



Valuing Home and Community Care

Key findings and path forward

April 7 2010

THE BOSTON CONSULTING GROUP

Agenda

Executive summary

Key findings

Proposed path forward

Appendix

- Synopsis of interviews
- Definitions and glossary

Introduction and context

Valuing Home and Community Care

The Community Provider Associations Committee¹ (CPAC) and The Change Foundation² co-sponsored a project named "Valuing Home and Community Care". They retained BCG Canada³ through an RFP process to undertake this project

The objective was to determine the economic value created by home and community-based healthcare for Ontario

A model was developed around a representative sample that would serve as a baseline for valuing the total value added by Home and Community Care. This sample included ~25% of total spend for the HNHB CCAC

- Frail elderly 75 years and older
- Receiving Maintenance or Long Stay Supportive services
- Living at home, not in a retirement home or supportive housing arrangements
- With mild or moderate MAPLe score
- Hamilton Niagara Haldimand Brant region
- Time period for data: October 1, 2008 to September 30, 2009

Data was provided by CPAC members as well as other governmental and non-governmental organizations. It was supplemented by a series of interviews with clients, caregivers, service providers and other stakeholders

The project began on November 9th 2009 and concluded on January 11th 2010

The data set in the model will subsequently be expanded by the OACCAC and maintained over time to measure the Ontario-wide view of the value created by home and community-based care

For more information, contact Lisa Droppo, Chief, Analytics, Policy and Programs, OACCAC (lisa.droppo@CCAC-ont.ca).

1. The 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) and CHCPN (Community Healthcare Providers' Network). 2. The Change Foundation is an independent health policy think tank that supports health system integration and quality improvement in home and community care in Ontario. 3. The Boston Consulting Group is a global management consultancy with extensive experience working in public and private healthcare sectors

Integrated insights and data from wide range of stakeholders

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

CPAC leaders

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

Hamilton Niagara Haldimand Brant CCAC

Management	Melody Miles Barbara Busing Darlene Arseneau Mary Siegner Jane Blums
Case managers	5 interviews completed

External stakeholders

Clients/caregivers	9 interviews completed
Long-term care	2 interviews completed <ul style="list-style-type: none"> 1 nurse, 1 administrator
Acute care	4 interviews completed <ul style="list-style-type: none"> 2 doctors, 1 nurse, 1 administrator
Primary care	4 interviews completed <ul style="list-style-type: none"> 1 specialist, 2 nurse practitioners, 1 physiotherapist
"Work-alongs"	Red Cross PSW Meals on Wheels
Other HCC experts	Deryl Rasquinha Champlain CCAC 2 Case Managers Previous CCAC CEO Service provider COO

Secondary data sources

OACCAC database, Statistics Canada
CSS survey including
<ul style="list-style-type: none"> St. Joseph's Home Care Salvation Army Meals on Wheels

Publicly available reports

2009/10 Hospital Interprovincial per diem rates for inpatient services
MOHLTC - 2008/2009 Emergency - Total Expenses
John Hirdes, et al. The Method for Assigning Priority Levels, 2008
Marcus Hollander; Comparative Cost Analysis of Home Care and Residential Care Services, 2001

Executive summary (I)

Valuing Home and Community Care

Representative sample provides insight into significant value created by Home & Community Care (HCC)

- ~\$48M spend in HCC leads to reduction of ~\$13M on projected burden of care of ~\$165M, reducing total burden by ~8%
- Reduction in LTC / Assisted Living (AL) and acute care is offset by an increase in informal caregiver burden
- In scenario without HCC, ~40% would remain at home without HCC, ~27% move to AL and ~33% to LTC
- Scope: Frail elderly 75+ in Maintenance or LSS services, living home with mild or moderate MAPLe in HNHB region
 - Captures ~25% of client base and 26% of budget for the HNHB CCAC, plus ~\$10M CSS costs

Four major drivers of value creation identified for the population in scope:

- 1 ~\$60M AL and LTC cost avoided by enabling the frail elderly to remain at home versus moving to AL or LTC**
 - HCC enables elderly to stay at home at care costs ~1.5-3x lower
- 2 ~\$6M acute care cost avoided through lower usage, a ~10% reduction versus scenario with AL/LTC but no HCC**
 - Remain at home without HCC: increase of ~50% caused by higher usage, deteriorated health outcomes
 - Live in AL and LTC: reduction of ~5-15% caused by early detection and shift of burden from acute care to AL / LTC
- 3 ~\$5M informal caregiver burden increase, ~15% increase on projected caregiver burden versus scenario without HCC**
 - Remain at home without HCC: ~1.5-2x more informal caregiver hours spent in absence of HCC
 - Live in AL and LTC: 60-70% fewer informal caregiver hours as burden shifts to AL or LTC facilities
- 4 Several intangible benefits – very real but hard to quantify**
 - For clients, HCC generally leads to a better quality of life due to improved health outcomes, a greater sense of independence, confidence, and increased comfort from living in familiar surroundings
 - For caregivers, HCC decreases the level of stress related to caring for their elderly loved ones

Early data suggests value creation varies considerably across the 5 MAPLe scores

- Value creation highest for Mild, decreasing for Moderate, High, and Very High, and slightly negative for Low MAPLe score

Preliminary data also suggests a total burden reduction of ~\$150M across all frail elderly 75+ living at home and receiving Maintenance or LSS in Ontario

Executive summary (II)

Valuing Home and Community Care

45+ interviews with wide range of stakeholders to better understand benefits from HCC, with several recurring themes observed

