ASSESSING THE RELATIONSHIP BETWEEN NEEDS AND SERVICES IN ELDERLY WOMEN RECEIVING GOVERNMENT SUBSIDIZED HOME SUPPORT SERVICES IN THE ST. JOHN'S REGION

ANIL DUGGAL

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By

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To my grand parents who taught me one of life's important lessons as I started my MSc. and adventures in Newfoundland – " As one door closes, another one opens"

This thesis is dedicated to my wife, Heather, who continually challenges me to be better than I am and helps me keep life in perspective and balance.

" Be tough yet gentle, humble yet bold, swayed always by beauty and truth" – K. Hahn

Anil Duggal, MSc. Candidate
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ABSTRACT

Introduction:

The combined effects of low fertility and low mortality levels in Canada have resulted in an aging population and increasing health care costs. A major challenge is to provide high quality, long-term care services and programs while ensuring that the care is appropriately matched to need.

Objective:

To explore the association between assessed need and service provision for women aged 75 years and older receiving government subsidized home support services in the St. John's region of Newfoundland.

Study Aims:

1. To describe the needs of clients according to functional need indicators for formal care provision.
2. To describe the service being provided to the clients (formal and informal service systems).
3. To describe the relationship between needs and services as well as the predictors of service allocation and the appropriateness of utilization of home support services.

Methods:

A retrospective design was used to assess clients formal care needs and their amount of formal services. A cross-sectional design was used in administering a questionnaire to community health staff, which focused on the perceived capabilities of all providers of informal support.

Materials:

The statistical package for social sciences (SPSS), and a customized Paradox software program were used in the analysis.

Results:

The average age of the 103 female clients assessed was 86 years. Their high need scores centered around a cluster of problems related to Activities of Daily Living (ADLs). In examining levels of informal support, a large number of clients (85%) had low provision. A significant number of clients (74%) scored in the 8^{th} and 9^{th} decile indicating high formal resource use. A correlation between decile ranking and formal service provision was found to be significant. A correlation between informal support and formal service provision was also significant.

Clients identified as receiving an under-utilization of home support services (n=14) were compared to those appropriately matched for needs and services (n=40). Mismatches between these two groups existed in the domains of age and memory status. Clients identified as receiving an over-utilization of home support services (n=12) were compared to those appropriately matched (n=37). Mismatches between these two groups existed in the domains of living arrangement and informal support.

The most important predictors of formal service provision were need and informal support variables. Forty-seven percent of the variance of formal service provision was explained by the variables examined.

Conclusions:

1. Identified mismatches between need and formal support exist within the home support system in St. John's, Newfoundland (25%).

2. In order to improve analysis of the associations between formal service, informal support and need score, caregiver burden and longitudinal data should be examined.

3. A multi-disciplinary approach to collecting and evaluating complex data would facilitate the future growth and efficacy of home support services.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I –INTRODUCTION

1.1 Background

Aging Population

Over the past forty years, the combined effects of low fertility and low mortality levels in Canada have resulted in an aging population. While in 1961 seniors accounted for 8% of the Canadian population, they accounted for 12% in 1995 (Chui, 1996). This aging of the population is expected to continue because of improved health care and the aging of the baby boom generation. By 2016, the number of seniors is expected to reach nearly six million and account for 16% of the population. By 2041, the number of seniors will have tripled from its present level to nearly ten million. In other words, almost 25% of Canadians will be aged 65 and older (Chui, 1996).

Implications

The aging population will have significant socioeconomic implications. As people age, their medical care needs and health care costs increase. Senior citizens will be more likely to suffer from chronic illnesses such as heart disease, stroke and cancer which require long term and hence more costly care. Population aging and larger cohorts of the aged make it increasingly difficult to provide high quality, long-term services and programs with the available resources given that Canada and its provinces rely heavily on institutional care (Chui, 1996). As a result, there exists today and will continue to be an increasing demand for appropriate health care services for the elderly.

Matching Services to Need

As the elderly require more and more health care, the challenge for the providers will be to ensure that the care given is appropriately matched to need. Denton and Spencer (1995) predict that by 2010, the need for long-term beds in nursing homes and other non-hospital institutions will increase by more than 72% and requirements for chronic and other non-acute care hospital beds will rise by 69%. Furthermore, although Canada's health care system has provided generously for long-term care beds, many acute care beds are occupied by patients awaiting long-term placement, which "suggests a mismatch between the needs of the community and the health care being delivered" (Dalziel, 1996). These factors have motivated Canadian policy makers to take interest in tailoring services to better reflect the needs of the frail elderly, who benefit from institutionalized care, and the less frail who are better served by community based care.

