moreover, the growing involvement of the corporate, hospitality, and healthcare sectors in service delivery has sparked concerns about the inconsistency, quality, and standards of care in this sector (Canadian Mortgage and Housing Corporation, 2018). While this cross-sectoral participation can introduce innovation, efficiency, and greater accessibility, it also poses risks when profit-driven motives, varied organizational cultures, or differing operational priorities overshadow patient-centered outcomes. Notably, almost a third of retirement homes in Ontario lack direct access to primary care visits, and a minority offers dementia-related support programs (16.8%) (Brath et al., 2020). While mechanisms for the poor outcomes experienced by retirement home residents remain to be fully elucidated, there is a growing concern that the complex needs of retirement home residents are beyond the capacity of care available in retirement homes (Manis et al., 2022, 2023).

In light of the increasing complexity of retirement home residents and their poor health outcomes, there have been calls to regulate the sector, including the role of primary care physicians and other care providers (Brath et al., 2020; Poss et al., 2017; Zimmerman et al., 2022). Regulations concerning retirement homes differ by jurisdiction, with Ontario being the only jurisdiction with an independent, non-profit regulatory organization, the Retirement Homes Regulatory Authority (Roblin et al., 2019, 2021). After the emergence of issues such as substandard health care quality, alleged abuse, and neglect, retirement homes in Ontario have been regulated by the RHRA for safety, compliance, and adherence to regulations set forth in the Retirement Homes Act since 2010 (RHRA, n.d.). The RHRA administers and enforces the Act (2010) to oversee retirement homes in Ontario and protects the well-being and safety of residents by licensing and regulating these homes (RHRA, n.d.). If a retirement home is found to be in violation of the Retirement Homes Act regulations (2010), the RHRA can take enforcement actions, which may include fines, penalties, or license suspensions to ensure that they provide a safe and supportive environment for their residents (Government of Ontario, 2010).

Despite these regulations, little information is currently available about the collective characteristics and needs of these residential setting residents (Franco et al., 2021; Poss et al., 2017, 2019; RHRA, n.d.; Roblin et al., 2019). In Ontario, there are currently more than 72,000 beds in retirement homes occupied by over 55,000 residents, which is similar in number to the beds in LTC (Costa et al., 2021; Manis et al., 2021; Poss et al., 2017, 2020; Roblin et al., 2019). For further comparison of bed numbers, please refer to Appendix A (Figures 2 and 3). Although limited, data do support the rising complexity of retirement home residents (Franco et al., 2021; Poss et al., 2017, 2019; Roblin, 2017).

In contrast, we have an abundance of evidence and data about the LTC sector to support both individual care planning, and to enable extensive research to enhance the understanding of the LTC population and improve health outcomes (Brath et al., 2020). A similar approach could also be potentially applied to future studies of the retirement home sector. Unlike home care and LTC sector, there is no standardized reporting and assessment system specific to retirement homes residents in Ontario (Manis et al., 2022, 2023).

1.1.4: Geriatric Assessment

The Comprehensive Geriatric Assessment (CGA) is a multidimensional gold standard for assessing frail and complex individuals living in a community (Ellis et al., 2011; Parsons et al., 2013, Rolfson et al., 2018). This assessment is well-suited for the identification of functional, medical, and psychosocial capacity, and other health needs to support comprehensive care planning, improve quality of life, prevent or delay further deterioration, and prevent health service utilization (Huss et al., 2008; Stuck et al., 1993).

The first-generation CGA instruments consist of an assembly of validated disparate domains that need to be conducted individually (Gray et al., 2009). Second-generation instruments were developed by interRAI and are stand-alone assessments with multiple geriatric domains that are health-setting specific and generate additional outputs from the combination of items. (Bernabei et al., 2008; Gray et al., 2009; Wellens et al., 2011). Unlike the first and second-generation instruments, the third-generation instruments, including the updated interRAI suite, are built around a consistent set of core items and domains spanning across healthcare sectors, in addition to sector-specific items and scales (Bernabei et al., 2008; Gray et al., 2009; Hirdes et al., 2008).

In an interRAI instrument, once clinical data are collected, multiple additional outputs can be generated including outcome scales for individual domains, algorithms to quantify risks for various outcomes, triggers such as Clinical Assessment Protocols (CAP) that flag vulnerabilities of an individual, quality indicators, and resource allocation measures (Gray et al., 2009; Heckman et al., 2013). Moreover, the consistency of core items across settings facilitates information sharing and the creation of longitudinal health records of patients (Gray et al., 2009). There are several widely implemented interRAI instruments in Canada, including the interRAI Home Care and the MDS 2.0 or interRAI LTCF in long-term care homes (Heckman et al., 2013; Mello et al., 2015; Parsons et al., 2013).

The administration of the MDS 2.0/ interRAI LTCF and interRAI HC requires a trained clinician, thus limiting the feasibility of its use in large community settings where lengthy, detailed assessments are not required or where there is limited availability of trained clinicians (Geffen et al., 2020; Iheme et al., 2022). Thus, the interRAI Check-Up self-report (CUSR) was developed to address these limitations. Derived from a subset of around 90 items from the interRAI HC instrument, the CUSR remains interoperable with other interRAI instruments (Gray et al., 2009; Iheme et al., 2022). However, it can be completed by individuals themselves, alone or with a care partner, generally in less than 30 minutes (Iheme et al., 2022; Kim et al., 2025; Northwood et al., 2024; Schumacher et al., 2023).

The CUSR assesses a range of psychosocial and functional abilities and provides a series of summary outputs about cognition, mood, pain, ADLs, IADLs, health instability, caregiver stress, risk of going to the ED, falls, frailty, and cardiorespiratory problems (Geffen et al., 2020; Iheme et al., 2022; Kuo H-K et al., 2004; Stuck et al., 2011). The following output scales are embedded in the CUSR instrument: ADL and IADL Hierarchy Scales; Cognitive Performance Scale (CPS); Assessment Urgency Algorithm (AUA); Self-reported Mood Scale (MOOD); Detection of Indicators and Vulnerabilities for Emergency Room Trips (DIVERT); Changes in Health, End-Stage Disease and Symptoms (CHESS); Major Comorbidity Count (MCC); Vulnerable Person Risk (VPR); Falls Scale; as well as Pain Scale (InterRAI, 2020). Table 2 of Appendix A refers to the description of all CUSR output scales and protocols.

Assessment questions/data items are posed from the perspective of the patient or care partner but still address the same content as clinician-assessed instruments (Schumacher et al.,

2023). In addition, data on assessed individuals can be de-identified and combined into population-level data for policymaking purposes (Geffen et al., 2020).

1.1.5: Potential Utility of the InterRAI CUSR in the Retirement Home Sector

The characteristics and sound psychometric properties of the CUSR have the potential to meet the information needed to better support retirement home residents. The CUSR instrument is of particular interest in assessing retirement home residents due to its reliability and effectiveness in streamlining care assessment practices among community-dwelling older people (Iheme et al., 2022; Northwood et al., 2024). It covers the main domains relevant to community-dwelling older people and provides outputs that can support care planning by nurses and physicians (Northwood et al., 2024). Moreover, it allows the collection of population-level information that can not only describe the needs of residents in the retirement home sector but also allows comparison of this population with those in other sectors, especially home care, community support services, and LTC. The availability of standardized assessment data across the retirement home sector thus has the potential to support better care planning for residents, allow population-level comparisons across different healthcare sectors, track patients longitudinally, and inform policy and regulatory changes to improve care quality across the sector (Brath et al., 2020; Chen & Thompson, 2010; Katz et al., 2022; Poss et al., 2017, 2019; Zimmerman et al., 2022). Its use in retirement homes may provide an opportunity for better primary care planning and to identify and understand the unmet care and support needs across the sector. However, it is first necessary to contextualize the current state of assessment in retirement homes before the introduction of the CUSR instrument can be considered in the sector.

1.1.6: Evaluating Current Care Assessments Practices in Retirement Homes

Before the wider implementation of a standardized assessment can be contemplated, the analysis of current care assessments' content and practices can help characterize the information currently used to support care planning in the retirement home sector. Currently, retirement homes in Ontario are required to conduct full intake assessments of prospective residents within the first 14 days of admissions to determine their suitability for services (Government of Ontario, 2010a). As per the Ontario Retirement Home Act regulations, these intake assessments should consider residents' physical and cognitive health, functional abilities, behavioral issues, and need

for care services and ADLs to help plan care for residents (Government of Ontario, 2010a). However, these current assessments are not standardized at the sector level.

The current non-standardized retirement home intake assessments can be analyzed to ascertain their comprehensiveness for assessing residents' care needs and preferences against the assessment dimensions required by the [Ontario Retirement Home Regulation Act](#) (Government of Ontario, 2010a), which include:

1. Physical and mental health
2. Cognitive ability
3. Behavioral issues
4. Functional capacity
5. Need for assistance with ADLs
6. Need for care services
7. The matters related to:
 - a. continence
 - b. presence of infectious diseases
 - c. risk of falling
 - d. known allergies
 - e. dietary needs including known food restrictions
 - f. risk of harm to self and to others
 - g. risk of wandering
 - h. needs related to drugs and other substances.
 - i. any other matter relevant to developing a plan of care for the resident.

Notably, analyzing the information collection and use of current intake care assessments can potentially help ascertain whether these assessments align with regulatory requirements. Evaluation of these assessments could involve addressing the following questions:

- Who conducts these assessments?
- How are these assessments being completed?
- With whom is the assessment information shared?
- How is information collected from assessments currently being used to support care planning?

Investigating these current assessment information collection practices can help contextualize ongoing care processes and the potential role of a novel standardized self-assessment for retirement home residents.

CHAPTER 2: METHODS

2.1: Objectives

The overall goal of the thesis is to understand and compare current intake care assessment practices in retirement homes. Specifically, the objectives of this study are as follows:

1. To understand the current full intake care assessment processes, including:
 - a) How are these conducted and by whom?
 - b) How is the assessment information being used and by whom?
 - c) With whom is the assessment information shared?
2. To compare and classify the specific content of the intake assessments being conducted against the Ontario Retirement Home Act regulations.

Objectives	Constructs	Data Sources
1) To compare current care assessments content	1) Assessment content	1) Care assessments from retirement homes
2) To understand current processes surrounding assessments in retirement homes	1) Sharing assessment information 2) Use of assessment information to support care 3) Average timing and duration for assessments	2) Semi-structured interviews with key informants who conduct the full intake assessments (Manager or Director of Care)

Table 1: Data sources and constructs for addressing the study objectives

2.2: Research Approach

The project aimed at utilizing a multi-methods approach, drawing on qualitative and descriptive data analysis techniques. This approach is chosen in order to examine multiple constructs, triangulate study findings, and comprehensively address the study objectives (Bueno et al., 2023; Craig et al., 2025; Howard et al., 2021; Podolak et al., 2017; Seaman et al., 2023; Wellman et al., 2023; Yu, 2010). The semi-structured qualitative interviews helped to gather detailed contextual information from the key informants of the current care assessment practices, while the contents of assessments used for care planning were systematically coded and classified against RHRA domains using descriptive data review to complement the qualitative study findings.

2.3: Study Sampling

The population of interest is the retirement home sector in Ontario. The purposive sampling frame is Kitchener-Waterloo (KW) retirement homes. The homes in the KW region were identified using the retirement home database repository which is publicly available on the RHRA website (www.rhra.ca/retirement-home-database). All the retirement homes (22 homes in total) in the KW region of Ontario were contacted to take part in the study. Representatives of homes belonging to chains were asked whether a common assessment is used across all homes in the chain across provinces or country.

Funding and ownership details for each retirement home were collected. Ownership was categorized into private for-profit and private non-profit. Funding was classified as privately funded, charitably funded, or subsidized. Table 1 of Appendix A lists all currently operational licensed retirement homes in the KW region.

2.4: Study Design

The study design comprises two phases:

2.4.1: Phase One

This phase aims to explore the current care assessment processes in retirement homes in the region of Kitchener-Waterloo (KW) of Ontario, Canada. A sample of all 22 retirement homes in KW region was selected based on geographic location of the researcher. The interviews were carried out with individuals familiar with how the assessments get done and how the assessment

information is used in individual care planning and coordination. This allowed an opportunity to obtain their direct feedback and perceptions of current care assessments in assisting care planning. The study objectives were used to help inform and guide the nature of open-ended interview questions (Appendix B). The participants were asked about current care assessment processes in the retirement home sector.

2.4.2: Phase Two

Using a cross-sectional study design to gather regional data at one point in time, the study aimed to capture the assessment content currently used in retirement homes in the region of Kitchener-Waterloo in Ontario, Canada. The researcher contacted the Manager or the Director of Care of each retirement home to request a copy of their current full assessment form. Once these assessment forms were obtained, the researcher then analyzed and compared their content against the Ontario Retirement Home Act regulations (RHRA).

2.4.3: Retirement Home Participants (inclusion/exclusion criteria)

The study participants included Kitchener-Waterloo (KW) regional retirement home staff members who oversee the assessment of retirement home residents. Participants who were able to freely give their informed consent were invited to take part in the study. Due to English being the primary language of communication in the KW region, the study sample only included those with English speaking and reading skills.

2.4.4: Sampling and Recruitment

The study aimed at recruiting a purposive sample comprised of retirement home staff who meet the above-stated criteria. The researcher visited each retirement home to inform them of the study and recruit participants. The researcher emailed each retirement home and was directed to the Manager or the Director of Care of each respective retirement home, who then participated as the key informant staff members in each retirement home. If some homes belonged to a group or chain, for example Schlegel, Spring Living, Chartwell, etc., the researcher first asked whether there is a common assessment used for all retirement homes in the same chain. If so, then all the chain retirement homes were treated as a single group, and only one full intake care assessment was then sampled from each of such groups.

The key informants from each retirement home were contacted by email to participate in the study. An email recruitment script and information letter detailing what their volunteer participation in the study involves was emailed to all the potential study participants. In case multiple assessors from each retirement home were willing to participate, all of them were planned to be recruited. One participant from each home volunteered to participate in the study.

After an individual agreed to participate voluntarily, free written informed consent was obtained verbally or in writing (participants either signed consent form in-person or sent over email). Once recruited and consented, all the participants were then interviewed one-on-one. Conducting interviews with these key informants allowed them the opportunity to reflect and provide rich insights into their perspectives regarding the current information collection and use of assessments in retirement home settings.