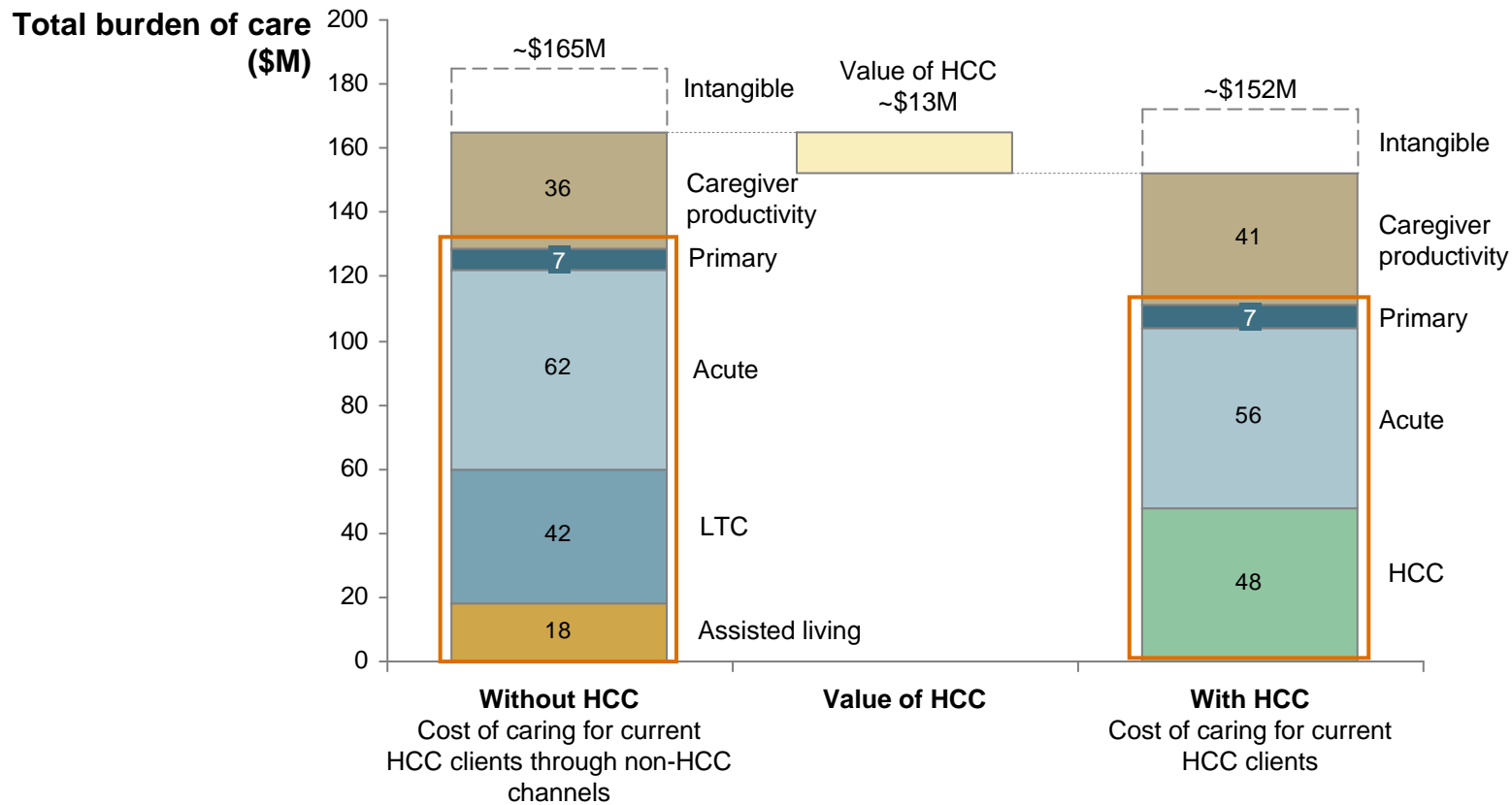
- Appreciation for multiple benefits HCC bring to their lives
 - "There's no place like home"
 - Alleviation of burden from informal caregivers
 - Flexibility in adjusting HCC supply for changes in demand
- Leads on improving current service offering
 - Raising awareness with potential clients and caregivers "before the crisis"
 - Sharing best practices in prioritization of resources across CCACs
 - Increasing the consistency in quality and availability of care
 - Improving communication within HCC sector and across sectors

Several proposed next steps to continue to refine the estimates and take action

- Finalize analytical path forward to reach Ontario-wide view
- Develop a harmonized approach for prioritizing resources for segments with the highest value-add
- Leverage findings from valuation tool to hold credible, data-driven discussions with stakeholders
- Evaluate programs designed to increase consistency in quality of services

Estimated 8% reduction in burden of care on study sample

Value created by HCC for mild and moderate MAPLe score clients



Note: HCC does not include Assisted Living
 Source: OACCAC database, BCG analysis
 VHCC-Key findings and path forward-7Apr10-TOR.ppt

Four drivers of value lead to total value creation of ~\$13M

Based on ~\$48M invested in HCC for Mild and Moderate MAPLe scores

1

~\$60M cost avoided in AL and LTC

- HCC enables elderly to stay at home at care costs ~1.5-3x lower than AL or LTC

2

~\$6M cost avoided in Acute Care

- Without HCC, acute care usage of those staying at home increases by ~1.5x
- Acute care usage decreases by ~5-15% when moving to AL or LTC

3

~\$5M increase in caregiver commitment

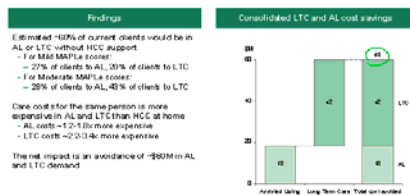
- Elderly living at home without HCC increases burden on informal caregivers by ~1.5-2x

4

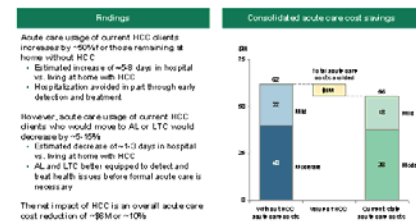
Multiple intangible benefits

- Benefits for clients and their caregivers, as well as increased efficiency of healthcare system

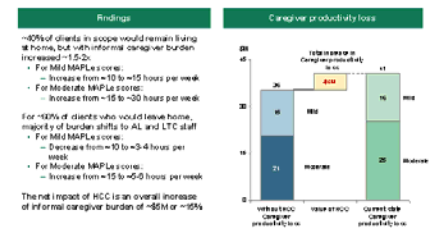
1 HCC leads to a cost avoidance of ~\$60M in AL and LTC
HCC enables elderly to stay at home at care costs ~1.5-3x lower



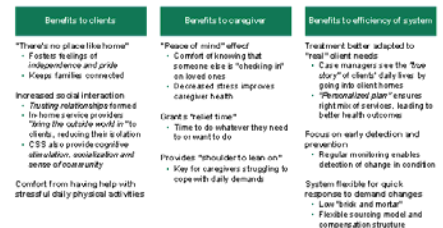
2 HCC reduces acute care needs when living at home, moving to AL or LTC further reduces needs



