Optimizing Workforce Utilization to Inform Care Delivery in Continuing Care Facilities

Final Report

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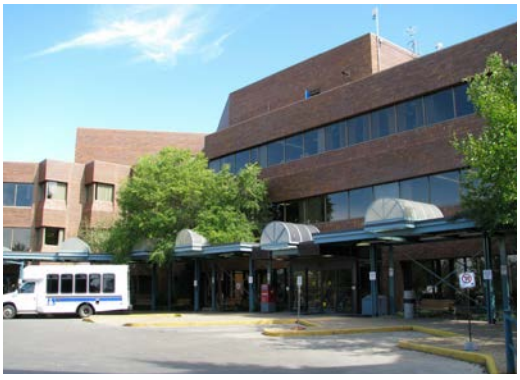
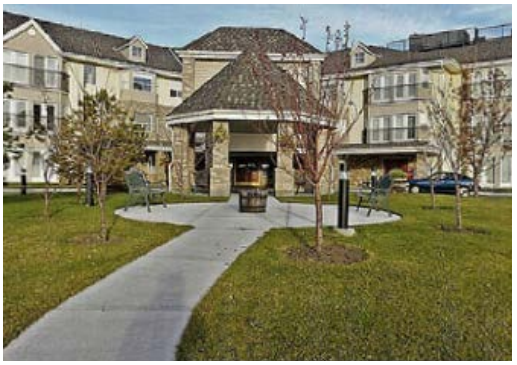
Bethany Airdrie

CapitalCare Dickinsfield



Whitehorn Village



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We thank management, staff, residents and families who shared their valuable time to engage in the various research activities we undertook between February 1st, 2012 and June 30th, 2013. We are thankful for the insights and perspectives they shared with us. Staff and families face many challenges in continuing care. Caring for seniors is complex, and all three sites have demonstrated that quality resident-centred care can be achieved through collaboration and commitment. We also thank our advisory committee members for their insightful and invaluable contributions over the course of the study.

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Executive Summary

The study explored how services can be enhanced by addressing current workforce utilization in two long-term care (LTC) facilities (Bethany Airdrie, Airdrie AB and CapitalCare Dickinsfield, Edmonton, AB), and one supportive living facility (Whitehorn Village, Calgary AB). The following four workforce-related concepts deemed crucial to high quality resident, provider, and system outcomes were targeted: resident-centred care, collaborative practice, staff working to their full potential, and optimal staff mix. The study was carried out between February 1st, 2012 and June 3rd, 2013.

The objectives of the study were:

1. To validate the profile of residents and their needs in the participating care facilities as outlined in a recent study on 113 continuing care facilities in Alberta (ACCES report, Strain et al. 2011).
2. To identify the current challenges of workforce utilization including resident/family-centred care, collaborative practice, providers working to their full potential, and staff mix at each continuing care facility.
3. To explore if and how current workforce utilization impacts resident needs.
4. To develop intervention strategies supporting workforce optimization for implementation at the continuing care facility level and the policy level.

Qualitative data were gathered through a variety of complementary methods including monthly staff sessions, individual interviews with residents, family members and senior staff/managers, and observations of individual staff, group meetings, and specific activities. Quantitative data were collected in the form of resident assessment indicator (RAI) data, human resource data (staff mix and full time equivalents), and a survey to capture staff perceptions of resident needs. We used a socio-ecological framework to map emerging issues and design strategies related to workforce utilization on different levels of the system. A socio-ecological approach offers a research and action framework emphasizing the complex interplay between people, groups, and their environments (Richard et al. 2012).

Emerging issues and proposed strategies:

Family-centred care: Two primary issues identified were family expectations and care philosophy. Across sites, residents and families have unrealistic expectations, and at times even misconceptions, about the type of care to be provided. All facilities aim to create a home-like/hospitality environment conflicting with the need to standardize care and activities for residents. Proposed strategies focus on facilities providing accurate information about services and their philosophy of care.

Collaborative practice: Role clarity, internal communication issues, and information exchange with external care providers emerged as the top three challenges. Role clarity issues impacted workload, created gaps in care, and contributed to tension between staff. Role clarity issues emerged largely between different nursing positions (e.g., Registered Nurses (RNs) vs. community care coordinators) while overlap in care provided occurred among Occupational Therapists, Physiotherapists, and Recreational Therapists. Communication issues related to charting in multiple places and lack of effective communication between shifts. Concerns also focused on the lack of adequate information

from external providers, e.g. when residents are discharged back to the continuing care facility after an acute care hospital stay. Proposed strategies evolve around clear job descriptions and a review of communication structures and processes.

Providers working to their full potential: Collaborative leadership and health care aide (HCA) utilization emerged as the top two issues under this concept. The leadership issues relate to the need for all staff to share leadership and decision-making. While there are official leaders (management and the leads for different areas of service delivery), it is important that RNs, Licensed Practical Nurses (LPNs), and HCAs assume some leadership responsibilities during care delivery. There were notable differences in the HCA roles and responsibilities in the three facilities studied, with HCAs having restricted roles in the LTC facilities as compared to the supportive living facility. Although a standard provincial HCA curriculum has existed since 2005, there is wide disparity of education levels (provincial curriculum vs. equivalent training vs. practice experience) and competency levels among HCAs currently employed in continuing care. Organizations have different internal hiring standards, which may lead to confusion regarding the expectations of HCAs and their roles. Strategies center on leadership development for staff, and standardization of HCA education and role expectation.

Staff mix: The two common emerging challenges were utilization of casual staff and gaps in staff mix. Facilities use casual staff to cover short-term staff shortages arising from sick leaves and vacations. However, casual staff know little about residents, their needs, and likes and dislikes, which leaves some residents more agitated. Casual staff may also cause more work for regular staff as they require more assistance. Gaps in staff mix existed in all three sites where staff noted specific roles they thought would make services more comprehensive, including a nurse practitioner and a massage therapist for one LTC facility, and a therapist assistant for the supportive living facility. Strategies focus on better integration (through incentives and education) of casual staff and review of staffing model to examine opportunities for staff mix changes.

Amidst all these challenges there also emerged many practices that are going well in the continuing care facilities, including success of interdisciplinary rounds, initiatives to make facilities feel homey, great teamwork and leadership, and commitment to a particular care philosophy. Residents and family also stated that staff members display positive and caring attitudes as they provide care to residents.

This study is unique as there is limited research that comprehensively examines workforce utilization in the continuing care sector. The strategies provide opportunities for organizations, as well as decision-makers, to contribute to better workforce utilization in continuing care and ultimately create high quality resident, provider, and systems outcomes.

Project Description

The primary goal of this study was to identify how the quality of care can be enhanced by addressing current workforce utilization in continuing care facilities. Workforce utilization refers to the organization and deployment of regulated and unregulated healthcare providers to optimize their collective ability to work to full scope of practice (Alberta Health Services, 2011). Currently, there is little research on optimal workforce utilization and its impact on patient outcomes in the continuing care sector. This project was conducted between February 1st, 2012 and June 30th, 2013 with three continuing care facilities: Bethany Airdrie (Airdrie), CapitalCare Dickinsfield (Edmonton), and Whitehorn Village (Calgary).

Workforce utilization embraces the concepts of resident-centred care (Alzheimer Society, 2011), collaborative practice (Way et al. 2000), staff working to their full potential (Besner, 2011), and optimal staff mix (Pan-Canadian Planning Committee, 2009). These concepts are perceived to be key components contributing to improved patient, provider, and system outcomes.

The four workforce-related concepts are defined as follows:

1. Resident/family-centred care: inclusion of the residents and their families as equal partners in their care (CIHC, 2010). Providers play a key role in empowering residents to understand and play an active role in their care.
2. Collaborative practice: staff and residents working in a partnership toward shared decision-making around health and social issues (CIHC, 2010).
3. Providers working to their full potential: the effective use of providers associated with their defined roles (i.e. healthcare providers working to full skill, knowledge, and capability) (Besner, 2005).
4. Staff mix: the right number and type of providers in a setting based on resident needs (Pan-Canadian Planning Committee, 2009).

Objectives

The study had four objectives:

1. To validate the profile of residents and their needs in the participating care facilities as outlined in a recent study on 113 continuing care facilities in Alberta (ACCES report, Strain et al. 2011).
2. To identify the current challenges of workforce utilization including resident/family-centred care, collaborative practice, providers working to their full potential, and staff mix at the three continuing care facilities.
3. To explore if and how current workforce utilization impacts resident needs.
4. To develop intervention strategies supporting workforce optimization for implementation at the continuing care facility level and the policy level.

Research in Continuing Care

> "Effective health human resource management (HHR) is the cornerstone of a high-quality, efficient, publicly funded healthcare system" *(Spinks and Moore, 2007:38).*

Continuing care is an integrated range of services supporting the health and well-being of individuals in their own home, in supportive living, or in long-term care settings. Although continuing care is not only about seniors, an aging population with increasingly complex care needs is driving the need for continuing care services. Alberta's recent continuing care strategy promises to enhance options for seniors through investments in new long-term care infrastructure, supportive living spaces, revision of funding models, and investments in community initiatives to support "aging in the right place" (Government of Alberta, 2008). Implementation of the strategy is challenged by ongoing fiscal constraints paired with health provider shortages, threatening both efficiency and quality of care.

In recent years, research into health human resources (HHR) issues has increased in an effort to find ways for ensuring quality of care delivery and improved patient outcomes given current health provider shortages and increasingly complex population health needs. The recently released comprehensive Alberta Continuing Care Epidemiological Studies (ACCES) report on 113 continuing care facilities in Alberta, points to a number of unmet resident needs including mental health support, medication administration and management, assistance with activities of daily living, and social engagement (Strain et al., 2011).