2.5: Ethical Considerations

Before commencing the data collection, the project received clearance from the University of Waterloo Office of Research Ethics. All the potential participants were sent a detailed information letter about the study objectives, data collection and their use, voluntary participation, and measures to maintain confidentiality. Before their participation, consent was obtained from the participants with the capacity to give informed consent. Participants were not remunerated for taking part in the study and were free to decline any interview questions and move to the next question. Moreover, the following measures were taken to protect them from breach of confidentiality:

All the identifying data was removed, and the transcripts were rendered anonymous to keep the identity of all participants confidential. All the de-identified data was aggregated and stored as a password-protected encrypted file on the University of Waterloo server which was only accessible to researchers. With participant's consent, anonymous quotations were used in the thesis. Participants were given pseudonyms such as participant 1, participant 5, participant 12, etc. For example, each participant's name was changed to a participant code such as "Participant 1" to indicate who is speaking. Additionally, participants could opt to receive a copy of the study by email after the results were published, increasing the transparency between a participant and the researcher. The data analysis was conducted from May 2024 to February

2025. The study received approval from the University of Waterloo Research Ethics Board REB #30765.

2.6: Positionality Statement

I recognize the significance of my background, personal experiences, and perspectives in shaping the way I engage in and approach research in the public health field. My positionality is characterized by several key factors:

Before embarking on the MSc journey, I obtained my bachelor's degree in Health Studies at the University of Waterloo and have received training in research methodologies. This formal education has provided me with a foundational understanding of health concepts and research methods that may influence data collection and analysis process. During my undergraduate, I took the HLTH 201 course taught by Dr George Heckman. This course introduced me to him and the world of the geriatric population.

I identify as a non-indigenous person residing in the Waterloo region, and my cultural background informs my worldview and understanding of health-related issues. It is integral to acknowledge that my cultural perspective may impact my interpretation of data and interactions with participants.

After my undergraduate, I worked as a research assistant which exposed me to clinical geriatric healthcare settings and issues. This experience has contributed to my understanding of providing person-centered care in healthcare settings, but it may also introduce certain biases or preconceptions into my research.

My research interests within the field of health primarily focus on, e.g., healthcare disparities, patient experiences, person-centred care. These interests may influence the types of questions I inquire about and the perspective through which I view the data.

I hold certain personal beliefs about healthcare, wellness, and the determinants of health. While I strive for objectivity, I acknowledge that these beliefs could shape my research questions and interpretations. I recognize that my positionality while providing valuable perspectives and insights, can also introduce potential limitations and biases in my research. I am committed to

practicing reflexivity throughout the research process, which involves continuous self-awareness and critical examination of my biases and assumptions.

2.7: Data Collection

All the 22 retirement homes, including all the branches of chain homes in the KW region, were contacted in-person and by email to participate in the study. Recruitment and data collection took place in December 2023-January 2024 and May-July 2024. Out of 22 retirement homes in Ontario, 16 homes volunteered to provide their intake assessments, and a total of 12 assessments were retrieved for analysis as 4 of the 16 homes belonged to chain. Whereas 17 homes participated in the interview process to share their experiences.

2.7.1: Phase One

The qualitative phase involved up to n=17 one-on-one interviews with key retirement home staff members actively engaged in care planning and facilitation of the assessment. This sample size is considered acceptable, based upon a literature review of similar methodologies (Galvin, 2015; Guest et al., 2006; Hennink & Kaiser, 2022; Namey et al., 2016; Northwood et al., 2024). The researcher conducted digitally audio-recorded semi-structured interviews with participants. The interviews were scheduled and conducted over a secure virtual server (Microsoft Teams), over the phone, or in person, depending on the convenience of participants. Interviews were conducted to explore and understand the processes and experiences of participants about current care assessment practices. The one-on-one interviews of approximately 20-30 minutes each were conducted with each participant. The interviewer audio-recorded participants' responses without making any judgments or immediate inferences. Field notes for each interview were also taken.

At the beginning of one-on-one interviews, all participants were verbally reminded about what their voluntary choice to participate would entail and of their right to withdraw or decline answering any question. This was followed by a session of answering open-ended questions and providing feedback to characterize how the assessment information is being used to assist in care planning, as well as reflecting on their experience with current care assessment practices in the sector. All the interview questions were reviewed by one of the research advisory committee members as well as the ethics approval board. An interview guide containing a series of

questions with their probes (Appendix B) was used for conducting the interviews. Participants could ask the interviewer to clarify or elaborate questions, as needed. At the end of the interviews, staff members were also asked demographic questions including their age, gender, location, and experiences in the healthcare field and retirement home sector.

2.7.2: Phase Two

For the purposes of this phase, a copy of the full intake assessment of each retirement home was requested from the respective Manager or the Director of Care. A descriptive content review was carried out to systematically code and classify the content of these sampled assessments using the Ontario Retirement Home Regulation Act (2010) dimensions for assessment, frequency count, and present/absent criteria.

2.8: Methods of Data Analysis

2.8.1: Phase One: Qualitative Data Analysis

Out of the 22 retirement homes in Kitchener-Waterloo, 17 homes participated in the interview process to share their experiences. Prior to commencing data analysis, all the transcripts were transcribed verbatim and were rendered anonymous by removing identifying information and participants' names to maintain confidentiality and privacy. The qualitative content analysis framework is employed to inform the data analysis through distilling words into content-related categories (Elo & Kyngäs, 2008; Patton, 2002). This method is desirable for making sense of the data and reducing textual data collected through interviews to key salient concepts in a systematic and structured manner (Bengtsson, 2016; Graneheim & Lundman, 2004; Kleinheksel et al., 2020; Patton, 2002). This method addresses the "why," "how," or "what" questions and delves into the data using an iterative process of coding, counting, and interpreting, uncovering insights that quantitative methods may overlook (Patton, 2002). It is used for exploring how given words and word patterns are used within a given context and involves searching for specific words and/ or patterns. Additionally, this type of analysis also allows for quantification of qualitative data such as counting instances of specific codes (Kleinheksel et al., 2020).

The qualitative content analysis involved four key steps: (1) decontextualization, (2) recontextualization (3) categorization, and (4) compilation (Bengtsson, 2016). Using this method, the data analysis revolves around collecting and using assessment information in informing clinical care practices for retirement home residents.

The decontextualization phase involved familiarization and immersion in the data to obtain a holistic overview of the data set by giving it several reads (Bengtsson, 2016). All the de-identified transcripts were separately reviewed several times before combining them into the summative review. The research questions were used as a reference guide to allow for focused and directed content analysis and assigning meaning units across the entire dataset (Hsieh & Shannon, 2005). Meaning units are the smallest units consisting of a group of descriptive words or sentences close to text which facilitate the assembly of words to form patterns and provide insights into what the researcher aims to find (Graneheim & Lundman, 2004). These meaning units were abstracted and assigned labels called codes. In the re-contextualization phase, the researcher ensured whether all aspects relevant to the study objectives had been covered. Then the researcher considered removing all the unimportant information from the text that is not relevant to the study aim.

In the categorization phase, the identified codes were then systematically grouped and condensed while preserving content meaning to assign categories and sub-categories to participants' narratives (Bengtsson, 2016; Graneheim & Lundman, 2004; Kleinheksel et al., 2020). The entire dataset was thus categorized progressively in an iterative manner using codes and by revisiting the original text. These categories were then formulated to generate themes capturing key emerging patterns from informants' responses in order to identify the core meanings across the entire data set (Bengtsson, 2016; Kleinheksel et al., 2020). The key emerging patterns and themes were further refined after a summative review of all the interview transcripts. In the final compilation phase, data was presented as a summary of words and topical themes in the form of a conceptual table (Table 4) to provide the context of current assessment practices for informing the key study findings. Figure 4 (Appendix A) illustrates the steps of the categorization phase of content analysis.

Cumulative audit trails, which included memos to elicit the researcher's internal dialogue about participant's perspectives after analyzing each transcript, helped ensure the reliability of

the data analyzed (Guest et al., 2006). All the data was accessed using a secured encrypted University of Waterloo server. The analysis was subject to credibility and rigor establishment checks using the following measures: a) consulting the research group in drafting the interview questions; b) jotting down field notes during interview c) taking thorough analytic memos of transcripts; d) checking the accuracy of interview transcripts against interview audio-recordings; e) reviewing the transcripts several times to give input on coding; and f) reviewing and constantly refining the final set of themes derived from data analysis. Credibility relates to how effectively data and analysis processes align with study's aims (Polit & Hungler, 1999). It helps establish how the data analysis has been performed and ensures that no relevant information has been left out (Bengtsson, 2016; Graneheim & Lundman, 2004).

Furthermore, to improve the transparency of data analysis, the researcher engaged in a reflexive process though approaching the interview transcripts with an open mind and reflecting on how the study findings may align or differ from one's perceptions or social position (Olmos-Vega et al., 2022). The researcher took into consideration how one's positionality may affect data analysis. This was accounted for by journaling thoughts, and it is also reported in the final thesis how the researcher's positionality may have influenced study findings. This process may help in identifying and addressing any potential biases that could impact how the data is analyzed and findings interpreted.

2.8.2: Phase Two: Descriptive Data Analysis of Retirement Home Assessments

Out of the 22 retirement homes in KW region, 16 homes volunteered to provide their intake assessments. This phase involves descriptive content review to ascertain the comprehensiveness of the retrieved retirement home intake assessments of residents' care needs and preferences. These assessments are ascertained against assessment dimensions required by the [Ontario Retirement Home Regulation Act](#) (Government of Ontario, 2010a).

Furthermore, this study aimed at identifying additional resident assessment instruments used in each retirement home beyond those recommended by the RHRA. The findings from descriptive content review are presented at the level of domains recommended by RHRA to facilitate comparison among different intake assessment forms. The modality of assessments,

such as paper-based or electronic, is also recorded. For addressing the objectives of this study, the steps of analysis include the following:

1. The extent to which a retirement home assessment fulfils the dimensions required in the RHRA guidance
2. Descriptive data analysis of assessment processes and dimensions to compare and describe differences among them

CHAPTER 3: RESULTS

The results from phases 1 and 2 are aimed at exploring, understanding, and comparing current intake care assessment content and processes in the KW retirement homes. The qualitative findings from phase 1 revealed assessment practices, specifically how, when, why, and by whom these assessments are conducted and how the information collected from them is used. Whereas the findings from phase 2 helped to compare and classify the specific content of the intake assessments being conducted against the Ontario Retirement Home Act regulations.

The demographic characteristics of retirement homes and study participants are presented as follows:

3.1: Demographics

Of the 22 retirement homes in the KW region, fifteen belonged to chain. Three chains operated two or more homes in the region. All the chain homes in the region followed standard chain specific assessments and similar processes to conduct the intake assessments of their residents. Representatives from 17 retirement homes participated in the study whereas 5 homes declined to participate. One volunteer from each participating home took part in the study. Participants comprised of 2 males and 15 females. They were all registered staff, i.e. 12 registered practical nurses (RPN), 2 registered nurses (RN), 2 advancing towards registered nurses from registered practical nurses, and 1 holding a diploma in leadership in long term care and retirement homes. Retirement home designations included either director of care, wellness manager, or nursing coordinator. To protect participant anonymity, their years of experience in the healthcare field and retirement home sector, respectively, were reported in by range brackets (as shown below in Table 1). Out of the seventeen participating retirement homes, two homes (P13 and P15) were not-for-profit and charitably funded, whereas the other homes are privately funded and incorporated. Among these seventeen homes, thirteen homes were part of a chain, whereas the remaining four were non-chain homes. All the non-participating homes (P18, P19, P20, P21, and P22) are privately funded and incorporated, and two homes (P19 and P20) are part of chain affiliation, whereas the remaining three are non-chain homes.

Demographic Information of Study Participants:

Participant number	Date of birth	Gender	Years working in Heathfield	Years working in retirement home	Professional background
1	1983	Woman	16-20 years	0-5 years	RPN (nursing)
2 (home is privately funded)	1986	Woman	20+ years	6 – 10 years	RPN (nursing)
3	1995	Woman	6-10 years	6 – 10 years	RPN (nursing)
4	1970	Woman	16-20 years	11-15 years	RN (nursing)
5	1984	Woman	16-20 years	0-5 years	RPN (nursing)
6	1981	Woman	20+ years	6-10 years	RPN (nursing)
7	1997	Woman	0-5 years	0-5 years	RPN (nursing)
8	Prefer not to answer	Woman	Prefer not to answer	Prefer not to answer	RPN (nursing)

9	Prefer not to answer	Man	11-15 years	0-5 years	RPN, RN (nursing)
10	1974	Woman	11-15 years	6-10 years	RPN (nursing)
11	1998	Woman	6-10 years	0-5 years	RPN (nursing)
12	1962	Woman	20+ years	16-20 years	RPN (nursing)
13	1995	Man	6-10 years	0-5 years	RPN, RN (nursing)
14	1973	Woman	20+ years	20+ years	RPN (nursing)
15	1981	Woman	16-20 years	16-20 years	RN (nursing)
16	1967	Woman	20+ years	20+ years	RPN (nursing)
17	1984	Woman	6-10 years	6-10 years	Diploma in leadership in long term care and

					retirement homes
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Table 1: Demographic Information of study participants

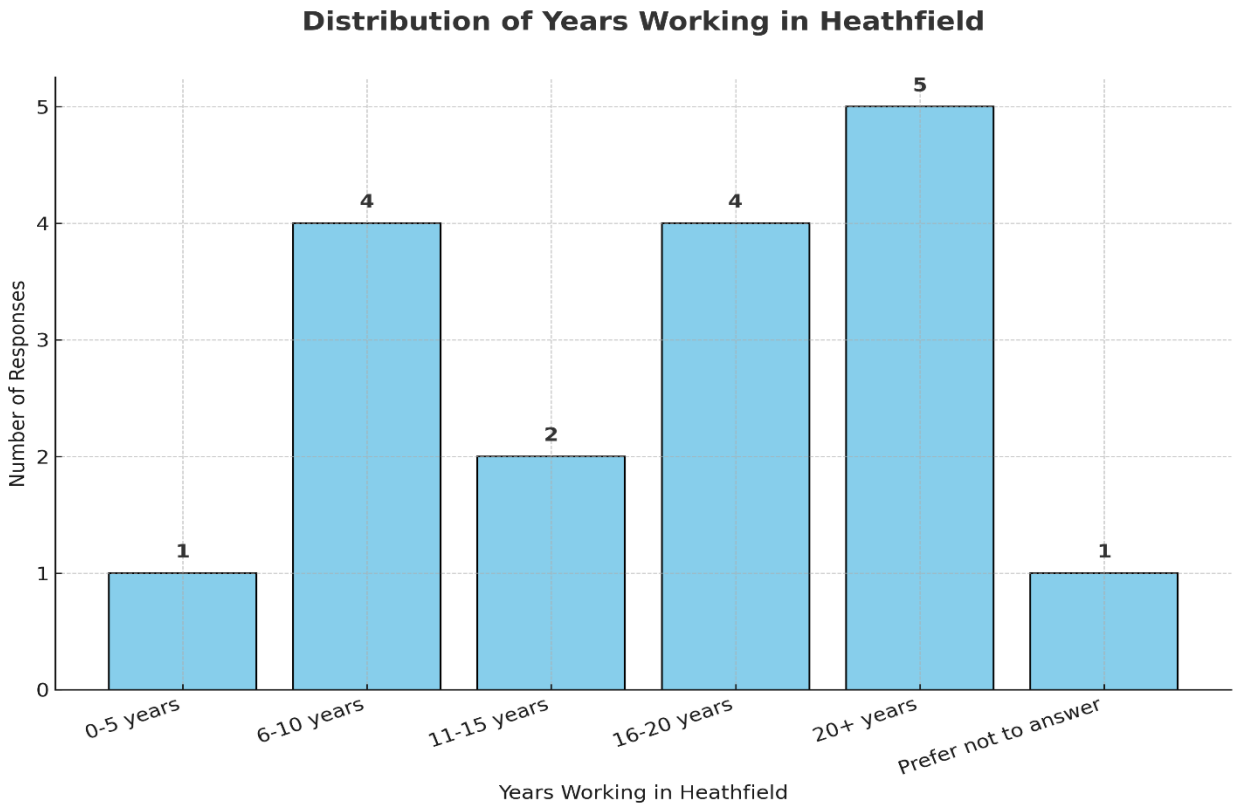


Figure 1: Number of years that study participants have worked in healthcare field