3 HCC leads to a ~\$5M increase in caregiver productivity costs
Elderly living at home without HCC increase burden on their informal caregivers by ~1.5-2x



4 Multiple intangible benefits in addition to quantifiable value
Benefits for clients and their caregivers, as well as increased efficiency of healthcare system



$$\begin{array}{rclclcl}
 \$13\text{M} & = & \sim\$60 & + & \sim\$6\text{M} & - & \sim\$5\text{M} & - & \sim\$48\text{M} \\
 \text{Burden reduction} & = & \text{AL and LTC cost avoided} & + & \text{Acute care cost avoided} & - & \text{Caregiver increase} & - & \text{HCC investment}
 \end{array}$$

1 HCC leads to a cost avoidance of ~\$60M in AL and LTC

HCC enables elderly to stay at home at care costs ~1.5-3x lower

Findings

Estimated ~60% of current clients would have to leave their single family dwelling without HCC support

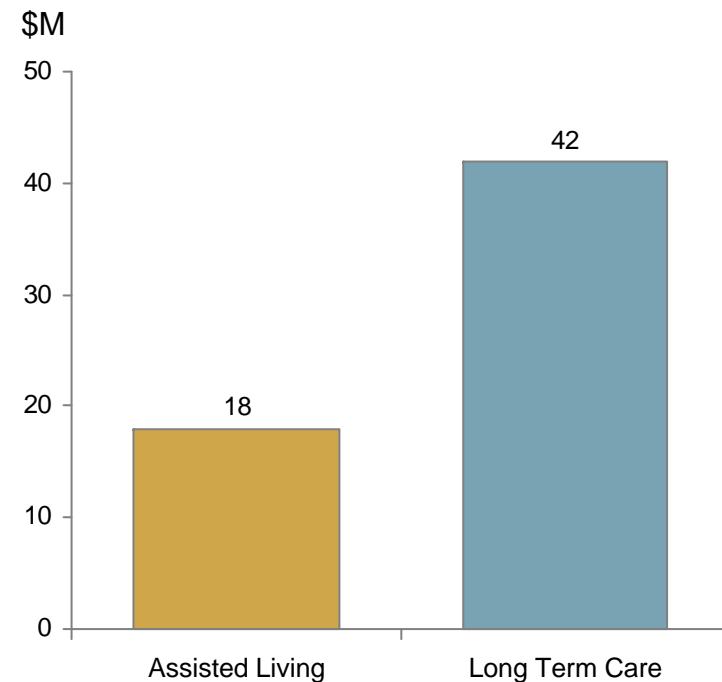
- For Mild MAPLe scores:
 - 27% of clients to AL, 20% of clients to LTC
- For Moderate MAPLe scores:
 - 28% of clients to AL, 43% of clients to LTC

Care costs for the same person are more expensive in AL or LTC than HCC in a single family dwelling

- AL costs ~1.2-1.8x more expensive
- LTC costs ~2.2-3.4x more expensive

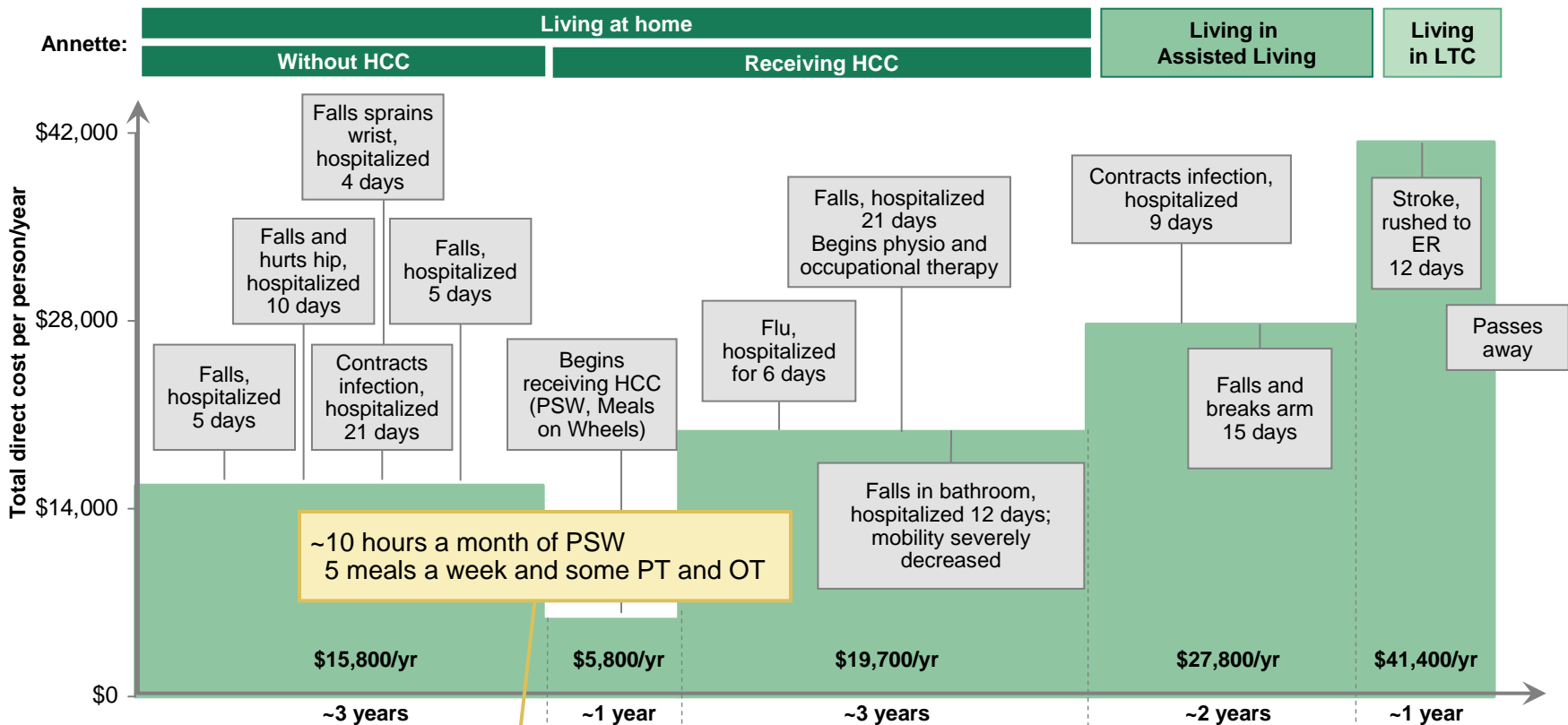
The net impact is an avoidance of ~\$60M in AL and LTC demand

