Valuing Home and Community Care

November, 2010

S. VanderBent & B. Kuchta
Community Providers Association Committee
The views and opinions of the authors expressed herein do not necessarily represent the official findings, views or opinions of The Boston Consulting Group.

The views and opinions of the authors expressed herein do not necessarily represent the official findings, views or opinions of The Change Foundation.
EXECUTIVE SUMMARY

In 2009 the home and community care sector in Ontario, in partnership with The Change Foundation¹, retained The Boston Consulting Group² to conduct an economic value project to demonstrate both the net and real value (or savings) created by the home and community care system in Ontario. Using a Cost of Illness (COI) approach, the net impact of a $48M investment in home and community care was $13M in overall savings to the healthcare system for the sample population per year. Extrapolated for all frail elderly Ontarians within the stated parameters, the net provincial savings was estimated to be $150M per year.

The results of the project revealed clear value creation not only in direct, quantifiable systemic value, but also in economic terms and human value – areas often considered “intangible” and difficult to measure, but which offer significant financial and societal reward. Key findings were that from a system value perspective, home and community care provides a flexible option that can integrate not only paid staff but also volunteers and family caregivers³, while requiring low overhead and infrastructure investment.

From a direct economic value perspective, this model demonstrates that home and community care avoids more costly care in other settings. Even when including the economic impact on productivity as a result of the reliance on family caregiving to support the delivery of home and community care, the return on investment in home care is significant.

The home and community care collaborative has generated a significant analysis of costs and has laid the foundation for future study to demonstrate the effectiveness and efficiency of the home and community system within the broader health continuum in Ontario.

¹ The Change Foundation is an independent health policy think tank, intent on changing the healthcare debate, healthcare practice and the healthcare experience in Ontario. Established and endowed in 1996 by The Ontario Hospital Association, The Change Foundation is an independent charitable foundation with a mandate to promote, support and improve health and the delivery of health care in Ontario. For more information – www.changefoundation.ca

² The Boston Consulting Group is a global management consultancy with extensive experience working in public and private healthcare sectors. For more information – www.bcg.com

³ Family caregiver is the term used to represent individuals who provide care and assistance for their family members and friends who are in need of support because of physical, cognitive or mental health conditions – per the Ontario Caregiver Coalition (2009) Policy Options for Inclusion in the Pre Budget Submission, Ontario Budget 2009
Our growing, active senior population is a testament to a progressive health care system and to our success as a society. Seniors play an invaluable role in their own families and contribute significantly to the social fabric of their communities. Most, if not all people, wish to remain independent at home for as long as safely possible. However, growing numbers of seniors will be challenged by life-long illness and/or disability and will need additional care and support to realize their aspiration to stay in the community. Proactive care in the home has been proven to be effective in supporting seniors to avoid the need for additional health care, and as a result, community based health care stakeholders advocate for shifting health care delivery to the home setting.

Home and community care is markedly different, in both structure and delivery, from the institutional sector. Established in Ontario in 1970, it is a relatively new component of the health care system that is publicly funded, but not publicly insured. Unique to home care is the status of the health provider as a ‘guest’ in the care recipient’s home. Providers must be sensitive to balancing client autonomy and rights with the requirements for supporting safe working environments for staff. Staff is mobile and primarily connected to other members of the health team through virtual mediums.

This paper presents the findings from a jointly funded study, the Valuing Home and Community Care (VHCC) project, which was funded by The Change Foundation and the Community Provider Associations Committee (CPAC).

Determining where and how the health system allocates resources, and responsibly balances that investment, was the basis for the Valuing Home and Community Care (VHCC) project.

The project provides an independent assessment and creates an economic model of the role and value of publicly funded home and community care. The findings confirm the assertions that keeping seniors at home can be both cost and care effective. Recommendations are provided to:

• use this important work to support further continued investment in the sector
• initiate policy changes to support the creative solutions necessary when working within the privacy of a person’s home
• use the model to serve as the basis for future study and collaboration across the health system in order to understand how best to tip the balance of care to the community.

Home care services help people with a frailty or with acute, chronic, palliative or rehabilitative health care needs to independently live in their community and co-ordinate and manage an admission to facility care when living in the community is not a viable alternative. While most home care recipients are elderly, there is a wide range of caring situations which involve children and young adults.

