Priority Setting in Community Care Access Centres

by

Michele Amalie Kohli

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Abstract:

In Ontario, access to publicly funded home care services is managed by Community Care Access Centres (CCACs). CCAC case managers are responsible for assessing all potential clients and prioritizing the allocation of services. The objectives of this thesis were to: 1) describe the types of decisions made by CCAC organizations and by individual case managers concerning the allocation of nursing, personal support and homemaking services to long-term adult clients with no mental health issues; and 2) to describe and assess the factors and values that influence these decisions.

We conducted two case studies in which qualitative data were collected through 39 semi-structured interviews and a review of relevant documents from an urban and a rural area CCAC. A modified thematic analysis was used to identify themes related to the types of priority setting decisions and the associated factors and values. An internet-based survey was then designed based on these results and answered by 177 case managers from 8 of the 14 CCACs. The survey contained discrete choice experiments to examine the relative importance of client attributes and values to prioritization choices related to personal support and homemaking services, as well as questions that examined case managers' attitudes towards priority setting.

We found that both the rural and the urban CCACs utilized similar forms of priority setting and that case managers made the majority of these decisions during their daily interactions with clients. Numerous client, CCAC, and external factors related to the values of safety, independence and client-focused care were considered by case managers

during needs assessment and service plan development. The relative importance of the selected client attributes in defining need for personal support and homemaking services was tested and found to be significantly affected by the location of the case manager (rural or urban area), years of experience in home care, and recent experience providing informal care. Case managers allocated services in the spirit of equal service for equal need and in consideration of operational efficiency. We also identified a number of case manager-related, client-related and external factors that interfered with the achievement of horizontal equity.

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1 Introduction

Priority setting, which is also referred to as resource allocation or rationing,(1;2) can be defined as, "the distribution of resources among competing programs or people".(3) In Ontario, Community Care Access Centres (CCACs) are the organizations responsible for delivering publicly funded home care services. Since CCACs are legally obliged to balance their budgets,(4) CCAC case managers must prioritize clients based on their need for service. In this thesis, priority setting is defined as decisions on the distribution of services amongst potential CCAC clients.

Resource allocation has been identified as one of the greatest ethical dilemmas for home care case managers(5) but there are few studies examining these decisions in home care and no studies within CCACs to date. Although standardized client assessment tools exist in the home care sector, previous studies have shown that case managers have the discretion to allocate resources as they feel is appropriate.(6) A review of the literature indicated that a number of factors, including client and case manager characteristics, influence home care case managers' resource allocation decisions but that further work is required in this area.(6) Furthermore, priority setting is inherently a value-based process and little work has been conducted to understand the values that influence home care case managers' decisions.

This research study was designed, therefore, to address the gaps in the current published literature. The overall aim of this research project was to describe and assess CCAC case managers' resource allocation decisions.

1.1 Overview of Approach

Researchers from a broad range of disciplines have studied priority setting and human values using both qualitative and quantitative methods. Qualitative methods can be used to collect the detailed information required for an in-depth understanding of an issue, to provide explanations or explore complex issues, but they force the researcher to focus on specific settings.(7;8) Quantitative methods, on the other hand, provide statistically generalizable data across settings but must be focused on narrowly defined research questions.(7) In this research project I gained a detailed understanding of priority setting in selected CCACs and was also able to draw statistically generalizable conclusions across CCACs by employing a mixed methods approach. (9-12) Specifically, in Phase I of the research, I conducted qualitative case studies with two CCACs. The results from these studies were used in Phase II of the research, to design a survey containing two discrete choice experiments.

1.2 Overview of Phase I – Objectives and Methods

Due to the paucity of data on resource allocation decisions within CCACs, the first step of this thesis was to conduct a qualitative study of priority setting within CCACs. The objectives of Phase I of this research project were:

1) To describe the context of priority setting and the types of priority setting decisions made within CCACs.
2) To describe organizational level priority setting decisions that influence case managers' resource allocation decisions, focusing on the factors and values that act upon these decisions.

3) To describe the case managers' resource allocation decisions, focusing on the factors and values that influence these decisions.

To address these objectives, case studies that involved the qualitative analysis of individual interviews with CCAC employees (case managers and administrators) and CCAC documents related to priority setting were conducted. Home care in Ontario is described in Chapter 2 of this thesis. The organization of home care influenced the design of Phase I in a number of important ways. Since the Ontario home care program is controlled by decentralized organizations across Ontario, namely the regionally based CCACs, the priority setting process was expected to vary across the province. In this thesis, two distinct CCACs were studied and ultimately compared to highlight differences and similarities in resource allocation decisions across organizations. Rural home care programs face different resource challenges than urban home care programs and it was postulated that resource allocation decisions would be different in rural and urban CCACs. Therefore, one rural CCAC and one urban CCAC were recruited as the "cases" for Phase I of this thesis. Since CCACs provide a range of services, this research project focused on the two most commonly provided services, namely nursing and personal support / homemaking. Since CCACs also provide services to a range of clients, the choice was made to focus on priority setting decisions for long stay clients over the age of 18 years who had not been diagnosed with mental health issues. Long stay clients, who are classified officially by CCAC as either 'maintenance' or 'long-term supportive', were chosen because they account for a large proportion of the CCAC clients and the resources consumed. Clients under 18 years and those with mental health issues were excluded because these individuals have special resource needs. It was thought,

therefore, that the process of providing services to these populations would involve different types of resource allocation decisions.

1.3 Overview of Phase II – Objectives and Methods

Five important ideas that emerged during the qualitative case studies influenced the design of Phase II:

- Decisions about nursing services are influenced to a large degree by disease-specific and treatment-specific factors, and by input from other health care providers. Case managers therefore, have more control over the allocation of personal support and homemaking services than the allocation of nursing services.
- The allocation of personal support and homemaking services causes the most conflict between case managers and the individuals applying for CCAC services.
- The allocation of personal support and homemaking services is expected to vary across the provinces as each CCAC sets their own policies relating to prioritization of these services.
- The allocation of personal support and homemaking services may also vary within CCACs because case managers have flexibility in developing their service plan so that they may tailor plans to client needs.
- Case managers often think of personal support and homemaking services as two distinct services, although both services can be provided by the same person.

In phase II of the research study, a survey was designed to look at priority setting for personal support and homemaking services in CCACs across the province of Ontario. The objectives of this survey were:

1) To examine the priority setting attitudes of CCAC case managers

2) To assess the relative importance of client characteristics or attributes (identified in Phase I) in case managers' decisions about prioritizing clients for: a) personal support services and b) homemaking service
3) To examine the relationship between case manager characteristics and the relative importance of client characteristics in their decisions about prioritizing clients for: a) personal support services and b) homemaking service
4) To assess the relative importance of the values identified in Phase I in decisions about personal support and homemaking service allocation
5) To examine the relationship between case manager characteristics and the relative importance of these values in decisions about personal support and homemaking service allocation

To address the first objective, a number of questions were designed to determine case managers attitudes about priority setting and the importance of personal support and homemaking services.

To address the second objective, a discrete choice experiment, in which case managers were asked to prioritize one of two hypothetical clients for: 1) personal support and; 2) homemaking services. The hypothetical clients were described through profiles created by combining different levels of the characteristics or attributes of interest. For each question in the choice exercise, case managers were given the option to opt out of this choice if they felt that neither client should receive services. Multinomial logit regression analysis was then used to determine which attributes influenced case managers' choices to prioritize one hypothetical client over the second client. To address the third objective, case manager characteristics found to be important to resource allocation decisions in

past studies and in Phase I of this thesis (years of experience as a CCAC case manager; professional training; works in rural area; informal caregiving experience; preferred equity principal) were examined. Each variable was entered into the multinomial regression analysis to determine if they were statistically significant predictors of choice behaviour.

To address the fourth objective, a second discrete choice experiment was constructed in which case managers were given sets of value statements and asked to indicate which statements in each set were most important and least important to their decisions. Multinomial logistic regression analysis of this choice data was used to determine the relative importance of the value statements. To address the fifth object, the influence of case manager characteristics was tested, once again, by entering them into a multinomial logit regression analysis to determine if these variables were statistically significant predictors of choice behaviour.

1.4 Organization of the Thesis

There are 11 additional chapters in this thesis. Chapters 2 to 5 describe the literature review and conceptual framework that I used for this thesis. In Chapter 2, "Home Care in Ontario", I introduce the context for this thesis, the home care sector in Ontario, and discuss how the organization of this sector influences the design of this research study. In Chapter 3, "Priority Setting within Home Care", I define priority setting and explain why it will always be required regardless of the level of funding. I further justify my research questions taking into account the levels of priority setting, the ranges of stakeholders and the types of priority setting decisions in the home care sector. I explore the current literature on the factors that impact on home care case managers' resource

allocation decisions and describe previously published Ontario based studies. Finally, I describe the forms of priority setting that can be seen within the public sector in general. In Chapter 4, "Values and Priority Setting", I define the term "value", discuss how this conceptualization has influenced this thesis and differentiate "factors" from "values". Case managers' beliefs about the relative importance of values are thought to influence how they interpret and trade off factors influencing decisions. I discuss this link between factors and values and the difficulties inherent in studying values in more detail. Finally, in Chapter 5, "Conceptual Framework", I bring together the literature reviewed in chapters 2 to 4 into a conceptual framework.

In Chapter 6, "Methods", I provide justification for the mixed methods approach, describe the qualitative case studies, and describe the design of the survey containing the discrete choice surveys.

Chapters 7 to 10 describe the results of the qualitative Phase I portion of this thesis. In Chapter 7, I provide an overview of the results of the qualitative case studies conducted for this thesis. These are described in detail and discussed in Chapters 8 to 10. Specifically, Chapter 8 addressed objective #1 of Phase I, which was to examine the context of priority setting and the types of decisions made, using Klein, Day and Redmayne's forms of rationing(13) as a conceptual framework. Chapter 9 addresses objective #2 of this research study, which focuses on the factors and values that influence organizational level priority setting decisions. Finally, Chapter 10 addresses objective #3 which was to examine the factors and values that influence case managers' resource allocation decisions.

In Chapter 11, I describe the survey findings and discuss the results in the context of the published literature. First, the responses to the general priority setting questions are examined in order to describe case managers' priority setting attitudes (Objective 1 of Phase II). Then the analysis of the discrete choice experiment that involved choices between hypothetical clients is described to determine the relative importance of client attributes to prioritization decisions. The influence of case manager characteristics on the assessment of relative importance of the client attributes is also assessed (Objectives 2 and 3 of Phase II respectively). Finally, the analysis of the second discrete choice experiment is described to determine the relative importance of a number of value statements and the influence of case manager characteristics on the assessment of relative importance of these value statements (Objectives 4 and 5 of Phase II respectively).

The final chapter of this thesis, Chapter 12, summarizes the main lessons learnt from this thesis and discusses the policy implications of these results.

2 Home Care

In this chapter, the study context, the home care system in Ontario, is described. First, I present a broad definition of home care. Next, I describe delivery of home care in Ontario specifically focusing on the evolution and role of Community Care Access Centres (CCACs), the model of service delivery, and the decentralized nature of delivery across the province, concluding with a description of the pattern of funding. I then describe the home care eligibility criteria, present utilization statistics to illustrate the population that actually uses home care, discuss the types of clients served by CCACs, and describe the MDS-HC assessment tool used for long term clients. Finally, I summarize how the context influenced the design of this research study.

2.1 Definition of Home Care

Health Canada has defined home care as "an array of services which enables clients, incapacitated in whole or in part, to live at home, often with the effect of preventing, delaying or substituting for long term care or acute care alternatives."(14) Hollander has described home care as part of an emerging continuing care service delivery system that includes assessment and treatment centres, day hospitals, chronic care hospitals and units, nursing homes, group homes, and adult day care centres.(15) Home care is therefore defined by the place of delivery rather than by the type of service delivered. Care can be delivered in a wide range of settings that care recipients call "home" and may include private households, apartments, retirement homes, supportive housing, long term care, group homes or shelters. Home care services can include case management, nursing, personal care, home support (homemaking), occupational and physio-therapies, home

meal delivery and respite care. This range of services can be used by individuals with acute or chronic conditions.(16) Although the Health Canada definition implies that individuals have the right to live independently in their choice of residence as they age, or "age-in-place", many of the provinces have not committed to this philosophy.(17)

2.2 Home Care in Ontario

2.2.1 Community Care Access Centres

Although federal programs such as the Canadian Assistance Plan (1986) and the Established Programs Financing legislation (1977) have influenced the development of home care in Canada, the organization of these services has been determined by provincial governments.(18) Home care policies, therefore, vary by province but for this thesis project, I focused on the province of Ontario. Home care services in Ontario have grown substantially since the introduction of the Special Home Care Program in 1995.(18) In the early 1990s, a variety of programs existed including the Homemakers and Nurses Services Program, the Acute Care Program, the Respite Care Program, the Chronic Home Care Program, the Home Support Program for the Elderly, the Placement Coordination Service, the Arthritis Society Consultation and Therapy Service, the Integrated Homemaker Program, and the Hospital-in-the-Home Program.

In the late 1990's, the Ontario government reorganized existing home care programs under the control of Community Care Access Centres (CCACs). Elizabeth Witmer, the Minister of Health in Ontario in the year 2000, explained that this reorganization was conducted to further the government's commitment to bringing "healthcare services closer to home to enable patients to receive care in their community".(19) This policy is meant to reflect the public preference for "age-in-place approaches".(19) The specific

goals of reorganization were to: 1) improve coordination of the system and reduce user's confusion; 2) improve and coordinate waiting lists for long-term care institutions; and 3) reduce redundancies created by multiple programs. Reorganization of the Ontario home care services, completed in 1998, led to the creation of 43 CCACs located in 16 Health Districts (Table 1).[a] The case studies that form the first part of this thesis were conducted in this context in 2005.

In April 2006 the current provincial government[b] dissolved the District Health Councils and reorganized the province into 14 Local Health Integration Networks (LHINs). LHINs were tasked with local health planning and community engagement. The provincial government has been gradually increasing the fiscal responsibility of the LHINs. On January 1, 2007, the 42 CCACs were dissolved and reorganized into 14 CCACs that coincide with the boundaries of the LHINs (Table 2). Finally, in April 2007, the LHINs became responsible for funding and managing many of the health services within their region including: private and public hospitals, CCACs, community support service organizations, mental health and addictions agencies, community health centres and long-term care homes.(20) The province maintained control of physician services, laboratory services, ambulance services, provincial drug plans, public health and other provincial programs.(20) With the new Aging at Home strategy announced by the province in August 2007,(21) for example, the LHINs were allocated a block of funds which they had to decide how to allocate amongst the organizations working to achieve the goals of this strategy, including community based service organizations and the CCACs.

[a] In 1998, the York and Etobicoke CCACs were merged to leave only 42 CCACs in the province.
[b] Elected to office October 2003

Table 1. Ontario's District Health Councils and Community Care Access Centres in existence prior to the Local Health Integration Networks, by Region.

Region of Ontario	District Health Council	CCACs
Central East Region	Durham Haliburton Kawartha & Pine Ridge District	1. Durham Region 2. Haliburton, Northumberland and Victoria Counties 3. Peterborough County
	Simcoe York	4. Simcoe County 5. York Region
Central South Region	Grand River	6. Brant County 7. Haldimand-Norfolk Region
	Hamilton	8. Hamilton-Wentworth
	Niagara	9. Niagara Region
Central West Region	Halton-Peel	10. Halton Region 11. Peel Region
	Waterloo-Region Wellington- Dufferin	12. Waterloo Region 13. Wellington-Dufferin Counties
East Region	Champlain	14. Eastern Counties 15. Ottawa Region 16. Renfrew County
	South Eastern Counties	17. Hastings and Prince Edward Counties 18. Kingston, and Frontenac, Lennox and Addington Counties 19. Lanark, Leeds and Grenville Counties
North Region	Algoma, Cochrane, Manitoulin, Sudbury	20. Algoma District 21. Cochrance District 22. Manitoulin, and Sudbury County and Region
	Northern Shores	23. Muskoka, and (East) Parry Sound Counties 24. Nipissing County 25. Timiskaming District 26. (West) Parry Sound County
	Northwest Region	27. Kenora and Rainy River Districts 28. Thunder Bay District
South West Region	Essex, Kent and Lambton	29. Chatham, and Kent County 30. Sarnia and Lambton Counties 31. Windsor and Essex County
	Thames Valley	32. Elgin County 33. London, and Middlesex County 34. Oxford County
	Grey Bruce Huron Perth	35. Grey Bruce Counties 36. Huron County 37. Perth County
Toronto Region	Toronto	38. East York 39. Etobicoke and York* 40. North York 41. Scarborough 42. Toronto

Table 2. List of the 14 Community Care Access Centres Created on January 1, 2007.

1. Erie St. Clair 2. South West 3. Waterloo Wellington 4. Hamilton Niagara Haldimand Brant 5. Central West 6. Mississauga Halton 7. Toronto Central 8. Central 9. Central East 10. South East 11. Champlain 12. North Simcoe Muskoka 13. North East 14. North West

2.2.2 Models of home care delivery in Ontario

There are two main types of home care models operating in Canada: the provider model and the self-managed care model. In the provider model, clients receive services in the home from professionals that are hired and paid for by the provider. In Ontario, the CCACs provide case management services and contract out approved care services to for-profit or not-for-profit agencies. In the self-managed care model, the clients or their relatives are given funding in the form of cash or vouchers in order to arrange the services they require.(16) In Ontario, adults with disabilities are eligible to participate in self-care programs.(14) These programs are administered by the Centres for Independent Living rather than through the CCACs. This research project focused on the services provided by CCACs.

2.2.3 Regional control of home care services

One notable feature of the reorganization of home care services in Ontario was the decentralization of power to regional CCACs. According to Mills and colleagues, decentralization of power can be classified as deconcentration, decentralization, or devolution, depending on the degree to which decision-making power is regionalized.(22) Although the Ontario Ministry of Health and Long-term Care (MOHLTC) sets broad guidelines and policies, the CCACs (both pre- and post- reorganization on January 1, 2007) are independent organizations governed by boards of directors.(14) In January 2007, the LHINs began to fund the CCAC instead of the provincial government and thus CCACs must now also meet LHIN-specific service goals. Thus, the CCAC model reflects decentralization of authority, as conceptualized by Mills and colleagues, in which some decision-making power is transferred to local authority but is bounded by centrally controlled guidelines and standards.(22) Many OECD countries have been reorganizing and decentralizing their health services in the hopes of improving efficiency, improving accountability, and increasing public participation in decision making.(23)

Decentralization and Preferences and Values

In a theoretical analysis of decentralized delivery structures, Hurley and colleagues suggest that they may be more efficient than centralized ones because of their greater capacity to understand the values and unique contributions of the local setting, except where values and preferences within the local region are heterogeneous.(23) They argue that resource allocation decisions are not technical in nature but are instead highly value laden, meaning that decentralized systems may be theoretically preferred due to increased efficiency.(23)

The Urban / Rural and the Northern / Southern Divides

The importance of the local context to health care decision making was also highlighted by Williams who argued that centralized decision making has systematically disadvantaged home care programs in northern Ontario compared to regions in the south. She contends that this bias in testing, planning, and implementation of new programs has increased accessibility problems in the North and reduced the suitability of the programs. One of the largest problems faced by northern home care programs is the lack of accessibility and transport between remote locations, especially during the winter months. Overall, the continuum of health care in the north is more poorly developed and the problem is exacerbated by the fact that younger individuals seeking employment often move to more urban areas in the south, leaving a higher proportion of elderly individuals in the north and a weaker informal caregiver support system. In fact, many of the challenges outlined by Williams are due to the rural nature of the Northern regions of Ontario. Measures such as Kralj's rurality index for health care,(24) indicate that rural areas in other areas of the province face similar challenges, though conditions may be less extreme than in Northern Ontario due to higher population densities(25) and better health care infrastructure. The southern urban areas, on the other hand, face the challenge of serving multi-cultural and multi-lingual clients.(26) Decentralization of the home care program has the potential to improve this imbalance by allowing northern areas to tailor programs to their populations.

Implications of Regionalization

The discussion of the decentralization of the home care system in Ontario has raised a number of issues that were important to this thesis project. First, it must be recognized

that decentralization has allowed CCACs to develop, to some degree, as independent organizations. Second, the theoretical analysis by Hurley and colleagues has highlighted the importance of preferences and values to resource allocation decisions, and the potential that these values and preferences may vary by region. Finally, Williams' analysis has highlighted the divide between northern rural and southern urban CCACs. These differences may also be seen to a lesser degree between all rural and urban CCACs.

2.2.4 Funding of home care services

Prior to 2000, funding to the home care sector in Canada increased more rapidly than public funding for health care in general. Between 1975 and 1992, for example, home care expenditures increased by 19.9% while total health care system expenditure only increased by 10.8%.(27) In Ontario, the average public home care expenditure per individual age 65 years and older had increased 39% from $527.02 in 1992 to $733.42 in 1998. In Ontario, the financial picture for home care changed shortly after CCACs were created and the CCACs Corporations Act was enacted.[c] Funding for home care increased by only 1.7% between the 2000/2001 and the 2001/2002 fiscal years and only 2.6% between the 2001/02 and the 2002/03 fiscal years.(28) Furthermore, the proportion of all provincial health care dollars spent on CCACs declined from 4.8% in 1999/2000 to 4.2% in 2003/2005.(28) Over this period, contract prices with health care providers continued to rise leading to an overall decrease in the amount of home care services delivered.(28) A new provincial government was elected in October 2003 and in the 2004/2005 fiscal year, they began to once again increase funding for CCACs. The Ontario Home Care

[c] This provincial legislation, enacted in 2001, governs the administration of CCACs.(4)

Association reports that $1,410 million was spent by CCACs in 2005/06, which is up from $1,217 million in 2003/04.(29) In August 2007, this same government announced a new transfer of $700 million over 3 years to the LHINs in support of the Aging at Home Strategy, and a portion of those funds is expected to be allocated to home care by the LHINs.(21) Overall, the CCACs have experienced a changing financial environment since their inception.

2.3 Individuals Receiving Home Care

2.3.1 Eligibility for home care

All residents of Ontario are theoretically eligible for home care services if their care needs are not met by a hospital (outpatient or inpatient service) or some other institution.(14) Anyone, including a hospital, physicians, or members of the public, may refer a client or themselves to CCACs for service. Potential clients are assessed by a case manager; if their home is a suitable environment for care services and a need for care is determined, the case manager creates a service plan for the client. Personal care and homemaking services are provided to individuals who would require institutionalization if it was not provided. Unlike British Columbia, Alberta, Saskatchewan, and the four maritime provinces, Ontario does not presently assess income and ability to independently pay for home care services. There are no user fees for home care services in Ontario.

In several provinces (Alberta, Nova Scotia, New Brunswick, and Newfoundland) the maximum fee for services is based upon the cost for equivalent institutional services.(14) In Ontario, service maxima are defined in legislation which states that clients can receive a maximum of 80 hours of home support in the first month of servicing, followed by a

maximum of 60 hours per month there afterwards.(30) For most clients, nursing hours are limited to 4 visits per day or 28 hours per week. Adults with disabilities and individuals requiring palliative or complex care, however, are eligible for more nursing time.

The range of services provided by the CCAC is governed by the Ontario Long-Term Care Act, 1994.(30) The services provided by homemakers, personal support workers and health care professionals according to this act are presented in Table 3.

Table 3. Examples of homemaking, personal support and professional services identified in the Ontario Long-Term Care Act of 1994.(31)

Homemaking Services	Personal Support Services	Professional Services
• Housecleaning • Doing laundry • Ironing • Mending • Shopping • Banking • Preparing meals • Caring for children	• Personal hygiene activities • Routine personal activities of living	• Nursing services • Occupational therapy services • Physiotherapy services • Social work services • Speech-language pathology services • Dietetics services • Training a person to carry

2.3.2 Utilization of home care services

The Ontario Home Care Association reports that 649,244 clients received publicly funded home care services in 2005/06.[d](29) Case managers made 670,000 visits to clients for assessments or reassessments. As shown in Table 4, the most commonly provided services were personal support / homemaking and nursing. Most clients were adults, with only 10% of services being provided to children age 18 years or younger. This thesis therefore focused on nursing, personal support, and homemaking services delivered to adult clients.

[d] Clients who are transferred between CCACs or were re-admitted to CCACs in the same fiscal year may be counted twice.

Table 4. Distribution of care services in 2005/06 according to data from the Ontario Home Care Association. (29)

Service	Percent Provided
Personal Support / Homemaking	67
Nursing	27
Occupational therapy	2.2
Physiotherapy	2.1
Speech	1
Social Work	0.3
Dietetics	0.2

2.3.3 Types of clients served

In 2004/05, all CCACs adopted a new classification system for their clients. CCAC clients classified as short stay clients are expected to achieve their service goals within 60 days of admission while long stay clients are expected to require services for longer than 60 days.(32) Clients are transferred from short stay to long stay if at reassessment the case manager feels that the client will stay on service for more than an additional 60 days. Clients are also classified as in need of acute care, rehabilitation, maintenance, long-term supportive or end of life services based on their service goals, condition and services required, with detailed classification criteria shown in Table 5. This research project focused on how resources are allocated for long stay clients, including both maintenance and long-term supportive clients.

Table 5. CCAC Client classifications, as summarized in documentation for case managers.(33)

Characteristic	Maintenance	Long-term Supportive	End of Life	Rehabilitation	Acute
Service Goal	To maintain the clients independence by preventing/ minimizing the premature decline in health and/or functional status	To delay institutionalization by providing supportive care, and relief of symptoms to preserve the client's level of function and autonomy	To alleviate distressing symptoms to achieve the best quality of life by providing complex support in the last stages of illness	To optimize the client's functional status within limits of their disability and to facilitate social integration and independence.	To address the client's need for short term education, care or support as a result of illness, disability or injuries.
Individual's Condition	With chronic but stable self care deficit that requires ongoing need for assistance with ADL	With noticeable, progressive decline in functioning lasting greater than three months	Whose health condition is not responsive to curative treatment and who are dying	With decreasing short term activity limitations and participative restrictions	With a clearly identified and predictable outcome or recovery
Service Mix	Varying mix, often single service.	Varying mix, rarely single service.	Primarily nursing, rarely single service.	Primarily therapy, rarely single service.	Primarily nursing, often a single service
Length of Service	Extended period. Not time limited.	Extended period. Not time limited.	Time limited. Usually less than 6 months.	Time limited.	Time limited approx. 60 days.
Discharge	Unlikely, may move to another category	Likely, move to institutional care or end of life category	Yes, at time of death	Yes, or move to another category	Yes, or move to another category

2.3.4 Assessment of long-term clients

This research study examined how case managers assessed the needs of long-stay clients and allocated services to address those needs. Since 2002, the Ontario Ministry of Health and Long-Term Care has mandated that the needs of all potential long stay clients seen by district coordinators be assessed through the Resident Assessment Instrument – Home Care (RAI-HC). This is an assessment system developed by the interRAI

corporation that includes a data collection tool called the Minimum Data Set – Home Care (MDS-HC).(34;35) This instrument has been designed to help care coordinators systematically collect information on a number of potential areas of need or "domains"(Table 6) as well as personal information from the client. Case managers must assess all potential long-stay clients with this tool prior to developing a service plan. Clients should be reassessed every 6 months, or sooner if their functional status changes.(35) After the electronic version of the MDS-HC has been completed, Client Assessment Protocols or CAPs are generated stating the needs of clients. The CAPs are meant to help case managers identify the unmet needs of the client but they do not suggest the ways in which these needs may be addressed.

Table 6. The major domains from the Minimum Data Set Home Care (MDS-HC) Canadian Version Instrument.(34)

- Cognitive Patterns
- Communication/Hearing Patterns
- Vision Patterns
- Behavioural symptoms
- Social Functioning
- Informal Support Services
- Physical Functioning
- Continence
- Disease Diagnoses
- Health Conditions and Preventive Health Measures
- Nutrition / Hydration Status
- Dental Status (Oral Health)
- Skin Condition
- Environmental Assessment
- Service Utilization
- Medications

2.3.5 Implications for this research project

Based on the above description of CCACs, it is evident that CCAC case managers must make many types of resource allocation decisions for a broad range of clients. Since the utilization statistics show that the most commonly provided services are nursing

care and personal support services, these two services were chosen as the focus of this research study. Furthermore, since long stay and acute stay clients are likely to be different individuals, this research study centered on long stay patients. Finally, since policies are often different for patients under the age of 18 years, this study concentrated on resource allocation decisions for adults only.

2.4 Summary

The organization of home care described in this chapter had several implications for this research project. First, since the organization of home care varies across the country, this research project focused on the home care services in Ontario managed by the CCACs. Since CCACs are responsible for providing in-home services to a broad range of clients with diverse needs, this thesis concentrated on long stay clients who are over the age of 18 years, receiving nurse, personal support or homemaking services. Finally, due to decentralization, the priority setting processes in each of the CCACs were not assumed to be the same across the province. Furthermore, it was expected that values, preferences and hence resource allocation decisions would vary across the province. This assumption led to the decision to conduct two case studies as opposed to a single case study. Rural and urban CCACs, in particular, were expected to face different resource constraints that would impact on resource allocation decisions, so cases were chosen to represent each of these areas.

3 Priority Setting Within Home Care

Priority setting can be defined as the "failure to provide all beneficial care to all people"(36) or as "the distribution of resources among competing programs or people".(3) Terms such as 'rationing', 'resource allocation' or 'sustainability' have been used interchangeably with priority setting.(1;2) The first definition is useful because it emphasizes the fact that decisions must be made because resources are insufficient to meet the needs of all. The second definition is useful because it reflects the fact that individuals involved in priority setting are attempting to balance conflicting goals.

In this chapter, I first discuss the chronic shortage of resources within the home care sector and argue that the system will never have enough resources to meet the needs of all people since need is a contested concept that changes with the availability of resources. I then describe the various levels of the health care sector within which priority setting can occur. Next, I illustrate some of the broad conflicts or trade-offs that are currently occurring in the home care sector due to the shortage of resources. I then conceptually deconstruct a priority setting decision and discuss some of the factors that may influence case managers' decisions. I also portray some of the forms of priority setting that can occur in the public sector, including the public health care sector. Finally, I explain the importance of studying priority setting in the home care sector.

3.1 The Reality of Insufficient Resources

The political scientist Michael Lipsky, developed a theory of "street-level bureaucrats", which classifies many of the front line workers in public services, including those who "interact directly with citizens in the course of their jobs, and who have

substantial discretion in the execution of their work", as "street-level bureaucrats".(37)(pg 3) Since case managers act as gatekeepers to community and long term care services in Ontario,(38) they could be classified as street level bureaucrats. One of the working conditions faced by street level bureaucrats is a chronic shortage of resources, while another is that the demand for the services of the bureaucrats will always exceed the supply.

Resource shortage is a common theme in many research articles describing the Canadian home care system. In a qualitative study of case management conducted by Diem and colleagues,(39) for example, case managers were viewed as having insufficient time to perform all of the tasks in their job description. Their responsibilities included direct case management (initial assessment and monitoring of clients), indirect case management (organizing and implementing care programs, advocating for additional resources for particular clients) and program management (advocating change, addressing failings in the home care sector). Case managers lacked adequate time to complete all duties and often had no technical or clerical support. The majority reported focusing on the initial assessment of the client while duties such as monitoring were normally conducted in crisis situations. These resource constraints were magnified in rural regions because of travel time and service costs, especially in the winter.(5;39) Diem and colleagues concluded that case managers' tasks were most manageable when they were responsible for under 100 clients.(39) Only 10 of the 39 participants in the qualitative case studies conducted for this thesis, however, had a case load under 100 clients and some had case loads of over 300 clients.

Some individuals may argue that if funds for health care services are increased sufficiently it will be possible to provide all the care that is deemed to be medically necessary. This argument is based on the premise that "need" is an uncontested concept that is consistently defined by all health care system stakeholders. Bradshaw, for example, defines four types of need: 1) normative need; 2) felt need; 3) expressed need; and 4) comparative need.(40) Conceptualization of need is often tied to people's expectation of what is normal and what modern medicine can accomplish and these expectations can change as the health care environment changes. Aaron and Schwarz, for example, found that physicians in the United Kingdom unconsciously adjusted their definitions of medical necessity as budget constraints changed.(41) Health economists often define need as the "capacity to benefit", which implies that individuals don't have a need for health care until a beneficial intervention exists for their condition. This also implies that need increases every time an effective intervention is developed, which could mean a never ending increase in health care costs. In an analysis of data from the National Population Health Survey and the General Social Survey, for example, Stabile, Laporte and Coyte found that increased availability of publicly funded home care services was significantly correlated with increased health status and decreased informal caregiving.(42) There was no significant relationship between the availability of home care services and the perceived need for those services.

In summary, the home care sector faces a chronic shortage of resources. Although additional funds may allow current demands for service to be met, new demands for service will arise. Priority setting, therefore, will continue to be an important activity regardless of the amount of funds that is infused into the sector.

3.2 Levels of Priority Setting

Priority setting decisions can occur at different levels within the health care system. These levels are often conceptualized as 'macro', 'meso', or 'micro'.(43;44) Resource allocation at the 'macro' level can include decisions by the federal and provincial governments on how much funding to allocate to health care and how to distribute these funds. The Ontario government, for example, distributes funds to CCACs based on the historic use of services; the age and gender of the population served; the incidence and acuity of post-acute patients in the region; and the rurality of the region served.(28) 'Meso' level resource allocation decisions are made by health care institutions. The former District Health Councils in Ontario (now replaced by the LHINs) or the board of the CCAC, for example, may influence how funds are allocated.(45) Similarly, decisions made by CCAC administrators can be classified as meso level priority setting. Finally, 'micro' level decisions are made at the client level. Home care case managers' decisions about the type and amount of services to provide to individual clients are examples of micro level decisions.

Obviously, the decisions made at the macro and meso level influence the priority setting context at the micro level.(46) The focus of this research project was the micro level decisions made by CCAC case managers, but, in order to understand the context of these decisions, the meso level decision making process within CCACs was also documented and analyzed. Klein and colleagues explicitly label meso and macro level decisions as priority setting and micro level decisions as rationing. (13) Since the term "rationing" often has negative connotations amongst health care workers, priority setting

at the micro level is referred throughout this thesis as resource allocation or priority setting, unless explicitly referring to Klein and colleagues' theoretical frameworks.(13)

3.3 Stakeholders in the Home Care Priority Setting Process

The home care system has multiple stakeholders including the Ministry of Health, volunteers or employees of CCACs (e.g. members of the board, senior management and case managers), the service providers (e.g. personal support workers, nurses, physiotherapists), individuals who benefit directly from the services (clients and their informal caregivers) and the general public. In this research study, I have chosen to focus on the employees of the CCAC with special attention paid to case managers in order to gain a detailed understanding of their values and preferences. The results from this study, therefore, provide details on the perspective of one stakeholder only. The priority setting experiences of other stakeholders may be different from those of case managers, but their perspectives are not described in this thesis.

In addition to holding different values and preferences from other stakeholders, it may be reasonable to assume that there may be systematic differences between sub-groups within the CCAC. Theoretically, subgroups could be defined by training, work experience, and position within the CCAC. There is some empirical evidence that these variables are related to resource allocation behaviour. Two studies have found that increased age of case managers predicts more generous service packages.(47;48) One study found that case managers with a social work license were more likely to design generous service plans,(47) while a second study found the opposite.(49)

3.4 Competing Priorities in the Home Care Sector

In this section, the multiple goals of home care are defined. In order to achieve these goals, various programs, providers or patients compete for the limited home care resources. Competition between these programs or providers could be conceptualized as a trade-off in the types of services provided, while competition between patients could be conceptualized as a conflict between the types of client served. Several of these conflicts have been discussed in the published literature and are described below.

3.4.1 Goals of home care

The phrase "home care" describes a setting where care is delivered rather than the types of services delivered or the goals of the service.(50) Home care is often said to have three main goals: 1) to substitute for acute care provided by hospitals 2) to maintain individuals in their current residence as a substitute for long-term care facilities; and 3) to prevent deterioration in function so that recipients can maintain independence and stay in their own residence.(14;16) These goals of home care emphasize the importance of the home as a setting of care. The trend of shifting care to the home setting is driven by the assumptions that Canadians prefer to receive care in their own home rather than in institutional settings and that the care received in the home is at least as effective and cheaper than care provided in an institution.(51)

The three goals of home care, namely acute-care substitution, institutional long-term care substitution, and maintenance of functional abilities, can also be phrased in a manner that more clearly illustrates the outcome that provision of these services is expected to achieve.(50) Instead of acute or short term care, which refers to the length of utilization of the service, the phrase "curative" care could also be used. The goal of long-term or

"supportive" care is to maintain the clients at the highest level of independent living for as long as possible.(50) In Canada, the main alternatives to home care services for long-stay clients are nursing homes; assisted living projects are popular in the United States but are not as common in Canada.(16) Finally, "preventive care" may be a more appropriate label for services designed to prevent the deterioration of elderly individuals.(50)

Another goal of home care services may be to maintain or improve the health of informal caregivers.(50) Caregivers may be supported through home visits from nurses, homemakers or other personnel, but they may be equally well served through supportive housing, support groups, day care programs or institutional respite care.(50) Finally, due to the federal and Ontario provincial governments' recent interest in end-of-life care, CCACs may have also developed palliative care programs.(52;53)

This research study concerned resource allocation decisions for long term care clients. Provision of care to these clients serves the goals of supportive care or preventive care. Services designed to achieve these goals compete for resources with those designed to provide curative or end-of-life care, however, these types of conflicts were not the topic of this thesis. Indeed, in 2005, when the case studies in this thesis were conducted, priority setting concerning short-stay and long-stay home care clients was carried out by the provincial government (macro level) or by the administration of the CCACs (meso level). Case managers based in hospitals specialized in creating short-term plans (2 to 4 weeks) for post-acute clients, whereas community-base case managers created long-term plans.

3.4.2 Types of priority setting decisions

For this thesis, micro priority setting decisions were conceptualized as two distinct types of decisions. First, the case manager must assess an individual's potential need for service and second, decide the level of service, if any, required to meet that need. As alluded to in Section 3.1, I argue that need is a contested concept that requires definition in each health care context. Once a need is determined, various strategies can be taken to address it. Decisions can be further deconstructed into the types of inputs or information considered and the process used to make these decisions. In this thesis, the focus was on the inputs to decisions but the decision-making process is studied to some degree to provide context.

3.4.3 Types of need in the home care sector

Priority setting within the home care sector may be more complex than in other sectors because the services provided by CCACs (Table 3) address both medical care needs and social care needs. Medical care can be defined as services delivered by professionals such as physicians, nurses, and others in order to cure or alleviate a medical disease or illness. In other words, these professionals, who are influenced by the biomedical model of disease, attempt to resolve biological "disturbances" in order to return the individual to "normal" functioning.(54) Social care, also called "personal care, domiciliary care, preventive care," or "home support", includes activities "associated with the activities of daily living (getting up, going to the toilet, washing, dressing, preparing and eating food, going shopping, washing clothes, maintaining a home)"(55) Social services are essentially designed to maintain the recipient's independence.

In recent years, many provinces in Canada have moved home care services from ministries responsible for community services and integrated them with other medical services within their ministries of health.(56) As outlined in Chapter 1, the CCACs in Ontario are responsible for providing both types of services to their communities and both types of services may be required by long-term clients. In past studies of the experiences of long-term clients of the Ontario home care system, Aronson found that in periods where decreases in service are required to balance the budget, home care administrators and case managers have tended to a decrease in social care service rather than health care services, in spite of the preferences of the care recipients for social care.(55;57-60)

The goals of home care were defined above as providing curative, supportive and preventative care. The conflict between medical and social care is primarily a conflict between the types of services and individuals required to achieve those goals. The conflict of social versus medical care may be unique to the home, community and long term care sectors because social care is not provided in other sectors. As discussed in Chapter 2, this thesis focused on nursing, personal support and homemaking services and therefore included at least one example of each type of care.

3.4.4 Factors influencing micro level priority setting decisions

There have been relatively few studies of factors that influence home care case managers' resource allocation decisions. Through a systematic review of the literature, Fraser and Estabrooks(6) identified 6 quantitative studies(61-66) and 5 qualitative studies(67-71) that have looked at this issue. They categorized the potential factors identified in all these studies as: 1) client factors; 2) case manager factors; 3) system or

program related factors; and 4) information related factors.(6) Each of these factors could influence either a case managers' perception of an individual client's needs, the type of services allocated to address perceived needs, or both. These factors, and the role they may play in micro level priority setting, are discussed below. Fraser and Estabrooks noted that one of the limitations of work done to date is that no conceptual framework has been developed to organize the studied concepts.(6)

Based on the quantitative studies reviewed, Fraser and Estabrooks concluded that client-related factors were the most influential in resource allocation decisions. In this thesis, client factors were considered to be client characteristics or attributes that influence case managers' perceptions of need for service. Past studies have noted that case manager decisions are influenced by both "illness" criteria and functional criteria such as cognitive disability, nutritional status, activities of daily living impairments, and independent activities of daily living impairments.(6) Past studies have also noted that client characteristics related to the resources that clients possess, such as current levels of formal care, current levels of informal care, recent termination of services and level of personal resources, influence the perception of the needs that still should be addressed with publicly funded formal services.(6) Many of these factors are captured in the RAI-HC instrument used to assess potential long-term CCAC clients.(Table 6)

Fraser and Estabrooks also identify several case manager factors, or case manager characteristics, that influence resource allocation decisions including experience, education, gender, professional background (especially social work licensure), role within the organization (especially intake specialization), and age.(6) Theoretically, these factors could influence both the case managers' perception of need and the types of

services they put in place to address such perceived needs. Some of these factors were described in Section 3.3 as potentially influencing case managers values and preferences. In the qualitative studies reviewed by Fraser and Estabrooks, they note that case managers did not always agree on resource allocation decisions and in three of these studies, it was reported that case managers have the discretion to selectively apply institutional rules when making resource allocation decisions. In a qualitative study of the Massachusetts State Home Care Program in the United States, for example, Corrazini found that case managers exercise discretion in decisions about who to accept into the program.(68) Although the case managers had to complete standard assessment tools during their initial assessment of potential clients, some study participants admitted that they did not administer them as instructed because clients found the formal questionnaires to be impersonal and distressing. Instead, they completed the assessments based on less formal conversations with the patients.(68) Case managers also admitted to liberally interpreting eligibility requirements when they felt that someone truly needed the home care services.(68) These findings illustrate why resource allocation decisions cannot be understood by simply examining the standardized assessment instruments utilized by case managers.

A number of system or program factors that influence resource allocation decisions were identified in the literature reviewed by Fraser and Estabrooks. One of the system factors, regionalization of health care services, has already been discussed in Section 2.2.3 and was used to justify an assumption that resource allocation decisions may vary across the province of Ontario. The systematic review also highlighted the importance of organizational structure and processes including guidelines, policies, the availability of

colleagues for discussion and the culture or nature of the system. In this thesis, many of these factors are captured either under the description of meso level decisions that impact on resource allocation, or in the description of the context in which case managers weigh the factors that determine need and allocation of services. Finally, the review identifies factors like caseload size, workload, and staff turnover as potentially affecting resource allocation and these are conceptualized as external factors in this thesis. These factors essentially influence case managers' time and may therefore affect both the assessment of need and decisions on how to address that need. In the previously described qualitative study conducted by Corrazini, case managers allocated "remarkably similar care packages" to most clients, usually consisting of 3 hours of homemaking plus home delivered meals.(68) This behaviour could be interpreted in one of two ways: either the clients were remarkably similar in their requirements for home care services or the case managers fell into a pattern of resource allocation in order to more efficiently manage the constraints of high case loads and limited time. The case managers in the Corrazini study did report lobbying for extra services for clients with extraordinary needs for services.(68) Once again, one could argue that the concept of extraordinary needs is a contested concept and could be utilized at the discretion of the case manager.

Finally, the review by Fraser and Estabrooks identified a number of information related factors that influence resource allocation decisions such as data management, interactions with peers, literature, risk information, and value and benefit information. The first two factors, data management and interactions with peers, were considered indirectly as part of the priority setting process and context in this thesis. The remaining

factors speak to the effectiveness and efficiency of services, which are considered to be "values" in this thesis and discussed in Chapter 4.

3.5 Forms of Priority Setting

Priority setting is not necessarily an activity that health care workers consciously engage in, but they do adopt strategies to cope with the challenges they face. Klein, Day and Redmayne (13) have identified seven different strategies, which they term "forms of rationing" that health care workers may employ:

1. **Denial:** Exclusion of some potential beneficiaries from beneficial treatment. The eligibility or functions of a service are defined in such a way as to obstruct some would be beneficiaries from accessing care. It is the most visible form of rationing.
2. **Selection:** The opposite of denial. Some beneficiaries are perceived to be more deserving of service and receive priority.
3. **Deflection:** Directing would be beneficiaries to alternatives other than those offered by the health facility, hence saving the resources.
4. **Deterrence:** Discouraging would be beneficiaries from accessing services. This may be through costs of care (in context where this is accepted) and screening or referral system.
5. **Delay:** Involves discouraging would be beneficiaries from accessing services through long waiting time.
6. **Dilution:** Involves spreading of resources as much as possible so as to cover would be beneficiaries. Here, patients receive sub-optimal care in terms of health worker time, use of cheaper (and less effective) drugs or investigation procedures.
7. **Termination:** Involves withdrawal of beneficial treatment from a patient.

This conceptual framework was used to organize the data collected during the qualitative case studies in order to describe the context of priority setting in CCACs.

3.6 Why Study Priority Setting in Home Care?

In the last few sections, I have argued that there are insufficient resources to meet all of the goals of the home care system. Furthermore, although additional funds may lessen some of these conflicts, I contend that they will never be fully resolved. I have provided examples from previous studies of some of the conflicts that may occur at different levels of the health care system. Case managers will have to make assessments of client needs and determine what services to allocate regardless of the level of resources available, and therefore, will always have to engage in priority setting. As discussed in section 3.4.4, a previous study in the home care sector has shown that case managers have the discretion to make resource allocation decisions despite the existence of standardized needs assessment instruments. However, the process for decision making, the types of decisions being made and the reasons for these decisions are poorly understood. Despite the importance of these types of activities, there are a paucity of studies addressing priority setting in the home care sector in Canada, and in CCACs in particular.

A study of ethical dilemmas faced by home care case managers across Canada found that one of the greatest challenges faced by participants was "dividing the finite 'service pie'".(5) One of the ethical dilemmas confronted by case managers, for example, is whether to provide a subgroup of patients with the amount of care they optimally need or to provide less care to more patients. Although CCACs have the legal authority to regulate "service eligibility, service limits, prioritization, waiting lists management and discharge from service",(72) policies have not been fully developed.(30) Priority setting

is inevitably occurring in the home care system but it is currently unclear how these decisions are being made.

In 2001, the Ontario Association for CCACs (OACCAC) attempted to document the various processes used for priority setting within the CCACs through a survey of its membership.(73) A summary of the results in which 26 of the 43 CCACs participated is given in Table 7. Most of the methods of resource allocation used in 2001 were simply tools to help case managers manage their budgets or to ensure that service is delivered, that did not address the problem of prioritizing clients. In 2001, the Ontario government enacted the CCAC Corporations Act,(4) which effectively increased the provincial government's control over CCACs. The impact that this legislation have on priority setting criteria and mechanisms has not be studied.

Previous qualitative studies in the Ontario context have discussed priority setting from the perspective of home care recipients and informal caregivers. Wiles found that informal caregivers were confused about how to access services and dismayed over the apparent arbitrariness of eligibility criteria.(74) Individuals had "to be assertive, persistent and well organized to get effective support."(74) Aronson has explored care recipients' experiences during a time when resources were being increasingly rationed.(55;57-60) All of these studies demonstrate that CCACs may use lack of access to information and psychological barriers to ration services in ways that are not acknowledged by the Ontario Ministry of Health.(37) As Aronson aptly states, "societal dilemmas and questions about people's entitlements to formal or public support and about the status and worth of elderly and disabled citizens unfold into day-to-day local encounters between home care service user and service providers. At this level, they

cannot possibly be resolved and, as we have seen, they generate diminishment, frustration and conflict for all parties."(75)

The research described in this thesis, therefore, fills an important gap in the current health policy literature. It describes micro level priority setting process in CCACs, and the criteria used during this process, from the perspective of case managers and the CCAC administration. Explicit description of priority setting may allow the opportunity to improve priority setting within CCACs and potentially diminish the frustration experienced by all stakeholders.

Table 7. A summary of the case management resource allocation tools in use in selected CCACs in 2001.(73)

Method of Resource Management	Description	Regions Using Tool
Program Management	Six distinct programs have been developed (medically complex; senior continuing care; adult continuing care; cognitive program; children's program; acute medical / surgical short term). Each program is responsible for their own budget, manager and staff.	Simcoe County
Prioritization of clients based on need.	Clients needs for homemaking services are classified as urgent or non-urgent. A committee then decides on a weekly basis which clients will receive homemaking services and which will be placed on a waiting list.	Haldimand-Norfolk Manitoulin-Sudbury Near North
Access of new clients to services limited	New clients are admitted when resources become available. New clients are prioritized using a "Determination of Needs" tool.	Ottawa-Carleton
Resource allocation tool is used to track the utilization of services	Case managers are assigned a number of service units per week. Units are equivalent to a designated number of personal care hours, nursing visit, physiotherapy visits, etc.	East York Etobicoke
Targets used to control utilization of services	Service utilization targets are set for case managers on a monthly basis.	York Brant
Utilization reports	Utilization reports are provided to case managers for verification and discussion on a weekly or monthly basis.	Durham Kingston, Frontenac, Lennox & Addington Eastern Counties Chatham-Kent
Utilization forecasts	Weekly forecasts are provided to case managers for approval and discussion before services are ordered.	Toronto
Verification of service delivery	Reports given to case managers to verify that all services ordered were actually delivered	Windsor-Essex

3.7 Summary

In this chapter, I have defined priority setting and justified the assumption that CCACs will need to conduct priority setting regardless of the level of funding. I have also illustrated that there is currently a paucity of information on priority setting within CCACs and very little research that adopts a case manager perspective. This lack of information may be adversely affecting the individuals who need access to home care as well as those responsible for allocating home care services. This thesis attempts to address some of the gaps identified in published research studies.

In this chapter I have also discussed several concepts that will be important to the conceptual framework for this thesis. In Chapter 4 I discuss the concept of values and differentiate value from factors. Finally, in Chapter 5, I bring all of these concepts together in a conceptual framework.

4 Values and Priority Setting

4.1 Priority Setting as a Value-Based Exercise

Conceptual frameworks for priority setting have been developed by various disciplines including economics (economic evaluation, quality adjusted life year league tables, program-based marginal analysis)(76-78), philosophy (utilitarianism, libertarianism, Rawlsian egalitarianism, communitarianism, principle-based approach)(79), political science (rational-political model of policy development),(80)law and medicine (evidence-based medicine).(81) These frameworks use different types of evidence to guide decision makers during priority setting exercises. Unfortunately, these frameworks sometimes provide conflicting answers. Conflicts are not necessarily caused by the quality of evidence available to make decisions. Rather, each of these frameworks have different underlying value systems which promote the use of different types of evidence. Since the values considered appropriate to use in health care decisions may vary by stakeholder and decision making context, different normative frameworks may be appropriate in different jurisdictions. Indeed, international reviews of priority setting in different contexts have cited differences in values as reasons for different approaches to priority setting.(1;36)

Recognizing that the values underlying a priority setting exercise may differ in different contexts of the health care system, the focus of some researchers and decision makers has shifted to developing criteria that ensure a fair and legitimate process of priority setting. The governments of Denmark and Norway, for example, have found that setting priorities based on a set of defined outcomes is unsatisfactory.(82) Government

working groups have recommended that a legitimate "priority setting process is characterized by transparency and accountability."(82)(page 30) As part of a legitimate process, the values that could be used for priority setting should be clearly defined as potential inputs to the process.

One of the aims of this thesis was to examine the factors that CCAC employees use in priority setting decisions and the relative importance of these factors. Since priority setting is a value-based exercise, it was also important to describe the values that underpin these factors and determine the relative importance of these factors. In this chapter, I describe the conceptualization of 'values' that was relevant to this research project. I also describe why it is important to carefully define values and discuss the link between values and factors influencing resource allocation in more detail. Finally, I discuss theoretical reasons why studying values is challenging.

4.2 Values

The term "value" is frequently used in the literature but it is often poorly conceptualized. Health economists, for example, sometimes use the terms 'values' and 'preferences' interchangeably.(83) Through an extensive review of the literature, Giacomini and colleagues found that scholars fundamentally disagree about the nature of values.(84) As shown in Table 8, they identified five different dimensions of values that are implicitly or explicitly debated in the literature. Values can be: 1) prescriptive or descriptive; 2) enduring or transient; 3) abstract or context-specific; 4) represent outcomes (ends) or process (means); and 5) either weighed against each other or discussed to resolve conflicts.

The conceptualization of values used for this research project was influenced by Milton Rokeach's work.(85) He has defined a value as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse model of conduct or end-state existence."(85)(pg 5) This contrasts with other conceptualizations that contend that values are more transient and superficial in nature.(84) Rokeach classifies values as instrumental values, which encompass moral codes of conduct as well as individual competencies, or as terminal values, which include both personal and social goals.(85) Referring to the definitions given in Table 8, this conceptualization could be characterized as both evaluative and descriptive and as referring to both ends and means. The research study focused on end or final values rather than instrumental or mean values. Values are enduring and deep in the sense that individuals are not likely to adopt new values, however, the relative ranking of the values may be relatively transient in nature. Values are abstract concepts that can guide behaviour regardless of whether a person is cognitively aware that they hold these values.

Giacomini and colleagues also reviewed and qualitatively analysed discourse about values in Canadian health policy documents created by a variety of stakeholders and colleagues noted that a range of values were used to justify health policies.(86) They classified the values referred to in the policy documents, based on the substance or ontology of the values, into five groups: 1) goodness (e.g. quality, effectiveness); 2) physical entities (e.g. Canada's health system, services, programs); 3) principles (e.g. Canada Health Act principles, equity, efficiency, rights, responsibilities); 4) specific goals (e.g. prevention, access, various health states); and 5) attitudes and feelings (e.g. compassion, respect, well-being, pride, dignity). (84) Giacomini and colleagues have

likened values to onions because there are different layers with the meta-values or overriding reasons creating the skin, universal values forming mid-layers and the actual policy action acting as the core.(84) Values grouped as above as principals for example, may be the universal or meta-values that underlie choices made about specific program goals or the belief in certain physical entities. Giacomini and other suggest that policy analysts may describe all parts of the "onion" to develop a comprehensive understanding of values. This thesis was most concerned with the type of values that Giacomini and colleagues refer to as principles. The values grouped as attitudes and feelings are associated with the decision process rather than the decision outcome and were therefore not the subject of this thesis.