Consolidated LTC and AL cost savings



1 Care cost increased ~3x more when Annette moved to AL

Received minimal support when at home, but would have moved to AL ~4 years earlier without HCC



Services used	Living at home					Living in Assisted Living	Living in LTC
	Without HCC	Receiving HCC	Receiving HCC	Receiving HCC	Receiving HCC	Assisted Living	LTC
HCC incl. CSS ¹	-	\$4,800	\$5,900	-	-	-	-
LTC	-	-	-	-	-	-	\$28,600
Assisted Living	-	-	-	-	\$15,000	-	-
Acute	\$14,800	-	\$12,800	\$11,800	\$11,800	\$11,800	\$11,800
Primary	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Avg. annual cost/person²	\$15,800	\$5,800	\$19,700	\$27,800	\$41,400		

1. Home and community care including community support services. 2. HCC direct costs, excluding 100% private purchased paid services.
 Source: BCG interviews, BCG analysis, OACCAC data
 VHCC-Key findings and path forward-7Apr10-TOR.ppt

2 HCC leads to cost avoidance of ~\$6M in acute care costs

HCC reduces acute care needs when living at home, moving to AL or LTC further reduces needs

Findings

Acute care usage of current HCC clients increases by ~50% for those remaining at home without HCC

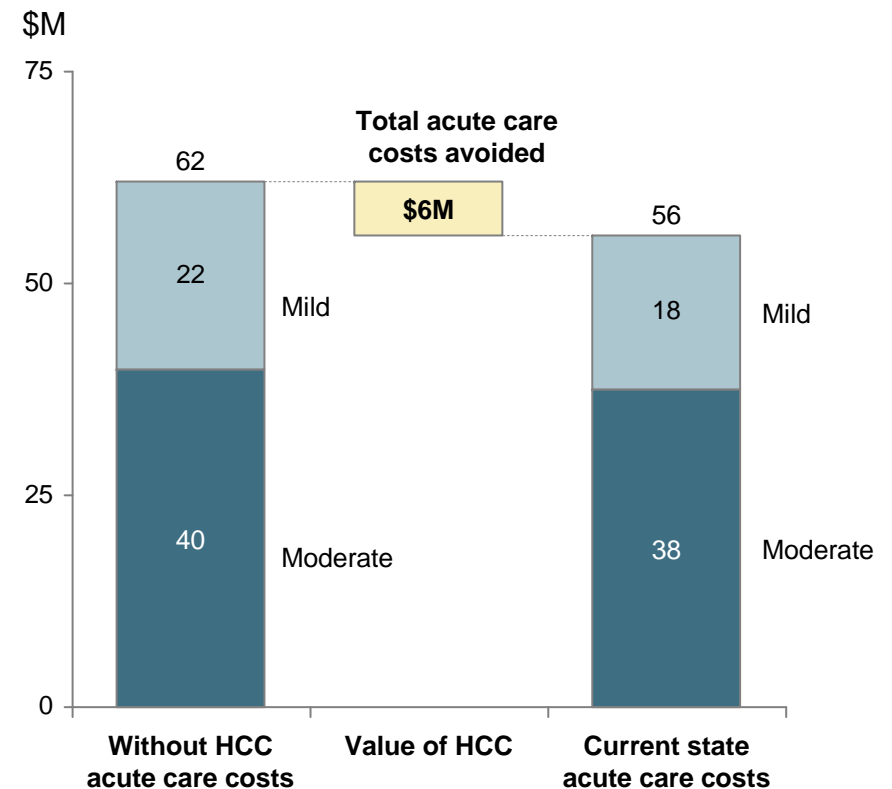
- Estimated increase of ~5-8 days in hospital vs. living at home with HCC
- Hospitalization avoided in part through early detection and treatment

However, acute care usage of current HCC clients who would move to AL or LTC would decrease by ~5-15%