---

8 CPAC is composed of the OACCAC (Ontario Association of Community Care Access Centres), APACTS (Alliance of Professional Associations for Community-based Therapy Services), OCSA (Ontario Community Support Association), OHCA (Ontario Home Care Association), OACRS (Ontario Association of Children’s Rehabilitation Services) and CHCPN (Community Healthcare Providers’ Network). For a brief history of the CPAC see Appendix 1
Meeting the needs of the aging population in the context of increasingly stretched health care budgets challenges every jurisdiction in Canada. In Ontario, successive governments have maintained home and community care funding at four to six percent of total health care expenditures.9 10 11 With increasing pressure to protect the acute care sector from inappropriate utilization and congestion, home care services have been increasingly used through government funded programs to address the needs of post-acute care patients. An impact of this strategy has been diminished resources for those frail elderly with longer term, lower acuity needs, including seniors who are at risk of loss of independence or “at the margins” of requiring institutionalization.12

With the loss of supportive or maintenance care in the home, many of these ‘frail elderly’ experience a serious health event requiring emergency care. From emergency, the frail elder is typically admitted to acute care for observation and assessment as a person with frailty of aging has multiple health problems which cannot be ignored.13

The frail elderly are heterogeneous and their response to treatment and medication is unpredictable.14 Because of the complexity of care required and concern for the individual’s ability to cope on their own, discharge planning is compromised and the elder remains in the high ‘care intensity’15 hospital setting as an ALC patient. The most common trajectory for seniors who are designated ALC in hospital is to a long term care facility. This is largely because seniors and their families often lack knowledge about the range of resources available to care for the elderly in the community.

The VHCC project provides evidence to substantiate the provincial government’s stated policy goal and related investment to provide health care closer to home and ensure that Ontarians receive the right care at the right time in the right place.16 The study was designed to provide evidence of the true value of the publicly funded home care and community care system for Ontarians and to substantiate and support the efficiency, in both human and system terms, of providing health care closer to home.

**The findings confirm the assertions that keeping seniors at home can be both COST and CARE effective.**

---

9 Canadian Home Care Association (2008), p88
12 Ibid. The submission makes the case for enhanced long-term home care services to enable CCACs to intervene earlier with a broader range of clients and to prevent acute exacerbations of chronic conditions
13 Sloan, John (2009), Chptr 1
14 Ibid
15 The care intensity continuum is what is believed intrinsically to be true about the healthcare sector – that home and community care is more intense than informal care and less intense than other settings, such as assisted living/supportive housing services, long term care homes and complex continuing care
16 Initiatives by the Ontario government include Aging at Home Strategy and ER Wait Times/Alternate Level of Care Strategy
Methodology

BCG developed a methodology that could be replicated on an ongoing basis to demonstrate the net and real value (or savings) created by the home and community care system in Ontario. The methodology takes into account a broad range of economic value indicators from direct cost reductions in healthcare (such as avoiding up-front costs, reducing demand or freeing up capacity), through to indirect benefits to the healthcare structure and to the Ontario economy as a whole (due to caregiver burden reductions or system improvements) and intangible societal benefits (including quality of life, reduction in pain and suffering, community engagement).

The Hamilton Niagara Haldimand Brant (HNHB) CCAC – Ontario’s largest CCAC – was chosen as the study site as a representative sample of the broader population of Ontario. This initial study focused on subset of the home and community care client base.

The sample (accounting for approximately 25% of the total expenditure for the HNHB CCAC) included clients who met the following criteria:

• Frail elderly 75 years and older
• Living at home
• Receiving Maintenance or Long Stay Supportive services from the CCAC, and possibly other community support services
• Had been assessed as having mild or moderate MAPLe (Method for Assigning Priority Levels) from RAI-HC scores.17

An individual with a mild or moderate MAPLe might present as:

1. Having some with ADL impairment and minimal or greater cognitive impairment; OR

2. Having no ADL impairment, some cognitive difficulty in new situations, no behavioral or decision making issues, but will have indication of environment and/or medication management problems; OR

3. Having no ADL impairment, some cognitive difficulty in new situations, no behavioral or decision making issues, no issues of environment or medication management problems and no ulcers, but having impairments on the geriatric screener with or without limitations related to meal preparation.18

17 The MAPLe (Method for Assigning Priority Levels) is a set of rules derived from the RAI-HC; it assigns clients to one of five levels (from low to very high) and provides information about their risk of adverse outcomes. Clients in the low category have no major functional, cognitive or environmental problems. They would not be at great risk of adverse outcomes and therefore would be unlikely to require admission to a LTCF. Clients in the very high category are at risk of adverse outcomes based on their greater problems in cognition, ADL function and/or behaviour. The MAPLe algorithm uses 14 variables from the RAI-HC as follows:


18 Hirdes,J. et al (2008) An illustration of some, but not all, of the clinical issues using the MAPLe algorithm from RAI-HC scores
Data was provided by CPAC members, governmental and non-governmental organizations, and supplemented by interviews with clients, caregivers, service providers and other stakeholders (listed at Appendix 2). Data was sampled for the time period October 1, 2008 to September 30, 2009 and evaluated using the Cost-of-Illness (COI) Approach.\footnote{19}

The process for calculating the economic value of home and community care involved four key steps.