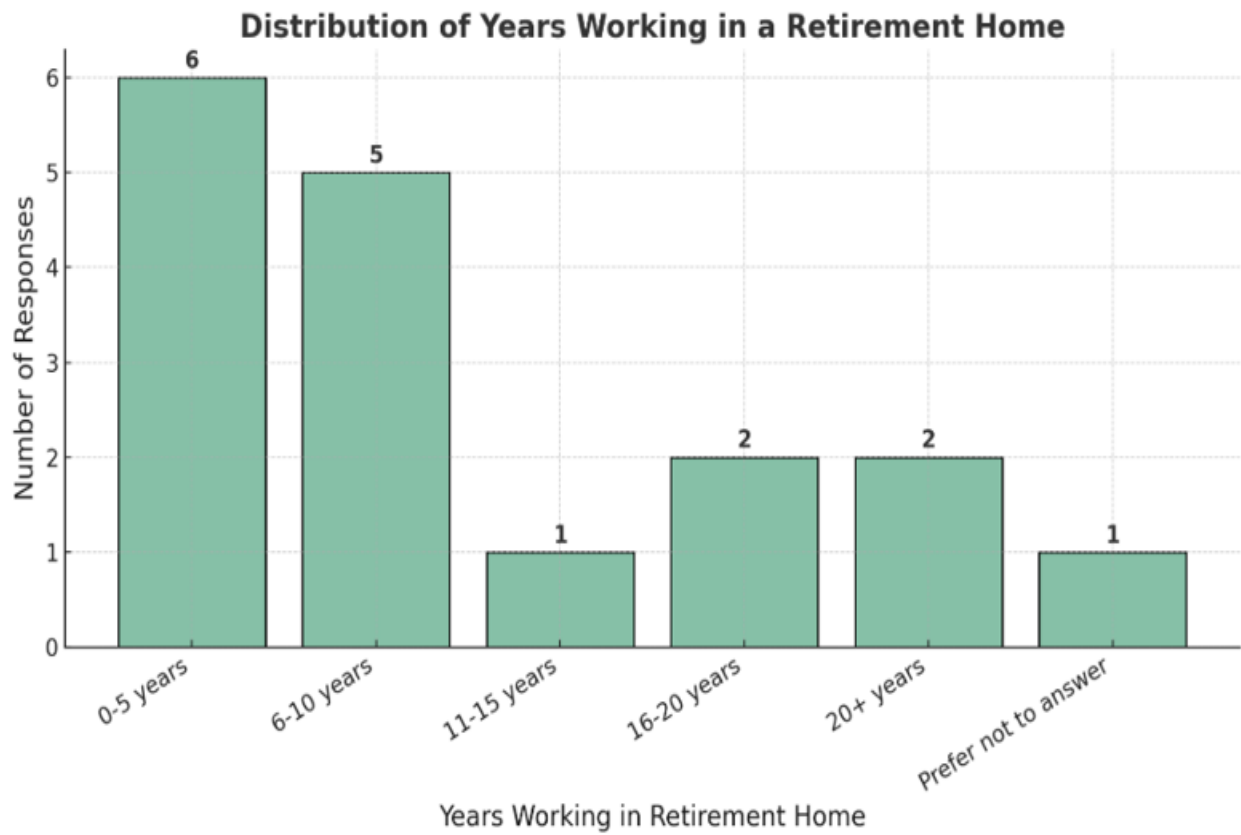


Figure 2: Number of years that study participants have worked in retirement home settings

3.2: Phase One Results

➤ How Are Current Care Assessments Conducted?

In participating homes, the full intake assessments are usually conducted prior to or at the time of admission and consist of a series of questions to obtain information about residents.

“Typically, the care coordinator meets the potential resident, wherever they are, whether in their home, their hospital, or other retirement home. They meet them along, usually with family or caregiver, and go through a series of questions to do an assessment and then in addition to that, if they have been in hospital or another retirement home, a copy of their admission history, care plans, whatever the applicable documentation is obtained. Assessments are based on the information that retirement home is required to gather through the Retirement Homes Act.” – Participant 2

“I want to hear the resident’s perspective on where they are, their spouses’ perspective on where they are, if they’re available. I also wanna speak to each child individually, so it’s a little bit more in depth because everybody has a different perspective and from all that information, I formulate my assessment. I have standard questions that I ask, and forms that I fill out and that helps me paint the picture for them.” – Participant 5

Assessments are usually conducted by designated registered staff including the director of care, wellness manager, or nursing coordinator. Other staff members such as PSWs and unregulated care providers may help in collecting information for the full assessment as they observe the residents closely during the initial period following admission.

“Usually, the director of health and wellness (nurse). And in the absence of the director, it’ll be the full-time RPN. So, it’s a teamwork, and registered staff on duty such as nurses and unregulated care providers do help in gathering residents’ information.” – Participant 10

“The director of health and wellness or an RPN as well that is trained on how to do an assessment.” – Participant 3

The assessments are commonly conducted in-person (prior to or at the time of admission) and occasionally the assessment is conducted virtually. All the 17 homes initially conduct the assessment on paper or computerized pdf and then input the information into electronic medical record software. The most commonly used medical record software included PointClickCare (5 homes), Yardi (4 homes), and Medicare (1 home). One home stated future plans to conduct assessments completely electronically.

“Initially the assessment is done in-person and all on paper; and then everything is inputted into the computer system.” – Participant 14

“For the most part to be more relational model, we typically have it printed so that we're not looking at a computer and just answering question so that we can have more of a personal relationship when we're doing the assessment, so typically it's printed on paper and then submitted into the PCC afterwards.” – Participant 17

Ten of the retirement homes typically conduct the full-intake assessment prior to the resident moving into a retirement home, whereas the other seven homes conduct the assessment at the time of admission.

“Within 24 hours of moving in as much as possible and then remaining little things (such as like preferences, height, and weight) are collected next day or so.” – Participant 10

“The full intake assessment is conducted before moving in. So, after the residents move in, the health and wellness manager review the full intake assessment done before moving in, usually, the next day [of moving in] with them just to ensure that everything has been addressed. And then I do review it again two weeks later to make sure there isn't anything that needs to be updated or added to the care plan or changed. Especially the first week the manager checks in with them every day just to see if they have any concerns or anything.” – Participant 14

Participants stated that the assessment information can be collected from an array of sources, starting with the residents themselves. Other sources can include the residents' family members, caregivers, and family doctors, if any. Most of the information is collected from residents themselves or their families/ caregivers. If a resident is arriving from a hospital or another

healthcare setting, additional information may be available from that setting. Participants reported that in such cases, depending on where the resident is coming from, additional input for resident's medical history may also occasionally come from home and community care support services, previous retirement home, hospital, health care provider, or any specialists that's involved in resident's care. Based on the information obtained, a care plan is developed to support the residents.

“They have an array of information sources when somebody moves into the home. Most of the information is obtained from residents, family members, caregivers, Home and Community Care support services, previous retirement home, hospital, health care provider, their primary care giver (physician statement) or physician, any specialists that's involved in resident's care and ask them for their medical history.” – Participant 2

“So, prior to the assessment to gathering information about the resident, we have a medical form that the family or resident would be taking to their family doctor, and they would get some healthcare information filled out. So, last immunization, any problems or diagnosis and most recent height, weight that kind of just like a high-level overview. We get that information prior to the assessment...So [if they're coming from hospital], we would request for the same information, so we would just then get it from the hospital that they're currently with or the family will get or resident would get the information from the hospital and their family doctor, as well as resident and family” –Participant 17

The time for assessment completion varied, ranging from two to three hours in four homes, one to two hours in five homes, and less than an hour in seven.

“Between one to two hours to do a proper assessment (it can be over the course of time of one week or all at once depending on the individual).” – Participant 13

“Somewhere between two to three hours.” – Participant 5

➤ Purpose of the Full-Intake Assessment

The stated purpose of the assessment is to determine the care needs of prospective residents and the capacity of a retirement home to provide appropriate support.

“We need to acquire what level of support the person requires to see if they're a good fit to move into our retirement community... It's to assess their level of services to make their care plan.” – Participant 6

“...The assessment information is used for the care plan, understanding the fall risk, understanding medication administration, understanding residents' activities of daily living...” – Participant 2

A second purpose is to develop a care plan so that all the staff (including PSWs and nurses) involved in the care are aware of the care needs of the residents and can help support the care needs of residents.

“So, I use the information to calibrate the care plan that I create which shapes how all the staff here interact with the resident. Because the care plan covers emergency contacts, allergies, health card numbers, who their doctor is, how they get in and out of a chair, how they're able to eat, if they need modifications, what their diet is supposed to look like. It's such a huge resource for directing care that every team member can come in and read it anytime they want to. We make them available at the nurses' station and make sure we share that our staff members are able to read them while they're working here so that they know how to better serve the residents we care for.” – Participant 5

“...Mainly the output is the assessment rolls into kind of the care plan for the resident.” – Participant 2

“The assessment gives a go– participant where the resident is at, especially with the cognition test. And then it allows us to monitor for any declines in the residents' abilities. Or if they have more falls risks.” – Participant 1

➤ Assessment Results/ Information Sharing

The assessment result/information is stated to be regularly shared with staff within the home, such as the health and wellness manager, nurses, and PSWs. The homes' participants mentioned that they share this information on as needed basis with the resident's circle of care including healthcare providers such as external physician or geriatrician, other interdisciplinary teams from outside (such as home care, physiotherapist, and occupational therapist), or any community partners that are involved in providing care to residents.

"It's being shared with the nurses, PSWs, or any community partners that are in their circle of care." – Participant 1

"That is shared with the circle of care. The circle of care can be anyone: the RPNs, PSWs, health and wellness managers, doctors, hospitals, any diagnostic imaging. So, anyone who provides the care, doesn't matter medical or physical care." – Participant 8

Participants also stated that all the healthcare related retirement home staff who provide direct care services to residents such as RPNs, PSWs, home and community care, as well as residents themselves get a copy of the care plan.

"All of our care staff who provide direct care to the residents (including PSW's, guest attendance, RPNs, students, culinary staff)." – Participant 10

"All the healthcare related staff, like nurses, PSWs, doctors, pharmacists, physiotherapist and occupational therapist [coming from external sources], and inside home healthcare workers." – Participant 9

The results from the intake assessments are made available to team members to support care planning and to provide care services to residents in retirement homes.

"So, it's for the resident's well-being. So, the nursing staff would use those information to follow the correct care plan for the residents. So, internal staff, nursing and PSWs. Some of the information is used by OT [Occupational therapist], PT [Physiotherapist], Homecare." – Participant 15

“Nurses use the assessments and the care plans, PSWs will use it. Recreation will look at it to incorporate anything that they can into it, as well as our regulating body; they will come in and do audits. And they will look at these assessments and care plans as well. Retirement home pharmacists also use this information to compare and dispense medication. On team Occupational therapist and geriatrics as well.” – Participant 1

Notably, results from assessment information are not routinely shared with primary care providers to proactively identify unmet care needs and prevent healthcare services use or further deterioration of health condition of residents. The results are shared only at the discretion of the nursing staff on a needed or exceptional basis when there is a concern or there is a change in the health status of a resident. What concerns might prompt them to share the information with health care provider(s) is not well-defined and yet remains to be fully explored.

“Not really, unless there's a concern. If there's a concern otherwise, like, for example, if there was an increase in incontinence, then we would share that with the family physician to assess why.” – Participant 10

“Generally, no, unless there is like an instance where they need the information, then we could send it.” – Participant 11

However, it remains unclear whether the results of the assessment are routinely discussed with residents or their Power of attorney (if the resident is cognitively impaired). Participants stated that the care plan (developed from intake assessment) is shared with residents and/or their families or Power of attorney (if available). They then review the care plan regarding the services they purchase and sign after agreeing to it.

“Definitely, if the resident is requesting information, we will provide the information, but usually we don't actively provide that to the residents.” – Participant 13

“We have to because we are doing this assessment with them...Yes, because whoever is cognitively intact, we will discuss the result with the resident, but some of them are cognitively impaired. So, there is no need to, then we will discuss with the power of attorney for care not with all the family.” – Participant 9

If the resident is transferred from the retirement home to another healthcare setting, the assessment information or their care plan is shared routinely only by some homes. Nonetheless, there were differences in the practices of homes in terms of assessment information sharing. Some retirement homes mentioned that they share the full assessment information whereas others stated that they only share if the assessment information is requested. If residents are sent to an emergency department, then their basic medical record (medical history, medications list, contact information, and pertinent medical history) could be shared.

“If they [residents] are being sent to an emergency department, then their medical history, medications lists, contact information and pertinent medical history is shared. If they are being sent to another facility like another retirement home, then the entire assessment is sent. So, it's just kind of on an as needed basis.” – Participant 14

“If we were to send them[resident] to an emergency department, we would just give them, like their basic [medical information such as] medical history, medications lists like that. If they were going to another facility like another retirement home, then we would more than likely share the entire assessment [if requested]. So, it's just kind of on an as needed basis...and to nursing homes, if requested...Home and Community care do their own assessments. I've never had to share assessment information with home and community support services, but kind of share little tidbits of information here and there just to make sure that their care is what they need.” – Participant 11

➤ **Standardization of Assessment and Use of Same Assessments in Retirement Homes**

All chain retirement homes reported that they use a common assessment and practices within their branches.

“Yes, because we have a standard and [home name] is a Canada wide chain, and we have our standardized policies.” – Participant 8

“Yes, same assessment and same general practices would be used.” – Participant 3

However, those interviewed were not sure if the same assessments are being used elsewhere apart from the chain homes.