Table 8. Contrasting views on policy-relevant features of values concepts (copied from Giacomini et al. (84))

Evaluative, prescriptive Values are used to evaluate what has been or might be, and to prescribe what should be.	**Vs.**	**Descriptive** Values are also used to classify what is. Description ("facts") and prescription ("values") interplay in both policy and science.
Enduring, deep Values are stable and are not easily changed – they are thus reliable indicators of who we are, what we want, and what we might do.	**Vs.**	**Transient, superficial** Most theories allow that values can and do change. It is not clear how stable or well-substantiated preferences, opinions, etc. need be to constitute values.
Abstract, generalized Values are made of principles, algorithms, and the like, which provide guidance in novel situations.	**Vs.**	**Context-specific** Abstract values are not truly formed or possessed until they are used or confronted in some way in "real" situations.
Final (ends) Values represent our ultimate aspirations and goals.	**Vs.**	**Instrumental (means)** Values represent the means for achieving our ultimate aspirations and goals.
Weight or valences Values involve a dichotomous judgment of good vs. bad, together with a measure of how (relatively) good or bad. Decision making is a matter of weighing choices or values against each other on a common scale.	**Vs.**	**Qualities** Weighting scales require values in themselves. Some values are simply incommensurable; tensions between them are better reconciled through e.g. narrative or juridical forms of reasoning and judgment

The National Institute for Health and Clinical Excellence (NICE), an organization that provides guidance on health care interventions for the National Health Service (NHS) in England and Wales, distinguishes between scientific values and social values.(87)

Scientific values are "concerned with interpreting the significance of the available scientific, technical and clinical data".(87)(page 6) Social values "take account of the ethical principles, preferences, culture and aspiration that should underpin the nature and extent of the care provided by the NHS".(87)(page 6) Both types of values play an important role in developing health policy, but this thesis focused on social values rather than scientific values.

4.2.1 Individual values

Many scholars believe that values are stable and enduring personal conceptions of what should be.(83) Rokeach suggests that all individuals hold similar sets of values but differ in how they prioritize each value.(85) He defines a value system as an "enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance."(85)(page 5) Rokeach contends that values in an individual's value system may not change over a lifetime, but that the relative importance of these values does change. Williams further characterizes a value system as a pattern of values.(88) This pattern is determined not only by a conceptual hierarchical ordering of values, but also by how extensively and consistently an individual adheres to values.(88) Selective application of values explains why some individuals appear to act inconsistently or hold "double" or "triple" standards.(85) An individual may, for example, believe in equality but only apply this value to white men and fail to apply this value when dealing with individuals outside of that subgroup.(88) Referring again to Table 8, this conceptualization implies that during the decision making process, individuals weigh the relative importance of each value in order to resolve conflict.

This conceptualization of individual values is important to this research project because it implies that 1) values can be defined and 2) that the relative importance of values can be ranked by individuals in a questionnaire format. Indeed, Rokeach and others have developed standardized descriptions of values and have asked respondents to rank the importance of values in research surveys.(85;89;90) As described in the methods sections, this approach was adopted in the survey phase of this research project. Instead of using previous published value descriptions, however, new ones were developed through the qualitative case studies to ensure that they were relevant to the context of priority setting decisions in the CCACs.

4.2.2 Institutional values

An institution can be conceptualized as an organization that represents a subset of values in a society. They are "social arrangements that provide frameworks … for the transmission and implementation … of those subsets of values...".(Page 51)(91) Institutions may both reflect and influence the values of the individuals who make up the institution, those of the individuals served by the institution, or those of the society at large.(91) Given the relationships between individual and institutional values, Rokeach has suggested used different methods to study institutional values including content analysis of institutional documents, studying the personal values of the institutional gatekeepers or the clients served by the institution, and studying the institutional values as perceived by the gatekeepers or the clients served by institution. (91) In this research project, the values involved in priority setting were defined in the qualitative case study through review of CCAC documents and through a study of the personal values of interviewed CCAC employees. During the analysis, I compared the values described in

each of these sources and also looked for differences in the values described by the administrators and the case managers because I hypothesized that these two groups of individuals might have different personal values.

4.3 The Importance of Defining Values

In this research project, the qualitative case studies were used to define the values that case managers employed during their resource allocation decisions. The goal was to develop detailed descriptions of all types of values and then derive distinct value statements for use on the quantitative survey. As illustrated below through an examination of the value of equity, it was important to carefully define each value because individuals can refer to common values but actually ascribe different concepts to common value labels.

"Equality" refers to equal treatment regardless of circumstances while equity implies fairness. Equity can mean that individuals in different circumstances are treated differently but in a just manner.(92) The health services literature differentiates between horizontal equity (the equal treatment of equals) and vertical equity (unequal but equitable treatment of unequals).(93) Vertical equity has sometimes been called "positive discrimination".(93) Social inequities occur "when the same people are at the bottom of several of the heaps and the same people are at the top". (93)

The economist, Amartya Sen, argues that most people would agree that equity is an important characteristic of a fair society and that all major ethical theories of social arrangement include some notion of equity.(94) It is important to define the dimension of equity that is most desired in a society because equality in one dimension may mean inequality in another dimension. Unfortunately, as Williams suggests, equity arguments

are often presented in a "framework in which it appears possible to 'do good' at no opportunity cost whatever" and this is not helpful to decision-makers who deal in real-life trade-offs. (95)

There are several types of equality that may be a valid goal for a public health care system, including, equality of expenditure per capita, equality of input (resources) per capita, equality of input for equal need, equality of (opportunity of) access for equal need, equality of utilization for equal need, equality of marginal met need, and equality of health.(96) International health policy documents most commonly refer to equal access for equal need as the basis for equity.(97) Adoption of this definition, however, is not sufficient to guide the allocation of health care resources because "need" is a contested concept that requires further definition.(98) Society's challenge is to differentiate the needs that should be addressed by a publicly funded health care system from those that should not be.

4.4 The Relationship Between Values and Factors

In Section 3.4.4, a number of factors thought to influence resource allocation in home care, including client characteristics, were introduced. To determine an individual's need for service, case managers were assumed to implicitly weigh the importance of various client characteristics. Each client characteristic was thought to resonate with a particular value that the case manager held; the importance of the factor in decision making was thought to reflect a case manager's belief about the relative importance of the underlying value or the related principle. An example from a simple context may be useful to illustrate this link between factors and values. Presume that a consumer is making a choice to purchase Car A or Car B. Car A has an anti-lock braking system and standard

fuel efficiency, whereas Car B has a standard braking system and excellent fuel efficiency. The consumer may choose Car A if they value safety over efficiency or Car B if efficiency is preferred to safety.

As described in section 4.2, Giacomini and colleagues have used the metaphor of an onion to describe how different layers of values are related to each other. Consistent with this metaphor, I have conceptualized values and factors as being linked concepts. Factors are easily identified reasons that individuals describe as influencing their decisions while the values are the more general principles that underpin these factors. The factors are easily identified and worded but the values may or may not be directly articulated by individuals.

This thesis used discrete choice experiments in which choices are thought to represent preferences. Some researchers view 'values' and 'preferences' as linked but distinct concepts falling on a continuum, with easily identified and worded preferences on one end and poorly articulated values on the other, referring to values as "underlying preferences".(83) In this thesis, the client characteristics thought to influence resource allocation were used to construct profiles of potential home care clients. The case managers who responded to the survey were thought to prioritize the hypothetical clients in a manner consistent with their preferences about the relative importance of the individual factors in these client profiles. Values were then considered to be the reasons for a particular preference.

This thesis is based on the premise that values drive preferences for the relative importance of factors in resource allocation, which in turn would drive choice behaviour on a discrete choice experiment. Rokeach claims that values help individuals "choose

between alternatives, resolve conflicts, and make decisions" (85)(page 14) and stimulates them to act in a particular manner. Indeed, Rokeach and colleagues have shown in empirical studies that values can influence many behaviours including choices on education, occupation, politics, and religion.(99;100) In this context, it was much more difficult to draw a direct link between choice behaviour and values. Several previous discrete choice experiments have shown, for example, that different underlying values can be used to justify the same choice in these types of exercises. When Oliver administered the standard gamble test[5] and then qualitatively examined individuals' reasons for choices made during the quantitative interview,(101) he found that individuals who made the same resource allocation decisions justified their choice using different ethical reasoning. In another study, Ubel and colleagues asked physicians and members of the public about their preferences for a colon cancer screening test. The individuals who preferred a less effective and less expensive test to a more expensive and more effective one, described a total of 11 different types of reasons for their choice. Both of these studies, therefore, highlight the pitfalls of ascribing a particular set of values to individuals who report similar choices or preferences.

In the conceptual framework used for this thesis, which is explicitly described in Chapter 5, it is assumed that values influence the relative importance attached to factors that are considered in resource allocation decisions. An individual's view on the relative importance of values was therefore thought to influence the relative importance they placed on individual factors influencing decisions but this was difficult to test directly in a quantitative manner during the survey phase of this research.

[5] The standard gamble is a trade-off technique commonly used to measure preferences. It is briefly discussed in Chapter 6.

4.5 Challenges in Studying Values

Values are difficult to study directly because individuals' actions are not always consistent with their value systems when there are social costs associated with them. The greater the acceptance of a value that is shared in society, the more pressure an individual experiences to either act on a certain value or to disregard another value, especially if violation of a social norm is met with active disapproval.(85;88) Williams states that "(o)nce the norms are effectively institutionalized, nearly everyone may conform" because it is not "in their interest," even though few would have conformed in the absence of the "superadded incentives of social sanctions and group attachments."(88) (p. 26) Furthermore, given enough reinforcement with rewards and punishments, Williams contends that certain behaviours become "quasi-automatic" or "non-voluntary". Individuals, then, may not even be aware of the reasons for their own behaviour.

In the qualitative case studies of this thesis, it was not possible to observe case managers making resource allocation decisions to infer values. Instead, values were studied by analyzing how participants either directly or indirectly discussed the reasons that certain factors can affect their resource allocation decisions. This was considered a valid approach because Rokeach contends that values influence how an individual rationalizes or justifies behaviour.(99) Although individuals may not accurately describe their own resource allocation behaviours because of various biases, one might expect that their justification for this type of behaviour would reflect their value systems. In the case studies conducted in Phase I of this study, value descriptions were created directly from or inferred directly from interviews and documents. Case managers were assumed to describe their own personal values. One limitation is that case managers responses may

be influenced by their own awareness of their decision making behaviour and their awareness of the social norms of their environment. In this case, case managers' descriptions would be expected to be closer to the institutional norms than their values truly are.

In conclusion, the social norms of the decision-making context can affect how a person describes their own behaviour and which values are directly or indirectly invoked to justify behaviour. This highlights, once again, the importance of studying the decision making context, as well as the actual factors and values that influence resource allocation decisions.

4.6 Summary

In this chapter I have made the point that priority setting decisions are value-based decisions. In order to gain a deeper understanding of why resource allocation may differ between CCACs, one has to understand both the institutional values and individual values that drive these decisions. I have presented the conceptualization of values that was used in this thesis. Since individuals and institutions rationalize their behaviour through the use of values, individual values were derived from analysis of individual interviews while institutional values were derived through official documents. Some comparisons were made between the individual and institutional values, however, it was beyond the scope of this study to formally determine how closely linked the two types of values were. It was assumed that rationalization of priority setting decisions could be affected by the social environment and this provided one more reason to study the context of decision making in the case studies.

5 Conceptual Framework and Research Objectives

In Chapters 2 to 4 the published literature was reviewed in order to define and describe home care, to discuss priority setting and its importance to home care programs and to characterize the concepts of factors and values and their role in priority setting decisions. In this chapter, these ideas are brought together into the conceptual framework that was created for this research project. Since I am health services researcher and conducted this research while participating in an inter-disciplinary training program, this thesis took an interdisciplinary approach. The conceptual framework described in this chapter combines ideas from the disciplines of health economics, health policy research and health care ethics.

5.1 Conceptual Framework

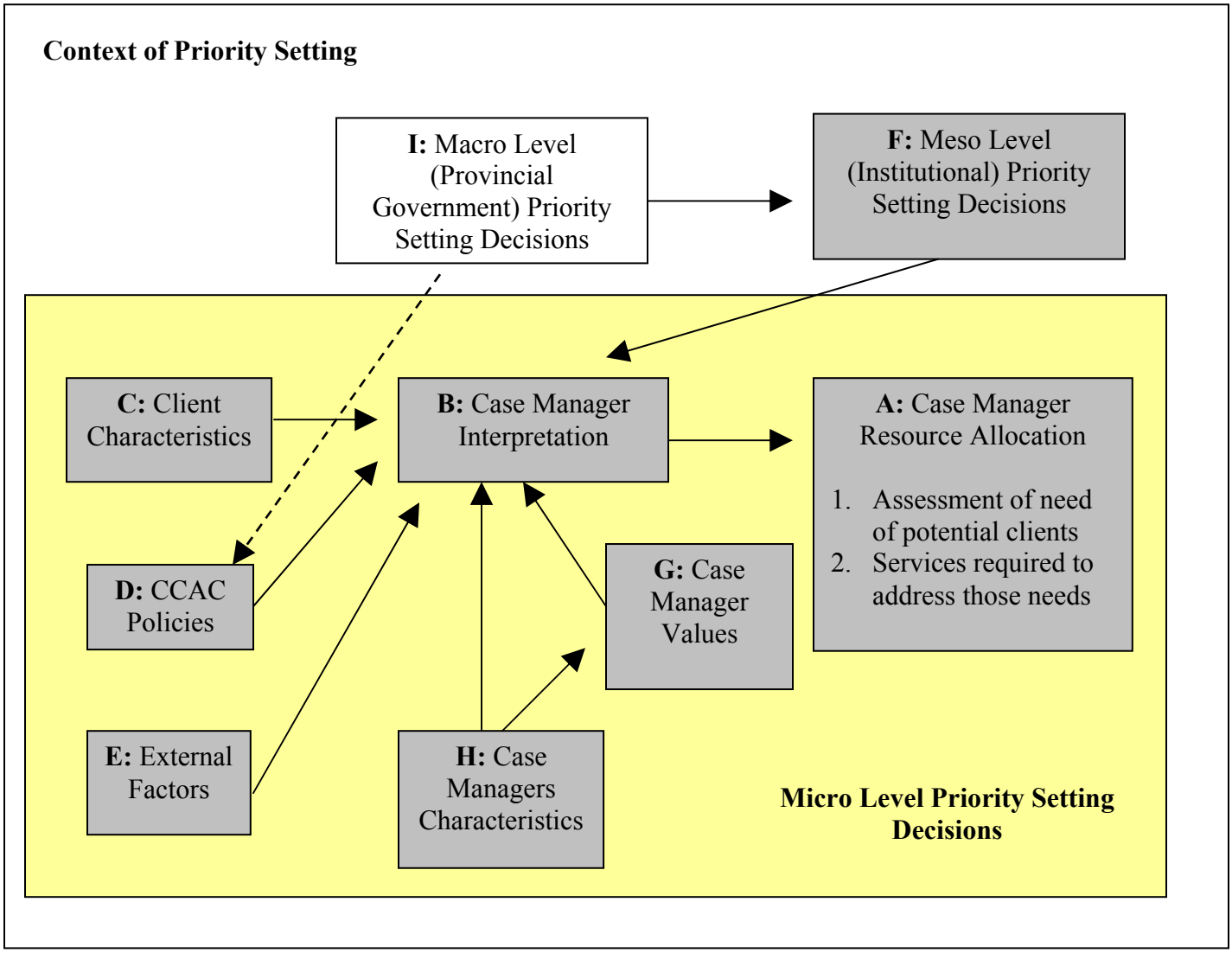
Since the context of priority setting is very complex, the first analysis that was conducted with the qualitative data was to examine the types of priority setting and resource allocation decisions that are made at the level of the CCAC (meso level) and the level of the case manager (micro level). Klein, Day and Redmayne's forms of priority setting described in Section 3.5.(13) was found to be a useful way to organize this data and address the first research objective for Phase I.[6]

The remaining thesis objectives were addressed using a conceptual framework (summarized diagrammatically in Figure 1) that was developed based on the literature review. This conceptual framework focuses on the factors that influence the trade-offs that must be made during priority setting decisions. This conceptual framework provides

[6] Related Phase I research objective: To describe the context of priority setting, focusing on the types of priority setting decisions made within CCACs

a different lens through which to view priority setting decisions than Klein and colleagues' framework. The two frameworks are essentially used to illuminate different aspects of this research topic.

Figure 1. Diagram of the conceptual framework that guides this research study.



White Box = Indicates concept was not studied in this thesis
Dashed line = Indicates relationship was not studied in this thesis

This thesis was designed to study the resource allocation decisions made by home care case managers, and these are depicted in box A in **Figure 1**. This decision is

conceptually broken down into two steps: 1) an assessment of need of the potential client; and 2) a decision about the type and amount of services required to meet those needs. A number of factors, captured in boxes C to F of **Figure 1**, are thought to be considered during case managers' decisions:

- **Box C:** Case managers consider client characteristics including disease-specific or treatment specific factors, functional status, and client resources (See Section 3.4.4) during resource allocation decisions.
- **Box D:** CCAC policies describe the type of client characteristics that case managers should consider during needs assessment (See Section 2.3.4) and provide guidelines on the type and amount of service to provide in response to identified needs.
- **Box E:** External factors, which are considered to be factors that are not directly controlled by the case managers or the CCACs. These may include, for example, decisions made in other health care sectors.
- **Box F:** Decisions made at the meso or organizational level can influence case managers by determining, for example, how many hours of service case managers have to offer all potential clients.

The case manager interprets the relative importance of all of these factors in their priority setting decisions. As depicted by Box G and H, the importance that case managers attach to each factor is thought to be influenced by personal values and personal characteristics.

- **Box G:** Values were conceptualized as the principles that case managers implicitly trade-off when they are making priority setting decisions.

- **Box H:** Case manager characteristics, such as professional training and years of experience, can influence how a case manager perceives a clients' need for service or can impact on the interpretation of CCACs policies when creating the service plan to meet the assessed needs.(See Section 3.4.4) These characteristics may influence decisions because they define group of people who have had similar experiences and hold similar values.

The relationship between all of the boxes in the micro or client level priority setting context (contained in the light grey area) were studied in Phase I.[7] Decisions at the macro level, defined in this thesis as those made by the provincial Ministry of Health and Long-Term Care (Box I), may influence organizational decisions (Box F) or shape CCAC policies (Box D), but the macro level was not explicitly studied in this thesis. Hence the box representing the macro level within Figure 1 is white and not grey like the other boxes and the arrow between Box I and D is dashed. Meso level, or organizational level, decisions were studied in Phase I in order to define the decisions that influenced micro level resource allocation. As part of this exploration, both the factors (including the Ontario Ministry of Health policies) and the institutional values that influence these decisions were explored.[8] These factors and values have not been explicitly picture in Figure 1.

In Phase II, a discrete choice experiment was designed as part of the survey to focus on the relationship between: 1) client characteristics (Box C)[9] and case manager

[7] Related Phase I research objective: To describe the case managers' resource allocation decisions, focusing on the factors and values that influence these decisions.
[8] Related Phase I objective: To describe organizational level priority setting decisions that impact case managers' resource allocation decisions, focusing on the factors and values that influence these decisions.
[9] Related Phase II research objective: To examine the relationship between case manager characteristics and the relative importance of client characteristics in their decisions about prioritizing clients for: a) personal support services and b) homemaking service.

interpretation of client need (Box B); and 2) case manager characteristics (Box H) and the case managers' interpretation of the relative importance of client characteristics (Box B).[10] A second discrete choice experiment was designed to examine: 1) the case managers' choices of the relative importance of values (Box G)[11] and 2) the influence case manager characteristics (Box H) on the case managers' interpretation of the relative importance of those values.[12]

[10] Related Phase II research objective: To examine the relationship between case manager characteristics and the relative importance of client characteristics in their decisions about prioritizing clients for: a) personal support services and b) homemaking service.

[11] Related Phase II objective: To assess the relative importance of the values identified in Phase I in decisions about personal support and homemaking service allocation

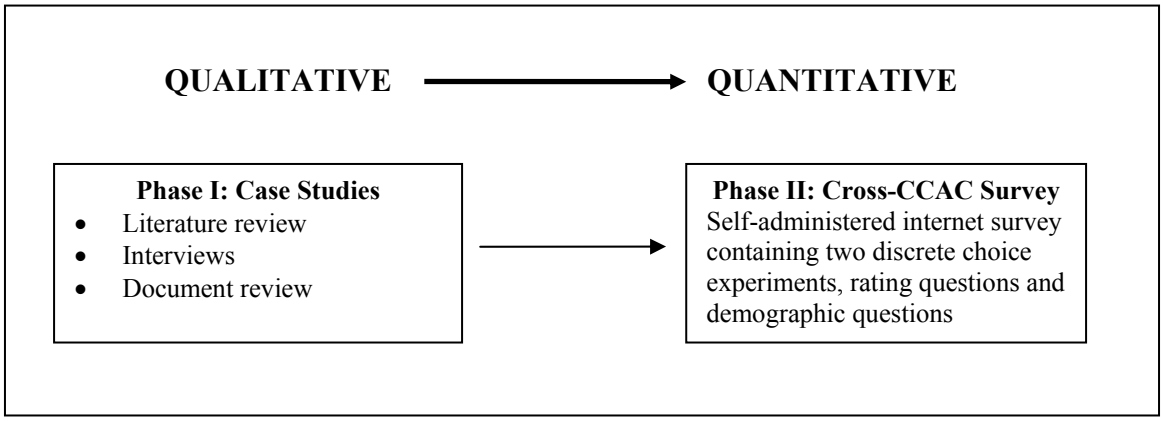
[12] Related Phase II objective: To examine the relationship between case manager characteristics and the relative importance of these values in decisions about personal support and homemaking service allocation.

6 Thesis Methods

6.1 Introduction

This research project employed a mixed method approach.(9-12) As shown in Figure 2, there were two phases to the research project. In phase I, the priority setting process and the role played by factors and values in micro and meso level decisions in the context of two CCACs were described through two qualitative case studies. In phase II, a quantitative discrete choice experiment[m] was designed to investigate the case managers' decisions about the allocation of personal support services and to reveal some of the personal characteristics that create variation in these personal preferences. In this chapter, I describe and justify the methods used.

Figure 2. Overview of the research project.



[m] The label of discrete choice experiment is often used in the health economics literature to indicate a choice-based conjoint analysis survey technique because the fractional factorial design (See Section 6.5.2) used to create the hypothetical profiles presented in questions utilizes experimental design principles. This technique is not an experimental design, as defined by Campbell and Stanley,(102) which has three characteristics: 1) subjects are randomized to a test and a control group; 2) the variable of interest is manipulated in the test group; and 3) outcomes in the test and control groups are compared.

6.2 Mixed Methods Approach

A wide range of methods have been used to study priority setting and values in health policy and each method has its inherent biases and advantages.(84;103) This research project adopts a mixed methods approach, specifically a sequential procedure(9) that utilizes a qualitative approach for exploratory purposes to generate in-depth knowledge of priority setting followed by a quantitative approach to allow hypothesis testing and generation of statistically generalizable results.(7;9) The qualitative phase was required because there was a paucity of information on priority setting in CCACs and a detailed understanding of the complex issue of priority setting was required before quantitative techniques could be validly designed to test specific hypotheses. The quantitative phase addressed specific aspects of micro level priority setting and offered opportunities to generalize findings. This design would be classified as a sequential QUAL/ QUAN study (equivalent status design) by Tashakkori and Teddlie.(10)

6.3 Philosophical Approach

Quantitative research techniques are typically linked with positivism, while qualitative methods are often associated with other paradigms such as constructivism. Sandelowski defines a paradigm as a world-view, "that signals distinctive ontological (view of reality), epistemological (view of knowing and the relationship between the knower and to-be-known), methodological (view of mode of inquiry), and axiological (view of what is valuable) positions".(104) Sandelowski argues that an researcher's world view is difficult to change and contends that these views are not linked to a particular data collection method.(104) She states, for example, that a post-positivist who believes in "an external and objectively verifiable reality" and a constructivist who believes in

"multiple, experientially based, and socially constructed realities" can both conduct a qualitative grounded theory study, although the type of results obtained by each may be quite different.(104) I have conducted this mixed methods research project using the post-positivist paradigm.

Tashakkori and Teddlie suggest that post-positivists differ from both positivists and constructivists in the way in which they design studies and interpret data.(10) Positivists believe that there is a single reality, while post-positivists believe in a single reality that can only be imperfectly understood, whereas constructivists believe that there are multiple, constructed realities.(10) Positivists hold the epistemiological stance that there is an objective point of view whereas constructivists believe there are only subjective points of view. Post-positivists fall between these stances believing that research findings are "likely" to be true.(10) Positivists use deductive logic (i.e. develop theory based on axioms and assumptions) whereas constructivist use inductive logic (i.e. develop theory based on experience).(8) Post-positivists use both types of logic but tend to rely more on deductive reasoning.(10) Finally, positivists and constructivists hold opposing axiological stances: positivists believe that research is value-free, whereas constructivists believe that all research is value-laden. Post-positivists believe that while research is value-laden, the effect of values on results can be controlled.(10) Although individuals with each of these philosophical approaches might study the topic of priority setting, they would create different types of research questions, utilize different research strategies and analyze data differently.

6.4 Phase I - Qualitative Case Studies

According to Yin, case studies are conducted "out of the desire to understand complex social phenomena."(105)(page 2) He also describes case studies as appropriate designs for studies that have a "how", "why" or "what" research question that requires an exploratory study, focus on contemporary events and do not require control of behavioural events. The complex social phenomenon under study here is of course, priority setting.(105) The research questions centre on exploring the role of factors and values in priority setting and the study focuses on current processes with all of their complexity without seeking to alter variables for the purpose of experimentation.

A CCAC was considered to be one "case". CCACs are independent organizations and, based on feedback from key informants and my review of the literature, the resource allocation process was expected to vary across CCACs. At the Toronto CCAC, there were two senior administrators who acted as the key informants and provided advice throughout the study. At the Grey Bruce CCAC, members of the senior administration acted as key informants during the data collection phase. Based on the conceptual framework, it seemed more appropriate to study resource allocation on a case by case basis than by interviewing case managers across CCACs. In order to understand if there were certain resource allocation practices that are constant across varying contexts, two case studies were conducted. Due to study resource constraints, it was not feasible to conduct more than two case studies.

6.4.1 Recruiting Cases

Two criteria were used to select CCACs for Phase I of this research study: 1) degree of rurality and 2) proximity to the research team. Urban and rural populations tend to

have different care needs and thus the CCACs serving them face different resource constraints.(18;26) CCACs were designated as rural or urban based on the Kralj's rurality index scores of the communities served by each CCAC.[n] Due to the resource constraints of this project, both the rural and the urban CCAC had to be located within driving distance of my residence in Halton Region. The CCACs that were considered to be candidates for this study based on distance from Halton Region are listed in Appendix 2. Candidate CCACs were sent a brief letter of introduction to the research study. This was followed by a telephone call to discuss further details and interested CCACs were sent a study protocol.

The urban case study was started prior to the rural case study. A number of CCACs in the Greater Toronto Area were identified as potential targets but the Toronto CCAC was finally chosen amongst these CCACs because they were the first to express interest in the study. The Toronto CCAC serves the geographic area corresponding to the old city of Toronto, which has a rurality score of 7.064.(24) This area had a population of 2,503,581 in 2006.(25)

The Grey Bruce CCAC was chosen amongst the rural CCACs because they were also the first to express interest in the study. In addition, the rurality scores for the communities that this CCAC serves are quite high ranging from 29.010 to 71.238 (range excluding Owen Sound was 49.512 to 71.238).(24) This area of Grey and Bruce counties had a population of 157,765 people in 2006.(25) From a practical standpoint, the CCAC was also closer to Halton County than some of the other CCACs with high rurality scores.

[n] The index is a composite score running from 0 (urban) to 100 (rural), calculated using components such as travel time to nearest basic referral centre, community population, and population to general practitioner ratio. Scores have been calculated for 710 communities in Ontario.(24)

The characteristics of the populations served by the studied CCACs were different. In 2006, the Toronto population was more ethnically diverse than that of Grey and Bruce counties.(Table 9) Although 2006 census data indicated that the median household income in Toronto was similar to that in Grey and Bruce counties, the incidence of households in Toronto with incomes below the poverty line is double that in Grey and Bruce.(Table 9)

The data collection procedures for the Toronto CCAC differed from those in the Grey Bruce CCAC to accommodate the differences in the size and administrative structure of the two organizations. In the next sections, I describe the interviews and the document collection procedures in the Toronto CCAC. Then, I describe the Grey Bruce procedures, focusing on the differences from the Toronto CCAC.

Table 9. Selected characteristics of the populations served by the studied CCACs, based on data from the 2006 Canadian census.(25)

Characteristic	Toronto Census Division	Grey & Bruce Counties
Population Density (per square kilometer)	3972.4	20.5 (Grey)/ 16.0 (Bruce)
Percent of Population Aged 65 Years or Older	14%	19%
Percent of Population who are Female	52%	51%
Percent of Population Reporting English as Mother Tongue	50%	92%
Percent of Population with no Knowledge of English	6%	0.3%
Percent of Population with Aboriginal Identity	0.5%	2%
Percent of Population who are Immigrants	50%	8%
Percent of Population who are Recent Immigrants (2001 - 2006)	11%	0.5%
Median Household Income (All Private Households – 2005)	$52,833	$49,912 (Grey) / $54,403 (Bruce)
Incidence of Low Income in Private Households Before Tax (2005)	24.5%	10.1% (Grey) / 8.7% (Bruce)

6.4.2 Toronto CCAC Data Collection

In a case study, multiple types of data may be collected and analysis may be qualitative or quantitative in nature.(105) Specifically, Yin identified 6 types of data that may be collected, namely, documentation, interviews, direct observations, participant observation, review of archival records, and physical artifacts.(105) The data used for this case study were qualitative in nature and collected through individual interviews with Toronto CCAC employees and by searching CCAC and government documents. I also gained a greater understanding of the Toronto CCAC by attending a training session for

case managers, observing a hospital case manager for half a day, and having informal discussions with key informants at the Toronto CCAC. Utilizing different data collection techniques or different types of informants to investigate the same social phenomenon, known as data triangulation, is one way to improve the validity of a qualitative study. (105-107) Formal use of observation techniques were not used in this thesis given the challenges of observing of client and case manager meetings in the community. For long-term care clients, the case manager does an assessment of the client in his or her home and decides on a service plan during their first meeting with the client. Since the case manager does not see the client prior to the needs assessment / resource allocation visit, it makes it logistically difficult to obtain patient consent prior to the visit. One previous study of patient-level priority setting in a hospital setting included observation of the clinical rounds in which the health care professionals discussed their resource allocation decisions.(108) Unfortunately, there is no forum for the community-based case managers to formally discuss their decisions with their peers. The only way to observe these discussions would be to spend numerous days at the CCAC in order to observe informal discussions of case managers. Given these challenges and the decision to include a quantitative survey after the qualitative phase, it was decided not to include observation in this research study. I collected some archival records such as the organizational chart and census data, but did not review patient records. Once again this would have been ethically and logistically difficult and was considered beyond the scope of this research study. Collection of physical artifacts (e.g. technological devices, etc.) was not relevant to this research study.

6.4.2.1 Interviews

One of the major data collection methods used for this case study was one-on–one semi-structured interviews with individual employees of the Toronto CCAC. A process for identifying, recruiting and interviewing respondents was developed after an initial review of documents, discussion with key informants and feedback from a presentation at a Toronto CCAC management meeting.

Sampling

Stratified purposeful and snowball sampling techniques appropriate to qualitative studies were used in this research study.(107;109) In stratified purposeful sampling, individuals are selected based on "pre-specified combination of variables"(104) in order to facilitate comparisons across sub-groups.(107) The term "purposeful" is used to denote the fact that certain individuals are chosen for theoretical reasons, rather than randomly sampled for representativeness.(107) In snowball sampling, key informants or respondents are asked to identify potential interview participants who are likely to provide rich information on the subject of study.(107) The stratified purposeful sampling structure for this study was developed after considering the organizational structure of the Toronto CCAC and the geographic location of the case managers. Organizational structure was considered because it was presumed that individuals in different roles within the organization would be involved in different aspects of priority setting. Furthermore, it was assumed that these individuals would face different choices or trade-offs. Geographical location was considered because Toronto has a diverse population and it was presumed that at a micro level, case managers would have different priority

setting challenges depending on the case mix of their clients. These assumptions were confirmed through discussions with the key informants.

An overview of the Toronto organizational structure is provided in Figure 3. Although the Board of Directors were involved in strategic planning, they were not interviewed during this case study because key informants stated that these individuals are not involved in the day-to-day priority setting activities of interest in this study. A number of individuals in administrative roles including the Executive Director, the Acting Ombudsperson, people within Human Resources responsible for training case managers, people in Administrative Services responsible for annual budget creation and the Client Service Managers, were asked to participate in an interviews. These people were identified based on their job titles on a phone list provided by the CCAC in June 2005.

Within the Toronto CCAC, case managers work in the Hospital and Institutions, District, Client Services Centre[o], or Special Programs (Acquired Brain Injury; Palliative Care; Child & Family Services) Divisions. Since this research study was designed to focus on priority setting for long stay clients over the age of 65 years, living at home, the main focus was case managers working in the District Divisions. The Toronto CCAC was divided geographically into 4 districts (East, West, North and Central; Figure 4) and case managers within these districts were organized into teams of three, each supported by a team assistant. Participants were purposely sampled to ensure representation from each of the geographic districts. At first, individuals were randomly chosen from within districts and then individuals were identified based on recommendations from

[o] The Client Service Centre was a telephone call centre staffed by case managers. These case managers interacted with their clients over the phone only to deal with emergencies, make referrals, or order short-term services.

participants and key informants. Recommended individuals were involved in priority setting due to their role in the organization, had many years of experience with priority setting, or were admired by their fellow case managers for the way that they made decisions. Only one case manager per three person team was interviewed. A number of case managers specialize in mental health clients and these individuals were excluded from participation because this study was not designed to describe priority setting for these clients. Similarly, case managers in the three special programs (Acquired Brain Injury; Palliative Care; Child & Family Services) were not contacted to participate.

Although case managers within the hospitals and the Client Services Centre are not involved in allocating services for periods of longer than 2 to 4 weeks, key informants felt it was important to interview some of these case managers because they triage the initial referrals to the CCAC. The case managers in the Hospital and Institution Divisions were based in 7 Toronto area hospitals, namely Mount Sinai Hospital, Princess Margaret Hospital, St Joseph's Hospital, St Michael's Hospital, University Hospital Network: Toronto Division and Western Division, and Women's College Hospital. At most, one case manager was purposely selected from each of these different hospitals. Case managers specializing in long-term care placement were excluded from participation as the study did not address this patient population. Individuals from the Client Services Centre were either chosen randomly or based on key informant recommendations and recruited to participate in the interviews. A summary of the inclusion and exclusion criteria used for this study is given in Table 10.

Table 10. Inclusion and exclusion criteria for potential interview participants.

Inclusion Criteria	Exclusion Criteria
• Community, hospital or client service centre based case managers who were responsible for creating service plans for long-stay clients • CCAC administrators who were identified to play a role in priority setting by key informants • Contact information available on a phone list provided in June 2005	• Case managers working in the acquired brain injury, palliative care or child & family services program • Case managers specializing in mental health clients or long-term care placement • Only one individuals from each of the 3-person case manager teams were interviewed • Only one case manager per hospital was interviewed

Figure 3. An overview of the organizational structure of the Toronto CCAC.

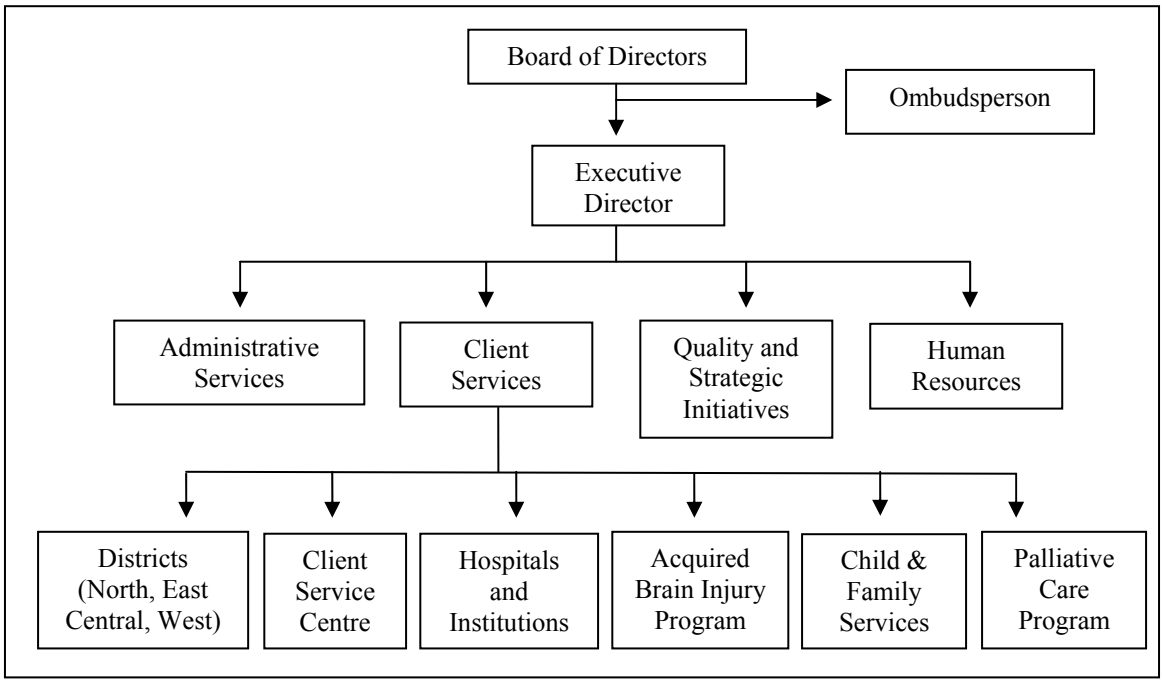
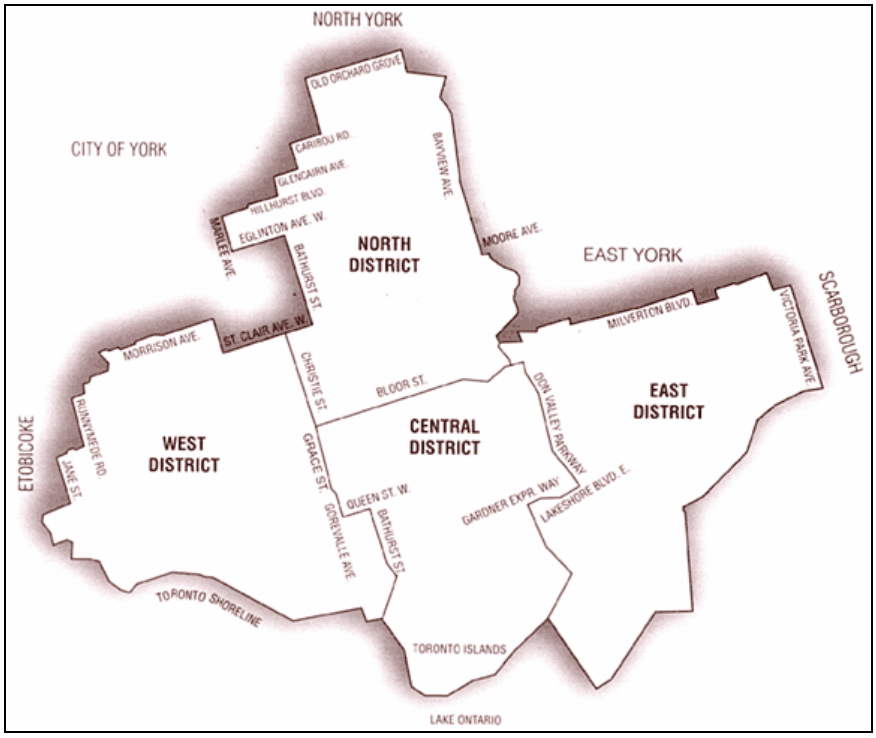


Figure 4. Geographical divisions within the Toronto CCAC.



Recruitment Process

Prior to the start of recruitment, the study was advertised with a brief summary on the Toronto CCAC's intranet. I was given a list with the phone and email contact information of all Toronto CCAC employees, along with their job titles, in June 2005. All potential participants were contacted by email and sent a one page summary of the research study. Several days later, this was followed by a telephone call to discuss the study. Case managers were difficult to reach because they spend the majority of their time outside of the office with clients in their homes or in the hospital. After 1 phone call, additional information was sent to potential participants via email, including the study informed consent form and the interview guide with example questions. It was clearly stated in the informed consent form that participation in the research study was

voluntary. Potential participants were called at least 3 times and if I received no response by email or phone I assumed that they did not wish to participate in the study.

After individuals agreed to participate in the research study, a date and location for a meeting was set for the interview. Most interviews were conducted at a meeting room within the Toronto CCAC or at a hospital or community CCAC office. Participants were assigned a unique code which was used to identify this person throughout the study and to maintain confidentiality. Interviews were conducted from June 2005 to December 2005 until it appeared that theoretical saturation had been reached.(109) Strauss and Corbin define theoretical saturation as "the point in category development at which no new properties, dimensions, or relationships emerge during analysis."(109)(page 143) A total of 55 people were contacted, of whom 25 (45%) agreed to be interviewed: 9 with administrators and 16 with case managers (Table 11). People who did not participate in the interviews either did not respond or indicated that they did not have time for a 1-hour interview.

Table 11. The number of interview participants at the Toronto CCAC by organizational division.

Department	Number of Individuals Contacted	Number of Interviews Conducted	Response Rate (%)
Administration (Executive Director; Ombudsperson; Administrative Services; Human Resources; Client Services Managers)	13	9	69
Hospital case managers	9	3	33
Client Services Coordinators	7	2	29
North District case managers	8	2	25
East District case managers	6	2	33
Central District case managers	6	3	50
West District case managers	6	3	50
Total	**55**	**25**	**45**

Interview Process

Participants were asked to sign the informed consent form prior to the start of the interview. The interview was semi-structured because questions were based on the questions in an interview guide, however, additional questions were asked to clarify points raised by participants. Separate interview guides were created for case managers, the human resources department, the finance department, the ombudsperson, and the executive director and manager of client services. (See Appendix 1.) The interview guide was based on guides used for previous studies of priority setting(44;108) which were modified to suit the purposes of this study based on literature review and discussions with key informants.

The first question to case managers was a very general one, asking them to describe how they decide to allocate services to potential clients. Based on their answers, I would probe and ask more specific questions to clarify their answers. Many case managers, for example, spoke in generalities until I asked for specific examples of how they allocate nursing and personal support services. This is, of course, because the CCACs offer many different services, each allocated differently.

The next two sets of questions in the interview guide asked what criteria they used for accepting and refusing clients and how they decided on the services that should be provided to address those needs. The CCAC has specific eligibility criteria, however, as the study progressed, I learned that there were exceptions to these criteria. So, I asked individuals about these exceptions in the later interviews. I also learned that all long term clients should be assessed by a standardized assessment tool, the RAI-HC. Some coordinators mentioned this in their interviews while others did not. So, I began to ask

all coordinators about the RAI-HC and to clarify how it affects their assessment and allocation of services. Sometimes, case managers mentioned values such as equity, so I would ask them to clarify what they meant by equity or other terms that they used. During the interviews, I learned that certain clients are considered to have more urgent need for service than others, so as interviews progressed, I asked about how a client's need is deemed to be urgent.

The fourth question on the interview guide asks about clients who were refused service or given less service than they wanted. Many case managers gave examples of some of the conflicts that occur when allocating services which led nicely to the question about the appeal process. In fact, respondents often spontaneously mentioned the appeals process and discussed why they thought these conflicts arose and how they were able to resolve them.

The fifth question asked about departmental constraints. Answers to these questions varied with some coordinators listing the constraints while others stated there were no constraints. I learned that exemptions from policies were made for individuals with extraordinary needs and asked about these clients in later interviews. When case managers mentioned budget, I made sure to ask them detailed questions about how they perceived budgets influenced their decisions.

The sixth question asked if the case manager discussed their decisions with others. The purpose of this question was to determine how transparent decisions and reasons for decisions were across care managers. Some discussed consistency of decisions at this point and I made sure to clarify the concepts they mentioned. Others mentioned monthly

meetings or discussion with their colleagues and I specifically asked about these in later interviews.

The final question was simply a general question on priority setting so that case managers could raise any issues that did not come up during the interview.

Additional interview guides were designed for administrators because these individuals were more involved in meso level priority setting and only indirectly involved in micro level decisions. Individuals from the human resources department, for example, were asked about the process of training case managers to conduct priority setting. The Client Services Managers were asked about the role they play in meso and micro level priority setting and about how they monitor their case managers. Through interviews with case managers, I learned that Client Services Managers were involved in approving extra services for clients and in managing the appeals process and made sure to ask about these. Individuals in the Finance Department are primarily involved in meso level priority setting (i.e. creating the budget and monitoring it throughout the year) so their questions focused on this process. Finally, the Ombudsperson is only involved in complaints or formal appeals so that the interview focused on those aspects of micro level priority setting. I was able to create these interview guides in advance of the interviews based on key informants' descriptions of the roles of these individuals in the organization.

The interview participants were sent a copy of the interview guides prior to the start of the interview so that they could reflect in advance on their answers. Since this was the first time I had conducted qualitative interviews, I sought advice from individuals who had conducted interviews in previous priority setting studies. I also conducted practice

interviews with colleagues and friends. During the interviews, I took notes during and after the interviews to help me reflect on what the participants had said. For later interviews I came prepared with notes of probes that I felt I had not properly conducted during the initial interviews. Throughout the interview, I tried to maintain a neutral and non-threatening stance to encourage participants to openly discuss their resource allocation dilemmas.

After the interview, individuals were asked a number of demographic questions including employment status (full or part-time), gender, age, highest education achieved, health discipline, approximate case load, number of years working at the Toronto CCAC, and previous experience in the home care system. As discussed in the literature review in previous chapters, these factors have been found to affect resource allocation decisions in previous research.(47-49;65) (See Section 3.3 Stakeholders in the Home Care Priority Setting Process)

All interviews were taped and transcribed by 1 of 2 individuals hired for the research study. The transcriptionists were instructed to transcribe words verbatim and thus included "crutch words" such as "you know", "…" to indicate pauses, and verbatim transcription of grammar errors.(110) Since this analysis was meant to focus on the informational contents of the interviews rather than on patterns of speech, the transcriptionists did not make notes on emotions during the speech nor were notes on expressions taken during the interviews.(110) While writing the report of the analysis, "…" was used to designate missing parts of a quote. All quotes were "standardized", which means that they were cleaned of things such as grammar errors to avoid distracting the reader from the points being made in the analysis.(111)

6.4.2.2 Documents

Two types of documents were identified as being relevant to this study, namely provincial and federal legislation and Toronto CCAC documents.

Legislation

Legislation relevant to all CCACs in Ontario was identified through the published literature and discussions with key informants. Copies of the legislation were downloaded from the website www.e-laws.gov.on.ca in April 2005. The legislation was screened and only sections relevant to priority setting were formally analysed. The Ontario Health Insurance Act, for example, sets parameters for many aspects of health care service in Ontario but only two sections, which define the types of services that Ontario residents are entitled to, were considered relevant for this research project.

Toronto CCAC Documents

All individuals at the Toronto CCAC have access to a computer, including case managers who work in the hospitals and the district case managers out in the community. The organization therefore uses an intranet, named "The Source", to post all internal policies, organization updates and information, and all forms required by case managers. After an orientation was provided by key informants, I searched the Source for all documents relevant to either meso or micro level priority setting for the client population of interest for this study. Documents were printed out and an electronic copy was taken for entry into N6, the program used for the analysis.

The Toronto CCAC has numerous policies and supporting documents that cover all aspects of their operations. Therefore, only documents considered relevant to making priority setting decisions were collected (Table 12). The Toronto CCAC has a web site

that describes the services offered and how to access them. All web pages with relevant information were entered into N6 for analysis. Several documents, including the annual newsletters, were downloaded from the web site. Finally, I obtained a number of pamphlets from the Toronto CCAC, including those given to clients when they meet with case managers. A total of 37 documents were analyses for this case study (Table 14).

Table 12. Inclusion and exclusion criteria for documents reviewed for this study.

Documents Included	Documents Excluded
• District or General Policies and Forms relevant to the assessment or ordering of personal support or nursing services that contained instructions on allocating resources • Supporting documents identified in included policies • Documents referenced by interview participants • Document mailed to me by the interview participants • Relevant web pages from CCAC web site • Material distributed to clients	• Forms not used for long-term clients over the age of 18 years (Hospital forms, the placement forms, the Home Palliative Care Net forms, the Acquired Brain Injury forms, Self-Directed forms, Child and Family forms or Service Pathway Forms) • Documents, for example, advising on the process of ordering services were not obtained as they do not provide guidance on how to assess a client or decide the type or amount of services required. • CCAC policies about services other than nursing, personal support or homemaking

6.4.3 Grey Bruce CCAC Data Collection

Data collection procedures in the Grey Bruce CCAC were the same as those used in the Toronto CCAC with a few exceptions as noted in the sections below.

6.4.3.1 Interviews

Sampling

Similar to the Toronto CCAC case study, theoretical and snowball sampling techniques were used to identify potential participants. Individuals were purposely sampled based on their position within the organization and their geographical location. The sampling strategy was developed after individuals involved in micro and meso level priority setting were identified through discussion with key informants and feedback after a presentation at a Grey Bruce CCAC management meeting.

An overview of the organizational structure of the Grey Bruce CCAC is given in Figure 5. The Grey Bruce CCAC is a smaller organization than the Toronto CCAC. At the time of the study there were 7 members of the administration who were involved in priority setting at the meso level or at the micro level for long term patients. Comparatively, 19 administrators within the Toronto CCAC were involved in this activity. Case managers involved in placement, specializing in geriatric assessment or providing information and referral for short-term clients only were not involved in allocation services for long term clients and were excluded from the interview process. This left 32 case managers including 4 individuals in Information &Referral, 22 in Community, and 8 in Hospitals. Comparatively, there were 114 case managers who were eligible to be interviewed, including 13 in the Client Service Centre (Toronto's equivalent to Information & Referrals), 57 in the Community and 44 in Hospitals. Individuals tended to have less specialized roles than at the Toronto CCAC, so it was possible to achieve theoretical saturation with fewer interviews.

Recruitment Process

After the CCAC agreed to participate in the research study, the Client Services Manager presented information about the research study at case manager meetings at the Owen Sound and Walkerton offices. She asked anyone interested in participating in an interview to contact me. I was also given a list of individuals in the organization along with their contact information. The rest of the recruitment process was the same as the Toronto CCAC process documented above. A total of 14 interviews were conducted with the rural CCAC employees: 5 with administrators and 9 with case managers.

Figure 5. Overview of the Grey Bruce CCAC organizational structure

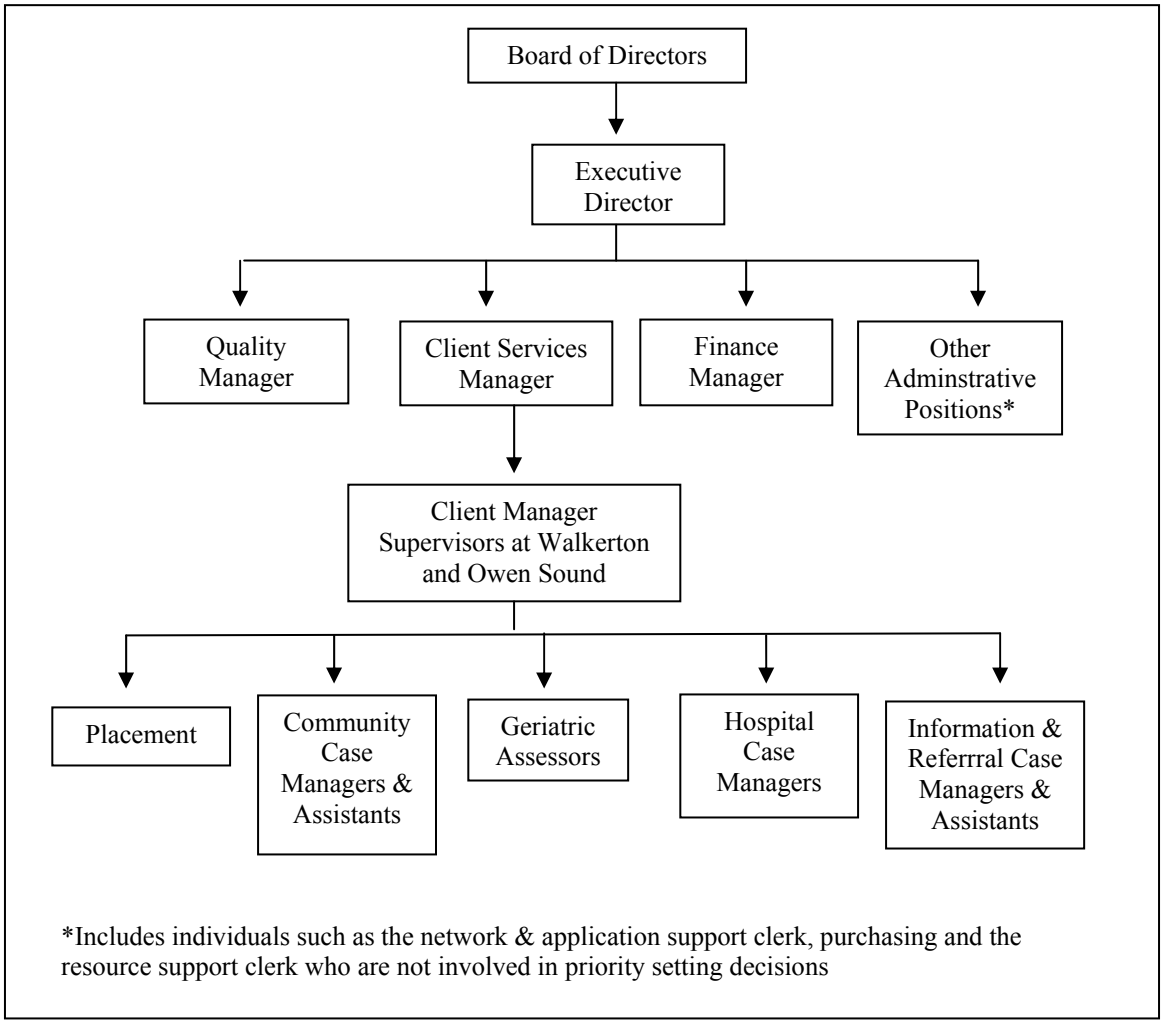


Table 13. The number of interview participants at the Grey Bruce CCAC

Type of CCAC Employee	Number of People Contacted	Number of Interviews	Response Rate
Administrators	5	5	100%
Hospital Case Managers	3	2	66%
I & R Case Managers	3	2	66%
Community Case Managers	10	5	50%

Interview Process

The interview process was similar to the Toronto CCAC except that, due to the driving distance to Grey Bruce, interviews were organized on set dates. Interviews took place in meeting rooms at the CCAC offices in Owen Sound and Walkerton and in hospitals throughout the Grey Bruce region. Individuals who were not available on the interview dates but were interested in participating were interviewed via telephone. Interviews were conducted from November 2005 to December 2005.

