Balancing Care for Supportive Housing Final Report

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1.0 Introduction

Does supportive housing help keep people out of emergency departments and off the wait list for long term care beds? Does supportive housing help decrease the number of people on the LTC wait list? Do people currently living in supportive housing have similar levels of care needs as those on the long term care (LTC) wait list? To help answer such questions, close to 300 residents living in 11 supportive housing sites in Toronto were interviewed. The findings should help decide whether investments in supportive housing contribute to sustaining the formal health system.

Before beginning, it is important to note that definitions of supportive housing vary internationally and across provinces in Canada (e.g., "assisted living" in British Columbia; "supportive living" in Alberta and "supported independent residences" in Saskatchewan) (Lum et al, 2007, 2006). In Ontario, supportive housing provides older people access to staff who provide comprehensive and coordinated packages of services and programs including the 24-hour availability of personal care and homemaking services as well as ongoing monitoring to note changes in a resident's well-being which require attention. Such services are designed to help individuals maintain their optimal levels of mental and physical health and well-being, encourage independence and provide opportunities for socialization and friendship (Lum et al., 2007, 2006; Supportive Housing Review Steering Committee, 1999).

This project builds on a series of studies conducted by the Balance of Care (BoC) Research Group across 9 Local Health Integration Networks in Ontario (Williams et al., 2009). The BoC research sought to understand why, given similar, relatively high level of needs, some older persons were able to age successfully at home, while others required long-term care (LTC) residential beds. Adapting a framework for analysis initially pioneered by our research partners at the Personal Social Services Research Unit (PSSRU), University of Manchester in the UK, the BoC Research Group used Community Care Access Centre (CCAC) client assessment data to analyze the characteristics and needs of individuals waiting for residential LTC beds.

The BoC Research Group suggested that a significant proportion of individuals already assessed as being eligible for a LTC bed could potentially live safely and cost-effectively at home *if* they had appropriate home and community care packages. It concluded that for the Toronto Central CCAC, for example, only 20% of the 1,600 people on the LTC wait list had levels of care sufficiently high to warrant residential care. Indeed, 35% could live in the community with appropriate community supports and an additional 45% could live in supportive housing with case managed services. The findings varied somewhat in different regions across Ontario but the overall conclusion remained the same: assistance with lower level activities of daily living could considerably decrease the number of people on the LTC wait list. Access to supportive housing could further decrease the number of people on the wait list.

Such results were stunning, particularly since they appeared to reinforce our earlier findings. In *When Home is Community* (Lum et al, 2005), we explored the role of home and community care for two populations of older people, one living in "supportive housing" and one living in

proximate "social" housing in three areas in Toronto, ON. Social housing is publicly-owned housing that provides rent-geared-to income accommodation to low and moderate income households. Previous research found that community support services, particularly relatively inexpensive services such as homemaking, were critical in maintaining the health, well-being, independence and quality of life of seniors whether seniors lived in supportive or social housing. However, our study demonstrated that supportive services were most effective in supportive housing where care managers assessed, integrated, managed and monitored care around the needs of residents. This was especially true for seniors with cultural and language barriers, who, without care management, would face significant barriers to accessing needed services. From a system's perspective, community support services in supportive housing made important contributions to the sustainability of the health care system by anticipating and managing health crises before they occurred, thereby reducing unnecessary hospital admissions, and the number of emergency (911) calls.

On the surface, both the BoC Research Group and the supportive housing research team appeared to arrive at similar conclusions when looking at the issue of where better to provide care for seniors on the margins --those at risk of losing independence. Many of the older people on the LTC wait list whom the expert panel in the Balance of Care project considered "divertible" from institutional care appeared to us to resemble those living in supportive housing. However, given differences in the survey instrument, we could not directly compare the two samples and draw definitive conclusions.

For this reason, we devised a systematic study to compare the level of care needs of supportive housing residents with those on the long term care wait list. The Balance of Care Research Group asked: "What proportion of frail seniors deemed eligible for LTC facility placement could be maintained at home if given access to appropriate community-based care packages including supportive housing?" This study inverted the question to ask: "What proportion of the supportive housing clients currently living successfully in supportive housing would be considered eligible for LTC facility placement?" In other words, if our sample of older people were not presently living in supportive housing where they receive ongoing support services to assist with their daily living, how many of them would also be on the LTC wait list? How do the care needs of supportive housing residents compare with those of clients on the LTC wait list?

2.0 Methodology

Our research team partnered with community service agencies which had existing supportive housing programs in the Toronto Central LHIN and had also received new funding for supportive housing under the Aging at Home program in 2008-9. To enhance the diversity component of the study, we added an ethno-specific agency that provides services to Mandarin and Cantonese-speaking supportive housing residents. Each of the 5 community service agencies provided a list of locations where they deliver supportive housing services and programs, resulting in a total of 11 supportive housing sites.

2.1 Interviews

Between May and August 2008, a team of 10 interviewers – 7 women and 3 men attempted to contact all 392 residents who lived in 11 supportive housing sites. In total, 284 seniors were interviewed. Interviews averaged 60-90 minutes and, with the explicit consent of the respondents, were audio recorded for transcription and analysis. Where required, interviews were conducted in the participants' own language including Hindi, Gujarati, Urdu, Persian, Cantonese, Filipino, Mandarin, Spanish, Greek, Vietnamese, Portuguese, Polish and Russian. Of the 392 supportive housing residents contacted to be interviewed, 72% agreed to participate.

To maximize comparability between our participants and the BoC Toronto Central CCAC long-term care wait list, we embedded in our interview schedule the same BoC composite variables that the BoC Research Group used from the RAI-HC (Williams, Kuluski & Watkins, 2008). The variables from the RAI-HC included:

- Cognitive Performance Scale based on short term memory, cognitive skills for decisionmaking, expressive communication and eating self-performance;
- Activities of Daily Living (ADL) Self-Performance Hierarchy Scale based on eating, personal hygiene, locomotion, toilet use;
- Instrumental Activities of Daily Living (IALD) Difficulty Scale based on difficulties with meal preparation, housekeeping, phone use and medication management;
- Living with someone or living alone.

The BoC Research Group then used these composite variables to characterize each individual on the LTC wait list and created 36 relatively homogeneous needs groups or "vignettes". One example of a vignette is "Davis" who typifies someone living alone, is cognitively intact and functionally independent in all ADLs with the exception of bathing (limited assistance is required). He has no difficulty using the phone, some difficulty managing medications, but great difficulty with IADLs such as meal preparation, housekeeping and transportation. Our interview schedule thus enabled our team to construct "vignettes" or profiles of our respondents according to the same variables used to construct vignettes in the Toronto Central BoC study.

To deepen our understanding, we also included additional questions designed to probe social connectedness, crisis management and diversity specific issues, as well as general demographic information (e.g., age, sex, marital status, ethnic origin and languages spoken). Some of these questions were open-ended, which allowed us to add richness to the responses.

The interviews were initially transcribed verbatim from audio recordings. Each interview was assigned a unique identifier ID, allowing for participants names and identifying features such as apartment numbers to be separated from their interview, thus ensuring confidentiality. Quantitative responses were coded for analysis using the statistical software SPSS. The qualitative data were transcribed verbatim; interviews conducted in languages other than English were translated by research assistants fluent in those languages and transcribed verbatim into English. Transcribed interviews were then coded and analyzed using the qualitative software program NVivo, which facilitated the analysis using common themes derived from the four BoC composite variables and sub-themes identified by previous research (Lum et al, 2005). These sub-themes included ethnoracial challenges, use of emergency services, role of the care managers in supportive housing, caregiving role of family and friends and social connectedness. The qualitative results presented in this study summarized narratives that best represent the dominant themes expressed by many seniors. Conflicting views are also represented so as to provide an accurate description in the range of responses.