The ACCES report has also pointed to the need for addressing workforce issues to improve resident care. There is evidence that a higher number of nursing staff in continuing care facilities is associated with more positive resident outcomes (Bryan et al., 2010; Spilsbury, 2011). Some authors cautioned, however, that differences in resident outcomes may be a function of differences in care processes rather than staffing levels (Castle & Engberg, 2008). Positive outcomes (such as higher quality of care, provider satisfaction, quality of work) have been reported after implementation of collaborative practice strategies (Boorsma et al. 2011; Boumans et al. 2008; Puxty et al. 2012), while findings on the impact of resident-centred care strategies in continuing care on resident outcomes are mixed (e.g., Boumans et al. 2005). None of the above studies examined the concept of workforce utilization in a comprehensive way; rather, they focused on a single aspect such as staff mix or collaborative practice models. A review of these studies also shows a lack of shared terminologies, definitions, approaches and effects, making comparisons difficult. In summary, there is limited research that comprehensively examines workforce utilization in the continuing care sector.

Socio-ecological models, widely used in health promotion, are useful approaches to study health workforce utilization (Richard et al., 2012; Satariano, 2006). A socio-ecological approach offers a research and action framework emphasizing the complex interplay between people, groups, and their environments (Richard et al. 2012). Many authors have argued that a socio-ecological approach is highly successful because it targets changes to healthcare at various levels of the system (Richard et al., 2012;

Satariano, 2006). We used the socio-ecological framework to map the emerging issues related to workforce utilization.

Participating Sites

Three facilities participated in this study including Bethany Airdrie (Airdrie), CapitalCare Dickinsfield (Edmonton), and Whitehorn Village (Calgary). We solicited the participation of facilities through personal contacts and an invitation to a continuing care facility email list. Care was taken in selecting facilities with diverse geographical locations and organizational context to obtain richer cases.

Bethany Airdrie is a not-for-profit, private LTC facility offering continuing care services for seniors from the surrounding community. The facility has 74 LTC beds (22 of which are on a secured wing) and 52 supportive living suites. For this project, the focus was on the long-term care wing of the facility. The approximately 100 staff include nursing providers (Registered Nurses [RNs], Licensed Practical Nurses [LPNs], Health Care Aids [HCAs]) and other members of a professionally diverse team (i.e., chaplain, dietician, social worker, recreation therapist, occupational therapist, recreation therapist assistant and occupational therapist assistant). Additional providers and support services are contracted including pharmacy and staff from food services.

Dickinsfield facility is part of CapitalCare, a large public continuing care organization in Canada. The not-for-profit facility has 275 beds, 75 of which are for young adults (under age 65) and 200 for the elderly. Besides long-term care services, it also operates a number of specialized programs such as a Young Adult Day Support program for young adults in the community requiring social and rehabilitation services. For this project, only the long-term care staff and residents were included. Approximately 400 full-time and part-time staff work at the facility. The team comprises different nursing providers (RNs, LPNs, HCAs) and a speech language pathologist, dietician, occupational therapists, occupational attendants, physio therapists, therapist assistants/attendants, recreation therapists, recreational attendants, housekeeping aides, food services aides, social workers, a pastor, and pharmacists.

Whitehorn Village is a for-profit, private supportive living (SL) facility within an ethnically diverse urban area that accommodates approximately 200 residents. Fifty-three beds are Designated Assisted Living (DAL), 24 of which are designated dementia beds in a secured unit; 114 are Private Assisted Living (PAL) beds. About 10% of residents have private accommodation, meaning that they rent a suite and live independently of the support services offered to the remaining residents. The facility has about 100 staff (RNs, LPNs, HCAs, recreation therapist and recreation therapist assistants), not including support services (housekeeping and food services staff). Additional providers offer services on a contract basis (e.g. nurse practitioner, speech language pathologist, dietician, occupational therapist, physiotherapist, social worker, and pharmacist).

Research Activities

An advisory committee was formed comprising representatives from the continuing care sector and the participating facilities (i.e., administrators, managers, researchers, practice consultants). Two project team members were assigned to each site as main contacts and facilitators to engage in the data collection activities with staff. Between May and July 2012, we had orientation meetings with key representatives (i.e., managers, clinical educators, site RNs) and participating staff from each facility to discuss their involvement in this project.

Data Collection

The research team engaged in a number of research activities with the facility staff between May 2012 and March 2013. Our interest was to capture the different perspectives of a wide range of providers to generate a comprehensive picture of the facilities. Table 1 summarizes the types of activities and providers involved at each site. Through staff sessions, interviews, observations, resident assessment indicator (RAI) data, human resource data, and surveys, we collected information on the four workforce concepts, resident populations, and staffing.

Table 1 Research Activities by Facility

	Bethany	Dickinsfield	Whitehorn
I. Qualitative Data Collection			
Staff sessions	Schedule: June 28, July 19, August 23, September 27, October 25, November 22, March 21.	Schedule: July 18, August 23, September 19, October 17, November 14, December 12, April 3.	Schedule: July 5, August 3, August 17, September 7, September 28, October 19, March 8.
Interviews	❖ Manager, clinical educator, and administrator ❖ 3 residents and 3 family members	❖ Administrator, Care Manager, Best Practice Coordinator ❖ 7 residents and 6 family members	❖ Director of care, educator, site RN, physiotherapist ❖ 5 residents and 3 family members
Observations	2 days observations in July (20 staff): change of shift report, ID rounds, recreation therapy activities, medication administration, resident lunch.	2 days observations in August (13 staff): daily care, medication administration, cleaning, care planning, interdisciplinary meetings, activities in dementia unit.	2 half days observations between June and August (5 staff): medication preparation/ administration, resident breakfast, recreation activities, interdisciplinary team meetings.

II. Quantitative Data Collection			
HR data	Data on staff complements, FTEs, shifts.	Data on staff complements, FTEs, shifts	Data on staff complements, FTEs, shifts
RAI data	Resident data comprising various outcomes scales.	Assessment Scoring Report with summary scores for outcomes scales.	Resident data comprising various outcomes scales.
Survey on resident care needs	Completed by 43 staff: 18 HCAs 5 LPNs 5 RNs 3 Allied Health 12 other staff	Completed by 61 staff: 13 NAs 10 LPNs 4 RNs 6 Allied Health 28 other staff	Completed by 27 staff: 20 HCAs 2 LPNs 3 RN/NPs 2 Allied Health
III. Internal Project Activities			
Literature review	Collaborative practice interventions at continuing care facilities and resident, provider, and system outcomes.		
Regular research team meetings	Regular, bi-weekly research team discussions were held with the six core team members (i.e., 2 Co-PIs and 4 co-investigators) to plan activities and review progress.		
Advisory committee meetings	Advisory committee meetings were held quarterly.		

Qualitative Data Collection

With informed consent from staff, we conducted one orientation session, six 90-minute discussion sessions and one subsequent wrap-up session with a mixed group of staff at each facility over several months. We aimed to have representation from all occupational groups including nursing, allied health, and support services (e.g., housekeeping, food services). Discussions at each site started by gathering information on staff's perspectives of the four workforce utilization concepts. Each of the four concepts was discussed in-depth by the teams, identifying major issues and barriers associated with each concept. Subsequent discussions focused on potential strategies to resolve emerging issues.

We also conducted semi-structured interviews with staff, managers, residents, and family members. Suitable participants were identified by managers or clinical leads at each facility. Interviews were conducted in person or by phone and lasted between 20 and 60 minutes. Interviews with managers and staff explored their unique perspectives in more depth. Resident and family interviews focused on their perception of the facility, the quality of care provided, and their unmet needs.

We observed staff during their daily routines and team meetings to understand how they interact with each other and with residents and their families. This provided validation of themes emerging from the staff sessions and interviews. We engaged 82 participants in the staff sessions and interviews (staff and residents/families) at all three facilities, many of whom were also observed.

With consent from staff, interviews and staff sessions were recorded and transcribed verbatim for ease of analysis. Field notes were taken during staff observations and included in analysis. We conducted a thematic analysis for each facility guided by the four concepts. Themes emerging from the data were explored and recurring patterns identified through coding, categorizing, and conceptualizing (Morse & Richards, 2002). For each facility, data were extracted and analyzed by one team member; a second team member validated the emerging themes. Further validation of data for each facility occurred through audits by other project team members. In a second step, we compared findings across the three facilities to understand the commonalities and differences in workforce utilization issues.

Quantitative Data Collection

We obtained quantitative data on staffing and resident needs or current conditions. The staffing data comprise number and type of providers, full-time equivalent for each provider group, and staff scheduling across shifts. We distributed a questionnaire to facility staff at the three sites to obtain their perceptions of resident needs (Appendix A). Staff ranked the resident needs and rated the difficulties of addressing various resident needs and challenges. A total of 141 questionnaires were returned from the three facilities.

We also obtained RAI data on current resident outcomes from the facilities or the ACCIS database to compile resident profiles for one LTC facility and the SL facility. RAI data represent a comprehensive list of standardized indicators for LTC and home care/supportive living facilities. Since the beginning of 2011, RAI data has been mandatory for resident assessments in continuing care facilities in Alberta. Within 14 days of admission, and every 92 days thereafter, residents must be assessed. Most facilities have assigned someone the role (i.e. RAI data assessor) of conducting these assessments. RAI data have become critical to planning care, understanding resident populations, improving quality and allocating resources. The RAI databases have become integral to the recently implemented funding model for continuing care facilities in Alberta (www.albertahealthservices.ca/7880asp).