The interview guides developed for the Toronto CCAC were also used for this case study. The probes used during the interviews differed according to responses. The Grey Bruce CCAC, for example, has a different philosophy on prioritizing patients than the Toronto CCAC and different questions were required to clarify this approach. Given that interviews were conducted in batches over a short period of time, it was not possible to formally code and analyse these interviews while data were being collected. Ideas that emerged during the interviews were informally documented in my interview notes and used to direct questions in future interviews.

6.4.3.2 Documents

Legislation

The legislation identified during the Toronto CCAC case study also applies to the Grey Bruce CCAC.

Other Documents

I did not learn about the Grey Bruce intranet until near the end of the interview process and instead relied on interview participants to provide me with or identify documents that were related to the research study. The CCAC provided copies of all the

documents I requested, in both written and electronic format where available. The Grey Bruce CCAC website was also reviewed for relevant information. A total of 27 documents were analysed for this case study (Table 14).

Table 14. Analysed Toronto and Grey Bruce Documents

Category	Toronto Documents	Grey Bruce Documents

Legislation	• Canada:
	  ○ Canada Health Act – Sections 1 – 12, 18, 19
	• Ontario:
	  ○ Health Insurance Act, 1990 – Sections 11, 12
	  ○ Community Care Access Corporation Act, 2001 – Sections 5, 7, 18
	  ○ Long Term Care Act, 1994 – Sections 1- 3, 10, 11, 22 - 25, 28, 39 – 48
	• Long Term Care Act Regulation 386/99 – Provision of Community Services	

Client Services Policies	• General Eligibility for In-Home Services • Guidelines for Assisting Clients without OHIP • Program Assignment - Short Stay/Long Stay • Service Recipient Category Data Entry • Service Planning • Goal Setting • Personal Support/Homemaking • Establishing Treatment Sites and Providing Services to the Homeless • Service Provision in Retirement Homes • Supportive Housing Settings Service Provision • Client Appeals/Complaint Process	• Client Assessment for CCAC Services • Complex Care • Homemaking Services • Service to Clients of Long-Term Care Facilities • Service to Clients Eligible for Veteran's Affairs Canada Pension or Benefits • Service to Retirement Home Residents
Client Services - Supporting Documents	• Personal Support and Homemaking Guidelines • Client Service Pathway Model[p] • Off-site Case Manager Enablement Framework • Care Coordination Framework – Realizing Practice Excellence by Building Solid Foundations • Self-Directed Model of Care Coordination • Bulletin (Dec 9, 2002) • MDS-HC Assessment Tool Questions & Answers (Sept 2002) • Accountability Framework • Service Pathway Model of Care Coordination[p]	• Wait List Management • Example of Wait List Statistics • Staff Guidelines for Local Appeal Process • RAI-HC Training Manual for Case Managers

[p] Document deals with short term resource allocation so only selected Sections were analysed.

	Ministry of Health Documents • Harmonized Reporting System Guidelines – CCAC of Toronto • RAI-HC Project Definitions • Guidelines to MDS-HC Client Notes – Fact Sheet 5 • CCAC-LTC Priority Project FAQs (Oct 9,2002) • CCAC-LTC Priority Project FAQs (Oct 31,2002) • CCAC-LTC Priority Project FAQs (Dec 9,2002) • CCAC-LTC Priority Project	
Client Services – Forms	• Assessment of Client Vulnerability • Case manager's Quarterly Report • Communication Administration Form • Community Referral Information • Extraordinary Service Approval Form • Medical Referral • Minimum Data Set Home Care (MDS-HC) Canadian Version • Non-MDS Home Visit Form Package • Personal Support Assessment Tool • Recipient Group Classification Form • Service/ Client Discharge Waitlist Outcome Form • Waitlist Management Control Form	• Priority for case manager assessment & service delivery form • Home Support Services Agreement • Service Needs Assessment Form
Financial Policies	• Progressive Attendance Management Program • Expenditure Control	
Financial Policies - Supporting Documents	• Example Monthly Resource Allocation Report • Strategic Plan 2004 – 2007 • Case manager Resource Management Report – User Guide	• 2002/ 2003 Annual Report • Letters from the Ministry of Health stating funding priorities • Integrated Business Plan • List of Current Projects • Example of financial reports given to case managers at monthly meetings • Example financial tracking sheets
Website Documents	• Fact Sheet: How We Work • Professional Services Web Page • Core Services Web Page • Client Complaints / Appeals process Web Page • Ombudsperson Web Page • Contact – Charting the Future Our New Strategic Plan (May 2004) • Contact – Community Report Card (Jan 2004) • Contact – Community Report Card (May 2005) • Power Point Presentation for	• Criteria for services • Mission and Values

	Physicians: Referral to Community Care Access Centres	
Documents Given to Clients	• Hospital: CCAC of Toronto – Bringing Healthcare Home	• Information package provided to client: o CCAC Services in the community o Services in the Home o Client Rights o If unhappy about decisions o Appeals process letter

6.4.4 Analysis

Techniques from grounded theory analysis, as described by Corbin and Strauss namely open, axial and selective coding, were adopted.(109) Grounded theory has also been called a method of constant comparison or the editing analysis style because the analyst rearranges and compares segments of text in order to find 'interpretive truth'.(12;112) In open coding, the analyst systematically reviews the interview data and then divides the text into portions that represent concepts or ideas. In axial coding, the ideas that emerge from open coding are conceptually linked to create a theoretical framework. Grounded theory is a qualitative method designed to develop theory about social processes.(12) In this context, selective coding is described as organizing concepts around a "core category".(109) The purpose of this project was to develop themes rather than theory so it can not be classified as a grounded theory analysis. (Martin and others have sometimes labeled this technique as modified thematic analysis.(108)) In the context of this project, selective coding involved organizing the axial codes around central themes.

As suggested by Corbin and Strauss, data collection and analysis for the Toronto CCAC was conducted simultaneously so that the ongoing analysis could guide data

collection.(109) A number of client service policies and supporting documents, the legislation and the initial 5 interviews were coded (open coding). The names of the codes were not set in advance, rather they emerged from ideas in the data, keeping in mind the objectives of the research study. Many of the labels for the codes were derived from the words of the participants themselves or the documents reviewed. These data were then entered into N6, a computer software program designed to aid qualitative analysis.(113) I reviewed the electronic version of the documents and coded them a second time to ensure consistency across documents. Due to the vast number of codes, I grouped them into related categories based on the initial theoretical framework. The initial coding scheme developed from this process is illustrated in Table 15.

The coding scheme and the ideas captured under each of the codes were then thoroughly reviewed and revised. The category of "Types of Services", for example, was eliminated because initial coding confirmed that there was a broad range of services mentioned throughout the data. Since the study was to be limited to nursing and personal support / homemaking services, tracking references to all types of services was unnecessary. I decided at this point to prompt participants for examples related to nursing and personal support during the interviews. The category "Stakeholder" was also eliminated because the purpose of the research study was to look at process and note which stakeholders are involved, but not to focus on the individual stakeholder. The category of "Forms of Priority Setting" was maintained because, although not initially part of the conceptual framework, it was an interesting aspect of priority setting that respondents spontaneously spoke about and appeared related to previous work published

by Klein, Day and Redmayne.(13) The remaining categories were rearranged for clarity and ease of analysis.

In addition to rearranging categories, certain codes were merged or reorganized. The data under the categories of Choice – Setting of Care, Client – Consent, Client Participation and Client Autonomy, for example, all seemed to be referring to a similar idea, so these were grouped under the new code of Client Preferences. The ideas under "equity" and "consistency" were very similar so all data were placed under equity and the code of consistency was eliminated. The ideas under the code of accountability seemed to refer more to the value of transparency rather than actual processes within the CCAC. All data were therefore transferred to Values - Transparency and the accountability code was eliminated.

Additional constraints, values and other codes emerged from the data as new interviews and documents were analysed. Many participants, for example, spontaneously described their feelings about the process of priority setting. Examining this aspect of priority setting was not in the original conceptual framework, but I felt it was important to explore the points raised by respondents in the analysis.

The process of reviewing and rearranging codes continued throughout the analysis until the final coding scheme shown in Table 16 was developed. All revisions were documented in analysis notes and within the computer software as suggested by Mays and Pope in order to improve validity of the analysis.(106)

Table 15. Initial open coding scheme developed after analyses of selected documents and first 5 interviews.

Organization Category	Open Codes
Types of Services	Insured Health Services Extended Health Care Services Homemaking Personal Support Services Community Support Services Palliative Services School Services Medical Care Social Care Respite Care Child and Family Services Professional Services Acute vs. Chronic Services
Forms of Priority Setting	Alternative services Eligibility Service maxima Waiting list Fees for services Discharge Teaching Reduction in level of service
Stakeholders	Board of Directors Executive Director Administration Community Client Services Managers Ombudsperson
	Hospital case manager District case manager Call Centre case manager
Levels of Priority Setting	Budget Process Other

Organization Category	Open Codes
Values	Access Public Administration Comprehensiveness Universality Portability Fairness Client centred-care Choice – setting of care Quality Well-being Client preferences Equity Efficiency Effectiveness Community Participation Integration of services Transparency Client respect Safety Client Autonomy Client Participation Client Consent Confidentiality Consistent Decisions
Constraints	Budget CCAC objectives Ministry of Health Objectives Community resources Legislation CCAC Policies Labour force Organizational structure
Criteria	Historical Patterns Environmental analysis Wish list Strategic Plan
	Need - Client's perception Need - Caregiver's perception Need - CCAC perception Need - Medical necessity Need - Caregiver's perception Need - Urgent Need - Unmet need
Process	Service Plan Goal Achievement Accountability
	Assessment - Peer Consultation Assessment - RAI-HC Assessment - Eligibility Criteria Assessment - Consultation of others Assessment - Other
	Monitoring - Budget Adjustments Monitoring - Other

Organization Category	Open Codes
	Appeals - Complaints Appeals - Inadequate Service Appeals - Second Opinion Appeals - Provincial Tribunal Appeals - Barriers Appeals - Other

The analysis of the Grey Bruce CCAC data was conducted after the coding and initial reporting of the Toronto CCAC case study was complete. Therefore, the Toronto CCAC coding scheme acted as a starting point for this analysis. The same process of coding of data and modification of codes described above was used for this analysis. The final coding scheme for the Toronto CCAC and the Grey Bruce CCAC combined is given in Table 16. As indicated by footnotes in the table, there were concepts that were unique to either Grey Bruce or Toronto, so some codes do not apply to both cases.

Table 16. Final coding scheme for the Toronto and Grey Bruce CCAC case studies.

Category	Open Codes
Meso Level Codes	
Process	Assessment Budget Creation Monitoring Reassessment
Criteria	Historical Use of Services Changes in the Unit Costs Changes in the Population Served Changes in Community Resources[q] Gaps in Service Delivery[q] Need for Service Feedback from Clients and other Stakeholders[q] Changes in the Health Care System[q]
Constraint	Budget Structure Ministry of Health Objectives Timing of Funding Announcements Ministry of Health Policies
Values	Community Participation Effectiveness Efficiency Equity Transparency
Micro Level Codes	

[q] Code used only for the Toronto CCAC (i.e. concept was not discussed in Grey Bruce case study).

Category	Open Codes
Process	Hospital Assessment - Consultation Hospital Assessment - Eligibility Hospital Assessment – Tools Community Assessment - Consultation Community Assessment - Eligibility Community Assessment – Tools – RAI-HC Community Assessment – Tools – Other Client Service Centre[r] Assessment - Consultation Client Service Centre Assessment - Eligibility Client Service Centre Assessment – Tools Service Plan – Hospital – Within CCAC Service Plan – Hospital – Other CCAC Service Plan – Hospital – Consultation Service Plan – Community – General Service Plan – Community – Goal Achievement Service Plan – Client Service Centre Monitoring Reassessment – General Description Reassessment – Appeals – General Reassessment – Appeals – Publicity Reassessment – Appeals – Local Appeals[s] Reassessment – Appeals – Second Assessment[q] Reassessment – Appeals – Ombudsperson[q] Reassessment – Appeals – Provincial Tribunal Reassessment – Appeals – Examples Reassessment – Appeals – Barriers Reassessment – Appeals – Outcomes Reassessment – Budget[q] Reassessment – New Guidelines[q] Reassessment – Changing Goals[q] Discharge Specialty Teams
Criteria	Need - Client Perspective Need - Caregiver Perspective Need - Provider Perspective Need - Case manager Perspective Need - Urgent Need – Extraordinary Amount of Unpaid Support Services Access to Community Services Mobility Financial Status Risk of Falling Ability to Self-Bathe Incontinence Other Physical Disabilities Depression[q] Cognitive Status Ability to Perform Instrumental Activities of Daily Living Client Consent Medical Need

[r] Referred to as I&R at the Grey Bruce CCAC.
[s] Code used only for the Grey Bruce CCAC

Category	Open Codes
	Informal Criteria Provider Safety Other Criteria
Constraints	Budget Legislation CCAC Policies Labour Force Workload Organizational Structure Setting of Care Rural Environment[t] Physician Shortage[u]
Values	Independence Client Focused Care Compassion[q] Continuity of Care Effectiveness Efficiency Equity Safety Transparency
Priority Setting Comments	
Forms of Priority Setting	Alternative Community Services Informal Caregivers Service Maxima Teaching Advocacy[q] Waiting Lists Reduction in Level of Service Early Discharge Defining of Services Fees for Services

Axial and selective coding was then conducted by grouping codes into categories based on theoretically related ideas. To do this, the ideas captured under each of the open codes were systematically described(114) and ideas were compared between sources within and between cases.(112) Within each of the cases, for example, ideas captured in official documents or in interviews with the administration were compared to ideas captured in the interviews of the case managers to determine if ideas were described differently. Between the cases, common codes were compared to ensure that the same

[t] Code used only for the Grey Bruce CCAC
[u] Code used only for the Grey Bruce CCAC

meaning to concepts applied in both CCACs.(105) To help this process, two by two tables, or matrices, and other diagrams capturing related ideas were created(107) in order to examine the relationship between the codes.

The initial conceptual framework served as a starting point for this process but it did not dictate the classification of ideas. The framework itself was modified as ideas emerged from the data. Three overarching themes were identified, two of which were related to the original conceptual framework: 1) Meso level factors and values influencing the outcome of priority setting; and 2) Micro level factors and values influencing the outcome of nursing, personal support, and homemaking service allocation. One additional overall theme was found, namely, forms of priority setting. Each of these themes are described in a separate thesis chapter.

6.4.5 Improving the Rigor of the Analysis

To improve the validity of the analysis, techniques suggested by May and Pope were used, including reflexivity, attention to negative cases, fair dealing and respondent validation.(106)

Researchers cannot eliminate their personal bias in conducting an analysis. Reflexivity implies that a researcher acknowledge their personal bias and continually question how their preconceptions influence interpretation of data.(106) Creswell suggests that researchers "explicitly identify their biases, values, and personal interests about their research topic and process".(115) Accordingly, I will give a brief overview of my background and how this project was conceived to provide the reader with an understanding of the biases I hold.

My academic training has been in the basic sciences and epidemiology and I subsequently worked conducting economic evaluations. Therefore, I have had experience with two quantitative methods of priority setting: evidence-based medicine and economics. Despite this, I have never ascribed to the view that either of these methods should be used to dictate priority setting but believe that they are useful tools to aide priority setting. This is, in part, because they reflect only some of the values (e.g. efficiency) that may be important to decision makers. Due to my training, however, I am more interested in improving outcomes (and distributive justice) than improving process (and procedural justice). This does not mean that the latter is less important but simply that I choose to focus my research agenda on outcomes. Hence my interest in how values and other factors influence the outcomes of priority setting decisions. In the past, I worked as a homemaker for an agency contracted by the home care program (prior to the establishment of the CCACs). This experience has given me an impression of the role of home care in our society but did not provide me with inside knowledge regarding priority setting within home care.

An ideal approach to reducing personal bias would have been to have two people independently code the data. This was not possible, however, given the resource constraints of this study. Instead, I utilized the expertise of my thesis committee and researchers from the Canadian Priority Setting Research Network. These individuals come from different disciplinary backgrounds and therefore have different researcher biases. At various points in the study, I presented the coding and my thought process and also had them review the report of results in order to improve reflexivity.

Throughout the analysis, I attempted to note negative cases and to deal fairly with all data. Negative cases are those that do not fit the theory under investigation. I attempted to deal fairly with the research question by soliciting the views of individuals with different perspectives within the CCAC and attempting to represent varying perspectives in my report. For example, most case managers stated that allocation of nursing was not very controversial because clients do not ask for nurses when they do not need nurses. One hospital coordinator, however, has had the experience of client's asking for unnecessary nursing services and this was documented in the report.

Respondent validation, or "member checks", were also be used to ensure the validity of study findings. (12;106) A draft of each of the qualitative results chapters of this thesis (Chapters 8 to 10) was reviewed by one of the Toronto CCAC key informants and by case managers and members of the administration from both of the CCACs (Table 17). These individuals may or may not have been a participant in the original study. In January 2007, the CCAC underwent a reorganization whereby CCACs were merged in 14 organizations that coincided with the new Local Health Integration Network boundaries. Unfortunately, many of the participants from the Grey Bruce CCAC case study left the organization during this realignment process. Individuals who commented on the drafts were with the Grey Bruce CCAC prior to the reorganization, but they may not have participated in the research study interviews. They were asked to reflect on whether the reports captured their perceived reality of priority setting. Comments returned were documented and incorporated into the drafts. Reviewers from the Grey Bruce CCAC, for example, noted that the draft description of "Reduction in the Amount of Services" in Chapter 8 omitted the description of routine client reassessments, so this

idea was added to subsequent drafts of the Chapter. The Toronto CCAC had a special process whereby managers and case managers reviewed cases with service levels outside of expected norms as described herein. At both CCACs, case managers reassess clients and reduction of services may occur if the client's health status had improved. This aspect of service reduction was added to the final version of this results chapter.

Table 17. The number and type of individuals who participated in the respondent validation process.

Results Chapter	Reviewers from the Toronto CCAC			Reviewers from the Grey Bruce CCAC	
	Key Informant	Case Manager	Administrator	Case Manager	Administrator
Chapter 8	1	0	1	1	1
Chapter 9	1	2	0	1	1
Chapter 10	1	2	0	1	1

Axial and selective coding of the data focusing on factors and values occurred as I was simultaneously developing the quantitative discrete choice survey (See Section 6.5.2). Since this development process involved discussions of my theoretical categories for factors and values with key informants at the Toronto CCAC and the Ontario Association of CCACs, I received active feedback on the validity of my coding. This activity therefore served as a type of respondent validation for those thesis results.

6.4.6 Ethics and Confidentiality

The protocol for these case studies was reviewed by the Health Sciences I Research Ethics Board at the University of Toronto and approved on March 21, 2005. Approval was then extended 3 times on an annual basis until March 20, 2009.

The confidentiality of all participants was protected throughout the study. A master list of all participants was kept in a secure location and I was the only person able to

access this list. Audiotapes delivered to the transcriptionist did not contain the participants name and were only be labeled with a unique identifier. In all study reports, care was taken to ensure that respondent quotes used to illustrate a concept did not identify or implicate a specific individual. All electronic and paper study records will be kept in a secure location and will be maintained for 7 years after study completion and then destroyed.

6.5 Phase II: Quantitative Survey

To address the research objectives of Phase II, a questionnaire was designed to collect four types of data from case managers in CCACs across Ontario: 1) the relative importance of client attributes in prioritizing clients for personal support and homemaking services; 2) the relative importance of value statements in resource allocation decisions; 3) attitudes toward priority setting; and 4) demographic information. In the next section, the designs chosen to collect each of these types of information are described below. This is followed by a detailed description of the design of the questionnaire and the pilot test. Then, the main phase of the survey, in which case managers were recruited to complete the online survey through the CCACs, is described. Finally, a description of the analysis of the survey data is given.

6.5.1 Overview of the Survey Design

In this section, an overview of the methods used to design questions for each type of data required for the survey is given.

Section 1 of Survey: Data on the Relative Importance of Client Attributes

The relative importance of client attributes in prioritizing clients for personal support and homemaking services was examined through a choice-based conjoint analysis. Two types of preferences are discussed in the economics literature: revealed preferences and stated preferences.(83) Revealed preferences are defined by the choices made by individuals in the market while stated preferences are elicited from individuals through structured questionnaires. Choice-base conjoint analysis collects data on stated preferences.

A number of techniques have been used to elicit views on health care decisions and quantitative rating[v], ranking[w] and choice-based techniques have been used to determine the importance of various issues.(116) A choice-based technique was used in this thesis because economists typically consider constrained choice techniques to be conceptually superior to unconstrained ones because they incorporate the concept of opportunity cost. Constrained choice techniques involve forced choices which 'incorporate some notion of sacrifice' and presume that respondents cannot satisfy all of their desired outcomes.(7;117) Voting exercises, ranking exercises, discrete choice experiments, simple choice exercises, time trade-off, person trade-off, standard gamble and allocation of points are examples of constrained choice techniques.(7;116;118) A choice-based conjoint analysis was conducted for this study because it allows trade-off between multiple attributes, and it has a strong theoretical basis, good validity, and good reliability.(116) Finally, it has been used more often in health care research than techniques such as allocation of points.(116) Since there are multiple types of conjoint

[v] Examples of rating techniques: rating conjoint analysis exercises, likert scales, semantic differential technique, satisfaction surveys.
[w] Examples of ranking techniques: simple ranking exercises, ranking conjoint analysis exercises, qualitative discriminant process.

analyses, choice-based exercises are often called "discrete choice experiments" in the health economics literature to differentiate them from other types of conjoint analyses.

A discrete choice experiment has five distinct stages(116):

1. The researcher identifies the characteristics or attributes of the good or service under study that may be of importance to the study participants.
2. The researcher develops "levels" that describe the various manifestations of the attribute.[x]
3. The researcher uses the defined attributes and levels to design the questionnaire.
4. The survey data are collected from study participants
5. The data are analysed using regression analysis and interpreted

The first two stages of discrete choice experiments are conceptually based in "Lancaster's Theory of Value" which proposes that an individual's utility function for a good can be defined by adding the utility associated with the individual characteristics of the good.(116) The underlying assumptions of this theory are that preferences are continuous and that improvement in one attribute compensates for deterioration in another.

There are multiple types of discrete choice experiments which differ according to the types of choices that they present to respondents. In a binary choice experiment, respondents are presented with attribute-based descriptions or profiles of the good or service under study and asked if they would choose to use or consume each option. In health care, it is common to present profiles of two competing service or options in one

[x] In a simple example from marketing, a discrete choice experiment may be used to identify which attributes of cars are most important to consumers. The attributes under study may be colour and presence of air conditioning. The levels for these attributes may be defined as blue, red, white, black, green and air conditioning present or absent.

question and ask respondents to indicate their preferred option. These are called pairwise choice exercises. In some of these experiments, respondents are allowed to "opt-out" of the choice and indicate that they would choose neither of the presented options. In other fields, such as marketing, it is more common to present three or more profiles per question. In a best-worst scaling design, also known as a maximum difference design, participants are presented with scenarios described using one level from each of the attributes and they are asked to indicate which is the best thing and the worst thing about each scenario.(119)

Since the main objective of the discrete choice experiment was to determine the relative importance of the client characteristics or attributes in two types of resource allocation decisions, a best worst design was initially chosen. Flynn and colleagues have demonstrated that in pairwise discrete choice experiments attribute parameter estimates are a function of both the relative impact of an attribute and the change in utility achieved by moving from one level of the attribute to the next.(119) They suggest that the best worst scaling design allows estimation of the relative impact of each attribute without confounding by the utility scale for the levels.(119) In the pilot test, however, case managers found this type of choice exercise confusing. On the other hand, they had no difficulty understanding the pairwise choice design because they were used to making the types of choices presented in a pairwise discrete choice experiment. Therefore, a pairwise discrete choice experiment was designed to collect information on the relative importance of client attribute to case managers' decisions. Since case managers do not provide personal support and homemaking service to all assessed individuals, each question or choice set presented to case managers included an opt-out option. To

generate unconfounded estimates of the relative impact of the attributes, analysis techniques suggested by Lancsar and colleagues, described in more detail in Section 6.5.6, were used.

Section 2 of Survey: Data on the Relative Importance of Values

Since one of the objectives of this survey was to estimate the relative importance of values in resource allocation decisions, a best-worst scaling choice-based conjoint analysis was designed. Essentially, this section was designed as a discrete choice experiment with 7 attributes (the value statements) with 2 levels (statement present / statement not present). An alternative design would have been to have respondents order the value statements in order of their preferred relative importance. Louviere has argued that discrete choice experiments are theoretically superior to these types of ranking exercises because they allow hypothesis testing through multinomial logit regression analysis.(120) Finn and Louviere have conducted a best-worst scaling discrete choice experiment to determine the relative importance of potential safety concerns amongst consumers in the food market and this section of the survey was modeled on that publication.(121) During the pilot study, in contrast to section 1 of the survey, the case managers had no difficultly understanding the best worst design format for the questions about the relative importance of the value statements.

Section 3 of Survey: Data on Attitudes Towards Priority Setting

A number of questions were created to explore case managers' attitudes towards priority setting. A literature review was conducted to identify surveys that had been administered to gauge general priority setting attitudes of the public or health care professionals. Studies were identified through a search of Medline using MeSH terms

such as "*health care rationing" and "attitudes". The Eurobarometer Surveys were one of the few examples that included questions to gauge support for rationing that had been administered to the public in a range of countries. Two general statements about priority setting were taken from these surveys to allow comparison of case managers' responses to other populations. The first question asking for level of agreement with the statement, "It is impossible for any government or compulsory or private health insurance scheme to pay for all new medical treatments and technologies" was taken from the 1996 Eurobarometer survey.(122) The second question asking for level of agreement with the statement, "The government should provide everyone only with essential services such as care for serious disease and encourage people to provide for themselves in other respects" was taken from the 1998 Eurobarometer survey.(122)

The study by Gallagher and colleagues suggested that one of the ethical dilemmas home care case managers face was whether resource should be distributed equally to all clients or given preferentially to those in most need.(5) Key informants also suggested that this is an important issue faced by case managers. A question was therefore designed to see which equity principle was preferred by case managers.

Finally, key informants suggested that it would be interesting to look at case managers' beliefs about the importance of personal support and homemaking services for different clients. Wording of these questions was based on the wording of CCAC Service Goals for Maintenance, Long-term Supportive and Acute Clients so that case managers would easily recognize the 3 types of client being described in these statements.

Section 4 of Survey: Data on Demographic Questions

A number of demographic questions were included in the survey to allow survey respondents to be compared to all case managers employed by the CCACs. Furthermore, a number of case manager characteristics have been identified as influencing decisions or general attitudes towards priority setting.(123;124) Finally, a question based on the General Social Survey(125) was added to capture informal caregiver experience because, during the qualitative case studies, some case managers indicated that this experience led them to create more generous service plans.

6.5.2 Development of the Discrete Choice Experiments

In this section, stage 1 to 3 of the two discrete choice experiments contained in the survey are described. Once again, the first discrete choice experiment was designed to examine the relative importance of the client characteristics or attributes in prioritizing client for personal support and homemaking service. The second was designed to examine the relative impact of value statements in these service allocation decisions.

Section 1 of Survey: Identification of Attributes of Hypothetical Clients

In Phase I, a number of factors were identified as influencing assessments of an individual's need for personal support and homemaking services. As shown in Chapter 10 of this thesis, these include factors related to: 1) general eligibility criteria; 2) functional ability of the client; 3) ability to access alternative resources; 4) client consent; 5) setting of care; and 6) external factors. All factors, except for "external factors", were considered characteristics of the client and could therefore have been included in the discrete choice experiment. In health care, it has been recommended to limit the number of attributes to 5 to 7.(116) Within the category of functional ability of the client alone, 7

individual client characteristics were considered by case managers during the assessment process. Therefore a process was used to identify a manageable number of client characteristics to be used as attributes in the discrete choice experiment.

First, the decision was made to focus on client characteristics related to the functional ability of the client and the client's ability to access alternative resources. To account for the other types of factors, the preamble to the survey stated that respondents should assume that all clients: 1) meet general eligibility criteria; 2) provide consent to receive service; and 3) live in a setting that is considered safe and suitable for care provision. Next, the decision was made to focus on the characteristics most commonly described in the Phase I interviews, and eliminate those discussed by only a few interview participants. The commonly described attributes were usually communicated without prompting by most interview participants whereas the less frequently described attributes were usually mentioned after multiple probes. Overall, the descriptions of the interview participants gave the impression that the attributes chosen at this stage in the experiment were the most important. In the "functional ability of client" category, ability to self-bathe, incontinence, ability to safely ambulate and transfer within the home, cognitive status, and instrumental activities of daily living were kept as potential attributes while other physical difficulties and psychological status were eliminated. In the "ability to access alternative resources" category, amount of informal support services, level of services within the community, and ability to pay privately for services were kept as potential attributes while ability to access services within the community was eliminated. This left a total of eight attributes. Potential levels for each of these attributes were created by reviewing case managers descriptions of the factors in the Phase I interviews.

The next step was to present the draft attributes and levels, which are described in Table 18, to key informants at the Ontario Association for CCAC and the Toronto Central CCAC. In addition, a focus group of a convenience sample of 5 case managers was organized at the Toronto Central CCAC. Finally, the questionnaire was pilot tested at the Mississauga Halton CCAC as described in Section 6.5.4. Wording of the level and attribute labels evolved throughout this development process. In the final questionnaire, 1 attribute with 3 levels and 6 attributes with 2 levels were included in the discrete choice experiment. The wording of the final attributes and levels is shown in Table 19.

Although key informants and participants of the Toronto CCAC focus group indicated that the cognitive status attribute was important, they thought it was best to exclude this from the experiment. They added the qualification that it was a driver of provision of service for caregiver relief rather than of provision of service to the client him or herself. Case managers indicated that if a person with cognitive difficulties did not have the support of an informal caregiver, they would likely be placed in a long-term care home. For clarity, a statement that none of the hypothetical clients described on the survey had cognitive difficulties was added to the preamble of the discrete choice experiment.

Table 18. The attributes and levels considered for the pilot test discrete choice experiment.

Type of Factor	Attribute	Levels
Ability to Access Alternative Resources	Amount of Informal Support	• Client has no informal caregivers • Client has some support from informal caregivers • Client has an informal caregiver who is willing to provide care but requires assistance or caregiver relief • Client has an informal caregiver who lives with them who is fully capable and willing to care for them
	Level of Community Services	• There are either no services available in the community or they are insufficient to meet the client's need for service • There are services available in the community that can meet the client's need for service

	Ability to Pay Privately for Services	• Client can not afford to pay privately for personal support services • Client can afford to pay privately for personal support services
Functional Ability of the Client	Ability to Self-Bathe	• Client requires help to safely bathe • Client does not require help to safely bathe
	Incontinence	• The client has bladder or bowel incontinence • The client is continent
	Ability to safely ambulate and transfer within the home	• Client is not able to safely ambulate and transfer in the home without assistance • Client is able to safely ambulate and transfer in the home without assistance
	Ability to Perform Instrumental Activities of Daily Living	• Client has difficulty performing some activities of daily living such as laundry and light housekeeping • Client has no difficulty performing some activities of daily living such as laundry and light housekeeping
	Risk of Falling	• Client is not at risk of falling • Client has not yet fallen but is unsteady and fears that they will fall • Client has experienced at least on fall in the last 90 days
	Cognitive Status	• Client can make reasonable and safe decisions about daily activities • Client has difficulty making reasonable and safe decisions about daily activities in new situations • Client require supervision at times because they make unsafe decisions about daily activities in some situations • Client cannot make decisions about daily activities

Table 19. The attributes and levels used for the discrete choice experiment in Section 1 of the survey.

Attribute	Levels
Ability of the client to safely bathe him or herself (Bath)	• Safety Issues • No Safety Issues
Continence	• Continent • Incontinent
Ability to safely ambulate and transfer without assistance (Safely ambulate and transfer	• Safety Issues • No Safety Issues
Difficulty performing instrumental activities of daily living such as housekeeping and laundry (Difficulty with homemaking)	• Difficulty • No Difficulty
Level of informal support (Informal caregiver)	• NONE: Client has no informal caregivers • SOME: Some support from informal caregivers • FULL SUPPORT: Client has an informal caregiver who lives with them and is fully able and willing to care for them
Non-CCAC services that meet the needs of the client are available in the community (Community Services)	• Yes • No
Ability to pay for non-CCAC personal support and homemaking services (Ability to Pay)	• Yes • No

Section 1 of the Survey: Experiment Design

Once the attributes and levels have been defined for a discrete choice experiment, the choice sets used for each question must be developed by systematically varying the levels of the attributes. In this experiment, a 'choice set' was essentially two profiles of hypothetical clients created with different levels of the seven attributes included in this study. In full factorial designs, all possible choice sets are presented to the respondent whereas in fractional factorial designs only selected descriptions are presented.(126;127) Full factorial designs are only possible for experiments with limited attributes and levels. In this experiment, with 1 attribute with 3 levels and 6 attributes with 2 levels, there are $3^1 \text{ X } 2^6 = 192$ possible descriptions, so a fractional factorial design was used so that the respondents were not overwhelmed by the numbers on the questionnaire.

Normally, fractional factorial designs are determined using principles from experimental design to ensure that the questionnaire is statistically efficient.(127) More efficient designs allow effects to be estimated with a lower standard error, meaning that a smaller sample size is required to determine statistical significance. In an efficient design, the attributes are orthogonal, meaning that they are independent (i.e. not correlated).(127;128) In balanced designs, each level of each attribute appears an equal number of times. A balanced and orthogonal design has optimum efficiency.(128) In cases where this type of design is not achieved, D-Efficiency is often used an indicator of the statistical efficiency of the design.[y]

In main effects designs, there are assumed to be no interactions between the attributes in the experiment.(127) An interaction can be defined as, "differences in the effects of

[y] "A efficient design will have a "small" variance matrix, and the eigenvalues of $(X'X)^{-1}$ provide measures of its "size". … D-efficiency is a function of the geometric mean of the eigenvalues, which is given by $\left|(X'X)^{-1}\right|^{1/p}$.(128) (Page 102)

one or more [attribute] according to the level of the remaining [attributes]".(129) It is more difficult to optimize experimental design and conduct the analysis if interactions are assumed to exist. To generate the design for this experiment, the simplifying assumption was made that there were no interactions between the attributes and the main effect design was used. This implies that the design of the experiment was not optimized to detect interactions between variables. It does not preclude detecting of interactions, but may mean that larger sample sizes are required to achieve statistical significance.

Sometimes in discrete choice experiments conducted in health care, certain combinations of the levels of the attributes are considered implausible scenarios. In this study, the possibility of developing hypothetical profiles that described implausible clients was explored by having two of the case managers who participated in the Toronto CCAC focus group review sample profiles. The case managers identified the following implausible situations:

- No difficulty with independent activities of daily living but difficulties with safely transferring and ambulating
- No difficulty with safely bathing but difficulties with safely transferring and ambulating

In addition, a client with no functional difficulties (no problems safely bathing, safely transferring and ambulating, continence or independent activities of daily living) would be considered ineligible for home care, regardless of the status of the other attributes. The experimental design had to be restricted so that profiles representing any of these situations would be excluded.

Ideally, an orthogonal main effects plan (OMEP) is used to generate a fractional-factorial for a discrete choice experiment.(130) These plans can be obtained through catalogues,(131) in tables of orthogonal arrays(132) or generated by software such as SAS(133). To create a pairwise design two profiles need to be presented in each question. Several ways to create profile #2 have been described in the literature: 1) randomly pairing profiles derived from the OMEP; 2) using a different OMEP for each vignette; 3) creating profiles from OMEPs and manually pairing them to minimize overlap between the levels; 4) using an OMEP that contains double the number of variables and use it to create both profiles (known as the L^{MA} strategy(120)); 5) using the macro ChoiceEff within SAS to generate pairs; or 6) using the foldover technique.(130) Street and colleagues demonstrated that methods 5 and 6 are most efficient but that method 5 may lead to correlated estimates of the main effects.(130)

During the pilot test at the Mississauga Halton CCAC, case managers took up to 15 minutes to complete 10 questions. Pilot test participants indicated that having more than 10 questions would be too onerous. Since there were a number of implausible profiles that could not be presented, the ideal approach to generating an experimental design (use an orthogonal array plus the foldover technique) was not possible. Instead, SAS software was used to generate the design.(128) The SAS program identified that optimal designs with 36 or 72 questions could be developed. I therefore created a design with less than 10 questions (4 blocks of 9 questions) so that I could also include one additional question, created outside of the experimental design, which was common to all survey versions. This extra question was purposely designed so that client A had difficult with bathing, transfers and homemaking but had good informal caregiver support and ability to access

and pay for community services. Client B only had difficulty with incontinence but had no access to informal caregivers or community services. This question is shown as an example in Figure 2.

To create the experimental design for 36 questions, the mktex macro within SAS was used to generate a 14 by 36 array (14 columns and 36 rows). Each row of the array contained 7 columns representing the 7 attributes in the first profile and 7 columns representing the 7 attributes in the second profile. The numbers in each of the columns in the array designated the level of the attribute that would appear in each question (0 or 1 for attributes with 2 levels; 0, 1 or 2 for the attribute with 3 levels). This approach is similar to the L^{MA} technique described by Louviere, Hensher, and Swait,(120) except that, due to design restrictions required to exclude the implausible profiles, the array generated by SAS was not an OMEP. A design with a D-efficiency of 0.889692 was generated. It was not possible to achieve level balance with this design, but as shown in Table 20 the level of the attributes unaffected by the design restrictions (Continence; Level of Informal Caregiver Support; Community Services; Ability to Pay) appeared with similar frequency. The levels of the informal caregiver support appear less often then the other levels because it has more levels than the other attributes. The main reason that level balance is important is because respondents may be biased towards choosing levels that appear more often. All attributes included in the experiment were independent (uncorrelated) except for those affected by the implausible scenarios: 1) Bath is correlated with Ability to Safely Ambulate (coefficient = 0.43 for profile A and = 0.46

for profile B); and 2) Difficulty with Homemaking is correlated with Ability to Safely Ambulate (coefficient = 0.40 for profile A and = 0.43 for profile B) (Table 21).[z]

The SAS macro mktblock was then used to create 4 blocks of 9 questions for the experiment and blocks 1 to 4 became Survey Versions 1 to 4 respectively. (See Appendix 3 for final experimental design.) Since there is literature suggesting that the order of the questions may influence how individuals answer the questions, the order of the questions in Versions 1 to 4 was reversed to create Versions 5 to 8 respectively.

Table 20. The number of times each level of each attribute appears in the final experimental design for the client characteristics discrete choice experiment.

Attribute	Levels	Client A	Client B	Both Profiles
Bath	No Safety Issues	22	22	44
	Safety Issues	14	14	28
Continence	Incontinent	19	19	38
	Continent	17	17	34
Safely Ambulate and Transfer	No	8	9	17
	Yes	28	27	55
Difficulty with Homemaking	Yes	23	23	46
	No	13	13	26
Informal Caregiver	None	12	13	25
	Some	11	11	22
	Full Support	13	12	25
Community Services	No	17	18	35
	Yes	19	18	37
Ability to Pay	No	18	17	35
	Yes	18	19	37

[z] SAS defines as those with correlations of 0.3 or larger.(128)

Table 21. The Pearson Correlation Coefficients for each attribute for the final experimental design for the client characteristics discrete choice experiment.

	Bath	Continence	Safely Ambulate and Transfer	Difficulty with Homemaking	Informal Caregiver	Community Services	Ability to Pay
Correlations for Profile A							
Bath	1						
Continence	0.07	1					
Safely Ambulate and Transfer	0.43*	0.03	1				
Difficulty with Homemaking	0.11	0.02	0.40*	1			
Informal Caregiver	0.10	0.04	0.07	0.04	1		
Community Services	0.04	0.00	0.10	0.10	0.04	1	
Ability to Pay	0	0.06	0	0.06	0.07	0.06	1
Correlations for Profile B							
Bath	1						
Continence	0.07	1					
Safely Ambulate and Transfer	0.46*	0.03	1				
Difficulty with Homemaking	0.11	0.02	0.43*	1			
Informal Caregiver	0.04	0.04	0.04	0.04	1		
Community Services	0	0.06	0.06	0.06	0.07	1	
Ability to Pay	0.04	0.00	0.03	0.02	0.04	0.06	1

*** Correlation is expected given the restrictions on the design when the implausible client profiles are removed**

Figure 6. An example question from Section #1 of the survey.

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	Safety Issues	No Safety Issues
Continence	Continent	Incontinent
Safely Ambulate and Transfer	Safety Issues	No Safety Issues
Difficulty with homemaking	Difficulty	Difficulty
Informal Caregiver	Full Support	None
Community Services	Yes	No
Ability to Pay	Yes	No

1. Which client would you prioritize for personal support services?
   __ Client A
   __ Client B
   __ I would not provide service to either client

2. Which client would you prioritize for homemaking services?
   __ Client A
   __ Client B
   __ I would not provide service to either client

Section 2 of the Survey: Creation of the Value Statements

In the qualitative case studies, seven values were identified as underpinning the resource allocation decisions made by case managers for long-term clients (See Chapter 10). These values were safety, independence, exceptions to the rule, efficiency, effectiveness, equity, and client-focused care. Statements were created based on the description of these ideas by interview participants or within CCAC documents. In general, these statements were well received by the key informants, the focus group and the pilot test participants, and only minor revisions were made. The final statements used

on the survey are described in Table 22. The value labels shown in this table did not appear anywhere in the survey.

Table 22. Value statements used in the final survey.

Value	Value Statement
Client Focus	It is important to consider a client's needs and preferences when developing a service plan
Effectiveness	It is important that there is a reasonable expectation that clients can achieve their treatment goals
Efficiency	It is important to design service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner
Equity	It is important to be consistent and give the same amount of service to clients who have the same level of need.
Exceptions to the Rule	It is important to consider making exceptions for those who do not meet eligibility guidelines in some cases, for compassionate reasons.
Independence	It is important to support a client's ability to function independently.
Safety	It is important to maximize a client's safety in their home and to try to minimize the risks they face.

Section 2 of the Survey: Experimental Design

To create the experimental design for a best-worst experiment, it was assumed that there were 7 attributes with 2 levels (0 = blank; 1 = value statement). SAS (mktex and mktblock macros) was used to generate an array that served as the basis for the experimental design. SAS was able to generate a design with a D-efficiency of 1.00, where all the values appeared 6 times in the 11 choice sets of value statements (i.e. level balance was achieved). There were no large correlations between the values, which SAS defines as those with a Pearson Correlation Coefficient of 0.3 or larger. During the pilot test, respondents found that 11 questions took too long to complete and were too repetitive. To improve the survey completion rate, SAS was used to distribute the value statement sets into 2 blocks of questions. The final block design is depicted in Appendix 3. Block 1 was used as shown in Survey Version 1 and 3. The question order of Block 1

was reversed to create Section 2 in Survey Versions 5 and 7. Similarly, Block 2 was used as shown to create Survey Versions 2 and 4, while the reverse order was used for Survey Versions 6 and 8.

6.5.3 The Electronic Questionnaire

In health care, the majority of discrete choice experiments have been conducted through self-administered questionnaire sent through the mail. Response rates to these types of questionnaires, which depend on the population surveyed and the incentives used to encourage completion, have ranged from 18% to 81%.(116) Dillman has suggested that the largest barriers to electronic surveys are access to computers and familiarity with computers.(134) Since all community-based CCAC case managers are issued laptops in order to conduct assessments of clients in the community and are used to corresponding with their CCACs via email, it seemed appropriate to turn this survey into a web-based questionnaire. Indeed, key respondents and pilot test participants indicated that they had previously completed web-based surveys distributed through work email accounts. Although use of email facilitated access to the target case manager population, pilot test respondents noted one disadvantage: unless case managers had a computer at home, surveys had to be completed at work. Some individuals may prefer to complete research surveys after work hours.

The survey was implemented in an electronic format through the survey service at www.zoomerang.com. This service allows subscribers to design their own web-based survey, distribute invitations to participate in the survey using email addresses and then download the data in MS Excel format for analysis. Dillman's design principles for internet surveys, which describe things such as use of colour, format of the questions,

provision of instructions, flow of the electronic screens, were used to increase the ease of completion of this survey.(135) The survey included, for example, a welcome page that provided instructions on how to scroll through the survey. A reminder of the meaning of the attributes and levels were placed on each electronic page of the discrete choice experiment so that respondents did not have to return to the start of the survey for this information. Zoomerang had a number of limitations on question formatting, so the final layout of questions differed from previously published discrete choice experiments. An example of a final print version of the survey is shown in Appendix 2. The final version of the electronic questionnaire was sent to 2 case managers during the pilot test. They reported taking 20 to 30 minutes to complete the survey.

6.5.4 Pilot Test

A small pilot test was conducted in one CCAC to ensure that the survey questions were clearly stated and appropriate.

Recruitment of the Pilot Test CCAC

Letters were sent to two CCACs in the Greater Toronto Area inviting them to participate in the pilot study for the survey and the Mississauga Halton CCAC agreed to participate.

Design of the Pilot Test

A convenience sample of case managers was recruited to participate in the pilot test. Mississauga Halton CCAC administrators sent introductory emails out to all of their case managers announcing the pilot test and asking interested individuals to contact me directly. Face-to-face interviews were arranged at one of the CCAC offices. All

potential participants were sent the informed consent form by email and then asked to sign the form at the start of the meeting.

The case manager was sent an email introducing the survey prior to the scheduled meeting. At the start of the meeting, the case manager was asked to access and begin the survey. While they were answering questions, the "think aloud" and "retrospective" interviewing techniques described by Dillman were used to determine whether participants understood the questionnaire.(136) After each interview, the survey was revised. Testing continued until it seemed that the wording of questions and the format of the presentation was appropriate. A total of 7 case managers participated in the pilot test.

Issues Raised During the Pilot Test

During the pilot test, information was solicited on participants' experience with online research surveys, their ability to complete the discrete choice experiments, and the wording of the questions in Sections 1 to 3.

All of the pilot test respondents had participated in at least one research study. Research studies seemed more common in the Halton portion of the CCAC due to ties to McMaster University. All of the case managers were comfortable with computers, email, and the web and all had completed at least one online survey.

At the start of the pilot test, the discrete choice experiment testing the relative importance of client attributes was designed as a best-worst scaling task. Respondents were asked to choose the criterion that was most important and the criterion that was least important to their decision to allocate either personal support or homemaking service based on the wording used by Finn and Louviere.(121) The task did not make sense to

the 4 case managers who were presented with these questions. They stated that the choice task would have been fine if they were simply asked to choose the most important and least important criterion, but found the variation in levels very confusing. If the bathe criteria was important to a respondent, for example, she tended to want to check the bathe box regardless of which level was shown. The online format may have also added confusion because the questions could not presented in a tabular format as had been used for other best worst design experiments. After two pilot test interviews, both the best worst design and a pairwise choice task (with opt-out option) were tested. Case managers preferred the pairwise choice task because they were used to making these sorts of decisions. One respondent noted that this exercise would be a good training tool for new case managers. The case managers found that the choices in the pairwise task were be difficult but understood the questions and could answer them. It was quickly determined that the questions had to be reduced from 18 to about 10 so that case managers could complete the section within 15 minutes.

Participants consistently suggested that two separate questions be used to ask about homemaking and personal support services to accommodate CCACs like Mississauga Halton, who treat them as separate services. Participants had varied opinions on the importance of the seven attributes, so all were kept in the experiment. A number of caveats were added to the introduction of Section 1 (e.g. assume that all clients have no cognitive difficulties) on the suggestion of participants to properly frame the choice questions. One level in the informal caregiver attribute was dropped due to participant confusion and wording changes were made.

The case managers found the best worst task with the value statements in Section 2 of the survey acceptable. In one interview I tested the option of simply presenting a list of the values to respondents and having them rank the relative importance of the statements. This turned out to be unfeasible with the online survey because all of the statements did not appear on the screen at the same time, causing confusion. Case managers reported the most difficulty choosing the least important values from the sets presented. They stated that the number of these types of questions should be reduced otherwise it would seem too repetitive. Notes were taken on their comments on individual values.

In general, the questions of Section 3 were well received. Case managers explained why they made certain choice while completing the survey and this was documented for use in discussion of results.

6.5.5 Main Survey

Recruitment of Survey Respondents

The target population for the main phase of the study was all CCAC case managers in Ontario, however, there is no central list of CCAC case managers to use as a sampling frame. Therefore, case managers had to be recruited through the CCACs. On January 1, 2007, the CCACs were officially reduced from 42 CCACs to 14 organizations that align with the new provincial health regions (the 14 Local Health Integration Networks). All 14 CCACs were contacted by letter and telephone and asked to participate in the research study. When CCACs were contacted in April to participate, they were still in the process of managing this reorganization and this likely reduced the participation rate. Eight of the 14 agreed to participate in the survey: 1) Central West CCAC; 2) Champlain CCAC;

3) Mississauga Halton CCAC; 4) North East CCAC; 5) North West CCAC; 6) South East CCAC; 7) South West CCAC; 8) Toronto Central CCAC.

Due to privacy legislation, the CCACs could not provide me with a list of emails for the case managers within their CCAC. Instead, each CCAC identified one person who acted as the contact for this research study. This person was asked to distribute the four pre-written email invitations to the case managers in their organization who work with adult long-stay clients. Some of the CCAC contacts also decided to promote the study at staff meetings to increase interest in the survey. The first CCAC began the study in May while data collection in others started between May and September depending on the CCACs internal schedules. Data collection closed at the end of December 2007.

Originally, the email invitations, which were written based on Dillman, were scheduled to be sent every two weeks.(137) The schedule for the reminders varied, however for a number of reasons. At the end of July, for example, responses to the invitations slowed at all CCACs. The CCAC contacts confirmed that August was prime vacation month, so no reminders were sent out during this month. Sometimes, the contacts were on vacation so emails were not sent as originally planned.

It was not possible to distribute a link to the survey with the invitation email since respondents had to be allocated to 1 of the 8 versions of the survey. Instead, case managers emailed me in response to the invitation and were sent instructions and a web link to 1 of the 8 version of the survey. The first 24 respondents per CCAC were allocated sequentially (versions 1 to 8; 8 to 1; and then 1 to 8). It was not expected that there would be more than 30 respondents per CCAC, so respondents #25 and above were randomized to 1 of the 8 surveys in an attempt to ensure an equal number of respondents

per survey. A second email was sent with a word file of the study consent form for their records. Respondents were sent up to 2 reminder emails approximately every 3 weeks until they had completed the survey.

Sample Size

There is no consensus on how to develop sample sizes for pairwise or best worst designs. One rule of thumb for conjoint analyses suggests that the minimum number of respondents required per sub-group is: (138)

Number of Respondents = 3 * (Total number of levels[aa] – Total number of attributes +1)

= 3 * (15 – 7 + 1)

= 27

Similarly, Louviere has suggested that a minimum of 30 respondents per strata are required in order to conduct sub-group analyses.(120) Since I had wanted to investigate differences between CCACs in sub-group analysis, the CCACs were told that a minimum of 30 survey respondents would be recruited from their CCAC.

Johnson has developed another rule of thumb for discrete choice experiments. For main effect designs: (138)

nta / c >=500

Where n = Number of respondents; t=Number of Tasks; a= Number of Choice alternatives per tasks; c = the largest number of levels for any one attribute for main effect designs. For this thesis, a minimum sample size using this rule of thumb would be:

n = 500*3/10*2 = 75

[aa] There were 6 attributes with 2 levels and 1 attribute with 3 levels for a total of 15 levels in this experiment.

In marketing research, Orme states that sample sizes for conjoint studies range from 150 to 1200 respondents. Since discrete choice experiments are one of the least efficient conjoint analysis technique, Orme recommends a minimum overall sample size of 300 and a minimum of 200 respondents per sub-group to ensure robust analyses. (138) The original aim was, therefore, to recruit a minimum of 300 respondents.

Completion of the Electronic Survey

When respondents received the electronic email, they simply clicked on the web link when they were connected to the internet. At the Champlain CCAC, several respondents were not able to access the survey through this link and the technical issue could not be resolved. Several respondents completed and mailed a paper copy of the survey but this technical difficulty likely affected the survey response rate at the CCAC.

Respondents could click on an opt-out option in the invitation email, however, most case managers simply sent me an email if they no longer wished to participate. None of the survey questions were mandatory. The web site assigned each respondent a unique ID number. I was able to track survey completion rate by email address in order to tailor the reminder invitations.

Data were downloaded from the survey website as numeric MS Excel files in January 2008.

6.5.6 Data Analysis

All data analysis was conducted using SAS Version 9.1 for Windows.(133)

Demographic Data

Frequencies were calculated to summarize all categorical data while means, medians, minimums and maxima were calculated to summarize all ordinal data. In order to be able

to comment on the representativeness of the sample of case managers who participated in the survey, each CCAC was asked to provide statistics on the following variables: 1) number of case managers by work site (hospital, community, call center or other); 2) number of case managers who are full or part-time; 3) number of female and male case managers; 4) professional background of their case managers (nurses, physiotherapists, occupational therapists, social workers or others); and 5) the minimum, maximum and mean number of years that case managers have been employed at the CCAC. Most CCACs provided these statistics.

Attitudes Towards Priority Setting

A number of analyses were conducted to examine the priority setting attitudes of case managers (Objective #1 of Phase II). Frequency tables were generated to look at all attitudes towards priority setting. Univariate logistic regression analyses was conducted to test whether responses varied significantly within sub-groups of the survey sample. Variables tested included experience with informal care in the last 12 months (Yes or No), professional background (nursing or other), location of the case managers' clients (rural or urban), or years as a case manager. The level of agreement with the two priority setting statements within the survey was recoded as agree (strongly or somewhat) or disagree (strongly or somewhat) to allow these tests to be conducted.

Understanding the Relative Importance of Attributes in the Client Profile

The analysis of discrete choice experiments is conceptually based in random utility theory.(116) Random utility functions generally take on the form:(139)

$$Uij = Vij + \epsilon ij \quad (1)$$

Where Uij = the utility derived from choice j by individual i

Vij = the deterministic or observable portion of the utility model from choice j by individual i

ϵij = the random or stochastic portion of the model from choice j by individual i which represents the uncertainty associated with unobserved characteristics

In a discrete choice experiment, the deterministic term of equation 1 can be further defined as follows:

$$Vij = \alpha ji + \beta nij(Xnij) + \beta nij(Zni) \qquad (2)$$

Where αji = constant term for choice j by individual i

Xnij = attribute n of choice j by individual i

βnij = the weight of attribute n for choice j by individual i (denotes the relative contribution of the attribute to overall utility)

Zni = characteristics of the individual i that are observed to have an impact on attribute n[bb]

In the analysis of discrete choice experiment data, regression analysis techniques are used to derive equations 1 and 2. For this study, the logit model was used in the analysis.(120) When respondents answer questions with more than one choice set, multinomial logistic regression analysis, also known as conditional logistic regression analysis, must be used. In this discrete choice experiment, there were 3 choices for each question: Client A; Client B; or No Services (the opt-out option). In these analyses, the independent variables are the attributes. Intercept terms can also be entered into the analysis if the choices are "branded" or labeled. In this experiment, the labels client A

[bb] Social demographic characteristics for an individual are invariant across choices so the j subscript is dropped for this part of the equation

and client B did not carry any distinct meaning, but the label of No Services did. An intercept term representing no services was therefore entered into each model. All of the analyses described in this section were run twice: once with the outcome of interest being choice of client A, B or no services for personal support services and once with the outcome of interested being choice of client A, B or no services for homemaking services.