**The Cost-of-Illness (COI) Approach**

Widely accepted by policy makers globally, COI was used to establish the “with” & “without” Home and Community Care scenarios as well as the cost for specific conditions, using:

- **Direct Cost** to measure cost of resources used for treating a particular illness
- **Indirect Cost** to measure the value of resources lost due to a particular illness
- **Intangible Cost** to measure the cost of pain and suffering (though difficult to quantify monetarily)

\~ The Boston Consulting Group

---

1. **Establish the total cost base for current clients** using OACCAC, Ministry and LHIN data and making estimates for client segments per MAPLe score and living arrangement (alone, with spouses, with children)

2. **Estimate the potential redistribution of current clients in a situation where there was no home and community care.** Categorize clients according to those who would be able to remain at home with additional caregiver support; those who would require assisted living / supportive housing services; and those who would need to move to Long Term Care Homes

3. **As in step one, estimate cost per person per setting in each of the non-home and community care scenarios**

4. **Calculate total costs in non-home and community care scenarios and compare** these to the current state by multiplying the distribution of clients identified in step 2 with the cost per setting in step 3. The total cost was then compared with the total cost identified in step 1.

The methodology is designed to be replicated on other populations receiving home and community care.

\footnote{19} Widely accepted by policy makers globally, COI was used to establish the “with Home & Community Care” and “without Home & Community Care” scenarios as well as the cost for specific conditions, using: Direct Cost to measure cost of resources used for treating a particular illness; Indirect Cost to measure the value of resources lost due to a particular illness; Intangible Cost to measure the cost of pain and suffering (though difficult to quantify monetarily)
The study revealed five key elements that factor into the net value created by home and community care, specifically:

1. Cost avoidance in Hospital (Acute) Care
2. Cost avoidance in Long Term Care Homes
3. Cost avoidance in Assisted Living and Supportive Housing Services
4. Increase in the informal caregiver burden
5. Many intangible benefits

The first four contribute to a net economic value and the intangible benefits (#5) contribute to the system and human value.

The study population demonstrated that with home and community care, a total of $66M in health system costs were avoided for the year. The cost savings arose from the avoidance of hospital (acute) care, long term care home and assisted living and supportive housing services utilization.

These “savings” to the health system were offset by $53M in costs for home and community care and an estimated impact on lost caregiver productivity.

The net impact was a net $13M in overall savings to the healthcare system for the sample population per year. Extrapolated for all frail elderly clients within the stated parameters, the net provincial savings was estimated to be $150M per year. The savings would be greater if the impact on family caregiver productivity is not included in the costs incurred.

<table>
<thead>
<tr>
<th>Costs Avoided (per year)</th>
<th>Costs Incurred (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital (Acute) Care ~ $6M</td>
<td>Impact on ‘family’ caregiver productivity ~ $5M</td>
</tr>
<tr>
<td>Long Term Care Homes ~ $42M</td>
<td>Cost of Home &amp; Community Care ~ $48M</td>
</tr>
<tr>
<td>Assisted Living &amp; Supportive Housing ~ $18M</td>
<td>Total Costs AVOIDED ~ $66M</td>
</tr>
<tr>
<td>Total Costs AVOIDED ~ $66M</td>
<td>Total Costs INCURRED ~ $53M</td>
</tr>
</tbody>
</table>

~ $13 million in overall net savings for sample HNHB population *

* Frail elderly 75 years and older
* Living at home
* Receiving Maintenance or Long Stay Supportive services from the CCAC, and possibly other community support services
* Had been assessed as having mild or moderate MAPLe scores
The study showed that assisted living is 1.2–1.8 times more expensive and long-term care is 2.2–3.4 times more expensive than supporting clients at home with home and community care services. In other words, if the client group studied by BCG is supported to remain in their homes with a $48M investment in home and community care, $66M in health care system expenditure per year is avoided.

$6M avoided in Acute Care

Where people receive care has an impact on hospital use and costs. The study identified that if the study clients stayed at home and did not have home care support, they would use more hospital services. The study estimated they would use about 5-8 more hospital days due to deteriorated health outcomes. If these clients moved to assisted living or long-term care, the use of hospital services would reduce by 1-3 days.