After interviewing older people residing in supportive housing, we then interviewed the supportive housing mangers for each of the service providers to determine the costs of care packages for residents with varying levels of care needs.

The research project received ethics approval from the Ryerson University Research Ethics Board. In addition, we received letters of support from all five Community Service Agency providers and the Toronto Community Housing Corporation (TCHC), Canada's largest provider of rent-geared-to income housing, which owns and manages many of the housing sites within which supportive housing providers operated.

2.2 About the Supportive Housing Sites

The following provides a basic description of the supportive housing sites studied. We outline the number of residents receiving services, the services provided, and program eligibility criteria.

Provider 1 is an ethno-specific Community Service Agency providing supportive services to older adults who live in a designated seniors' building owned and managed by Toronto Community Housing Corporation (TCHC).

Number of residents receiving care: 44

Services:

- 24-hour on-site emergency response
- Assistance with personal care (e.g. bathing)
- Assistance with housekeeping, laundry
- Escort to medical appointments
- Interpretation service
- Transportation service
- Case coordination service
- Social and recreation activities
- Health promotion program

Eligibility criteria: The individual must be a current tenant at the building, 55 years or older and assessed by the provider service coordinator to need services.

Provider 2 operates in four supportive housing sites. Three sites are senior designated apartment buildings owned and managed by the TCHC. The fourth site, owned and managed by the service provider, is a cluster care model of bedrooms with common areas in a detached house.

Number of residents receiving care: 139 residents

Services:

- 24-hour on-site staffing/emergency response
- Personal care
- Medication monitoring
- Essential housekeeping
- Dressing and assistance with toileting
- Meal preparation

Eligibility criteria: Must be a tenant in the building and must be unable to perform one or more tasks of daily living.

Provider 3 operates in three supportive housing sites. Two sites are apartment buildings that the service provider owns and manages; the third site is a cluster care model in a detached house owned and operated by a private nonprofit corporation.

Number of residents receiving care: 176 residents

Services:

- 24-hour on-site staffing/emergency response
- Light homemaking
- Personal care
- Meal preparation
- Medication monitoring
- Care management
- Transportation
- Social programs

Eligibility criteria: The individual must be 59 years or older. There is no set criteria for getting supportive housing services but the senior must go through an assessment by staff.

Provider 4 operates in two supportive housing sites in senior designated apartment buildings owned and managed by the TCHC.

Number of residents receiving care: 57 residents

Services:

- 24 hour on-site emergency response
- · Personal care, bathing, dressing, toiletting

- Medication monitoring
- Dressing and/or toileting
- Light housekeeping duties
- Light meal preparation
- Shopping and/or banking

Eligibility criteria: Residents who require 3 or more of the services such as personal care, light housekeeping, light meal preparation, caregiver relief, medication monitoring, safety checks/monitoring, socialization.

Provider 5 owns and manages cluster care units in which older people can access supportive services.

Number of residents receiving care: 49

Services:

- 24 hour on-site emergency response
- Assistance with personal support (bathing, dressing, grooming)
- Assistance with light home making
- Assistance with light meal preparation
- Medication reminders
- Escort to medical/dental appointments
- Help with essential grocery shopping
- Social and recreational programs
- Case management and service referral

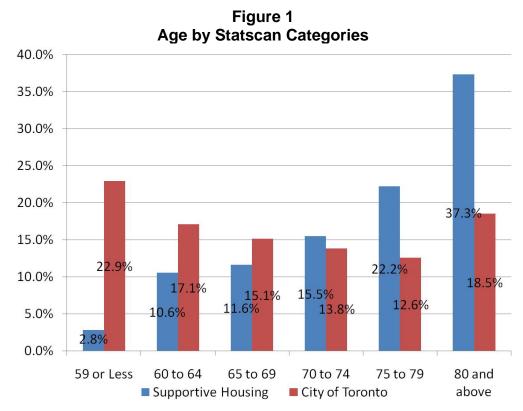
Eligibility criteria: The individual must be 55 years of age or older, have needs that are a result of an illness or condition, physical disability or impairment which can be met by the Supportive Housing Program. Service needs can include social, emotional deficits affecting ADL, functional limitations affecting socialization; visual, hearing, mild cognitive and mobility challenges; individual requiring nursing services on a visiting basis but otherwise medically stable, able to perform ADL consistently with minimal staff direction (1 staff or less) and agrees to be care managed.

3.0 Key Findings

3.1 Demographics Characteristics of our Supportive Housing Sample

3.1.1 More seniors in supportive housing than in the City of Toronto

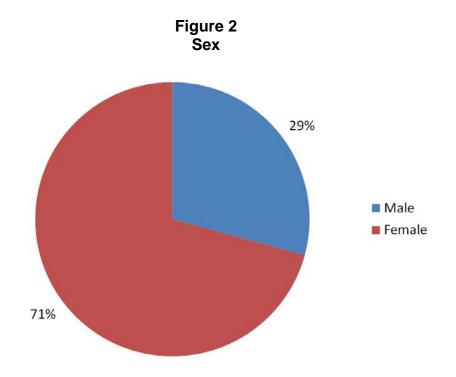
As seen in Figure 1, people living in supportive housing are generally older than people in the City of Toronto.



Using Statistics Canada categories for age, we found that our supportive housing residents tended to be older than the wider population. The majority of our respondents (59%) were seniors 75 years or older, with approximately 37% 80 years or older, double that for the City of Toronto.

3.1.2 More women than men

It is well known that the number of older women is greater than the number of older men in the general population. In Canada, 47% of older people are women while 43% are men, with comparable figures for Ontario (47%, women; 43%, men) and Toronto (58%, women; 42%, men) (Statistics Canada, 2010a).



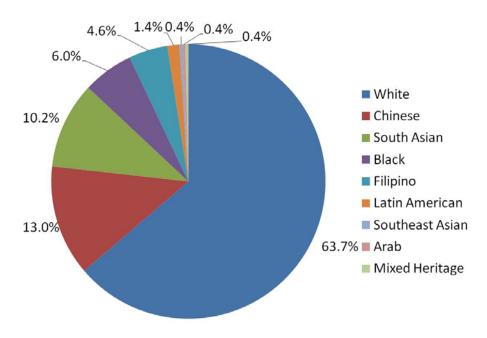
Our figures for supportive housing show a much larger proportion of older women (71%) than men (29%) as compared to the general population. The higher concentration of women in supportive housing than in the general population suggests that affordable rent is a salient factor, as older women tend to have lower incomes than older men. In our previous study we also noted a higher concentration of women than in the general population in both supportive and social housing where rent is geared-to-income (Lum et al, 2005).

3.1.3 Diverse populations

The backgrounds of seniors in our supportive housing sample are reflective of the diversity of the general population of older people in Toronto (white 72%; 10% Chinese; 6% South Asian; 4% Black) (Statistics Canada, 2010b). It should be noted that our supportive housing sites are located in the Toronto Central LHIN which is home to an extremely diverse population.

Using Statistics Canada's categories of visible minority populations, about two-thirds (64%) of our respondents self-identified as white, with Chinese (13%), South Asian (10%) and Black (6%) as the top 3 visible minority categories. Our study also included Filipino (1%), Latin American (1%), Southeast Asian (0.4%), Arab (0.4%) and Mixed heritage (0.4%) seniors.