Resident Profiles

Most residents in continuing care facilities, particularly in LTC facilities, are the frail elderly with multiple chronic diseases and cognitive dysfunctions with associated disabilities (Boorsma et al. 2011; Bryan et al. 2010). For instance, in one of the facilities, the most prevalent resident diagnoses include dementia, depression, cardio-vascular accident (CVA), type 2 diabetes, hypertension, and arthritis. Depending on the combination of diagnoses, the complexity and acuity of residents' conditions can be substantial. The care required for these residents is highly complex and must be provided by a professionally diverse team of practitioners providing care in a coordinated and collaborative manner.

Based on the ACCES report of various resident needs (e.g., specific diagnosis, clinical complexity and health, persistent pain, frequent readmissions to acute care and ER), the staff rankings of resident needs in the three facilities were as follows:

- Instability and complexity of residents (Bethany, Dickinsfield)
- Special monitoring of residents for falls, pain, and other (Bethany, Dickinsfield)
- Persistent pain (Bethany, Dickinsfield, Whitehorn)
- Specific diagnosis (Whitehorn)
- Social isolation/lack of recreation opportunities (Whitehorn)

The results show that staff at the two LTC facilities ranked 'instability and complexity of residents' and 'special monitoring of residents' as their top two priorities. Staff at one facility expressed that some of these needs are addressed to a sufficient degree (e.g., special monitoring for falls, persistent pain) and that no changes are required. Table 2 shows the resident profiles based on RAI data for 2012. For two of the three facilities, at least 86% of residents are captured. The facilities show similar gender distributions of their residents with three-quarters being female, indicating the gender gap in the elderly population for men. Overall, Dickinsfield has younger residents due to their young adult program. The differences in severity of some conditions between Bethany and Whitehorn reflect typical differences between the resident populations in LTC and SL facilities. LTC facilities have a higher proportion of residents with more severe impairments/disabilities compared to the SL facilities.

Table 2 Resident Profile based on RAI Assessment by Facility

Characteristics	Bethany (n=71)	Dickinsfield (n=269)	Whitehorn (n= 167)
Gender			
Male	25%	36%	25%
Female	75%	64%	75%
Age			
75+	92%	59%[1]	90%
Activities of Daily Living (ADL)			
Independent to limited impairment	23%	no data	85%
Extensive assistance to total dependence	72%	no data	15%
Changes in Health, End-Stage Disease, Signs, and Symptoms Scale (CHESS)			
None to minimal health instability	63%	no data	84%
Low to moderate health instability	37%	no data	16%
Cognitive Performance Scale (CPS)			
Intact to mild impairment	21%	no data	66%
Moderate to severe impairment	63%	no data	33%
Severe to very severe impairment	15%	no data	1%
Pain Description			
None to mild pain	97%	no data	67%
Moderate to excruciating pain	3%	no data	33%

[1]This percentage is based on 76+ years of age.

Our interest lies in addressing the current resident needs through strategies that improve the four workforce utilization components including resident/family-centred care, collaborative practice, working to full potential, and staff mix. There is some research evidence indicating that positive changes to these four concepts also have a positive impact on resident outcomes. For instance, changing the nurse staffing mix with higher RN staffing levels decreased the likelihood of urinary tract infections and

hospitalizations for nursing home residents (Konetzka et al. 2008). A combination of collaborative and resident-centred care processes (e.g., improved communication and care planning, improved atmosphere in dining room at mealtimes, role clarity) resulted in less falls, pneumonia, bacteriuria and reduction of stress in another study (Puxty et al. 2012). Boorsma et al. implemented a model of integrated care with a strong collaborative component (e.g., reviews of care plans by multidisciplinary teams), which decreased mortality rates and increased resident satisfaction with their care (2011). Of the four concepts, providers working to full potential is the least studied in continuing care (as elsewhere), lacking any evidence for impact on resident care. While changes to one workforce component may not always be effective (Kennedy et al. 2009), addressing several components may increase the likelihood of improved resident outcomes. Overall, the evidence on workforce utilization to improve resident outcomes is encouraging but requires more supportive evidence.

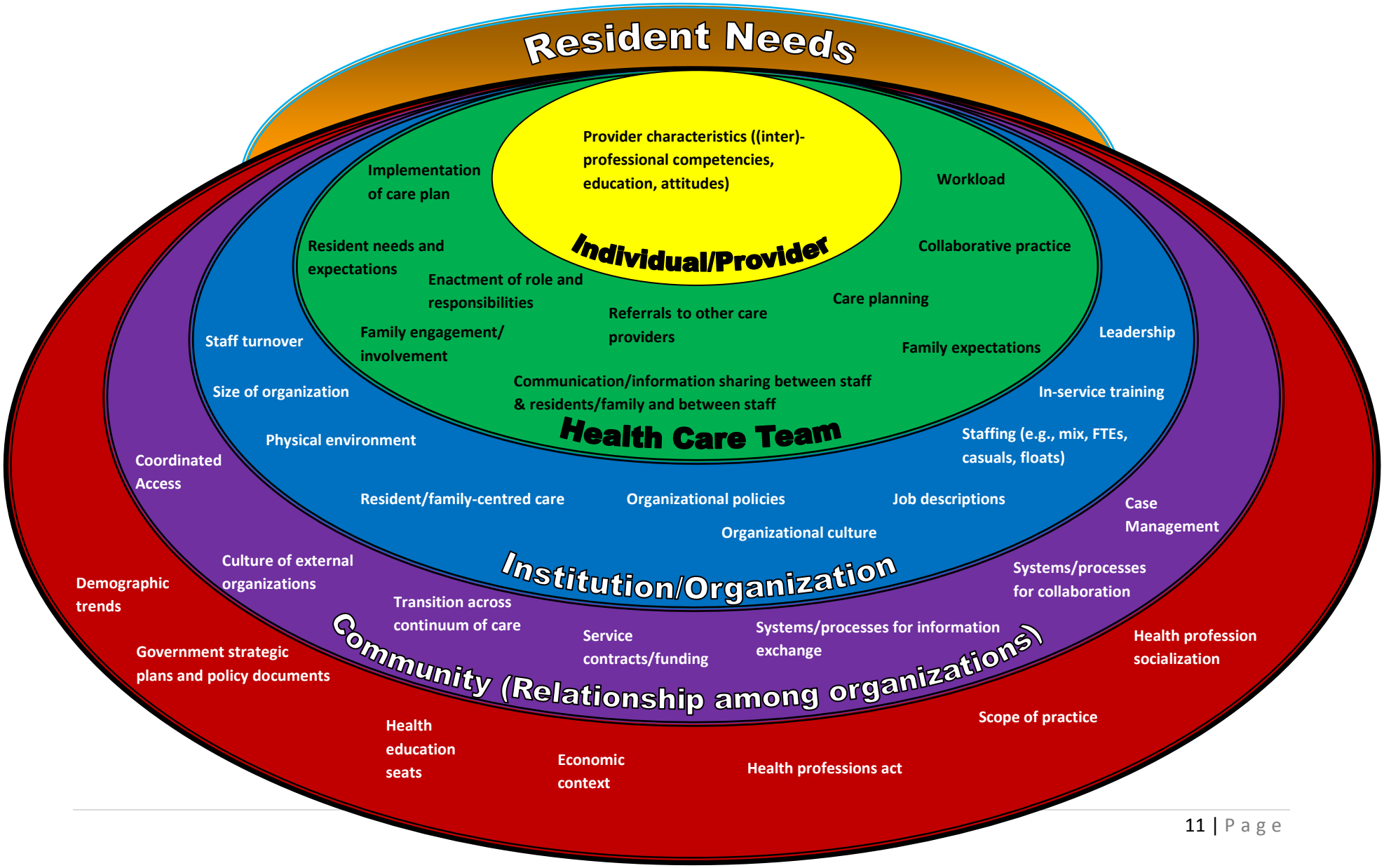
Socio-Ecological Model

A socio-ecological model links individuals to their larger social and physical environments (Satariano, 2006). We chose this framework to illustrate the complex relationship of social and institutional contexts with individual behaviour. Figure 1 (p. 11) represents the socio-ecological model as adapted to workforce utilization in the continuing care system. The system comprises five levels relevant to workforce utilization starting with the individuals who provide services based on the needs of the residents in continuing care facilities. The circles describe the impact of individual, interpersonal, team, institutional, community, and societal factors on the delivery of care in continuing care, and ultimately on the needs and expectations of the residents. Given the mutual influences of processes at the various levels, the system is in constant flux.

At the core of the framework are the individual providers with their unique professional knowledge and skills as well as their personal characteristics. These individuals make professional decisions that drive their daily activities within the context of resident care (healthcare team). Some actions occur autonomously (e.g. giving scheduled medications, some resident assessments, charting) while others require negotiation with other care providers, residents and their families (e.g., developing a plan of care, referrals, transitions). Constraints to these actions can emerge at the organizational level through organizational policies, job descriptions, organizational culture, care philosophy, and staff mix. At the community level, further constraints and influences emerge that transcend different care organizations and impact how, for example, organizations interact across the continuum of care. Funding models and service agreements impact what services can be offered at a facility. While not directly emerging from our data, we have added another system level to capture influencing factors at the public policy/provincial levels. These include availability of specific health providers, legislated scope of different provider groups, and how providers are socialized into their own profession.

We re-examined the four workforce utilization concepts through the lens of the socio-ecological framework to identify strategies. In a subsequent section, we have detailed discussions on the workforce challenges as defined by facility participants and present strategies from current intervention studies recorded in the literature.