To determine the need for long-term care placement, it is important to identify the main risk factors for institutionalization. As Dalziel (1996) notes, "If need for a long term care bed can be more accurately defined, it is possible to operationalize need in terms of a profile that formalizes decisions regarding the institutional placement of the frail community-based elderly. However, it is also important to determine which risk factors/needs can be modified through community based interventions. Only those characteristics that are not readily modifiable should be retained among eligibility criteria."

Developing a need profile "based on reliable and valid measures of criteria with a high degree of specificity" (Dalziel, 1996) will enable health care providers to prioritize the placements of persons requiring long term care. This should help to reduce the size of

waiting lists and ensure that the frail community-based elderly are among the first to be granted institutionalization. This is assuming that a proportion of those clients on current lists are not appropriate.

Thesis Purpose

As in the rest of Canada, seniors represent a diverse and rapidly growing segment of Newfoundland's and Labrador's population. In 1991, 9.7% of the total Newfoundland and Labrador population was 65 years and older. This number increased to 11.8% in 2001 and is projected to be 19.3% in 2016, assuming a medium scenario as defined by the Population Projection System (POPPS) model (Government of Newfoundland & Labrador, 2001). Similar upward trends are projected in the female cohort aged 75 years and older. In 2001, this cohort made up 5.3% of the total provincial population. This percentage is expected to increase to 8.3% by 2016. The medium scenario provided by the POPPS model makes medium assumptions based on the variables of fertility, mortality and migration trends (Government of Newfoundland & Labrador, 2001). As a contribution to the literature on seniors' needs assessment, the purpose of this thesis is to explore further the association between assessed need and service provision for seniors residing in the St. John's region of Newfoundland and Labrador.

CHAPTER II – REVIEW OF LITERATURE

The use of long-term care resources could be made more efficient by improving decisions about service provision to individuals who are or will be in receipt of home support services. This service provision depends on the ability to determine the appropriate level of care, based on an assessment of level of need. At present, these determinations are usually made implicitly, using relatively broad guidelines. The process of deciding on an appropriate level of care could be improved if the decisions were made in a more objective and reproducible manner, based on data easily collected from client assessment and supporting documentation (Rubenstein, Clakins, Greenfiels et al., 1981).

This review of research on assessment of needs and services to the elderly is organized under four categories:

1. Research on continuing care in the community;
2. The concept of need and determining need;
3. A description of the Alberta Home Care Client Classification (the assessment tool used in this thesis);
4. Assessment and implementation of home support services in the St. John's region.

This review clarifies the significance of the study. Further information pertaining to the methods used for assessing needs and services as well as descriptions of selected current geriatric assessment tools are described in Appendices A and B respectively.

2.1 Continuing Care in the Community

The continuing care sector of Canada's health budget is large, absorbing some seven to eight billion dollars in 1993, with the bulk of the expenditure in institutional care. This makes it the third major area of government (i.e., public health) care expenditures, behind hospitals and physicians (Angus, Auer, Cloutier, and Albert, 1995).

2.1.1 Principles and Goals of Care in the Community

The principles outlined in the document entitled "Future Directions in Continuing Care" (1992) provide a starting point for understanding the complexity of providing care to the elderly in the community. Health Canada (1992) outlines three main principles:

1) community-based care should be the service of first option where appropriate;

2) every effort should be made to maximize the autonomy and independence of individuals, and the service system should be designed to respond to unmet needs;

3) the purpose of continuing care should be to supplement or support, not replace, family and community care giving (Health and Welfare Canada, 1992).

Crucial to these principles is the notion that the services provided should be designed to meet the unmet health care needs of the elderly.

2.1.2 Terminology and Definitions

The variety of continuing care systems across Canada has given rise to differences in terminology. The "Report on Home Care" (1990) provides a comprehensive definition of "home care" which essentially includes all community-based services:

> Home care is an array of services that 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. Home care may be delivered under

numerous organizational structures, and similarly numerous funding and client payment mechanisms. It may address the needs specifically associated with a medical diagnosis and/or may compensate for functional deficits in the activities of daily living (eg. bathing, cleaning, food preparation) (p.2).

The essential question regarding home care is: How is home care supposed to function? The mission statements of provincial/ territorial programs generally incorporate such goals as improving quality of life, reducing institutionalization, and efficiency. The main issue is the extent to which home care can meet all of the declared and implied expectations, through the development of appropriate services and matching those services to need.

2.1.3 Successful Home Care Characteristics

As described in Angus et al. (1995, p.93), Hollander has examined various systems across Canada to determine which factors, aside from the quality of care provided, account for the relative success of some continuing care systems. He found that the following characteristics could be considered to constitute a "best practices" system for the delivery of continuing care at the community level: a single entry system, coordinated assessment and placement, coordinated case management, single administration, and consistent care level classification.