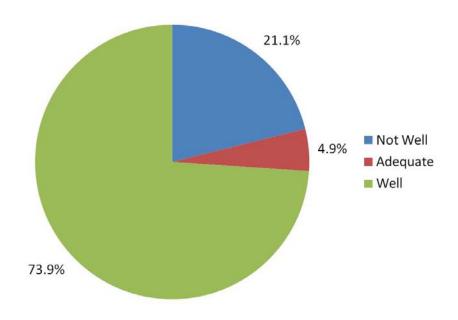
Figure 3
Visible Minority Status by Statscan Categories



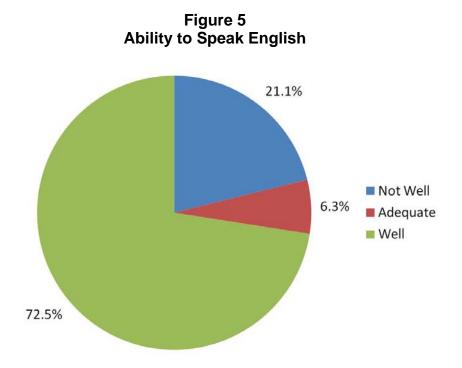
3.1.4 Ability to understand and speak English

Within this broad range of ethnic and racial diversity, most of our respondents stated that they could understand English well, although a sizable minority did not understand English well.

Figure 4
Ability to Understand English



74% reported that they could understand English "well" while 5% said could understand English only "adequately" and 21% said "not well."

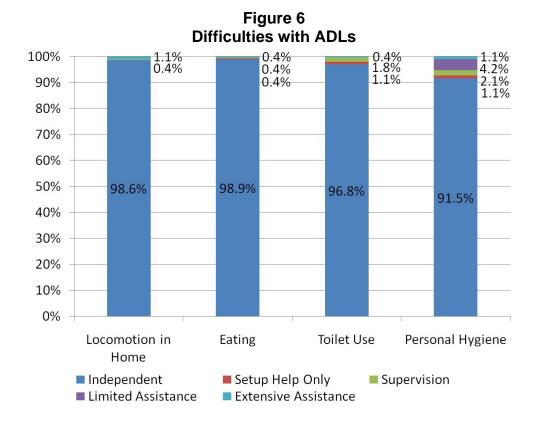


A similar proportion of respondents reported that they could speak English "well" (73%) or "adequately" (6%). Indeed, many of our interviews could only take place in the participants' first language other than English, either by research assistants with language skills or with the help of translators. Respondents who could not understand or speak English "well" came from a broad range of linguistic communities including Gujarati, Hindi, Urdu, Cantonese, Mandarin, Spanish, Greek, Portuguese, Italian, Vietnamese, Eritrean, Polish, German, French, and Russian.

3.2 Difficulties with ADLs

Similar to the BoC study, responses to four questions on activities of daily living (ADLs) - locomotion in home, eating, toileting and personal hygiene – were used to create a composite ADL Self-Performance Hierarchy Scale. The scale gauged the difficulties that older people experienced with ADLs.

About 94% of seniors have low levels of difficulty with ADL, with an additional 6% having medium levels of difficulty. Most all (99%) respondents reported that they were independent and did not require any assistance with moving around at home and eating. About 97% of respondents reported independence in using the washroom while 9% reported needing some assistance with personal hygiene, such as washing and brushing hair.



3.2.1 Locomotion at home: Senior's ability to answer the door

Being able to move around in one's apartment, to open the front door, is a key variable of ADL needs assessment. Most of our respondents were able to move around their apartments independently with many using a broad range of assistive devices, such as walkers, scooters, canes and wheelchairs. As such, opening their front door posed little to no difficulty for the majority of our seniors.

Because mobility is a fluid capacity, its limitation is often rooted in injury, such as a fall or a fractured hip, or in chronic disease such as osteoarthritis, degenerative disc disease, or stroke. Supportive housing arrangements that flex to support seniors as their mobility needs shift allowed seniors to remain independent in their homes.

For example, respondents with severe mobility issues who lived in modified supportive housing units could continue to live independently and meet the criteria of requiring no assistance on this measure. Respondents living in modified units experienced a level of independence they would otherwise not have, that extended beyond the measure of being able to answer the door.

"...I can go to the door but I usually use my [remote control] door clicker to open it. It is just for those in "modified apartments"...The doorways are larger and the bathrooms are much bigger (for scooters and wheel chairs) than the other apartments. Hallways are also wider, so you can drive a wheel chair or scooter. The bedroom doorway entrance is wider too...I like the idea of clusters [with a large public space] – to be able to still live independently. It's the best place I have ever lived in..."

"...There are no cupboards underneath in the kitchen. I can drive my wheel chair or scooter to the counter...the electrical outlets are higher. The fridge has the freezer on the side- it's easier to open and I don't need to not bend down. My stove is built into the counter because this is a modified unit – the other tenants have a regular stove..."

Indeed, where severe mobility limitations and risk for falls once meant placement to some form of long term care facility, supportive housing was able to keep some people living safely in their homes.

While the ability to move independently in the home is an important measure, it does not take into account seniors' ability to move outside their living spaces. While many seniors were able to move inside their home with the use of mobility aids, they were not able to walk to the same extent outside of their apartments, given the current assistive devices and options available to them, particularly around transportation.

3.2.2 Ability to move outside the home

As an instrumental measure, "locomotion" does not take into account seniors' ability to move outside the home. In discussions of mobility, older people often raised the problem of moving around outside their apartments, in their buildings and the wider community. As one participant clarified, "shopping per se is not tiring – it is the walking and walking with a walker that is tiring."

Seniors' ability to move outside the home affected every aspect of their lives-- their ability to travel to medical appointments, attend and benefit from social programs and services outside of their buildings, shop, bank, visit friends and family, and generally stay connected to their cultural communities. Supportive housing staff helped seniors get to where they needed to go, as did friends and family. For example:

"...If I have to go to doctor's appointments I get help from [community agency's] transportation service. There's a car and driver. I can call to take me to the doctor. There's also a community bus that will take me to the mall for shopping. I have so many privileges here. The staff is nice and helpful..."

3.2.3 *Eating*

This variable encompasses the mechanics of eating such as setting up meals, picking up and cutting food and chewing and swallowing. Many of the seniors we interviewed lived with such ailments as arthritis, osteoarthritis, strokes and cancer. Yet most respondents required no supervision or assistance in eating.

3.2.4 Toilet use

As Figure 6 shows, almost all respondents had no difficulties with toileting. Most had paid for raised toilet seats in their bathrooms, which they found helpful. Toilet use difficulties (for those who did have problems) stemmed from mobility difficulties in navigating doorways, and in accommodating mobility aids in small spaces such as washrooms as opposed to cognitive problems. Requiring assistance to the washroom put seniors at risk when help was not available. For example, having to use the toilet at night was problematic for a handful of older people who lived alone. Again, help provided by the PSWs or live-in carers proved critical for staying at home.

"... I need help sometimes going to the toilet. When the PSWs come, they take me. Other times I use my cane and the bars in the bathroom..."

3.2.5 Personal hygiene

Personal hygiene includes aspects such as brushing one's teeth or dentures, and aspects of grooming such brushing or combing one's hair, applying makeup, and shaving. Most of our respondents were independent in these areas and were able to maintain their personal hygiene according to their own standards, independently or with minimal assistance.

"...I try to do most things on my own, like brush my teeth and comb my hair. But on days when I have had difficulties, I wait for the PSW to come and help me..."

While the personal hygiene variable includes a person's ability to wash and dry one's face and hands, it does not take into account needing help with bathing or showering. From our qualitative data, we found that most of our seniors required no assistance once safety bars or bath chairs (variable cost to seniors) were in place. When assistance was needed, PSWs or live-in caregivers mainly monitored seniors or helped with getting in and out of the bathtub or shower to minimize the risk of falls and injuries.

"...She (PSW) helps me with my shower. I have a bath stool, but she helps me get in and out... My knees are weak – so I'm very afraid I will fall..."