Figure 1: Socio-ecological framework of workforce utilization in continuing care



Strengths and Strategies of the Facilities

From our conversations with staff, a number of strengths emerged at the three facilities. Staff at the three facilities are dedicated to a resident and family-centred care philosophy as expressed in their daily interactions with residents and families (e.g. updating families on resident health status, families having a voice in decision-making). Strengths also emerged under the concepts of collaborative practice, working to full potential and staff mix (Table 3).

Over the course of the project, a number of new strategies were implemented at the three sites. While these strategies are not necessarily an outcome of the project, it is possible that the project discussions have helped to create greater awareness about the importance of workforce utilization. For example, leadership at Whitehorn has changed their admission criteria to no longer accept residents in wheelchairs since they cannot be properly cared for (e.g. no mechanical lifts available). For Bethany Airdrie, the current job descriptions for nursing staff are under review (e.g. charge nurse role, leadership potential, and reassignment of some responsibilities to other providers). At Dickinsfield, communication between staff and residents was improved by installing a WIFI system. As a result of the new funding model (Alberta Health Services, 2013), two of the facilities have already experienced changes to staff mix. This has introduced some urgency to address the workforce utilization issues.

Table 3 Facility Strengths

Resident-Centred Care		
Bethany Strengths	**Dickinsfield Strengths**	**Whitehorn Strengths**
❖Care philosophy shows commitment to "creating caring communities" (3 pillars of responsible, respectful and caring services) and daily interactions with residents/families. ❖Consistent staff assignments to residents on secured wing ❖Various protocols followed and incidence reports filed to monitor changes in residents' health status (e.g., falls, RAI assessments) ❖Effective channels to update families on health status of residents (family conferences, phone calls, and informal chats in the hallway or at the bedside) ❖Good recreation program offers residents many opportunities for participation ❖Active resident/family council	❖Care philosophy follows the 'Eden Alternative' addressing loneliness, helplessness, and boredom among residents. This is achieved through a greater focus on unique resident needs and desires, including keeping residents company. ❖Facility has created a resident-centred corporate committee to continually evaluate progress with resident-centred care ❖As part of person-centred care, facility staff treat families as partners in providing care to their loved ones ❖Good recreation program offers residents many opportunities for participation	❖The hospitality philosophy gives residents lots of flexibility and choice (e.g., about time to get up, go for meals, to go to sleep). ❖Care philosophy aims to provide a home-like environment (e.g., dining room resembles the dining room of a grand hotel to create an enjoyable dining experience for residents). ❖Good recreation program keeps residents active and engaged ❖In-services are provided for families (e.g., dementia versus aging) ❖Many family events are organized throughout the year, such as a Christmas party

Collaborative Practice		
Bethany Strengths	**Dickinsfield Strengths**	**Whitehorn Strengths**
❖Staff report that they work as a team on the unit and help each other out when needed ❖Professionally diverse leadership team holds regular meetings to discuss administrative matters ❖Interdisciplinary rounds draw different providers together for care planning however opportunities exist to clarify involvement by the nursing team	❖Recently created a leadership position of 'Care Coordinator' (prior to project) to coordinate units on main floor (including the dementia unit) ❖Staff engage in collaborative strategies together including care planning, cardexing and problem solving ❖There is an interdisciplinary team which carries out assessments at the initial admission conference, yearly reviews, and when urgent issues arise ❖A team seeks solutions for residents falling	❖Weekly nursing meetings attended by LPNs, RNs, HCAs, Community Care Coordinators (CCCs), recreation therapists, the NP, physiotherapist (PT), occupational therapist (OT) ❖Providers also meet separately by provider group ❖Open door policy and relaxed atmosphere allows for good information flow among nursing staff ❖New staff room (converted from games room) has resulted in increased staff interaction during breaks
Working to Full Potential		
Bethany Strengths	**Dickinsfield Strengths**	**Whitehorn Strengths**
❖Overall, staff seem satisfied with their roles and responsibilities yet recognize that there is always greater capacity for using their full skill set and knowledge	❖Job descriptions and roles are clearly communicated to staff	❖LPNs are encouraged to take leadership role in evenings when no RNs are on site (make regular assessments of residents) ❖HCAs assist with giving scheduled medication to residents ❖HCAs regularly chart progress notes on the resident chart shared by all providers
Staff Mix		
Bethany Strengths	**Dickinsfield Strengths**	**Whitehorn Strengths**
❖Current staff mix is seen to provide for residents' essential needs ❖Other providers (podiatrist, physicians, pharmacist and geriatric mental health nurse) work on a consult basis ❖Physicians visit facility every week	❖Outside services provided such as speech pathology, hair dressing, long term psychiatric services and outside caregivers (hired by family members)	❖Has a NP as part of the care team (has consulting role & gets referrals from RNs & CCCs) ❖Consistent staff scheduling aims at accommodating individual preferences. ❖Care model utilizes site RNs in addition to CCCs (e.g., an RN is available during regular day-time hours and on call during evening/night and weekend hours. In a different model, Site RNs are replaced with more LPNs).

Emerging Issues and Recommended Strategies

The emerging issues and strategies have been organised around the four workforce utilization concepts central to this study (i.e., resident/family-centred care, collaborative practice, working to full potential, and staff mix) and framed by the socio-ecological model. The strategies are aimed at addressing the resident needs as in the resident profile discussed above.

Resident/Family-Centred Care

Issue 1: Family Expectations

While facilities strive to provide family-centred care, in reality it is difficult to meet resident and family expectations. Efforts to create a better understanding between families and facilities about services have been a long-term challenge. Families have a wide range of expectations which, at times, are not always consistent with facility policies or realistic in terms of what type of care can be provided (e.g., rehabilitation services).

When specific requests cannot be met or when the approach to care changes (e.g., HCAs arrive later than expected to provide resident morning care), some residents express frustration. Sometimes family misconceptions exist about what can be done for residents, especially for those with higher care needs (e.g., cure chronic disease). Families also vary in their level of involvement/engagement. Some families' level of involvement can be disruptive to care provided by staff, while other families could be more involved.

> "I did not get a sense that there was very much communicated to me [about getting involved]... I don't remember staff communicating expectations of me."

> "I worry about, just sometimes the expectations of families and how we can meet that better and how we can understand each other...I think that... will continue to be a challenge..., because there is such a gap as to what they think long-term care is..."

Proposed Strategies
Community level: ❖ Provide patients and families with accurate information on continuing care options and associated services prior to hospital discharge.

Institution/organization level:

- Develop a communication plan that includes:
  - Clear messages at admission about services provided and philosophy of care.
  - Strategies to regularly reinforce the care philosophy and clarify expectations with residents/families.
  - Guidance to residents and families on how to contribute to goals of care.

Research has demonstrated that reciprocal communication is a key factor in forming constructive staff-family relationships (Bauer et al., 2013). Communication impacts trust, involvement, and family members' satisfaction with the facility. It is important to recognize and value each others' knowledge and expertise if families and staff are to work well together. Clear lines of communication should be established with their families before residents move into the facility. This is a chance to clarify expectations around the family role including how they perceive and wish to pursue their role (Bauer et al., 2013). It is important for the facility and staff to state the limits of what they can do (Bluestein & Bach, 2007). Bern-Klug (2008) suggests that role reinforcement from staff (education and support) would assist families in meeting their own role expectations as family caregivers. This can occur at admission, during the decline of a resident, or when decisions must be made about a resident (Bern-Klug, 2008).

Issue 2: Care Philosophy

At our two LTC facilities, staff strive to provide a home-like environment by offering some individual preferences (e.g., time to sleep and get up, food and clothing choices, single vs. double rooms) and comprehensive social and recreational programming. However, the medical and functional complexity of the residents requires standardization of activities and approaches to care. Furthermore, routinized care schedules make it difficult to offer more flexibility or choices.

At our SL facility the care philosophy is based on a social/hospitality model, which somewhat conflicts with the medical model. Staff attempt to create a home-like environment, such as in the dining area, where no medications are administered and residents have several meal choices to enhance their dining experience. A comprehensive social and recreation program is also offered to help residents maintain social relationships, functional ability and independence. However, increasing complexity and cognitive impairment of residents make it difficult to maintain the hospitality model. Sometimes, residents are admitted who are too complex to be accommodated within the hospitality model as the facility is not designed to support their care needs (e.g., lack of equipment for two person lifts or for showering residents in their private bathrooms; lack of staff for 1:1 monitoring). Such residents might be admitted due to internal or external pressures or due to lacking/misleading information on a resident's health status.

> "We're getting pressure from the hospital to fill the beds. I think I've said this before. The people that are admitting, the share holders, the marketing director, have no health background at all. So that's what their focus is, fill the beds and generate revenue, so that's what's happening for sure."

Proposed Strategies
Society/policy level: ❖ Ensure residents' care needs are accurately assessed by services/programs when transitioning them to SL or LTC (e.g., placement coordination by Home Care). This will ensure the residents are assigned to facilities/programs providing the appropriate level of care. *Institution/organization level:* ❖ Establish and adhere to facility admission criteria in order to ensure resident needs can be met under the current care philosophy. ❖ Encourage a person-centred care philosophy in staff orientations (e.g., how to encourage resident independence, how to offer residents choices). ❖ Enable staff to become familiar with residents' individual desires by developing consistent staff-resident assignments. *Health care team level:* ❖ Foster an environment in which residents are encouraged to remain independent as long as possible. • Encourage residents and families "to do for yourself" (e.g., active participation in Activities of Daily Living (ADLs)) and to make personal choices.

Although the Alberta Health Continuing Care Strategy (Government of Alberta, 2008) stresses the importance of "aging in the right place," the current reality is that multiple pressures exist to place residents quickly, even if it is not the best fit. It is therefore important that facility management enforces admission criteria and has time to assess the health status of future residents to ensure their needs can be met.