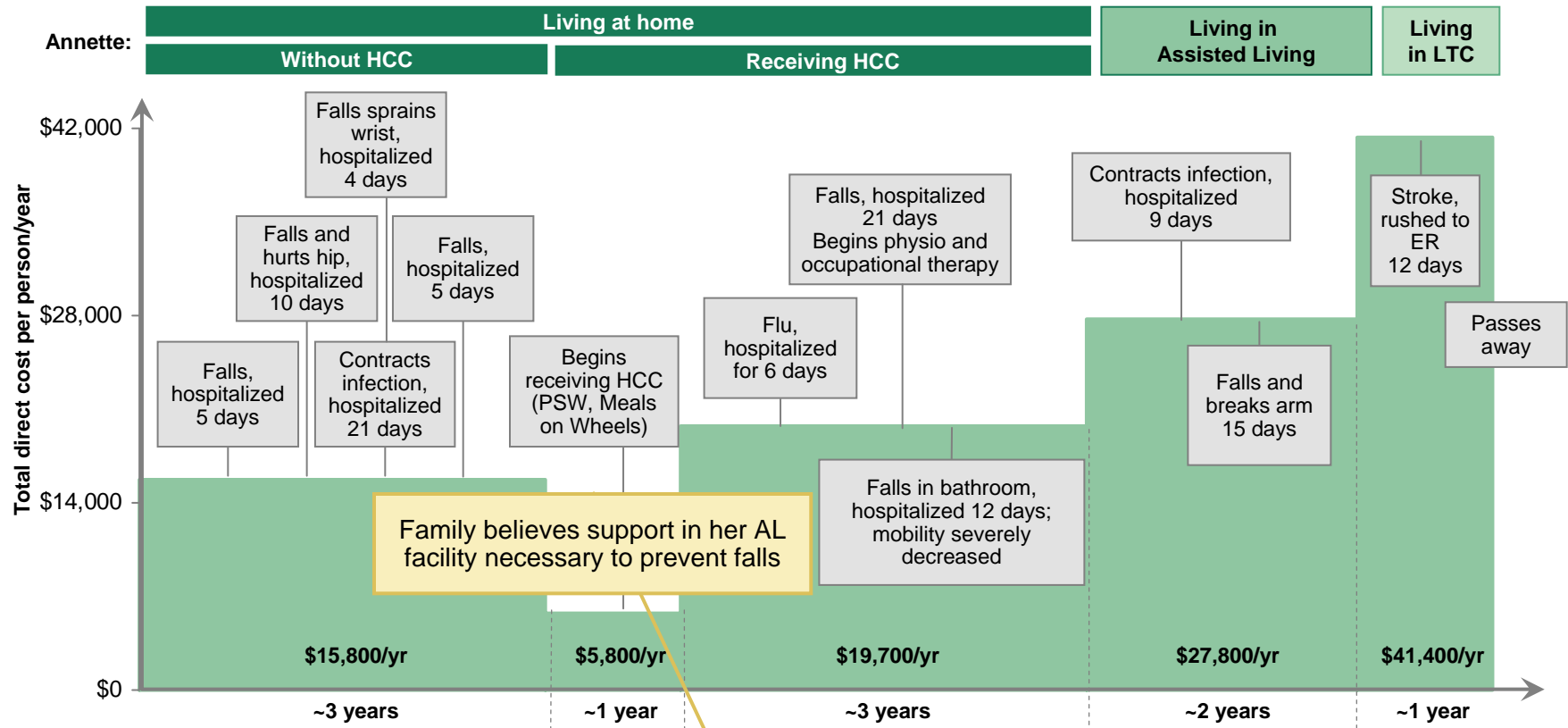
- Estimated decrease of ~1-3 days in hospital vs. living at home with HCC
- AL and LTC better equipped to detect and treat health issues before formal acute care is necessary

The net impact of HCC is an overall acute care cost reduction of ~\$6M or ~10%

Consolidated acute care cost savings



2 Annette made fewer visits to the hospital once she moved to Assisted Living



Services used	Living at home (Without HCC) ~3 years		Living at home (Receiving HCC) ~3 years		Living in Assisted Living ~2 years	Living in LTC ~1 year
	Without HCC	Receiving HCC	Without HCC	Receiving HCC	Assisted Living	LTC
HCC incl. CSS ¹	-	\$4,800	\$5,900	-	-	-
LTC	-	-	-	-	-	\$28,600
Assisted Living	-	-	-	-	\$15,000	-
Acute	\$14,800	-	\$12,800	\$11,800	\$11,800	\$11,800
Primary	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Avg. annual cost/person²	\$15,800	\$5,800	\$19,700	\$27,800	\$27,800	\$41,400

1. Home and community care including community support services. 2. HCC direct costs, excluding 100% private purchased paid services.

Source: BCG interviews, BCG analysis, OACCAC data

VHCC-Key findings and path forward-7Apr10-TOR.ppt

3 HCC leads to ~\$5M increase in caregiver time commitment¹

Elderly living at home without HCC increase burden on their informal caregivers by ~1.5-2x

Findings

~40% of clients in scope would remain living at home, but with informal caregiver burden increased ~1.5-2x

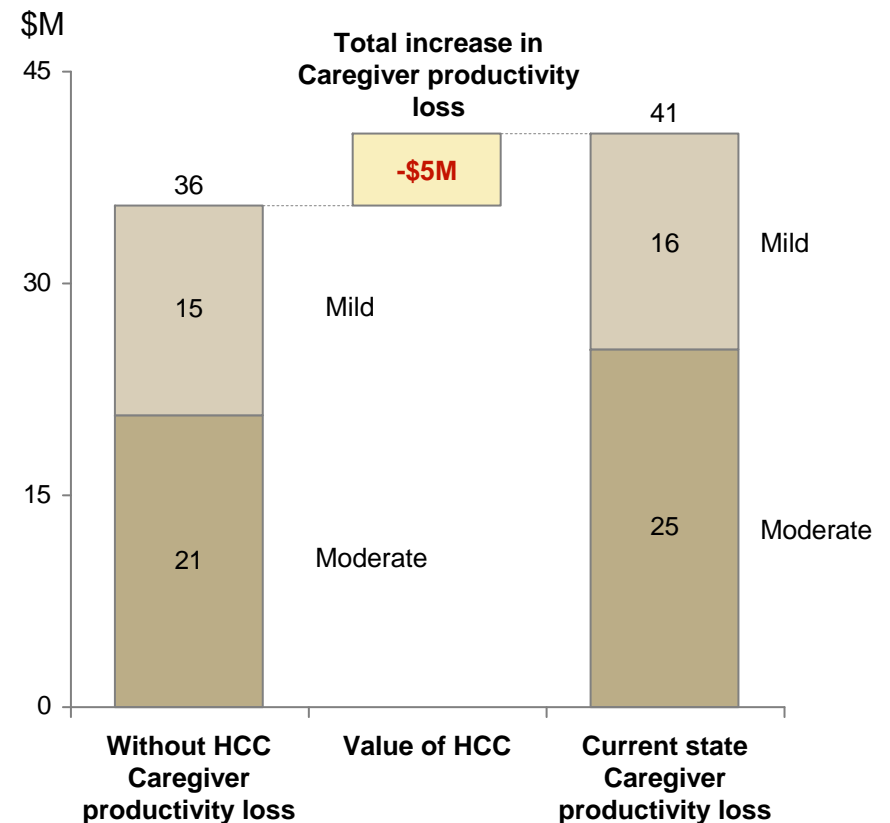
- For Mild MAPLe scores:
 - Increase from ~10 to ~15 hours per week
- For Moderate MAPLe scores:
 - Increase from ~15 to ~30 hours per week

For ~60% of clients who would leave home, majority of burden shifts to AL and LTC staff

- For Mild MAPLe scores:
 - Decrease from ~10 to ~3-4 hours per week
- For Moderate MAPLe scores:
 - Decrease from ~15 to ~5-6 hours per week