"[The PSW] holds the shower over me... I have it twice a week. But I wished I had it every day. A good wash. When I do myself though...well...I just do a sponge bath..."

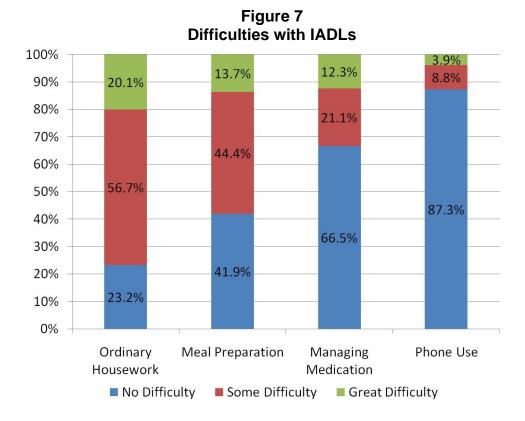
Beyond their instrumental aspects, good grooming, hygiene, and bathing was vital for the dignity and well-being of respondents. As well, assistance with bathing facilitated the culturally and religiously important ritual of abolution among Muslim seniors:

"...He gets bathing assistance from [service provider]. They watch him get in, or help him get in if he needs help. [...]. He does this for religious purposes; he has to bath before he does his prayers every morning. He has a chair in the bath and a bar to help him..."

3.3 Difficulties with IADLs

To maximize comparability, our study used the same questions as the BoC study to assess IADL needs in meal preparation, ordinary housework, managing medications and using the phone.

In contrast to ADLs, approximately, 81% of our sample population reported difficulties with IADLs with 69% of seniors having medium levels of difficulty, and an additional 13% having high levels of difficulty. It was reported that residents relied mainly on supportive housing staff, particularly PSWs, for IALD assistance although family also helped, in managing medication schedules or other intermittent chores.



Looking at the IADL areas that were most challenging, 77% reported difficulty with ordinary housework (57% some difficulty; 20% great difficulty) while 58% of seniors reported difficulty with meal preparation (44% some difficulty; 14% great difficulty). About 33% of seniors reported difficulties with managing medication and roughly 13% reported difficulties making phone calls. The narratives from the qualitative interviews elaborate specific areas of IADL difficulties.

3.3.1 Housework

Most of our seniors found ordinary housework, such as vacuuming, dusting, cleaning, making beds, and doing laundry challenging. Again, PSWs and live-in carers provided important supportive services. Other family members also assisted, although their roles tended to focus more on chores such as assisting with grocery shopping and preparing meals in advance than with daily activities.

Interview materials suggest that getting help in housework went beyond instrumental outcomes: a number of respondents mentioned how they liked a clean and tidy house. It made them feel good about themselves and others around them. A tidy home also contributed to social connectedness as they would feel comfortable inviting family and friends for visits.

3.3.2 Meal preparation

Meal preparation was the second most challenging IADL for our respondents. A little over half of our respondents expressed some degree of difficulty with at least one aspect of meal preparation. Our qualitative interviews suggest that, of all the IADL variables, the greatest family involvement was in assisting with meal preparation. In supportive housing, seniors also

had other options such as access meal programs, PSW assistance, congregate dining, or culturally appropriate Meals-on-Wheels serving ethnic or religiously appropriate foods.

- "...The PSW cooks all my meals. For breakfast I had oatmeal and a glass of milk. For lunch I ate salty, sticky rice, and had veggie soup. For dinner I will have to look at the schedule. (Shows me the meal plans they have set up for each senior in the unit) —See you can just look at the set schedule to see what we are going to eat. They are supposed to be nutritious meals that are planned out for us. They usually schedule our meals for a couple a weeks and send us the plans for each meal. The meals are not always the same and do change often..."
- "... Yes, of course we eat halal [...] and people who organize meals are much aware of our needs and what we eat. So, our tenant representative warns us what food is being served or they label the food. And when they're serving pork or non-halal they would make sure it's kept separate..."

Food preparation does not take into account whether seniors are capable of grocery shopping or carrying groceries home. Here, we see seniors requiring assistance with transportation and with carrying heavy items. Transportation can be challenging not just for seniors with mobility limitations. Many expressed difficulties getting to stores that carry affordable, healthy produce or culturally specific items (e.g., discount grocery stores, ethnic grocery stores) that are on a direct public transit route, or that provides delivery services. Supportive housing sites that provide regular shopping buses are very helpful although the nominal charge can be a barrier.

"...The lady (PSW) does my grocery shopping. I try to go with her because sometimes she might not be able to find the things I am looking for. So I go with her...this helps me with my walking exercise. She can also carry the heavy stuff..."

By and large, older people living in supportive housing were able to maintain their independence with IADL supports. PSW assistance is typically scheduled and planned around the needs of seniors in short allocated time slots. Assistance also flexes according to need, allowing for seniors to remain safely independent in their homes even as care needs increase or decrease.

3.3.3 Managing medications

We asked our respondents how they managed their medications and whether they received any medication reminders. Approximately 2/3 of our respondents expressed no difficulty with remembering and taking their medications as well as knowing the purpose of each medication. One in three of our respondents however, reported some difficulty with managing medications, ranging from ordering medications, refilling prescriptions, knowing what medications they were taking and why, and remembering which medications to take and when.

- "...They [PSWs] put it [pills] out on the table for each of us at suppertime... Sometimes I forget so it is helpful..."
- "...I am diabetic problem is not if my sugar goes too high or low but because of this I can go directly into a coma I have two safety checks a day by supportive housing staff because of my diabetes..."

To take medications safely, seniors must be able to monitor their health status- such as their blood pressure or blood glucose levels. The availability of nursing education and equipment monitoring in their homes allowed them to be self-directed in taking medications for chronic and stable conditions such as diabetes and high blood pressure.

For many of our ethnoracial seniors, language played an important role in their ability to manage medications. Supportive housing staff members with linguistic skills helped to provide translation for seniors.

Help with medications came from many different sources: family, friends, pharmacists, PSWs, case managers all had different roles to play. In particular, seniors have indicated how PSWs and case managers worked to ensure they were getting the right medications at the right time with medication reminders. Although many respondents simply took medications from the bottles, or sorted medications into a daily pill sorter, others had blister packs, which were provided by local pharmacists at additional costs to clients.

3.3.4 Phone use

Most of our participants did not have difficulty using the phone. As discussed earlier, those who did, struggled most with remembering numbers, ameliorated by having phones in memory. As well, seniors with sensory impairments expressed the most challenges, particularly when assistive devices such as volume devices, speaking phones, and large number phones were not available.

- "...Do you see how big the numbers are that I got here? Before I could see them not now. I put stickers where 1, 2, 3 are so I know which buttons to press. I want to be able to live (independently) if I am by myself..."
- "...With my telephone all I have to do is press a button it's all pre-dialing. They [family] put the numbers in memory. So [I] just press one button to call. I don't know how I would manage the telephone if it wasn't pre-dialed..."

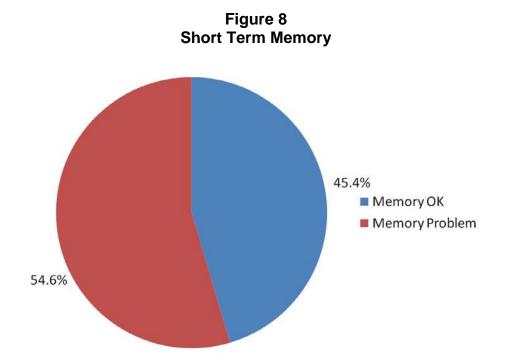
3.4 Cognition

The questions around cognition asked about eating, short-term memory, the ability to organize one's day and the ability to make oneself understood. The responses to each of these questions were used to construct a composite cognition variable that would allow us to compare the cognition level of our supportive housing sample with those on the Toronto Central LTC wait list.