There is strong evidence in the literature that a resident-centred focus has positive outcomes for residents and families (Alzheimer Society, 2011). Creating a home-like environment, offering a range of social and recreational opportunities, and accommodating individual needs and preferences as much as possible are important strategies (Alzheimer Society, 2011; Reimer & Keller, 2009; Thornton, 2011). Flexibility and choice around personal care routines (Simmons et al. 2012) and mealtime practices (Reimer & Keller, 2009) allow residents to maintain dignity and independence. Accommodating personal desires and offering choice often increases the level of cooperation with the resident, potentially

lowering staff workload (Simmons et al., 2012). Consistent staff assignments contribute to the quality of the relationship between staff and residents and facilitate resident knowing (Alzheimer Society, 2011; Leutz et al., 2010; Rahman et al., 2009).

Finally, it was acknowledged by our participants that staff would like more time to spend with residents. Our Advisory Committee members and staff interviews/sessions spoke to opportunities to streamline some tasks and activities, thereby enabling staff to spend more time with residents. For example, minimizing the documentation/charting of information in multiple places and reducing medication administration from four times per day to two times per day by using slow-release or long-acting medications were proposed. Another suggestion offered was the use of volunteers in comfort rounds.

Collaborative Practice

Issue 3: Role Clarity

Role clarity issues exist in all three facilities that impact workload, create gaps in care, and contribute to tensions between providers. Role clarity issues were most evident between the different nursing positions. For example, at the SL facility, care planning is part of the responsibility of the site RNs as well as the Community Care Coordinators (CCCs); yet this overlap contributes to staff tension and, at times, confusion amongst residents and family members. At one of the LTC facilities, RNs spend a large amount of time preparing for and following through on physician visits and on physician communication, thereby taking them away from providing nursing leadership to the nursing team. In terms of allied health staff, overlap in care provided by occupational therapists, physiotherapists, and recreational therapists at the supportive living facility has resulted in some mix-up with referrals.

These issues emerged in part due to the multitude of healthcare positions as well as the model of care delivery and/or availability of various providers. Further complicating role clarity issues are communication structures and processes that do not support a team approach to care. For example, at one of the LTC facilities, varied perceptions exist as to who should be involved with, and provide leadership to the more formal aspects of care planning and evaluation (e.g., develop written care plans, participate in and/or lead weekly interdisciplinary rounds, monitor and evaluate care).

> "While staff have clarity around some of the roles, greater clarification around all roles could benefit everybody."

Proposed Strategies
Institution/organization level: ❖ Clarify job descriptions and site specific expectations for each role. • Review current job descriptions to ensure that each role is supported to optimally use their knowledge, skills and abilities. • Communicate job descriptions not only to staff in those roles but all staff to facilitate a better understanding of own role as well as the role of others. • Provide staff with opportunities to discuss and understand their roles, relationships and contributions to care (e.g., staff meetings, care planning meetings). • Ensure staff competency with all expected responsibilities/accountabilities through ongoing knowledge and skill development. ❖ Review and restructure communication processes to reflect the clarified roles • Review who should participate in interdisciplinary rounds to enable all members of the care team to contribute to care planning and evaluation. • Reinforce effective and efficient verbal, written and/or electronic processes in order to communicate care expectations and role accountabilities.

There is limited literature about understanding the roles of healthcare providers in continuing care facilities. However, role clarity and trust have been identified as crucial for collaborative practice to occur in any healthcare setting (Conference Board of Canada, October 2012; CIHC, 2010) and to facilitate staff working to their full scope of practice (CIHC, 2010). Clarification of one's role as well as understanding the role of others on the team facilitates the appropriate establishment of care goals (CIHC, 2010). Some providers (e.g., LPN and RN; occupational therapist and physiotherapist) have overlapping scopes of practice, which can create confusion and difficulties in establishing defined roles (Conference Board of Canada, October 2012) and cause conflict.

Furthermore, collaborative practice, and thus role clarity, can also be compromised when team members perceive a hierarchy of importance or power (Conference Board of Canada, October 2012). Hierarchy can be perpetuated by decision-making processes (Conference Board of Canada, October 2012) that do not include input and participation from all those involved with provision of care. Ongoing collaboration including shared planning and decision-making among team members results in mutual respect, trust, and an appreciation of what each individual brings to the overall goal in providing care to the resident. Attention to creating an organizational context that supports effective collaborative practice includes the integration of role clarity, team functioning, collaborative leadership, and resident-centred care through inter-professional communication (CIHC, 2010).

Issue 4: Communication Issues

Communication issues are seen in charting, shift change reporting and follow through by night staff, potentially resulting in gaps in care coordination. Staff at the three facilities commented on how time consuming charting is because it is done manually and duplicated in several places. In some cases, this leads to incomplete charting or no charting at all. Staff at two LTC facilities also reported difficulties with reporting at shift change due to a lack of overlap between most shifts. At one LTC facility, RNs volunteered extra time to ensure information sharing with the next shift. Gaps in care coordination have emerged among providers on the same shift or between shifts because some staff fail to read or follow-through on care plans and care directives.

> "If you tell one HCA, does it get passed on to the other 25?"

Proposed Strategies
Society/policy level: ❖ Ensure that health profession education includes teaching of IP competencies, in particular communication skills. *Institution/organization level*: ❖ Review communication processes (e.g. charting, shift reports) to identify gaps and duplication. ❖ Introduce electronic reporting and charting to help improve communication flow and reduce time commitment. *Health care team level:* ❖ Include regular discussions on communication in staff meetings (e.g., invite ideas to improve communication mechanisms for information sharing and mutual understanding).

Research shows the importance of communication in effective collaborative practice among all healthcare providers (The Conference Board of Canada, 2012; Anderson et al., 2011; Bruner et al., 2011; Cramm et al., 2011; Suter et al., 2009). Communication is also key to collaborative practice in continuing care (Newhouse et al., 2012; Goldberg et al., 2012; Venturato & Drew, 2010; Kemper et al., 2008; Hanna et al., 2003; Stone & Weiner, 2001). Newhouse et al., (2012) noted a lack of communication between staff working on different shifts and the negative effect it had on care coordination and resident centred care in LTC facilities. Inadequate time has been identified as one of the key barriers to communication and team effectiveness (The Conference Board of Canada, 2012). In LTCs, certain conditions within a facility (e.g., adequate resources, up-to-date equipment, regular meetings, good coordination and administrative support) have been identified as mechanisms that facilitate good communication. Increases in resources (i.e., time and human) are seen as key to better communication between shifts (Newhouse et al., 2012; Cowley et al., 2002). Research also calls for the removal of barriers and creation of incentives to develop electronic communication technology or systems to facilitate transfer and

sharing of data between service providers, and coordination and execution of patient care plans (The Conference Board of Canada, 2012; Coleman, 2003).

Issue 5: Information Exchange with External Providers

Currently, two major issues exist around information exchange between external care providers and continuing care facilities:

1. There is a lack of information on residents at discharge from hospital or from physicians who are consulted once an individual is in supportive living or long-term care.
2. There is a lack of information on available options for individuals and their families who are transitioning from home or acute care to supportive living or long-term care.

> "Either we don't hear from the transition service nurse, or they [residents] are on the doorstep and we don't know they're back. Very few times is it a smooth transition."

Proposed Strategies
Society/policy level: ❖ Examine potential information systems to exchange/retrieve information on residents, such as expanding the access to Netcare. *Community level*: ❖ Ensure continuing care placement coordinators use residents' care needs to determine appropriate services/programs when transitioning resident into SL or LTC. ❖ Develop timely and accurate information packages for both health care providers and residents/families to provide information on care options.

The Alberta Netcare Electronic Health Record (EHR) provides access to information at the point of care. It gives health service providers access to key patient information along with online decision support and reference tools. It also reduces the potential for medical errors and adverse drug reactions, and assists with compliance issues. Features like lab value trends and drug monographs also help with patient consultations. However, use of Netcare in the continuing care sector is very limited. It is intended for use by physicians, pharmacists, and AHS facilities only. Most sites in the continuing care sector are not eligible for access (http://www.albertanetcare.ca).

Residents and family members are often not aware of the options available to them (supportive living vs. long-term care), the types of services available at each level, or the costs involved in the different options. Our Advisory Committee members spoke to the debate about the role of a formal system navigator to assist these residents and family members. They acknowledged that there are supporters of a formal system navigator position, while others advocate that attending to transition and coordinated care should be integrated into the responsibility of all key providers. There are some existing positions

(e.g. home care case managers, transition coordinators) that already have an explicit role in assisting patients to navigate the system. There is a sense that if providers were optimally enacting their roles and responsibilities, there would not be the need for a specialized provider focused solely on system navigation. Furthermore, an integrated care planning process that engages providers across the continuum of care as well as residents and their families would facilitate a smoother transition into supportive living and long-term care.

There have been problems identified with at least half of the transitions occurring between care settings with adverse consequences for 15 to 25 percent of patients (Boling, 2009a). These problems have been related to the high return (20 to 30 percent) of patients to hospitals within 60 days after hospital discharge in common diagnoses such as hip fracture, pneumonia, stroke, chronic obstructive pulmonary disease and congestive heart failure, regardless of whether they had originally been discharged to home or facility living (Boling, 2009b). Another problem that has been identified is that post-acute care providers are not involved during the hospitalization and obtain little or no direct communication from the hospital that discharges the patient (Boling, 2009b). From the nursing home administrators' point of view, the most important barriers to communication between hospitals and nursing homes are the hospital providers' lack of effort and time, sudden or unplanned transfers, and their unfamiliarity with patients (Shah et al., 2010).