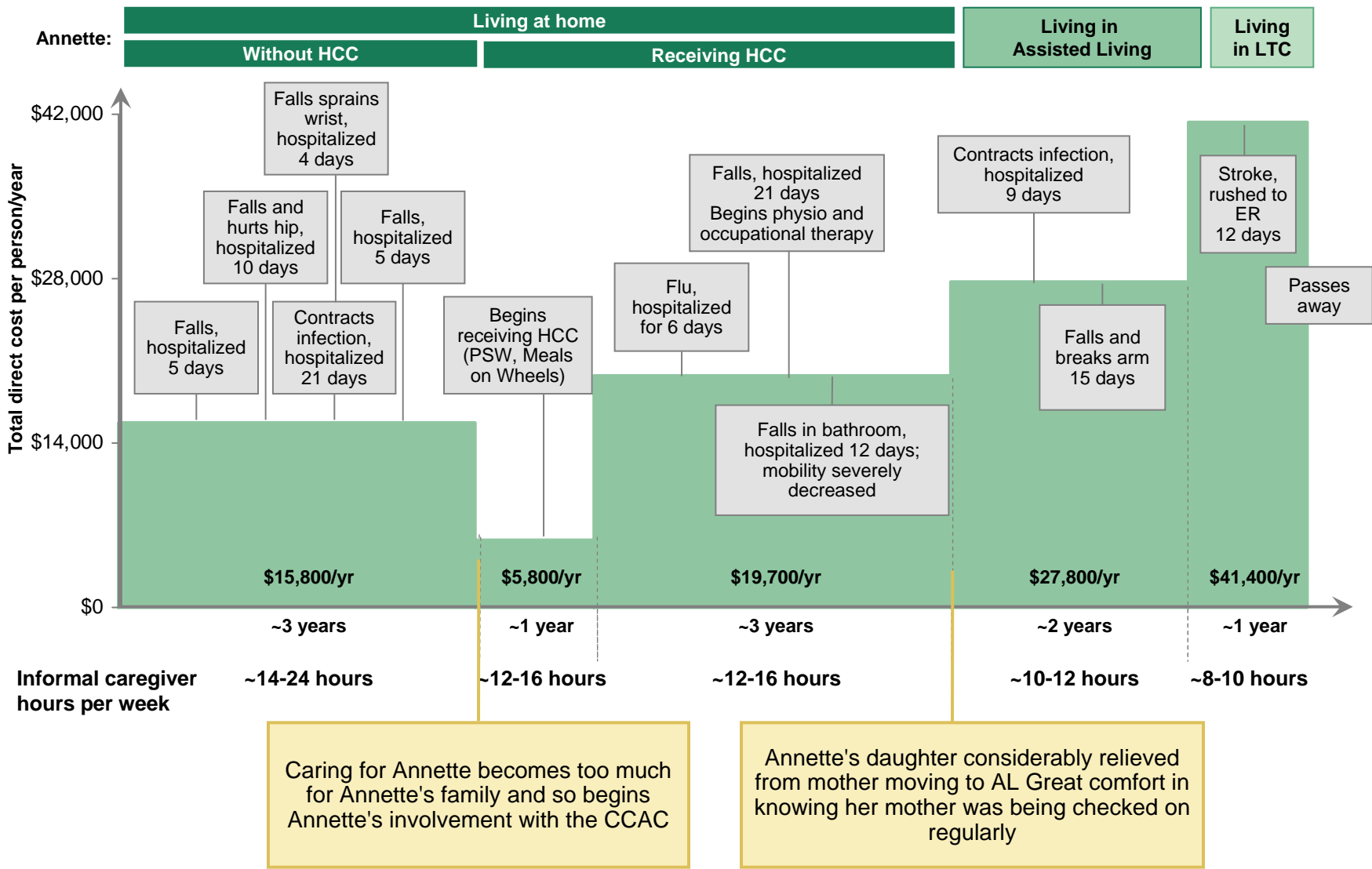
The net impact of HCC is an overall increase of informal caregiver burden of ~\$5M or ~15%

Caregiver productivity loss



1. Informal caregiver time commitment is defined as the time spent assisting a client with ADLs and IADLs and does not include time spent socializing with the client
 Source: BCG analysis; BCG interviews, OACCAC data, John Hirdes, et al. The Method for Assigning Priority Levels, 2008
 VHCC-Key findings and path forward-7Apr10-TOR.ppt

3 Annette largely dependant on her family before moving to AL



1. Home and community care including community support services. 2. HCC direct costs, excluding 100% private purchased paid services. Source: BCG interviews, BCG analysis, OACCAC data

Multiple intangible benefits in addition to quantifiable value

Benefits for clients and their caregivers, as well as increased efficiency of healthcare system

Benefits to clients

"There's no place like home"

- Fosters feelings of *independence and pride*
- Keeps families connected

Increased social interaction

- *Trusting relationships* formed
- In-home service providers "*bring the outside world in*" to clients, reducing their isolation
- CSS also provide *cognitive stimulation, socialization and sense of community*

Comfort from having help with stressful daily physical activities

Benefits to informal caregivers

"Peace of mind" effect

- Comfort of knowing that someone else is "checking-in" on loved ones
- Decreased stress improves caregiver health

Grants "relief time"

- Time to do whatever they need to or want to do

Provides "shoulder to lean on"

- Key for caregivers struggling to cope with daily demands

Benefits to efficiency of system

Treatment better adapted to "real" client needs

- Case managers see the "*true story*" of clients' daily lives by going into client homes
- "*Personalized plan*" ensures right mix of services, leading to better health outcomes

Focus on early detection and prevention

- Regular monitoring enables detection of change in condition

System flexible for quick response to demand changes

- Low "brick and mortar"
- Flexible sourcing model and compensation structure

4 HCC means something different to everyone

Select thoughts from interview participants

Benefits to clients

"I've had two loves in my life – my wife and my farm. Now that my wife has passed, I can't imagine leaving my farm."
- John, HCC client

"I'm a people person and it can get lonely at home. A great relationship with my PSW helps fill that gap"
- Georgina, HCC client

"There is no love in your care when you aren't home."
- Thelma, Caregiver

Benefits to formal caregivers

"HCC providers are "reassuring friends" that help caregivers dealing with the care of a loved one"
- Anastasia, Case Manager

"Occupational therapy is one of the most appreciated services by both clients and caregivers. It comforts the caregivers to know their loved one is functioning in a safe environment."