We first present the data on the sub-categories --short-term memory, ability to organize one's day and ability to make oneself understood express themselves. Please note that "eating" is reported above in Section 3.2.1. We then present the results of the composite cognition variable.

3.4.1 Short term memory

According to our survey results, slightly more than half of our respondents (55%) were deemed to have short term memory problems.



Deficits in short term memory affected people most profoundly in performing IADLs independently and safely. Examples included forgetting phone numbers, appointments and more seriously, when to eat, take medications, or turn off the stove.

"...I can feel my memory going...it's sometimes difficult to remember even the most common routines...I'm talking, and suddenly, I'm reaching for a word. I go into a room for something and come back out and ask, 'What did I go in there for?" ...Now I know everyone experiences that --not just seniors. But when you feel it actually happening to you, those well worn routines slipping away, it can be disconcerting..."

Family members, PSWs and other supportive housing staff all helped seniors to cope with memory loss. Here's what our seniors had to say about their forgetfulness, the people who help them, and the effects on their lives:

- "...They [supportive housing office] call and say: "have you eaten yet?" They call every night at 8pm..."
- "...She [PSW] is here to remind me to take my medication. I have to take it 3 times a day. She chops the pill up small so I can swallow it with water. I take it an hour before [lunch] or two hours after. I can't remember what the pill is for; she comes to remind me to take it..."
- "...I can't remember my address, so I carry this card to show the taxi driver..."

3.4.2 Organizing one's day

As illustrated below, most of the older people in our supportive housing sample (87%) reported that they could plan and organize their day by themselves. An additional 10% required only a very low level of assistance.

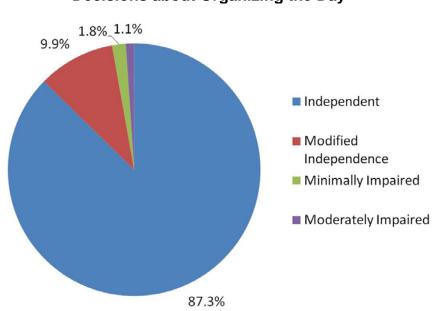


Figure 9
Decisions about Organizing the Day

Planning and organizing the day was not problematic: no help was required for simple decisions such as when to eat, sleep, go out for a walk, see friends or book appointments. In this sense, while some expressed the luxury of not having to plan each day in advance, others preferred to plan their time. Both cases reflected deliberate decisions.

- "...I don't really have a specific schedule of what I do... Well, I don't really plan my day until each day comes. If I feel like it I'll have dinner..."
- "... I go to cultural, art and music shows. I go for public lectures, opera shows and cinema... I plan whatever I like... Every night I like to have something planned.

Despite requiring help and assistance in many IADLs, most of sample were supported by the flexibility of supportive housing living arrangements and were able to maintain well established routines that suited their lifestyles, preferences and needs; they tended to organize their days around the scheduling of care providers and any programs they might attend.

"...I have my paper, read, have breakfast, sometimes I go back, lay back down for a bit. Get dressed, after the girl's (PSW) done. When they phone I'm still in my pajamas when they come in. When they go, I decide, 'Well am I going to go out? Am I going to go down to the front?"

"... I get up at 7:30 am. If I'm going out I get dressed, get my pills and then take them. I get my breakfast. Then, depending on where I am going I wait for Home Help..".

For some of our seniors, planning and organizing their days was more complex, requiring them to take into consideration factors such as coordinating transportation with appointments or programs. In this regard, they found care managers especially helpful.

- "... Yes I have a worker from [the local agency] who helps me put things into place. She helps me file things for the ODSP and puts me on the waiting lists for housing. She's a phone call away ... If I have something to ask her, I phone her..."
- "...I have a social worker help me. If I have an appointment or need a ride to the hospital or something or I have an appointment I phone her. And she comes... She's a great one. She comes to the hospital. I'm careful not to call her any more than I have to..."

Seniors with spouses expressed the need to organize their days around each other's care needs.

"...We get up and relax. Sometimes I go to my program and he goes to his. If he's not well, I'll stay with him and if I'm not well, he'll stay at home..."

3.4.3 Making self understood

For the most part, our respondents (89%) had no difficulties making themselves understood. About 5% were able to express themselves, albeit slowly, with little to no prompting by the interviewer. Only 5% were unable to express themselves unless prompted by interviewer to most of the time.

Figure 10

Making Self Understood

4.6% 1.1%

Understands

Usually Understands

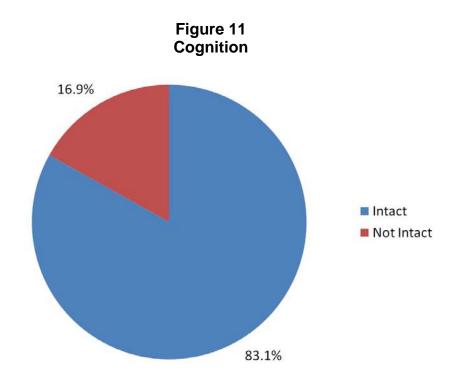
Often Understands

Sometimes
Understands

20

3.4.4 Composite cognition variable

The responses to the questions around eating, short-term memory, the ability to organize one's day and the ability to make oneself understood were then used to create the same composite cognition variable as the one used in the BoC TC CCAC study. As can be seen from the Figure 11 below, most (83%) of our respondents were cognitively intact.



It should be noted that while a little over half of our respondents had difficulties with short term memory, a deficit on this variable alone was not a sufficient condition for a cognitively "not intact" score. Respondents were considered "not intact" if they had deficits on at least two variables (e.g., short term memory problems and reduced ability to make decisions about one's day; or short term memory problems and reduced ability to make oneself understood).

3.5 Living Alone

As can be seen in Figure 12 below, 75% of respondents lived alone and did not have a live-in caregiver. Those who were not alone lived mostly with a spouse or life-long partner.

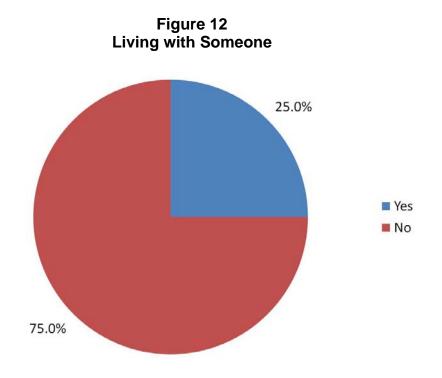
"...We get up and relax. Sometimes I go to my program and he goes to his. If he's not well, I'll stay with him and if I'm not well, he'll stay at home..."

Seniors with spouses as live-in caregivers expressed the need to organize their days around each other's care needs.

- "...I can manage my medications on my own; [I] help [my wife] with the medications. They have it in a blister packs so it easier for the [me]. She can't recall names, numbers, or places..."
- "...he can take of his medications by himself, but when they start to get low, then I order them... I don't know if he would be able to do that on his own if he had to..."

Seniors made a distinction between living alone and being lonely. In supportive housing, they did not feel lonely even while they lived apart from family. Friendships developed among neighbours who became part of one's social support networks. Respondents almost unanimously welcomed the freedom and independence that came with having "their own space" and the flexibility of supportive housing help.

- "...living alone, you can take certain liberties with what you do than if you lived with other people..."
- "...I live alone in this room; but this house also has eight other seniors. But we have staff staying here 24 hours and 7 days. They make meals, clean, and look after our needs...it's pretty nice..."
- "...I'm happy because things don't bother me -- I can just go to my apartment and close the door- to be left alone..."



Seniors also talked about the security for them and their families knowing that while they were living alone, they were also being monitored and assessed by supportive housing staff, as well as by friends in the building.