“No, just the same company uses the same tools and processes and whatever they have.”

– Participant 3

“I don't know [if other retirement homes are using same assessment] ...” – Participant 5

Every home or chain has developed its own customized full intake assessment with variable content items and length of assessments. Therefore, differences were found among the data items of home (or chain) assessments.

“No, we created a custom assessment.” – Participant 7

Among all the 17 participating homes in KW-region, there was variability in terms of the full-intake assessment processes and practices.

“Our home assessment is more in-depth. Every home has their own assessment and modifications.” – Participant 10

“Every home has their own policies. For example, some of the homes use MMSE, some of the homes they use MOCA. I know about my [home name], because I work here, and they follow their policy. Some of them, they use FRAT, whereas we use MORSE Fall scale here. So, it all depends upon what organization you work for, and what are their policies.” – Participant 8

Some participants also attributed differences found in the full-intake assessment processes and practices to the lack of standardization of assessment processes and practices in the retirement home sector. Below are some of the illustrative findings from retirement home participants:

“From my own experience, I find sometimes the kind of the overarching model of the retirement homes. I feel are kinda too loose. Since there is no standardization to assessments, sometimes, it feels like we are doing too much, and sometimes it feels like we are doing too little. We kind of go above and beyond what we're expected to do when it comes to communication. So, I don't know if that is just us or if that's [retirement home

name] thing. That like it's just a unique thing for my particular thing...I feel like there isn't any overarching body at the standardized assessment because it's different from house to house... So, there's no standardized practice...Yeah, it [the lack of standardization] definitely does affect. Because oftentimes I feel like I'm doing either not enough, or I feel like everything that I've done and then it just gets thrown out the window because one person decides so... Because there is no unifying procedure at times it fell through". – Participant 13

"I don't know [if other retirement homes are using same assessment] because the RHRA indicates what we need to assess. It doesn't indicate how we need to assess it or what specific assessment we need to use. Oftentimes the versions are different. So I just use best practice to guide my choice, and I use the most recent versions and I try to-- Having been in long term care for so long, knowing that is the next step from here, typically, I try to match the language on our assessments to be more long-term care based so that the information that's being read doesn't need to be interpreted. It can just be straight information. They don't need to try to figure out what it means or how I'm using the phrases differently. So, a lot of our assessments we've pulled from other sources and rephrased questions to better suit a long-term care adventure." – Participant 5

3.3: Phase Two Results

3.3.1: Retirement Home Assessment Description

This section aims to describe the retirement homes' intake assessments conducted in the KW region of Ontario. Out of 22 retirement homes in KW, 16 homes volunteered to provide their intake assessments. In addition to the basic intake assessments, retirement homes use additional instruments at the discretion of the person in charge of conducting/ overseeing assessments. The commonly used output tools included falls risk assessment tool (FRAT), Montreal cognitive assessment (MoCA), mini-mental state examination (MMSE), heat risk assessment, and pain assessment scale (as needed).

This study comprised a review of basic intake assessments conducted. The content from all retirement home intake assessments was compared against each other for all the domains listed by RHRA. All assessments were homemade and developed based on RHRA guidelines. The homes also use additional assessment tools on an ad-hoc basis. Notably, all intake assessments addressed the basic domains listed by RHRA, but there were variations in terms of content and length of assessments. Across retirement homes, the length of assessments varied from a minimum of 3 pages to a maximum of 28 pages.

A non-uniform coverage of assessment items among domains was found when intake assessments from across all the participating homes in the region were compared. The assessment items within each domain depicted in terms of specifications and details. For example, the content of questions asked around standard RHRA domains is variable. The terminology used in some home assessments is not well defined as what it is particularly referring to. Moreover, some home assessments were found to have more detailed questions related to domains while other home assessments lacked those details. Examples for illustration purposes are provided below under each domain.

3.3.2: Classification Challenges

In assigning assessment items to each particular domain, it was challenging to find their respective categories. [RHRA guidelines](#) list the main domains to be assessed without specifying the data items that need to be contained within each domain, leaving room for ambiguity and various interpretations for questions asked within each domain. Moreover, as the items for each domain were not defined by RHRA, it was unclear which RHRA domain they best fit into. Therefore, it was hard to categorize items in each domain. For example, it was hard to decipher whether “*Elimination of Bowel/ Elimination of Bladder*” fit in the domain of continence or ADLs (toileting)? Therefore, this review relied on categorization of assessment forms to assign domain to each item within the domain.

There are other notable aspects that are pertinent to mention. Some homes assessment sections were categorized based on RHRA domains, whereas others were classified without categorization under domains. In some homes, some items were included in sections where they do not seem to belong. For example, three homes listed loneliness, mood, and suicidal ideation

under the mental health domain, whereas other homes assessments of these categories are listed under the domain of behavioral issues.

3.3.3: Findings for RHRA listed Domains

➤ Physical Health and Mental Health

The main items found under the physical health category include medical history, current diagnoses, vital signs (weight, height, blood pressure, pulse), medical devices (e.g. ostomy, catheter), sleep, frailty, skin integrity, pain, fatigue, physical activity, physician visits, and service utilization such as emergency department visits and hospital use. The common items found under the mental health category included general mood and disposition.

There was great variability in specific items included in the assessments. For example, all retirement homes asked for the medical diagnosis of residents as an open-ended question. However, only one home (P6) out of sixteen also listed the names of specific medical diagnoses from which to choose. Most homes asked for height and weight, whereas only the P7 home intake assessment asked for specifics such as the route taken to measure the most recent temperature and type of scale used to measure weight. Similarly, only home assessment (P7) requested detailed information about vital signs such as date and position at which the most recent blood pressure was recorded, pulse type, respiration rate, oxygen saturation, method used to measure oxygen saturation, and body temperature.

Only two (P2 and P7) homes' intake assessments asked about targeted goals and intervention tailored towards items listed in assessments. For example, P7 identified the goal for managing an abnormal skin condition as providing the necessary support to promote healthy wound healing. Suggested interventions included repositioning the individual every two hours to reduce skin breakdown, monitoring skin integrity, documenting any observed changes, and referring to a wound care nurse when necessary. Likewise, a history of hospitalization in the last 6 months was required by only one retirement home (P15).

Some homes assessments' questions are designed in a non-specific manner that renders them open to interpretation and perhaps clinically unhelpful. For example, a retirement home (P3)

assessment contained: “*Resident has a history of or current bowel issues?*” The item is asked in a manner that fails to shed information on the nature of the bowel problem. Without defining, it was unclear as to what clinical concerns specifically relate to bowel issues and what specifically falls under this category. These concerns could range from rectal prolapses, continence, diarrhea, to constipation.

As opposed to such non-specific questions, four homes (P8, P7, P11, P14) particularly listed detailed specific bowel issues in question. For example, home P8 asked for specific factors contributing to bowel incontinence (such as constipation, diarrhea, laxative use, cognitive impairment, related diagnosis, dietary intolerance), and bladder incontinence (including frequent urinary tract infections, urgency, diuretic use, cognitive impairment).

Similarly, another area of assessment heterogeneity is skin health. Some assessments were quite detailed. For example, P16 inquired about skin integrity with in-depth and specific initial assessment questions as they listed general conditions (such as normal, dry, oily, scaly, fragile), impairments (such as reddened area, rash, abrasions, bruises, sores, skin tears, circulatory ulcer, pressure ulcer including its stage), location, and wound infection. P15 followed a similar pattern as well. In contrast, other home assessments such as P12, P5, P10, P8, P11, and P14 simply asked for any skin integrity concerns, care, and devices for maintenance.

Furthermore, differences among sleep-related questions were found in assessments. Sleep related pattern questions (such as sound sleep, intermittent, insomnia, rest periods during the day, or sedation) were specifically listed in assessments of homes P15 and P16. Other homes P8, P11, and P14 used open-ended questions to assess sleep issues.

➤ **Functional Capacity**

The main items under this category included hearing or visual impairments, vision/ hearing aid, glasses, communication/speech, prothesis, dentures, assisted devices, cane, walker, wheelchair, assistance with applying these devices, and services required for hearing, vision, and communication.

Questions pertaining to vision, hearing, speech/communication, and aides such as glasses, hearing, and speech aids were asked by most retirement homes. Prostheses and dentures related questions were also asked by most homes. However, differences were found in this domain, with only a single home inquired about prior or upcoming appointments, optometry, hearing specialist, and dentist info. These specifications were not seen in any other home assessments. Specific questions about teeth, dentures, and partial positions (upper, lower, upper and lower both) were only asked by homes P6, P13, and P17.

All homes asked whether residents required assistance with mobility. However, there were differences in the specification of mobility aids, with some homes requesting details about the wheelchair (e.g. manual, titling, and scooter wheelchair, seat belt, tabletop/ lap tray), positioning devices (e.g. bed/assist rail, recliner chair, mechanical lift, prosthetics), others more general information (e.g. walker, cane, and wheelchair), and one asking for no details at all.

Assessment of vision problems was also highly variable. For instance, two homes inquired about which eye was affected. Most homes inquired about the overall state of vision (e.g. unimpaired, impaired, legally blind). A few homes (P2, P3, P4, P16) asked about specific vision conditions, and two (P2 and P7) about goals and interventions in addition to overall vision, hearing, and communication issues.

Various items were classified under different domains where they do not seem to belong. For instance, one home assessment mentioned teeth and vision related questions under the domain of functional capacity. It is defined as the ability to perform tasks and engage in activities that are essential or meaningful in one's daily life (Patterson & Mausbach, 2010). In contrast, in ten other homes assessments, teeth and vision related questions fell under the sensory/physical health domain.

➤ **Cognitive Ability**

The main items under this category included general cognitive status, orientation to place, person, date, and time, short-term and long-term memory, MMSE/MoCA scores, and diagnosis of Alzheimer's disease or dementia. All included a common question pertaining to orientation to place, person, date, and time. All homes specifically inquired about any short-term or long-term

memory deficits except for two (P16 and P7). Home P7 asked residents open-ended questions to describe their memory.

Differences were found among the content for assessing the cognitive domain. While some homes asked about overall cognitive function, others inquired about specific cognitive domains. Some assessments listed specific questions to assess each item in the domain (e.g. questions related to orientation, short-term, and long-term memory), whereas others had unspecified ways of measuring. For example, two homes (P7 and P15) stated specific instructions to test cognitive registration by naming three objects slowly and asking a resident to repeat them and remember them after a certain time period.

Six homes also inquired about scores from completed MMSE or MoCA while others did not. Namely, P7 and P15 asked for only MMSE scores whereas P10 asked for either MMSE or MoCA scores (if applicable). P8, P11, and P14 especially inquired about relatively more details such as the need to conduct cognitive evaluation, type of evaluation, score, and name and title of person administering evaluation. While P12, P13, and P17 only asked if a MMSE or MoCA had been completed. Eleven homes conduct additional assessments such as MoCA whereas twelve homes conduct MMSE. Eight homes conduct both MoCA and MMSE.

One home (P6) contained a very specific list of cognitive deficits to assess: “During *the assessment, the Resident has shown evidence of* 1. Amnesia, 2. Anosognosia, 3. Agnosia, 4. Apraxia, 5. Aphasia, 6. Apathy”. In this case, the usage of these relatively technical terms implies that it is assumed that the person conducting these assessments received specific training about how to interpret them along with documenting what is evident to them in a separate explanation box.

In contrast, other assessments used open-ended and non-specific questions such as “[*The Resident has limitations related to cognitive communication?*]”. What this question exactly means is subject to interpretation and is not asked about by any other home. Five homes (P13, P10, P12, P13, P17) particularly asked for a diagnosis of Alzheimer's or dementia, while others did not specifically inquire about this. P8, P11, and P14 inquired if a resident is enrolled in a dementia care program.

➤ **Behavioral Issues**

The main items under this category included behavioral symptoms such as agitation, wandering, verbal and physical abuse, risk of harm to self or others, resistance to care, inappropriate sexual behavior, suicidal ideation, responsive behaviors and known triggers, alcohol or drug abuse, or smoking.

The types of behaviors inquired about were variable. Most (11/16) homes asked about agitation, wandering, harmful behavior, risk of harm to self or others, resistance to care, inappropriate sexual behavior, suicidal ideation, responsive behaviors and known triggers, alcohol or drug abuse, or smoking. Half inquired about seeking reassurance, needing redirection, collecting or hoarding, verbal/physical expressions (aggression), and depression. The risk of elopement was asked about by four homes. One home asked about the indiscriminate ingestion of foreign substances. Notably, self-isolation and loneliness were only asked by two homes. In the context of behavioral issues, only two homes asked questions related to frequent mood changes, while two homes described goals and interventions pertaining to behavioral issues.

➤ **Need for Care Services**

Under this RHRA domain, homes listed items which included: need for special care or professional services, dialysis, ostomy management, continence assistance or management, incontinence products, dementia care, catheter use, ostomy use, staff assistance, stocking application/removal, night checks, and additional nursing.

Particularly, only one home asked questions related to palliative care programs along with a person's care goals and interventions. Three homes specifically inquired if a resident requires routine vital checks. Five homes inquired about assistance with ostomy issues such as changing or draining an ostomy pouch, cleaning the area around a stoma, obtaining ostomy supplies, skin care around stoma, and describing any other ostomy care assistance need(s).

Furthermore, five homes asked detailed questions related to assistance with incontinence management. Five inquired about dialysis and the need for assistance with dialysis management. Two homes inquired about dementia care. Eight homes (P3, P4, P5, P7, P8, P11, P14, P15) asked

about the need for professional services such as speech therapy, occupational therapy, physiotherapy, psychologist or psychiatric care, hospice or palliative care, or dental care. Home P16 requested specific details regarding rehabilitation services such as occupational therapy and physiotherapy. Two homes (P2 and P7) inquired about goals pertinent to care services.

➤ **Need for Assistance with the Activities of Daily Living (ADLs)**

Common items assessed in this category were need for assistance with the activities of daily living for bathing/showering, dressing, grooming and personal hygiene, transferring (getting in and out of bed or a chair), mobility (walking), toileting, dining/eating, and attendant care services.

All the homes asked about daily activities, including bathing/showering, dressing, grooming and personal hygiene, transferring, mobility, toileting, dining/eating, and attendant care services required by residents. However, the level of details with which the questions were designed varied from one home to another. For example, eight homes (P2, P5, P6, P10, P12, P13, P16, P17) just had an open-ended question asking for additional information for resident's bathing preferences and level of care required, whereas six homes (P3, P4, P7, P8, P11, P14) additionally asked for number of weekly showers and/ or spa visits, shower or spa services received, and shower aids. Similarly, only three homes (P3, P4, P7) listed specific enabling toileting devices such as bedpan, raised seat, toilet grab bar, and urinal device, whereas other homes such as P2 only asked general open-ended questions for any toileting aids used. However, only two homes (P2 and P7) specified goals and interventions for each ADL item. Only five homes (P3, P4, P8, P11, P14) asked in detail for attendant care services required by residents. Eight homes (P3, P4, P13, P15, P17, P8, P11, P14) inquired about footcare or therapeutic stockings.