$5M increase in caregiver productivity costs

As a result of admission to Assisted Living or Long Term Care Homes, without home and community care support, there would be 60-70% fewer hours of care from family caregivers. Depending on the client’s needs, there would be a decrease of 6 –9 hours a week.

Of the 40% of clients remaining at home, caregiver burden would increase by 1.5-2 times. Depending upon the client’s needs, there would be an increase of 5-15 hours a week of caregiving and therefore a decrease by 5-15 hours of caregiver productivity. Increases in family caregiver hours among this group would be more than the offset from the large decrease of informal caregiver hours for those that enter Assisted Living / Long Term Care.

The overall impact is about $5 million in lost productivity for the family caregivers.

$42M avoided in Long Term Care Homes / $18M avoided in Assisted Living & Supportive Housing Services

Without home and community care, 60% of clients would not be able to stay in their homes. For those with lower assessment scores, 27% of clients would have to move to an assisted living arrangement and 20% would have to go to a long-term care facility. For those with moderate assessment scores, 28% would have to move to assisted living and 43% would have to move to long-term care.

Care costs for the same person are more expensive in Assisted Living (1.2-1.8 times) or Long Term Care Homes (2.2-3.4 times) than home and community care in a single family dwelling.

In home care, it is assumed, and in fact expected, that the family and/or friends will provide care to supplement the service provision.

An estimated 26% of Canadians cared for a family member or close friend with a serious health problem in 2006.

~ Health Care in Canada Survey
The results of the study revealed clear value creation not only in direct, quantifiable systemic value, but also in economic terms and human value – areas often considered “intangible” and difficult to measure, but which offer financial and societal reward. Key findings were that from a system value perspective, home and community care provides a flexible option that can integrate not only paid staff but also volunteers and family caregivers, while requiring low overhead and infrastructure investment.

From a direct economic value perspective, this model demonstrates that home and community care does avoid more costly care in other settings, particularly for the frailer, older person. Even when including the economic impact on productivity as a result of the reliance on family caregiving to support the delivery of home and community care, the return on investment in home care is significant.

Most importantly, from a human value perspective, the findings were that home and community care can better address client comfort, personal autonomy and support their ability to live independently at home. Families typically want a loved one at home and embrace the opportunity to provide support. Home care is vital to supporting their efforts as evidenced by comments from participants. Families interviewed expressed “peace of mind” in knowing that someone was checking in on their loved one; and attested to the value of respite and the opportunity to talk with someone about their situation.

The study enabled the development of a model that can be used on an ongoing basis and applied to other populations receiving home and community care.
The findings of this project confirm that keeping seniors at home can be both cost and care effective.

From a system utilization perspective, inappropriate use of any health resource is wasteful. The VHCC study shows important cost implications to the publicly funded health system. Keeping seniors at home for as long as possible achieves a net savings to the health care system of approximately $150M for a frail elderly population 75 years and older receiving Maintenance or Long Stay Supportive services from the CCAC, and possibly other community support services.

The home and community care collaborative has generated important information and has laid the foundation for future study to address continued concerns regarding the achievement of a high performing home and community care sector in Ontario. The Valuing Home and Community Care (VHCC) model can be applied to other populations receiving home and community care. The Community Provider Associations Committee will continue to share these findings with its stakeholders and will begin to utilize the model to ascertain the full value of home and community care created to all client populations.

Recommendations

Drawing on the evidence gleaned from the VHCC initiative, the CPAC recommends that:

- $150 million in base funding be shifted to the home and community care sector to provide chronic care support to the frail elderly
- HBAM be applied to home care to support the shift in funding
- multi-year funding for CCACs and community based transfer payment agencies be established in order to realize consistent and continuous support for home care services vital to health system transformation
- increased flexibility related to amounts and nature of service be introduced so that the most meaningful interventions to keeping people at home are allowed
- strategies to support family caregivers including respite and support to access resources to help them fulfill their caregiving responsibilities
- the CPAC be supported to apply the VHCC model on other populations receiving home and community care
- the CPAC be supported to address other issues facing the home and community sector including health human resource capacity and technology in the home.
Home care was formally established in Ontario in 1970 and is considered to be a new and growing part of the formal health care system. Since establishment, the home care system in Ontario has gone through a number of changes, evolving and maturing to the comprehensive provincial program of today.

In many ways, passage of the Long Term Care Act Statute Law Amendment Act 1993 was the launching point for standardizing service provision in the province and establishing a coordinated delivery mechanism. Home and community care stakeholders worked individually and collectively to inform government as to the policy and funding requirements of the sector. The Ontario Home Care Association (OHCA) and Ontario Community Support Association (OCSA) were established and began to represent and advocate for the delivery of home care and community support policy and practice ensuring that Ontarians could realize the option of health care at home.