"...[I] press the emergency button and [supportive housing staff] will come to see me.

Otherwise my kids won't allow me to stay here alone here. They all want me to stay back with them, but I can't- I have others here. [...] I love here. And so they say, 'we worry,' but I say 'I'm fine.' So they stay here with me and they judge, and see everything, then they say 'O.K.' and let me stay here ..."

3.6 Who Do You Call in an Emergency?

We asked three questions of our participants: 1) If you experienced a medical emergency during the day, what would you do? 2) What would you do if you experienced a medical emergency at night? 3) Are you confident you will get help in an emergency situation?

About 47% of seniors in our study indicated that they would call 911 if they experienced a medical emergency during the day; 30% would opt for the supportive housing provider through the Emergency Response System while approximately 20% would contact family, friends, or neighbours. It should be noted that not all residents had an emergency response button since it is an extra feature to which seniors had to subscribe.

- "...I gotta watch, I'm on a limited income... I have things I have to pay right up front; the rent is the very first... [The emergency button] costs about \$35 a month so it's something I have to think about...."
- "...I ask myself, 'Do I have enough money for this [emergency button] after essentials such as rent and food are taken care? Is it worth it? Maybe it's just as comforting to know that I can dial 911...and cheaper too..."

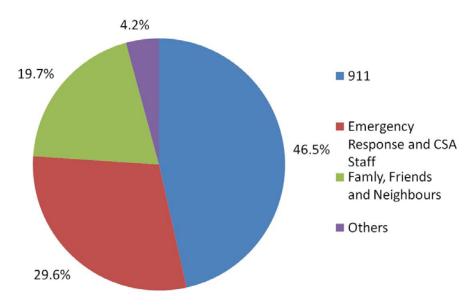
Residents who had emergency buttons were pleased that the button connected them quickly to on-site staff.

"...Very efficient. As soon as you press the button, they come and see what the problem is. Even if it is an accident they respond right away, and if you do need help, they will send it quickly..."

One respondent, whose choice was to contact the PSW explained how the system in their building worked.

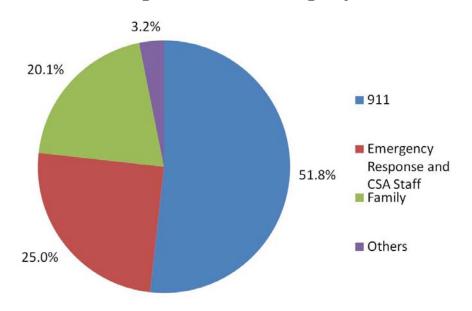
- "...When I press any of the [emergency] buttons it not only lets the PSWs in this unit know, but also notifies the other PSW in the other unit. So just in case the PSW here is on break, the PSW in the other unit would be able to come over and help us. Also besides this button there is an emergency watch and an emergency telephone that we can press. So it is really good..."
- "...we know they answer right away because we've tested it... um... they answer right away and they say 'Can we help you?' and we say, 'we're just testing' ... but if you did need them, they'll come right away..."

Figure 13
Daytime Medical Emergency



The picture changed slightly at night where 52% of respondents would call 911 if they experienced a medical emergency with 25% choosing the Emergency Response option and the supportive housing staff. Approximately 20% indicated that they would phone family, friends, or neighbours.

Figure 14
Nighttime Medical Emergency



Residents who did not have emergency buttons did have access to a 24/7 phone number which would connect them to supportive housing staff during the day and night. Here, residents thought it wise to call 911 at night.

"... I would call 911 at night-- it's about the best. We don't have anyone here at night so there's no one in any of the buildings who can come quickly..."

In a crisis situation, the ability to be understood featured prominently in our respondent's decision making. Where language mattered, clients tended to go to where they felt they could be understood as a first response. If respondents spoke English well, 50% opted for 911, 25% opted for supportive housing staff/ 24-hour emergency button, and 20% contacted family, friends or neighbours. As their capacity to communicate in English diminished, more respondents turned to supportive housing staff (33%) and friends, family, or neighbours (33%) as their first response.

- "... I would call my family [first] because I don't know English. [....]. The staff here speak only English..."
- "... I would call downstairs to the [supportive housing] office. Staff are Chinese. They will understand..."

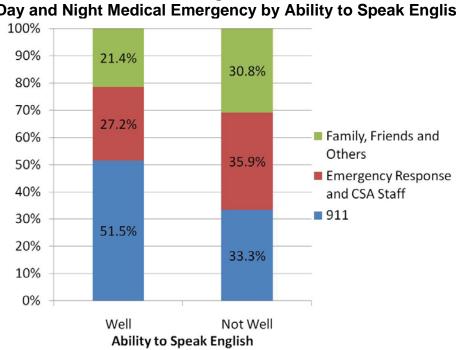


Figure 15 Day and Night Medical Emergency by Ability to Speak English

The ethno-specific supportive housing provider stood out in its ability to manage medical emergencies while minimizing unnecessary 911 calls. Here we note a dramatic difference where 85% in the day and 90% at night said they would use their emergency response button to call on-site staff as opposed to calling 911. Figure 16 and Figure 17 show patterns of emergency responses for daytime and nighttime medical emergencies.

Figure 16
Daytime Medical Emergency: Ethno-Specific Provider

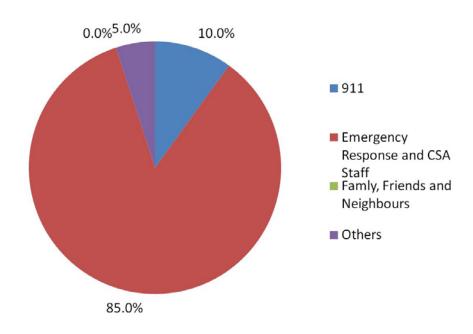
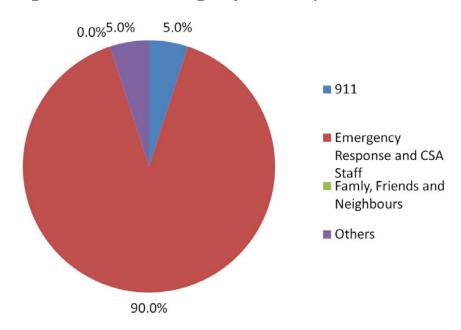


Figure 17
Nighttime Medical Emergency: Ethno-Specific Provider



Clearly, language did make a difference; however other factors were also important. Aside from the language compatibility, residents used their emergency response button because they felt the supportive housing staff knew their medical history and care needs, and also knew how to contact family quickly, if necessary. Residents reported that they have participated in many workshops which told them how to use the button, when to use it and

why it was important to use it in emergency situations. Residents believed that they did not have to pay extra for the emergency button.

4.0 Discussion

4.1 What proportion of our supportive housing sample would be considered eligible for LTC facility placement?

Recall that one objective of this research was to compare the people in our supportive housing sample with those on the LTC wait list of the Toronto Central CCAC. According to our data, everyone in our sample could belong to one of the 36 possible vignettes on the TC CCAC LTC wait list as analyzed by the BoC research Group. All the older adults in our supportive housing sample would be considered eligible for LTC facility placement.

Figure 18 below shows the comparative frequency of vignettes by the BOC variables for our supportive housing sample and the TC CCAC LTC wait list. The most common vignettes in our sample included Davis (49%) and Copper (9%), Fanshaw (5%), Vega (8%), and Wong (3%). Note that the vignette of "Copper" is similar to that of "Davis" in all respects except that "Copper" has a live-in caregiver who provides advice/emotional support and some assistance with IADLs. While these seniors varied in IADL needs, cognitive capacity, and caregiving arrangements, they all shared the quality of having low ADL needs. The most common vignettes in the TC CCAC BoC study included Davis (16.7%) and Copper (4.5%), D. Daniels (10.5%), I. Innis (10.4%), J. Johns (9.6%) and C. Cameron (6.4%).