Providers Working to Their Full Potential

Issue 6: Collaborative Leadership

The leadership issues arising from the discussions relate to the need for all staff to share leadership and decision-making. While there are official leaders (management and the leads for different areas of service delivery), it is important that other staff assume informal leadership roles. The RN role is generally considered a leadership position among the nursing staff, yet in one LTC facility day-time RNs are preoccupied with preparing for physician visits while care planning and staff supervision is left to other staff. RNs may take on the charge nurse role on evening and night shifts but inconsistencies in enacting this role have been observed. In addition, LPNs should have more opportunity to work autonomously and to make decisions together with the HCAs on how care is delivered. In the SL facility, LPNs are encouraged to take on leadership roles during the evening and night shifts, but this doesn't always occur. Since leadership functions have not always been enacted by respective staff, leadership skills need strengthening at all levels of continuing care facilities.

> "Maybe they should look at that on the other floors and what the implications are to have that extra person, you have that constant. Otherwise there's no one there to coordinate things or follow up."

Proposed Strategies
Institution/organization level: ❖ Plan collaborative leadership and its implementation with management of continuing care facilities (e.g., identify formal/informal leadership opportunities and discuss the benefits versus costs of implementing them). ❖ Provide training sessions for all staff on shared leadership principles (e.g., type of information needed to make good decisions). ❖ Create opportunities for staff to practice leadership competencies (e.g., chair a meeting, lead a resident care discussion, participate in interdisciplinary rounds). ❖ Monitor progress on leadership competencies in regular discussions.

Collaborative leadership refers to a type of leadership emerging from specific situations in which practitioners assume shared accountability for achieving results (CIHC, 2010). Research shows that collaborative leadership is necessary to optimize the roles of available RNs and to provide 24-hour coverage for essential clinical services (Venturato & Drew, 2010). Besides mentioning RNs in their central role as nursing leaders, discussions on shared leadership have focused primarily on the unregulated nursing providers supporting other leaders (Venturato & Drew, 2010). Current examinations of management practices in nursing homes characterize them as being very traditional, with clear hierarchical structures and chains of command (Yeatts & Seward, 2000). Yeatts et al., (2004) argue that "nursing homes provide a particularly appropriate environment for [collaborative leadership] because of the need to reduce turnover and absenteeism, the need to improve customer (resident) satisfaction, and the lack of employee empowerment in nursing home work environments" (2004:257). They further state that staff other than RNs are rarely given the opportunity to participate in decisions related to their work, but that the knowledge of these frontline workers has great potential for the improvement in quality of care.

The research indicates that staff carrying out leadership functions besides technical tasks show higher retention, quality care, job satisfaction, and team cohesion (Venturato & Drew, 2010; Yeatts et al., 2004; Yeatts & Seward, 2000; Yeatts & Cready, 2007). It has been shown that some degree of self-determination or decision-making about some aspects of their work is integral to the empowerment of staff in lower-ranking positions (Spreitzer, 1995). In addition, resident-centred care is also enhanced since residents receive care from people who really know their needs and make decisions based on that knowledge.

Issue 7: HCA Utilization

There are apparent differences in HCA roles, responsibilities, and team integration in LTC and SL facilities. For example, in the SL facility, HCAs regularly chart and assist LPNs with scheduled medications (except for injections and most pain medications administered by LPNs). HCAs are comfortable assisting with medications using the computerized medication cart. LPNs now have more time to care for complex residents. HCAs attend and provide input at weekly meetings – they are valued team members with many opportunities to fully utilize their knowledge and skills.

> "If HCAs couldn't chart, we'd have problems."

In contrast, the roles and responsibilities of HCAs in the two LTC facilities appear to be more restricted. Some HCAs expressed an interest in assisting with medications but there was concern of adding to their already high workload. At times, HCA responsibilities include assisting with and serving meals, doing laundry, and making breakfast. This begs the question whether all HCAs are being appropriately utilized. There also appears to be limited opportunity for HCAs to inform care planning; they do not chart (although one facility was starting to implement charting) or participate in weekly interdisciplinary team meetings.

HCAs employed by AHS owned, operated, and contracted continuing care service providers must be competent in alignment with the Continuing Care Health Service Standards (2008); however, there is a current lack of understanding about competency requirements for HCAs employed within continuing care. This has resulted in a wide disparity of HCA education levels (provincial curriculum vs. equivalent training vs. practice experience) and competency levels. Furthermore, organizations have a variety of internal hiring standards which may lead to confusion regarding the expectations of HCAs and their roles.

Proposed Strategies
Society/policy level: ❖ Examine/develop policies and standards to: • Enforce the standardized curriculum for certification and upgrading of HCAs across the continuing care sector. • Clearly articulate HCA roles and responsibilities. • Guide employers in effectively utilizing HCAs. • Identify the role of employers and government with ensuring minimum standards of care by HCAs.
Institution/organization level: ❖ Standardize and clarify role competencies of HCAs (in particular, assisting with medication,

charting).

- ❖ Ensure HCAs have necessary skills to competently enact roles and responsibilities.
- ❖ Develop an orientation to assist HCAs to work to minimum standard.

There is a growing recognition for the relevance of unregulated care providers in continuing care (Stone et al., 2004; Hussein & Manthorpe, 2008; Stone & Harahan, 2013; Pan-Canadian Planning Committee, 2009). This requires that efforts are made to clarify the roles and responsibilities of unregulated health workers, ensure common core competencies, and invest in ongoing education based on these competencies (Stone et al., 2004; Stone & Harahan, 2013; Pan-Canadian Planning Committee, 2009). Clarifying role competencies of HCAs with respect to new tasks such as assisting with medication would be especially useful.

Staff Mix

Issue 8: Utilization of Casual Staff

All three facilities employ casual staff (mainly LPNs and HCAs) to cover short-term staff shortages arising from sick leave and vacation. Concerns were mentioned that casual staff do not tend to be up-to-date with resident needs and preferences. While positive exceptions were noted, casual staff may have a negative impact on residents who typically like their routines including a consistent care provider. Some residents cared for by casual staff were described as more agitated, which in turn increases the work load for regular staff as these residents require more time and attention. It was also noted that casual staff can create additional work for regular staff as they have to explain/update casuals or assist them with provision of care. Since casual staff often work at multiple facilities and different provider organizations, they may not be familiar with specific facility protocols. Some staff perceive that more medication errors occur on days when casual staff are on site. Others felt that some casuals are less committed to their worksite than regular staff. Finally, the infrequent presence of casual staff makes it difficult to schedule them for education sessions to maintain their skills and knowledge.

> "I do find that they [floats and casuals] don't know the patient that well and they don't always try to find out what their needs are."

Proposed Strategies
Society/policy level:
❖ Raise minimum wages for HCAs and LPNs to increase attraction and retention.
Institution/organization level:

- Develop/enhance communication processes to inform casuals of new policies and practices (e.g., communication binder, monthly newsletter).
- Create other processes for casual staff to receive up-to-date information on residents (e.g., up-to-date care plans).
- Create opportunities (in-services, workshops, informal learning) and provide support (e.g., paid fees and transportation, attendance as part of work shift) for casual staff to develop competencies such as resident-centred care, communication and team work.
- Provide opportunities for regular unit or facility-level discussions involving casuals and permanent staff to enhance teamwork.
- Articulate clear expectations of casual staff about updating self on new policies, practices and resident needs/desires (e.g., reading resident care plans).

Individual level:

- Encourage casuals (and all other staff) to take responsibility for their own learning, and to be accountable for their own professional development.

There is a gap in the literature on the use of casual staff in continuing care. However, other healthcare literature argues that there are threats to patient safety, in part because casual staff are less familiar with care needs and organizational policies and practices (AHRQ, 2013). This can be compounded when casual staff do not receive the same level of orientation and continuing education from the organization in which they provide care compared to permanent staff (AHRQ, 2013). While casual staff can increase the number of staff available for resident care, it is important to attend to better integration of casual staff including keeping them up to date with resident needs and new policies and practices. Honkus and Clouse (2004) propose the use of a monthly education newsletter with information about a variety of topics including changes in policies and practice, new equipment or medications.

Literature points to the importance of maintaining consistent assignment of staff to residents or groups of residents in nursing homes (Leutz et al., 2010; Rahman et al., 2009; Ferrell et al., 2006). Rahman et al., (2009) conclude that consistent assignment, whereby nursing home staff - particularly HCAs - are assigned to the same residents on most shifts, offers the best care model that increases residents' quality of life while contributing to a more stable frontline staff in nursing homes. With consistent assignment, staff develop stronger relationships with residents, enjoy their jobs more, and are better able to enhance care for residents (Rahman et al., 2009). According to Ferrell et al., (2006), increased familiarity with residents that comes with consistent assignment reduces workload, evidence supported by our findings. In other studies, HCAs working with the same residents and co-workers got into a routine that allowed them to anticipate what to expect from each other (Deutschman, 2005).

Issue 9: Gaps in Staff Mix

All three facilities employ a range of staff (different nursing staff, various allied health, and support staff) that have specific roles in the residents' care. While the overall perception was that the residents are well cared for and, for the most part, receive the services they need, some gaps were pointed out. Providers from one LTC facility suggested that having a Nurse Practitioner on site could create more effective linkages and communication between the facility staff and general practitioners. The same facility proposed that a massage therapist would meet important resident needs. Staff from the SL facility identified the need for a therapist assistant to help implement care plans developed by the occupational therapist and physiotherapists, in particular mobilization. They argued that the lack of capacity to mobilize residents leads to deterioration, which in turn adds to staff workload as residents require more support.