Natural linkages with other representative groups such as the Ontario College of Family Physicians (OCFP), the Alliance of Professional Associations for Community-based Therapy Services (APACTS), the Ontario Pharmacy Association (OPA) and the Community Healthcare Providers’ Network (CHCPN) were made. By 1997, this included the Ontario Association of Community Care Access Centres representing 43 CCACs which by 2007 had, through legislation, been realigned to 14 along LHIN geographic boundaries.

In 2002, the Ontario Home and Community Care Council (OHCCC) was established in order to advocate broadly and consistently for the needs of people who wish to receive care in their own homes. Five provincial associations - The Ontario Association of Community Care Access Centres, The Federation of Community Mental Health and Addictions Programs, The Ontario Community Support Association, The Ontario College of Family Physicians and the Ontario Pharmacists Association – agreed to work together. The objectives were to:

- promote a common vision for the home and community care sector in Ontario
- engage in activities to support program enhancements
- co-ordinate the development of research projects that can move the health care sector towards evidence-based decision-making
- consolidate the working relationship of the Associations for the betterment of the home and community care sector in Ontario.

In 2004, the OHCCC called for an integrated health care ‘system’ so that people can receive appropriate non-acute care in the community from experienced, prepared and trusted community health providers. The group released a seminal document, Planning in Health Care Systems - Key Quality Processes and Outcome Measures, on transition planning between health care providers. The OHCCC called for true integration at the point of care in order to realize effective population based care.

As part of her recommendations subsequent to a review of home care procurement, the Honourable Elinor Caplan encouraged the multiple community based stakeholder organizations to work together to standardize and collect better information in order to achieve continuous improvements in the home and community sector. She called for a ‘seamless continuum of care’ that is cost-effective and health effective.

20 Terms of reference retrieved from http://www.homecareontario.ca/public/about/publications-OHCCC.cfm
22 Caplan, Elinor, Hon. (2005)
The Service Provider Association (SPA) Committee was created to bring stakeholder associations together to ensure the growth and evolution of the home and community sector was, and continues to be, grounded in quality and the delivery of exemplary care.

The SPA Committee is now known as the Community Provider Associations Committee (CPAC). The mandate of the CPAC is to provide a forum:

- for discussion and joint project development between service providers and CCACs regarding strategic, policy and operational issues to enhance the growth, development and provision of community healthcare services in Ontario
- where external stakeholders (government, other healthcare consultants, researchers, etc.) can engage home care providers collectively in discussion and consultation
- to explore improvements in the operational interface efficiency between CCACs, community and contracted service providers
- where strategies to profile and promote the home care and community service sector can be developed
- to jointly support education needs of the industry to improve the understanding of community care services and the effective use of resources

Several subcommittees facilitate the collaboration amongst the members on matters ranging from client safety, to provider and client satisfaction, technology and procurement.

Fundamentally, the work of the CPAC is to support collaboration between stakeholders to promote the transformation of the health system.
Appendix 2

Stakeholder Contacts

~ 45+ interviews conducted, and multiple sources of secondary data accessed

CPAC Leaders
OACCAC  Lisa Droppo / Rod Millard / Kate Power
OHCA  Susan VanderBent
OCSA  Susan Thorning
CHCPN  Terry McCully
APACTS  Barbara Cawley

External Stake-holders
Clients/caregivers  9 interviews
Long-term care  2 interviews – 1 nurse, 1 administrator
Acute care  4 interviews – 2 doctors, 1 nurse, 1 administrator
Primary care  4 interviews – 1 specialist, 2 nurse practitioners, 1 physiotherapist
“Work-alongs”  Red Cross PSW, Meals on Wheels

• Other HCC experts – Deryl Rasquinha Champlain CCAC, two case managers, previous CCAC CEO, service provider COO

Hamilton Niagara Haldimand Brant CCAC
Management  Melody Miles, Barbara Busing, Darlene Arseneau, Mary Siegner, Jane Blums
Case managers  5 interviews completed

Secondary Data Sources
OACCAC database, Statistics Canada
CSS survey including St. Joseph’s Home Care, Salvation Army, Meals on Wheels

Publicly available reports
2009/10 Hospital Interprovincial per diem rates for inpatient services
Marcus Hollander, Comparative Cost Analysis of Home Care and Residential Care Services, 2001
Works Cited


Caplan, Elinor, Hon. (2005) Realizing the Potential of Home Care, Competing for Excellence by Rewarding Results