The data set was set up for analysis in SAS as described by Kuhfeld.(140) All attributes were effects coded as described by Lancsar and colleagues.(141) For all of the 2 level attributes, the worst case level was set to -1 and the best case level was set to 1. For the 3 level attribute representing informal support, two variables were created: 1) Some Support (No Support=-1; Some Support = 1; otherwise=0); and Full Support (No Support=-1; Full Support = 1; otherwise=0). For all questions, the levels associated with the attributes of the opt-out option were normalized (i.e. set to 0).

To address objective #2 of Phase 2 and determine the relative importance of the client attributes in prioritization decisions by case managers for both personal support and homemaking services decisions, conditional logistic regression analysis was conducted in SAS using the proportional hazards regression procedure (PROC PHREG).(140) The same models were derived using the multinomial discrete choice procedure (PROC MDC). Goodness of fit of the models was determined by comparing the model to the null model (model with no covariates) by calculating the likelihood ratio chi-square test.(142) The relative goodness of fit of different model versions was also determined using this statistic. McFadden's R^2, or the pseudo- R^2, was used as a measure of the proportion of the variation explained by the model.(142-144) This statistic is related to,

but not analogous to the R^2 statistic used in linear regression models. Hensher, Rose and Greene suggest that a pseudo-R^2 of 0.3, which is approximately equal to a linear regression model R^2 of 0.6, represents a "decent fit" for a discrete choice model.(142)(page 338)

Discrete choice experiments are often used to determine the relative impact of each attribute-level rather than the attribute themselves. In other words, they are often use to determine the impact of changing an attribute. Lancsar and colleagues have demonstrated that parameter estimates in models based on discrete choice experiments may not be used to estimate the relative impact of the attribute themselves. This is because the parameters are not directly comparable unless a best worst scaling design is used; they may be confounded by the underlying subjective utility scale.(145) For experiments that have not used this design, Lancsar and colleagues describe four analysis techniques to estimate the relative importance of attributes: 1) partial log-likelihood analysis; 2) the marginal rate of substitution for non-linear models; 3) Hicksian welfare measures; and 4) probability analysis. It was not possible to employ methods 2 and 3 for this analysis because a linear attribute was not included in this study. Partial log-likelihood analysis was conducted by systematically re-estimating the model, each time omitting one of the attributes from the analysis. The log likelihood for each partial model was then compared to that from the full model. Lancsar and colleagues note that the relative change from full to partial model indicates the relative importance of the attributes, unless some attributes are correlated.(145) In this experiment, the bathe and ambulation attributes were correlated, therefore, probability analysis was also conducted. In this analysis, the values for all attributes are varied and the probability of being chosen

for each scenario is compared. The relative impact of the attributes is indicated by the percent change in the probabilities of being chosen. All first order interactions between the attributes were tested for statistical significance by entering them into the model.

To address objective #3 of Phase II and examine the relationship between case manager characteristics and the relative importance of the attributes, the impact of case manager characteristics was tested in the regression analysis. A priori it was hypothesized, based on the literature and the Phase I qualitative case studies, that the following case manager characteristics might influence choice behaviour for this discrete choice experiment: CCAC of employment, experience with informal care in the last 12 months (Yes or No), professional background (nursing or other), location of the case managers' clients (rural or urban)[cc], years as a case manager and preferred equity principle (distribute some services to all potential clients or distribute services to those most in need). It was not possible to test the impact of the CCAC of employment because there were fewer than 30 respondents from many of the CCACs, meaning that analyses conducted with these sub-groups might be unstable.[dd](120) The impact of the remaining respondent characteristics was therefore tested by creating interactions between the characteristic variables and the attribute variables. For ease of interpretation, respondent characteristics were dummy coded. Multiple models were created by adding each of these interaction terms to the main effects model separately. Statistically significant interaction terms were tested together through stepwise regression analysis.

[cc] Also referred to as "Rurality of Clients Served in Chapter 12"
[dd] Survey response rate is described in detail in Chapter 11

Understanding the Relative Importance of Value Statements

To address objective #4 of Phase II, the relative importance of the value statements was estimated through the analysis of the best worst scaling discrete choice experiment that was presented in Section 2 of the survey. Finn and Louviere have described two types of analyses for best worst DCEs with attributes with one level (i.e. present or not present in the choice set): most-least scaling and multinomial logistic regression analysis.(121) Most-least scaling analysis was conducted by assigning a score of 1 to a value statement each time it is chosen as the "best" statement in the choice set and a score of -1 each time it was chosen as the "worst" statement in the choice set. The score total for each value statement was calculated for each respondent; scores could therefore range from -3 to 3. Scores from all respondents were averaged and this mean score for each value were compared to determine relative ranking of the value statements.

Multinomial analysis is considered more powerful than most-least scaling analysis as it allows statistical hypothesis testing.(121) The data set was effect coded and prepared for paired model multinomial logit analysis as described by Flynn and colleagues.(119) Six different models were estimated, each time leaving a different one of the seven value statements as the reference variable. This allowed the statistical significance of the parameter estimates associated with the value statements to be assessed relative to each of the value statements.

To address objective #5 of Phase II, additional regression analysis was conducted to test whether respondent characteristics explained variance in the ranking of value statements. To do this, interaction terms were created between respondent characteristics and the value statements. For ease of interpretation, respondent characteristics were

dummy coded. Multiple models were created by adding each of these interaction terms to the main effects model individually. Statistically significant interaction terms were tested together through stepwise regression analysis.

6.5.7 Ethics and Confidentiality

The confidentiality of all survey participants was protected throughout the study. Zoomerang, the web-based survey company used for this thesis, states that they do not intentionally release any personally identifiable information from the survey respondent to anyone except the survey developer. The company complies with the United States/European Union Data Protection Safe Harbour Arrangement and allows the TRUSTe Privacy Program to audit it on an annual basis. The company does use cookies, or small pieces of information sent to participants computers, in order to track responses to the survey. The company uses security measures such as firewalls in order to protect information stored on its servers. The company's privacy policy states that "Due to factors beyond (the company's) control, the company cannot ensure that Personally Identifiable Information will not be disclosed to third parties. For example, the company may become legally obligated to disclose such information, or, despite precautions, third parties may circumvent security measures to intercept or access such information." Further details on the company's privacy policy can be found at www.zoomerang.com

The raw survey data were accessed and downloaded from Zoomerang's secure servers by me using a log in and password known only to myself. The data were then stored in my personal computer located at my home residence. The data were only used for the purpose of this research study. Only aggregate statistics were presented in papers to

prevent identification of individual respondents. Finally, only I had access to the list linking email addresses and names of the survey participants and this was stored in a password protected file.

The protocol for the survey was reviewed by the Health Sciences I Research Ethics Board at the University of Toronto and approved for 1 year on January 17, 2007. Approval was then extended until January 16, 2009.

7 Introduction to Qualitative Results

The overall purpose of the qualitative case studies was to describe priority setting within CCACs from the perspective of CCAC employees, focusing on the factors and values that influence these decisions. Since the CCACs provide a number of services to many different types of clients, this research concentrated on priority setting decisions concerning nursing, personal support and homemaking services for long-term clients aged 18 years or over, whose primary diagnosis was not a mental illness. Furthermore, there are two levels of priority setting within CCACs, namely the meso or institutional level and the micro or case manager level. Although this study centred on the micro level, data about meso level priority setting were also collected to provide context. As discussed in the introductory chapters of this thesis, values can be defined as individual or institutional. Individuals do not always hold the same values as the institutions that employ them. For the purpose of this analysis, therefore, individual values were defined as those that emerged from interviews with case managers, while institutional values were defined as those discussed by administrators or outlined in CCAC documents. Finally, external values are those defined by outside influences such as provincial legislation or Ministry of Health policies. External values were not explicitly analysed in this research project.

The first qualitative results chapter (Chapter 8) addressed the first Phase I objective: To describe the context of priority setting and the types of priority setting decisions made within CCACs. During the analysis, I noted many forms of priority setting and resource allocation patterns within the CCACs that were similar to those described by Klein, Redmayne and Day.(13) Although the two CCACs studied utilized similar forms of

priority setting, the emphasis on particular forms differed for two reasons. First, the two CCACs chose two different overall approaches to priority setting. The rural CCAC used a wait list while the urban CCAC emphasized other forms of resource allocation to manage demand for services. Second, geography influenced practices because certain forms of priority setting cannot be employed with rural clients due to their relative isolation. The first chapter of the qualitative results (Chapter 8) describes these ideas in more detail. The description of the forms of priority setting within the CCACs serves the secondary purpose of portraying the context of priority setting decisions within the CCACs.

The second chapter of qualitative results (Chapter 9) addresses the second objective of Phase I: To describe organizational level priority setting decisions that influence case managers' resource allocation decisions, focusing on the factors and values that influence these decisions. At the meso level of priority setting, there were three types of decisions that acted on micro level decisions. First, each CCAC made a decision on which overall priority setting approach to adopt. The rural CCAC chose to implement wait lists with a basket of services approach, while the urban CCAC chose to focus on managing demand for services. The values of effectiveness, efficiency, equity, and client-focused care were used to rationalize these choices. Administrators in both CCACs made the conscious decision to monitor the use of resources but left allocation decisions to the case managers in order to ensure client-focused care. Second, the CCACs made decisions regarding how much money to request from the Ontario Ministry of Health for client services. Many of the factors that influenced this priority setting exercise were externally imposed and, therefore, were out of control of the CCACs themselves. CCACs had greater control

over decisions about how to manage funds for special projects and how they instructed their case managers to allocate the time spent meeting with clients, participating in special projects, participating in training initiatives, and other activities. These meso level decisions, however, were not systematically studied during the research project. Finally, the CCACs made decisions on how to structure their budgets based on their own values. The rural CCAC, for example, monitored but did not restrict spending within their client service budget in order to maintain case managers' ability to deliver client-focus care under their basket of services philosophy. The urban CCAC decided to divide the budget between several geographic regions and programs, but allowed flexibility within these divisions in order to balance equity and client-focused care. The second chapter of qualitative results describe these factors and values, by decision, in more detail.

The third qualitative results chapter (Chapter 10) addresses the final objective of Phase I: To describe the case managers' resource allocation decisions, focusing on the factors and values that influence these decisions. At the micro level, to allocate resources, case managers first assessed the needs of potential clients and then created a service plan to meet these assessed needs. The factors that influence assessment of need for either nursing or personal support and homemaking services were general eligibility criteria, client medical conditions, a client's functional ability, a client's access to alternative resources, client consent, the care setting, and external factors. The values that underpin these factors were exceptions, safety, independence, and client-focused care. The values that drive decisions about which CCAC services to allocate in order to meet the client's assessed needs are equity, effectiveness, efficiency and client-focused

care. The factors that interfere with the achievement of equal service for equal needs include case manager factors, client factors, and external factors. In analysing the data, I noted that difficult decisions often occur when values conflict and have documented the types of value conflicts that case managers described during their interviews in this results chapter.

8 Forms of priority setting and resource allocation within the Community Care Access Centres

8.1 Introduction

Priority setting can be defined as "the distribution of resources among competing programs or people"(3). As discussed in Chapter 3 (Section 3.2), priority setting decisions are made at many different levels of the health care system. Within CCACs, for example, decisions are made at the institutional or the 'meso' level during the budgeting process, and by the case manager, or the 'micro' level, when allocating service to clients. In the literature, authors often use the terms "rationing", "priority setting" and "resource allocation" interchangeably.(1;2;13) For clarity, Klein and colleagues have labeled decisions made at the governmental or institutional level as "priority setting" and those made at the micro level as "rationing". As Klein and colleagues point out, the word rationing evokes an emotional response in many individuals.(13) Since it is often taken to imply unfair practices rather than a fair and rational process of controlling resources, I have chosen to use the more neutral term of "resource allocation" in place of "rationing" throughout this chapter unless specifically referring to theoretical frameworks developed by Klein and colleagues.

Klein and colleagues suggest that health care workers and health care organizations cope with the ethical challenges of resource allocation by implicitly adopting various forms of "rationing".(13) They argue that the various forms of rationing are in fact employed to different degrees by all public institutions which attempt to allocate resources that are available without cost to those demanding the resources. This analytical framework is not itself normative, though it is a framework classifying

normative issues, as it does not employ either procedural or distributive justice principles to judge whether priority setting is fair and just. In this chapter, the priority setting practices used by CCACs are examined using the theoretical lens of forms of rationing (priority setting or resource allocation) and their advantages and disadvantages, as perceived by CCAC case managers, are discussed.

8.2 Results

Within both of the CCACs studied, most of the priority setting decisions were made at the micro level during case managers' interactions with potential clients. At the institutional level, administrators decided on an overall approach to priority setting for the CCAC. The case managers within both CCACs employed different forms of resource allocation, including application of eligibility criteria, referral to community services, use of informal caregivers, teaching, limiting the amount of service based on CCAC guidelines, defining the scope of services provided, reducing the amount of service when required and discharging clients. It is important to note that case managers did not describe their decisions as types of "priority setting" or "resource allocation" but rather as outcomes of their daily interactions with clients.

An overview of the forms of priority setting is given in Table 23. Although case managers at both CCACs used similar forms of resource allocation, the extent to which each form was employed was influenced by the overall approach to priority setting adopted by the CCAC and each CCAC's degree of rurality. Differences between the CCACs and the disadvantages of the different forms of priority setting, as described by the interview participants, are detailed in the sections below. First forms of priority setting at the meso level are described, then forms at the micro level are illustrated.

Table 23. A summary of the forms of priority setting used by the urban and rural CCACs.

Form of Priority Setting	Level of Decision Making	Description	Differences Between Rural and Urban CCACs	Classification by Klein, Day and Redmayne(13)
Implementation of wait lists	Institutional (Meso)	Clients were placed on a wait list and admitted based on a priority score when demand was expected to exceed service funding. Due to the CCACs 'basket of services' philosophy, clients received all needed services once admitted.	Not adopted by the urban CCAC	Rationing by Delay
Application of Eligibility	Case manager (Micro)	Legislation sets out general eligibility for service and specific eligibility for individuals services.	None noted	Rationing by Denial
Referral to Community Services	Case manager (Micro)	Clients are referred to other community services or health care organization rather than receiving CCAC service to meet their needs.	Access to community services greater in urban areas, compared to rural areas.	Rationing by Deflection
Use of Informal Caregivers	Case manager (Micro)	CCAC service is allocated to complement rather than replace informal caregivers.	None noted	Rationing by Deflection
Teaching	Case manager (Micro)	Purpose of service provision is to teach client or their informal caregivers to "self-care".	May utilize more extensively in rural area to avoid institutionalization due to lack of community services.	Rationing by Deflection
Limiting the Amount of Service	Case manager (Micro)	Guidelines suggest the amount of service required to address certain client needs.	Similar policies for personal support and homemaking services. Urban CCAC has additional guidelines for nursing and rehabilitation services for clients with short-term, uncomplicated needs.	Rationing by Dilution
Defining the Scope of Services	Case manager (Micro)	Guidelines outline the personal support and homemaking tasks allowed by the CCAC.	Rural CCAC appears to allow more homemaking tasks, in part due to isolation of rural clients.	Rationing by Denial

Form of Priority Setting	Level of Decision Making	Description	Differences Between Rural and Urban CCACs	Classification by Klein, Day and Redmayne(13)
Reduction in the Amount of Services	Case manager (Micro)	Case managers review their case loads and gradually reduce service to those assessed to have more service than they need.	Service reduced upon reassessment if client's functional and health status had improved. At urban CCAC files explicitly reviewed and service reduction occurred if level of service not justified by need.	Rationing by Dilution
Discharging clients	Case manager (Micro)	Case managers discharge clients when need is deemed to be satisfied.	Case managers in both CCAC attempted to limit client's time of service through a defined discharge plan. Urban case managers discussed discharging lower priority clients in times of financial constraint.	Rationing by Termination

8.2.1 Overall approach to priority setting

The two CCACs adopted different overall approaches to managing the funds allocated to services for clients. The rural CCAC chose to implement wait lists while the urban CCAC used various mechanisms to encourage their case managers to manage demand for services and avoid the use of wait lists. Some of the reasons for these choices are examined in the next chapter of this thesis.

Provincial legislation allows the use of wait lists within the CCACs but the approach to managing these lists is not prescribed.(31) Indeed, although the rural CCAC's criteria for prioritizing clients on their wait lists were consistent with the other CCACs within their geographical region, they implemented a unique "basket of services" approach to allocating services to priority clients. In their CCAC, all eligible individuals were prioritized for admission based on their most urgent service code and then received all required services once admitted. Interview participants suggested that this contrasted with their neighbouring CCACs which maintained individual wait lists for each service required by eligible clients. In these CCACs, an individual was admitted for service but only received each service based on their priority score, as they became available. In the rural CCAC, for example, a client designated as a 1 for nursing and a 3 for personal support services would be admitted and receive both nursing and personal support services at the same time. In the other CCACs with wait lists, the same client would likely receive nursing services but would have to wait for personal support services if funds were not sufficient to support servicing of clients prioritized as 3.

The rural CCAC had to employ their wait list system in a period prior to this study's data collection. During this time, the number of allowed admissions was calculated on a

weekly basis. At one point, only clients rated as priority 1 got service right away, but as the number of allowed admissions increased, clients rated as priority 2 were also able to receive immediate service. The administration reviewed wait list indicators such as the number of clients waiting by priority, service, location, and average, median, and maximum waiting time. Case managers were responsible for checking the status of all of their clients, including those on the wait list, on a regular basis. In addition, two individuals were responsible for telephoning clients on a regular basis to ensure that their health status had not changed while waiting for service. To meet the needs of clients who had spent a long time on the waiting list, the CCAC implemented measures such as conducting clinics in retirement residences to service the priority 3 clients living within these homes and laying off case managers to provide more money for client services. Ultimately, the provincial government provided an infusion of funds and the rural CCAC was able to move out of the wait list situation.

The wait list system described above was distinct from the wait lists that many CCACs must maintain because there are not enough professionals to provide authorized services. Both the rural and urban CCACs experienced a shortage of occupational therapists and speech pathologists, while the rural CCAC also experienced periodic shortages of nurses and personal support workers. In these cases, the wait lists are not due to a shortage of CCAC funds, but rather to shortages of providers.

The urban CCAC chose to manage demand for service rather than implement wait lists. One of their key tools to achieving this was a budgeting system, introduced in 2002, under which case managers were given targets for expected resource utilization based on the size and case mix of the clients on their case load, along with their actual

monthly utilization figures. Officially, the observed hours of services per case manager could deviate -20% to +10% for personal support utilization and -10% to +10% for nursing utilization from the aggregate targets calculated for their case loads. Separate targets were established per case manager for each type of client on service (maintenance; long-term supportive; end-of-life; rehabilitation; acute). Greater deviation from these targets was acceptable if case managers could justify the service based on the needs of their current clients.(146) A similar system was implemented at the institutional level for the four geographical divisions and their child and school services program. Divisions were responsible for being on budget for their resource utilization. At the same time, the administration launched a number of initiatives to increase efficiency including reviews of service delivery from contracted providers. The rural CCAC by contrast also shared observed and expected monthly utilization figures with their case managers, however, there were no formal targets associated with these reports. The advantages of both the urban and the rural CCAC's overall approach to priority setting are discussed in Chapter 9. The perceived advantages essentially justified the adoption of the system. The reasons given were essentially value statements that often reflected what the administrators in each CCAC wished to achieve.

The urban CCAC interview participants described the disadvantages associated with their decision to manage their resources without using wait lists. First, a wait list becomes visible proof to the funders that there is not enough money to provide all of the services required by the community. As one administrator stated: "And so, it's been a difficulty for us as we've looked at our budget where we've never employed wait lists, we feel that we've excelled in terms of being very creative in how we service our clients

that when the budgeting comes around people say, well, they're doing fine so they really don't need as much money as x who has this big wait list. So we've raised that a number of times, don't penalize us for really being creative and managing our budget well."(Urban CCAC Administrator) Second, managing allocation of services to clients can be more difficult for case managers than simply placing clients on a wait list. Administrators in this CCAC acknowledged this challenge to staff but felt that their system provided better outcomes for clients.

Finally, according to administrators, one of the challenges of their budgeting system was to ensure that case managers understood that justifiable overruns on their personal budgets were acceptable. Indeed while some case managers appeared to be comfortable managing their resources under this system, others felt pressure to reduce the resources they allocate to clients. This did not appear to be the overall intention of the budgeting system.

8.2.2 Application of eligibility criteria

General eligibility for CCAC service is set out in the Ontario Long-Term Care Act and was consistent across the two CCACs. Individuals were eligible for service if they were insured under the Ontario Health Insurance Plan (OHIP) and residents in the CCAC's catchment area. Therefore, few people were considered as ineligible for admission to the CCAC, meaning that the other forms of resource allocation described below are more important to managing limited resources. Even those individuals deemed ineligible for OHIP, such as new immigrants, could access a case manager and be linked to community services. Eligibility criteria specific to certain services exerted a greater influence on resource allocation. Individuals could not access services such as

equipment, transportation, drug card, and medical and pharmacy supplies unless they qualified for nursing, occupational therapy, physiotherapy, speech language pathology, dietician, personal support, or social work. Furthermore, individuals could not receive homemaking services unless they required personal support.(147) Case managers described this last criterion as important because they often received requests for homemaking from individuals who did not qualify for personal support services.

"Well, some clients only want a house cleaning lady .. they're independent with their mobility, they're independent with their personal care, they're independent with everything except they want a cleaning lady and they don't want to pay for it. So then those people will not be eligible for our services."(Urban CCAC Case Manager)

8.2.3 Referral to community services

Provincial legislation mandates CCACs to act as links to health and support services within the community and this appeared to be the major form of resource allocation used by case managers. In fact, many interview participants felt that the advantage of this approach was that the clients normally get the service they require because of this linkage service.

"We do so much referring to the community, … that's our job, … people aren't supposed to be on with us forever, if they are it should be minimal … that's my take on it, it should be minimal if they're going to be on for a long time."(Urban CCAC Case Manager)

"I try to assess from a point of what you can do for yourself and what your family and friends and neighbours help you with or what you hire, services you hire, and where we could help you if you have needs that are unmet at this point"(Rural CCAC Case Manager)

Alternative services can include community programs that provide homemaking, volunteer visitors, adult day care, meal delivery and other services. These programs were run by a mix of organizations that relied on both paid and volunteer workers. Funding for these programs could be provided by municipal or provincial governments, service

fees collected from participants, or private donations. In addition, clients who were mobile enough to leave their homes were referred to outpatient clinics as per legislation. The hospital used to be considered as an alternative, however, this has changed in recent years to support provincial priorities. Some of the case managers reported providing higher amounts of services to those who could not afford to pay for private services, although this sentiment was not consistent amongst interview participants. Finally, the CCACs are also responsible for placement in long-term care residences and this alternative was considered if service was not adequate to maintain a client safely in their own homes.

Although referral to community services allowed the CCAC to provide more service to more clients, case managers described a number of disadvantages for referred clients, all rooted in the fact that these organizations had insufficient or unreliable funding. First, many of these organizations could not provide adequate amounts of service for clients. Second, they often applied more strenuous eligibility criteria to their services in order to control their own resources. Third, some of these organizations required the client to pay for all or a portion of the services. Fourth, they sometimes placed new clients on a waiting list. Finally, they sometimes denied service and sent clients back to the CCAC. In sum, these services were not always available and easy to access.

It was more difficult to refer rural CCAC clients to alternative services compared to the urban clients due to transportation issues. Rural clients had to drive for up to an hour and a half to reach a town, so services such as day care programs were not accessible or practical. Another hindrance was the lack of public transport in many rural areas, so

despite volunteer transport programs, it was not always possible for clients to access outpatient clinics.

8.2.4 Use of informal caregivers

The Long-Term Care Act states that public home care services were established "to provide support and relief" to informal (i.e. unpaid) caregivers(31) and due to this legal framework, both the urban and the rural CCAC had policies that specifically stated that "services are not intended to replace assistance provided by family or other informal and/or formal sources of assistance in place."(148) Indeed, case managers often reported using the support of family and friends before allocating CCAC service as required by their CCACs:

"…ultimately our criteria say use family, friends first."(Rural CCAC Case Manager)

"Certainly family takes the greatest burden of care and our clients who are in worse trouble as far as being able to stay in their own homes are those with very little family support."(Rural CCAC Administrator)

Case managers spoke of negotiating with family members to come up with a service plan that serves the needs of clients using both CCAC services and the support from friends and family.

8.2.5 Teaching

Both CCACs had policies suggesting that one of the goals of providing service is to teach clients, or their caregivers, to be independent of health care services, a resource allocation strategy one case manager labelled, "teach and reduce".(Rural CCAC Case Manager) To use this strategy, case managers provided visits from a health care professional to allow the client to learn how to care for themselves. Most of the time, this

strategy was used for clients receiving physiotherapy or wound care. Teaching was considered by many as a positive way to "promote independence in self-care",(149) however, a few case managers suggested that the negative side of this strategy was that clients lost access to publicly subsidized medical supplies and drug plans after being discharged from service. Some community resources or insurance plans do provide funding for supplies, however, clients often had to pay for these items out of pocket. The problem of lack of access to the drug plan was mitigated to some extent by the Ontario Trillium Drug Plan, which covers drugs for those on social assistance. Some case managers reported keeping clients on service until they had a means of paying for drugs and supplies. Of course, not everyone can learn to care for themselves and one case manager felt, for example, that this approach penalized those who are able to be independent.

"(W)e are saving a fortune by not having the nurses going in daily, twice a day, three times a week … the least we could do is help you with your supplies."(Urban CCAC Case Manager)

Provision of publicly funded drugs or medical supplies is not the mandate of CCACs. These services are, in fact, not fully covered by Medicare in any province in Canada. Case managers witness the impact of lack of public funding for services on many of their clients and speak passionately about some of the challenges their clients face. Indeed, one of the roles of case managers is to act as advocates for clients and case managers felt conflict between this role of advocate and their role of efficiently managing access to services.

8.2.6 Limiting the amount of service

The regulations to the Long Term Care Act define allowed service maxima for selected services, which can only be exceeded in exceptional circumstances.(147) For personal support and homemaking, the maximum is 80 hours in the first 30 days of service and 60 hours in any subsequent 30-day period. The legislation also allows a maximum of 28 nursing visits with a total of 43 hours from a registered nurse or 53 hours from a registered practical nurse in a seven-day period. The case managers interviewed had few clients receiving this level of service. These maxima, therefore, only limited service to individuals with high needs who may have chosen to remain at home at risk rather than be placed in a long-term care institution.

Both CCACs had guidelines that provided recommended amounts of service for personal support and homemaking services that influenced the amount of service provided to clients.(150-154) In both CCACs, for example, clients received 1 hour of personal support per week for a bath, with additional hours given to clients with special needs. Interview participants discussed how these policies fluctuated over time, becoming less generous as the CCACs faced periods of financial deficits. These guidelines influenced case manager practice but did not dictate it:

" … they're not hard and fast rules because … there's a reason they're called guidelines; for instance, someone may have an absolute crisis and we just have to do something for them that normally you would only do for someone who was … palliative"(Urban CCAC Case Manager)

To improve the consistency and efficiency of service delivery, the urban CCAC also developed guidelines, or pathways, based on industry best practices, that defined the goals and set the timing of visits for a set of clients with a short-term and uncomplicated need for services. The service pathways for hypertension, cardiac, congestive heart

failure, respiratory, and wound care refer to nursing service while the pathways for mobility assessments, total hip or knee replacements and home safety assessments refer to physiotherapy and occupational therapy services.

8.2.7 Defining the scope of service

Both of the CCACs developed a number of policies that described the scope of the services provided. Since allocation of personal support and homemaking services caused the most conflict between case managers and their clients, it was the most extensively defined by both organizations. In the Ontario Long-Term Care Act, personal support services are defined as personal hygiene activities and routine personal activities of living, while homemaking services are defined as housecleaning, doing laundry, ironing, mending, shopping, banking, paying bills, planning menus, preparing meals, and caring for children.(31) Policies from both of the CCACs defined allowed activities more strictly.(150-154) Neither CCAC, for example, conducted heavy or seasonal cleaning jobs. They provided assistance with grocery shopping or with errands and appointments in special cases, such as for residents in rural areas with no service alternatives. In urban areas, clients could be linked with services such as meals on wheels programs and grocery store delivery. The CCACs differ in how they defined allowed household tasks and the urban CCAC chose to provide homemaking services that are "directly related to the client's personal care and that are essential to a safe and hygienic environment".(152) This translated primarily into tasks such as laundry, cleaning the bathroom after provision of a bath, cleaning the kitchen after feeding the client or bedmaking after dressing and transferring the client. The urban CCAC's approach to limiting homemaking was rooted in their philosophy of prioritizing based on need. The administration decided that failure

to receive homemaking does not pose the same risk as the failure to receive a nurse to perform medical care or failure to receive personal care if you are not mobile.

"…we don't set up expectations of the population that it's an entitlement the same way nursing is an entitlement … so it's really based on availability of funds, not entitlement."(Urban CCAC Administrator)

Homemaking services were therefore given a lower priority than nursing or personal support services. Urban CCAC interview participants noted that their limited budget forced this choice even though they were aware that homemaking services can keep clients in their homes longer.

In line with the approach of the urban CCAC, interview participants stated that homemaking services were the most severely reduced in times of past financial constraint. In fact, many of the urban CCAC case managers said that they did not provide this service:

"We're really not in the business of cleaning people's houses…"(Urban CCAC Case Manager)

"Well for the most part our services are predominantly focused on personal care and activities of daily living. For example, if someone wanted their house cleaned we would simply refer them to other resources that could provide that house cleaning."(Urban CCAC Administrator)

An additional conflict occurred when clients who were eligible for personal support services requested help with homemaking rather than personal support. The urban CCAC's policy states that, "an individual who requires assistance with personal care and homemaking, but receives that assistance from a caregiver remains eligible for the Personal Support and Homemaking Services."(153) The urban case managers, however, spoke of conflicts they had in giving homemaking services to those who qualified for, but did not desire, personal support.

"So homemaking is a very, very tricky issue because I think that's what is often that can keep people in their home … I think if you have some family you're much more comfortable having your family come in and help give you a bath but you don't really want to ask them to please clean my house while you're here."(Urban CCAC Administrator)

Some of the rural case managers spoke of these conflicts, although others did discuss allowing their qualifying clients to use personal support hours for homemaking tasks in accordance with their policies. Urban CCAC administrators acknowledged that these attitudes had the most impact on informal caregivers, who often request caregiver relief in the form of homemaking. The CCAC did not have the resources to correct this when the issue first emerged, but were trying to redress this need at the time of data collection.

Despite the difference in policies, it is not clear that the clients of the urban CCAC received fewer personal support and homemaking hours than the rural CCAC clients. Some case managers of the urban CCAC described how they worked around policies when they felt a client needed service.

"For example, personal support, personal support I think is the greyest area of all the services that we provide, on paper .. there are certain duties that are no longer provided … but I know for a fact and I see in practice, and I myself will do it as well, I add those services on…"(Urban CCAC Case Manager)

8.2.8 Reduction in the amount of services

The case managers noted that a client's service plan could be altered and their service hours reduced after service had started. The province mandates that long-term clients be reassessed at least every 6 months or whenever a significant change in their health or functional status occurs. Case managers in both CCACs reported changing (increasing or decreasing) client services as their assessed health or functional status changed. Due to their budgeting system, the urban CCAC took the extra step of explicitly reviewing the

files of clients with high amounts of service and reduced service if clients need did not justify the level of service.

Before the implementation of the budget system in 2002, the urban CCAC case managers reported being encouraged to either increase or decrease the amount of service provided to the clients on their case load based on the status of the budget.

"When I first started here a bath was considered an hour and if they needed help with the laundry that was considered two hours ….. but once we had to tighten our belt we really looked at that: how long does it really take to do laundry?"(Urban CCAC Case Manager)

Whenever reductions were made, clients' hours were supposed to be reduced gradually while they are linked to other services in the community. Still, this process was described by one case manager as a "rollercoaster" and was very upsetting to clients and to case managers. Another case manager explained, for example, that during one financial crisis, clients thought that every time she called they were going to end up with reduced services. Such past experiences influenced the urban CCAC to change the way resources are allocated and develop their budgeting system. Philosophically, the rural CCAC did not agree with making systematic reductions in services and case managers did not discuss the use of reduction of services to clients as a way of controlling resources during times of financial crisis.

"I've seen CCACs … give a blanket mandate at a corporate level that you cut everybody by one third …. to manage [their] limited resources. I don't agree with that."(Rural CCAC Administrator)

8.2.9 Discharging clients

In both CCACs, case managers had to identify service goals and develop a discharge plan as part of the client's service plan, upon admission to the CCAC. CCAC policies reinforced the intent of the service to be provided over a well defined and limited time

period,(148;155) although this was not always feasible for long-stay clients. They often required personal support until they were placed in a long-term care institution. To avoid this situation, case managers reported ordering visits from professionals such as occupational therapists who might modify the client's environment and eliminate the need to start personal support. In times of budget crisis, the urban CCAC interview participants reported that case managers could be asked to discharge any clients whose safety would not be compromised by lack of services. An administrator, for example, described the process of review when the CCAC was projecting a deficit:

"Client Services, you need to go back and take a look at your client again. Can you discharge anybody safely – because the client is always a priority – but start taking a look at your case load. Are there clients you can discharge?"(Urban CCAC Administrator)

The CCAC, however, could not simply discharge a person but had to give them adequate warning and help them make alternative arrangements.

"… if you had to cut services, you were putting in a plan that was at least giving the person enough time to make the adjustment, either to put in family members or other people to help, or make arrangements if they wanted to purchase privately. If they were struggling with finding additional help we made sure that we were linking them to other resources in the community that may be able to offer help either for free or on a sliding scale."(Urban CCAC Administrator)

8.3 Discussion

This chapter examines the forms of resource allocation used by an urban and a rural CCAC who were tasked with delivering quality home care services within a fixed budget. Although similar forms of resource allocation were seen in both CCACs, differences in constraints in the urban and rural areas meant that certain priority setting practices were not always feasible in rural areas.(18) In addition, the two CCACs chose different overall

approaches to priority setting: the rural CCAC chose to implement waiting lists while the urban CCAC chose to focus on achieving efficiencies and to prioritize service based on need. Therefore, case managers in the urban CCAC appeared to have utilized certain forms of resource allocation more frequently than case managers in the rural CCAC.

8.3.1 Forms of resource allocation

The forms of resource allocation seen in the CCACs mirror the general forms of rationing defined by Klein and colleagues and are similar to those used in other public service contexts.(37;46) Use of community services, informal caregivers and the teaching technique are all examples of what Klein and colleagues term, "rationing by deflection", whereby individuals are directed to use the resources of other organizations or individuals.(13) They note that this form of priority setting is the least visible type and that health care workers may not view it as a form of rationing. Indeed, many interview participants thought of this as creatively meeting the needs of clients rather than as controlling the amount of CCAC services allocated. Furthermore, legislation clearly tasks CCACs with linking clients to the services available in the community.(31) This form of rationing can occur because of the segmentation of the health care system.

The other forms of resource allocation used by CCACs also reflect Klein and colleagues general forms of rationing. Use of eligibility criteria and definition of the scope of services are examples of "rationing by denial". Klein and colleagues explain that this is the most visible form of rationing and may therefore cause the most controversy. Limiting the amount of service and reducing service during times of financial difficulties are examples of "rationing by dilution". Essentially, although service is not cut, the amount of service is reduced. Discharge due to completion of

service goals or other reasons is an example of "rationing by termination". Finally, the waiting lists employed by the rural CCAC are what Klein and colleagues refers to as the 'ultimate symbol' of "rationing by delay".

8.3.2 Wait lists

Waiting lists are a common phenomenon in health care.(156-160) According to queuing theory, wait lists are required for efficient use of specialized resources, such as health care providers and technologies, but most health care wait lists exceed the size required to achieve efficiency.(158;160) Indeed, maintaining wait lists can be associated with significant administrative costs. One of the advantages of the rural CCAC's 'basket of service' approach was that it reduced the number of wait lists required to be managed compared to CCACs which chose to manage separate wait lists for each service and client population.(161) Brown suggests that ethical wait lists are ones that are properly managed, with consistent policies to prioritize clients and processes to monitor individuals on wait lists.(158) A formal evaluation of the rural CCAC's wait list policies, however, was beyond the scope of this research project. Brown also argues that clients should be informed of their expected wait times prior to being placed on the lists.(158) This was not done by the rural CCAC and is in fact a rare occurrence in health care due to lack of data.(157) Some argue that wait lists help create a visible sign of need for a service and can be used in the lobbying efforts to exert more funding.(37;160) Indeed, in this study, the urban CCAC administrators raised concerns that they might be penalized for not having wait lists during funding negotiations. Funding decisions made based on the presence of a wait list, however, provide perverse incentives to providers to maintain wait lists and may not lead to a long-term solution.(160)

Wait lists may offer an indication that demand for service exceeds the supply of service and reforms on both the demand and supply side of the equation have been suggested to reduce wait lists.(159;160) The urban CCAC's approach was an example of managing the demand side of the equation. They attempted to limit provision of certain types of services while simultaneously improving access for marginalized populations. Based on experience in Australia, Street suggests that an effective way to influence supply of services is to tie funding to the number of clients served and to the organization's ability to service high priority clients on the waiting lists. At the time of this study, funding for areas prioritized by the Ontario Ministry of Health and Long-Term Care were tied to targets, but funding for long-stay clients was distributed based on factors such as the historic use of services, geography and the age and sex mix of the populations in the CCAC catchment area.(28) Furthermore, funding announcements often occurred well into the CCAC's fiscal year, meaning that CCACs must plan with an assumed budget rather than an actual budget. Thus, the funding structure was not set up to reward the organizations which are most effective at meeting the needs of potential clients. Ultimately, there are disadvantages to both supply and demand approaches to reducing wait lists and data on both the size of the wait lists and the unmet needs in the community are required to understand the true implication of shifts in wait list size.(159)

8.3.3 Homemaking services

Based on policies in both CCACs, and the urban CCAC in particular, homemaking appears to be the most closely managed service. Studies of client experiences with CCACs in times of funding challenges confirm this observation.(55;58-60) Indeed, in the early days following incorporation of the CCACs, an operational review of one CCAC

concluded that one of the factors driving their deficit was a failure to apply the legal eligibility criteria for homemaking and to limit provision of this service.(162) Personal support and homemaking can be provided to clients receiving services substituting for institutional acute care over a short period of time and to clients receiving long-term care to maintain independence or delay institutionalization. It is the latter population that was most affected by policies restricting homemaking services during the time of this study. Since this study was conducted, the provincial government has announced a new "Aging at Home" strategy that aims in part to address this issue.(21)

In Ontario, as in other Canadian provinces, responsibility for publicly funded personal support and homemaking services has been transferred from the Ministry of Community Services to the Ministry of Health in order to facilitate coordination of care.(56) This approach means that social care services designed to maintain independence are competing for health dollars with medical care services designed to cure or alleviate a medical disease or illness. Chappell postulated that medical care will be privileged over social care within a Ministry of Health(163) and this appears to be the case in Ontario and other jurisdictions.(164;165)

The CCACs are not allowed to charge fees for their services,(31) and Ontario is one of the few Canadian provinces that does not assess income as part of the eligibility for home care services.(14) In a 2002 survey of Canadians, however, Abelson and colleagues found that while Canadians supported publicly funded hospital and physician care, there was less support for publicly funded home care services.(124) Similarly, Gamble and colleagues surveyed individuals in key health care stakeholder organizations across Canada in 2002, and found lower support for universal or free access to home care

compared to hospital care under Medicare for all services with the possible exception of palliative care.(166) Amongst home care services, support for universal access to nursing was greater than for personal support or homemaking. The majority did support provision of either subsidized or means tested personal support and homemaking services. The urban CCAC's decision to position homemaking as a service provided when fiscal conditions allow may therefore mirror the current opinions of the public and policy makers that homemaking should not be treated as a universal benefit of Medicare.

8.3.4 Availability of community services

The data in this thesis underscore the fact that the level of client need that can be addressed by CCACs is related to the level of available community services. Community services are run by individual municipalities or regions and, although there is no provincial summary of the level of service available, many working in home care believe that there is a large variation in the capacity of community services across the province. Both CCACs within this study, for example, could access subsidized homemaking services in urban areas but case managers from other regions have commented that their clients do not have access to such services. Furthermore, as illustrated by the rural CCAC data, community services are in general more difficult to access in rural areas.(18) Therefore, it is likely that CCACs located in regions that lack community services are less able to meet the needs of their clients and are likely to rely more heavily on the other forms of resource allocation described in this chapter.

8.3.5 Availability of informal caregivers

Since the Ontario Long-Term Care Act stipulates that publicly funded home care is not meant to replace informal caregivers, CCAC policy urges case managers to consider the level of informal support when allocating CCAC services. In other jurisdictions, informal, or unpaid, caregivers have been estimated to provide about 80% of care to individuals living at home.(167) There is research evidence that publicly funded home care services often complement, rather than act as a substitute, for informal care.(168) If this is the case, strict control of services to clients with informal support may not be the best approach for the health care system. The combination of publicly funded home care and informal care, for example, may cost the health care system less than institutional long-term care. A recent systematic review suggests that unpaid caregiving has a negative impact on work hours, suggesting that governments require policies to assist these informal and unpaid caregivers.(169) Further research is required to determine whether the best approach to aide these individuals is to increase service support through organizations such as the CCAC or through other means such as tax incentives.

8.3.6 Limitations

One of the limitations of this research is that it is based solely on the perspective of CCAC case managers. The Ontario home care system, however, has multiple stakeholders including the Ministry of Health, the service providers and the individuals who benefit directly from the services (clients and their informal caregivers). Each of these stakeholders may have different views regarding CCAC resource allocation techniques. Previous research on the views of clients and caregivers in other areas of the province suggested that CCACs have used lack of access to information and

psychological barriers to ration their services in the past.(37;55;58-60;74) These forms of rationing have been observed across public service contexts and have been labeled as "rationing by deterrence" by Klein.(13;37) CCAC case managers may not consciously use these forms of rationing so it is unlikely that they would discuss this during their interviews. Furthermore, although CCAC policy documents were reviewed, this chapter relies on the views of case managers and may not reflect what the CCAC administration was trying to achieve with their policies.

Another limitation of this research is that case studies were conducted in only two of the 42 CCACs in existence in Ontario at the time of data collection and further, these CCACs have subsequently been reorganized. Additionally, I focused on services for long-term clients and although interview participants did speak about acute care, rehabilitation and palliative clients, I cannot claim to have described the forms of rationing used amongst those clients. The forms of priority setting identified in both CCACs, however, were similar to experiences in other jurisdictions,(37;46) supporting the notion that the overall results may generalize to other CCACs in the province and other types of CCAC clients. Additional research is required for confirmation.

In presenting these results, comparisons have been made across the two CCACs based on descriptions by the participants. These reflections are based on their impressions of their current practices compared to other case managers within their CCAC, anecdotal reports from colleagues in other CCACs, experience with clients transferring from other CCACs, and historical practices within their CCAC. A number of interesting differences in philosophical approaches and organizational policies between the CCACs have

emerged, but an analysis of service allocation data is required to determine whether these differences created divergent patterns of service allocation.

8.3.7 Priority setting and the fiscal environment

The need for priority setting becomes more urgent as resources become more constrained. In Ontario, the funding for CCAC remained constant between 2000/2001 and 2003/2004, but the number of home care nursing visits and homemaking hours decreased by 22% and 30% respectively from the 2001/2002 to 2002/2003 fiscal years, likely because the unit cost of service provision increased during this period.(28) In the 2004/05 fiscal year, which coincided with the time of data collection, there was an increase in funds, mainly targeted to acute care substitution, rehabilitation after hip and knee surgeries and end-of-life care,(28) and the provincial government has since continued to increase funding with initiatives such as the $700 million "Aging at Home" strategy announced in 2006.(21) When asked about priority setting, many case managers spoke about their experiences during the financial crisis prior to the data collection period. During these years, the CCACs had to implement more visible forms of rationing such as wait lists and the case managers may have faced greater ethical challenges. Since funding has increased, case managers still employ forms of rationing, however, they are less apt to consciously think of these as priority setting decisions. In other words, similar to other health care institutions, CCACs are always in the position of having to decide where to focus their resources. CCAC case managers must assess need and determine if the level of need is sufficient to merit service provision, regardless of the funds available, because demand for CCAC services is always likely to exceed supply.(39;170) Priority

setting is therefore a constant challenge, although it may be easier when funding is readily accessible.

8.4 Conclusions

In conclusion, this chapter compares the priority setting practices in two CCACs using the theoretical framework of forms of rationing developed by Klein and colleagues. I have focused on analysing the visible and invisible forms of priority setting, rather than assessing the process or outcomes of priority setting using a normative theoretical framework. I have explicitly labeled case managers' daily practices as priority setting or resource allocation and describe the advantages and disadvantages of the forms of rationing as perceived by the interview participants. The forms of rationing are similar at both CCACs, although the case managers' descriptions of resource allocation imply that the degree to which each form of rationing is used varies between the CCACs. In future research a normative framework could be used to create a definition of appropriate rationing that might include, for example, characterizations of ethical and efficient resource allocation. Additional evidence will be then be required to determine whether the use of each form of rationing is appropriate.

This chapter highlights the important role that case managers play in resource allocation within the CCAC. Often, case managers are not consciously setting priorities but discuss the conflicts they experience when trying to meet the needs of their clients within the budget constraints. Klein and colleagues argue that need is an ambiguous concept that is difficult to operationalize.(171) In Chapters 9 to 10 of this thesis, I therefore delve into the factors influencing case managers' decisions about service plans for long-term home care clients in order to understand how need is conceptualized and

operationalized within home care. Chapter 9 sets the stage by looking at the institutional decisions, while Chapter 10 focuses on the factors and values that influence micro level decisions.

9 Factors and values influencing meso level priority setting decisions

9.1 Introduction

Meso level, or organizational level, priority setting was analysed in this research study in order to provide context for the micro level priority setting results. The focus was not on all priority setting activities conducted by CCACs, but was limited to examining the factors and values that directly influence resource allocation by case managers at the micro level. At this level of priority setting, it was expected that system factors(6) and provincial government policies (i.e. priority setting at the meso level) would influence priority setting. In this thesis, values were defined as the guiding principles that affect the relative importance that decision makers place on the factors that influence priority setting. This chapter will concentrate on organizational values, which were taken to be those discussed by the administrators or outlined in official policy documents, as opposed to individual values which may be held by individual case managers. External values, defined as those held by stakeholder external to the CCAC (e.g. provincial government), were not analysed.

In Section 9.2 of this Chapter, the meso level priority setting decisions that influence case managers' resource allocation practices will be identified and the factors and values associated with each of these decisions will be inferred in Sections 9.2.1 to 9.2.3. All of these factors and values will then be discussed in the context of the published literature in Section 9.3.

9.2 Results

Both the rural and urban CCACs included in this study were involved in a number of organizational priority setting activities. Both CCACs reported having the most decision-making flexibility when allocating that part of the budget set aside for strategic organizational activities. These included such initiatives as improving organizational information technologies, facilitating communication and cooperation with other stakeholders in the health care sector, and enhancing service access for marginalized populations. Another limited resource, time itself, was also prioritized as each CCAC instructed their case managers to spend time performing activities important to the goals of their organization including training, client assessment, and community outreach. These decisions, however, did not directly influence how funds were allocated amongst individuals who required service and were therefore not explicitly explored in this study. Through the analysis, three types of decisions that acted on micro level resource allocation practices were identified: 1) choice of the overall priority setting approach; 2) determination of the amount of funds to request for services; and 3) the approach taken to structure the budget. The factors and values that influenced these three types of decisions are summarized in Table 24 and described below.

Table 24: Summary of the factors, and the underlying values, that influence meso level priority setting that influenced micro level resource allocation practices.

Decision	CCAC	Decision Outcome	Factors Influencing the Decision		Institutional Values
Overall approach to priority setting	Rural CCAC	Implement a wait list with a basket of services approach	More effective to provide all services required rather than individual services as they become available		Effectiveness (Efficiency)
			Allows case managers the freedom to address the needs of clients		Client-Focused Care
			Stakeholder focus groups concluded that clients should get all needed services even though others would have to wait		Equity / Community preferences
			Operationally easier to manage one rather than multiple wait lists.		Efficiency
	Urban CCAC	Manage demand through a resource monitoring system	Unfair to place clients on wait list indefinitely		Transparency
			Flexible enough to allow case managers the freedom to address the needs of clients		Client-Focused Care
			Wished to focus on serving those most in need, rather than those who could wait the longest.		Equity
			More motivation to improve efficiency without a wait list.		Efficiency
Funds available for client services	Rural CCAC	Amount of annual funding requested from the Ministry of Health	Costs of maintaining previous levels of service	Change in the unit costs	No values identified
				Historical patterns of service provision	No values identified
			Expected future demand for service	Changes in the population served	No values identified
				Changes in the organization or funding of other community or health care services	No values identified
			Required changes to service delivery	Recommended improvements in service from stakeholders	Community preferences
				Annual Ministry of Health objectives	External values
	Urban CCAC	Amount of annual funding requested from the Ministry of Health	Same as rural CCAC plus identification of gaps in service provision through census data and feedback from case managers		Equity
Structure of Budget	Rural CCAC	Monitor but don't restrict individual case managers' allocation by service or client type.	Wanted case managers to have the flexibility to address the needs of clients		Client-focused care

Decision	CCAC	Decision Outcome	Factors Influencing the Decision	Institutional Values
	Urban CCAC	Create separate budgets for the client service centre, hospital, four geographic districts and special programs.	Wanted to prevent vocal sub-groups of clients from drawing resources from more vulnerable groups. Large geographical variation in the social-economic status of the population served by CCAC meant that district resource requirements were not equivalent.	Equity
		Monitor but don't restrict individual case managers' allocation by service or client type within the community and the special program.	Wanted case managers to have the flexibility to address the needs of clients	Client-focused care Efficiency
		Adjust number of case managers within the client service centre or hospital to control spending	Provincial targets prioritized acute-care substitution. To support this priority, service hours were managed by controlling the number of case managers rather than placing restrictions on the short-term plans developed by the hospital case managers.	External Values

9.2.1 Decision #1 – Choice of overall priority setting approach

In Chapter 8, I described the different approaches that the case study CCACs took to priority setting and argued that each of these approaches influenced the forms of resource allocation used by case managers. Briefly, the rural CCAC adopted a wait list system with a "basket of services". Clients were assessed and prioritized for admission based on their most urgent needs. Once they were admitted, they received all required services. The urban CCAC, on the other hand, chose to assess the needs of clients and provided services to individuals with the most need for service. In this section, I examine the reasons given by the administrators at each CCAC for adopting these contrasting approaches and distil the values underlying their reasons.

The rural CCAC adopted their "basket of services" philosophy for three reasons. First, the administration believed that provision of all required services was more effective than piecemeal service provision.

"(I)f you really need service then what we want to do is treat holistically, so you want to treat the whole patient at the same time, so you provide the services that you've assessed that they need and if we believe our assessment to be true that seems (to be) to best practices."(Rural CCAC Administrator)

Second, this approach still allowed case managers to assess, prioritize, and provide services to clients based on needs, and reflected the importance placed on client-focused care. Third, this approach was consistent with feedback from focus groups conducted with providers, their staff and the community.

"(T)he consensus I guess was that they should get what they actually need even though it might mean other people had to wait longer for service."(Rural CCAC Administrator)

This reason reflects a desire to provide service using an equity principle that is consistent with community preferences. Finally, the approach was practical because it was easier to manage one wait list than multiple wait lists, reflecting a desire to improve efficiency.

In contrast, the urban CCAC purposely avoided the use of wait lists to manage funding shortages, for several reasons. Many of those interviewed, both in the administration and at the case manager level, explained that they were opposed to using wait lists to manage resources because low priority clients on wait lists at other CCACs often did not receive service. They preferred to tell these individuals that they would not be receiving service rather than placing them on a wait list for an indefinite period of time.

"… what they did is they put this gentleman on a wait list for homemaking services, but in effect, [they didn't] have enough funding to provide homemaking so it's – it's a very slow moving wait list, put it that way. Some CCACs have gone that route as a way to manage their homemaking costs. .. We've minimized the amount of homemaking support we provide with the goal of providing services to as many people as possible." (Urban CCAC Administrator)

This sentiment reflects a desire for transparency in the priority setting process. Furthermore, administrators questioned whether those who could afford to wait for service really required the service.

"if you can wait six months for personal support then we question whether you really needed personal support … Maybe you really didn't need it."(Urban CCAC Administrator)

The urban CCAC, therefore, focused on providing services to those most in need without the use of a wait list, reflecting a concern for equity. To that end, a budgeting system was designed that encouraged case managers to monitor the resources used, but still allowed a service plan to be tailored to a client's needs. The structure of the budgeting system reflected their desire to maintain client-focused care. In addition, administrators also felt

that CCACs that used a wait list approach to priority setting may be less motivated to search for ways to improve service delivery efficiency.

"I'm not sure if people have always spent the time doing the internal efficiencies ... before they get to the point of start to wait list [clients] …"(Urban CCAC Administrator)

Administrators at the urban CCAC also believed that they were successful in avoiding wait lists in past years of financial constraint because of their use of guidelines and adherence to their budget monitoring system and felt that this was the more ethical approach to priority setting.