Our supportive housing sample also included other prototypes with higher level of care needs such as Jones (1%) and Lambert (1%) both of whom have medium to high ADL and IADL needs; and Xavier (1%) and C. Cameron (1%) who were cognitively not intact individuals with medium or high ADL and IADL needs.

The Toronto Central CCAC BoC study concluded that vignettes such as Copper, Davis, Fanshaw, Vega, or Wong were divertible under a line-by-line service package. Other prototypes like Jones, Lambert, with medium to high ADL and IADL needs, or Xavier and C Cameron (who were cognitively not intact and had medium or high ADL and IADL needs) were considered divertible to supportive housing. These 9 vignettes accounted for 50% of the Toronto Central CCAC wait list in the BoC study but fully 77% of our total sample of supportive housing respondents.

Figure 18 Frequency of Vignettes

	BoC Variables				Total (by percent)	
BoC Vignette	Cognition	ADL Needs	IADL Needs	Live-in Caregiver	Supportive Housing	TC CCAC LTC Wait List
Appleton	Intact	Low	Low	Yes	8.8%	0.3%
Bruni	Intact	Low	Low	No	8.8%	1.7%
Copper*	Intact	Low	Medium	Yes	8.8%	4.5%
Davis	Intact	Low	Medium	No	48.6%	16.7%
Eggerton	Intact	Low	High	Yes	1.4%	2.1%
Fanshaw*	Intact	Low	High	No	4.6%	5.0%
Jones	Intact	Medium	Medium	No	0.7%	2.6%
Kringle	Intact	Medium	High	Yes	0.4%	2.0%
Lambert	Intact	Medium	High	No	0.7%	3.7%
Quinn	Intact	High	High	Yes	0.0%	2.6%
Rogers	Intact	High	High	No	0.0%	4.6%
Vega*	Not Intact	Low	Medium	No	8.1%	3.3%
Wong*	Not Intact	Low	High	Yes	2.5%	3.1%
Xavier	Not Intact	Low	High	No	1.1%	4.9%
C.Cameron**	Not Intact	Medium	High	Yes	1.4%	6.4%
D.Daniels**	Not Intact	Medium	High	No	0.0%	10.5%
I.Innis**	Not Intact	High	High	Yes	0.4%	10.4%
J.Johns**	Not Intact	High	High	No	0.4%	9.6%

Table only includes cells populated by at least 2% of sample

The most common vignette in both groups – Davis, is bolded

Our study suggests that supportive housing is fully capable of maintaining the independence of a significant portion of seniors who might otherwise be destined for institutional care. Surprisingly also are the seniors from vignettes characterized by fairly high levels of care needs (e.g., C. Cameron, I. Innis, J. Johns) who make up 2% of our total sample. Some supportive housing sites which operated under the philosophy of "doing whatever it takes" to keep people in their homes were willing to flex and stretch their capacity under very specific circumstances to keep from institutionalization even those with fairly high care needs. We will return to this point in our discussion on "costing" in Section 4.6.

4.2 What assistance do older people need: IADLs vs. ADLs?

In the BoC study, IADL needs topped the wait list driver in all regions. The inability to access and readily coordinate and integrate IADL community support services for clients in their homes often led case managers to substitute upward, that is, to use costlier alternatives such as placement in residential LTC beds to ensure adequate supportive services and client safety rather than less expensive community home (Williams et al, 2009).

^{*}Light Grey = Most common vignettes in supportive housing sample

^{**}Dark Grey = Most common vignettes in TC CCAC LTC Wait List

In the quantitative data, IADLs referred to ordinary housework, meal preparation, managing medications and phone use, following CCAC assessment criteria. However, in our qualitative interviews, respondents pointed to other IADLs that added to the complexity of needs and challenges for independent living. These included transportation outside the home, shopping and carrying groceries, banking and completing forms.

Approximately, 81% of our sample population said they had difficulties with IADLs with 70% of seniors having medium levels of difficulty, and an additional 12% having high levels of difficulty. It was reported that supportive housing staff, particularly PSWs provided the bulk of IADL assistance although family also helped, particularly in weekly shopping, preparing meals or managing medication schedules.

In contrast, our supportive housing respondents needed minimal help with ADLs. A little over 90% of respondents disclosed that they did not require any assistance with locomotion, eating, toileting and personal hygiene. Those who required assistive devices or had mobility limitations enjoyed living in the modified units within supportive housing.

In many cases, service providers also played a key role in helping seniors with mobility outside the home. Seniors told us about the many ways in which supportive housing, in conjunction with other travel and transportation options, helped them to move about in the community to shop or attend medical appointments. Access to transportation was also critical for seniors' participation in socialization activities so they could stay "connected" to others.

4.3 Recognizing and anticipating help with declining cognition

Cognitively, most seniors in our sample were relatively intact. About 90% of the sample population could manage their day and express themselves clearly. However, more than half had problems with short term memory. A decided advantage of living in supportive housing is the availability of monitoring. PSWs and case managers who come into regular contact with residents provide ongoing monitoring which can identify when declining memory may become unsafe (e.g., forgetting when to eat, take medications, lock doors, turn off stove, go to medical appointments, etc). Consultations among PSWs, care managers and other health professionals may lead to revising a resident's care plan to ramp up reminders, safety checks, participation in special programs and exercises as memory declines.

4.4 Did supportive housing help reduce 911 calls and unnecessary emergency department visits?

It depends. The most effective use of the in-house 24-hr emergency response system was in the supportive housing site with an ethno-specific provider where 90% used their emergency button as opposed to calling 911 (See Figures 16 and 17 above).

This was because:

- Everyone was equipped with an emergency response system.
- Residents believed that the emergency response system was included as part of the supportive housing package and not an added expense --a disincentive for older adults on fixed incomes. In fact, it was covered by the resident's children or waived in situations of financial hardship.
- There was extensive, linguistically appropriate training and education conducted among residents regarding how to use the on-site emergency response button and the benefits of it. Training was repeated frequently.
- Service providers were on-site 24/7. Residents knew exactly where to find them in the building, and thus, felt confident in getting help quickly.
- On-site service providers spoke Cantonese or Mandarin, were familiar with residents' health conditions and were highly visible.
- Residents said that they have experienced quick responses in the past. So, they trusted the emergency response system to bring help more swiftly than 911.

The overriding disincentive for older adults on fixed incomes is the approximately \$20-\$30/month additional cost for an emergency response system. Where residents believed that the 24-hr emergency response service was an added cost, almost half of elected instead to use 911 both in the day (47%) and at night (52%) rather than to subscribe to the service.

Residents in our supportive housing sample elected to use 911 because:

- The cost of an emergency response system would further strain the resources of older people on fixed incomes whereas "911" was seen as a "free" service.
- Providers counselled residents to call 911, knowing that they did not have emergency response buttons. Posters in the hallways reinforced this message.
- PSWs or managers were not on-site 24/7 at night. Residents were given a phone number
 of a supportive housing staff to call in case of an emergency. Yet, residents felt that 911
 would provide a surer and faster response than calling the emergency phone number.
- Residents lacked experience, training and hence, confidence in the ability of the supportive housing provider to respond quickly.

In addition to potentially minimizing 911 calls, our qualitative data suggest that PSWs may also contribute to reducing inappropriate ER visits even when 911 is called.