> "We think it would be so beneficial to have a therapist assistant, someone we could leave exercises or if there's specific walking or skills that we're trying to teach a resident but it's too difficult for to pass on to a rec person or an HCA, it would really be nice to have a therapist assistant that we could leave instructions with and they could work with these people."

Proposed Strategies
Institution/organization level:
❖ Review staffing model and budget to examine opportunities for staff mix changes.
❖ Develop a business case based on resident needs and appropriate data to secure additional staff funding.

Financial constraints and changes in funding models have been the impetus for implementing more cost effective staffing models, mainly by changing the ratio of regulated to unregulated nursing providers (Spilsbury, 2011; Bryan, 2010). However, the literature is silent on staffing issues in continuing care other than for nursing. For example, we were unable to locate any literature on allied health providers and how they factor into the staff mix of continuing care facilities. The Pan-Canadian Planning Committee on Unregulated Health Workers (2009) has recommended that staff mix should be based on resident needs. Two further papers refer to a resident-needs based approach to determine staffing in continuing care (Harvey & Priddy, 2011; Mueller, 2000), however, neither of them mention provider groups other than nursing. The fact that staff at two of the facilities pointed to a need for additional services from non-nursing providers (e.g. therapist assistants, massage therapist) would suggest that a broader view on staffing models is required to fully meet residents' needs.

Discussion and Conclusions

Our study sought to examine current workforce utilization in continuing care facilities. The recent commitment to investment in continuing care services demands a sound grasp of current workforce utilization in continuing care facilities and how it impacts on resident care. Limited research exists with particular focus on how regulated and unregulated healthcare providers are best organized and deployed in different continuing care environments. However, workforce utilization directly affects service delivery (i.e., how resident care is planned, assigned, communicated and implemented) and the roles of different health providers in the care delivery process, and ultimately, the quality of care.

Our research identified workforce utilization around four concepts, i.e., staff mix, providers working to their full potential, collaborative practice and resident/family-centeredness. This is a novel approach as none of the studies in the literature examined the workforce utilization in a comprehensive way; rather, the focus is on a single aspect such as staff mix or collaborative practice. The four concepts are interrelated, a perception reinforced by staff, where discussion of one concept often led to the consideration of the other concepts. This implies that the impact of a particular workforce issue cannot be viewed in isolation, but needs to be considered within the broader context of workforce utilization.

Many issues emerged under the four concepts, but some of the key ones centred on HCA utilization and role clarity. We noted clear differences in HCA roles, responsibilities and team integration between the LTC and SL facilities. HCAs in the SL facility enacted their scope more fully by assisting with medication and charting. The differences are related to the non-standardized nature of competency requirements for HCAs in continuing care, which leaves decisions on how to utilize HCAs up to the individual organizations. The inability of HCAs to chart, help LPNs with medications and perform other responsibilities in the LTC facilities affects resident outcomes. Where HCAs have an expanded role, it allows LPNs to focus on more complex issues and it enhances HCAs integration into the care team. Where HCAs perform more lesser-skilled roles involving cleaning, opportunity is lost for input to care planning. Role clarity issues between nursing positions and other roles were also prevalent. These issues created more work for other staff, tension among staff, mix ups in referrals, and confusion among residents and family members. Tension between staff negatively affects collaborative practice, with an indirect effect on quality of services and resident outcomes.

Our key objective in this study was to develop intervention strategies to support workforce optimization in continuing care facilities. To that effect, we examined the workforce utilization issues through the lens of a socio-ecological framework. The use of the socio-ecological framework is a unique application, situating individuals (staff and residents/families) in the social and physical environments that affect their behaviours and interactions. Most importantly, the framework enabled us develop “upstream” workforce strategies targeting barriers at the level of the health care team, organization, or policy (see Appendix B for a summary of the strategies). Many authors have vowed that a socio-ecological approach to healthcare is more successful because it targets changes at the various levels of the system (Richard et al., 2012; Satariano, 2006).

For example, policy level strategies to enhance HCA utilization involve a clear articulation of HCA roles and setting uniform standards of education and competency levels for HCAs across the continuing care sector. Those at the organization level are centred on clarifying role competencies, ensuring mastery of necessary skills for the performance of required roles, and ongoing programs to orient HCAs to work to required standards. These strategies are congruent with the recent calls for recognition of unregulated care providers in continuing care (Stone et al., 2004; Hussein & Manthorpe, 2008; Stone & Harahan, 2013; Pan-Canadian Planning Committee, 2009). The strategies put forward to deal with role clarity issues are all at the organisation level. Suggestions include reviewing job descriptions to ensure optimal use of knowledge and skills, ensuring staff understand each others' roles, enhancing staff competencies through ongoing knowledge and skill development, and ensuring equal chance to participate in interdisciplinary rounds for contribution to care planning and evaluation.

In summary, we put the following strategies forward for future examination:

Policy Level Strategies:

- Ensure residents' care needs are accurately assessed by services/programs when transitioning them to SL or LTC (e.g., placement coordination by Home Care). This will ensure that residents are assigned to facilities/programs providing the appropriate level of care.
- Consider enforcing a standardized provincial curriculum for HCAs across the continuing care sector.
- Examine/develop policies and standards to clearly articulate HCA roles and responsibilities, set minimal standards and guide employers in effectively utilizing HCAs.
- Examine potential information systems to exchange/retrieve information on residents, such as expanding access to Netcare.
- Ensure that health profession education includes teaching of interprofessional competencies, in particular communication skills.
- Raise minimum wages for HCAs and LPNs to increase attraction and retention.

Organization Level Strategies:

- Establish admission criteria and policies reinforcing the criteria to ensure resident needs can be met under the current care philosophy.
- Encourage a person-centred care philosophy in staff orientation (e.g., how to encourage resident independence, how to offer residents choices).
- Develop information materials that assist with communicating admission criteria, care philosophy and expectations to family members.
- Clarify job descriptions and site specific expectations for each role.
- Review communication processes (e.g., charting, shift reports) to identify gaps and duplication. Introduce electronic reporting and charting to help improve communication flow and reduce time commitment.
- Develop collaborative leadership including leadership training for all staff.

- Develop strategies to integrate casual staff better into the care teams e.g. by enhancing communication with casual staff or creating incentives for casual staff.
- Review staffing model and budget to examine opportunities for staff mix changes.
- Develop a business case based on resident needs and appropriate data to secure additional staff funding.

Health Care Team Level Strategies:

- Encourage residents to remain independent as long as possible (e.g., active participation in ADLs, making personal choices).
- Include regular discussions on communication in staff meetings (e.g., invite ideas to improve communication mechanisms for information sharing and mutual understanding).

Our proposed workforce strategies are designed to improve workforce utilization, which in turn may translate into quality care and presumably better resident outcomes. However, there is a lack of evidence that clearly documents the impact of workforce strategies on resident outcomes. Positive outcomes (such as higher quality of care, provider satisfaction, quality of work) have been reported after implementation of collaborative practice strategies (Boorsma et al., 2011; Boumans et al., 2008; Puxty et al., 2012), while findings on the impact of resident-centred care strategies in continuing care on resident outcomes are mixed (e.g., Boumans et al., 2005). There is an urgent need for intervention research to document the impact of workforce utilization strategies on resident outcomes. The interrelatedness of the four workforce concepts would imply that interventions need to focus on multiple strategies for optimal impact.

This research study was completed just prior to the implementation of a new funding formula for continuing care in Alberta. The new Patient-Care Based Funding model is designed to ensure equitable funding for every resident in continuing care across the province (Alberta Health Services, 2013). Initiated in March 2013, it will be rolled out over the next four years. The funding model uses RAI data to determine the level of care a resident requires based on their health condition. As a result of the implementation of this new funding model, some staff restructuring occurred at both Bethany Airdrie and Dickinsfield. In some cases, the changes involved replacement of HCA roles with RNs. This means removal of frontline workers tasked with meeting the day-to-day resident needs, a role that was found to be crucial in meeting key resident needs in this study. These staff mix changes will significantly impact provider roles and how they communicate and collaborate. In the wake of such major shifts in staffing, additional evaluation of workforce challenges are warranted to ensure no detrimental effects on resident care and outcomes. Also, expanding continuing care capacity is a high priority on the provincial agenda, which will require the addition of a high number of HCAs to meet the increased staffing demand. This makes our research extremely timely and relevant and creates an opportunity to look at the workforce in more detail and ways to optimize service delivery.

It is our hope that the strategies and recommendations will help improve the current workforce challenges in order to enhance the quality of care offered to residents. Further intervention research on

this topic, involving more continuing care facilities with varied organizational cultures and care philosophies, would generate more insightful and generalizable findings and recommendations.

Next Steps: Knowledge Translation and Future Research

Several knowledge translation activities are planned for this study, some of which have already been completed. Activities included presentations and distribution of results and reports (hard copy and electronic versions). Target audiences include service providers, researchers, decision-makers, policy-makers, and health services planners. Appendix C shows the knowledge translation plan for this project.

In March 2013, a manuscript was submitted to a peer-reviewed journal (Health Sociology Review), which is still under review. The manuscript addresses workforce utilization as a key component of effective service delivery in continuing care facilities. Plans are underway to write two more manuscripts from the study's findings. The site reports have been shared with facilities. This report will be posted on the Workforce Research and Evaluation website and distributed to interested stakeholders once approved by the funder.

There are plans to share the results of the study in several internal and external newsletters and on several websites including AHS *Insite*. Presentations are also planned for audiences at conferences and to members from the participating organisations.

We plan to develop a proposal to further study HCA utilization, in particular medication assistance, across facilities in continuing care. We will also submit a planning grant to CIHR on workforce utilization in continuing care facilities as a follow-up to this study. The planning grant will bring together stakeholders to validate and prioritize the proposed strategies for future implementation.