9.2.2 Decision #2 – Amount of funds requested for service

At the time of data collection, the Ministry of Health required each CCAC to create annual budgets based on three different planning assumptions: 1) level of funding remains the same; 2) level of service is maintained at the same level; and 3) service provision is enhanced. Both CCACs considered a number of factors in the creation of their budgets. First, changes in unit costs and the historical patterns of service were examined in order to determine the costs of maintaining previous service delivery levels. Second, the changes in the community and in the population served by each CCAC were assessed in order to determine future service demand. Third, recommended improvements in service delivery and the Ministry of Health annual objectives were considered in order to determine if service delivery needed to change. This last factor greatly influenced CCACs' budgeting at the time of data collection because the Ministry of Health had given the CCACs additional monies to support the Ministry's priorities for the Ontario health system. These funds were targeted to increase acute care substitution, rehabilitation after hip and knee surgeries, and end-of-life care at home. In recent years,

demand for short-term home care services has increased due to the earlier discharge of hospital patients. Neither of the CCACs, therefore, reported difficulty meeting the government's targets. The individuals interviewed noted that one advantage of the Ministry of Health's targeted funding approach was that it facilitated a coordinated approach across health care sectors. One disadvantage was that CCACs did not receive additional funding to support chronic clients and CCACs were forced to shift from their original focus of caring for these clients:

"… the acute care people are getting more and more service and the elderly are sort of getting put in the background and I think that that's really unfortunate and that's a change in the CCAC too that we have to deal with. … Well the chronic type of situations there's not enough help out there for those people. We used to in the past support them and now we're not so much." (Urban CCAC Case Manager)

"… its come full circle, because CCACs originally were created to do long term care and maintain a fragile individual in their community and … our fragile elderly people, may eventually, they will eventually be compromised if this trend continues because the resources are going to acute care. So we have a whole lot of other people who just need to be cared for for a really long time, for as long as they can stay in their homes, and there has [been] no targeting and no accommodation for increase cost per unit of service for those geriatric, frail, elderly individuals."(Rural CCAC Administrator)

Finally, the urban CCAC also used census data and feedback from case managers to identify potential gaps in service delivery. The rural CCAC did not conduct these types of analyses because they felt that their population was very homogeneous and did not change over time. In addition, they had just emerged from a period with long wait lists and did not feel a need to increase demand for their service. As one urban CCAC administrator noted:

"I have a real thing about monitoring access to services, trying to make sure that people of Toronto have access, which is hard to do when money is short".(Urban CCAC Administrator)

Once budget estimates were compiled for the Ministry of Health, both CCACs operated as if their budgets would be unaltered in order to minimize the potential for a budget deficit. Unfortunately, Ministry of Health budget announcements did not come until well into the fiscal year. If additional monies were given to the CCAC, they faced the challenge of spending these funds before the end of the new fiscal year. Both CCACs reported returning money to the government:

"… that year we put in the wait list and then at the end … in February all this money comes and you think oh… the hassle you went through in September and then the money comes and then you have a surplus at the end of the year it's really quite sad."(Rural CCAC Administrator)

"So we always go into the beginning of the year trying to operate … based on last year's budget and what's often difficult is …you find out that you may have gotten additional dollars … in November or December, and it means you really have to spend a year's worth of dollars for clients in three months"(Urban CCAC Administrator)

9.2.3 Decision #3 – Structure of the organization

To promote equity, the urban CCAC created a separate budget for each of their geographic districts and for their child and school services. One urban administrator noted that it was easy to become emotional and use additional funds for more vocal individuals when the budget is undivided.

"There's a great tendency, for example, for palliative care and senior care to have much more political voice than the young disabled or the children. … So we decided that we won't have one budget and make those with less voice get less service. ..… They don't hit the press the same way."(Urban CCAC Administrator)

Furthermore, each district's budget was based upon the number of clients served and the socio-economic conditions faced by clients:

"When we looked at it across the city we set different targets for different geographies … It's about making sure that people have equitable access to health care services and we're redressing some of the socioeconomic disadvantages that exist in the system."(Urban CCAC Administrator)

Each of the divisions of the urban CCAC were responsible for being on budget, but as described in the Chapter 8, the individual case managers were allowed justifiable variation from expected resource utilization targets. Administrators believed this promoted appropriate use of resources while ensuring a client-focused approach:

> "The way that this CCAC tends to approach it is again embodying the value of client-centred care, is that we really don't come out … and say you must cut everybody by this amount. …. And sometimes it's harder because it's easier to go into a home and say my organization's telling me I have to do this versus I'm the one really making the decision here. So it sometimes puts a little bit more pressure on the Coordinators but that's the approach."(Urban CCAC Administrator)

The smaller, rural CCAC did not divide their budget by program, geographic district or other means to ensure that case managers could allocate service based on need and be consistent with their client-focused approach. Interview participants noted that CCAC budget structures vary across the province. Some CCACs, for example, group clients into programs, and therefore have extensive institutional level priority setting processes to decide how to disperse funds amongst the programs.

9.3 Discussion

In this Chapter, I have described three types of decisions that influence priority setting at the meso level and the values that underpin these decisions. There were three types of decisions: 1) overall approach to priority setting; 2) determining the funds available for client services; and 3) structure of the type of budget. Each of these are discussed in turn below.

The first decision examined was the CCAC's overall approach to priority setting. Although the two CCACs adopted different approaches, the administrators implicitly or explicitly invoked similar values to justify their approaches, namely client focused care,

equity, effectiveness and efficiency. The urban CCAC's approach also reflected the administrations' desire to increase the transparency of the priority setting process while the rural CCAC made efforts to incorporate community preferences into their decision-making process.

The second decision examined concerned the amount of funds to request annually from the Ministry of Health to support client services. The factors considered during this process have been observed in other health care contexts. Health care organizations often use historical patterns of service provision to develop their budgets.(172-174) The two CCACs are similar to Ontario hospitals in that they consider strategic fit, partnerships with other health care organizations and the Ministry of Health and Long-Term Care's objectives when setting budgets for CCAC special projects.(175) Hospitals are traditionally organized into departments designed to service patients with specific clinical needs (e.g. oncology, obstetrics, surgery, cardiology), whereas CCACs are often organized geographically, with case managers responsible for managing clients in a specified area.[ee] This means that factors such as 'clinical impact', which may influence hospital institutional budgeting,(175) may be more relevant at the case manager or micro level than at the institutional or meso level within the CCACs.

The only value that appears to influence decisions concerning annual budget requests in both CCACs is the desire to incorporate community preferences into the decision-making process, with the urban CCAC further influenced by equity. Since the process of budget determination for client services is ultimately under the control of the Ministry of

[ee] In this study, the smaller rural region organized their case managers in this manner but did not divide their budget by geographical region.

Health, the values employed at this level of decision making are more likely to influence the amount of funds allocated to the CCACs.

For the final decision on how to structure their budgets, both CCACs were guided by the value of client-focused care. The urban CCAC also justified adding an extra reporting structure to their budget in order to improve equity.

9.3.1 Discussion of the values as described in the published literature

This sub-section discusses the values used to justify the outcomes of the meso level decisions namely, equity, client-focused care, efficiency and effectiveness. Additional values associated with the process of priority setting, namely community preferences and transparency, were identified but were not the focus of this thesis.

In the literature, the term "equality" refers to equal treatment regardless of circumstances while the term "equity" can mean that individuals in different circumstances are treated differently but in a just manner.(92) Several types of equity were referenced in the data from both of the CCACs. First, the urban CCAC emphasized the importance of detecting and reaching out to marginalized clients in order to improve equity in access to services. Since demand for CCAC services normally exceeds supply, many CCACs may not be motivated to further increase demand for their services by "advertising", especially during times of financial crisis. Access to services, therefore, may not be improved unless it is a value held by the CCAC.

Second, the urban CCAC also discussed the layering of their budget for two reasons related to equity. Their first goal was to help reinforce the notion of equity based on health care need in a climate where perceived political pressures tend to privilege vocal

patient groups and work against the goal of equity. Their second goal was to reduce some of the perceived social inequities (93) within the CCAC catchment area.

Finally, in adopting the basket of service philosophy and assigning priority for their wait list system, the rural CCAC highlighted their support of both horizontal (the equal treatment of equals) and vertical (unequal but equitable treatment of unequals) equity.(93) One of the ethical dilemmas faced by case managers is whether to provide a subgroup of patients with the amount of care they optimally need or to provide less care to more patients. Although mitigated by the CCAC's tendency to employ rationing by dilution (discussed in Chapter 8 of this thesis) in general, the rural CCAC appeared to support the notion that once individuals are to be serviced they should receive optimal care.

The value of client-focused care is important to two of the institutional decisions described above and appears to drive both CCACs' decision to allow case managers discretion in making resource allocation decisions based on the needs of their clients. Indeed, policies that dictate care plans may limit the case manager's ability to be responsive to individuals' needs, increasing clients' frustration with the system.(37) Klein and colleagues suggest that decision-makers in different contexts often take this approach under the assumption that "nearness to the population being served will allow those responsible for allocating resources to … make a more sensitive choice between different spending options."(171)(Chapter 1 pg 28) One of the limitations of this thesis is that it focuses on the perspective of the CCAC only. In order to determine if the CCACs were successful in achieving client-focused care other stakeholders, such as the clients

themselves, need to be consulted. The case managers' ability to deliver client-focused care will be examined in more detail in Chapter 10.

The values of efficiency and effectiveness also underpinned meso level decisions. Although researchers define these values as separate concepts, the CCAC decision-makers tended to link effectiveness and efficiency. In the rural CCAC, for example, the concept of effectiveness appeared to be the touchstone whereas efficiency was implied in discussions rather than specifically mentioned. Providing more effective care within the same budget is another way of improving efficiency. Indeed, policy makers have linked these two concepts in past priority setting studies.(176) For a study of priority setting within a Health Authority in the United Kingdom, Hope, for example, defined effectiveness as "the extent to which treatment achieves the desired effect" and efficiency as "the impact of treatment per unit cost".(176) The decision makers in the health authority studied by Hope also grouped efficiency as a sub-category of effectiveness. Administrators at the urban CCAC explicitly discussed efficiency and spontaneously provided examples of how they had improved efficiency. An explicit study is required to determine whether this variation in focus translated into actual differences in efficiency between the two CCACs.

In summary, this chapter provides a description of what CCAC administrators were trying to achieve with meso level priority setting decisions. These goals are reflected in the values they invoked to justify their decisions. This research does not address whether the CCACs were successful in achieving their goals. In Chapter 10, many of these values, which are also seen in micro level decisions, are described. Furthermore, the

limitations of this research, which apply to results in both Chapters 9 and 10, are described.

9.4 Conclusion

In conclusion, this chapter described institutional priority setting activities that directly influence how money for client services was spent. Both of these CCACs elected to leave many of the priority setting decisions to case managers in order to give them the flexibility to meet client needs. Most resource allocation decisions, therefore, are made by case managers during their daily encounters with clients. The next Chapter will delve into the factors and values that influence these decisions and critically examine the concept of need.

10 Factors and values affecting resource allocation decisions by home care case managers

10.1 Introduction

In Chapter 8, the forms of priority setting and resource allocation used by the CCACs were examined. It was noted that the majority of priority setting decisions are made at the micro, or case manager level rather than the meso, or institutional level. In this chapter, the factors that drive micro level decisions are examined in more detail in order to paint a more complete picture of priority setting within CCACs. A systematic review conducted by Fraser and colleagues, discussed in Section 3.4.4, found that case managers' resource allocation decisions may be influenced by client factors, case manager factors, system or program related factors, and the information related factors which case managers must consider when making service allocation decisions. As illustrated by the systematic review, however, there has been little work done on in this area so understanding of these factors is incomplete. As discussed in Chapter 4, priority setting decisions are value-based decisions,(86) but values, such as equity, efficiency and effectiveness, are often poorly defined and may conflict.(84)

The objective of this chapter, therefore, was to examine both the factors and the values that drive case managers' allocation of services. Factors were defined to be the reasons considered during decisions while the values were defined as the principles that individuals use to interpret the relative importance of factors during decisions. Factors are easily identified and worded but values may or may not be directly articulated by individuals. Individual values were considered to be abstract concepts that influence how

an individual makes a decision regardless of whether that person is cognitively aware that they hold these values. These values were derived from interviews with case managers. Institutional values were not assumed to be the same as individual values, and were derived from CCAC policy documents and interviews with CCAC administrators. I therefore aimed to define values used in client-level decisions. I also link each of the defined factors to a value and examine some of the value trade-offs in different decision making contexts.

10.2 Results

In this section, I describe the study context by briefly describing the resource allocation process. I then describe the factors and values that influence decisions about the level of need that each client has, and the allocation of services to addressed these identified needs.

10.2.1 Context – The decision making process

Interview participants explained that the service plan for a long-term client could be developed and revised on several occasions over the course of treatment and this process is illustrated in Figure 7. In this diagram, client "states" are represented by circles and "events" or decisions by case managers are represented by squares. The two grey squares represent the two decisions analyzed in this thesis chapter. As shown by the circles at the top of the diagram, long-stay clients could be referred to the CCAC by a hospital or a member of the community, including a health care professional, a caregiver or the client him or herself. Individuals referred in the hospital were seen by case managers who developed short-term plans (2 to 4 weeks) to facilitate discharge. If these case managers

felt that longer term service might be necessary, they referred the client to a community-based case manager. Community referrals were triaged by case managers based in an information and referral telephone centre and a short term plan was developed for those with urgent needs. Those with non-urgent needs were referred directly to a community-based case manager.

To determine the need and eligibility of potential long-term clients, community-based case managers conducted a home-based assessment and completed the electronic Resident Assessment Instrument – Home Care (RAI-HC).(See Section 2.3.4) The RAI-HC helps to identify client needs but it does not dictate the service requirements and case managers reported relying on this tool to various degrees during their assessment. Some case managers felt that it gave them an evidence base to support their assessments and service plans, while others felt that it did not add value to their assessments nor aide in resource allocation. In any case, the assessment of need also involved an inspection of the home environment and consultation with a number of stakeholders including the clients themselves, caregivers, other health care professionals, and other case managers. As shown in the diagram, individuals who were considered to be ineligible for service might still be linked to community services. In special cases, exceptions might be made for those who did not meet eligibility criteria but had unmet needs for compassionate reasons. Those with severe enough needs were encouraged to consider placement in institutional care. A service plan was developed for those who were considered to be eligible for home care services.

The second grey square in Figure 7 represents the service plan developed for clients based on identified needs. The service plan was usually developed based on the

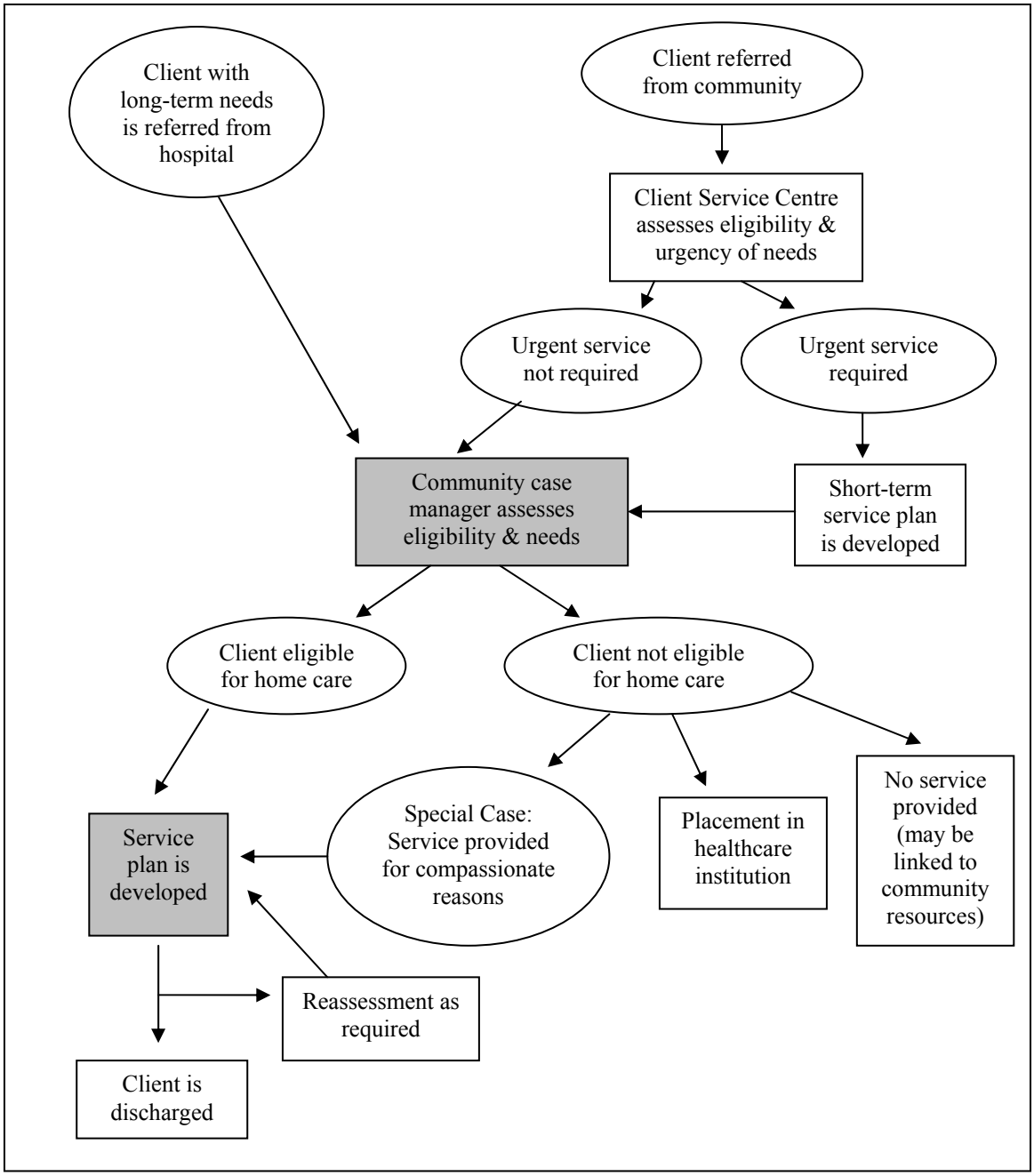
recommendations of other health care professionals or interpretation of CCAC policies. Case managers often received and followed physicians' orders for in-home nursing services for things such as IVs, medications, and wound dressing changes. Otherwise, a nurse provider visit could be ordered to provide recommendations for a service plan. CCAC policies played a larger role in the development of personal support and homemaking service plans because they defined the types of tasks that could be performed. Furthermore, both CCACs had tools which suggested times to allocate for allowed tasks. Although physicians sometimes ordered personal support and homemaking services, their requests were not always consistent with CCAC policy and were therefore over-ruled by the case managers. Finally, case managers consulted both the client and their informal caregivers when developing plans for both nursing or personal support and homemaking services. Client preferences were taken into account when planning the timing of provider visits. Furthermore, case managers spoke of negotiating with informal caregivers when planning provider visits to ensure a comprehensive service plan.

Finally, Figure 7 depicts reassessment, which was supposed to be occur every 6 months or whenever the client's medical condition changed significantly, so that a service plan could be developed to address their new needs. The decision to discharge client was made if their condition improved, their needs were met by other means or they worsened and were transferred to institutional care.

In the sections that follow, the resource allocation process has been divided into two components: first, the assessment of eligibility and need; and second, the service plan

development. Although these occur at the same visit, it is analytically useful to describe the factors and values that influence each of these activities separately.

Figure 7. An event state diagram providing an overview of the process of resource allocation by CCAC case managers.[32]



[32] A square represents an event while a circle represents a state.

10.2.2 Assessment decision factors

The assessment of eligibility and need is a complicated process because the case manager is simultaneously determining potential need for multiple services. For clarity, the factors have been classified as ones that influence assessment for any service, ones that influence assessment for nursing service and ones that influence assessment for personal support and homemaking services (Table 25). Factors that may affect decisions about other services such as physiotherapy are not discussed in this thesis. The factors have been analytically grouped into general eligibility criteria, medical criteria, functional ability of the client, ability to access alternative resources, client consent, setting of care and external factors (Table 25).

General Eligibility Criteria

In order to access any CCAC service, a client must be covered by the Ontario Hospital Insurance Plan (OHIP) which covers most individuals who have resided in the province of Ontario for at least 3 months, with exceptions defined by provincial legislation.(177) In the urban CCAC's area, ineligible residents included homeless individuals who often lacked OHIP documentation or refugees who are covered by federal health insurance and not eligible for home care. In the rural CCAC's jurisdiction, there were a number of religious groups who were not covered by OHIP; they could receive assessment services from the CCAC but had to pay for all provider visits. Both CCACs assessed clients who were admitted to hospitals in their catchment area but only provided service to residents.

Medical Conditions

In order to qualify for home nursing services, individuals had to have a medical condition that required ongoing management from a nurse that could be addressed in the community. Case managers reported working with more complex care clients in recent years because hospitals discharge patients more rapidly into the community. Interview participants mentioned nursing procedures such as catheter care, wound care and IV care, but I did not attempt to create a detailed taxonomy of medical conditions and associated services for this thesis. Case managers suggested that nursing service plans for individuals with the same condition might vary because of pre-existing medical conditions, complications arising from the precipitating diagnosis, and the client's personal health habits such as nutrition and personal hygiene.

Functional Ability of the Client

Need for personal support service is dictated by the functional ability of the client. Functional difficulties might be caused by a precipitating medical condition or age-related declines in health. In the urban CCAC, the most commonly mentioned factor in this category was ability to safely bathe without assistance.

"Basically if somebody is not incontinent it's one hour a week. And why is it one hour? They only get that one hour if there's potential for safety, will they trip, is it possible they'll trip or they feel unsafe getting in and out of the tub and there's nobody else there to help them or to watch them."(Urban CCAC Case Manager)

This was discussed by the rural CCAC case managers, but not as consistently. In both CCACs, inability to self-bathe triggers about 1 hour of personal support service per week. Incontinence was mentioned as a related factor by urban CCAC case managers because this condition was the trigger to increase the frequency of visits to twice weekly for bathing and laundry services. The ability to safely transfer and ambulate around the

home reflects case managers' concerns about clients' risk of falling and injuring themselves and their ability to move around their home to perform self-care activities. The worst case scenario was frequently cited as being a client who is bedridden.

"… if somebody's by themselves and has nobody and they're bedridden well I might even start out by giving them an hour a day."(Urban CCAC Case Manager)

Finally, some case managers mentioned "other physical disabilities" or "physical status" as triggering personal support services.

Cognitive disability was discussed as a trigger for more intensive services. Individuals with cognitive difficulties will often require additional service because they are often at a lower level of functioning than those with physical disabilities.

"… in a lot of cases you look at cognitive status … the person can have no physical disability at all but … that's where we give most hours because the person … can't look after themselves"(Urban CCAC Case Manager)

Provision of service to these clients also simply takes longer than other clients. Furthermore, this was discussed as the most common trigger for caregiver relief because it is often unsafe to leave these individuals at home alone.

The psychological status of the client was discussed by some case managers as factoring into their assessment. The CCAC gets personal support service requests from elderly individuals who may not have functional disabilities that place them at risk but are lonely. Although they might be quite emotional, these individuals do not qualify for services.

"… someone requesting 24 hour care because they're lonesome is not the same league as someone who requires 24 hour care because they're dying." (Urban CCAC Case Manager)

This study did not focus on clients whose primary diagnosis is depression, however, there are clients who will develop depression while on service. This condition would be

another trigger for additional services, especially for isolated individuals. A few case managers discussed providing additional service to clients who are particularly anxious and coping poorly with their health conditions.

Finally, some case managers did mention the inability to perform the instrumental activities of daily living such as meal preparation, ordinary housework, and shopping as triggers for service, however, others said that they did not provide these services. One exception is the task of managing medications which might put a client at risk and can therefore trigger the allocation of nursing services.

Access to Alternative Services

The amount of informal support that a client has was one of the factors most commonly cited as influencing assessment of need. Need for service was greatest in clients who were socially isolated and therefore most at risk, followed by those who were temporarily at risk because their caregivers were experiencing burnout. Those with multiple caregivers who were willing to provide care were generally considered to be least in need. There are, of course, exceptions to this tendency to allocate most service as social isolation increases. Case managers, for example, did not provide more than the maximum allowed services(147) to isolated individual who choose to remain in the community at risk instead of transferring to a hospital or long-term care institution. Furthermore, case managers spoke about providing extra services to families who have been working very hard to maintain their infirm relative at home.

The level of other services available in the community also affected the amount of services allocated. As discussed in Chapter 8, case managers would, whenever possible, link the client to non-CCAC services. Furthermore, many clients with the ability to leave

their home would be asked to use medical clinics or their own physician instead of being given nursing services. In some cases, clients could be dropped off at adult day care programs instead of receiving home personal support services.

Finally, although financial status is not an official criterion for home care service in Ontario, some case managers admitted to providing extra service for individuals in financial difficulty.

"we're not supposed to look at financial situation but we still consider it …"(Urban CCAC Case Manager)

"… sometimes financial resources could play a role. I know we shouldn't be … I mean everybody's eligible when they are eligible regardless of their income but sometimes they do tend to get more because they have no resources." (Urban CCAC Case Manager)

No financial data were collected during the assessment, so the case manager often determined financial status based on environmental cues and conversations with the clients. These observations could lead the case manager to order a visit from a social worker or an occupational therapist who can assess the client and link them to programs in the community and may feedback more detailed financial information to the case manager.

Client Consent

Unless a client is declared as being legally incompetent, an assessment cannot be conducted and service provision cannot begin until the client provides his or her consent to do so. Furthermore, some clients may refuse service from providers who arrive at their home for a scheduled visit.

Setting of Care

In order to receive home care services, a client's home must be a suitable setting for care. First of all, the home itself must be safe and have facilities required for care such as

running water. Case managers in the rural CCAC discussed ordering one time cleaning service through the CCAC or through community services to make a home suitable for care provision. The urban CCAC, which has a large population of homeless individuals, has negotiated for space within hospitals or community organizations in order to create a space for care provision. Second of all, the providers entering the home must feel safe. Safety could be compromised by anything from individuals smoking during the visits to verbal or physical abuse from the client or their family members. Case managers in both CCACs spoke of creative solutions to provide service and guarantee safety. In the rural CCAC they might send two providers to one visit if safety is a potential issue. In the urban CCAC, visits might be timed to avoid potentially dangerous family members.

External Factors

Case managers at both CCACs reported case loads ranging from 80 to 150 clients at any one time. The work associated with these case loads varied by case mix, with more intense work being associated with clients with complex medical issues. Case managers commonly noted that they did not have the time to complete all required assessments, especially since the introduction of the RAI-HC assessment system. Delay in conducting assessments or failure to conduct reassessments meant that the case managers did not always have an accurate picture of the client's needs. Some case managers admitted that they had been in situations where they only assessed and addressed the most pressing needs of clients due to time constraints.

10.2.3 Assessment values

A number of values come into play when case managers are assessing an individual's eligibility and need for service including safety, client focused care, independence and

exceptions to the rules. Descriptions of these values, derived directly from or inferred from interviews, are described below.

Safety

The value of client safety, or reducing risk to clients, appeared to be a value held at both the institutional level and the individual level. Safety was referred to throughout the data, including CCAC documents,(31;148;150;152;178-181) and almost every interview. Analytically, as shown in Table 25, concern for safety is associated with many of the factors in needs assessment. Clients can be "at risk of harming themselves or others or … of deteriorating if left alone".(179) Safety figures into the assessment of eligibility because a client's home must be safe in order for them to receive care and also underpins many case manager's assessments of need:

"our main criteria … is that I want people to be safe and in the end that's my bottom line … that the person is going to be safe."(Urban CCAC Case Manager)

"We want to make sure they're safe in their home and that they have the support they should have …"(Rural CCAC Case Manager)

The goal of case managers is to reduce risk to clients, not to eliminate risk completely:

"…you can have someone who's at home on their own and you could give them 23.5 hour care and in that 30 seconds while they were alone they could fall or they could fall before your eyes … So I think that we're maximizing their safety at home. That's, you know, the number one."(Urban CCAC Case Manager)

From an institutional standpoint, an important part of training is teaching the case manager to assess risks to clients and understand when it is acceptable for clients to live at risk.

"We actually have them come back in for an orientation day. And the one thing we do talk about at that day is clients living at risk. And that can be risk because we can't put enough service in or it could be, as I said earlier, it could be at risk because they don't want our service or enough of our services…"(Urban CCAC Administrator)

Upon referral, some clients are assessed as having urgent needs that require immediate service. The degree of risk faced by the client drives the definition of "urgent need".

"So one of the questions that the teams ask themselves is: will this client come to harm if we don't make a call back within the next 24 to 48 hours? So if the answer to that is yes then automatically they're going to be urgent."(Urban CCAC Administrator)

Examples of clients with urgent needs include individuals experiencing falls, requiring palliative care, requiring medical procedures such as IV medications, wound care or catherizations, experiencing post-partum depression or dealing with a housing crisis with imminent eviction. This contrasts with non-urgent referrals, which usually concern an issue associated with a chronic illness or a slowly developing handicap.

Client Focused Care

Within both CCACs, the policy documents, administration and individual case managers stressed the importance of providing client-focused care by understanding the preferences and needs of clients during the assessment process.(31;150;179;182-187) As shown in Table 25, the value of client focused care is associated with the client consent decision factor. Many case managers pointed out that they take their clients' preferences into account during the assessment.

"Sometimes, I should say, I do consider ethnicity, social class, lifestyle …(and) work with the client and adhere to their wishes."(Urban CCAC Case Manager)

Indeed, consideration of clients' preferences was a common theme when case managers spoke about finding solutions to issues and resolving potential disputes.

Although provision of client-focused care is a core value of both CCACs, policy documents clarify that client preferences can only be satisfied as allowed by the constraint on service provisions.(182;183) Interestingly, interview participants tended to

refer to clients needs that could not be satisfied due to CCAC policies as "wants" or "wishes" rather than "needs". For example:

"And so it was a struggle because, you know, what is the role of the health care system in that case and is that a medical necessity versus a client's wishes?"(Urban CCAC Administrator)

"So people will call us expecting certain things and then we cannot always provide what … they want."(Urban CCAC Case Manager)

Need is a subjective concept and can be a moving target in a changing fiscal environment. Case managers use of the word "want" for services implies that certain requests from clients are less valid and in their opinion, not a priority given the other demands on resources.

Many case managers suggested that most of the conflicts between client focused care and CCAC policies occur over the allocation of homemaking services. The problem was that clients in general wanted more service than the CCAC could provide. Often, individuals who did not qualify for personal support will requested homemaking services and according to provincial legislation, this could not be provided.(147) Case managers also suggested that allocation of nursing hours was straight forward and did not lead to conflict with the client. There are always exceptions, and one case manager explained that she has had to refuse clients requests for nursing services:

"… the odd time I've just had to, the person was incredibly old and they had other health problems and I put in two visits because I felt very conflicted and very stuck. Strictly speaking, it's not a role for the nurse to go in and say, 'Did you have your breakfast? Do you think you'll have your lunch? How was your sleep?'"(Urban CCAC Case Manager)

Furthermore, there are clients who try to utilize nurses for personal support and homemaking activities.

"I have to be very firm with them: the nurses are going to do this. I spend a lot of time with these people: the nurse when she comes in, she's going to do this, she will not do this."(Urban CCAC Case Manager)

Although interview participants spoke about the importance of client-focused care, many suggested that there is a group of people who will never be satisfied with service.

"There are a group of clients who complain all the time ….. So sometimes actually we don't … deal with those clients in the exact same way. ... that sounds like an awful thing … but when you're listening to these calls sometimes you just know that their complaints perhaps are not as legitimate."(Urban CCAC Administrator)

In fact, there was a minority of people who not only want a certain set of services but feel that receipt of service is their right.

"So, you know, sometimes people are just so … they just felt that the government should take care of us, the government should take care of everything … there's a line, you know, and there's some responsibility here. ….. Some people are so abusive and yet they feel they're so entitled."(Urban CCAC Case Manager).

Independence

At the institutional level, CCAC policies capture the value of independence and encourage case managers to "empower" a client, support his or her right to "self-determination" and facilitate their ability to live independently. (153;155;179;180;182;183) There are really two meanings to such statements and these were captured at the individual level in interviews with case managers. On one hand, these terms might imply that CCAC service be provided to help maintain individuals in their own homes.

"I basically work on the mandate of the CCAC of keeping people at home, independent and safe, and I'll work on that premise."(Urban CCAC Case Manager)

This aspect of independence underpins many of the factors associated with the functional ability of the client during the assessment of need.(Table 25) On the other hand, some

case managers interpret these terms to imply that clients should be empowered to care for themselves, reducing the need for long-term provision of CCAC services:

"our goal of course is to keep them as independent as they can be within their own home whether that be, an apartment or whatever, rather than making them dependent on us."(Rural CCAC Case Manager)

Exceptions

Making exceptions to the rules appeared to be valued by the urban CCAC as an institution and by some of its individual case managers. According to policy, some individuals in the urban CCAC who are ineligible for home care may be provided with service for compassionate reasons.(148;188)

Table 25. Factors affecting case managers' assessment of potential long-stay clients' need and eligibility for nursing and personal support service.

Category	Factor	Type of Service		Underlying Value
		Applicable to Nursing Service?	Applicable to Personal Support Service?	
General Eligibility Criteria	Residence in catchment area	Yes	Yes	--
	OHIP	Yes	Yes	Exceptions to the Rules
Medical Criteria		Yes	No	Safety
Functional ability of client	Ability to self-bathe	No	Yes	Safety
	Incontinence	No	Yes	Safety
	Ability to safely ambulate and transfer within the home	No	Yes	Safety
	Other physical difficulties	No	Yes	Safety
	Cognitive status	No	Yes	Safety
	Psychological status	No	Yes	Safety
	Instrumental activities of daily living	Occasionally[33]	Yes	Independence[34]
Ability to Access Alternative Resources	Amount of informal support services	Yes	Yes	Safety
	Level of community services	No	Yes	Safety
	Ability to access services within the community	Yes	Occasionally[35]	Safety
	Ability to pay privately for services	No	Yes	Safety
Client Consent		Yes	Yes	Client Focused Care
Setting of Care	Suitability of the home environment	Yes	Yes	Safety
	Safe environment for providers	Yes	Yes	Safety
External Factors	Constraints on case manager time due to large case loads	Yes	Yes	--

10.2.4 Relationship between values

The relationship between the values involved in needs and eligibility assessment portrayed below were derived from descriptions provided by interview participants.

[33] Nursing time may be required if individuals are having difficulties managing multiple medications.
[34] One exception: concerns for safety are important when case managers are considering the potential client's ability to manage multiple medications.
[35] Most personal support services are delivered at the client's home, but one exception is adult day care services.

The values of independence and client focused care can be defined as having a synergistic relationship, meaning that they can complement each other in the decisions that case managers must make. This is because clients generally wish to remain in their own home rather than face institutionalization and increasing independence facilitates this.

In some circumstances, the goals of safety and client focused care can be defined as having an antagonistic relationship, meaning that they conflict with one another during decision making. First, a client may not wish to be placed in a long term care facility despite the fact that the CCAC cannot provide enough services to guarantee their safety. Second, clients may refuse service altogether and choose to continue to live in a potentially unsafe situation. Although it may distress case managers, they must respect the client's wishes:

"… sometimes I have nightmares about these people but they want to be in their own homes, we can only provide so much."(Urban CCAC Case Manager)

"I try to convince them that even having a PSW in the home while they're bathing would make them safer and would make us feel better … There's just some people that just don't want anyone in their home and those people are going to go home at risk."(Urban CCAC Case Manager)

In these contexts, the value of client focused care trumps concern for client safety.

In other contexts, safety and client focused care can have a synergistic relationship. Although the maximum amount of service allowed to be given to a client is controlled by provincial legislation, exceptions can be made if the client is deemed to have extraordinary need for service. Extraordinary need is not defined in the legislation but both CCACs have operationalized this as clients who are experiencing a crisis and are temporarily at risk, who require extra service until they are able to arrange a care solution

that is most consistent with their personal preferences. In other words, an extraordinary need for services is driven by a desire to maintain safety and respect client focused care in a crisis situation.

Safety and independence have a unique relationship that is neither synergistic nor antagonistic. One case manager invoked both of these values throughout the interview statements such as:

"… at the end of the day our goal is to keep a person safe and independent at home."(Urban CCAC Case Manager)

Safety and independence could be conceptualized as two related values on a continuum of client functioning. The poorer a client's functioning the more concern there will be over their safety. As a client receives either informal support or formal services from the CCAC or other organizations, needs related to medical concerns and inability to conduct personal care activities will be satisfied and the focus would move from improving safety to improving ability to be independent. CCAC policy states that client safety should not be compromised by budget constraints.(179) Unfortunately, it appears that independence is a value that is most sensitive to budget constraints:

"in the past I felt like in my job I was there to support people, keep them at home as long as possible, support their independence as long as possible in the home. … but with more focus on the budget, when people would ask for help and they in my opinion needed it and I had to be so … I don't know what the word is, so stringent with service" (Urban CCAC Case Manager)

"… I can understand why, you know, the government thinks, 'well, why should we clean people houses for free?', but if you're really looking at a system where you want people to stay in their homes, then what's the best use of support that we can offer, sometimes it's that."(Urban CCAC Administrator)

10.2.5 Variation in case managers' assessment of need

Despite the introduction of the RAI-HC as a standardized instrument tool and the common use of a number of factors to determine a client's need as identified above, there is still variation in case managers' assessment of need. When assessing each individual client, case managers must still utilize their professional judgment. During the interviews, case managers appeared to place different emphasis on the importance of independence, with many discussing safety and not independence. Even with regards to safety, case managers may not consistently assess the risks faced by clients.

"Really I might think someone's very at risk and my colleague who … did the same assessment might not think so …"(Urban CCAC Case Manager)

10.2.6 Service plan values

In discussing decisions about the service plan, it is useful to examine the individual and institutional decision values prior to looking at the decision factors because it is the values that define the ideal situation, while the factors that affect decision making illustrate why the ideal is not achieved.

Equity

Service plans are developed with "(t)he idea … that someone with a similar level of service need should get a similar level of service." (Urban CCAC Case Manager) At an institution level through the policy statements and an individual level through the interviews, equity was associated with consistency or lack of variation in the allocation of services.(31;179) The case managers interviewed considered consistent decision making to be "fair" priority setting and invoke this notion of consistency when talking about how to make difficult decisions.

"And if you're consistent and you have your own kind of framework that you're using to be able to make your decisions, then you're able to talk to your decisions very comfortably and you're very confident in making your decisions. Whereas if you're waffling all the time and ... you're not using anything that's specific … that's when you start getting into trouble" (Urban CCAC Case Manager)

Respondents implied that decisions to give clients less service than they would like, for example, are justifiable as long as this is done consistently.

In the rural CCAC, case managers and the administration described the efforts made to improve consistency in resource allocation practices through discussions in formal and informal activities. In both CCACs there was external pressure from some clients to maintain consistency. Clients in small towns (rural CCAC) or clients living in apartments or retirement homes (urban CCAC) tended to compare care plans and complain to their case managers if there was a perceived lack of consistency.

Effectiveness

Effective service can be thought of as services that benefit the client and improve the situation of the client. Specifically, in CCAC documents and interviews with case managers, the notion of effectiveness is tied to outcomes and goal achievement. One of the criteria for eligibility of service, for example, is a "reasonable expectation that service intervention will result in progress towards established outcome/goals."(148) For adult long-term clients, the goal is often to delay or prevent the deterioration of a medical condition or a transfer to institutional care. The sentiments of these policies were mirrored by the interviewed case managers.

Efficiency

There were two types of efficiency defined in the economics literature: allocative efficiency and technical efficiency. Allocative efficiency refers to allocating resources to

achieve the maximum possible benefit, whereas technical efficiency concerns getting the largest output from a given allocation of resources. Interview participants did not discuss allocative efficiency. The concept of technical efficiency was discussed at both the institutional and the individual level. At the institutional level, efficiency was defined as, "optimizing the use of available resources by providing services in a fiscally responsible manner"(179) was referenced more often in the urban CCAC documents than the rural CCAC ones. At the individual level, interview participants at both CCACs invoked the idea of technical efficiency in two types of circumstances. First, some used efficiency to justify ordering types of medical care that are expensive but perceived as more effective and less expensive in the long-term. Second, it was also used to support care provision in a particular setting. Some suggested, for example, that CCACs should get a greater share of health care funding because they provide certain services more efficiently than hospitals do. Others suggested that CCAC services should be limited if client needs were severe enough that care could be provided more efficiently in the long-term care sectors. Participants also described strategies to improve technical efficiency, including ensuring that services described in the plan were delivered in a timely manner and that providers worked as efficiently as possible in delivering care to clients.

When calculating the costs and benefits of a health care intervention, health economists typically consider different perspectives such as individual, health care system, or societal. With the health care system perspective, all costs to the Ministry of Health are considered so that costs that are simply shifted from one organization to another are not considered to be cost savings. Individuals at the CCAC sometimes consider efficiency from the perspective of the CCAC rather than the perspective of the

entire health care system or of society. Indeed sometimes they considered short-term cost control rather than long-term efficiency due to their financial constraints. The urban CCAC, for example, chose to reduce homemaking services despite the evidence that it keeps clients in their home longer:

"If you look at all the studies it's the one that's going to bite you back the hardest in the long-term, but of all the things, it was something that we knew, given the growth, would be unsustainable. So we tried to work with our local partners to make sure that there were means tested services."(Urban CCAC Administrator)

Client Focus

At an institutional level, CCAC policy documents suggest that the value of client focus should also influence the development of the service plan so that service will be responsive to the needs of clients: "Learning the client's and caregiver's history, needs and preferences and accepting them as individuals facilitates the development of a plan of service that is responsive to their needs and sensitive to their diversities."(153) Indeed, case managers explained that they consulted the client during service plan development. One case rural manager referred to the service plan as a "joint care plan" that involves the CCAC, the client and other stakeholders. It therefore appears that this value was held by individual case managers.

Continuity of Care

In the context of CCACs, continuity of care can refer to either "a seamless transition of service delivery across the continuum of care"(179) or consistent staffing for services provided by the CCAC.(186) Although promoting continuity of care is an important institutional goal of CCACs,(31;178) it is not a value that seems to normally influence the amount of service a client receives. It can, however, play a role when a client's access to other community services changes. If, for example, the client's retirement

residence becomes a supportive housing unit that provides personal support, the CCAC will gradually reduce service rather than remove service immediately, to allow the client to become acquainted with the new personal support workers provided by their residence.

10.2.7 Service plan decision factors

There are a number of factors (Table 26) that threaten the notion of allocating resources equally to equal levels of need related to the case managers, the clients and to the health care environment.

Case Manager Factors

Differences in service plans for similar clients exist because case managers have their own personal attitudes and values and because allocating resources can be a difficult task. First of all, case managers have developed different practices to address the needs of clients.

"And so if you have 150 Coordinators not all 150 are going to do things the same way even though the regulations seem fairly clear and probably some of the frustration for my team is that there still a lot of diversity in practice." (Urban CCAC Administrator)

Sometimes, case managers attributed this variation in practice to different attitudes towards resource allocation.

"Because everybody has a different style of doing things too because we're all individuals, right? I may be more generous then the next person, or I may be more frugal"(Rural CCAC Case Manager)

Other case managers attributed this practice difference to different beliefs about who is more deserving of resources.

"(S)ome people just kind of ignore (the guidelines) because of their personal belief system … they really think that the government should be doing more for elderly seniors"(Urban CCAC Case Manager)

Essentially, some case managers hold, and attempt to act on, values that are not consistent with the CCAC values. Second of all, interview respondents discussed how difficult an exercise rationing can be and some suggested that there are case managers who are more generous in their service plans because they wish to avoid client frustration.

"…it's easier just to give people whatever they want, you know, it is difficult to be the bad guy and set limits and be consistent and some people just don't want the grief of doing that and they want to be liked, you know, that's … they don't want to be mean."(Urban CCAC Case Manager)

Client Factors

The clients themselves may interfere with equity in the development of the service plans in a couple of ways. Firstly, there may be inconsistencies because some clients' complain about the amount of services they receive.

"I think it is universal across the world, the squeaky wheel will get what they want."(Urban CCAC Case Manager)

One element influencing case manager's response to complaints is perceived support from management. As one case manager explained:

"historically we had managers that supported us when we said, look, this person doesn't qualify for any more service, whereas other managers would say … I don't want any complaints, just give them what they want". Urban CCAC Case Manager)

Secondly, clients may get more service if they know someone influential or are an influential person themselves.

"Some people get it just because of who they are or because of what they said …. so there's a lot of biases there, but not that many, but there are some."(Urban CCAC Case Manager)

"(Some clients) don't even meet eligibility criteria but just because they know somebody so they can get whatever they want and I don't think that is right."(Urban CCAC Case Manager)

External Factors

A number of factors that cannot be controlled by the case manager or the CCACs can interfere with equity including fluctuations in funding, shortages of physicians, and shortages of home care providers.

Service allocation can be inconsistent across time because of changes in the financial environment. Long-term clients might receive different amounts of services to meet similar needs in different fiscal years due to fluctuations in funding. Since CCACs budgets are not confirmed by the Ontario Ministry of Health until well into the fiscal year, the CCACs in this study operated assuming a flat-line budget until official announcements were made. This meant that any announced increases in funding might benefit clients seeking service at the end of the fiscal year more than those requiring services at the beginning of the fiscal year. In the years prior to data collection, the CCACs had introduced policies and tools to encourage assessment of needs that are independent of the financial environment. Their ability to meet those assessed needs, however, would still be influenced by the size of the budget.

The rural CCAC reported that a shortage of physicians in their catchment affected how nursing services were allocated. Often, "orphan" clients, defined as those individuals who could not access a general practitioner, were allocated additional nursing hours to ensure that their health status was appropriately monitored by a health care professional.

The case managers could not always design the ideal service plan for a client due to shortages in certain types of home care providers. Both the rural and urban CCACs experienced a shortage of occupational therapists and speech pathologists, while the rural

CCAC has also experienced periodic shortages of nurses and personal support workers. Interview participants noted that lack of providers interfered with the development of efficient service plans. Case managers, for example, may prefer to order a visit from an occupational therapist who could modify the client's home environment rather than start personal support services; but this was not always feasible given wait lists. In rural areas, labour shortages meant that less service would be allocated to clients living in remote areas as case managers reported that there were not enough providers given the travel times involved. Furthermore, the reality of labour shortages may account for some of the differences in service allocation policies across CCACs.

Table 26. Factors affecting case managers' development of a service plan.

Category	Factor	Type of Service	
		Applicable to Nursing Service?	**Applicable to Personal Support Service?**
Case Manager Factors	Judgment and biases	Yes	Yes
	Willingness to engage in priority setting	Yes	Yes
Client Factors	Client complaints	Yes	Yes
	Social position of the client	Yes	Yes
External Factors	Fluctuations in funding	Yes	Yes
	Physician shortage	Yes	No
	Rural environment	Yes	Yes
	Shortage of providers	Yes	Yes

10.2.8 Relationships between decision values

Examples of relationships between effectiveness and equity or between efficiency and equity were not described by case managers during the interviews.

Effectiveness and Efficiency

In CCAC documents, the word effectiveness is often used in conjunction with efficiency and they therefore appear to have a synergistic relationship. One of the reasons for creating CCACs, for example, was to "to promote the effective and efficient management of human, financial and other resources involved in the delivery of community services".(31) Furthermore, achievement of both effectiveness and efficiency was labeled to be "appropriate care".(179;187)

Effectiveness and Client Focused Care

The values of effectiveness and client focused care can have an antagonistic relationship because they may conflict after the service plan has been implemented. Some clients will consent to have health care professionals come into their home for service and then refuse treatments that are needed. Furthermore, some clients may agree to receive service but are then not at home when providers come for scheduled visits. If case managers are unsuccessful at negotiating a compromise with these clients, service may be withdrawn because it is essentially ineffective.

Efficiency and Client Focused Care

Efficiency (i.e. maximizing benefit as defined by the CCAC or case manager), and client focused care (i.e. defined as respecting client preferences) can conflict if a client

who prefers to stay at home rather than be institutionalized requires intensive home care to achieve this desire.

"We can do our best to maintain you but sometimes under your tax based system, economy is the scale, you might just have to go to a retirement or nursing home…"(Urban CCAC Case Manager)

As described above, the compromise can be that clients receive care to a certain maximum and live at risk in the community until they agree to institutionalization.

Equity and Client Focused Care

Client focused care can have an antagonistic relationship with the principle of equal service for equal need, because some clients are more demanding than others. As discussed above, clients who complain may get more service than those who don't.

10.3 Discussion

In this chapter, I have described the factors and underlying values that influence the resource allocations made by case managers for long-term clients in two CCACs. Many of the interview participants stated that services are distributed based on client need. "Need", however, is a contested concept,(98) that can be defined can be based on an individual's capacity to benefit from health care, their poor state of health or their deviation from a state of normal health.(189) In clinical fields, such as nursing, the concept of risk underlies many of the published priority setting frameworks.(190) Klein suggests that most public programs utilize a concept of risk whereby need is, "assessed in terms of the consequences if resources are not allocated".(46)(p.30) Risk is another ambiguous concept that requires further definition.(46;49;191) In this chapter I have dissected the concept of need for home care service based on the impression of CCAC case managers.

10.3.1 Factors influencing resource allocation

Client and External Factors

Many of the factors that case managers identify as important to their assessments of need are not surprising and reflect official policies and endorsed decision making tools such as the RAI-HC.(34;35) Many of the factors that were classified as functional ability of the client reflect RAI-HC domains such as cognitive patterns and physical functioning. Furthermore, the factors are similar to those described in home care programs in other contexts. In a study of care plan development for the ON LOK program in California, for example, Hennessy found that case managers considered factors that influenced: 1) informal assistance and potential for caregiver burnout; 2) client functional limitations; 3) type of medical condition and 4) ability of informal assistance to manage the medical condition.(49) Note the similar emphasis on informal caregiver support in the ON LOK program.

Financial status was identified by some case managers as an aspect of need although, in Canada, Ontario is one of the few provinces that does not include an income as a criterion for home care provision.(14) It must be emphasized that case managers spoke about giving additional resources to clients living in poverty rather than withholding resources from their wealthy clients.

I documented a number of external factors that influence case managers' decisions. Similar issues with provider labour force shortages and case manager work-load issues have been noted in other jurisdictions.(192)

Variation in Assessment of Need

Variation in assessment of need existed despite use of the standardized RAI-HC assessment tool. This was in part because not all home care case managers were convinced of the value of the assessment tool. Although all completed the assessment as required, some stated the results did not influence their decision making. Furthermore, although the RAI-HC is fairly comprehensive, professional judgment is still required to gauge the importance of each factor in an individual situation and to interpret CCAC guidelines in order to allocate service to meet the needs of a client. In a study examining how patients are prioritized for admission to a nursing home, Varekamp also found that nurses interpreted the purpose of the detailed urgency criteria differently, leading to different outcomes for similar patients.(191)

Factors Interfering With Equity

I also identified a number of factors that interfered with achievement of the ideal of "equal service for equal needs" including the client factors of client complaints and the social position of the individual. Theoretically, it has been proposed that factors such as life stage, lifestyle, social worth, and social class, could formally influence priority setting decisions.(193;194) Some case managers were reported to favour the elderly, for example, in priority setting decisions.

Although most organizations officially dissuade consideration of non-clinical client characteristics during decision making,(176) studies of priority setting in different health care contexts show that it is not uncommon to place importance on these undocumented and hence informal criteria. Health care professionals in various contexts have admitted to giving in to the wishes of patients and families who frequently complain or threaten to go to the media about their circumstances.(191;195-197) There are studies suggesting

that health care professionals in hospitals will also act to expedite treatment for people they know or those in prominent positions.(198;199) Finally, studies have also found that patient characteristics influence decisions.(64;200-202) The majority of CCAC case managers are nurses and as Hendry suggests, nursing is a social encounter.(190) He states that nursing priority decisions are influenced by, "who is making the request, how demanding they are, what power they have over us, and how we feel towards them."(190) There is some research suggesting that nurses with greater experience with decision making are less influenced by the social environment and less likely to respond to complaints from patients than nurses new to setting priorities.(190)

10.3.2 Values influencing resource allocation

In this research study, I chose to define values as deep beliefs that influence decision-making. The values described in this chapter could all be classified as principles.(86) Although this thesis focused on values associated with the inputs to resource allocation, it was evident that both CCACs and case managers do hold values, such as client respect, related to the process of priority setting.

Safety, Client Focused Care and Independence

The value of safety appeared to be consistently important during the assessment process. As highlighted above, the value of safety defined as minimizing risk is a common value in medical decision making. Collopy has argued that safety, narrowly defined as a physical risk to an individual, may be appropriate for acute-care situations, but should not be the sole basis for decisions in long-term care planning.(203) Collopy places safety on a continuum with independence, as I have in this research study, and argues that independence be redefined as "psychological safety".(203) The home care

case managers do appear to value both client focused care and independence in their assessment process. Some researchers based in the United States, have found that concerns for "safety above all" may outweigh the values of independence and client-focus care, in part due to the regulatory framework in that country.(203;204) From the case managers' perspective, client preferences appear to be important and they have described situations when a client's wishes outweigh safety concerns. I did not specifically attempt to examine the impact of the regulatory structure in this study, but the Ontario Long-Term Care Act does outline the importance of client preferences. A former Ontario Minister of Health claimed that CCACs were established to facilitate age-in-place approaches, which emphasize maintaining individuals ability to live independently in their residence of choice as they age.(19) The current Ontario government announced an "Aging-at-Home" strategy in 2006 which also emphasizes independence.(21) It seems that the importance placed on the achievement of independence, defined as psychological safety, and the fulfillment of all client "wishes", is sensitive to the resources available to case managers in any given financial year.

Equity

The CCACs' policies and sentiments expressed by case managers appear to be consistent with many international health policies that define equity as equal access for equal need.(97) I have argued that equity is difficult to achieve because real priority setting decisions are made in a social context, sometimes with incomplete information. Furthermore, since equity is linked to the contested concept of "need", some lack of consistency may be inevitable. Indeed, Klein argues that, "the use of discretion at the point of service delivery becomes not a perversion of policy in the process of

implementation but a rational response to the difficulty of devising decision making rules that are sufficiently specific and robust to cope with all contingencies."(46)(p. 29) Equity is therefore a difficult ideal to achieve.

Effectiveness and Efficiency

In the analysis, effectiveness and efficiency were considered to be distinct concepts with a synergistic relationship. Although this tendency to separate the two concepts has been seen in other health care settings, health economists would argue that effectiveness is not independent of efficiency since it is a precondition of efficiency. There appears to be a difference in how health care professionals and health economists think about efficiency. Health care professionals tend to equate efficiency with cost-reduction and presume that efficiency can be achieved by reducing services so that the same benefit is given for fewer costs. The idea of improving service to achieve additional benefits without increasing costs, on the other hand, tends to be linked to the idea of improving effectiveness. To health economists, however, these are simply different examples of achieving efficiency, not different concepts.

Competing Values

I have outlined a number of value conflicts in the chapter, and many of these underlie important ethical decisions that case managers must make on a daily basis. The resolution of such conflicts is complex and appears to be context specific. Since need is a contested concept, and is not fully defined by a standardized assessment tool, such as the RAI-HC, case managers need to rely on their own personal judgment. Both of the CCACs that participated in this study claim that the case managers are in the best position to make these types of decisions in a manner that respects client preferences.

While this may be true, in a study of CCAC resource allocation decisions from a client's perspective, Aronson found that it can also lead to "diminishment, frustration and conflict for all parties."(75) Case managers need to have the training and administrative support to resolve these ethical conflicts as they arise on a case by case basis. Indeed, previous studies have documented the loneliness that case managers feel due to making these decisions without sufficient support(192) and Wetle advocates for ethical committees, agencies or other resources to fill this void.(192)

The Equity and Efficiency Trade-Off

Some health economists have focused on resolving and quantifying the trade-off between equity and efficiency.(205;206) In this study, case managers did not describe any conflicts between efficiency and equity. This may be because case managers often link need to risk rather than to capacity to benefit as suggested by economists. Furthermore, they do not explicitly consider allocative efficiency. So, they tend to allocate resources in the spirit of equal resources for equal need, while efficiency is thought of when there are multiple therapeutic choices or settings of care for an individual client. Given that the value conflicts faced by case managers are context-specific, attempts to quantify trade-offs between values such as equity and efficiency, may not be very useful for decision makers.