- Carla, Physiotherapist and Occupational Therapist

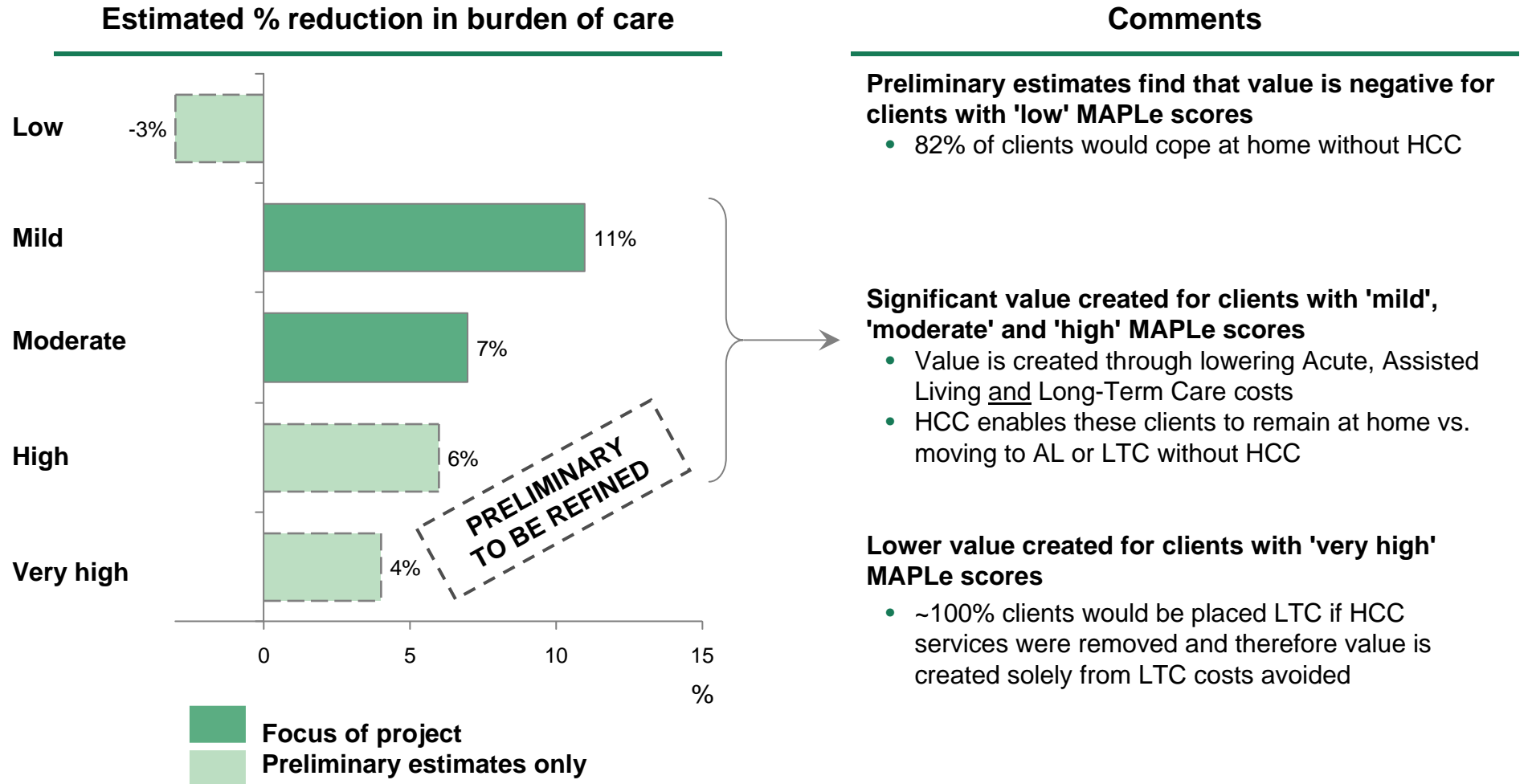
Benefits to efficiency of system

"Case managers do a great job of getting a "real" sense of how the client is doing – how well client and caregivers are coping. This is the basis for developing the personalized care plan"
-Debbie, FHT Nurse

Note: Names have been changed to protect anonymity. Opinions and quotations may be paraphrased.
Source: Interviews

Preliminary data suggests value created in 4 of 5 groupings

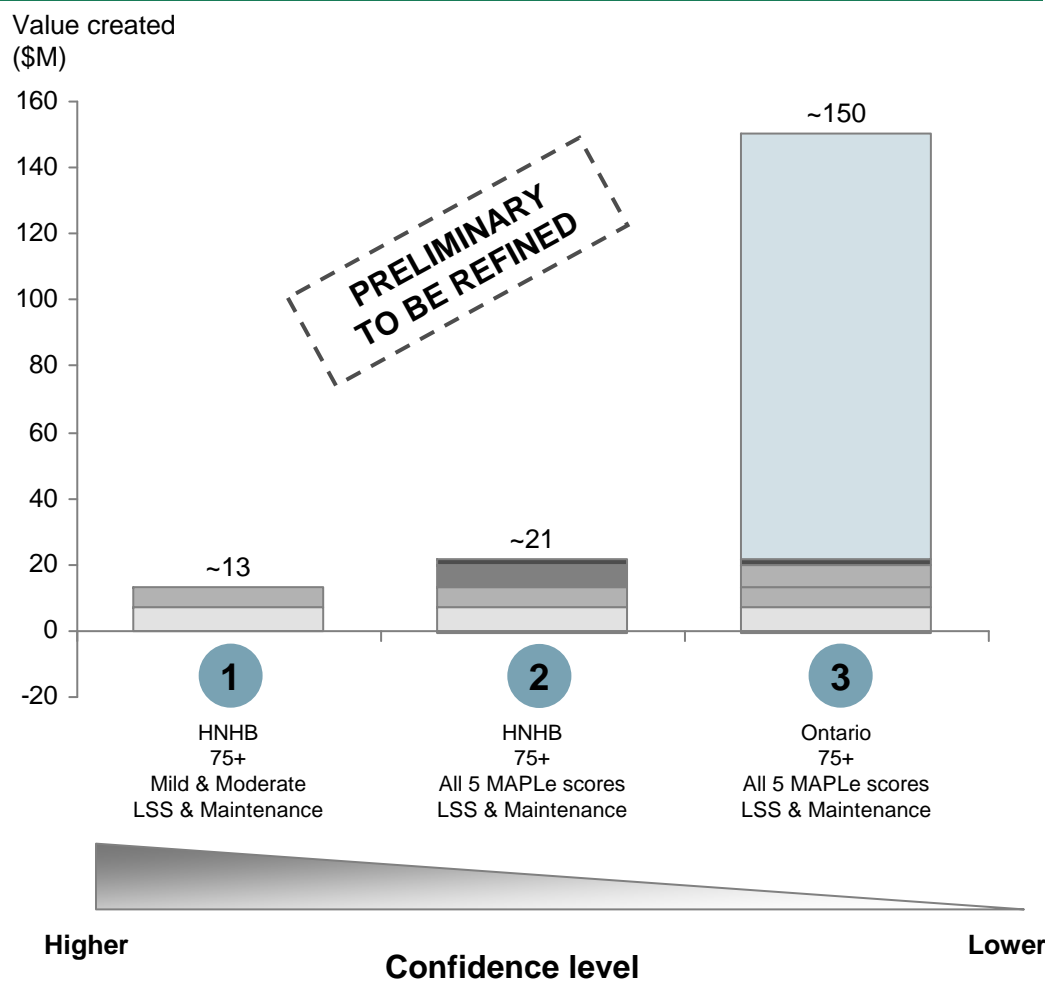
Initial findings indicate that value is negative for clients with 'low' MAPLe scores