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Appendix A Survey to Validate Care Needs

The following is a list of resident needs and challenges that may be difficult for staff to address in long-term care and supportive living facilities. Please indicate how difficult you consider each of these needs or challenges to be by circling the appropriate number.

Care Need of Residents…	Very difficult	Somewhat difficult	Somewhat easy	Very easy	Can't answer
1) With specific diagnosis (such as dementia, hypertension, arthritis, depression)	1	2	3	4	Can't answer
2) With multiple prescribed medications	1	2	3	4	Can't answer
3) That are potentially unstable in terms of clinical complexity and health	1	2	3	4	Can't answer
4) With persistent pain	1	2	3	4	Can't answer
5) With limited physical functioning or mobility	1	2	3	4	Can't answer
6) With frequent readmissions to acute care and ER	1	2	3	4	Can't answer
7) Requiring special monitoring for falls, pain, urinary incontinence, ADLs	1	2	3	4	Can't answer
8) With social isolation or lack of opportunities for recreational activities	1	2	3	4	Can't answer
9) Other needs (please identify)	1	2	3	4	Can't answer
Other Challenges:	**Very difficult**	**Somewhat difficult**	**Somewhat easy**	**Very easy**	**Can't answer**
10) Meeting the needs of residents' families	1	2	3	4	Can't answer
11) Offering all the services residents require	1	2	3	4	Can't answer
12) Keeping residents satisfied with non-care services (for example, housekeeping, meals, personal laundry, bathing)	1	2	3	4	Can't answer
13) Other challenges (please identify):	1	2	3	4	Can't answer

Which needs or challenges described above (1-13) would you give the highest priority for addressing?

Priority 1: Care need #___ Priority 2: Care need #___ Priority 3: Care need #___

Which needs or challenges described above (1-13) would you give the lowest priority for addressing?

Lowest priority: Care need #___

My provider role is:

HCA____ LPN____ RN/NP___ Allied Health___ Other___

Appendix B Summary of Issues and Strategies

Concepts & Issues	Health Care Team	Organization/Institution	Society/Policy
Resident-Centred Care			
Issue 1: Resident/family expectations are often diverse and not always consistent with facility policies. **Issue 2: Care philosophy issues relate to creating home-like environments.**	Issue 1: None developed Issue 2: ❖ Encourage residents to remain independent as long as possible (e.g., active participation in ADLs) and to make personal choices.	Issue 1: ❖ Develop information materials that assist with communicating admission criteria, care philosophy and expectations to family members. Issue 2: ❖ Establish admission criteria and policies reinforcing the criteria to ensure resident needs can be met under the current care philosophy. ❖ Encourage a person-centred care philosophy in staff orientations (e.g., how to encourage resident independence, how to offer residents choices). ❖ Enable staff to become familiar with residents' individual desires by developing consistent staff-resident assignments.	Issue 1: ❖ None developed Issue 2: ❖ Ensure residents' care needs are accurately assessed by services/programs when transitioning them to SL or LTC (e.g., placement coordination by Home Care). This will ensure that residents are assigned to facilities/ programs providing the appropriate level of care.
Collaborative Practice			
Issue 3: Role clarity issues exist impacting workload, creating gaps in care and contributing to tensions between providers. **Issue 4: Communication issues are seen in charting and shift change reporting.** **Issue 5: Poor information exchange exists among external providers for residents discharged from hospital. There is also lack of access to information on continuing care options for families.**	Issue 3: None developed Issue 4: ❖ Include regular discussions on communication in staff meetings (e.g., invite ideas to improve communication mechanisms for information sharing and mutual understanding). Issue 5: None developed	Issue 3: ❖ Clarify job descriptions and site specific expectations for each role. ❖ Review and restructure communication processes to reflect the clarified roles. Issue 4: ❖ Review communication processes (e.g. charting, shift reports) to identify gaps and duplications. ❖ Introduce electronic reporting and charting to help improve communication flow and reduce time commitment. Issue 5: None developed	Issue 3*:* None developed Issue 4*:* ❖ Ensure that health profession education includes teaching of IP competencies, in particular communication skills. Issue 5: ❖ Examine potential information systems to exchange/retrieve information on residents, such as expanding the access to Netcare. ❖

Concepts & Issues	Health Care Team	Organization/Institution	Society/Policy
Providers Working to their Full Potential			
Issue 6: Collaborative leadership issues exist in that formal/ informal leadership opportunities are not realized by all nursing staff (RN, LPN, HCA). **Issue 7: There are apparent differences in the utilization and integration of HCAs.**	Issue 6 and 7: None developed	Issue 6: ❖ Develop and monitor collaborative leadership including leadership training among staff. Issue 7: ❖ Standardize and clarify role competencies of HCAs with focus on medications and charting. ❖ Ensure HCAs have necessary skills to competently enact roles and responsibilities. ❖ Develop an orientation to assist HCAs to work to minimum standard.	Issue 6: None developed Issue 7: ❖ Consider enforcing the standardized provincial curriculum for HCAs across the continuing care sector. ❖ Guide employers to effectively utilize HCAs.
Staff MIx			
Issue 8: The utilization of casual staff creates higher workload for other staff and challenges with skill and knowledge maintenance. **Issue 9: Gaps in staff mix exist including massage therapists, therapist assistants or/and nurse practitioners.**	Issue 8 and 9: None developed	Issue 8: ❖ Develop/enhance communication processes to inform casuals of new policies and practices. ❖ Create processes for casual staff to receive up-to-date information on residents. ❖ Create opportunities (in-services, workshops) and incentives for casual staff to develop competencies such as resident-centred care, communication and teamwork. ❖ Provide opportunities for regular discussions involving casuals and permanent staff to enhance teamwork. ❖ Articulate clear expectations of casual staff about updating self on new policies, practices and resident needs/desires. Issue 9: ❖ Review staffing model and budget to examine opportunities for staff mix changes ❖ Develop a business case based on resident needs and appropriate data to secure staff funding.	Issue 8: ❖ Raise minimum wages for HCAs and LPNs to increase attraction and retention. Issue 9: None developed

Appendix C Knowledge Translation Plan

Activity	Notes (Event date, Locale)	Website
WEBINARS and PRESENTATIONS		
Webinar: HPSP Practice Wise	· Date to be set	http://insite.albertahealthservices.ca
Presentations: 1. Dickinsfield Operations Committee 2. CapitalCare Research Facilitation Committee 3. Alberta Association on Gerontology (AAG) Edmonton Chapter dinner	· April 24, 2013, Dickinsfield LTC facility · Date to be set · Fall 2013	
CONFERENCES		
1. Canadian Association of Gerontology (CAG) Conference	· Abstract Submitted. Event date: October 17-19, 2013. Locale: Halifax, NS	
2. Inspiring Quality in Continuing Care conference, 2013	· Abstract/Proposal submitted June 3, 2013. Event date: October 8-9, 2013. Locale: Edmonton, AB	
NEWSLETTER SUBMISSIONS (External postings)		
For example: 1. Caring Now (Alberta Continuing Care Association) 2. Alberta RN Magazine AND AB RN Online 3. CARE (College of Licensed Practical Nurses of Alberta) 4. Provincial newsletter, Alberta Association of Gerontology	· 500 - 1000 words in length · *Alberta RN* (spring and fall): invites original articles on new developments in any area of nursing practice, findings from research studies or opinions on nursing or healthcare issues. · CARE explores the emotional and practical realities of healthcare. Published quarterly by the College of Licensed Practical Nurses of Alberta (CLPNA). · Quarterly newsletter focusing on relevant gerontological issues, Calgary chapter news, local happenings and upcoming events.	http://www.ab-cca.ca/submissions http://www.nurses.ab.ca/Carna/index.aspx?WebStructureID=391 http://www.clpna.com/ Email: info@clpna.com

Activity	Notes (Event date, Locale)	Website
INTERNAL Web POSTINGS		
1. Alberta Health Services Insite 2. Institute for Continuing Care Education & Research	· Date to be set	http://insite.albertahealthservices.ca/ www.iccer.ca
FACT SHEETS		
Focusing on: 1. Emerging issues 2. Overall conceptual statement 3. Workforce concepts (working to full potential, staff mix, collaborative practice, and resident/family-centred care 4. Summary of strategies to address emerging issues	· July 2013	
PUBLICATIONS and REPORT DISTRIBUTION		
Manuscripts: Peer-reviewed publications 1. Editor, Health Sociology Review 2. CAG's Canadian Journal on Aging 3. Distribution of Final Report, including submission to AH with PDF'ed site reports attached.	· Submitted March 15, 2013. Received reviewers' comments June 6th. Address comments and resubmit by mid-July, 2013. · Due October 2013 · Core and Advisory team members to identify key stakeholders	
FUTURE PROJECTS		
1. CIHR Planning Grant 2. Explore therapist assistant utilization in continuing care 3. Explore Netcare utilization in continuing care 4. Explore HCA utilization	· Submitted June 16th, 2013. Planning grant related to service models, workforce and HHR outcomes. Will include a stakeholder event to discuss and validate strategies from CC project and identify/brainstorm which strategies to take forward in a concrete way. · Planning stage. Initiating discussions to further explore how therapy assistants are currently being utilized in continuing care settings. · Further examine potential information systems to exchange/retrieve information on residents, such as access to Netcare. · To be submitted to Alberta Health for funding review June 2013.	

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Workforce Research & Evaluation, AHS: http://www.albertahealthservices.ca/wre.asp

Institute for Continuing Care Education and Research (ICCER): http://www.iccer.ca