➤ **Risk of Falling**

The items under this category consisted of questions relating to risk assessment for falls' emergency response system and falls risk management. Three homes had the Morse fall scale incorporated in their assessments. One other home also had a proprietary and detailed falls risk assessment, whereas three other homes only asked if resident had a history of falls. One home

asked for details of any injury with falls and used the Fall Risk Assessment Tool (FRAT) score /date/ risk level. Only one home asked for risk of falls along with listing specified goals and interventions to prevent falls.

➤ **Continence**

The questions asked under this category were related to bowel and bladder continence and elimination. Notably, all home assessments inquired about bowel and bladder continence. However, some asked very brief questions while others asked more detailed and specific questions. For example, only two homes (P13 and P17) asked about concerns and management related to bowel constipation while also using open-ended questions about resident preferences for continence care, whereas other homes did not use such specific questions. Only three homes (P8, P11, P14) asked about current bladder (19 items) and bowel (14 items) issues from a detailed and specific list of conditions in a check box format. Furthermore, only two homes outlined goals and interventions, such as the need for continence care services.

➤ **Presence of Infectious Diseases (including vaccination/immunization)**

Under this section, homes listed items related to the presence of infectious diseases, drug resistant organisms that colonize people, and immunization history. Common conditions inquired about include influenza, TB (Tuberculosis), shingles, tetanus, and COVID. Some homes asked about the detailed history of infectious diseases, while others briefly questioned the presence of any known infectious diseases. Four homes (P3, P4, P5, and P16) only asked if residents have presence of any known infectious disease without asking any further details. Specific conditions or immunizations asked about included influenza (ten homes: P1, P6, P8, P11, P12, P13, P14, P15, P17, P19), tuberculosis (nine homes: P1, P6, P10, P8, P11, P13, P14, P17, P19), varicella zoster (seven homes: P6, P8, P11, P14, P19, P13, P17), tetanus (five homes: P1, P6, P13, P17, P15), and Clostridium difficile and Hepatitis B or C (four homes: P2, P7, P13, P17). The homes used a checklist with yes/no answers for this information. With respect to immunization history,

ten homes asked about pneumococcal vaccination (P1, P6, P8, P11, P12, P13, P14, P15, P17, P19), and two (P13 and P17) about tetanus, diphtheria, and pertussis vaccine status.

Other frequently assessed items were related to drug resistant colonizing organisms such as Methicillin-resistant *Staphylococcus Aureus* (MRSA) and Vancomycin-resistant *Enterococcus* (VRE), with eleven homes (P1, P2, P6, P7, P8, P11, P13, P14, P15, P17, P19) using a checklist of yes/ no format for these.

➤ **Known Allergies**

All home assessments asked for known allergies as an open-ended question to describe any allergies that a resident has related to food, drug, or other.

➤ **Dietary Needs (including known food restrictions)**

The items listed under the dietary evaluation domain included questions pertaining to swallowing risk, appetite (weight loss/ gain), nutrition and meals, food allergies, dietary preferences, dietary likes/dislikes, meals timings, and provision of meals.

Eleven homes (P1, P2, P3, P4, P6, P8, P11, P13, P14, P16, P17) asked detailed questions related to diet type, texture, and fluid consistency. Two homes (P3 and P4) particularly asked for appetite, dietary preferences or restrictions related to religious or cultural beliefs, special meal preparation/ food consistency (detailed list), need for further dietary evaluation, as well as assessment for swallowing risk. Two homes (P5 and P15) also asked for dietary type and restrictions. Furthermore, the home P5 asked for any difficulty chewing/ swallowing, while P15 asked for the need for dietician services. Under this domain, both homes P6 and P16 questioned about any weight changes while the home P6 particularly asked for any food likes or dislikes.

➤ **Needs related to Drugs and Other substances**

The question items under this category included need for medication assistance, medication administration, management and devices, smoking and alcohol use, oxygen supply, oxygen provider, oxygen maintenance, B12 injection, unsafe smoking, and alcohol/ drug abuse.

Eight homes (P3, P4, P6, P8, P11, P14, P15, P16) assessments were found to have detailed questions related to self-medication administration and management, while other homes just had brief questions relating to any medication use. Three homes (P3, P4, P15) specifically inquired about diabetic concerns (including diet control, oral medications, insulin, glucometer, sliding scale insulin), anti-psychotic meds, and blood thinner.

➤ **Risk of Harm to Self and to Others**

The risk of harm to self and others was asked specifically by almost all homes except the three (P1, P3, P4). However, P1 asked for safety considerations required by residents including the use of bed rail, physical restraint, watchmate, and chemical restraint. Only three homes (P2, P13, P17) mentioned interventions for reducing the risk of harm to self or to others. Whereas some of the homes asked general behavioral questions instead of asking specifically for risk of harm to self and to others. For example, P6 and P16 did not specifically ask about risk of harm to self and to others but instead asked for “*history of harmful behavior?*”

➤ **Risk of Wandering**

The items under this category included questions related to the risk of wandering. The risk of wandering was asked by almost all homes except P3 and P4. However, only two homes (P2 and P7) outlined goals and interventions listed related to the risk of wandering. Furthermore, only three homes (P2, P13, P17) asked for details of wandering episodes. Six homes (P8, P11, P13, P14, P15, P17) asked about the risk of exit seeking/risk of elopement along with wandering behavior. Notably, the risk of wandering is identified by the RHRA as a separate domain.

➤ **Other Items related to Developing a Care Plan**

Homes generally inquired about additional details pertaining to developing a care plan for residents as per RHRA regulations. Common domains assessed by most homes included resident interests/ hobbies, religious/spiritual/cultural preferences, customary routines, preferred activities, and spoken languages. Two homes (P13 and P17) inquired about resident wishes, values, and beliefs at the end of assessment, whereas P6 asked for resident hopes and goals particularly in terms of health and/or personal reason for living at home. Five homes (P3, P4, P8, P11, P14) asked if residents need assistance with using emergency response systems. Additionally, four homes (P7, P8, P11, P14) asked about the wish for housekeeping services. Home P16 inquired about resident reactions to admission and potential for injury (including time and frequency of any required intervention), though the nature of this potential was not elaborated upon.

Summary:

Overall, this chapter provides an inventory of the assessments content and processes used in KW retirement homes, demonstrating that while most adhered to the main domains required by the RHRA, wide variability and differences existed in specific items and the degree of detail among assessments.

CHAPTER 4: DISCUSSION

The increasing complexity of retirement home residents and their poor health outcomes have prompted calls for tighter regulation of the sector, as well as for greater involvement of care providers in practicing more proactive care to improve care outcomes (Brath et al., 2020; Poss et al., 2017; Zimmerman et al., 2022). An important requirement to achieve these aims is a standardized clinical information system to better characterize the needs of residents in these settings; to date, such a system does not exist such that access to such information for care planning remains limited (Franco et al., 2021; Poss et al., 2017, 2019; RHRA, n.d.; Roblin et al., 2019). To our knowledge, this study is first in its nature to identify and characterize the current care assessment practices which are used to support care planning and inform healthcare practices. The findings of this study help contextualize the current state of retirement home intake assessments and practices in the KW region of Ontario. Furthermore, describing these current assessment information collection practices and identifying their variations in the sector can potentially serve as groundwork for more robust, mixed methods studies in the future.

The present study is comprised of two phases. In phase 1, representatives from 17 retirement homes participated in qualitative interviews. The purpose of this study phase is to explore, understand, and compare current intake care assessment practices in retirement homes specifically, how, when, why, and by whom these assessments are conducted and how the information collected from them is used.

Commonalities and variations are found within the KW retirement home sector in the intake assessment practices and processes. Full intake assessments are usually conducted prior to or at the time of admission. These assessments are mostly conducted by designated registered staff including the director of care, wellness manager, or nursing coordinator. The homes initially conduct the assessment on paper or computerized forms and then the information is transferred into electronic medical record software. The most common sources of information for these assessments include residents themselves, the residents' family members, caregivers, and family doctors (if available). Differences in times for assessment completion are found among different retirement homes, ranging from less than an hour to three hours. Variations in electronic medical record software are found among different retirement homes. The most commonly used medical

record software products are PointClickCare (5 homes), Yardi (4 homes), and Medicare (1 home).

The stated purpose of the information obtained through these assessments is to determine the care needs of prospective residents and capacity of the retirement home to provide appropriate support. The information obtained from these assessments is used to develop a care plan to support the care needs of residents, and also to sell the care services in retirement homes. The assessment result/information is stated to be regularly shared with staff within the home, such as the nurses and PSWs, to provide support services. However, the assessment information is not routinely shared with family physicians or other care providers.

During phase two of study, we collected 16 home intake assessments. The main objective of this study phase included comparing and classifying the specific content of the intake assessments being conducted against the Ontario Retirement Home Act regulations. The pertinent findings from phase 2 of the study suggest that all the retirement homes assessments were custom-made and developed based on the criteria indicated in RHRA guidelines. The domains given by RHRA are addressed by all homes assessments. However, RHRA is not prescriptive and only lists the domains that should be assessed, but not the content or questions that need to be present within each domain. RHRA outlines domains without defining data items that need to be contained within each domain, leaving room for ambiguity and various interpretations for question items asked within each domain. As a result, considerable variations are found within the content of each assessment domain and how well it is covered among the homes. For instance, under the domain of physical health, P3 retirement home question (*S_Full_Bladder_1*) inquired: “*Resident has a history of or current bowel issues?*” The question inquires about bowel issues without specifying the issues, making it unclear as to what clinical concerns specifically relate to bowel issues and what specifically falls under this category. The question item is asked in a manner that fails to shed information on the nature of the bowel problem as these concerns could range from rectal prolapses, continence, diarrhea, to constipation.

Every home or chain has developed its own customized full intake assessment with variable content items and lengths. Some homes conduct more assessments than others; while

some have a list of items to ask about whereas others do not. For instance, only two homes (P3 and P4) particularly asked for restrictions related to religious or cultural beliefs. However, such relevant information was not specifically asked for by other homes. Specific health conditions or immunizations asked about included influenza (ten homes), tuberculosis (nine homes), varicella zoster (seven homes), tetanus (five homes), and Clostridium difficile and Hepatitis B or C (four homes). As the data items of care assessments are non-uniform among retirement homes, it is hard to make comparisons between each retirement home and to have standardized practices. Therefore, RHRA needs to be more specific and prescriptive regarding the content and questions asked within each domain.

Overall, the results from both phases of the study suggest significant variations in the KW retirement home sector assessment practices and content, likely a consequence of the vagueness of RHRA guidelines. As the findings reveal, the lack of standardization of the reporting and assessment system specific to identifying care needs of retirement homes residents in KW resulted in disparities among the retirement home assessment practices and processes in the sector.

Participants expressed concerns that addressing the needs of retirement home residents at the individual and population levels is made challenging by the lack of standardized information collection system. As participants apprehensively reported, the lack of standardized assessment practices may lead to under- or over-provision of services and poor quality of healthcare in the retirement home sector. The following illustrative quote from the participant (P13) sheds some light to the gravity of current non-standardized assessment practices: “...*Since there is no standardization to assessments, sometimes, it feels like we are doing too much, and sometimes it feels like we are doing too little...*” (Participant 13).

In contrast, standardization of care assessment and a robust body of evidence and data available for the LTC sector support both individual care planning and allow extensive research to better understand the LTC population and improve health outcomes (Brath et al., 2020). Under this context, similar efforts could also be made to explore and better understand the needs of the retirement home sector (Brath et al., 2020).

The availability of standardized assessment data and practices across the retirement home sector has the potential to support better care planning for residents, allow population-level comparisons across different healthcare sectors, track patients longitudinally, and inform policy and regulatory changes to improve care quality across the sector (Brath et al., 2020; Chen & Thompson, 2010; Katz et al., 2022; Poss et al., 2017, 2019; Zimmerman et al., 2022). The usage of common terminology and system-wide standardized information collection and sharing systems may limit data variability across the retirement home sector. Furthermore, standardized information collection to facilitate information sharing is necessary for better integration of care services, collaboration between care providers, proactive identification of care needs, and preventative approach to healthcare (Heckman et al., 2013a).

Notably, there seems to be limited routine information sharing with primary care providers. The non-standardized documentation instrument and lack of integrated electronic medical records have been found to hinder effective information sharing between care providers and settings (Heckman et al., 2013a). The routine sharing of standardized assessment information and its clinical outputs with primary care providers may allow proactive identification of unmet care needs and planning while preventing duplication of assessment and unnecessary service utilization (Heckman et al., 2013a; Northwood et al., 2024; Nova et al., 2020). This underscores the crucial role of a standardized instrument as a systematic way which may help to identify unmet care needs, facilitate collaboration among care providers, and prevent healthcare services use or further deterioration in health conditions of residents (Heckman et al., 2013a). In future, the information can potentially further be utilized for health planning purposes and to prevent further strain on medical care by sharing assessment information regularly with health care providers and not only in response to a change in health status of residents (Heckman et al., 2013a; Northwood et al., 2024; Nova et al., 2020).

As the findings suggest, there is a lack of availability of standardized information collection and assessment systems particularly for retirement homes residents in Ontario, unlike both publicly funded sectors i.e. home care and LTC (Manis et al., 2022, 2023). If available, this data could be used to understand needs, plan care, and improve care of this distinct population. For this purpose, the CUSR instrument is especially notable for its reliability and effectiveness in streamlining care assessment practices among community-dwelling older people and obtaining

information on the collective characteristics and needs of individuals (Iheme et al., 2022; Northwood et al., 2024).

Several studies have shown that healthcare providers found the CUSR instrument to be easy to administer with minimal training, and potentially easily integrated into practice (Northwood et al., 2024). Moreover, this instrument allows patients to complete assessments independently when possible, reducing the need for retirement home staff involvement. The use of this instrument has the potential to reduce the documentation burden experienced by retirement home staff, and allow them to further focus on the specific needs, goals, and wishes of individual residents. Furthermore, a self-report health assessment may also prompt retirement home residents to reflect on their health needs and be proactive in seeking early medical intervention (Iheme et al., 2022). Thus, the adoption of the CUSR has the potential to support interventions to improve resident health, delay functional decline, and reduce ED visits and hospitalizations (Iheme et al., 2022).