10.3.3 Limitations

There are a number of limitations to this research study. The qualitative data allowed me to capture the complexity of decision making, however, I cannot definitively say which factors and values are most important to decisions. To address this limitation, I designed a quantitative questionnaire, presented later in this thesis. For an even more

complete picture of the importance of certain factors to decision making, future research on patterns of resource allocation is required.

Previous work has suggested that professional status and organizational factors also influence resource allocation decisions.(47-49;65) Wetle has noted, for example, that value conflicts may be resolved differently because of differing notions of health (holistic approaches versus focus on resolving the biological causes of disease), values and socialization processes instilled during the training process.(192) At the time of this research study, the rural CCAC had a policy of hiring nurses only, while the urban hired a mix of health care professionals, with the majority being nurses. I did not attempt to sample case managers by profession and although some social workers did participate, there were not enough data to draw conclusions about similarities or differences across professions. The study was not designed to study organizational factors.

For this thesis, I collected data through document review and analysis of interviews, but I did not formally observe interactions with clients. Adding this final element would have made the study logistically more difficult and ethically sensitive. As discussed in Section 4.5, values may guide behaviour but they are not the only determinant of behaviour. I have attempted to ground the values discussed by case managers in descriptions of their behaviour but have not had the opportunity to observe how they actually manifest themselves in their daily interactions with clients.

10.4 Conclusions

I have documented factors and values that are important to resource allocation decisions for nursing and personal support services for long-term clients. Identification of factors influencing decisions and the use of standardized assessment tools such as the

RAI-HC can increase consistency. Given the difficulty of developing a definition of need that covers every situation, case managers will always need to employ their professional judgment. Indeed, it may be appropriate for case managers to resolve conflicts on a case-by-case basis in order to ensure that home care is responsive to individual needs. Policy makers, however, must recognize that these are difficult ethical decisions and provide adequate support and training to case managers. Furthermore, case managers need to feel that their administration supports their efforts to consistently allocate resources despite pressure from clients or other sources. The social context of priority setting decisions can make achievement of consistency difficult and unpleasant, despite the best of intentions.

11 Summary of the Survey of Case Managers

11.1 Introduction

A survey was designed based on the qualitative case studies to answer a number of questions concerning how case managers allocate personal support and homemaking services to potential CCAC clients. The specific objectives of this survey were:

1. To examine the priority setting attitudes of CCAC case managers
2. To assess the relative importance of the client characteristics or attributes (identified in Chapter 10) in case managers' decisions about prioritizing clients for: a) personal support services and b) homemaking service
3. To examine the relationship between case manager characteristics and the relative importance of client characteristics in their decisions about prioritizing clients for: a) personal support services and b) homemaking service
4. To assess the relative importance of the values identified in Chapter 10 in decisions about personal support and homemaking service allocation
5. To examine the relationship between case manager characteristics and the relative importance of these values in decisions about personal support and homemaking service allocation

Case managers from 8 of the 14 CCACs across Ontario completed the survey. In this chapter, the survey response rate and the characteristics of the survey participants are first described, and followed by a review of the priority setting attitudes of the survey case managers. Next, the influence of the client attributes and case manager characteristics in decisions about prioritizing clients for personal support and homemaking services are examined. The relative importance of the values influencing these decisions are assessed

and followed by an examination of the influence of case manager characteristics on the relative importance of these values. Finally, the results are placed in context of the existing literature and the study limitations are outlined.

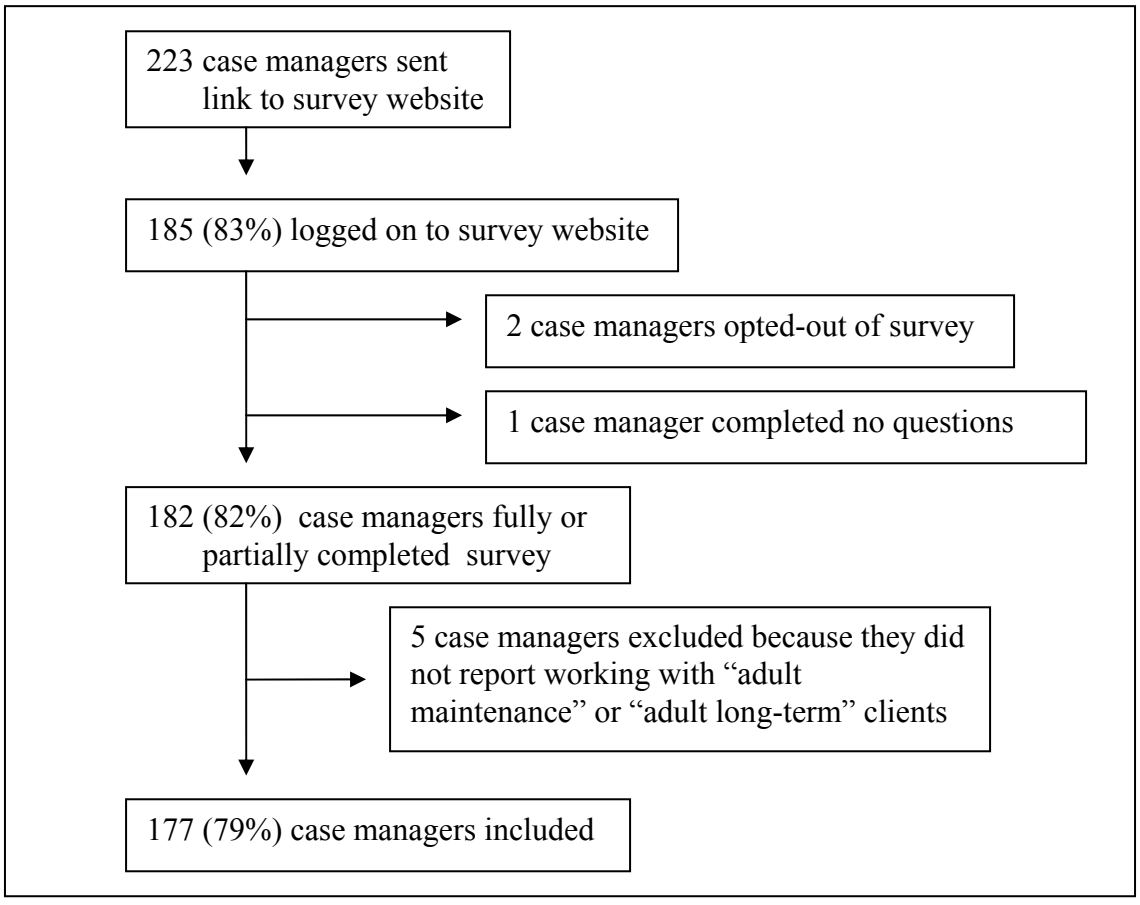
11.2 Results

11.2.1 Response to the Survey

A total of 223 case managers contacted me in response to the email descriptions of the study and were sent a link to the survey web site (Figure 8). Of these, 185 logged onto the survey website and 182 case managers (82%) fully or partially completed the survey. Between 18 and 26 case managers completed each of the eight versions of the survey (See Appendix 4). Of the three case managers who logged on to the survey but did not complete it, two people opted-out because they felt that the survey did not reflect the complexity of the decisions that they make, while one person did not complete any questions. To be eligible for the survey, case managers had to indicate that they had created plans for either "adult maintenance" or "adult long-term support clients" in the past year. The 5 individuals who completed this question, but did not indicate working with either of these client categories, were excluded from the analysis. Since all demographic questions were at the end of the survey, the 16 individuals who provided partial responses to the survey (See Appendix 4) did not complete any of these questions, but were included in the survey. The types of clients served by those excluded from the survey were adult end-of-life, adult acute or pediatric (See Appendix 4). Responses from a total of 177 case managers were included in the analysis. The number of responses were greater than the calculated sample sizes in Chapter 6, but Orme's recommended sample size of 300 for robust analysis was not achieved.(138)

The survey sections were ordered with questions from most challenging to least challenging to improve response rate: 1) personal support and homemaking choice sets; 2) value statement choice sets; 3) priority setting attitudes; and 4) demographics. As described in Chapter 6, these survey sections contained different types of questions designed to answer the three objectives of Phase II. A description of those who provided partial responses is given in Appendix 4.

Figure 8. Flowchart of response to the survey.



Six of the 8 participating CCACs provided descriptive statistics on those case managers sent invitations to the survey. Within those CCACs, 128 out of approximately 924 case managers were sent an email about the survey actually completed the survey (14%). It is difficult to estimate the absolute response rate because the 924 case managers emailed included those who would have been ineligible for the survey (e.g. hospital based case managers, intake case managers located in CCAC phone centres, community based case managers who specialize in clients excluded from the survey). CCAC statistics indicated that approximately 603 case managers worked in the community at the time of the survey, increasing the estimated response rate to 21%. As shown in Section 11.2.2, 14 case managers indicated that they worked in the hospital or the CCAC call centres, but that they worked with long-term clients. In some cases, CCACs have arranged out-patient services from hospitals for community based clients. Other case managers indicated to me that they had worked in the community for years and had just recently transferred to the hospital or call centres.

11.2.2 Description of Survey Respondents

A number of descriptive statistics were collected from case managers who completed the survey. Once again, the descriptive statistics were at the end of the survey so the majority of missing responses were from the 16 respondents who did not complete through the entire survey. As an inclusion condition in the survey, case managers had to have assessed either adult maintenance or long-term supportive clients in the past year. They also worked with a range of other clients including adult rehabilitation, adult acute, adult end-of-life and pediatric clients.(See Appendix 4) Case managers indicated

working an average of 8.3 years as a home care case manager (Range 1 to 30 years; Median 7.0 years) and an average of 19.2 years in the health care system (Range 1 to 31 years; Median 19.0 years). Seven percent of the sample came from CCAC C while 19% came from CCAC G (Table 27). The majority of respondents worked full-time (71%), were female (86%), worked in the community (80%), were nurses (78%), were 50 – 54 years old (21%), had not provided informal care in the past year (56%), and served urban area clients (63%) (Table 27).

In Chapter 4, the literature review identified a number of case manager characteristics that might be associated with variation in resource allocation decisions. This included the experience and professional background of the case manager. In addition, the location of clients (urban or rural area), experience providing informal care and CCAC of employment were identified as other possible factors affecting variation in resource allocation practices. Given the sample size, the professional background variable was dichotomized into: 1) Nurse; and 2) Other health care professional. The sample within each CCAC did not achieve the recommended minimum 30 individuals per sub-group,(120) so sub-groups analyses were not conducted with this variable. The remaining variables had sufficient sample size in each sub-group to remain as described in Table 27 during sub-group analysis.

Table 27. Summary of selected respondent characteristics.

Characteristic	Number of Respondents	Percent of Respondents
Respondents' CCAC		
CCAC A	16	9
CCAC B	15	8
CCAC C	13	7
CCAC D	24	14
CCAC E	24	14
CCAC F	26	15
CCAC G	33	19
CCAC H	25	14
Missing	1	
Total	***177***	***100***
Full or Part-time Status		
Full-time	125	71
Part-time	36	20
Missing	16	9
Total	***177***	***100***
Gender of Respondent		
Female	153	86
Male	5	3
Missing	19	11
Total	***177***	***100***
Work Location of Respondent		
Hospital	10	6
Community	140	80
Call-Centre	4	2
Other	7	4
Missing	16	9
Total	***177***	***100***
Professional Background of the Respondent		
Nursing	138	78
Physiotherapy	2	1
Occupational therapy	1	1
Social Worker	18	10
Other	1	1
Missing	17	10
Total	***177***	***100***
Age Category of the Respondent		
Under 30	12	7
30 – 34	10	6
35 – 39	27	15
40 – 44	23	13
45 – 49	21	12
50 – 54	38	21
55 – 59	20	11
60 and above	8	5
Missing	18	10
Total	***177***	***100***
Informal Caregiving Status of Respondent in past 12 months		

Characteristic	Number of Respondents	Percent of Respondents
Provided Care	58	33
Did not provide Care	102	56
Missing	17	10
Total	***177***	***100***
Location of Clients Served by Respondent		
Rural Clients	50	28
Urban Clients	111	63
Missing	16	9
Total	***177***	***100***

Six of the 8 participating CCACs provided descriptive statistics of the case managers they employ, so it was possible to assess the representativeness of survey respondents. The number of years worked in home care were not statistically different than the CCAC populations, with the exception of CCAC H (Table 28). The percent of respondents who were female, working full-time and nurses were not statistically different from the CCAC populations.(Table 29)

Table 28. The number of years that survey respondents have worked as a home care case manager, by CCAC, and compared to CCAC provided statistics.

CCAC	Mean		Minimum		Maximum	
	Survey	CCAC	Survey	CCAC	Survey	CCAC
A	5.33	--	1	--	17	--
B	12.33	--	2	--	21	--
C	8.00	6.17	2	0.7	20	27.5
D	8.50	--	1	--	21	--
E	5.71	7.1	1	0.1	30	36.1
F	8.41	8.61	2	0.12	21	36.23
G	10.10	--	1	--	30	--
H*	8.04	5.45	1	0	25	24.5

-- Indicates that data have not been provided by the CCAC
* Sample mean is statistically significantly different than population mean (P >0.05)

Table 29. Summary of selected respondent characteristics, by CCAC and compared to CCAC provided statistics.

Characteristic		CCAC							
		A	B	C	D	E	F	G	H
Full or Part-Time Status									
Percent Full-time	Survey	75	62	42	78	71	76	90	96
	CCAC	75	--	57	--	65	66	--	91
Gender									
Percent Female	Survey	93	100	100	100	100	100	97	88
	CCAC	99	--	99	--	99	99	--	89
Professional Background of the Respondent									
Percent Nurses	Survey	69	100	92	100	71	100	90	72
	CCAC	86	--	86	--	79	99	--	74

-- Indicates that data have not been provided by the CCAC.

11.2.3 Priority Setting Attitudes of Case Managers

In the survey section examining priority setting attitudes, two types of questions were asked. First, case managers were asked general questions pertaining to their overall attitudes towards priority setting. Second, case managers were asked questions about their attitudes towards personal support and homemaking services.

In order to examine general priority setting questions, case managers were asked about their agreement with two statements taken from the 1996 and the 1998 Eurobarometer surveys.(122) The majority of case managers (66%) strongly or very strongly agreed with Statement A, "It is impossible for any government to pay for all new medical treatments and technologies". This indicates that the majority of case managers recognize that priority setting is necessary. Indeed, agreement with these statements was higher than for the general public surveyed in most countries as part of the Eurobarometer study (Finland 65.5%; Netherlands 55.5%; Ireland 50.0%; Greece 19.1%; Spain 23.1%; and France 25.8%)(122) The majority of case managers (73%) somewhat or strongly disagreed with Statement B, "The government should only provide everyone

with essential services such as care for serious diseases and encourage people to provide for themselves in other respects". This level of disagreement is higher than observed in respondents of the Eurobarometer study and may seem contradictory to responses to the first priority setting statement. It is not surprising, however, given that home care could be classified as a non-essential service or a preventive care service. Although case managers agree with priority setting, the majority feel that the government has a responsibility to provide more than "essential" care services for those with serious diseases. Further details on the responses to these questions are provided in Appendix 4.

One question asked case managers about the equity principle that they prefer. The majority of case managers (59%) preferred the statement, "CCACs should provide some service to everyone who needs it, even if that means providing less service than required to some clients" (Option A) to the statement "CCACs should provide all of the service required to those with the greatest need, even if this means that some clients with less need may not receive service"(Option B). A chi-square test indicated that the observed distribution of responses was significantly different than those expected due to chance (Chi-Square Test = 16.6; P Value = <0.0001). Further detail on the response to this question is provided in Appendix 4. Preferred equity principle was thought to be a case manager characteristic that may influence allocation decisions and was tested in the sub-group analyses.

A number of univariate logistic regression analyses were conducted to determine if there were any case manager characteristics that explained variation in response to either the equity principle chosen or the level of agreement with the priority setting statements discussed above. To conduct these analyses, the level of agreement with priority setting

statements was recoded as agree (strongly or somewhat) or disagree (strongly or somewhat). There was no significant difference in equity principle chosen by experience with informal care in the last 12 months (Yes or No), professional background (Nursing or Other), location of clients (Rural or Urban), or years as a case manager.

In order to test attitudes about personal support and homemaking services, case managers were asked about their level of agreement with six statements. As shown in Table 30, the majority of case managers agreed (somewhat or strongly agree) that personal support should be provided to clients to allow early discharge from hospital (78%), to delay institutionalization (88%), or to prevent declines in health or functional status (88%). The majority of case managers also agreed (somewhat or strongly agree) that homemaking should be provided to clients to delay institutionalization (75%), or to prevent declines in health or functional status (71%). Fewer case managers agree that homemaking should be provided to clients to allow early discharge from hospital (52%). This may be because these clients would require nursing and not homemaking.

Table 30. Frequency and percent of level of agreement with statements about the importance of personal support and homemaking services to acute, maintenance and preventive clients.

Level of Agreement	Acute Care Substitution				Maintenance Clients				Preventive Clients			
	Personal Support		Home-making		Personal Support		Home-making		Personal Support		Home-making	
	N	%	N	%	N	%	N	%	N	%	N	%
Strongly or Somewhat Disagree	24	13	68	38	3	2	27	19	4	2	34	19
Somewhat or Strongly Agree	137	78	92	52	157	88	133	75	156	88	126	71
Missing Response	16	9	17	10	17	10	17	10	17	10	17	10
Total	***177***	***100***	***177***	***100***	***177***	***100***	***177***	***100***	***177***	***100***	***177***	***100***

11.2.4 Factors Influencing Allocation of Personal Support Services and Homemaking Services

The influence of client characteristics or attributes on choices to prioritize clients for personal support or homemaking services was investigated using the first of the two discrete choice survey experiments. Each case manager was presented with 10 scenarios and asked to indicate whether Client A or Client B would be prioritized for service or whether neither client would receive service. A separate question was included for personal support and for homemaking services. A reminder of the attributes and levels used to create the client profiles, along with the coding scheme, is presented in Table 31.

Description of Responses

There were a total of 37 questions, 10 per survey. The number of respondents who completed each question is shown in Appendix 4. As shown in Table 32, individuals chose Client A 42% of the time, Client B 40% of the time and No Service (Opt-out option) 18% of the time for personal support. The opt-out rate was much greater for homemaking services with respondents choosing "No Services" 57% of the time. This is consistent with the observation from the qualitative studies that homemaking is the most controlled service and with key informants' assertion that some CCACs do not provide homemaking services. For homemaking services, choices between Client A and B were equally divided (20% versus 24% respectively). With the personal support questions, most case managers chose the opt-out option for at least 1 question (41%) (Table 33). With homemaking services, the majority of case managers (97%) opted out of at least 1 question, and a portion of case managers (17%) opted out of all questions (Table 33).

This latter group of case managers was essentially indicating that they do not provide homemaking services.

Table 31. Explanation of the attributes and levels of the DCE

Short Form	Attribute	Level	Coding
Bath	**Bath:** Ability of client to safely bathe him or herself.	Safety Issues	-1
		No Safety Issues	1
Cont	Continence	Incontinent	-1
		Continent	1
Ambul	**Safely Ambulate and Transfer:** Ability to safely ambulate and transfer without assistance.	Safety Issues	-1
		No Safety Issues	1
House	**Difficulty with homemaking:** Difficulty performing instrumental activities of daily living such as housekeeping and laundry.	Difficulty	-1
		No Difficulty	1
Full	**Informal Caregiver:** Level of informal support.	**None:** Client has no informal caregivers	-1
		Some: Some support from informal caregivers	-1
		Full Support: Client has an informal caregiver who lives with them and is fully able and willing to care for them	1
Some	**Informal Caregiver:** Level of informal support.	**None:** Client has no informal caregivers	-1
		Some: Some support from informal caregivers	1
		Full Support: Client has an informal caregiver who lives with them and is fully able and willing to care for them	-1
Comm	**Community Services:** Non-CCAC services that meet the needs of the client are available in the community.	No	-1
		Yes	1
Pay	**Ability to Pay:** Ability to pay for non-CCAC personal support and homemaking services	No	-1
		Yes	1
OptOut	Respondent chooses NOT to provide service to neither Client A nor Client B	Yes	1
		No	0

* Attribute levels coded in the format of: -1 = worse; 1 = best

Table 32. Summary of the opt-out rate for choices for personal support and homemaking services.

Statistic	Choices for Personal Support			Choices for Homemaking		
	A	B	Neither	A	B	Neither
Total times chosen (Sum)	716	687	303	333	413	949
Percent of times chosen	42%	40%	18%	20%	24%	57%
Average number of times chosen (Mean)	40.3	41.4	18.1	20.2	22.7	56.7

Table 33. Number and percent of questions each respondent has opted out of.

Number of Questions	Personal Support		Homemaking	
	N	%	N	%
0	26	15	5	3
1	70	41	14	8
2	38	22	11	6
3	15	9	18	10
4	15	9	21	12
5	6	3	25	15
6	0	0	12	7
7	2	1	19	11
8	0	0	8	5
9	0	0	9	5
10	0	0	30	17
Total	***172***	***100***	***172***	***100***

Influence of Client Characteristics or Attributes

The multinomial logistic regression model was used to examine the influence of each attribute level on choice for personal support and homemaking services. The goodness of fit statistics for all models created are summarized in Table 34 for personal support and in Table 35 for homemaking services. Overall, all models for both personal support and homemaking services explain more variation than a model with no covariates, as demonstrated by the statistically significant likelihood ratios. The McFadden R^2 statistics demonstrate that all of the personal support models fit the data better than the homemaking service models.

Table 34. Goodness of fit measure for the multinomial logistic regression model for personal support services.

Model	Log Likelihood	Likelihood Ratio*	McFadden's LRI
Model 1 - Main Effects	-984	1709.6**	0.4648
Model 2 – Main Effects + Attribute Interactions	-962	1752.5**	0.4764
Model 3 – Main Effects + Attribute Interactions + Case Manager Characteristics	-873	1654.8**	0.4865

* Compared to a model with no covariates
** P value >0.05

Table 35. Goodness of fit measure for the multinomial logistic regression model for homemaking services.

Model	Log Likelihood	Likelihood Ratio*	McFadden's LRI
Model 1 - Main Effects	-1277	1100.7**	0.3012
Model 2 – Main Effects + Attribute Interactions	-1269	1115.9**	0.3054
Model 3 – Main Effects + Attribute Interactions + Case Manager Characteristics	-1148	1059.6**	0.3158

* Compared to a model with no covariates
** P value >0.05

Main Effects Models

In the main effects model for personal support services, all attributes are statistically significant except for the "difficulty in homemaking" attribute (Table 36). The parameter estimates indicate that a change in the levels of the bathe attribute has the greatest impact on the probability of prioritizing clients. A change in the level of informal caregiver response from "None" to "Some Support" does not statistically significantly influence case managers' prioritization choices, but a change from "None" to "Full Support" has the next largest impact on choice behaviour. Considering the remaining client attributes, change in the levels associated with ambulation makes the most difference in choice

behaviour, followed by continence, ability to pay, and availability of community services. Change in a clients' ability to conduct housekeeping does not significantly influence this decision.

All covariates in the main effects model for homemaking services are statistically significant, indicating that a change in level for all attributes impact on case managers' prioritization choice. A change in the level of the difficulty in housekeeping has the most impact, followed by a change from "no informal support" to "full informal support", followed by a change from "able to safely bath" to "difficulty safely bathing". A change from "no informal caregiver support" to "some informal caregiver support" has no statistically significant influence on prioritization choices. A change in the levels of the remaining client attributes have similar impacts.

Table 36. Multinomial logistic regression models for personal support services.

Covariate	Main Effects Model		Main Effects + Attribute Interactions		Main Effects + Attribute Interactions + Respondent Characteristics	
	Parameter	Standard Error	Parameter	Standard Error	Parameter	Standard Error
Opt-Out Constant	-0.70*	0.100	-0.61*	0.122	-0.60*	0.128
Bath	-2.08*	0.098	-2.16*	0.111	-2.12*	0.121
Full	-1.01*	0.088	-1.1*	0.127	-1.42*	0.163
Some	-0.09	0.080	-0.01	0.108	0.18	0.153
Ambul	-0.69*	0.081	-0.63*	0.083	-0.68*	0.088
Cont	-0.64*	0.058	-0.68*	0.063	-0.72*	0.066
Pay	-0.34*	0.052	-0.5*	0.069	-0.54*	0.073
Comm	-0.22*	0.056	-0.21*	0.063	-0.23*	0.066
House	-0.01	0.072	--	--	--	--
Some*Bath	--	--	0.34*	0.109	0.36*	0.114
Full*Bath	--	--	-0.09	0.134	-0.12	0.142
Cont*Some	--	--	-0.09	0.108	-0.12	0.114
Cont*Full	--	--	0.33*	0.108	0.34*	0.114
Cont*Comm	--	--	0.18*	0.063	0.16*	0.066
Ambul*Pay	--	--	0.18*	0.082	0.17*	0.087
Bath*Clients live in a rural area	--	--	--	--	-0.27*	0.137
Some*Years of experience with the CCAC	--	--	--	--	-0.02	0.013
Full*Years of experience with the CCAC	--	--	--	--	0.04*	0.011

* P value >0.05

Table 37. Multinomial logistic regression models for homemaking services.

Covariate	Main Effects Model		Main Effects + Attribute Interactions		Main Effects + Attribute Interactions + Respondent Characteristics	
	Parameter	Standard Error	Parameter	Standard Error	Parameter	Standard Error
Opt-Out Constant	1.73*	0.098	1.72*	0.100	1.77	0.106
House	-0.91*	0.081	-0.84*	0.083	-0.68	0.102
Full	-0.73*	0.078	-0.74*	0.079	-0.71	0.138
Some	-0.04	0.076	0.12*	0.079	0.13	0.112
Bath	-0.65*	0.068	-0.68*	0.069	-0.49	0.099
Cont	-0.34*	0.050	-0.32*	0.051	-0.31	0.053
Ambul	-0.30*	0.064	-0.28*	0.064	-0.28	0.068
Pay	-0.29*	0.049	-0.28*	0.050	-0.22	0.052
Comm	-0.20*	0.050	-0.21*	0.052	-0.18	0.0801
Some*House	--	--	0.26*	0.108	0.27*	0.115
Full*House	--	--	0.01	0.132	0.01	0.140
Comm*Pay	--	--	0.11*	0.053	--	--
House * Clients live in rural area	--	--	--	--	-0.39*	0.123
Bath * Years of experience with the CCAC	--	--	--	--	-0.03*	0.008
House * Informal caregiver experience in past year	--	--	--	--	-0.45*	0.116

* P Value >0.05

Relative Importance of the Client Attributes

Two of the methods described by Lancsar and colleagues were used to determine the relative impact of the attributes themselves.(145) Method 1 (partial log likelihood analysis)[jj] and Method 2 (probability analysis) give different results, in part because ambulation and bath were correlated due to the restrictions in the experimental design (See Section 6.5.2). A summary of the estimated relative impact of the attributes for the personal support and homemaking models is shown in Table 38. (See Appendix 4 for tables for more detailed results.)

For personal support, it is clear that ability to safely bathe (bath) and level of informal caregiver support are the attributes that have the most impact on decisions in this survey. Continence and ambulation have the next greatest impact. The percent change figures from both Method 1 and Method 2 in Table 38 show that ability to pay and availability of community services have similar impact and are relatively less important that continence and ambulation. In summary, the relative importance of the client attributes to personal support prioritization decisions in this experiment are likely: 1) ability to safely bathe; 2) level of informal support; 3) continence, **or** ability to safely ambulate; and 4) ability to pay for service, **or** availability of community services.

For homemaking, both difficulty and level of informal support appear to be the attributes that have the most impact on decisions in this survey. These are followed by bath and then continence. The percent change figures in Table 38 indicate that the relative impact of continence seems to be much less than the relative impact of ability to safely bathe. The relative importance of ambulation and ability to pay for service are

[jj] All attributes have two levels except for "Level of Informal Support" which has 3 levels. For this calculation, the two variables used to code each of the level (Some and Full) were both removed from the model at once to determine the overall contribution of the attribute to the multinomial model.

unclear, but they both have less impact than continence. The availability of community service has the least impact on homemaking prioritization choices. In summary, the relative importance of the client attributes to homemaking prioritization decisions in this experiment are likely: 1) difficulty in homemaking, **or** level of informal caregiver support; 2) ability to safely bathe; 3) continence; 4) ability to safely ambulate, **or** ability to pay for service; and 5) availability of community services.

Table 38. Summary of the estimated relative impact of the client attributes in decisions about client priority for personal support and homemaking services.

Order of Attribute Relative Impact	Personal Support Services				Homemaking Services			
	Method 1: Partial Log Likelihood Analysis(145)		**Method 2:** Probability Analysis		**Method 1:** Partial Log Likelihood Analysis		**Method 2:** Probability Analysis	
	Attribute	Percent Change from Full Model	Attribute	Percent Change from Worst Case*	Attribute	Percent Change from Full Model	Attribute	Percent Change from Worst Case*
1	Bath	43	Bath	98	Informal caregiver support	7	Difficulty housekeeping	84
2	Informal caregiver support	13	Informal caregiver support	88	Difficulty housekeeping	6	Informal caregiver support	78
3	Continence	8	Ambulation	75	Bath	4	Bath	73
4	Ambulation	4	Continence	72	Continence	2	Continence	49
5	Availability of community services	2	Ability to pay for service	49	Ability to pay for service	1	Ambulation	45
6	Ability to pay for service	1	Availability of community services	36	Ambulation	1	Ability to pay for service	44
7	Housekeeping (Not statistically significant)	0	Housekeeping (Not statistically significant)	3	Availability of community services	1	Availability of community services	33

* This is the percent change in the probability of a client being prioritized when all but the one attribute of interest is set to the worst case compared to a client with all worst case attributes (See tables 13 and 14 in Appendix 4 for more detail).

Interactions Between Attributes

The statistical significance of each one-way interaction between the client attributes was tested separately by entering the interaction into the main effects models. For the model predicting prioritization choices related to personal support services, the following were statistically significant: 1) informal support and bath; 2) informal support and continence; 3) continence and availability of community services; and 4) ability to safely ambulate and ability to pay for service. (See Appendix 4 for details on all interaction tests.) These interactions all remained statistically significant when placed together in one model.(Table 36) The goodness of fit statistics indicate that inclusion of the interaction terms explained slightly more variability in choice than the main effects model; the McFadden's R^2 of the main effects + attribute interactions model is 2.5% higher that the main effects only model (Table 34). The likelihood ratio comparing the main effects and the main effects + attribute interaction models was statistically significant.

For the model predicting prioritization choices related to homemaking, the following attribute interactions were statistically significant when tested individually with a main effects model: 1) availability of community services and ability to pay; 2) availability of community services and bath; 3) level of informal support and ability to pay; and 4) level of informal support and housekeeping (See Appendix 4 for details on all interaction tests.) After stepwise regression analysis was conducted, only the interactions between community services and ability to pay AND level of informal support and housekeeping remained significant (Table 37). The likelihood ratio comparing the main effects and the main effects + attribute interactions models was statistically significant.

Influence of Case Manager Characteristics

To test the influence of respondent characteristics on choices related to personal support and homemaking services, interaction terms were created between the characteristics and client attributes. For personal support services the following interactions were statistically significant when entered separately into the main effects model: 1) rurality of clients served (with bath, ability to pay, and availability of community services); 2) informal caregiver experience and level of informal support; 3) number of years of experience of the respondent (with ambulation and informal support); and 4) preferred equity principle and availability of community services.(See Appendix 4 for details on all respondent characteristics.) After stepwise regression analysis was conducted, only two of these remained statistically significant: 1) rurality of clients served with ability to safely bathe; and 2) level of informal support interacting with number of years of experience.(Table 36) All attribute interactions remained in the model after this stepwise regressions analysis. The likelihood ratio tests indicated that the model fits the data statistically significantly more than either the main effects or the main effects + attribute interaction models. The parameter estimates for the statistically significant respondent characteristics indicate that:

- case managers in *rural* area are more likely to prioritize clients with difficulty safely bathing than those living in *urban* areas
- case managers with *less experience* are more likely to prioritize clients who do not have full informal caregiver support than case managers with *more experience*

For homemaking services, a number of interactions were also statistically significant when entered separately into the main effects model. (See Appendix 4 for details.) The statistically significant interactions were: 1) rurality of clients served (with bath, ambulation, continence, housekeeping and ability to pay); 2) case manager informal care experience with housekeeping; 3) number of years of experience (with bath, ambulation, housekeeping, and informal support); and 4) preferred equity principle with continence. The following respondent characteristic interactions remained significant when entered together using stepwise regression analysis: 1) difficulty housekeeping and rurality of clients served; 2) ability to safely bathe and case manager years of experience; and 3) difficulty housekeeping and case manager experience with informal care.(Table 37) When the case manager characteristics were entered into the model, the informal support*housekeeping attribute interactions remained statistically significant. The likelihood ratio test comparing this model to either the main effects model or the main effects + attribute interactions model was statistically significant. The parameter estimates of the respondent characteristics indicate that:

- case managers in *rural* area are more likely to prioritize clients with difficulty housekeeping than those living in *urban* areas
- case managers with *more experience* are more likely to prioritize clients who have difficulty bathing than case managers with *less experience*
- case managers with *experience with informal caregiving in the past year* are more likely to prioritize clients who have difficulty bathing than case managers with *no experience with informal caregiving in the past year*

In summary, the case manager characteristics that influenced both types of prioritization choices in this experiment were the location of the clients served (rural area versus urban area) and case manager years of experience. Case manager informal care experience in the past year also influenced prioritization choices for homemaking services.

11.2.5 Values Influencing the Allocation of Personal Support and Homemaking Services

As described in Chapter 6 of this thesis, statements that reflect the values that were found to underpin case managers' resource allocation (described in Chapter 10) were developed. As a reminder, these statements are given in Table 39, along with the value labels that will be used throughout this section. It is important to note that respondents did not see the value labels in the survey, only the value statements. Once again, respondents were given several questions containing various combinations of these statements. For each combination, they were asked to indicate which value statement was most important to their decision and which was the least.

Table 39. Value statements used in the survey.

Value	Value Statement
Client Focus	It is important to consider a client's needs and preferences when developing a service plan
Effectiveness	It is important that there is a reasonable expectation that clients can achieve their treatment goals
Efficiency	It is important to design service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner
Equity	It is important to be consistent and give the same amount of service to clients who have the same level of need.
Exceptions	It is important to consider making exceptions for those who do not meet eligibility guidelines in some cases, for compassionate reasons.
Independence	It is important to support a client's ability to function independently.
Safety	It is important to maximize a client's safety in their home and to try to minimize the risks they face.

The experimental design generated a total of 11 questions, 5 of which were presented in half of the surveys, 6 in the other half. The sample used for this analysis was the 164 respondents who answered at least 1 of the value questions. As shown in Table 40, 79 to 82 people answered each question, with 1 person indicating a most important value but not a least important value for questions 1, 2, 7, and 8. The most important and least important choices are summarized in Table 40. One clear pattern that emerges from this table: whenever safety appears within the choice mix, it is chosen as "most important" by the majority of people, while it is rarely chosen as the least important.

Table 40. Choices made for each of the value questions on the survey

Value	Most Important		Least Important	
	N	%	N	%
Question 1				
Client Focus	42	52	9	11
Efficiency	33	41	19	24
Equity	6	7	52	65
Total	***81***	***100***	***80***	***100***
Question 2				
Safety	53	35	0	0
Independence	28	65	9	11
Effectiveness	0	0	71	89
Total	***81***	***100***	***80***	***100***
Question 3				
Safety	29	36	2	3
Client Focus	24	30	7	9
Efficiency	16	20	11	14
Independence	10	13	1	1
Exceptions	1	1	59	74
Total	***80***	***100***	***80***	***100***
Question 4				
Independence	37	46	0	0
Efficiency	33	41	2	2
Equity	5	6	23	29
Effectiveness	4	5	10	12
Exceptions	2	2	46	57
Total	***81***	***100***	***81***	***100***
Question 5				
Safety	41	50	0	0
Client Focus	36	44	2	2
Equity	4	5	25	30
Exceptions	1	1	41	50
Effectiveness	0	0	14	17
Total	***82***	***100***	***82***	***100***
Question 6				
Safety	55	70	1	1
Efficiency	13	16	14	18
Equity	6	8	38	48
Effectiveness	5	6	26	33
Total	***79***	***100***	***79***	***100***
Question 7				
Independence	39	49	5	6
Client Focus	26	33	6	8
Efficiency	13	16	25	32
Effectiveness	2	3	43	54
Total	***80***	***100***	***79***	***100***
Question 8				
Safety	46	58	3	4
Client Focus	18	23	12	15
Independence	11	14	9	11

Equity	4	5	55	70
Total	***80***	***100***	***79***	***100***
Question 9				
Safety	64	79	4	5
Efficiency	13	16	19	23
Exceptions	4	5	58	72
Total	***81***	***100***	***81***	***100***
Question 10				
Independence	59	73	4	5
Equity	15	19	34	42
Exceptions	7	9	43	53
Total	***81***	***100***	***81***	***100***
Question 11				
Effectiveness	60	74	4	5
Exceptions	14	17	34	42
Client Focus	7	9	43	53
Total	***81***	***100***	***81***	***100***

Two methods were used to estimate the relative importance of the value statements. Using the most-least scaling method, the most important value is safety, while the least important value is exceptions (Table 41). Using multinomial regression analysis, which also allows testing of the statistical significance, a slightly different pattern of ranking emerged. Six difference multinomial regression models were estimated, each time with a different value used as the reference value, in order to test the statistical significance of the ranking of each value relative to all other values (Table 42). The likelihood ratio for these models were statistically significantly. Collectively, these analyses show that safety is the most important variable, followed by independence, client focus, and efficiency. There is no statistically significant difference in the ranking of effectiveness, exceptions, and equity, but efficiency is more important than all of these values. In Figure 9, the most-least scaling scores are plotted again the multinomial logit parameters. If the methods produced the same ranking, a linear pattern would be seen. The graph shows that the ranking produced by each method are correlated but they are not exactly the same. Given that multinomial regression allows significant testing, it was considered the best method to estimate relative importance of values. The relative importance of the

values, therefore, were: 1) safety; 2) independence; 3) client focus; 4) efficiency; 5) effectiveness **or** equity **or** exceptions to the rule.

Table 41. Ranking of the value statements using 'Most-Least' scaling.

Value	Ranking	Mean
Safety	1	1.17
Client Focus	3	1.02
Independence	2	0.95
Efficiency	4	0.19
Effectiveness	5	-1.04
Equity	6	-1.14
Exceptions	7	-1.65

Table 42. Ranking of value statements using multinomial logistic regression analysis.

		Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Value	**Ranking**	**Parameter**	**Standard Error**	**Parameter**	**Standard Error**	**Parameter**	**Standard Error**	**Parameter**	**Standard Error**	**Parameter**	**Standard Error**	**Parameter**	**Standard Error**
Safety	1	1.99*	0.109	1.89*	0.108	1.83*	0.107	1.28*	0.102	0.98*	0.103	0.56*	0.099
Independence	2	1.43*	0.101	1.33*	0.100	1.27*	0.100	0.72*	0.098	0.42**	0.099	Reference	
Client Focus	3	1.01*	0.096	0.91*	0.096	0.85*	0.096	0.30**	0.092	Reference		-0.42*	0.099
Efficiency	4	0.71*	0.095	0.61*	0.094	0.55*	0.097	Reference		-0.30*	0.093	-0.72*	0.098
Effectiveness	5	0.16***	0.098	0.06*	0.095	Reference		-0.55*	0.097	-0.85*	0.096	-1.27*	0.100
Exceptions	6	0.10	0.094	Reference		-0.06	0.095	-0.61*	0.094	-0.91*	0.096	-1.33*	0.100
Equity	7	Reference		-0.10	0.094	-0.15	0.098	-0.71*	0.095	-1.01*	0.096	-1.43*	0.101

* P Value <0.0001; ** P Value <0.05; *** P Value <0.10

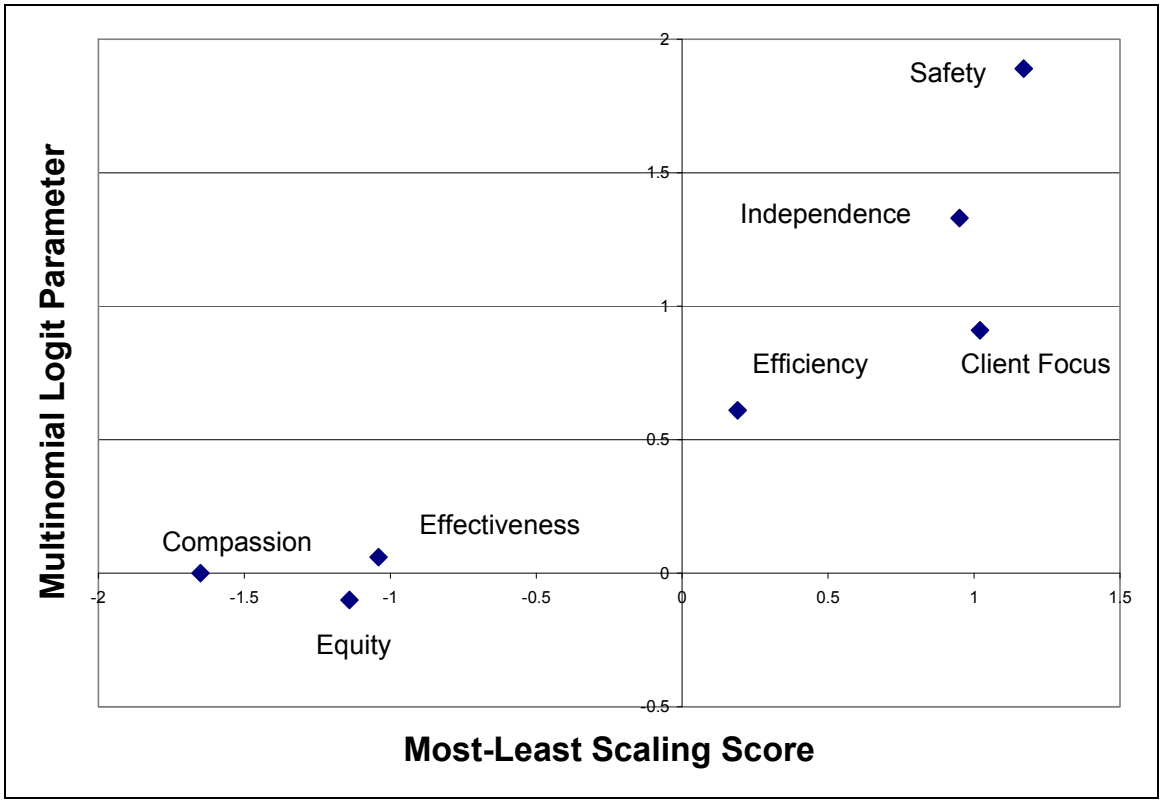


Figure 9. Comparison of most-least scaling scores and multinomial logit parameters for the value statements

To investigate whether respondent characteristics explain variation in choices related to the value statements, multiple models were generated by entering each value*respondent characteristic interaction terms into the main effects value statement multinomial model. The following respondent characteristics were statistically significant: 1) safety and number of years of experience; and 2) efficiency and preferred equity principle. (See Appendix 4 for details.) When these interactions were entered together into the stepwise regression model, only safety * number of years of experience remained statistically significant (Table 43). The parameter estimate of this interaction term implies that case managers with *more experience* tend to place less importance on safety relative the other values than case managers with *less experience*.

Table 43. The influence of respondent characteristics on choices related to the value statements: final model.

Variable	Parameter	Standard Error	P Value
Safety*	2.11	0.158	<0.0001
Independence*	1.29	0.102	<0.0001
Client Focus*	0.90	0.098	<0.0001
Efficiency*	0.58	0.096	<0.0001
Effectiveness	0.92	0.097	0.8201
Equity	-0.11	0.096	0.2628
Safety * Number of years experience working as a home care case manager*	-0.03	0.013	<0.0001

* Statistically significant at P Value = 0.05 level

11.3 Discussion

This survey looked at the priority setting attitudes of case managers, examined the influence of client attributes and case manager characteristics in prioritization choices for personal support and homemaking services, and looked at the relative importance of values in these types of decisions.

General Attitudes Towards Priority Setting

The general priority setting questions indicate that most case managers recognize the need to set priorities due to limited resources. This is consistent with the results from the qualitative case studies; most of the case managers acknowledged that they recognized that there were limited resources and that part of their role was to decide how to divide these resources amongst their clients. A minority of case managers disagreed with the priority setting statements on the survey, likely reflecting the view that they provided their clients with everything that they truly needed, as articulated by some case study interview participants. As discussed in Chapter 10, however, these case managers are

likely unknowingly adjusting their concept of need according to the resource constraints faced by their CCAC. In a study of decision-making among physicians in the United Kingdom, for example, Aaron and Schwarz found that they tended to change their beliefs about medical necessity to suit the financial restrictions of the National Health System.(41)

The majority of case managers indicated that they agree with providing both personal support and homemaking services to both short and long-stay adult clients. Although they may recognize clients' need for these services, they may not provide these services to their clients due to the fiscal environment. In the qualitative case studies, for example, interview participants recognized the value of homemaking services but indicated that they may not provide these services for budgetary reasons.(Chapter 7)

Prioritization of Clients for Personal Support and Homemaking Services

The discrete choice experiment that examined the influence of client attributes on prioritization decisions included an "opt-out option". Case managers could choose this option if they felt that neither of the hypothetical clients in the choice set would receive service in the current fiscal environment. Case managers chose this opt-out option more frequently for homemaking than for personal support. Indeed, 30 case managers chose this option for all questions, effectively indicating that they did not provide homemaking services. This sub-group of case managers were located across the province and not concentrated in particular CCACs. During the qualitative interviews, there were case managers that indicated that they did not provide homemaking and key informants noted that some CCACs do not provide this service. Some of this variation may be in how case managers define "homemaking services", which, as discussed in Chapter 7 is a grey area

because the same individual provides both personal support and homemaking services. Personal support workers may complete homemaking tasks while they are conducting personal support tasks; one case manager may define this as homemaking while another defines this as part of personal support service.

The first discrete choice experiment in this survey was to assess the factors influencing how case manager prioritize clients for personal support and homemaking service. Presumably clients who receive higher priority for service would: a) have shorter wait times for services; or b) receive more service. For personal support services, the relative importance of the client attributes to personal support prioritization decisions in this experiment were: 1) ability to safely bathe; 2) level of informal support; 3) continence OR ability to safely ambulate; and 4) ability to pay for service OR availability of community services. For homemaking, the relative importance of the client attributes were: 1) difficulty in homemaking OR level of informal caregiver support; 2) ability to safely bathe; 3) continence; 4) ability to safely ambulate or ability to pay for service; and 5) availability of community services.

The relative importance of the ability to safely bathe, especially to personal support services, is not surprising given that key informants suggested that provision of a bath was a "touchstone" referenced for priority setting services in many CCACs. Certainly the case study participants from the urban CCAC spoke about the ability to bathe frequently during the interviews.(Chapter 7, Chapter 10) Level of informal support was very important to both services which is not surprising given that Ontario home care services are designed to complement, and not replace, informal supports.(See Chapter 7)(31) Of the two quantitative studies that have looked at level of informal support in

resource allocation decisions,(65;66) only one study found this factor to be statistically significant.(66) In Chapter 10, incontinence and inability to safely ambulate were reported as triggers for more intensive service. Two quantitative studies have examined the influence of client activities of daily living on resource allocation.(6) Corrazini found mobility to be statistically significant to the level of care plan, along with other functional factors such as nutritional status and personal hygiene.(65) In this thesis, some case managers discussed informally considering the financial status of the client in their decisions during the case study interviews although this is not an official criteria for service as outlined in the legislation and CCAC policy.(See Chapter 10) Degenholtz and colleagues found that ability to pay for additional care was statistically significantly associated with case managers decisions to maintain home-based care rather than initiate institutional care.(66)

In this study, the influence of case manager characteristics on personal support and homemaking decisions was assessed. Two factors were found to be statistically significant in decisions for both services: location of the clients served by the case manager (rural area versus urban area) and case managers' number of years of experience. In the qualitative case studies, the interview respondents from the rural CCAC felt that they may provide more generous service packages than their urban counterparts due to the lack of access to alternative services in the area. In this experiment, case managers serving rural clients placed relatively more priority on clients with difficulty bathing safely or difficulty with homemaking compared to the urban case managers. The attribute of "access to community services" theoretically should have compensated for the propensity of rural case managers to allocate more services but it

was a simple attribute and likely did not provide sufficient details to fully influence case managers' prioritization choices. In other words, rural case managers may have been more likely to think of their own clients when making prioritization choices even though the description included a statement that the hypothetical client had access to community services.

In their systematic review of factors influencing case manager resource allocation decisions, Fraser and Estabrooks found that a case managers' years of experience was an influence in qualitative studies, but it was not statistically significant in the four quantitative studies that examined this factor.(6) In this experiment, case managers with less experience were more likely to prioritize clients who do not have full informal caregiver support for personal support services. There could be a number of reasons for this relationship. Case managers with more experience, for example, may have had more experience with informal caregivers who are unwilling to provide care or with the burnout experienced by caregivers providing long-term support to their friends or relatives. Furthermore, case managers with more experience, who are also older, may have had more experience with the demands of informal caregiving themselves, and therefore be less likely to prioritize clients who had no or some support over those with full support. In this experiment, case managers with more experience are likely to prioritize clients who have difficulty bathing for homemaking services. This relationship could be a function of a case managers' experience in the home care system. In the nine to four years prior to this experiment for example, homemaking services were much more strictly controlled and some CCACs instructed case managers to only provide homemaking services to support personal support services such as provision of a bath.

Differences in attitudes towards the relative importance of safety bathing may be a function of case managers' experience with home care policies that have changed over the years due to the changing fiscal environment.

Finally in this experiment, informal caregiver experience in the past year influenced case managers' choices on the homemaking questions. Specifically, case managers with experience with informal caregiving in the past year are more likely to prioritize clients who have difficulty bathing for homemaking services. This case manager factor appears not to have been previously studied, but was tested in this analysis because some case study interview participants commented that they may provide caregivers with more service than their peers due to their own caregiving experiences.(6)

This experiment represents an initial examination of the influence of case manager characteristics on prioritization choices. Since case manager characteristics are not systematically collected it is not possible to examine these characteristics through an analysis of data collected through the RAI-HC assessment process. Additional qualitative research would help elucidate the reasons for the relationships detected here and follow-up quantitative survey techniques could be used to validate the results.

Relative Importance of the Value Statements

In the second discrete choice experiment, the relative importance of the values were: 1) safety; 2) independence; 3) client focus; 4) efficiency; 5) effectiveness or equity or exceptions to the rule. This discrete choice experiment does mix values that are used in defining the need of clients (safety, independence, client focus, and exceptions to the rule), as well as values that are used in the allocation of resources (effectiveness, efficiency, equity). Normally, these values would not conflict as they are considered in

separate decisions, so I recognize that this is an artificial exercise. If this exercise is conducted again, it would be more useful to separate the values into separate questions. In the text below, the values associated with need are discussed separately from the values associated with allocation of services. It must be noted that the relative importance of the values likely reflects on average what case managers deem to be important but this information is unlikely to reliably predict decisions made by case managers. In Chapter 10, I described how the interaction of values, and the choices that case managers make, are context dependent. Therefore, the results should not be used to try to predict the outcomes of specific decisions.

The relative importance of the values associated with defining need are as follows: 1) safety; 2) independence; 3) client focus; 4) exceptions to the rule. It is not surprising that safety is ranked as most important because discussion of minimizing client risk permeated the qualitative interviews. Even in times of greater budget constraints, case managers were to give due consideration to safety whereas consideration of fostering independence seemed to gain or lose importance as CCAC financial resources increased or decreased. In addition, previous studies of decisions by home care case managers, found that safety is emphasized as most important in other jurisdictions. (203;204) It is not surprisingly that making exceptions to the rules was ranked as least important. Analysis of the data continued after the survey was developed. I now recognize that exceptions to the rule was really an application of client focused care when the case manager determined that the individual need of the client is sufficient to make exceptions to CCAC policies.

The relative importance of the values associated with resource allocation are: 1) efficiency and 2) equity or effectiveness. Effectiveness and efficiency were considered to be separate values in the experiment because in the data collected in the case study talked about them separately. Health economists quite rightly argue, however, that effectiveness is a prerequisite for efficiency. Removing effectiveness from the trade-off question might be a consideration for future surveys. Indeed after the launch of this survey I realized that it might have been useful to include separate values that capture the ideas of operational efficiency, allocative efficiency, vertical equity and horizontal equity.

One of the conclusions of the qualitative studies was that case managers allocate resources in the spirit of equal need for equal resources. Given this conclusion, it was surprising to see that efficiency was ranked as being significantly more important than equity. This result may be a function of having case managers rank the relative importance of values that they don't normally see as being in conflict. Efficiency may have been ranked as more important because the CCACs are emerging from a period of more constrained budgets so that efficient allocation of CCAC resources (from the perspective of the CCAC) was constantly advocated. This result should therefore not be interpreted that case managers value allocative efficiency over equity.

The only case manager characteristic that influenced the relative importance of the value statements was years of experience at the CCAC. Individuals with more experience tended to put less weight on safety. This appears consistent with Hendry that nurses become more comfortable with risk as the develop experience with priority setting.(190)

Limitations of this Survey

This survey had a number of limitations. The sample size obtained was smaller than originally desired. Despite this, statistical significant of client attributes as well as one-way interactions between attributes and attribute / respondent characteristics were identified. In addition, the statistically significant differences in the relative ranking of four value statements and the influence of case managers' characteristics were detected. Increased sample size may have provided the power to detect additional relationships and allow testing of the influence of additional respondent characteristics on the choice exercises. The overall response rate per CCAC was low. When it was possible to compare the characteristics of the survey sample to those of the target population, however, it does appear that a representative sample was achieved. Sample size per CCAC appeared to depend, in part, on the activities of the main research contact. The CCACs with higher sample sizes were those in which my CCAC contact promoted the study at internal meetings and smaller in those CCACs which promoted the study through the email reminders only.

In order to create a manageable discrete choice experiment, the number of client attributes examined in this survey had to be restricted. This was also done in part by limiting the target population; the results are therefore only applicable to adult maintenance or long-term supportive clients with no cognitive difficulties and those who live in settings suitable for care. Client attributes were identified through an extensive qualitative study process and then prioritized based on feedback from case managers and other key informants. Two potential interview respondents did not complete the survey however, because they felt the survey did not reflect the complexity of the daily decisions

that they make. It is not possible to comment on how the client attributes that were excluded from this experiment would have influenced case managers' resource allocation decisions. Ultimately additional research is required to validate the results from this study. At this stage, there is likely sufficient RAI-HC data collected from long-term home care clients to allow an assessment of the influence of client factors on amount of personal support and homemaking services allocated. An important next step would be, therefore, to conduct an analysis of the predictors of service allocation using this data.