Source: OACCAC database, BCG analysis
 VHCC-Key findings and path forward-7Apr10-TOR.ppt

Initial extrapolation suggests ~\$150M in value for Ontario for "frail elderly" receiving LSS and Maintenance services

Ontario-wide extrapolation of burden reduction through HCC for "frail elderly"



Methodology

- 1 Value for HNHB, 75+, LSS & Maintenance, Mild and Moderate MAPLe score clients**
 - Values calculated using HNHB CCAC number of clients and costs; CSS survey; interviews
 - 2 Value for HNHB 75+, LSS & Maintenance, Low, Mild, Moderate, High and Very high MAPLe score clients**
 - Values calculated using HNHB CCAC number of clients and costs
 - 3 Value for Ontario, 75+, LSS & Maintenance, Low, Mild, Moderate, High and Very high MAPLe score clients**
 - Values calculated using CCAC number of clients and HNHB MAPLe score weightings and costs
- Low
 - Mild
 - Moderate
 - High
 - Very high
 - Other regions (non-HNHB) 75+, LSS & Maintenance

Several recurring themes observed, highlighting potential leads to improve overall service delivery (I)

Awareness of services offered

Opportunity to raise awareness of potential clients and caregivers "before the crisis"

- Identify optimal communication plan to reach high potential families "before the crisis"
- Ensure clarity on CCAC role of "system navigator and coordinator"

Potential links with current initiatives

- CCAC Branding project
- Expand "Gatekeeper" program
- Embedding Case Managers at logical access points (eg, ERs, FHTs, etc.)

Explore new ideas

- Align communication plan towards "high-value" client segments

Capacity and prioritization of resources

Opportunity to share best practices in prioritization of resources across CCACs

- Leverage economic findings from VHCC to align on optimal allocation of current resources
- ### **Consensus across interviewees that there is "never enough funding" to meet demand**
- Collaborate across healthcare sectors to identify opportunities to reduce overall burden by reallocating resources towards high-value segments (e.g. reduce service for Low MAPLe)

Potential links with current initiatives

- Broaden "Home First" program, designed to bring people home from acute care with sufficient support
- 'Value-based healthcare'

Explore new ideas

- Share best practices on prioritization
- Expand 'virtual' specialist programs where centralized specialists assist 'live' nurses in diagnosing and treating via web video
- Increase 'in-home' technology to allow clients to self-medicate and monitor health

Several recurring themes observed, highlighting potential leads to improve overall service delivery (II)

Breadth and quality of care

Opportunity to increase the consistency in quality and availability of care

- Identify high-potential areas with underserved public transportation and meal services
- Evaluate effectiveness of current service quality monitoring processes (e.g. PSW service)
 - is variation in quality linked to under-resourcing services?
 - does transaction-based compensation create the appropriate incentives?

Potential links with current initiatives

- "Integrated client care" project to explore new compensation and incentive models

Explore new ideas

- Optimize bus / accessible vehicle routes to address underserved areas
- Reflect ethnic/cultural composition of client base in service delivery

Communication within and across healthcare sectors

Opportunity to improve communication within HCC sector and across sectors

- Antiquated systems for sharing client information across healthcare providers limits the integration of HCC services and wastes resources
- Enhanced communication across providers will reduce redundancies and increase the quality of care through better understanding of client needs

Potential links with current initiatives

- "Integrated client care" project to improve communication across sectors
- Expand model where Case Manager is embedded in Family Health Team

Explore new ideas

- Identify short-term, low-tech opportunities to increase information sharing
- Support small business service providers in integrating

VHCC and the path forward

Focus of efforts and investments where HCC creates the highest value for the Ontario economy

Suggested next steps	Rationale
Complete full value assessment <ul style="list-style-type: none">• Finish HNHB, then adjust for mix in other regions• Detailed path forward proposed on next page	<ul style="list-style-type: none">• Hypothesis that value is primarily driven by type of service and population segment, with fairly high consistency across regions – to be validated
Prioritize resources towards highest value-add client segments	<ul style="list-style-type: none">• Need to focus limited resources on highest-value populations / conditions / regions, reducing or eliminating services providing low, negative value• Prioritization inconsistent across CCACs today• System can benefit from sharing best practices
Share findings with stakeholders	<ul style="list-style-type: none">• Valuation tool a credible, data-driven approach for justifying additional funding for HCC, to be invested where it has the highest impact
Reach families "before the crisis"	<ul style="list-style-type: none">• Opportunity to increase awareness of services available and address client needs before crisis
Increase consistency in quality of services	<ul style="list-style-type: none">• Evaluate effectiveness of current service quality monitoring processes• Document and share best practices across CCACs and HCC service providers