The standardized format of CUSR helps ensure assessment processes are streamlined, patients' concerns are captured holistically and comprehensively, and eases communication with patients and caregivers (Northwood et al., 2024). It comprehensively covers the main assessment domains relevant to community-dwelling older people and provides outputs that can support nurses and physicians plan care (Northwood et al., 2024). With its standardized length and items listed, the CUSR use in the retirement home sector may facilitate better primary care planning and identification and understanding of the unmet care and support needs across the sector.

Furthermore, the consistency of core items of the interRAI suite of instruments across settings can facilitate information sharing and tracking patients' health records longitudinally (Gray et al., 2009; Iheme et al., 2022). Its use in community settings has been found to help healthcare providers see quantifiable trends, algorithms, and other observable patterns of patients assessed, helping to compare and inform about care needs assessed at both individual and system level (Iheme et al., 2022; Northwood et al., 2024). This may allow population-level comparisons across different healthcare settings such as retirement homes, long-term care, and home care settings.

Overall, the study findings offer preliminary insights and information about current care assessment practices to assess the needs of older adults moving into retirement homes in KW region of Ontario. This is an important exploratory step in helping to improve outcomes for retirement home residents and lays the foundation for more robust future studies and developing and implementing an assessment process that better supports care planning.

CHAPTER 5: CONCLUSION

5.1: Summary of Main Findings

5.1.1: Phase One Findings Summary

Overall, the results from phase one of the study suggest commonalities and differences in the KW retirement home sector assessment practices and processes. Every home or chain has developed its own customized full intake assessment with variable content items and lengths of assessments. Therefore, differences were found among the data items of home (or chain) assessments. Participants attributed variations found in the full-intake assessment processes and practices to the lack of standardization of assessment processes and practices across the retirement home sector. Addressing the unmet needs of retirement home residents is made challenging by the lack of standardized information collection, likely a consequence of RHRA guidelines which are vague and general. From a sectoral perspective, understanding population needs will be difficult without standardized assessment information, and therefore formulating policy may not be possible. This may lead to under- or over-provision of services and poor quality of healthcare in the retirement home sector.

Currently, the information obtained from care assessments is used to create care plans and provide care services in retirement homes. The assessment result/information is stated to be regularly shared with staff within the home. However, there seems to be limited information sharing with primary care as currently the results from assessment information are not routinely shared with primary care providers.

5.1.2: Phase Two Findings Summary

Findings from phase two of the study suggest that every home or chain has developed its own customized full intake assessment with variable content items and lengths of assessments. The domains given by RHRA are addressed by all homes assessments. However, RHRA is not prescriptive. It outlines main domains without defining data items that need to be contained within each domain, leaving room for ambiguity and various interpretations. Moreover, some home assessment elements are more detailed or specific than other homes. As a

result, considerable variations are found among the data elements of home (or chain) assessments, and how well they are covered among the homes.

5.2: Strengths and Limitations

5.2.1: Strengths of the Study

Given the paucity of information about the retirement home population, to our knowledge the study is first in its nature to identify and characterize the current care assessment practices to support care planning and inform healthcare practices. The study can provide important insight into how information from current assessments is being used in assessing the care needs of the retirement home residents, as well as any potential barriers or facilitators in optimizing current care assessment practices. Furthermore, the study can offer insights into how interRAI CUSR as a reliable and validated instrument can help in identifying care needs in a comprehensive manner and better provide their retirement home services.

5.2.2: Limitations of the Study and Future Directions

Due to the limited scope of this preliminary study, it comprised a review of basic assessments, and not of any further or additional assessments conducted. Furthermore, as this study is restricted to the region of KW in Ontario, the study only represents retirement homes in the geographic area of the KW region of Ontario, Canada. Since the study does not account for all retirement homes in Ontario, the generalizability of the study phase two findings to other regions is yet unknown. That said, given the differences observed in this small sample, it is likely to expect similar variations more broadly. Furthermore, chain retirement homes reported that they use a common assessment and practices within their branches. This enhances the present study phase two generalizability further.

At the beginning of the study, the importance of reporting accurately on informing healthcare planning, practices, and reforms was reminded to the participants. Although everyone who conducts or oversees the assessment was invited within each home. Not every retirement home staff member who conducts assessments or is knowledgeable about conducting them was interviewed. Only one participant from each retirement home volunteered to take part in the

study. Additionally, not all the homes in the region provided the assessment or participated in the interview. However, all the homes in Kitchener-Waterloo were invited to take part in the study. Moreover, this study did not fully explore what concerns might prompt nursing staff to share assessment information with health care providers. These aspects remain yet to be elucidated. This study can offer important insight into how information from current assessments is being used in assessing the care needs of the retirement home population. However, finding any potential barriers or facilitators in optimizing current care assessment practices remains to be explored through future studies. Also, gathering residents' perspectives on current assessment practices can provide a valuable lens for evaluating the comprehensiveness of these assessments in meeting care needs of residents.

5.3: Contribution

To our knowledge, this is the first study in Canada to describe current assessment practices in retirement home sector in KW region of Ontario. The execution of the study offers important preliminary information about current care assessment practices to assess the needs of older adults moving into retirement homes. This project is a necessary exploratory step aimed at informing future care assessment practices in the context of retirement homes and ultimately help design interventions at the population level. Describing these current assessment information collection practices and identifying their variations in the sector can potentially serve as groundwork for more robust, mixed methods studies in the future. This is a valuable move towards helping to improve outcomes for retirement home residents and lays the foundation for a wider implementation of standardized assessment to also provide information for supporting care planning at the level of the retirement home sector.

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APPENDICES

Appendix A: Tables

Retirement Home	Location	Chain Affiliation	Funding	Ownership
1). Beechwood Manor	305 Erb Street W. Waterloo	ALC (Assisted Living Centre)	TBD upon inquiring	TBD upon inquiring
2). Chartwell Clair Hills Retirement Community	530 Columbia Street W. Waterloo	Chartwell Retirement Residences		
3). Chartwell Terrace on the Square Retirement Residence	100 Caroline Street S. Waterloo			
4). Chartwell Bankside Retirement Residence	71 Bankside Drive Kitchener			
5). Chartwell Westmount Retirement Residence	190 David Bergey Drive Kitchener			
6). The Village at University Gates (Schlegel Villages)	250 Laurelwood Drive Waterloo	Schlegel Villages		
7). The Village of Winston Park (Schlegel Villages)	695 Block Line Road Kitchener			
8). Victoria Place	290 Queen Street S. Kitchener	Spring Living		
9). Fergus Place	164 Fergus Avenue Kitchener			
10). Highland Place	20 Fieldgate Street Kitchener	Oxford Living		
11). Highview Residences Kitchener	20 Reichert Drive Kitchener	Highview Residences		
12). Lanark Village	44 Lanark Crescent Kitchener	S & R Seniors Living		Steeves & Rozema Group
13). The Westhill	25 Westhill Drive Waterloo	Sifton		

14). Parkwood Suites	720 New Hampshire Street Waterloo	Parkwood Seniors Community		
15). Conestoga Lodge	55 Hugo Crescent Kitchener	Not Applicable		
16). Luther Village on the Park-Sunshine Centre	141 Father David Bauer Drive Waterloo	Not Applicable		
17). The Hygate on Lexington	215 Lexington Road Waterloo	Not Applicable		
18). Trinity Village Studios	2711 Kingsway Drive Kitchener	Not Applicable	Charitably funded (Registered charity)	Not-for-profit by Luthern Village
19). Briarfield Gardens	1250 Weber Street E. Kitchener	Revera		
20). Cobble Creek Residence Inc.	210 Woolwich Street Kitchener	Not Applicable		
21). Aspira Doon Village Retirement Living	868 Doon Village Road Kitchener	Aspira Retirement Living		
22). Murrays Millwood Manor Inc.	409 Mill Street Kitchener	Not Applicable		

Table 2: List of all currently operational licensed retirement homes in the KW region, Ontario

Output	Description	Range	Cut-off (if Applicable)	Reference
Major Comorbidity Count	Measures risk of mortality if infected with COVID-19	0–3 low to high risk		Canadian Institute for Health Information (2020)
Assessment Urgency Algorithm	Indicates urgent need for a comprehensive assessment	1–6 lowest to highest urgency	5–6 highest urgency	Hirdes et al. (2010); Costa et al. (2017); Sinn et al. (2020)
Self-Reliance Index	Measures self-reliance	0–1 self-reliant to not self-reliant		Hirdes et al. (2010)
ADL Hierarchy Scale	Measure of functional performance in 4 activities of daily living (ADL) from early to late loss (hygiene, moving around in home, toilet use, eating)	0–6 independent to total dependence	≥ 3 extensive assistance required to total dependence	Morris, Berg, Fries, Steel, and Howard (2013)
IADL Capacity Hierarchy Scale	Measure of capacity to complete tasks from early to late loss (meal preparation, housework, managing finances, managing medications, shopping)	0–6 no impairment to high impairment	≥ 3 some difficulties in most IADLs to total dependence	Morris et al. (2013)
Communication Scale	Measures impairment in communication and comprehension	0–2 intact to severe impairment	≥ 1 moderate to severe impairment	Frederiksen, Tariot, and De Jonghe (1996)
Cognitive Performance Scale	Measures cognition	0–6 intact to severe impairment	≥ 3 moderate to very severe impairment	Morris et al. (2016)
Self-Rated Mood	Measures presence of mood symptoms	0–9 no symptoms to severe symptom burden	≥ 3 possible depression to possible severe depression	Penny et al. (2016)
Changes in Health, End-Stage Disease and Symptoms	Measures medical complexity and instability	0–5 most stable to most unstable	≥ 3 moderate to very high level of health instability	Hirdes, Frijters, and Teare (2003); Hirdes, Poss, Mitchell, Korngut, and Heckman (2014)
Detection of Indicators and Vulnerabilities for Emergency Room Trips	Measures risk of future unplanned emergency room visits	0–6 lowest to highest risk	≥ 3 Moderate to highest risk	Costa et al. (2015)
Cardiorespiratory Clinical Assessment Protocol	Indicates presence of cardiorespiratory issues when triggered	0–1 not triggered to triggered	1 triggered	Morris et al. (2010)

Table 3: interRAI self-Check-Up output scales and clinical assessment protocols (Northwood et al., 2024)

Retirement Home	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10...
<i>Who conducts full intake assessments?</i>										
<i>Mode of conducting assessments?</i>										
<i>When are the full intake assessments conducted?</i>										
<i>How long does it usually take to conduct a full assessment?</i>										
<i>How do you get information about residents?</i>										

Table 4: Qualitative interview content analysis conceptual table example

Appendix B: Figures

Care Service	Percentage of Homes Providing Service
Meals	100%
Drugs	99%
Bathing	94%
Hygiene	88%
Dressing	86%
Ambulation	83%
Continence	76%
Feeding	34%
Wound care	27%
Dementia	15%

Figure 3: Percentage of retirement homes providing care services (RHRA, n.d.)

Local Health Integration Network	Zone	Numbers of Homes and Beds				Population over 75 / # of Beds	
		Long-Term Care		Retirement		Long-Term	Retirement
		Homes	Beds	Homes	Beds		
Erie St. Clair	1	37	4,588	50	4,435	11.0	11.4
South West	2	80	7,619	80	6,145	10.2	12.6
Waterloo Wellington	3	38	4,131	50	4,581	12.2	11.0
Hamilton Niagara	4	87	10,592	100	8,401	11.4	14.3
Central West	5	23	3,490	17	1,408	12.3	30.6
Mississauga Halton	6	28	4,096	42	5,663	17.0	12.3
Toronto Central	7	36	5,879	34	4,771	13.7	16.9
Central	8	46	7,270	58	7,436	16.4	16.0
Central East	9	69	9,400	69	6,709	12.7	17.8
South East	10	36	4,028	48	3,100	11.1	14.4
Champlain	11	60	7,622	110	12,462	11.7	7.1
North Simcoe Muskoka	12	27	3,004	40	3,572	12.9	10.9
North East	13	53	5,322	25	2,896	9.2	16.9
North West	14	21	1,717	5	546	10.2	32.2
Ontario		641	78,758	728	72,125	12.3	13.4

Figure 4: Number of long-term care and retirement homes and beds in Ontario (Roblin et al., 2019)

Subject of Regulation	Long-Term Care Homes	Retirement Homes
Enabling legislation	Long-Term Care Homes Act, 2007	Retirement Homes Act, 2010
Subordinated regulation	O. Reg. 79/10	O. Reg. 166/11 and O. Reg. 53/12
Definition per relevant Act	Long-term care home "means a place that is licensed as a long-term care home under the Act"	A residential complex primarily for persons 65+ that makes available at least two "care services"
Resident eligibility and care needs	Over 18 and requiring 24-hour care or supervision	Care needs of resident not specified
Basis of rental charges	Set by regulation	Market
Basis of charges for care	Nursing, therapies and raw food costs paid on pass-through basis by Local Health Integration Network (LHIN)	Market, paid privately
Governance	Local Health Integration Network (MOHLTC)	Retirement Homes Regulatory Authority
Minister responsible	Minister of Health and Long-Term Care	Minister of Seniors Affairs
Statutory fundamental principle	"a place where [residents] may live with dignity and in security, safety and comfort and have their physical, psychological, social, spiritual and cultural needs adequately met"	"a place where residents live with dignity, respect, privacy and autonomy, in security, safety and comfort and can make informed choices about their care options"
Services provided	"Care and Services" include <i>inter alia</i> health care services, meals, assistance with ADLs (sections 8-18 of the Act)	"Care Service", includes <i>inter alia</i> health care services, meals, assistance with ADLs (section 2 of the Act)
Residents' Bill of Rights	Included in section 3 of the Act	Included in section 5 of the Act
Plan of care	Written, covering all aspects of care (section 6 of the Act)	Written, covering all aspects of care (section 62 of the Act)
Residents' council	Advises on rights, settles disputes, informs, provides feedback	Advises on rights, settles disputes, informs, provides feedback
Inspections	At reasonable times without notice to assess compliance with the Act and to occur at least once per year	At reasonable times without notice to assess compliance with the Act and to occur at least once per year

Figure 5: The statutory and regulatory framework for retirement homes and long-term care homes in Ontario (Roblin et al., 2019)

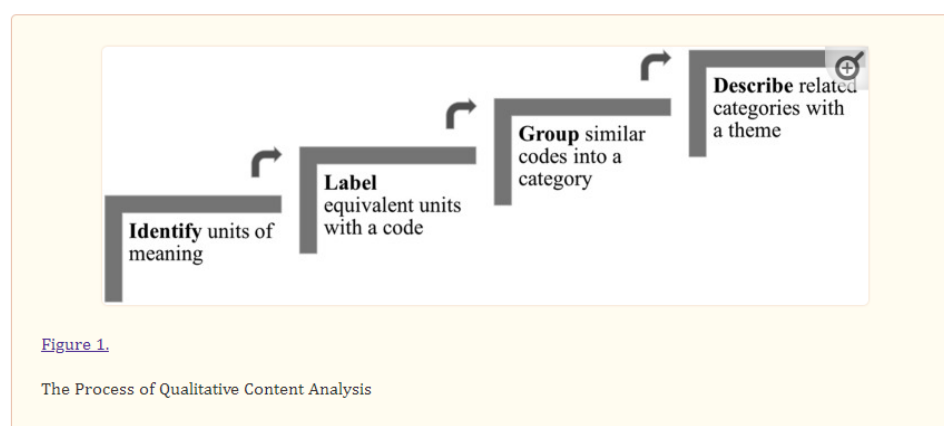


Figure 6: Process of conducting content analysis (Kleinheksel et al., 2020)

ASSESSMENT OF CARE NEEDS

Initial assessment of care needs

43. (1) Subject to section 45, no later than two days after a resident commences residency in a retirement home, the licensee of the home shall ensure that an initial assessment of the resident's immediate care needs is conducted. O. Reg. 166/11, s. 43 (1).