For the discrete choice experiment involving the client attributes, case managers were given the ability to opt-out of a question if they felt that neither of the clients in the choice set would be given personal support or homemaking service. This option was included based on feedback from case managers to increase the face validity of the choice questions. The question was modeled on previously published studies with opt-out options.(207) The disadvantage of this approach is that whenever case managers chose to opt-out and indicate "No Service", choice information was lost and the effective sample size was decreased. In addition, it complicated the analysis because information on the interpretation of the levels of the attributes that constituted the "No Service" option was not collected during this experiment. It may have been easier to force respondents to make a choice between the two client profiles and to then add a separate question where case managers could indicate when they would not provide service to either hypothetical profile in the choice set.

The questions were ordered from most difficult to least difficult because this has been found to increase response rate in previous surveys. These previous surveys, however, were mail-based surveys rather than internet surveys. Partially completed surveys would

not have been returned by mail to the researchers. With the internet survey, however, data from partially completed surveys were collected. In future internet surveys, it would be helpful to include demographic questions at the start of the survey followed by the more challenging choice experiment questions.

Finally, in order to use the multinomial logit model to analyse discrete choice experiments, a number of assumptions were made. First, any unobserved components, captured in error terms in the model, are independent and have the same distribution (independently and identically distributed or IID).(208) The related assumption of Independence of Irrelevant Alternatives (IIA) means that the ratio of the probabilities of any two alternatives is independent from the choice set presented. If the data do not meet this condition, advanced models such as the nested logit, the multinomial probit model or the mixed logit model can be used.(209) Analysis was also conducted with the multinomial probit model and the relative importance of the attributes, determined by partial log likelihood analysis, were the same as the logit model for both personal support and homemaking services. The second assumption is that each choice set entered into the conditional logistic regression analysis is independent. To reduce the sample size required for this study, respondents were presented with multiple choice sets and it would be reasonable to assume that there is some correlation between the repeated choices made by each individual. To conduct this analysis, it was assumed that all responses to questions were statistically independent. The mixed logit model, also called the random parameter model, can be used to account for this within subject correlation.(209) The mixed multinomial logit model requires simulation methods to complete because they do not have closed form solutions. In recent years, simulation techniques using both

Bayesian and Frequentist perspectives have been developed(210) and analyses using mixed multinomial logits have started to appear in the health economics literature.(209;211-213) Use of the mixed multinomial logit would have likely decreased the standard error associated with the parameter estimates of the multinomial logit. SAS has not yet developed the capability to conduct such as analyses. The impact of using the mixed multinomial logit will be estimated in future analyses.

Conclusions

Despite the limitations of this survey, a number of important trends were observed. The relative importance of the attributes will not be surprising to many in home care and are consistent with impressions made in the qualitative phase. The only results that may cause controversy is that the client attribute ability to pay privately statistically significantly affects prioritization of clients for both homemaking and personal support services. It was less important, however, than many of the other client attributes. The analysis identifies that case managers in rural areas, with less years of experience or with recent experience with providing informal care may assess the needs of clients differently than their counterparts. It appears that more of the variation in case managers' prioritization choices for personal support services are explained by the client attributes than those for homemaking services. Finally, this was the first study to look at the priority setting attitudes of case managers and the relative importance of value statements in priority setting decisions.

12 Summary of the Policy Implications

The overall aim of this research project was to describe and assess priority setting decisions made by CCACs from the perspective of CCAC employees. The results from both the qualitative and quantitative phases of this thesis project were presented and discussed in previous chapters in order to develop a comprehensive picture of case managers' decisions about the allocation of nursing, personal support and homemaking services to potential long-term clients of the CCAC. In this chapter, a synopsis of the results is given. Then the main implications are summarized and then specific recommendations are made for policy makers in the provincial government, the administration of the CCACs, and health services researchers throughout the chapter.

12.1 Forms of Resource Allocation

In this thesis, the term priority setting was used to describe institutional or meso level decisions while the term "resource allocation" was used to describe case manager or micro level decisions. Through the urban and rural CCAC case studies, it was determined that the majority of these decisions occur at the micro level during case managers' daily interactions with clients. Numerous forms of resource allocation were identified and were found to mirror the forms of rationing identified by Klein, Day and Redmayne.(13) The observed forms of rationing were:

1. Rationing by delay through the use of wait lists in the rural CCAC.
2. Rationing by denial through legislation and policies that defined eligibility criteria and the scope of services provided.

3. Rationing by deflection through referral to community services or use of informal caregivers.
4. Rationing by dilution through policies that limited the amount of service provided and reduction in the amount of service provided as client status changed
5. Rationing by termination through development of a discharge plan for clients upon admission to service

The degree to which each CCAC employed each form of priority setting or resource allocation depended both on the rurality of the clients served and the CCACs overall approach to priority setting. It must be emphasized that the conceptual framework used to analyse the forms of resource allocation was a descriptive one rather than a normative one. Without a normative framework that by definition describes good and bad priority setting practices, it is not possible to determine if the degree to which each CCAC relied on each form of rationing was appropriate. It can be concluded that the CCACs utilize forms of priority setting that are similar to those observed in other public sector institutions and that future research is required to evaluate these practices.

12.1.1 Recommendations

1. **Conduct a province wide inventory of community services that facilitate comparison of the intensity of services available across LHINs.**

This thesis has highlighted that resource allocation by the CCACs is linked to the level of community services available. The provincial government and the LHINs should facilitate creation of an inventory of community services. A standardized method of reporting type of services, amount of services and cost of the services (from various cost

perspectives, including that of the individual receiving service) would facilitate cross-province comparisons.

2. **Conduct an assessment of services in the home and community care sector to determine if use of resources is appropriate.**

This thesis has focused on identifying forms of priority setting. To determine if priority setting is appropriate, the provincial government and the LHINs should work with stakeholders to develop indicators of appropriate long-term care services and then conduct a comprehensive assessment. Given the inter-related nature of care organizations in this sector, this would involve an assessment of care provided by CCACs and community service organizations.

3. **Conduct an assessment of CCAC waiting lists and the characteristics of individuals not provided services within the CCAC.**

Since all potential long-term clients need to be assessed with the RAI-HC, this data could be used to determine what types of patients receive service, which ones are placed on waiting lists, and which ones are not given service. Given the variation in wait list policy across the province, this type of assessment is require to understand the true impact of waiting lists on quality of care.

12.2 Defining Need

Resource allocation decisions were conceptually defined in two steps: 1) assessing need for resources and 2) developing a plan to meet the identified needs. During the study, factors that were used to define need were identified and assessed. These factors were considered to be related to the values of safety, independence, client focused care and exceptions as described below.

12.2.1 Safety

Safety, defined as trying to maximize a client's safety in their home and to minimize the risks they face, was determined to be an important value underlying the definition of need. In the qualitative case studies, interview respondents emphasized the importance of safety and in the cross-CCAC survey this value was chosen as the most important value in priority setting decisions. In the qualitative work, the idea of safety was associated with a number of client factors related to the functional ability of the client, the ability to access alternative resources, setting of care, and medical conditions.

The cross-CCAC survey was designed to look at the relative importance of six of the client factors related to safety. These factors were related to the functional ability of the client (ability to self-bath; incontinence; ability to safely ambulate and transfer within the home) or to the ability to access alternative resources (amount of informal support; level of community services; ability to pay privately for services). One additional factor, difficulty with housekeeping, was also included and is discussed below as it was considered to be related to the value of independence. All of the factors related to safety influenced[kk] the prioritization of hypothetical clients for either personal support or homemaking services in the survey, with the ability to safely bathe and amount of informal support having the most impact on these decisions. For personal support services, ambulation and continence were less important than either of these factors, but their relative impact was similar. For example, a change from able to safely self-bathe to unable to safely self-bathe increased the probability of a client being prioritized for personal support service by 98% while a change from continent to incontinent increased

[kk] Results were statistically significant

this probability by 72%. Ability to pay for service and availability of community services had much less of an impact on these decisions. For homemaking services, continence, ambulation, ability to pay for service, and availability of community services had a similar impact on decisions, but were less important than the other client factors.

Given the legislative and policy framework for CCACs, most of these results are not surprising. The one exception is the factor of ability to pay for services which Ontario legislation specifies should not be considered in these decisions. In other jurisdictions, eligibility rules specify that financial status should be considered during assessment for publicly funded services and it is in fact captured in the RAI-HC assessment system. During the qualitative interviews, case managers explained that they tended to prioritize those without private resources because they knew these individuals would have no other means of accessing services. In other words, as discussed in more detail below, case managers tend to make exceptions to the rules when concerned about client safety.

12.2.2 Independence

For the cross-CCAC survey, independence was defined as supporting a client's ability to function independently and it was rated as the second most important value in defining need. Analysis of the qualitative interviews revealed that independence implies an "aging-in-place" philosophy for some and a lack of dependence on CCAC service for others. Independence was linked to one category of client characteristics that defined need, namely instrumental activities of daily living (IADLs), which are often served by assigning hours of homemaking service. In the cross-CCAC survey, difficulty with homemaking, which is one example of an IADL, did not influence[ll] the allocation of

[ll] Results were statistically significant

personal support services. It was, however, the most important influence on prioritization choices for homemaking services. Analysis of the qualitative interview data suggested that this aspect of need appears to be the most sensitive to budget constraints and that these services are most restricted in times of financial difficulties. In the cross-CCAC survey, for example, 17% of participants indicated that they would not provide homemaking service to any of the hypothetical clients described in the survey, whereas every respondent chose to give personal support service to at least two of the hypothetical clients. Essentially, these case manager survey respondents were indicating that they provide personal support services but not homemaking services.

12.2.3 Client Focused Care

This term was utilized throughout this thesis because it was consistently used by interview participants in their description of resource allocation. This value reflects the desire to consider a client's needs and preferences when developing a service plan. The value reflects a desire to ensure that care is responsive to client needs rather than a desire to meet all needs as identified by the client.

At the institutional level, neither the urban nor the rural CCAC actually defined need during budget decisions, but instead relied on the case managers to do this on a case by case basis. Both CCACs justified their approach to priority setting and to structuring the budget through the idea of responsive care. Since neither CCAC attempted to allocate funds across different types of clients, neither required the extensive institution priority setting processes seen in other sectors. Hospitals, for example, allocate funds to the various programs within their institutions and therefore confront more ethical challenges at the institutional level. Although they recognized that delegating this responsibility

made it more challenging for case managers, administrators believed that it ensured responsive care. Although both CCACs developed guidelines and policies meant to influence how case managers defined need and developed their service plans, they expected case managers to flexibly consider the situation of each individual client.

At the micro level, case managers use a process to identify the total needs of long-term clients that includes consultation with multiple stakeholders and administration of the RAI-HC instrument. The case manager then decides which needs *could* be effectively met with CCAC services and makes a professional judgment about which needs *should* be met with CCAC services. After making this normative judgment, the interview respondents tended to consider the unmet needs of clients as "wants" or "desires" rather than needs. In other words, client expressed needs were only met if the case manager judged them to be appropriate given the limited budget of the CCAC. This type of judgment is required for priority setting in a provider model of delivery where the case manager is responsible for managing health care resources. While it may be possible to deliver responsive care in the provider model of delivery, true client-focused care may only be possible in a self-managed care model in which clients are given funding to arrange the services that they require. In the self-managed care model, the case manager would decide how much funding to provide to the client, while the client would decide how to meet their own needs given their own priorities.

The factor or aspect of need associated with client focused care was client consent. Even if case managers felt that clients had a need that warranted service, the client could refuse to receive service.

12.2.4 Exceptions

The final value associated with need described in this thesis was the value of "exceptions". The value was defined as making exceptions for those who do not meet eligibility guidelines for compassionate reasons, was discussed as a distinct value in earlier chapters of this thesis. This value could, however, be considered simply as one example of responsive care. This value was seen in the urban CCAC, where a number of populations who are not eligible, or have no proof of eligibility, for Medicare. These populations, therefore, can receive advices from case managers, but are not eligible for case management services but not for publicly funded care services. This is therefore an example of the CCACs being responsive to the care needs of the population that they serve despite regulatory constraints. Given that this value is used on rare occasions, it was not surprising that it was rated on average as the least important value by case managers in the quantitative survey. Once again least important does not imply that the value is unimportant and in certain decision contexts, this value becomes the most important value.

12.2.5 Variation in Definitions of Need

Although a number of objective factors that define need have been identified, subjective, professional judgment is still required to make decisions about resource allocation. Since it is impossible to fully define every type of client need encountered by case managers in CCAC policies, this professional judgment is required unless stakeholders are willing to sacrifice the value of responsiveness. Furthermore, case managers must exercise this professional judgment to resolve conflicts between values, and the related aspects of need, that are all held to be important by the organization.

In this study, a number of case manager characteristics were identified that may explain why sub-groups of case managers vary in how they judge need and the relative importance of the objective elements of need. In the cross-CCAC survey, the rurality of the clients served and the number of years of experience with home care case management explained some of the variation in choice behaviour in prioritization of hypothetical clients for personal support services.[mm] Similarly, the rurality of the clients served, number of years of experience, and experience with informal caregiving in the past year influenced prioritization choices for homemaking services.[mm] Finally, the ranking of the relative importance of the value of safety appeared to be influenced by the number of years of experience with home care case management, with individuals with more experience placing less weight on safety than those with less experience.

12.2.6 Recommendations

1. **Although consistency in need assessment is important, the provincial government must recognize that some variation is required to achieve responsive care.**

Implementation of the RAI-HC was done in part to improve the consistency of the RAI-HC tool. Even when using this tool appropriately, policy makers should recognize that case managers must employ professional judgment to resolve the complicated issues that arise when allocating resources. Complete consistency can only be achieved by sacrificing client-focused or responsive care that is tailored to the unique needs and preferences of individual clients. Reducing the discretionary power of case managers

[mm] Results were statistically significant

may have the unwanted consequence of reducing the case managers' ability to creatively meet the individual needs of CCAC clients.

2. Comprehensively assess the method of funding for personal support and homemaking services

Although income of potential care recipients is not supposed to be considered in home care needs assessments, it is clear that case managers do informally consider this in their resource allocation decisions. A client's ability to pay for private service is one indicator of a client's overall access to resources to meet their needs. Other "resources" that case managers can access include family or friends who act as unpaid caregivers or services provided by community organizations. Personal support, and especially homemaking services, may be offered for a fee from community service organization. Since case managers must prioritize clients, it is natural for them to ensure that individuals who cannot access other resources receive some service, even if that means prioritizing services for those unable to afford to pay privately.

One potential way to improve consistency of homemaking service delivery, and recognize the informal criteria of ability to pay for service, is to change the financial criteria for provision of these services. Given the variation in how homemaking services are delivered across the province, there is an opportunity to examine how different funding models (e.g. universal access, subsidized, or means-tested) influence access to services. Examination of the available service delivery models may demonstrate that universal access to personal support and homemaking services are not the best way to achieve the provincial government's policy goals. At the moment, access to publicly

funded homemaking services is not standardized and only some residents of Ontario actually have access to publicly funded personal support and homemaking services.

3. CCACs should ensure that case managers receive adequate training to meet the challenges of priority setting.

The CCACs in this study asked their case managers to make the majority of priority setting decisions in order to ensure that care plans can be flexibly developed to meet the needs of clients. While this may be appropriate, CCACs must recognize that although aspects of need have been identified, professional judgment is required to resolve value conflicts that occur while determining if client-identified needs should be addressed with CCAC services. Educational training may not adequately prepare case managers for the ethical challenges that they may face, so ongoing training may be required to help case managers develop and improve their priority setting skills. The CCACs in this study did recognize this and developed some training programs. In this study, the rural CCAC, for example, organized training sessions on the allocation of resources and tested case managers for consistency in decision making. The urban CCAC, on the other hand, developed an ethical framework to help case managers work through these ethical dilemmas. This study did not assess the effectiveness nor the adequacy of these training programs.

Personal support and homemaking appear to be more challenging to allocate than nursing services. This is likely because nursing services often meet needs that can be defined by more technical medical criteria. Although personal support and homemaking services are allocated using functional criteria such as the ability to safely bathe, ability to safely ambulate, and continence, other important factors, which may be difficult to define

and standardize are also used. This may include factors related to the ability of the client to access non-CCAC resources. Case managers appear to consistently agree that their role is to minimize risk but they likely respond to risky situations in different manners. Case managers appear to vary in their perception of the role of the CCAC in improving the independence of clients. Some of this confusion may be because CCACs have not had the resources to achieve the policy goals related to client independence in the community. Furthermore, there is great variability in the supporting community services across the province that case managers can access to help their clients achieve their goals. Finally, there also appeared to be some misinterpretation of the CCACs own guidelines, and variation amongst case managers in the beliefs about the CCAC standard practices in providing homemaking services. Ongoing training of case managers may be one way to decrease this variation in allocation of personal support and homemaking services.

4. **Health services researchers need to develop adequate measures of benefit from home care services to facilitate cost-effectiveness analyses of services.**

The goals of the home care sector are unique because long-term services aim to provide both medical and social care. In other sectors of the health care system, cost-effectiveness studies have used the cost per quality-adjusted life year gained, calculated using measures of utility that capture only health-related domains, to provide guidance on allocative efficiency. In the United Kingdom, researchers are developing new types of utility measures, which may measure the consequences of home care services more appropriately and therefore be more suitable for economic evaluations for certain populations in this sector.(214;215) Researchers should work with home care stakeholders to determine if these measures are appropriate for the Ontario context and

then conduct cost-effectiveness studies so that CCACs may better understand the implications of their decisions to allocative efficiency.

12.3 Resource Allocation Values

At the micro level, services to address identified needs were allocated in consideration of the values of equity, effectiveness, efficiency, and client-focused care. These values, which were also considered in the CCAC budget allocation process, are described below.

12.3.1 Equity

In the studied rural and urban CCACs, equity tended to be defined as "equal access for equal need" at both the case manager (micro) and the institutional (meso) levels. At the micro level, case managers tried to achieve horizontal equity by giving clients with a similar level of need the opportunity to have similar levels of service. Clients have the right to decline services and case managers described examples of when services designed to address an identified need are refused by the client. Hence, clients with similar needs are not always allocated similar service packages. Equitable allocation of resources appeared to be considered an important element of fair priority setting by case managers, administrators and clients (as described indirectly by the case managers) alike.

Case managers also attempted to achieve vertical equity by treating those with different levels of need differently but in a just manner. This desire to appropriately allocate different levels of service to clients with different levels of need was constrained by two factors. First, case managers appear to allocate resources to some individuals with less severe need based on the desire that everyone should have access to some service. This is reflected in the results of the cross-CCAC survey, in which more case

managers preferred the statement, "CCACs should provide some service to everyone who needs it, even if that means providing less service than required to some clients" to the statement "CCACs should provide all of the service required to those with the greatest need, even if this means that some clients with less need may not receive service". Second, allocation of resources to individuals with greater needs was limited by CCAC policies that describe the types of services that can be provided and by provincial legislation that outlines allowed service maxima.

A number of case manager, client and external factors that interfere with case managers' desire to achieve the ideal of equal access for equal need were described in this thesis. As discussed above, "need" is operationalized differently by individual case managers. Although case managers may use the same objective factors to define need they may interpret the relative importance of these factors differently. Furthermore, they may consider "unofficial" factors such as the age of the client due to their own personal beliefs about entitlement to resources. Priority setting involves saying "no" to individuals, which can be a very difficult thing to do. Interview respondents reported that some of their colleagues provided more generous service plans to avoid client frustration and negative reaction. Client factors interfered with equity because some clients tended to complain more, while others were prioritized because of influence with someone within the CCAC. Some respondents suggested that their ability to handle these factors were related to the degree of management support they felt they had. Finally a number of external factors, including fluctuations in funding, shortages of physicians and shortages of home care providers, interfered with achievement of equity. These factors could not

be directly controlled by the case managers or the CCAC administrators but they had to be considered during resource allocation.

At the meso level, the case studies indicated that the urban CCAC attempted to increase horizontal equity through two decisions. First, they decided to create a separate budget for selected populations to counter the tendency to give more resources to more vocal sub-groups in their client population. Second, they attempted to increase access to services by identifying populations who were not receiving their services. In taking this last step, the urban CCAC was attempting to deliver equal access to equal service to their community as a whole rather than just to their existing roster of clients. The rural CCAC did not make an explicit effort to increase population knowledge and access to services.

Both the urban and the rural CCAC justified their approach to priority setting, in part, with a desire to increase vertical equity. The urban CCAC asked case managers to prioritize clients in greater need during times of fiscal constraint and developed a monitoring system and policies to encourage case managers to do this. The rural CCAC created a wait list system based on the idea that those with a greater need for services should get all required services even though other clients with lesser need would have to wait. Finally, the urban CCAC also increased vertical equity by allocating different levels of resources to different geographic districts to compensate for variation in the social-economic status of their clients.

The purpose of this thesis was to define the values and related goals of the CCAC and not to determine if these had been achieved. In any case, it would have been difficult to do this as there was no formal monitoring of the consistency of case manager decisions. Although the RAI-HC data that are collected by the case managers during their

assessment visits could be used to examine consistency, neither the Ministry of Health nor the individual CCACs had developed a research framework to do this. Although the urban CCAC created policies to improve equity, it did not have a framework to formally assess the success of their policies. This was due to a lack of resources and expertise rather than a lack of desire to measure performance.

12.3.2 Effectiveness

In the case study, interview participants and CCAC policies emphasized that service is provided to support defined treatment goals and only when the service might benefit the client. In the cross-CCAC survey, effectiveness was defined as having a reasonable expectation that clients can achieve their treatment goals and was not considered to be statistically more or less important than equity. Together, these two values were ranked as less important than efficiency.[nn]

12.3.3 Efficiency

The case study interview participants tended to think of efficiency differently than economists do. Health economists define allocative efficiency as allocating resources to achieve the maximum benefit possible, and technical efficiency as getting the largest output from a given allocation of resources. At both CCACs, interview participants provided examples of technical efficiency rather than allocative efficiency. At the rural CCAC, the interview respondents spoke about improving the effectiveness of service delivery rather than explicitly discussing efficiency. Improving the effectiveness of service provided for the same unit cost means that efficiency improves, but effectiveness

[nn] Results were statistically significant.

rather than efficiency was the touchstone for the rural CCAC. At the urban CCAC, the administrators justified their choice to avoid the use of wait lists in part, because it forced their organization to look at overall efficiency. At both levels of the urban CCAC, individuals gave examples of improving the health care output of the organization in order to deliver more service within the same budget.

Health economists often discuss the efficiency and equity trade-off, implying that the achievement of equity goals may require some reduction in the achievement of allocative efficiency. The CCACs do not explicitly consider this trade-off at either the meso or the micro level because they focus on operational rather than allocative efficiency. Furthermore, the decisions that might involve this type of trade-off are made by case managers during their daily interactions with clients and during such encounters in which multiple decisions must be quickly made, it is difficult to concretely think about this trade-off.

In the cross-CCAC survey, efficiency was defined as designing service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner, while equity was defined as being consistent and giving the same amount of service to clients who have the same level of need. Efficiency was ranked as more important than either equity or effectiveness. Since it appears that CCACs do not consider allocative efficiency, it is unlikely that this ranking reflects a desire to prioritize efficiency goals over equity goals. Instead, it may reflect case managers' relatively recent experience with budget reductions and the CCACs' focus on managing their limited resources.

12.3.4 Client Focused Care

Client focused care was identified as an important value in creating a service plan to address identified needs. Case managers spoke of scheduling service visits in consideration of the preferences of clients and their informal caregivers. In this context of service plan development, client-focused care could be considered a process variable rather than a variable that influenced the outcome of the amount of service allocated.

12.3.5 Recommendations

1. **CCACs need to ensure that guidelines and policies reflect efficient and effective practices**

CCAC policies and guidelines do influence how case managers allocate services to long-term care clients. CCAC administrators should ensure that their policies reflect the lessons learnt from research studies, including cost-effectiveness studies to help case managers improve the efficiency in the CCACs. A number of examples of efficiency were cited by interview participants in this study, but it is not clear that health services research informed these impressions.

2. **Health service researchers should reassess the usefulness of "technical solutions" to priority setting issues**

This research study demonstrated that the values that conflict during priority setting decisions can vary depending on the context of the decisions. Furthermore, a value may dominate one decision but may be less important in another. Although the practice of explicitly defining and assessing values can be a useful exercise, this research suggests that weights reflecting the consistent relative importance of values cannot be derived but rather that values are ultimately incommensurable. Therefore, as suggested by Giacomini

and colleagues, tensions between values are best resolved through "narrative or juridical forms of reasoning and judgment". (84) (p.15) Quantitative analyses may be valuable information for priority setting but ultimately, it is misguided to attempt to produce a quantifiable, technical solution to priority setting. Priority setting is a difficult exercise that can be informed by different types of information but involves decision makers who work to resolve complex ethical issues on a context-specific basis.

12.4 Conclusion

In summary, the forms of priority setting and resource allocation within CCACs were described in this thesis. In addition, the factors and values that CCAC case managers and administrators use to define need for nursing, personal support and homemaking services for potential long-term home clients were examined. Finally, the factors and values that influence allocation of these services to address identified needs were described and assessed. The research shows that how health care workers and administrators think about these ideas can differ from how they are discussed in the academic literature, potentially frustrating knowledge translation activities.

The purpose of this thesis was to describe the trade-offs made by the individuals within CCACs without a priori adopting a normative framework. There are two implications of this approach. First, although this research focused on outcomes, it was clear that interview respondents felt the process of making these trade-offs was also important. In the future, research is required to understand the values such as compassion, client respect, transparency, and community preferences that may be considered in the process of setting priorities. Second, it was not possible to judge the appropriateness of the trade-offs made during priority setting without a normative

framework that describes ideal practices. Additional research is required to choose a normative framework that is appropriate from the perspective of all home care stakeholders and then apply this framework to improve priority setting. This normative framework may prove to be a process-based framework such as accountability for reasonableness, an outcomes-based framework such as economic evaluation that emphasizes maximizing benefit achieved within the budget of the CCACs, or one that incorporates elements of both process and outcomes.

In this thesis, I did not aim to assess if the CCACs were successful in achieving the goals implied by their value statements. Future research should aim to describe the CCACs actual resource allocation patterns and help CCACs determine if they have been successful in achieving their implicit and explicit goals. The need for such research was recognized by those who participated in this research. Many of the recommendations for the provincial government, LHINs and CCACs described above are designed to lay the foundation for these types of assessments.

In conclusion, this thesis represents an initial explicit exploration of priority setting within the home care sector, however, additional research is required to support the CCAC in these activities.

13 References

1. Ham C, Coulter A. Introduction: International experiences of rationing (or priority setting). Buckingham, UK: Open University Press; 2001:1-12.

2. Ubel PA, Goold SD. 'Rationing' health care. Not all definitions are created equal. Arch Intern Med. 1998;158:209-214.

3. Martin DK, Walton N, Singer PA. Priority setting in surgery: improve the process and share the learning. World J Surg. 2003;27:962-966.

4. Province of Ontario. Community Care Access Corporations Act, 2001 - S.O. 2001, chapter 33 (Bill 130). 1 A.D..

5. Gallagher E, Alcock D, Diem E, et al. Ethical dilemmas in home care case management. J Healthc Manag. 2002;47:85-96.

6. Fraser KD, Estabrooks C. What factors influence case managers' resource allocation decisions? A systematic review of the literature. Med Decis Making. 2008;28:394-410.

7. Mullen PM. Public involvement in health care priority setting: an overview of methods for eliciting values. Health Expect. 1999;2:222-234.

8. Coast J. The appropriate uses of qualitative methods in health economics. Health Econ. 1999;8:345-353.

9. Creswell JW. *Research design. Qualitative, quantitative and mixed methods approaches.* Thousand Oaks, California: Sage Publications, Inc.; 2003.

10. Tashakkori A, Teddlie C. *Mixed methodology. Combining qualitative and quantitative approaches.* Thousand Oaks, California: Sage Publications; 1998.

11. Jackson W. *Methods. Doing social research.* Scarborough, Ontario: Prentice Hall Allyn and Bacon Canada; 1999.

12. Morse JM, Richards L. *Readme first for a user's guide to qualitative methods.* Thousand Oaks, California: Sage Publications, Inc.; 2002.

13. Klein R, Day P, Redmayne S. Unpicking the notion. *Managing scarcity: priority setting and rationing in the National Health Service*. Buckingham, UK: Open University Press; 1998:7-12.

14. Health Canada. Provincial and Territorial Home Care Programs: A Synthesis for Canada. Ottawa, Ontario: Minister of Public Works and Government Services Canada; 1999.

15. Hollander MJ. The costs and cost-effectiveness of continuing care services in Canada. University of Ottawa / Queen's University Economic Projects; 1994.

16. MacAdam M. Home care: It's time for a Canadian model. Healthcare Papers. 2000;**1**:9-37.

17. Shapiro E. Reaching a federal/provincial concensus on home care. Healthcare Papers. 2000;1:85-90.

18. Williams AM. The development of Ontario's Home Care Program: a critical geographical analysis. Soc Sci Med. 1996;42:937-948.

19. Witmer E. Bringing healthcare closer to home: One province's approach to home care. Healthcare Papers. 2000;1:98-102.

20. Local Health Integration Networks [Ministry of Health and Long-term Care web site]. 2008. Available at: http://www.health.gov.on.ca/transformation/lhin/lhin_mn.html.

21. Backgrounder: Aging at Home Strategy [Ministry of Health and Long-term Care web site]. August 28, 2008. Available at: http://www.health.gov.on.ca/english/media/news_releases/archives/nr_07/aug/nr_20070828.html.

22. Mills A, Vaughan JP, Smith D, et al. Health system decentralization: concepts, issues and country experiences. Geneva: World Health Organization; 1990.

23. Hurley J, Birch S, Eyles J. Geographically-decentralized planning and management in health care: some informational issues and their implications for efficiency. Soc Sci Med. 1995;41:3-11.

24. Kralj B. Measuring "rurality" for purposes of health-care planning: an empirical measure for Ontario. Ontario Medical Review. 2000;October:33-52.

25. Statistics Canada. 2006 Community Profiles. 2006 Census. [Staistics Canada Catalogue no 92-591-XWE web site]. March 13, 7 A.D. Available at: http://www12.statcan.ca/english/census06/data/profiles/community/index.cfm?Lang=E.

26. Teplitsky F. Targeted Interventions: A Resource Allocation Framework for Community Support Services in Toronto. Long-Term Care Annual District Service Plan 2003-2004. Toronto, Ontario: Toronto District Health Council; 2003.

27. Coyte PC, McKeever P. Home care in Canada: passing the buck. Can J Nurs Res. 2001;33:11-25.

28. Caplan E. Realizing the Potential of Home Care. Competing for Excellence by Rewarding Results. A Review of the competitive bidding process used by

Ontario's Community Care Access Centres (CCACs) to select providers of goods and services. Toronto, Ontario: Ontario Ministry of Health and Long-Term Care; 2005.

29. Ontario Home Care Association. Ontario's Home Care System in 2008: A growing history of quality and excellence. Toronto, Ontario, Canada: Ontario Home Care Association; 2008.

30. Community Care Access Centres mandate and service priorities: A discussion paper. Scarborough, Ontario: Ontario Association of Community Care Access Centres; 2001.

31. Province of Ontario. Long Term Care Act, 1994. S.O. 1994, Chapter 26. 2005.

32. Toronto Community Care Access Centre. Policy: Program Assignment - Short Stay/Long Stay. 2002.

33. Toronto Community Care Access Centre. Case Manager Form: Recipient Group Classification. 2005.

34. Morris JN, Fries BE, Steel K, et al. Comprehensive clinical assessment in community setting: applicability of the MDS-HC. J Am Geriatr Soc. 1997;45:1017-1024.

35. Hirdes JP. Addressing the health needs of frail elderly people: Ontario's experience with an integrated health information system. Age Ageing. 2006;35:329-331.

36. Coast J, Donovan J. Conflict, complexity and confusion: the context for priority setting. In: Coast J, Donovan J, Frankel S, eds. *Priority setting: The health care debate*. Chichester, England: John Wiley & Sons Ltd.; 1996:3-36.

37. Lipsky M. *Street - Level Bureaucracy. Dilemmas of the individual in public services.* New York: Russel Sage Foundation; 1980.

38. Sears NA. Design and application of a theory-based case/care management model for home care: advanced practice for nurses as care managers. Care Manag J. 2002;3:166-171.

39. Diem E, Alcock D, Gallagher E, et al. Looking beyond caseload numbers for long-term home-care case managers. Care Manag J. 2001;3:2-7.

40. Bradshaw JS. A taxonomy of social need. In: McLachlan G, ed. *Problems and progress in medical care: essays on current research.* Oxford: Oxford University Press; 1972.

41. Aaron HJ, Schwartz WB. *The painful prescription. Rationing hospital care.* Washington DC: Brookings Institution; 1984.

42. Stabile M, Laporte A, Coyte PC. Household responses to public home care programs. 2004.

43. Martin D, Singer P. A strategy to improve priority setting in health care institutions. Health Care Anal. 2003;11:59-68.

44. Madden SL. Priority Setting in Hospitals: An Evaluation of Strategic Planning at University Health Network. University of Toronto; 2003.

45. Multi-year plan for long-term care services in Halton and Peel. Fiscal Year 2000 / 01 to 2002 / 03. Oakville, Ontario: Halton-Peel District Health Council; 2000.

46. Klein R, Day P, Redmayne S. *Managing Scarcity: Priority setting and rationing in the National Health Service*. Buckingham, UK: Open University Press; 1998.

47. Yee DL. Estimating quality in case management. Brandeis University; 1990.

48. Case management approaches in coordinated community-orientated long-term care demonstrations. Gerontologist. 1986;26:298-404.

49. Hennessy CH. Modeling case management decision-making in a consolidated long-term care program. Gerontologist. 1993;33:333-341.

50. Thompson LG. Clear goals, solid evidence, intergrated systems, realistic roles. Healthcare Papers. 2000;1:60-66.

51. Coyte PC. Expanding the Principle of Comprehensiveness from Hospital to Home. Submission to the Standing Committee on Social Affairs, Science and Technology. 2002.

52. Romanow R. Building on Values: The Future of Health Care in Canada Final Report. Ottawa: Commission on the future of health care in Canada; 2002.

53. Kirby MJL, LeBreton M. The Health of Canadians. Final Report. Ottawa: The Standing Senate Committee on Social Affairs, Science and Technology.; 2002.

54. Curtis S, Taket A. Changing perspectives on the social construction of health, disease, and illness. *Health and Societies: Changing Perspectives*. London: Hodder Headline PLC; 1996:24-44.

55. Aronson J. Elderly people's accounts of home care rationing: missing voices in long-term care policy debates. Ageing & Society. 2002;22:399-418.

56. Beland F, Bergman H. Home care, continuing care and medicare: A Canadian model or innovative models for Canadians? Healthcare Papers. 2000;1:38-45.

57. Mooney G, Irwig L, Leeder S. Priority setting in health care: unburdening from the burden of disease. Aust N Z J Public Health. 1997;21:680-681.

58. Aronson J, Neysmith SM. The work of visiting homemakers in the context of cost cutting in long-term care. Can J Public Health. 1996;87:422-425.

59. Aronson J. 'You need them to know your ways': service users' views about valued dimensions of home care. Home Health Care Serv Q. 2003;22:85-98.

60. Aronson J, Neysmith SM. Manufacturing social exclusion in the home care market. Canadian Public Policy. 2001;27:151-165.

61. Letourneau S, Jensen L. Impact of a decision tree on chronic wound care. J Wound Ostomy Continence Nurs. 1998;25:240-247.

62. Melchior-MacDougall F, Lander J. Evaluation of a decision tree for management of chronic wounds. J Wound Ostomy Continence Nurs. 1995;22:81-87.

63. Weissert WG, Hirth RA, Chernew ME, et al. Case management: effects of improved risk and value information. Gerontologist. 2003;43:797-805.

64. Corazzini-Gomez K. The relative effects of home care client characteristics on the resource allocation process: do personality and demeanor matter? Gerontologist. 2002;42:740-750.

65. Corazzini K. How state-funded home care programs respond to changes in Medicare home health care: resource allocation decisions on the front line. Health Serv Res. 2003;38:1263-1281.

66. Degenholtz H, Kane RA, Kane RL, et al. Long term care case managers' out-of-home placement decisions. Res Aging. 1999;240-274.

67. Alcock D, Danbrook C, Walker D, et al. Home care clients, providers and costs. Can J Public Health. 1998;89:297-300.

68. Corazzini KN. Case management decision making: goal transformation through discretion and client interpretation. Home Health Care Serv Q. 2000;18:81-96.

69. Lemire AM, Austin CD. Care planning in home care: an exploratory study. J Case Manag. 1996;5:32-40.

70. Luker KA, Kenrick M. An exploratory study of the sources of influence on the clinical decisions of community nurses. J Adv Nurs. 1992;17:457-466.

71. Luker KA, Hogg C, Austin L, et al. Decision making: the context of nurse prescribing. J Adv Nurs. 1998;27:657-665.

72. Community Care Access Centres: Basket of Services Discussion Paper. Scarborough, Ontario: Ontario Association of Community Care Access Centres; 2003.

73. Case management resource allocation tools: Information and recommendations. Scarborough, Ontario: Ontario Association of Community Care Access Centres.; 2001.

74. Wiles J. Informal caregivers' experiences of formal support in a changing context. Health Soc Care Community. 2003;11:189-207.

75. Aronson J, Sinding C. Home care users' experiences of fiscal constraints. Challenges and opportunities for case management. Care Manag J. 2000;2:220-225.

76. Drummond MF, O'Brien B, Stoddart GL, et al. *Methods for the economic evaluation of health care programmes*. Oxford, UK: Oxford University Press; 1997.

77. Mitton CR. Priority Setting in Regional Health Authorities: Program Budgeting and Marginal Analysis. University of Calgary; 2001.

78. Mitton C, Donaldson C. Tools of the trade: a comparative analysis of approaches to priority setting in healthcare. Health Serv Manage Res. 2003;16:96-105.

79. Gibson JL. Philosophical approaches to health care priority setting: Moral obligations, practical realities. University of Toronto; 2002.

80. Wiktorowicz M, Deber R. Regulating biotechnology: a rational-political model of policy development. Health Policy. 1997;40:115-138.

81. Martin DK, Singer PA. Priority setting and health technology assessment: beyond evidence-based medicine and cost-effectiveness analysis. In: Coulter A, Ham C, eds. *The global challenge of health care rationing*. Buckingham, UK: Open University Press; 2001:135-145.

82. Holm S. Developments in the Nordic countries -- goodbye to the simple solutions. In: Coulter A, Ham C, eds. *The global challenge of health care rationing*. Buckingham, UK: Open University Press; 2001:29-37.

83. Shiell A, Hawe P, Seymour J. Values and preferences are not necessarily the same. Health Econ. 1997;6:515-518.

84. Giacomini M, Hurley J, Gold I, et al. "Values" In Canadian Health Policy Analysis: What Are We Talking About? Ottawa, Ontario: Canadian Health Services Research Foundation; 2001.

85. Rokeach M. The nature of human values and value systems. In: Rokeach M, ed. *The nature of human values*. New York: The Free Press; 1973:3-25.

86. Giacomini M, Hurley J, Gold I, et al. The policy analysis of 'values talk': lessons from Canadian health reform. Health Policy. 2004;67:15-24.

87. Social Value Judgements. Guidelines for the Institute and Its Advisory Bodies. London, England: National Institute for Health and Clinical Excellence; 2005.

88. Williams RM. Change and stability in values and value systems: A sociological perspective. In: Rokeach M, ed. *Understanding human values*. New York: The Free Press; 1979:15-46.

89. Collins P. Public values toward the social determinants of health. McMaster University, Canada; 2004.

90. Inglehart R. World Value Survey [World Values Survey Association web site]. 2008. Available at: http://www.worldvaluessurvey.org/.

91. Rokeach M. From individual to institutional value: with special reference to the values of science. In: Rokeach M, ed. *Understanding human values*. New York: The Free Press; 1979:47-70.

92. Black M, Mooney G. Equity in health care from a communitarian standpoint. Health Care Anal. 2002;10:193-208.

93. Mooney G. Vertical equity in health care resource allocation. Health Care Anal. 2000;8:203-215.

94. Sen A. *Inequality reexamined.* New York: Russell Sage Foundation; 1992.

95. Williams A. Intergenerational equity: an exploration of the 'fair innings' argument. Health Econ. 1997;6:117-132.

96. Mooney GH. Equity in health care: confronting the confusion. Eff Health Care. 1983;1:179-185.

97. Mooney G, Jan S, Wiseman V. Staking a claim for claims: a case study of resource allocation in Australian Aboriginal health care. Soc Sci Med. 2002;54:1657-1667.

98. Asadi-Lari M, Packham C, Gray D. Need for redefining needs. Health Qual Life Outcomes. 2003;1:34.

99. Rokeach M. *The nature of human values*. New York: The Free Press; 1973.

100. *Understanding human values*. New York: The Free Press; 1979.

101. Oliver A. Prioritizing health care: is "health" always an appropriate maximand? Med Decis Making. 2004;24:272-280.

102. Campbell DT, Stanley JC. *Experimental and Quasi-Experimental Designs for Research*. Boston: Houghton Mifflin Company; 1963.

103. Hasman A. Eliciting reasons: empirical methods in priority setting. Health Care Anal. 2003;11:41-58.

104. Sandelowski M. Combining qualitative and quantitative sampling, data collection, and analysis techniques in mixed-method studies. Res Nurs Health. 2000;23:246-255.

105. Yin RK. *Case study research. Design and methods.* Thousand Oaks, California: Sage Publications, Inc.; 2003.

106. Mays N, Pope C. Qualitative research in health care. Assessing quality in qualitative research. BMJ. 2000;320:50-52.

107. Miles MB, Huberman AM. *Qualitative data analysis: an expanded source book.* Thousand Oaks, CA: Sage Publications; 1994.

108. Walton NA. A case study of priority setting in cardiac surgery: Complex, contextual and dynamic. University of Toronto, Ontario, Canada; 2004.

109. Strauss A, Corbin J. *Basics of qualitative research. Techniques and procedures for developing grounded theory.* Thousand Oaks, California: Sage Publications; 1998.

110. Sandelowski M. Notes on transcription. Res Nurs Health. 1994;17:311-314.

111. Sandelowski M. The use of quotes in qualitative research. Res Nurs Health. 1994;17:479-482.

112. Miller WL, Crabtree BF. Primary care research: A multimethod typology and qualitative road map. In: Crabtree BF, Miller WL, eds. *Using qualitative research*. Thousand Oaks, California: Sage Publications, Inc.; 1992:3-28.

113. N6 for Windows [computer program]. Victoria, Australia: 2002.

114. Richardson L. Writing: A Method of Inquiry. In: Denzin NK, Lincoln YS, eds. *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications; 1994:923-948.

115. Creswell JW. Qualitative Procedures. *Research design. Qualitative, quantitative and mixed methods approaches.* Thousand Oaks, California: Sage Publications, Inc.; 2003:179-207.

116. Ryan M, Scott DA, Reeves C, et al. Eliciting public preferences for healthcare: a systematic review of techniques. Health Technol Assess. 2001;5:1-186.

117. Shackley P, Ryan M. Involving consumers in health care decision making. Health Care Anal. 1995;3:196-204.

118. Mullen PM. Quantifying priorities in healthcare: transparency or illusion? Health Serv Manage Res. 2004;17:47-58.

119. Flynn TN, Louviere JJ, Peters TJ, et al. Best-worst scaling: What it can do for health care research and how to do it. J Health Econ. 2006.

120. Louviere JJ, Hensher DA, Swait JD. *Stated choice methods - analysis and application.* Cambridge: Cambridge University Press; 2000.

121. Finn A, Louviere JJ. Determining the appropriate response to evidence of public concern: The case of food safety. Journal of Public Policy & Marketing. 1992;11.

122. Mossialos E, King D. Citizens and rationing: analysis of a European survey. Health Policy. 1999;49:75-135.

123. Bryan S, Roberts T, Heginbotham C, et al. QALY-maximisation and public preferences: results from a general population survey. Health Econ. 2002;11:679-693.

124. Abelson J, Mendelsohn M, Lavis JN, et al. Canadians confront health care reform. Health Aff (Millwood). 2004;23:186-193.

125. The General Social Survey. An Overview. Ottawa, Ontario, Canada: Statistics Canada; 2006.

126. Ryan M. Discrete choice experiments in health care. BMJ. 2004;328:360-361.

127. Hensher DA, Rose JM, Greene WH. Processes in setting up stated choice experiments. In: Hensher DA, Rose JM, Greene WH, eds. *Applied choice analysis: A primer*. New York: Cambridge University Press; 2005:100-160.

128. Kuhfeld WF, Tobias RD, Garratt M. Efficient experimental design with marketin research applications. In: Kuhfeld WF, ed. *Marketing Research Methods in SAS*. Cary, NC, USA: SAS Institute; 2005:99-120.

129. Last JM. *A dictionary of epidemiology.* Oxford: Oxford University Press; 1995.

130. Street DJ, Burgess L, Louviere JJ. Quick and easy choice sets: constructing optimal and nearly optimal stated choice experiments. International Journal of Research in Marketing. 2005;22:459-470.

131. Kocur G, Adler T, Hyman W, et al. Guide to forecasting travel demand with direct utility assessment. Washington, D.C.: United States Department of Transportation, Urban Mass Transportation Administration; 1982.

132. Sloane NJA. A library of orthogonal arrays. [www research att com/~njas/oadir/ web site]. 2008.

133. SAS 9.1 for Windows [computer program]. Cary, NC, USA: 2002.

134. Dillman DA. *Mail and internet surveys. The tailored design method. Second Edition.* New York: John Wiley & Sons; 2000.

135. *Mail and internet surveys. The tailored design method. Second Edition.* New York: John Wiley & Sons; 2000.

136. *Mail and internet surveys. The tailored design method. Second Edition.* New York: John Wiley & Sons; 2000.

137. *Mail and internet surveys. The tailored design method. Second Edition.* New York: John Wiley & Sons; 2000.

138. Orme B. Sample size issues for conjoint analysis studies [www sawtooth com web site]. 2005.

139. Hensher DA, Rose JM, Greene WH. Paradigms of choice data. In: Hensher DA, Rose JM, Greene WH, eds. *Applied choice analysis: A primer*. New York: Cambridge University Press; 2008:88-99.

140. Kuhfeld WF. Discrete Choice. In: Kuhfeld WF, ed. *Marketing Research Methods in SAS*. Cary, NC, USA: SAS Institute; 2005.

141. Lancsar EJ, Hall JP, King M, et al. Using discrete choice experiments to investigate subject preferences for preventive asthma medication. Respirology. 2007;12:127-136.

142. Hensher DA, Rose JM, Greene WH. Getting started modeling: the basic MNL model. In: Hensher DA, Rose JM, Greene WH, eds. *Applied choice analysis: A primer*. New York: Cambridge University Press; 2005:308-373.

143. McFadden D. Conditional logit analysis of qualitative choice behaviour. In: Manski CF, McFadden D, eds. *Frontiers in Econometrics*. Cambridge, USA: MIT Press; 1974.

144. The SAS Institute. The MDC Procedure. Cary, North Carolina, USA: The SAS Institute; 2003.

145. Lancsar E, Louviere J, Flynn T. Several methods to investigate relative attribute impact in stated preference experiments. Soc Sci Med. 2007;64:1738-1753.

146. Toronto Community Care Access Centre. Care Coordinator Resource Management Report: User Guide. 2002.

147. Province of Ontario. Long-Term Care Act, 1994. Ontario Regulation 386/99. Provision of Community Services. 2005.

148. Toronto Community Care Access Centre. Policy: General Eligibility for In-Home Services. 2002.

149. Toronto Community Care Access Centre. Service Pathway Model. 2002.

150. Grey Bruce Community Care Access Centre. Policy: Homemaking. 2002.

151. Grey Bruce Community Care Access Centre. Homemaking Time for Tasks Guidelines. 2002.

152. Toronto Community Care Access Centre. Policy: Personal Support/Homemaking. 2002.

153. Toronto Community Care Access Centre. Personal Support and Homemaking Guidelines. 2002.

154. Toronto Community Care Access Centre. Personal Support Assessment Tool. 2002.

155. Toronto Community Care Access Centre. Policy: Goal Setting. 2002.

156. Ayres PJ. Rationing health care: views from general practice. Soc Sci Med. 1996;42:1021-1025.

157. Pitt DF, Noseworthy TW, Guilbert J, et al. Waiting lists: management, legalities and ethics. Can J Surg. 2003;46:170-175.

158. Brown SA, Parker JD, Godding PR. Administrative, clinical, and ethical issues surrounding the use of waiting lists in the delivery of mental health services. J Behav Health Serv Res. 2002;29:217-228.

159. Rotstein DL, Alter DA. Where does the waiting list begin? A short review of the dynamics and organization of modern waiting lists. Soc Sci Med. 2006;62:3157-3160.

160. Street A, Duckett S. Are waiting lists inevitable? Health Policy. 1996;36:1-15.

161. Busby CR, Carter MW. A decision tool for negotiating home care funding levels in Ontario. Home Health Care Serv Q. 2006;25:91-106.

162. Operational Review: Hamilton-Wentworth Community Care Access Centre. Toronto, Canada: Ontario Ministry of Health; 1 A.D..

163. Chappell NL. Maintaining integrity of home care. Healthcare Papers. 2000;1:91-93.

164. Simms M. Opening the black box of rationing care in later life: the case of 'community care' in Britain. J Aging Health. 2003;15:713-737.

165. Callahan D, Topinkova E, ter Meulen R. Caring for an aging world. Allocating scarce resources. Hastings Cent Rep. 1994;24:3.

166. Deber R, Gamble B. "What's in, what's out": stakeholders' views about the boundaries of Medicare. Healthc Q. 2004;7:suppl-10.

167. Lilly M. The labour supply of unpaid caregivers in Canada. University of Toronto; 2008.

168. Mooney G, Wiseman V. A 'constitution' for health services. J Health Serv Res Policy. 1999;4:195-196.

169. Lilly MB, Laporte A, Coyte PC. Labor market work and home care's unpaid caregivers: a systematic review of labor force participation rates, predictors of labor market withdrawal, and hours of work. Milbank Q. 2007;85:641-690.

170. Stabile M, Laporte A, Coyte PC. Household responses to public home care programs. J Health Econ. 2006;25:674-701.

171. Klein R, Day P, Redmayne S. Principles of resource allocation. *Managing scarcity: priority setting and rationing in the National Health Service*. Buckingham, UK: Open University Press; 1998:25-34.

172. Mitton C, Donaldson C. Setting priorities in Canadian regional health authorities: a survey of key decision makers. Health Policy. 2002;60:39-58.

173. Mitton C, Prout S. Setting priorities in the south west of Western Australia: where are we now? Aust Health Rev. 2004;28:301-310.

174. Mitton C, Donaldson C. Health care priority setting: principles, practice and challenges. Cost Eff Resour Alloc. 2004;2:3.

175. Gibson JL, Martin DK, Singer PA. Setting priorities in health care organizations: criteria, processes, and parameters of success. BMC Health Serv Res. 2004;4:25.

176. Hope T, Hicks N, Reynolds DJ, et al. Rationing and the health authority. BMJ. 1998;317:1067-1069.

177. Province of Ontario. Health Insurance Act. R.S.O. 1990, Chapter H.6. 2004.

178. Toronto Community Care Access Centre. Accountability Framework. 2001.

179. Toronto Community Care Access Centre. Care Coordination Framework: Realizing Practice Excellence by Building Solid Foundations. 2003.

180. Toronto Community Care Access Centre. Policy: Service Planning. 2003.

181. Grey Bruce Community Care Access Centre. Wait List Management. 2003.

182. Toronto Community Care Access Centre. Mission, vision and value statements. 2001.

183. Grey Bruce Community Care Access Centre. Mission, vision, and value statements. 2001.

184. Toronto Community Care Access Centre. Client Rights. 2002.

185. Grey Bruce Community Care Access Centre. Client Rights. 2001.

186. Toronto Community Care Access Centre. Contact. Community Report Card. 2004.

187. Grey Bruce Community Care Access Centre. Annual Report (April 1, 2002 - March 31, 2003). 2003.

188. Toronto Community Care Access Centre. Policy: Assisting clients without OHIP coverage. 2003.

189. Hasman A, Hope T, Osterdal LP. Health care need: three interpretations. J Appl Philos. 2006;23:145-156.

190. Hendry C, Walker A. Priority setting in clinical nursing practice: literature review. J Adv Nurs. 2004;47:427-436.

191. Varekamp I, Meiland FJ, Hoos AM, et al. The meaning of urgency in the allocation of scarce health care resources; a comparison between renal transplantation and psychogeriatric nursing home care. Health Policy. 1998;44:135-148.

192. Wetle T. Ethical issues and value conflicts facing case managers of frail elderly people living at home. In: McCullough LB, Wilson NL, eds. *Long-term care decisions: Ethical and conceptual dimensions*. Baltimore: John Hopkins University Press; 1995:63-86.

193. Edgar A. *The Ethical QALY: ethical issues in health care resource allocation*. Surrey, England: Euromed Communications; 1998.

194. *The ethical QALY. Ethical issues in healthcare resource allocations.* Haslemere, England: Euromed Communications; 1998.

195. Kapiriri L, Martin DK. Priority setting in developing countries health care institutions: the case of a Ugandan hospital. BMC Health Serv Res. 2006;6:127.

196. Bell JA, Hyland S, DePellegrin T, et al. SARS and hospital priority setting: a qualitative case study and evaluation. BMC Health Serv Res. 2004;4:36.

197. Walton NA, Martin DK, Peter EH, et al. Priority setting and cardiac surgery: A qualitative case study. Health Policy. 2006.

198. Shortt SE. Waiting for medical care: is it who you know that counts? CMAJ. 1999;161:823-824.

199. Wirtz V, Cribb A, Barber N. Understanding the role of "the hidden curriculum" in resource allocation--the case of the UK NHS. Health Care Anal. 2003;11:295-300.

200. Giacomini MK, Cook DJ, Streiner DL, et al. Guidelines as rationing tools: a qualitative analysis of psychosocial patient selection criteria for cardiac procedures. CMAJ. 2001;164:634-640.

201. Kapiriri L, Norheim OF, Martin DK. Priority setting at the micro-, meso- and macro-levels in Canada, Norway and Uganda. Health Policy. 2006.

202. Chumbler NR. Eligibility for in-home respite care: Ethnic status and rural residence. Journal of Applied Gerontology. 2000;19:151-169.

203. Collopy BJ. Safety and Independence: Rethinking some basic concepts in long-term care. In: McCullough LB, Wilson NL, eds. *Long-term care decisions: ethical and conceptual dimensions*. Baltimore: John Hopkins University Press; 1995:137-152.

204. Kane RA. Decision making, care plans, and life plans in long-term care: Can case managers take account of clients' values and preferences? In: McCullough LB, Wilson NL, eds. *Long-term care decisions: Ethical and conceptual dimensions*. Baltimore: John Hopkins University Press; 1995:87-109.