- "...I had a diabetic episode at lunch...I just keeled over the lunch table in front of everyone...the PSW called 911 and ambulance came right away but I didn't have to go to the hospital...the paramedic stabilized me and knew that I'd be OK since there was someone watching me..."
- "...I walked into a beehive that was on my balcony. I was stung and had trouble. I phoned the supportive housing staff they came right away and they called 911 because of my severe allergy to bees. But supportive housing staff took care of me...I didn't have to go to the hospital...and they removed the bees right away..."

A valuable system level lesson here is that subsidizing the cost of a 24-hr emergency response service in supportive housing coupled with linguistically appropriate training for staff

and residents can potentially minimize unnecessary 911 calls and inappropriate hospital emergency room visits.

4.5 Challenges of increasing diversity

The diversity of seniors living in supportive housing and their varying levels of English language proficiency pose serious challenges to providers trying to offer community support services. While 74% said that they could understand English "well," 26% were not as well versed in English. Respondents noted that the lack of English language fluency acted as a barrier to getting connected to services and programs.

Community service agencies, sensitive to the importance of language and culture in connecting clients to needed services, have become proactive in recruiting care managers and PSWs from diverse backgrounds augmented by volunteer translators. Nonetheless, in emergent communities, finding staff with appropriate language and cultural skills is not easy. As a result, seniors who cannot communicate readily with PSWs or other supportive housing staff may find themselves increasingly isolated. More importantly, they may be missing the very important monitoring oversight. As many have suggested, homemaking is not simply homemaking; it is also about checking up on changes in the client's mental and physical well-being that may require attention. When staff does not speak the same language as clients, this component is lost.

"...she comes in and does the housekeeping, but I can say nothing to her. I can't ask her to do this instead of that...I can't ask her about anything. She comes, does her job and goes...she helps...that's good, but it's frustrating that we can't talk..."

In addition, residents may not have access to culturally appropriate social programs for which the demand may not be great enough for supportive housing providers to mount. Our previous research also suggests that emergent communities in contrast to established communities tend not to have the resources to deliver ethno-specific programs (Lum &Springer, 2004).

4.6 What does it cost to support people with different levels of needs?

An important piece of the Toronto Central BoC study involved asking an expert panel from across the continuum of care to determine the most appropriate service package for a prototypical client belonging to each of the 14 most common vignettes on the LTC wait list and then, to cost the individual service packages. The purpose of the exercise was to see how many wait listed older persons could be "diverted" safely <u>and</u> cost-effectively with appropriate community support services.

Figure 19 below shows the expert panel's cost estimates for the most common vignettes. The estimates suggest that approximately 50% of the Toronto Central CCAC wait list (Copper, Davis, Fanshaw, Vega, Wong Jones, Lambert, and C. Cameron) could, with appropriate services, either line by line or within supportive housing, stay at home safely and cost effectively as compared to a LTC facility.

Figure 19
Cost for Selected Vignettes in the Toronto Central CCAC BoC Study

BoC	Supportive Housing	Line by Line	Long-Term Care
Vignette	(per client/day)	(per client/day)	(per client/day)
Copper	\$19.7 – \$38.4	\$29.5	\$79.8
Davis	\$42.8 – \$61.6	\$41.1	\$79.8
Fanshaw	\$45.5 - \$115.0	\$43.8	\$79.8
Jones	\$60.9 – \$67.9	\$137.0	\$79.8
Lambert	\$84.9 – \$245.8	\$169.6	\$79.8
Quinn	\$85.2 – \$100.7	\$196.0	\$79.8
Rogers	\$86.1 – \$334.0	\$192.2	\$79.8
Vega	\$71.4 – \$116.4	\$72.9	\$79.8
Wong	\$61.3 – \$72.9	\$80.5	\$79.8
Xavier	\$71.8 – \$171.2	\$158.1	\$79.8
C. Cameron	\$61.4 – \$76.1	\$161.1	\$79.8
D. Daniels	N/A	N/A	\$79.8
I. Innis	\$65.7 – \$90.2	\$256.3	\$79.8
J. Johns	N/A	N/A	\$79.8

In our study, the supportive housing providers had difficulties replicating this costing process. Nonetheless, they attempted as much as possible to approximate a costing exercise. To begin, it should be understood that service providers receive Ministry funding for **core** supportive housing services, that is, homemaking/ personal support services.

Thus, someone like Davis could receive 2 hours/ week of homemaking services costing approximately \$22. However, the provider could add other needed services such as congregate dining, social and recreational programs, transportation, meals-on-wheels, shopping assistance. These services would be covered in a number of ways including sliding scale user fees, fundraising, donations, volunteers and synergies with other programs provided by the agency. Using this process, providers estimated that the cost for Davis would be approximately \$40 per day. Clients who resembled Fanshaw, Vega and Wong, all of whom had medium to high IADL needs but low ADL needs might approach \$70 per day.

In the BoC studies, care managers strongly emphasized that the system must support older person and their carers who were likely themselves older adults requiring care. Contrary to expectations, the cost package for those with live-in carers was higher (not lower) than for those living alone to allow for the needs of the carers. In our study however, providers did not factor the needs of carers into the costing exercise, unless they too had been assessed as requiring care. Providers agreed that including both clients and their live-in carers as the unit in the assessment process would make sense and allow for much needed respite as in the following situations.

"...Only now have I slowed down, because of my wife. That's why I'm seeking more help for us...My wife is very sick, but she doesn't want to miss any of the functions ..."

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"...I can help myself and I help my wife...I do most of the chores around the house. She has Alzheimer, so she ill and I have to take care of her. I cook and clean. I also help her in getting dressed. And before she goes to Jammat Khana (mosque), I help her with shower and getting dressed. The PSW comes twice a week and helps her with bathing (scrubs her and cleans her properly) and she cleans around... I take her out for walk, you know to the mall or shopping. I take her to doctors..."

Generally speaking, providers cautiously and repeatedly emphasized the element of flexibility in their "costing" estimates to match the flexibility in their clients' needs. To clarify, they offered the following examples.

- When dealing with "real life" situations, clients' conditions are not static and so Davis can quickly become Vega or Lambert (high IADL, medium ADL, cognitively intact) depending on changes in health conditions. Providers can enhance the care package for some individuals either temporarily or permanently, depending on the mix of client needs in the supportive housing site. For example, if each client were to have a maximum of 10 hours per week, and the average number of hours is about 7.5 hours for each senior, there is room to increase the hours for some who require more care. The client would be reassessed, and if approved, receive greater hours of care.
- Clients belonging to high needs "vignettes" can also have acute health episodes that can also be managed on a short term, ad hoc basis.
- Multiservice agencies often have the capacity to provide programming on site that would reduce the need for transportation and escorting, thereby lowering costs.
- The ability of PSWs to multitask during their time with clients also reduces costs by minimizing travel costs. One unit of housekeeping may be spread across the day and coincide with other activities (e.g., monitoring, medication reminders or safety checks).
- To maximize cost effectiveness in supportive housing, providers require a mix of clients with different level of care needs (i.e., belonging to different vignettes). As can be seen in our data, supportive housing did maintain individuals with relatively high level of care needs, but these were exceptional cases rather than the rule. For example, providers could "divert" people like J. Johns from a LTC facility if their care needs were temporary, or, if their care needs were counterbalanced by a majority of other residents who had lower levels of care needs.

Our study reinforces the findings of the series of BoC studies conducted across Ontario. The similarities in characteristics of residents currently living in supportive housing and those on the LTC wait list demonstrates that investments in supportive housing pays off in "diverted" people from the wait list. The policy implication for aging at home strategies is that supportive housing and cluster care may allow for more cost-effective use of resources than providing service line-by-line or in a LTC bed (Figure 19). The "mix" in the demand of clients and the capacity of the supportive housing provider is a critical factor. Another policy implication is that any ramping up of the needs levels of residents in supportive housing, which tips the balance in the mix of care, needs to be matched by ramping up the capacity of providers.

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