(2) The initial assessment mentioned in subsection (1) shall consider the following matters with respect to the resident:

1. Continence.
2. Presence of infectious diseases.
3. Risk of falling.
4. Known allergies.
5. Dietary needs including known food restrictions.
6. Cognitive ability.
7. Risk of harm to self and to others.
8. Risk of wandering.
9. Needs related to drugs and other substances. O. Reg. 166/11, s. 43 (2).

Full assessment of care needs

44. (1) Subject to section 46, no later than 14 days after a resident commences residency in a retirement home, the licensee shall ensure that a full assessment of the resident's care needs and preferences is conducted. O. Reg. 166/11, s. 44 (1).

(2) The full assessment mentioned in subsection (1) shall consider the following matters with respect to the resident:

1. Physical and mental health.
2. Functional capacity.
3. Cognitive ability.
4. Behavioural issues.
5. Need for care services.
6. Need for assistance with the activities of daily living.
7. The matters listed in subsection 43 (2).
8. Any other matter relevant to developing a plan of care for the resident. O. Reg. 166/11, s. 44 (2).

(3) If a licensee or a staff member of a retirement home has reason to believe that a resident's care needs may include dementia care, skin and wound care, or the use of a personal assistance services device, the licensee shall ensure that the full assessment is,

- (a) conducted by a member of a College, as defined in the *Regulated Health Professions Act, 1991*; and
- (b) if the resident's care needs include dementia care, carried out using a clinically appropriate assessment instrument that is specifically designed for the assessment of dementia and related conditions. O. Reg. 166/11, s. 44 (3).

Figure 7: [Ontario Retirement Home Regulation Act](#) (RHRA) guidelines for assessment of care needs (Government of Ontario, 2010a).

Appendix C: Illustrative Quotes from Qualitative Phase One

Note: Participant is replaced by alphabet **P** in table 5 below:

Assessment information Collection	Exemplary Quotes
How are the current care assessments conducted?	Typically, the care coordinator meets the potential resident, wherever they are, whether in their home, their hospital, or other retirement home. They meet them along, usually with family or caregiver, and go through a series of questions to do an assessment and then in addition to that, if they have been in hospital or another retirement home, a copy of their admission history, care plans, whatever the applicable documentation is obtained. Assessments are based on the information that retirement home is required to gather through the Retirement Homes Act. P2 I want to hear residents' perspective on where they are, their spouses' perspective on where they are, if they're available. I also wanna speak to each child individually, so it's a little bit more in depth because everybody has a different perspective and from all that information, I formulate my assessment. I have standard questions that I ask, and forms that I fill out and that helps me paint the picture for them. P5
a) Who conducts these assessments?	Usually, the director of health and wellness (nurse). And in the absence of the director, it'll be the full-time RPN. So, it's teamwork, and registered staff on duty such as nurses and unregulated care providers do help in gathering residents' information. P10 “The director of health and wellness or an RPN as well that is trained on how to do an assessment.” P3 Resident wellness manager [RPN]. And in the resident wellness manager's absence, one of the RPNs on the nursing team. P12
b) What is the mode of conducting assessments?	It's conducted on paper and then everything is input into an electronic system. P1, P2, P4, P7, P9, P11, P12 Initially the assessment is done in-person and all on paper; and then everything is input into the computer system. P14

	For the most part to be more relational model, we typically have it printed so that we're not looking at a computer and just answering questions so that we can have more of a personal relationship when we're doing the assessment, so typically it's printed on paper and then submitted into the PCC afterwards. P17
c) When are the full intake assessments usually conducted?	Within 24 to 48 hours, we have to do the full intake assessment. P9 Within 24 hours of moving in as much as possible and then remaining little things (such as like preferences, height and weight) are collected next day or so. P10 The full intake assessment is conducted before moving in. So, after the residents move in, the health and wellness manager review the full intake assessment done before moving in, usually, the next day [of moving in] with them just to ensure that everything has been addressed. And then I do review it again two weeks later to make sure there isn't anything that needs to be updated or added to the care plan or changed. Especially the first week the manager checks in with them every day just to see if they have any concerns or anything. P14 The full in-depth intake assessment is usually done on admission when they come in, usually. P16
d) How long does it usually take to conduct a full assessment?	Between one to two hours to do a proper assessment (it can be over the course of time of one week or all at once depending on the individual). P13 Somewhere between two to three hours. P5 Between 40 to 50 minutes, less than an hour for the full intake. P15
e) How do you collect information about residents?	They have an array of information sources when somebody moves into the home. Most of the information is obtained from residents, family members, caregivers, Home and Community Care support services, previous retirement home, hospital, health care provider, their primary care giver (physician statement) or physician, any specialists that's involved in resident's care and ask them for their medical history. P2 The hospital usually has more assessments they can provide us, such as dietary, speech and language, PT (physical therapy), OT (occupational therapy), as well as the doctor's notes. P7

A lot of information I actually get is from my PSW's who are there helping them out. And same goes for my med techs. So, my med techs are UCPs who are trained to give medications, and they actually end up being kind of like my eyes and ears. So, they're seeing things, when they're with the residents, they let me know. So, I get ALOT of information from PSWs and UCPs. P13

So when I (the health and wellness manager) go to see them[residents], I usually take what is called a physician letter, and that's just a physician letter where I get in contact with their doctor prior to them coming, try to get some more medical history from the family doctor, medical information, because often when I'm interviewing them and going through an assessment, I don't always get all the information I need. So, I go through that, send it out to their doctor just to get something a little more thorough. It goes through their medical history and allergies, about them self-medicating, whether there's any cardiovascular, gastrointestinal, neurological, or muscle skeletal functions, I need to know about, any social family history. And then just a basic height and weight... And then any recent X-rays, lab work, any vaccines they've had, COVID vaccines, TB testing, skin-testing, and then Pneumovax there's a list of vaccines, they're just supposed to update that for me and any other kind of medical findings or diagnosis that the manager may not be aware of, so it's just kind of a brief summary I get from the doctor. But then when the manager (myself) am going through it, I'm also asking the family because there's usually a family member present and the resident to give me a bit of their history too and medical information. P14

So, it's usually the resident, the family, the residents' physician. Sometimes we get information from home and community care. If they[patient] are coming from hospital, we get a lot of information from the hospital, so it depends on where they're coming from. If the resident is coming from hospital, we ask the discharge planning people which are the social workers, so then they would send with consent of patient, the physical therapy notes, occupational therapy notes. The reason why they were in the hospital? So, then there's the medical part of history and the work up.

And then home and community care usually gives us some-- if they had services in the community, then what services that they were going to be able to help support the resident moving into the retirement home. P16

	So, prior to the assessment to gathering information about the resident, we have a medical form that the family or resident would be taking to their family doctor, and they would get some healthcare information filled out. So, last immunization, any problems or diagnosis and most recent height, weight that kind of just like a high-level overview. We get that information prior to the assessment...So [if they're coming from hospital], we would request for the same information, so we would just then get it from the hospital that they're currently with or the family will get or the resident would get the information from the hospital and their family doctor, as well as resident and family. P17
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Purpose of Assessment	Exemplary Quotes
For what purposes is this assessment information used?	We need to acquire what level of support the person requires to see if they're a good fit to move into our retirement community... It's to assess their level of services to make their care plan. P6 So, I use the information to calibrate the care plan that I create which shapes how all the staff here interact with the resident. Because the care plan covers emergency contacts, allergies, health card numbers, who their doctor is, how they get in and out of a chair, how they're able to eat, if they need modifications, what their diet is supposed to look like. It's such a huge resource for directing care that every team member can come in and read it anytime they want to. We make them available at the nurses' station and make sure we share that our staff members are able to read them while they're working here so that they know how to better serve the residents we care for. P5
a) Who uses this assessment information?	All the healthcare related staff, like nurses, PSWs, doctors, pharmacists, physiotherapists (PT) and Occupational therapist (OT) [coming from external sources], and inside home healthcare workers. P9 All of our care staff who provide direct care to the residents (including PSW's, guest attendance, RPNs, students, culinary staff). P10 So, it's for the resident's well-being. So, the nursing staff would use those information to follow the correct care plan for the residents. So, internal staff, nursing and PSWs. Some of the information is used by OT, PT, Homecare. P15 Nurses use the assessments and the care plans, PSWs will use it. Recreation will look at it to incorporate anything that they can into it, as well as our

	regulating body, they will come in and do audits. And they will look at these assessments and care plans as well. Retirement home pharmacists also use this information to compare and dispense medication. On team Occupational therapist and geriatrics as well. P1
b) What are the outputs of the assessment?	The assessment gives a good picture of where the resident is at, especially with the cognition test. And then it allows us to monitor for any declines in the residents' abilities. Or if they have more falls risks. P1 The assessment itself doesn't have any direct output scales. The assessment information is used for the care plan, understanding the fall risk, understanding medication administration, understanding residents' activities of daily living and mainly the output is the assessment rolls into kind of the care plan for the resident. P2 Other than the care plan, there are no output scales as such for the assessment. P13 So, we use pain scale, well we don't use pain as much we use MORSE fall, and we use the behavior one, the MoCA for cognition. And a pain assessment scale, if needed. P4 Notes: FRAT (Fall risk assessment test), heat risk assessments, MoCA (conducted by P1, P3, P4, P5, P6, P8, P9, P10, P11, P14, P16); standardized mini mental state assessments (MMSE) (conducted by P1, P3, P7, P8, P9, P10, P11, P13, P14, P15, P16, P17); Pain assessment (as needed). P9, P15, and P8 use Braden Scale for pressure; <i>"Its the skin assessment that tells me like, what is the potential risk for this person for a pressure source (P8)."</i> P1, P5: Also uses Dementia observation scale [validated tool], only if there is a behavioral concern. P10: DRS(depression rating scale) is used only if there is concern or if needed.

Assessment information Sharing	Exemplary Quotes
With whom is the assessment information or result being shared?	It's being shared with the nurses, PSWs or any community partners that are in their circle of care. P1 That is shared with the circle of care. The circle of care can be anyone: the RPNs, PSWs, Health and wellness managers, doctors, hospitals, any diagnostic imaging. So, anyone who provides the care, doesn't matter medical or physical care. P8
a) Do you know if your retirement home routinely shares the results of admission assessment for its residents with primary care providers?	Not really, unless there's a concern. If there's a concern otherwise, like, for example, if there was an increase in incontinence, then we would share that with the family physician to assess why. P10 Generally, no, unless there is like an instance where they need the information, then we could send it. P11
b) Are the assessment results shared with residents?	Definitely, if the resident is requesting information, we will provide the information, but usually we don't actively provide that to the residents. P13 We have to because we are doing this assessment with them...Yes, because whoever is cognitively intact, we will discuss the result with the resident, but some of them are cognitively impaired. So, there is no need to, then we will discuss with the power of attorney for care not with all the family. P9 Yeah, they [residents] have to be aware, they consent to it. They have to know. We normally talk about it at the end like what the assessment results were. P17
Is the assessment information ever shared with other care providers? (such as community care, home care, ED, other retirement homes, nursing homes for residents being transferred, Primary care)	Note: Usually, information is shared on needs basis, or as requested. Absolutely. So, if we're sending a resident to hospital, we have a whole package of information that we send so that they have all the information at their fingertips. If they are going to be moving to long term care or retirement home, we would also send when they are transferred, we would send like their care plan. P16 ...The home sends as much assessment information along as possible. The assessments, the progress notes, and diagnosis. P2

	If someone is moving from here [retirement home] to long term care, I have provided that as part of their package, just so that they have that collateral information to know what to expect. Yeah, because I remember being the RAI coordinator at the nursing home going, OH, this has got nothing. I don't know anything about this person. On this care plan, all I see is basic stuff. I need more. So, I try to remember that and make sure that they get what they need. ... [For retirement homes], only the most recent assessments would be shared with the resident's new residence to help them with historical reference information. I also calibrated our assessments to be reflective of the ones used in LTC homes as that is typically the next transition point. P5 In the retirement setting, we work very closely with home and community care support services, so we would share that [assessment] information with them when we have monthly rounds because they're involved. They're providing personal care...Yes. immunization status and medical diagnosis, those would be shared with long-term care, and those would be shared with paramedics as well, and hospitals. So that's as an as needed basis. [For other retirement homes] No. So mostly they would be directed to their General practitioner to ship to send information to another retirement home. If the resident gives consent, we would send pertinent information to other retirement homes like what medications they're on, or immunizations. But, any in-depth medical history would need to come from their family physician. P10
Do you know if the same common assessment is used in all the chained homes?	Yes, because we have a standard and [home name] is a Canada wide chain, and we have our standardized policies. P8 Yes, same assessment and same general practices would be used. P3 Yes. It is the same package in the other branches of [Retirement home name]. I'm talking about my umbrella, [Retirement home name]. P15
Do you use the assessment that any other retirement home is using?	No, just the same company[chain] uses the same tools and processes and whatever they have. P3 No, we created a custom assessment. P7 Not sure! Our home assessment is more in-depth. Every home has their own assessment and modifications. P10

	The assessment would be utilized amongst other retirement homes if they were using the same software or MMSE or FRAT. P1 I don't know [if other retirement homes are using same assessment] because the RHRA indicates what we need to assess. It doesn't indicate how we need to assess it or what specific assessment we need to use. Oftentimes the versions are different. P5 From my own experience, I find sometimes the kind of like the overarching model of retirement homes; I feel are kinda too loose. Since there is no standardization to assessments. Sometimes it feels like we are doing too much and sometimes it feels like we are doing too little. We kind of go above and beyond what we're expected to do when it comes to communication. So, I don't know if that is just us or if that's Schlegel thing. That like it's just a unique thing for my particular thing... I feel like there isn't any overarching body at the standardized assessment because it's different from house to house...So, <i>there's no standardized practice</i>...Yeah, it [the lack of standardization] definitely does affect. Because oftentimes I feel like I'm doing either not enough, or I feel like everything that I've done and then it just gets thrown out the window because one person decides... Because there is no unifying procedure at times it fell through. P13 I'm sure that they all are probably pretty well the same in some respects because of the RHRA (the retirement Homes Regulatory authority), we have to have certain information has to be collected for the care plan and that thing. So, you have to meet those requirements. And then a lot of the retirement homes belong to ORCA, which is the Ontario Retirement Communities Association, and they actually provide any of their members with a standardized assessment form[template]. The initial assessment, the full assessment, the whole, so all of the, all those pieces are kinda almost all the retirement homes are grasping that information, gathering it up, and making it site specific for themselves. P16
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Table 5: Illustrative Quotes from Qualitative Phase One