205. Williams A. QALYS and ethics: a health economist's perspective. Soc Sci Med. 1996;43:1795-1804.

206. Dolan P. The measurement of individual utility and social welfare. J Health Econ. 1998;17:39-52.

207. Wordsworth S, Ryan M, Skatun D, et al. Women's preferences for cervical cancer screening: a study using a discrete choice experiment. Int J Technol Assess Health Care. 2006;22:344-350.

208. Lancaster KJ. A new approach to consumer theory. Journal of Political Economy. 1966;74:132-157.

209. Lancsar E, Louviere J. Conducting Discrete Choice Experiments to Inform Healthcare Decision Making: A User's Guide. Pharmacoeconomics. 2008;26:661-677.

210. Train KE. *Discrete choice methods with simulation*. New York: Cambridge University Press; 2008.

211. Johnson FR, Banzhaf MR, Desvousges WH. Willingness to pay for improved respiratory and cardiovascular health: a multiple-format, stated-preference approach. Health Econ. 2000;9:295-317.

212. Hall J, Fiebig DG, King MT, et al. What influences participation in genetic carrier testing? Results from a discrete choice experiment. J Health Econ. 2006;25:520-537.

213. Kjaer T, Gyrd-Hansen D. Preference heterogeneity and choice of cardiac rehabilitation program: results from a discrete choice experiment. Health Policy. 2008;85:124-132.

214. Coast J, Flynn TN, Natarajan L, et al. Valuing the ICECAP capability index for older people. Soc Sci Med. 2008;67:874-882.

215. Al-Janabi H, Coast J, Flynn TN. What do people value when they provide unpaid care for an older person? A meta-ethnography with interview follow-up. Soc Sci Med. 2008;67:111-121.

Appendix 1: Case Study Interview Guides

Interview Guide for Case Managers

1. I am interested in learning about the decision-making structure within your CCAC. Please describe how decisions are made about which potential clients get services from your CCAC.

2. When you are assessing a potential client's need for CCAC services, what criteria do you use for acceptance and refusal? What criteria should be used?

3. When you are assessing a client's need for CCAC services, how do you decide which services they should receive? What criteria should be used?

4. What happens to potential clients if you were unable to provide them with services at the initial assessment? Do they know why you are unable to provide services? Does anyone ever appeal your decision?

5. Are there departmental constraints or pressures affecting your ability to make decisions about how to distribute services? (Example if needed: Ministry of Health or CCAC policies.)

6. Do you discuss your decisions with your others within the CCAC?

7. Is there anything else you would like to add about priority setting decisions in your organization?

Interview Guide for Executive Director & Senior Managers

1. Please describe how resources (money and service time) are distributed amongst the various departments in your CCAC.

2. Who is involved in deciding how resources get distributed across departments?

3. What happens if a department needs additional resources? What happens if they go over budget? Can they appeal the budgeting decisions if more resources are required?

4. Are there constraints affecting your ability to make decisions about how to distribute resources? (Example: Ministry of Health or CCAC policies.)

5. Can you describe in general how your case managers decide which potential clients will get service from your CCAC?

6. Why did your CCAC choose to use this approach to priority setting?

7. How does your approach to priority setting differ from other CCACs?

8. Do you consider that your priority setting techniques have been successful? What aspects would you improve?

Interview Guide for Finance Department

1. I am interested in learning about the decision-making structure within your CCAC. Please describe how resources (money and service time) are distributed amongst the various departments in your CCAC.

2. Who is involved in deciding how resources get distributed across departments?

3. What happens if a department needs additional resources? What happens if they go over budget? Can they appeal the budgeting decisions if more resources are required?

4. Are there departmental constraints or pressures affecting your ability to make decisions about how to distribute resources? (Example: Ministry of Health or CCAC policies.) Who are you accountable to and for which decisions?

5. Do others within or outside of the CCAC know about your budgeting system? How is your budgeting system documented? Can I obtain a copy of any written documents?

6. How is the distribution of resources within your organization tracked? (Example: Are resources tracked in a database?) Do you provide this information to internal or external stakeholders?

7. Is there anything else you would like to add about priority setting decisions in your organization?

Interview Guide for Human Resources

1. I am interested in learning about the decision-making structure within your CCAC. Please describe how case managers are trained to make decisions about which potential clients get services from your CCAC.

2. I am particularly interested in decisions about long stay clients. Can you tell me about the criteria that case managers are trained to use to assess a potential client's need for CCAC services? Do you feel these criteria are appropriate?

3. When you are assessing a client's need for CCAC services, how do you decide which services they should receive? What criteria should be used?

4. What are case managers trained to do when budget constraints mean that there are not enough service hours to provide care for all eligible clients?

5. Are there departmental constraints or pressures that affect how you train case managers to make decisions about how to distribute services? (Example: Ministry of Health or CCAC policies.)

6. Do case managers ever discuss their decisions with you after the training sessions? Or do you offer ongoing training to support case managers in these decisions?

7. Is there anything else you would like to add about priority setting decisions in your organization?

Interview Guide for Ombudsperson

1. I am interested in learning about how decisions about who gets services are made in your CCAC. Do you receive complaints from individuals who have not received any service or who feel that they have not received enough service from your CCAC? Please describe some of these appeals.

2. Can you describe the complaints and appeals process? In your role as ombudsperson, are you the only individual involved in assessing the merits of complaints?

3. What criteria do you use to decide whether a complaint should lead to additional service provision? What criteria do you think should be used?

4. What CCAC or Ministry of Health policies affect the complaints process? In your role as ombusperson, who are you accountable?

5. Who receives notification about your decision and the reasons behind your decision? How is this communicated to them?

6. Is there anything else you would like to add about the appeals process in your organization?

Informed Consent Form

Background and Purpose of Research
You have been invited to take part in a research study that aims to describe priority setting in Community Care Access Centres (CCACs) in Ontario. CCAC budgets are often not large enough to provide service to everyone who asks for it. Individuals working for the CCACs must make decisions about who get service and how much service they receive. In this research study, we will be reviewing documents and interviewing CCAC employees to create a description of the priority setting process. It is important to document this decision making process so that other organizations may learn from your experiences. This study is being conducted by researchers from the University of Toronto and McMaster University. It has been approved by the Health Sciences Research Ethics Board at the University of Toronto. This form describes the study and what will be expected of you if you decide to participate. Please read this form carefully before you decide if you should participate in this study.

Who is participating?
Employees from two CCACs will be interviewed during this study. Since your CCAC has agreed to participate in this study, many of your colleagues may be interviewed.

What does the study involve?
You will be asked to participate in an interview in which you will be asked about how you and your CCAC decide who gets services. This interview will last for about 30 to 45 minutes. This interview will be audio taped and then transcribed and analysed. You may also be asked to review and comment on a draft version of the research report to help us ensure that the results are valid.

Benefits / Risk of the Study
There are no direct risks or benefits of participating in this study.

What about confidentiality?
Your employer will not be told whether or not you decided to participate in this interview. Your employer will not have access to the transcripts of the interview. Only the person who interviews you will have access to the list of names of study participants. Selected quotes may be used in presentations, reports and other publications but your name will not be associated with any of these quotes or opinions. Confidentiality can only be guaranteed to the extent permitted by law. All electronic and paper study records will be kept in a secure location and will be maintained for 7 years after study completion and then destroyed.

Voluntary Participation / Withdrawal
Participation in this study is completely voluntary. If you choose to participate in the interview, you may end the interview at any time.

Compensation

You will not receive any compensation for participating in the study.

Publication of Results
You will receive a summary of the results of the study once it is complete. You may also request a more detailed report from the researchers. The results will be published in academic journals and presented at conferences.

Funding of Research
This study is being funded in part through a Canada Graduate Scholarship Doctoral Award, which was awarded to Ms. Kohli by the Canadian Institute of Health Research (CIHR). CIHR is the major federal funding agency of health research in Canada. This study may also receive funding from the Health Care Technology and Place program (HCTP). This training program is also funded by CIHR.

Contacts
This research is being conducted by Michele Kohli as part of the requirements for the degree of Doctor of Philosophy at the University of Toronto. This research is being supervised by Peter Coyte, PhD (University of Toronto), Douglas Martin, PhD (University of Toronto), and Deborah Marshall, PhD (McMaster University). If you have any questions about the study, you may contact Michele Kohli or Peter Coyte at 416-978-4756 or by email at mkohli@sympatico.ca or peter.coyte@utoronto.ca.

You waive no legal rights by participating in this study. If you have any questions about your rights as a participant, you may contact Dr. Rachael Zand at the University of Toronto Research Ethics Office at 416-978-3165.

Consent
I have been given enough time to ask about the details of this research study and to decide whether to participate or not. By signing below I agree to participate. A signed copy of this consent form will be given to me to keep for my information.

PRINT NAME _____

SIGNATURE _____

DATE _____

Appendix 2: Additional Tables from the Methods Section

Table 44. The rurality index scores for communities served by CCACs considered to be candidates for the urban and rural case studies.

Name of CCAC	Communities Served	Rurality Index for Ontario Community Ratings ((101))
Candidates for the Urban CCAC		
Hamilton CCAC	Hamilton	3.670
East York CCAC	Former City of East York	14.206
North York CCAC	Former City of North York	7.925
Etobicoke CCAC	Former City of Etobicoke	0.000
	Former City of York	2.511
Scarborough CCAC	Former City of Scarborough	5.164
Toronto CCAC	Former City of Toronto	7.064
Halton CCAC	Milton	23.735
	Halton Hills	18.644
	Burlington	6.730
	Oakville	3.703
Candidates for the Rural CCAC		
Simcoe County CCAC	Adjala-Tosorontio	52.254
	Wasaga Beach	49.129
	Bradford West Gwillimbury	28.874
	Collingwood	33.334
	Essa	45.159
	Innisfil	33.723
	Midland	38.416
	Orillia	24.684
	Penetanguishene	39.345
	Barrie	11.883
Grey Bruce CCAC	Southampton	71.238
	Kincardine	65.325
	Paisley	65.122
	Lion's Head	64.628
	Tiverton	64.461
	Walkerton	61.273
	Lucknow	60.851
	Teeswater	59.781
	Wiarton	57.893
	Meaford	57.417
	Hanover	57.055
	Chesley	55.715
	Flesherton	54.129
	Durham	54.095
	Markdale	53.555
	Thornbury	51.021
	Chatsworth	50.192
	Port Elgin	49.741
	Dundalk	49.512
	Owen Sound	29.010
Huron County CCAC	Ashfield	68.869
	West Wawanosh	67.702

Name of CCAC	Communities Served	Rurality Index for Ontario Community Ratings ((101))
	East Wawanosh	67.565
	Turnberry	66.987
	Howick	62.214
	Morris	62.214
	Grey	61.512
	Colborne (TP)	61.157
	Brussels	60.299
	Goderich (TP)	58.984
	McKillop	58.839
	Stephen	56.097
	Hay	55.759
	Exeter	54.978
	Zurich	48.044
Perth County CCAC	Wallace	58.901
	Elma	56.473
	Mornington	55.400
	Hibbert	55.162
	Logan	55.962
	Fullarton	53.699
	Blanshard	53.578
	South Easthope	52.527
	Downie	51.422
	Listowel	50.544
	Milverton	45.973
	Mitchell	41.275
Brant County CCAC	Oakland	48.017
	Burfold	46.751
	Brantford (TP)	46.148
	Paris	33.456
	Brantford	8.299
Haldimand-Norfolk CCAC	Norfolk	48.235
	Delhi	41.632
	Nanticoke	40.391
	Haldimand	37.765
	Simcoe	30.619
Wellington-Dufferin Counties CCAC	Minto	59.378
	West Luther	58.879
	Arthur (TP)	57.934
	Mulmur	56.406
	East Luther Grand Valley	52.975
	East Garafraxa	52.441
	Amaranth	52.353
	Erin (TP)	49.658
	Guelph (TP)	47.975
	Mono	47.039
	Eramosa	46.986
	Arthur	46.455
	Shelburne	45.424
	Puslinch	45.318
	Fergus	43.238
	Elora	43.192
	Erin	41.722
	Orangeville	20.005

Name of CCAC	Communities Served	Rurality Index for Ontario Community Ratings ((101))
	Guelph	7.039

Table 45. The final design for the discrete choice experiment for Section 1 of the survey.

Survey Version	Question	Safely Bathe	Continent	Safely Ambulate and Transfer	Difficulty with Housekeeping	Informal Caregiver	Community Services	Ability to Pay	Safely Bathe	Continent	Safely Ambulate and Transfer	Difficulty with Housekeeping	Informal Caregiver	Community Services	Ability to Pay
1	2	Safety Issues	Incontinent	No Safety Issues	Difficulty	Full Support	No	Yes	Safety Issues	Continent	No Safety Issues	No Safety Issues	No Difficulty	Yes	No
1	3	No Safety Issues	Incontinent	No Safety Issues	No Difficulty	Full Support	Yes	Yes	Safety Issues	Incontinent	No Safety Issues	Safety Issues	No Difficulty	No	Yes
1	4	Safety Issues	Continent	Safety Issues	Difficulty	Full Support	No	Yes	Safety Issues	Incontinent	No Safety Issues	Safety Issues	No Difficulty	Yes	No
1	5	Safety Issues	Continent	No Safety Issues	No Difficulty	None	No	No	Safety Issues	Incontinent	Safety Issues	Safety Issues	Difficulty	Yes	Yes
1	6	No Safety Issues	Continent	No Safety Issues	Difficulty	Full Support	Yes	No	Safety Issues	Continent	Safety Issues	Safety Issues	Difficulty	No	Yes
1	7	Safety Issues	Incontinent	Safety Issues	Difficulty	Full Support	Yes	No	No Safety Issues	Incontinent	No Safety Issues	No Safety Issues	No Difficulty	Yes	Yes
1	8	No Safety Issues	Incontinent	No Safety Issues	No Difficulty	Full Support	Yes	Yes	No Safety Issues	Incontinent	No Safety Issues	No Safety Issues	Difficulty	Yes	No
1	9	Safety Issues	Continent	No Safety Issues	No Difficulty	None	No	Yes	Safety Issues	Continent	Safety Issues	Safety Issues	No Difficulty	No	No
1	10	Safety Issues	Incontinent	No Safety Issues	Difficulty	None	Yes	No	No Safety Issues	Continent	No Safety Issues	Safety Issues	No Difficulty	Yes	Yes

2	2	Safety Issues	Incontinent	Safety Issues	Difficulty	Full Support	No	No	Safety Issues	Continent	Safety Issues	Safety Issues	No Difficulty	Yes	Yes
2	3	Safety Issues	Incontinent	No Safety Issues	No Difficulty	None	No	Yes	No Safety Issues	Continent	No Safety Issues	Safety Issues	No Difficulty	No	Yes
2	4	Safety Issues	Continent	Safety Issues	Difficulty	Full Support	Yes	No	Safety Issues	Continent	No Safety Issues	No Safety Issues	No Difficulty	No	Yes
2	5	No Safety Issues	Incontinent	No Safety Issues	Difficulty	Full Support	Yes	No	No Safety Issues	Incontinent	No Safety Issues	No Safety Issues	No Difficulty	No	No
2	6	No Safety Issues	Incontinent	No Safety Issues	No Difficulty	None	Yes	No	Safety Issues	Continent	No Safety Issues	No Safety Issues	Difficulty	Yes	No
2	7	No Safety Issues	Continent	No Safety Issues	Difficulty	Full Support	No	Yes	No Safety Issues	Incontinent	No Safety Issues	Safety Issues	Difficulty	No	Yes
2	8	No Safety Issues	Continent	No Safety Issues	Difficulty	None	No	Yes	Safety Issues	Incontinent	No Safety Issues	No Safety Issues	No Difficulty	Yes	Yes
2	9	Safety Issues	Incontinent	No Safety Issues	Difficulty	Full Support	Yes	Yes	Safety Issues	Incontinent	Safety Issues	Safety Issues	Difficulty	Yes	No
2	10	Safety Issues	Continent	No Safety Issues	No Difficulty	Full Support	Yes	No	Safety Issues	Incontinent	No Safety Issues	Safety Issues	No Difficulty	No	No
3	2	Safety Issues	Continent	No Safety Issues	No Difficulty	Full Support	No	No	No Safety Issues	Incontinent	No Safety Issues	No Safety Issues	No Difficulty	No	No
3	3	No Safety Issues	Incontinent	No Safety Issues	No Difficulty	Full Support	No	Yes	Safety Issues	Incontinent	Safety Issues	Safety Issues	No Difficulty	Yes	Yes
3	4	Safety Issues	Continent	No Safety Issues	No Difficulty	Full Support	Yes	No	Safety Issues	Continent	No Safety Issues	No Safety Issues	Difficulty	Yes	Yes
3	5	No Safety Issues	Continent	No Safety Issues	Difficulty	None	No	No	No Safety Issues	Continent	No Safety Issues	Safety Issues	No Difficulty	Yes	No

3	6	Safety Issues	Continent	Safety Issues	Difficulty	Full Support	Yes	Yes	No Safety Issues	Continent	No Safety Issues	Safety Issues	Difficulty	Yes	Yes
3	7	Safety Issues	Incontinent	No Safety Issues	Difficulty	Full Support	No	No	Safety Issues	Incontinent	No Safety Issues	Safety Issues	Difficulty	No	No
3	8	No Safety Issues	Continent	No Safety Issues	Difficulty	Full Support	Yes	Yes	Safety Issues	Continent	Safety Issues	Safety Issues	No Difficulty	No	No
3	9	Safety Issues	Incontinent	Safety Issues	Difficulty	None	Yes	Yes	Safety Issues	Continent	No Safety Issues	Safety Issues	Difficulty	No	No
3	10	Safety Issues	Incontinent	No Safety Issues	Difficulty	None	Yes	Yes	No Safety Issues	Incontinent	No Safety Issues	No Safety Issues	No Difficulty	No	Yes
4	2	No Safety Issues	Incontinent	No Safety Issues	No Difficulty	Full Support	No	Yes	Safety Issues	Continent	No Safety Issues	No Safety Issues	No Difficulty	No	Yes
4	3	Safety Issues	Incontinent	Safety Issues	Difficulty	None	Yes	No	Safety Issues	Incontinent	Safety Issues	Safety Issues	No Difficulty	No	No
4	4	Safety Issues	Incontinent	No Safety Issues	Difficulty	Full Support	No	No	Safety Issues	Continent	No Safety Issues	No Safety Issues	Difficulty	No	Yes
4	5	No Safety Issues	Continent	No Safety Issues	Difficulty	None	Yes	No	Safety Issues	Incontinent	No Safety Issues	Safety Issues	No Difficulty	Yes	Yes
4	6	No Safety Issues	Incontinent	No Safety Issues	Difficulty	Full Support	No	No	No Safety Issues	Continent	No Safety Issues	Safety Issues	No Difficulty	Yes	No
4	7	Safety Issues	Continent	Safety Issues	Difficulty	None	No	Yes	No Safety Issues	Incontinent	No Safety Issues	No Safety Issues	Difficulty	No	No
4	8	No Safety Issues	Incontinent	No Safety Issues	No Difficulty	Full Support	No	No	No Safety Issues	Incontinent	No Safety Issues	Safety Issues	Difficulty	No	Yes
4	9	Safety Issues	Continent	No Safety Issues	No Difficulty	Full Support	Yes	Yes	No Safety Issues	Continent	No Safety Issues	Safety Issues	No Difficulty	Yes	No

4	10	Safety Issues	Continent	No Safety Issues	Difficulty	Full Support	Yes	Yes	Safety Issues	Incontinent	Safety Issues	Safety Issues	No Difficulty	Yes	Yes

Table 46. The final design for the discrete choice experiment for Section 1 of the survey.

Block 1						Block 2					
Question 1*	**Question 2**	**Question 3**	**Question 4**	**Question 5**	**Question 6**	**Question 1**	**Question 2**	**Question 3**	**Question 4**	**Question 5**	**Question 6**
	Client Focus		Client Focus	Client Focus			Client Focus	Client Focus			Client Focus
			Compassion	Compassion	Compassion				Compassion	Compassion	Compassion
		Effectiveness		Effectiveness	Effectiveness	Effectiveness	Effectiveness				Effectiveness
	Efficiency		Efficiency		Efficiency	Efficiency	Efficiency		Efficiency		
	Equity			Equity	Equity	Equity		Equity		Equity	
		Independence	Independence		Independence		Independence	Independence		Independence	
		Safety	Safety	Safety		Safety		Safety	Safety		

* In the experimental design array, the first value for all variables in the first questions was 0, meaning that no value statements were present. This blank question meant that only 5 questions appeared in the survey versions based on Block 1.

Appendix 3: Example Print Version of the Phase II Survey

Personal Support and Homemaking Services Survey

Background and Purpose of Research
Although funding for the home care sector has grown in recent years, Community Care Access Centres (CCACs) are being asked to provide more service to support hospitals and other organizations. As a CCAC case manager, you have had the experience of trying to meet the needs of your clients within a limited budget. **In this questionnaire, we are trying to understand how you would prioritize long-stay adult clients for personal support and homemaking service.**

This study is being conducted by researchers from the University of Toronto and McMaster University. It has been approved by the Health Sciences Research Ethics Board at the University of Toronto. The text below describes this study. Please read this information carefully before you decide if you should participate in this study.

Who is participating?
Case managers from CCACs across the province of Ontario will be participating in this study, so many of your colleagues may also complete this survey.

What does the study involve?
You will be asked to answer a number of questions on a web-based survey. First, you will be presented with a number of scenarios and asked to determine which of the described clients has the most need for personal support service. Then you will be asked to rank the importance of a number of statements that describe decision making values. Finally, you will be asked for your opinion on a number of issues related to service provision, as well as several demographic questions. This survey will take about 30 minutes to complete.

Contacts
This research is being conducted by Michele Kohli as part of the requirements for the degree of Doctor of Philosophy at the University of Toronto. This research is being supervised by Peter Coyte, PhD (University of Toronto), Douglas Martin, PhD (University of Toronto), and Deborah Marshall, PhD (McMaster University). If you have any questions about the study, you may contact Michele Kohli or Peter Coyte at 416-978-4756 or by email at michele.kohli@utoronto.ca or peter.coyte@utoronto.ca. This contact information can be found in the email sent to you regarding this study.

You waive no legal rights by participating in this study. If you have any questions about your rights as a participant, you may contact Dr. Rachael Zand at the University of Toronto Research Ethics Office at 416-978-3165.

Benefits / Risk of the Study
There are no direct risks or benefits of participating in this study.

What about confidentiality?
Your employer will not be told whether you decided to participate in this interview. Your responses will only be used for the purposes of this research study and will not be accessed by anyone outside of the research team. Confidentiality can only be guaranteed to the extent permitted by law. This means that the data will be shared with a third party if the researchers receive an order from a court of law to do so. All electronic and paper study records will be kept in a secure location and will be maintained for 7 years after study completion and then destroyed.

Voluntary Participation / Withdrawal
Participation in this study is completely voluntary. If you choose to participate in the survey, you may exit the survey at any time.

Compensation
You will not receive any compensation for participating in the study.

Publication of Results
The results from this study will be published in academic journals and presented at conferences. It may also be presented to the CCACs, the Ministry of Health and other interested parties. Only aggregate or group level results will be presented. This means that no one outside of the research team will see your individual responses.

Funding of Research
This study is being funded in part through a Canada Graduate Scholarship Doctoral Award, which was awarded to Ms. Kohli by the Canadian Institute of Health Research (CIHR). CIHR is the major federal funding agency of health research in Canada. This study also receives funding from the Health Care Technology and Place training program (HCTP) based at the University of Toronto. This training program is also funded by CIHR.

Consent
I have read the above information and by clicking on the "Continue" button below, I provide my consent to participate in this research study. If I do not wish to participate, I may simply exit this web page.

SECTION 1: Prioritizing Clients

In the questions in this section, we are trying to understand how you would prioritize adult long-stay clients for personal support and homemaking services. You will be asked to choose whether you would prioritize Client A or Client B for personal support and homemaking services. You may also choose not to provide service to either client.

For all questions, please assume that all clients:

- have OHIP and live in the area served by your CCAC
- have consented to receive CCAC service
- have home environments that are suitable or can be made suitable for provision of services

Client A and Client B will differ according to:

1. **Ability of client to safely bathe him or herself.** This may be: Safety Issues or NO Safety Issues
2. **Continence.** This may be: Continent or Incontinent
3. **Ability to safely ambulate and transfer without assistance.** This may be Safety Issues or NO Safety Issues
4. **Difficulty performing instrumental activities of daily living such as housekeeping and laundry.** This may be YES or NO
5. **Level of informal support.** This may be:
   NONE (Client has no informal caregivers);
   SOME (Some support from informal caregivers);
   FULL SUPPORT (Client has an informal caregiver who lives with them and is fully able and willing to care for them)
6. **Non-CCAC services that meet the needs of the client are available in the community.** This may be YES or NO
7. **Ability to pay for non-CCAC personal support and homemaking services** This may be YES or NO

Please assume that all clients have no cognitive difficulties.

All other factors are the same for Client A and Client B.

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	Safety Issues	No Safety Issues
Continence	Continent	Incontinent
Safely Ambulate and Transfer	Safety Issues	No Safety Issues
Difficulty with homemaking	Difficulty	Difficulty
Informal Caregiver	Full Support	None
Community Services	Yes	No
Ability to Pay	Yes	No

3. Which client would you prioritize for personal support services?
   - __ Client A
   - __ Client B
   - __ I would not provide service to either client

4. Which client would you prioritize for homemaking services?
   - __ Client A
   - __ Client B
   - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	Safety Issues	Safety Issues
Continence	Incontinent	Continent
Safely Ambulate and Transfer	No Safety Issues	No Safety Issues
Difficulty with homemaking	Yes	No
Informal Caregiver	Full Support	Some
Community Services	No	Yes
Ability to Pay	Yes	No

5. Which client would you prioritize for personal support services?
   - __ Client A
   - __ Client B
   - __ I would not provide service to either client

6. Which client would you prioritize for homemaking services?
   - __ Client A
   - __ Client B
   - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	No Safety Issues	Safety Issues
Continence	Incontinent	Incontinent
Safely Ambulate and Transfer	No Safety Issues	No Safety Issues
Difficulty with homemaking	No	Yes
Informal Caregiver	Full Support	Some
Community Services	Yes	No
Ability to Pay	Yes	Yes

7. Which client would you prioritize for personal support services?
   - __ Client A
   - __ Client B
   - __ I would not provide service to either client

8. Which client would you prioritize for homemaking services?
   - __ Client A
   - __ Client B
   - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	Safety Issues	Safety Issues
Continence	Continent	Incontinent
Safely Ambulate and Transfer	Safety Issues	No Safety Issues
Difficulty with homemaking	Yes	Yes
Informal Caregiver	Full Support	Full Support
Community Services	No	Yes
Ability to Pay	Yes	No

9. Which client would you prioritize for personal support services?
   - __ Client A
   - __ Client B
   - __ I would not provide service to either client

10. Which client would you prioritize for homemaking services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	Safety Issues	Safety Issues
Continence	Continent	Incontinent
Safely Ambulate and Transfer	No Safety Issues	Safety Issues
Difficulty with homemaking	No	Yes
Informal Caregiver	None	None
Community Services	No	Yes
Ability to Pay	No	Yes

11. Which client would you prioritize for personal support services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

12. Which client would you prioritize for homemaking services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	No Safety Issues	Safety Issues
Continence	Continent	Continent
Safely Ambulate and Transfer	No Safety Issues	Safety Issues
Difficulty with homemaking	Yes	Yes
Informal Caregiver	Full Support	None
Community Services	Yes	No
Ability to Pay	No	Yes

13. Which client would you prioritize for personal support services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

14. Which client would you prioritize for homemaking services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	Safety Issues	No Safety Issues
Continence	Incontinent	Incontinent
Safely Ambulate and Transfer	Safety Issues	No Safety Issues
Difficulty with homemaking	Yes	No
Informal Caregiver	Some	Some
Community Services	Yes	Yes
Ability to Pay	No	Yes

15. Which client would you prioritize for personal support services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

16. Which client would you prioritize for homemaking services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	No Safety Issues	No Safety Issues
Continence	Incontinent	Incontinent
Safely Ambulate and Transfer	No Safety Issues	No Safety Issues
Difficulty with homemaking	No	No
Informal Caregiver	Some	None
Community Services	Yes	Yes
Ability to Pay	Yes	No

17. Which client would you prioritize for personal support services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

18. Which client would you prioritize for homemaking services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	Safety Issues	Safety Issues
Continence	Continent	Continent
Safely Ambulate and Transfer	No Safety Issues	Safety Issues
Difficulty with homemaking	No	Yes
Informal Caregiver	None	Full Support
Community Services	No	No
Ability to Pay	Yes	No

19. Which client would you prioritize for personal support services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

20. Which client would you prioritize for homemaking services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

CHARACTERISTIC	CLIENT A	CLIENT B
Bath	Safety Issues	No Safety Issues
Continence	Incontinent	Continent
Safely Ambulate and Transfer	No Safety Issues	No Safety Issues
Difficulty with homemaking	Yes	Yes
Informal Caregiver	None	Full Support
Community Services	Yes	Yes
Ability to Pay	No	Yes

21. Which client would you prioritize for personal support services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

22. Which client would you prioritize for homemaking services?
    - __ Client A
    - __ Client B
    - __ I would not provide service to either client

SECTION 2. Decision Making Values

When you are working with long-stay clients, there are a number of values that you may consider when you are creating your service plans. The statements in the questions in this section are meant to describe values that you might use when making decisions about how much service to provide to your clients.

You will be given several sets of value statements. For each set of statements you will be asked to identify the value that you feel is MOST important in your daily decisions and the value that is LEAST important. Please remember that there are no right or wrong answers to these questions.

1. **Please identify the value that you feel is MOST important when making decisions about client service plans.**

__ It is important to consider a client's needs and preferences when developing a service plan.
__ It is important to design service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner.
__ It is important to be consistent and give the same amount of service to clients who have the same level of need.

2. **Please identify the value that you feel is LEAST important when making decisions about client service plans.**

__ It is important to consider a client's needs and preferences when developing a service plan.
__ It is important to design service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner.
__ It is important to be consistent and give the same amount of service to clients who have the same level of need.

3. Please identify the value that you feel is MOST important when making decisions about client service plans.

__ It is important that there is a reasonable expectation that clients can achieve their treatment goals.
__ It is important to support a client's ability to function independently.
__ It is important to try to maximize a client's safety in their home and to try to minimize the risks they face.

4. **Please identify the value that you feel is LEAST important when making decisions about client service plans.**

__ It is important that there is a reasonable expectation that clients can achieve their treatment goals.
__ It is important to support a client's ability to function independently.
__ It is important to try to maximize a client's safety in their home and to try to minimize the risks they face.

5. Please identify the value that you feel is MOST important when making decisions about client service plans.

__ It is important to consider a client's needs and preferences when developing a service plan.
__ It is important to consider making exceptions for those who do not meet eligibility guidelines in some cases, for compassionate reasons.
__ It is important to design service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner.
__ It is important to support a client's ability to function independently.
__ It is important to try to maximize a client's safety in their home and to try to minimize the risks they face.

6. **Please identify the value that you feel is LEAST important when making decisions about client service plans.**

__ It is important to consider a client's needs and preferences when developing a service plan.
__ It is important to consider making exceptions for those who do not meet eligibility guidelines in some cases, for compassionate reasons.
__ It is important to design service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner.
__ It is important to support a client's ability to function independently.
__ It is important to try to maximize a client's safety in their home and to try to minimize the risks they face.

7. Please identify the value that you feel is MOST important when making decisions about client service plans.

__ It is important to consider making exceptions for those who do not meet eligibility guidelines in some cases, for compassionate reasons.
__ It is important that there is a reasonable expectation that clients can achieve their treatment goals.
__ It is important to design service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner.
__ It is important to be consistent and give the same amount of service to clients who have the same level of need.
__ It is important to support a client's ability to function independently.

8. **Please identify the value that you feel is LEAST important when making decisions about client service plans.**

__ It is important to consider making exceptions for those who do not meet eligibility guidelines in some cases, for compassionate reasons.
__ It is important that there is a reasonable expectation that clients can achieve their treatment goals.
__ It is important to design service plans to maximize the amount of benefit that clients receive from CCACs by providing resources in a fiscally responsible manner.
__ It is important to be consistent and give the same amount of service to clients who have the same level of need.
__ It is important to support a client's ability to function independently.

9. Please identify the value that you feel is MOST important when making decisions about client service plans.

__ It is important to consider a client's needs and preferences when developing a service plan.
__ It is important to consider making exceptions for those who do not meet eligibility guidelines in some cases, for compassionate reasons.
__ It is important that there is a reasonable expectation that clients can achieve their treatment goals.
__ It is important to be consistent and give the same amount of service to clients who have the same level of need.
__ It is important to try to maximize a client's safety in their home and to try to minimize the risks they face.

10. **Please identify the value that you feel is LEAST important when making decisions about client service plans.**

__ It is important to consider a client's needs and preferences when developing a service plan.
__ It is important to consider making exceptions for those who do not meet eligibility guidelines in some cases, for compassionate reasons.
__ It is important that there is a reasonable expectation that clients can achieve their treatment goals.
__ It is important to be consistent and give the same amount of service to clients who have the same level of need.
__ It is important to try to maximize a client's safety in their home and to try to minimize the risks they face.

SECTION 3: Attitudes and General Information

1. Please indicate whether you strongly disagree, disagree, agree or strongly agree with each of the two statements given below.

It is impossible for any government to pay for all new medical treatments and technologies.

Strongly Disagree Disagree Agree Strongly Agree

The government should only provide everyone with essential services such as care for serious diseases and encourage people to provide for themselves in other respects.

Strongly Disagree Disagree Agree Strongly Agree

2. Please indicate whether you strongly disagree, disagree, agree or strongly agree with each of the two statements given below.

The CCAC should provide personal support services to acute-care clients to allow early discharge from hospital.

Strongly Disagree Disagree Agree Strongly Agree

The CCAC should provide personal support services to clients to delay institutionalization.

Strongly Disagree Disagree Agree Strongly Agree

The CCAC should provide personal support services to clients to prevent declines in health or functional status.

Strongly Disagree Disagree Agree Strongly Agree

The CCAC should also provide homemaking service to acute-care clients who qualify for personal support to allow early discharge from hospital.

Strongly Disagree Disagree Agree Strongly Agree

The CCAC should also provide homemaking service to clients who qualify for personal support to delay institutionalization.

Strongly Disagree Disagree Agree Strongly Agree

The CCAC should provide homemaking service to clients who qualify for personal support to prevent declines in health or functional status.

Strongly Disagree Disagree Agree Strongly Agree

3. Please indicate which of the two statements below you agree with most:

Statement A: "CCACs should provide some service to everyone who needs it, even if that means providing less service than required to some clients."

Statement B: "CCACs should provide all of the service required to those with the greatest need, even if this means that some clients with less need may not receive service."

4. In the past 12 months, have you assisted a friend or family member with a long term health or physical limitation by providing unpaid personal care such as assistance with bathing, toileting, care of toenails/fingernails, brushing teeth, shampooing and hair care or dressing?

   No Yes

5. Which Community Care Access Centre do you currently work for?

Erie St. Clair	Central West
South West	Mississauga Halton
Waterloo Wellington	Toronto Central
Hamilton Niagara Haldimand Brant	Central
Central East	North Simcoe Muskoka
South East	North East
Champlain	North West

6. Are you employed on a full or part-time basis? Full-time
   Part-time

7. Are you based in a hospital, the community, a CCAC telephone centre or another location? Hospital
   Community
   CCAC Information and Referral / telephone centre
   Other

8. Do most of your clients live in a rural area or an urban area?
   Rural area
   Urban area

9. What types of clients have you assessed in the past year? Please click all answers that apply.
   - Adult Maintenance
   - Adult Long-term supportive
   - Adult End-of-life
   - Adult Rehabilitation
   - Adult Acute
   - Pediatric Clients
   - Other (Please Specify)

10. Which community services are available to your clients? Please click all answers that apply.
    - Adult day care programs
    - Meals on Wheels
    - Subsidized Homemaking Programs
    - Other (Please Specify)

11. How many years have you worked as a home care case manager? ___

12. How many years have you worked in the home care system? ___

13. What is your professional background?
    - Nursing
    - Physiotherapy
    - Occupational therapy
    - Social Worker
    - Other

14. Please indicate your gender: Female Male

15. Which age category do you belong to?
    - Under 30
    - 30 - 34
    - 35 – 39
    - 40 – 44
    - 45 - 49
    - 50 – 54
    - 55 – 59
    - 60 or Over

Appendix 4: Additional Tables from the Analysis of the Survey

Table 47. Total number of responses by survey version.

Survey Version	Full Responses[41]	Partial Responses[42]	Total Responses	Exclusions[43]	Included Responses
1	21	1	22		**22**
2	20	1	21	1	**20**
3	24	0	24		**24**
4	22	2	24	1	**23**
5	20	3	23		**23**
6	25	2	27	1	**26**
7	17	2	19	1	**18**
8	17	5	22	1	**21**
Total	**166**	**16**	**182**	**5**	**177**

Table 48. Summary of partial responses by survey version.

Survey	ID	Number of Personal Support Questions Completed (10 Total)	Number of Homemaking Questions Completed (10 Total)	Number of Values Questions Completed (5 or 6 Total)
1	164328394	1	1	0
2	155362819	2	2	0
4	173383724	1	1	0
4	172601261	9	9	0
5	155943261	10	10	1 of 5
5	151938283	2	2	0
5	173406792	2	2	0
6	153236563	4	4	0
6	157270973	10	10	4 of 6
7	158528049	1	1	0
7	161417270	4	4	0
8	153786411	10	10	3 of 6
8	166872503	2	2	0
8	158331276	2	2	0
8	172012249	2	2	0
8	163769841	3	3	0

[41] Respondent looked at every question in the survey but may have chosen not to answer certain questions
[42] Respondent started the questionnaire but did not complete it
[43] The respondent completed the question about types of client they worked with but did not indicate that they had worked with either adult maintenance or adult long-term care clients in the past year.

Table 49. Summary of the types of clients assessed by those who were excluded from the analysis.

ID	Survey Version	Adult Maintenance	Adult LT Supportive	Adult End-of Life	Adult Rehabilitation	Adult Acute	Pediatric	Other
158564820	2			Yes		Yes	Yes	Rehab
153437802	4							Oncology and palliative care
164225295	5			Yes				
161323672	7			Yes			Yes	
174696556	8				Yes			

Table 50. Types of clients assessed by respondents in the past year.

Client Category	Number of Respondents*	Percent of Respondents
Adult Maintenance	160	90
Adult Long-term supportive	157	89
Adult Rehabilitation	149	84
Adult Acute	134	76
Adult End-of-Life	126	71
Pediatric Clients	26	15
Other	21	12
No Response	16	9

* Respondents could provide multiple responses to this question and were asked to indicate all of the types of clients that they had worked with in the past year.

Table 51. Frequency and percent of level of agreement with two different statements concerning priority setting in health care.

Level of Agreement	It is impossible for any government to pay for all new medical treatments and technologies.		The government should only provide everyone with essential services such as care for serious diseases and encourage people to provide for themselves in other respects.	
	Frequency	**Percent**	**Frequency**	**Percent**
Strongly Disagree	8	5	52	29
Somewhat Disagree	35	20	77	44
Somewhat Agree	85	48	22	13
Strongly Agree	32	18	9	5
Missing Response	17	10	17	4

Table 52. Frequency and percent of respondents who would distribute service to all individuals (Option A) versus concentrating service on clients with most needs (Option B).

	Frequency	**Percent**
Option A	104	59
Option B	53	30
Missing	20	11

Option A: CCACs should provide some service to everyone who needs it, even if that means providing less service than required to some clients.
Option B: CCACs should provide all of the service required to those with the greatest need, even if this means that some clients with less need may not receive service.

Table 53. Summary of the choices made between client A, client B or neither for personal support services and homemaking services.

#	Choice for Personal Support							Choice for Homemaking						
	A		B		Neither		Total	A		B		Neither		Total
	N	%	N	%	N	%	N	N	%	N	%	N	%	N
1	110	62	42	24	25	14	177	27	15	80	45	70	39	177
2	21	50	19	45	2	5	42	11	26	4	10	27	65	42
3	1	2	39	93	2	5	42	0	0	18	44	23	56	41
4	19	45	17	40	6	14	42	6	15	8	20	26	65	40
5	5	12	35	83	2	5	42	1	2	22	52	19	45	42
6	1	2	39	93	2	5	42	2	5	23	55	17	40	42
7	42	100	0	0	0	0	42	25	60	0	0	17	40	42
8	0	0	12	29	30	71	42	0	0	1	2	41	98	42
9	17	40	25	60	0	0	42	0	0	13	31	29	69	42
10	44	100	0	0	0	0	44	30	68	0	0	14	31	44
11	44	98	1	2	0	0	45	29	64	2	4	14	31	45
12	45	100	0	0	0	0	45	9	20	3	7	32	73	44
13	36	84	0	0	7	16	43	10	23	0	0	33	77	43
14	3	7	4	9	38	84	44	2	5	1	2	41	93	44
15	6	14	36	82	2	5	44	3	7	5	11	36	82	44
16	0	0	15	34	29	66	44	0	0	16	36	28	64	44
17	3	7	40	89	2	4	45	6	13	5	11	34	76	45
18	1	2	43	96	1	2	45	0	0	33	73	12	27	45
19	14	31	29	64	2	4	45	3	6	18	40	24	53	45
20	29	73	3	8	8	20	40	3	8	4	10	32	82	39
21	0	0	34	85	6	15	40	0	0	16	41	23	57	39
22	7	18	29	74	4	10	40	2	5	4	10	33	85	39
23	4	10	0	0	36	90	40	12	31	0	0	27	69	39
24	31	78	0	0	9	22	40	11	28	4	10	24	62	39
25	0	0	40	98	1	2	41	0	0	30	75	10	25	40
26	1	1	39	95	1	2	41	1	3	30	73	9	23	40
27	34	83	6	15	1	2	41	17	43	15	38	8	20	40
28	39	95	0	0	2	5	41	25	63	1	3	14	35	40
29	11	28	21	54	7	18	39	5	13	1	3	33	85	39
30	28	75	10	25	0	0	38	20	51	9	23	10	26	39
31	18	46	20	51	1	2	39	14	36	3	8	22	56	39
32	2	5	34	87	3	7	39	7	18	13	33	19	49	39
33	17	44	0	0	22	56	39	12	31	1	3	26	67	39
34	37	95	2	5	0	0	39	23	59	0	0	16	41	39
35	1	3	10	26	28	72	39	1	2	9	23	29	74	39
36	25	63	1	3	14	35	40	2	5	5	12	33	83	40
37	10	24	27	64	5	12	42	6	14	11	26	25	60	42

Table 54. Percent change in log likelihood associated with the main effects model for personal support services when one of the attributes is removed.

Statistical Model	Log Likelihood	Percent Change From Full Model
Full Model	-984	--
Without Bath	-1408	- 43
Without Informal Caregiver	-1115	- 13
Without Continence	-1059	- 8
Without Ambulation	-1025	- 4
Without Community Services	-1006	- 2
Without Ability to Pay	-992	- 1
Without Housekeeping	-984	0

Table 55. Percent change in log likelihood associated with the main effects model for homemaking services when one of the attributes is removed.

Statistical Model	Log Likelihood	Percent Change From Full Model
Full Model	-1277	--
Without Informal Caregiver	-1361	7%
Without Housekeeping	-1358	6%
Without Bath	-1326	4%
Without Continence	-1300	2%
Without Ability to Pay	-1294	1%
Without Ambulation	-1287	1%
Without Community Services	-1285	1%

Table 56. Percent change in the probability associated with prioritizing a worst case client compared to clients with all but one characteristic set to worst case with the main effects model for personal support services.

Bath	Continence	Ambulation	Housekeeping	Informal Caregiver	Ability to Pay	Community Services	Relative Probability of Being Prioritized	Percent Change from Worst Case Scenario
Difficulty	Incontinent	Difficulty	Difficulty	None	No	No	0.2444	Reference (Worst Case Scenario)
No Difficulty	Incontinent	Difficulty	Difficulty	None	No	No	0.0038	98%
Difficulty	Incontinent	Difficulty	Difficulty	Full	No	No	0.0292	88%
Difficulty	Incontinent	No Difficulty	Difficulty	None	No	No	0.0607	75%
Difficulty	Continent	Difficulty	Difficulty	None	No	No	0.0682	72%
Difficulty	Incontinent	Difficulty	Difficulty	Some	No	No	0.0742	70%
Difficulty	Incontinent	Difficulty	Difficulty	None	Yes	No	0.1248	49%
Difficulty	Incontinent	Difficulty	Difficulty	None	No	Yes	0.1571	36%
Difficulty	Incontinent	Difficulty	No Difficulty	None	No	No	0.2377	3%

Grey shading = Attribute that has been changed from the worst case scenario

Table 57. Percent change in the probability associated with prioritizing a worst case client compared to clients with all but one characteristic set to worst case with the main effects model for personal support services.

Bath	Continence	Ambulation	Housekeeping	Informal Caregiver	Ability to Pay	Community Services	Relative Probability of Being Prioritized	Percent Change from Worst Case Scenario
Difficulty	Incontinent	Difficulty	Difficulty	None	No	No	0.2281	Reference (Worst Case Scenario)
Difficulty	Incontinent	Difficulty	No Difficulty	None	No	No	0.0367	84%
Difficulty	Incontinent	Difficulty	Difficulty	Full	No	No	0.0503	78%
No Difficulty	Incontinent	Difficulty	Difficulty	None	No	No	0.0621	73%
Difficulty	Incontinent	Difficulty	Difficulty	Some	No	No	0.1003	56%
Difficulty	Continent	Difficulty	Difficulty	None	No	No	0.1165	49%
Difficulty	Incontinent	No Difficulty	Difficulty	None	No	No	0.1261	45%
Difficulty	Incontinent	Difficulty	Difficulty	None	Yes	No	0.1274	44%
Difficulty	Incontinent	Difficulty	Difficulty	None	No	Yes	0.1525	33%

Grey shading = Variable that has been changed from the worst case scenario

Table 58. The influence of client attribute interactions on choices related to the personal support services or homemaking services: initial models to test the statistical significance of all interaction terms.

Attribute 1	Attribute 2	Personal Support Services		Homemaking Services	
		Parameter Estimate[rr] for Interaction Term	Standard Error of Interaction Term	Parameter Estimate[ss] for Interaction Term	Standard Error of Interaction Term
Ambulation	Bath	NA[tt]	NA	NA[tt]	NA
Continence		-0.17	0.093	-0.10	0.063
Housekeeping		NA	NA	-0.002	0.089
Some Support		**0.31**	**0.103**	0.14	0.100
Full Support		**-0.23**	**0.134**	-0.22	0.135
Community Service Available		-0.07	0.072	**-0.14**	**0.066**
Ability to Pay		0.01	0.063	-0.07	0.06
Ambulation	Continence	-0.13	0.076	-0.10	0.059
Housekeeping		NA	NA	-0.06	0.079
Some Support		**-0.26**	**0.101**	0.06	0.080
Full Support		**0.40**	**0.099**	0.06	0.079
Community Service Available		**0.21**	**0.066**	0.09	0.057
Ability to Pay		0.07	0.059	-0.07	0.054
Housekeeping	Ambulation	NA	NA	NA[uu]	NA
Some Support		0.08	0.122	0.03	0.085

[rr] Interaction terms were created by interacting the attribute with respondent characteristics. Each line of the table represents a separate multinomial logit model. Each model was created by testing one of the interaction terms with the main effects personal support services model (effects coded). Statistically significant parameter estimates (P Value <0.05) are bolded.

[ss] Interaction terms were created as by interacting the attribute with respondent characteristics. Each line of the table represents a separate multinomial logit model. Each model was created by testing one of the interaction terms with the main effects homemaking services model (effects coded). Statistically significant parameter estimates (P Value <0.05) are bolded.

[tt] Model could not be estimated because all cases where client had difficulty ambulating but had no difficulty with bath were removed from the design.

[uu] Model could not be estimated because all cases where client had difficulty ambulating but had no difficulty with housekeeping were removed from the design.

Attribute 1	Attribute 2	Personal Support Services		Homemaking Services	
		Parameter Estimate[rr] for Interaction Term	Standard Error of Interaction Term	Parameter Estimate[ss] for Interaction Term	Standard Error of Interaction Term
Full Support		0.08	0.108	-0.15	0.083
Community Service Available		0.08	0.068	-0.02	0.056
Ability to Pay		**0.26**	**0.078**	-0.03	0.058
Some Support	Housekeeping	NA	NA	**0.26**	**0.108**
Full Support		NA	NA	0.02	0.132
Community Service Available		NA	NA	0.04	0.077
Ability to Pay		NA	NA	0.06	0.077
Some Support	Community Service Available	-0.08	0.085	0.01	0.077
Full Support		0.007	0.068	0.06	0.075
Ability to Pay		0.10	0.062	**0.12**	**0.053**
Some Support	Ability to Pay	0.16	0.08	**-0.04**	**0.081**
Full Support		-0.09	0.08	**0.17**	**0.077**

Table 59. The influence of respondent characteristics on choices related to the personal support services or homemaking services: initial models to test the statistical significance of all interaction terms.

Attribute	Respondent Characteristic	Personal Support Services		Homemaking Services	
		Parameter Estimate[vv] for Interaction Term	Standard Error of Interaction Term	Parameter Estimate[ww] for Interaction Term	Standard Error of Interaction Term
Bath	Location of clients served by case manager	**-0.315**	0.135	**-0.220**	0.112
Continence		0.089	0.010	**0.172**	0.104

[vv] Interaction terms were created by interacting the attribute with respondent characteristics. Each line of the table represents a separate multinomial logit model. Each model was created by testing one of the interaction terms with the main effects personal support services model (effects coded). Statistically significant parameter estimates (P Value >0.05) are bolded.

[ww] Interaction terms were created as by interacting the attribute with respondent characteristics. Each line of the table represents a separate multinomial logit model. Each model was created by testing one of the interaction terms with the main effects homemaking services model (effects coded). Statistically significant parameter estimates (P Value >0.05) are bolded.

Attribute	Respondent Characteristic	Personal Support Services		Homemaking Services	
		Parameter Estimate[vv] for Interaction Term	Standard Error of Interaction Term	Parameter Estimate[ww] for Interaction Term	Standard Error of Interaction Term
Ambulation	respondent (rural or urban area)	-0.060	0.110	**-0.177**	0.105
Housekeeping		NA[xx]	NA	**-0.369**	0.117
Some Support		-0.251	0.166	-0.096	0.165
Full Support		0.261	0.142	-0.143	0.166
Community Service Available		**0.222**	0.106	-0.064	0.102
Ability to Pay		**0.166**	0.098	**-0.207**	0.104
Bath	Professional training of respondent (nurse or other)	-0.133	0.143	-0.028	0.130
Continence		-0.060	0.113	0.054	0.121
Ambulation		-0.119	0.125	-0.014	0.124
Housekeeping		NA	NA	0.108	0.136
Some Support		-0.304	0.187	-0.197	0.191
Full Support		0.210	0.157	0.292	0.195
Community Service Available		0.085	0.118	-0.020	0.120
Ability to Pay		-0.123	0.117	0.177	0.122
Bath	Informal caregiver experience in the past year (yes or no)	-0.061	0.127	-0.013	0.197
Continence		-0.077	0.096	-0.097	0.010
Ambulation		-0.114	0.107	0.041	0.102
Housekeeping		NA	NA	**-0.420**	0.113
Some Support		-0.308	0.162	-0.036	0.159
Full Support		**0.376**	0.140	-0.063	0.158
Community Service Available		0.055	0.100	0.036	0.099
Ability to Pay		0.137	0.095	-0.013	0.100
Bath	Number of years of experience as a home care case manager	-0.014	0.010	**-0.029**	
Continence		-0.007	0.007	-0.001	0.007
Ambulation		**-0.020**	0.008	**-0.013**	0.008
Housekeeping		NA	NA	**-0.024**	0.009
Some Support		-0.024	0.013	-0.014	0.012

[xx] Interactions with the housekeeping attribute were not tested for the personal support model as this variable was not statistically significant.

Attribute	Respondent Characteristic	Personal Support Services		Homemaking Services	
		Parameter Estimate[vv] for Interaction Term	**Standard Error of Interaction Term**	**Parameter Estimate[ww] for Interaction Term**	**Standard Error of Interaction Term**
Full Support		**0.038**	0.011	**0.022**	0.012
Community Service Available		-0.002	0.007	-0.003	0.008
Ability to Pay		0.015	0.007	0.004	0.008
Bath	Preferred equity principle (Distribute some services to everyone or distribute service to those most in need)	0.199	0.128	-0.010	0.111
Continence		-0.107	0.099	**-0.172**	0.103
Ambulation		0.083	0.108	0.153	0.105
Housekeeping		NA	NA	-0.066	0.114
Some Support		0.175	0.166	-0.066	0.165
Full Support		-0.157	0.140	0.108	0.160
Community Service Available		**-0.187**	0.100	-0.031	0.102
Ability to Pay		-0.011	0.097	-0.103	0.102

Table 60. The influence of respondent characteristics on value statements: initial models to test the statistical significance of all interaction terms.

Value	Respondent Characteristic	Parameter of Interaction[yy]	Standard Error of Interaction Variable	P Value of Interaction Variable
Safety	Location of clients served by case manager respondent (rural or urban area)	-0.239	0.176	0.1743
Independence		0.149	0.165	0.3653
Client Focus		-0..179	0.156	0.2516
Efficiency		0.190	0.155	0.8202
Effectiveness		-0.037	0.163	0.9949
Equity				
Safety	Professional training of respondent (Nurse or Other)	0.207	0.225	0.3557
Independence		0.127	0.209	0.5446
Client Focus		0.91	0.200	0.6487
Efficiency		-0.171	0.199	0.3896
Effectiveness		0.050	0.207	0.8072
Equity		-0.362	0.201	0.0725
Safety*	Number of years experience working as a home care case manager	**-0.028**	**0.013**	**0.0268**
Independence		-0.009	0.012	0.4695
Client Focus		0.004	0.012	0.7003
Efficiency		0.012	0.012	0.3096
Effectiveness		0.001	0.011	0.9095
Equity		0.001	0.011	0.9095
Safety	Experience as an informal caregiver in the last year (Yes / No)	0.094	0.174	0.5890
Independence		-0.050	0.158	0.7498
Client Focus		-0.184	0.151	0.220
Efficiency		0.176	0.149	0.2376
Effectiveness		-0.125	0.158	0.4300
Equity		0.264	0.155	0.0890
Safety	Equity principle preferred	-0.024	0.179	0.8935
Independence		0.207	0.164	0.2069
Client Focus		0.063	0.156	0.6851
Efficiency*		**-0.304**	**0.153**	**0.0474**
Effectiveness		0.043	0.160	0.7887
Equity		0.110	0.160	0.4893

* Statistically significant at P Value = 0.05 level

[yy] Interaction terms were created as by interacting the value with respondent characteristics. Each line of the table represents a separate multinomial logit model. Each model was created by testing one of the interaction terms with the main effects value model (effects coded).