Appendix D: Domains included in Ontario Retirement Home Regulation Act (2010)

Domain	Additional literature-based instruments/ tools for domains	Homemade instrument/ tools for domains
Mental Health (mood scale, anxiety, concerns, loneliness, depression, diagnoses, social activities/circle)	standardized mini mental state assessments (SMMSE); Depression rating scale (DRS)	Home assessment
Cognitive ability (including risk of wandering, exit seeking, needs redirection/ reassurance, decision making, personal expressions, memory, rummaging/ hoarding, ability to understand others, protective expressions such as increased safety checks, resistive to care)	MoCA	Home assessment
Behavioral issues (risk of harm to self and to others)	Dementia observation scale (DOS)	Home assessment
Physical Health (including presence of infectious or non-infectious diseases, known allergies, sleep, frailty, skin integrity, pain, fatigue, hearing and/or visual impairments, ED visits, physician visits, hospital use, physical activity, vaccination) Functional capacity (iADLS & ADLs) Need for assistance with ADLs Need for care services	Braden pressure scale	Home assessment
Continence (catheter, bowel, bladder)		Home assessment
Risk of falling	Falls risk assessment tool (FRAT)	Home assessment
Dietary needs including known food restrictions		Home assessment

Needs related to drugs and other substances (including treatment, medications, creams/ ointments, stockings, wound care, alcohol use, smoking)		Home assessment
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Table 6: Domains included in Ontario Retirement Home Regulation Act (2010) for retirement home assessments

Appendix E: Interview Guide for Key Informant Staff Members

Thank you for taking the time to participate in interviews. This session will be audio-recorded and will take approximately 20-30 minutes.

Today we are going to talk about your experiences of conducting current admission assessments in retirement home settings to support care planning for retirement home residents.

- 1) *How are the current full intake care assessments conducted?*
 - a) *Who conducts these assessments?*
 - b) *What is the mode of conducting assessments?*
 - c) *When are the full intake assessments usually conducted?*
 - d) *How long does it usually take to conduct a full assessment?*
 - e) *How do you get information about residents? With whom do you speak for conducting assessment and collecting full assessment information? Are there any other sources of information?*
- 2) *For what purposes is this assessment information used?*
 - a. *Who uses this assessment information?*
 - b. *What are the outputs of the assessment?*
- 3) *With whom the assessment information or results are shared?*
 - a. *Do you know if your retirement home routinely shares the results of admission assessment for its residents with primary care providers?*
 - b. *Are the assessment results shared with residents?*
- 4) *Is the assessment information ever shared with other care providers? (such as community care, home care, ED, other retirement homes, nursing homes for residents being transferred, Primary care)*
- 5) *Do you know if the same common assessment is used in all the chained homes? (This question is specifically for chained homes)*
- 6) *Do you use the assessment that any other retirement home is using?*
- 7) *Is there anything else that you would like to mention about assessment processes?*

Appendix F: E-mail Interview Recruitment Template



Subject Line: Retirement Home staff members Interviews

Hello [insert name here],

My name is Anooshah Nasim, and I am a master's student under the supervision of Dr. George Heckman in the School of Public Health and Health Systems at the University of Waterloo. We are conducting interviews with retirement home staff members to learn about current care assessment practices in the Kitchener-Waterloo (KW) region retirement homes. I am contacting you because you are a [title] at [retirement home name]. [Contact] indicated that the staff member at [retirement home name] may be interested in participating in my research. We want to learn about your experiences with current care assessment and its surrounding processes in the retirement home you are working at.

To participate in this study, you must be a KW regional retirement home staff member who oversees the assessment of retirement home residents and able to provide free informed consent. Given your role as a **retirement home staff member**, we feel that you are well-suited to provide insight into this topic and would like to invite you to participate in this study.

If you decide to volunteer for this study, your participation will consist of in-person, over phone, or virtual one-on-one semi-structured interview that will take approximately 20-30 minutes of your time. During the interview, you will be asked open-ended questions that will capture the current assessment processes in retirement homes in the KW region to inform healthcare planning and coordination. With your permission, we would like to audio-record the interview to ensure accurate transcription and analysis.

I would like to assure you that the study has been reviewed and received ethics clearance through the University of Waterloo Research Ethics Committee (REB #45806).

However, the final decision about participation is yours.

Please read the attached Information Letter for more details regarding what participation will involve. If you are interested in participating, please contact me at a2nasim@uwaterloo.ca and send me your 3 choices of location. You have the option of being interviewed in person or virtual. If you would like to be interviewed virtually, I will send you the details of the virtual Microsoft Teams or Zoom meeting, depending on your

convenience. I will then send a confirmation email indicating that you have signed up for one of those times. If you have to cancel your appointment, please email me at a2nasim@uwaterloo.ca. If you require additional information to assist you in reaching a decision about participation, please do not hesitate to contact me at a2nasim@uwaterloo.ca. You may also contact my supervisor at ggheckman@uwaterloo.ca.

Sincerely,

Anooshah Nasim

University of Waterloo

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George Heckman, MD

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Appendix G: Letter of Information and Consent Form for Retirement Home Staff



Title of study: Cross-sectional Analysis of Current Assessment Processes in the Retirement Home Sector in Ontario

Faculty Supervisor:

Dr. George Heckman, MD, MSc, FRCPC

Associate Professor

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To help you make an informed decision regarding your participation, this letter will explain what the study is about, the possible risks and benefits, and your rights as a research participant. If you do not understand something in the letter, please ask one of the investigators prior to consenting to the study. You will be provided with a copy of the information and consent form if you choose to participate in the study.

What is the study about?

You are invited to participate in a study to learn and analyze current care assessment processes in the Kitchener-Waterloo (KW) region retirement homes. We would like to invite you to participate in an interview about this project. We are conducting interviews with KW regional retirement homes' staff members who oversee the assessment of retirement home residents to learn more about these assessments. I am contacting you because you are a staff member who oversees the assessment of retirement home residents at [retirement home] and [contact] indicated that you may be interested in participating in my research.

We want to learn about current assessment practices in the retirement home.

I. Your responsibilities as a participant

Who may participate in the study?

We are asking you to provide consent for allowing the researchers to collect information about your experiences and perspectives about the current assessment practices in the retirement homes sector. To participate in this study, you must be a KW regional retirement home staff member who oversees the assessment of retirement home residents and able to provide free informed consent. Given your role as a **retirement home staff member**, we feel that you are well suited to provide insight into this topic and would like to invite you to participate in this study.

What does participation involve?

If you decide to volunteer for this study, your participation will consist of an in person, over phone, or virtual (over MS Teams or Zoom) one-on-one semi-structured interview that will take approximately 20-30 minutes of your time. The interview will occur at a time that is convenient for you and the student investigator will work with you to set up a date and time that is most convenient for you. During the interview you will be asked open-ended questions that will capture the current assessment processes in retirement homes in the KW region to inform healthcare planning and coordination. With your permission, we would like to audio-record the interview to ensure accurate transcription and analysis.

You do not need to answer any questions that you do not want to answer or that make you feel uncomfortable. You will be asked to keep in confidence information that identifies or could potentially identify a participant and/or their comments. With your permission, anonymous quotations may be used in publications and/or presentations.

II. Your rights as a participant

Are there any risks related to participating in this study?

It is unlikely that there will be any harm or risks from participation in this study. You do not need to answer questions that you do not want to answer or that make you feel uncomfortable. Your identity will be kept confidential; management and other staff will not know any of your responses or be informed of your participation.

Steps to protect your privacy are provided below. You can withdraw from or stop taking part in this study at any point in time and any data you have provided will be destroyed. Your participation is completely voluntary.

What are the potential benefits related with participating in this study?

The research may not benefit you directly. We hope that what is learned will help us to understand current assessment processes in the retirement homes context.

Will I receive any remuneration for participating in this study?

You will not be paid for your participation in the research study.

Will my identity be known?

The research team will know what you said during the session. Observation notes will not contain participant names. The transcription of the audio digital recording from the interview will be cleaned of identifying information. For example, your name would be changed to “Participant 1” to indicate who is speaking. All materials from the interview will contain no identifying information.

How will my information be kept private?

Any personal identification associated with the data would be kept confidential and all data collected in this study would be securely stored. Only the research team would have access to the data collected. We will not use your name or any information that would allow you to be identified; we will use a participant code instead of your name. Identifying information will be removed from the transcripts and any quotations used in publications and presentations. Management and other staff members would not be informed if you agree to participate or not, or if you decide to withdraw from the study. Management would not know what information you provided in the interview unless you chose to tell them or disclose your responses. All data will be coded, encrypted, and stored on secure computers protected by a password at the University of Waterloo. Digital recordings will be stored electronically until the transcripts have been generated and verified, and then the digital recordings will be securely deleted. Any publications will present group data and any results reported will be in a summary format with very careful attention to exclude any information that could identify you. In the case where it may be useful to present data from a particular participant, your name or other identifying information will not be shared. The interview will be conducted over an online platform, Microsoft Teams or Zoom. These platforms have implemented technical, administrative, and physical safeguards to protect the information provided via the Services from loss, misuse, and unauthorized access, disclosure, alteration, or destruction. However, no Internet transmission is ever fully secure or error-free.

What if I change my mind about participating in this study?

Your participation in this study is completely voluntary. It is your choice to be part of the study or not and that a decision as to whether or not to participate/withdraw, will not affect your relationship with retirement home organization. At the start of the interview, you will be reminded: of your right to withdraw from the study, your participation is voluntary, you may leave the interview at any time, or decline to answer any question you prefer not to answer. You can leave the interview at any time by informing the interviewer or any member of the research team. If you decide to

withdraw, there would be no consequences. You can withdraw your consent to participate and have your data destroyed by contacting us within 6 months period. After this time, it is not possible to withdraw your consent to participate as we have no way of knowing which responses are yours. Additionally, you will not be able to withdraw consent once papers and publications have been submitted to publishers.

How will I learn about the results of this study?

You will receive a thank you letter at the end of the data collection. Once the data are analyzed, study results and key findings will be published in journal article. If you are interested in receiving information about the results of this study, you can contact student investigator Anooshah Nasim by email at a2nasim@uwaterloo.ca or Dr. George Heckman at ggheckman@uwaterloo.ca and a brief report of the study's key findings will be emailed.

III. Questions, comments, or concerns

Who is funding this study?

This study is not funded.

Has this study received clearance from a research ethics board?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB#45806). If you have questions for the Board, contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or by email: reb@uwaterloo.ca.

The Research Ethics Board is a group of people who oversee the ethical conduct of research studies. These people are not part of the study team.

Who should I contact if I have questions regarding my participation in this study?

If you have any questions regarding this study or need more information to assist you in reaching a decision about participation, please contact student investigator Anooshah Nasim by email at a2nasim@uwaterloo.ca or Professor George Heckman at ggheckman@uwaterloo.ca.

CONSENT FORM

By signing this consent form, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I have read the information presented in the information letter about a study being conducted by Anooshah Nasim in the School of Public Health and Health Systems at the University of Waterloo. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I am aware that I have the option of allowing my interview to be audio-recorded to ensure an accurate recording of my responses.

I am also aware that excerpts from the interview may be included in the thesis and/or publications to come from this research, with the understanding that the quotations will be anonymous.

I was informed that I may withdraw my consent at any time without penalty by advising the researcher.

This study has been reviewed and received ethics clearance through the University of Waterloo Research Ethics Committee (ORE#45806). If you have questions for the Committee, contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca. For all other questions contact Anooshah Nasim at a2nasim@uwaterloo.ca

With full knowledge of all the foregoing, I agree, of my own free will, to participate in this study.

☐ YES ☐ NO

I agree to have my interview audio recorded.

☐ YES ☐ NO

I agree to the use of anonymous quotations in any thesis or publication that comes of this research.

☐ YES ☐ NO

Participant Name: _____ (Please print)

Participant Signature: _____

Witness Name: _____ (Please print)

Witness Signature: _____

Date: _____

Appendix H: Demographic and Professional Information of Retirement Home Staff Members

These questions are about your background for statistical and research purposes only and will be used to describe the characteristics of the participants in this research project.

1) Year of Birth: _____

☐ Prefer not to answer

2) Gender:

☐ Man

☐ Woman

☐ Trans

☐ Non-binary

☐ Prefer to self-identify (option to specify)

☐ Prefer not to answer

3) How many years have you been working in the healthcare field?

☐ 0 – 5 years

☐ 6 – 10 years

☐ 11 – 15 years

☐ 16 – 20 years

☐ 20 + years

☐ Prefer not to answer

4) How many years have you been working in retirement home settings?

☐ 0 – 5 years

☐ 6 – 10 years

☐ 11 – 15 years

☐ 16 – 20 years

☐ 20 + years

☐ Prefer not to answer

5). What is your professional background?

Answer: _____

Thank you for taking part in this study!

Appendix I: Appreciation Letter



University of Waterloo

[Insert Date]

Dear ***[Insert Name]***,

I would like to thank you for your participation in this research study entitled “Cross-sectional Analysis of Current Assessment Processes in the Retirement Home Sector in Ontario”.

As a reminder, we want to learn about current assessment processes in the retirement homes sector in the Kitchener-Waterloo region of Ontario. The data collected will contribute to a better understanding of the current assessment practices in this sector which are used to determine the needs of its residents.

This study has been reviewed and received ethics clearance through the University of Waterloo Research Ethics Board (REB #45806). If you have questions for the Board, contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

For all other questions contact me at a2nasim@uwaterloo.ca or my supervisor Dr Heckman at ggheckman@uwaterloo.ca.

Your identity will be confidential. Once all the data are collected and analyzed for this project, I plan on sharing this information through a journal article. If you are interested in receiving more information regarding the results of this study or would like a summary of the results, please provide your email address, and when the study is completed, anticipated by *December 2025*, I will send you the information. In the meantime, if you have any questions about the study, please do not hesitate to contact me by email as noted below.

Sincerely,

Anooshah Nasim

University of Waterloo

a2nasim@uwaterloo.ca

Dr. George Heckman

University of Waterloo

ggheckman@uwaterloo.ca