A single entry system provides a consistent screening mechanism to customize service health care plans to specific needs and minimize the likelihood of providing unnecessary or overlapping care. Furthermore, single entry provides one focal point, in communities, for "one stop shopping" for formal care services. In this entry system

individuals are saved from time consuming discussion with multiple individuals in order to find out what services are available to them. Single entry also increases the level of accessibility to the care system (Hollander & Walker, 1998, p.4). Coordinated assessment and placement is practiced to ensure that need is determined appropriately, and that, "based on that need, the client is placed in the most appropriate part of the system, i.e. either in a facility or in the community" (Angus et al. 1995, p.93). Hence, coordinated assessment and placement is said to "reinforce" single entry. Coordinated case management monitors clients' needs to ensure that the care provided continues to be appropriate as their needs change. Such monitoring may lead to efficiency increases, as it helps prevent patients from deteriorating to the extent that placing them into the acute care sector, which is more expensive, is necessary. Single administration facilitates an easier transfer of government resources between community based services and residential care; makes it possible to envision policy from an integrated, system wide perspective; and ensures that "planning and resource allocation will be done on an overall system basis, rather than on a component by component basis" (Angus et al, 1995, p.93) (Hollander & Walker, 1998). Finally, a consistent care level classification system allows for the comparison of clients across service delivery components, by level of care, i.e. an "apples to apples" comparison (Hollander & Walker, 1998, p.5). This in turn, enables policymakers and health care providers to determine in which parts of the system they can offer the most effective and economical treatment. System wide planning across levels of care makes it easier to determine "an efficient and effective mix of services" (Angus et al, 1995). Hollander's research suggests that coordinated assessment and placement should lead to a better matching of needs to level of service.

2.1.4 Theoretical Home Care Models

In an attempt to better understand the differing amounts of formal and informal support services provided to the community-based elderly, researchers have examined the linkages between them. While a few studies have attempted to examine the relationship between informal and formal sources, their findings have been inconsistent and inconclusive (Denton, 1997). Denton (1997) reviewed five major theories that attempt to explain the relationship between formal and informal support. The task specificity model, the compensatory model, the substitution model, the supplementary model and the complementary model encompass these theories. The task specificity model of care developed by Litwak (1985) suggests that informal caregivers tend to provide non-technical ADL, while formal support provides technical nursing care. The hierarchical compensatory model claims that the elderly prefer that the support provided is ordered such that they can compensate formal with informal according to a ranking. The substitution model proposes that as formal services increase there will be a corresponding decrease in informal supports provided. The supplementary model suggests that formal support supplements the care provided by informal support systems. Finally, the complementary model suggests that formal support be accessed only when the informal support is maximized or not available. Denton's (1997) research findings support the use of a complementary model.

2.1.5 Informal Community Support

The informal care provided by family and friends is one of the most important, and yet most overlooked elements in developing an integrated and coordinated continuing care system. Indeed, while informal care is largely unexplored, it is a key source of support for the elderly and the disabled. In Canada, as much as 94% of the elderly population receives some form of informal care (Chappell, 1985). Informal caregivers are predominantly women, and are usually relatives of the elder receiving care (i.e. wives and daughters.) Informal care ranges from assisting with activities of daily living (eating, bathing, and emotional support) to homemaking and transportation. Penning and Chappell contend that in relation to the formal care system, informal care "co-exists as a unique and therefore complementary form of health care" (Angus et al, 1995, p.95). Chappell (1985) contends that it is essential to take both need and informal support into account in the provision of Long Term Care (LTC), since the need for formal care may be heightened by the lack of informal sources of care or by a burdened support system. Therefore, in order to avoid premature institutionalization, formal community support should be the first alternative for those with no or weak informal support systems.

Informal care is a significant aspect of health care and is essential to the success of the emerging continuing care sector. While the main objective of governments seeking to preserve the existing level of informal support is to contain costs in the formal sector, informal caregivers cannot continue to provide informal care ceaselessly without the appropriate formal support systems in the community; in other words, care for caregivers is essential. Informal caregivers need formal support to cope with the physical and emotional demands, as well as the financial and economic strains, that sustained informal

care commitments bring (Angus et al, 1995, p.95). The challenge is to identify the needs of seniors and how these needs can be met by different forms of formal and informal community care.

2.2 The Concept of Need and Determining Need

2.2.1 The Difficulty in Defining Need

Health care providers utilize the concept of need to determine how services will be allocated to specific populations. Defining and measuring need for long term care, however, is rife with difficulties because it implicitly involves value based judgments about which elderly persons truly need long-term care beds and which elders should be provided for through other community-based long term care programs. Also, the elderly do not comprise of a uniform population with a single set of quantifiable needs (Jackson, Eichorn, Blackman, 1992). In a study of efficacy of nursing home pre-admission screening, Jackson et al (1992, p.56) reported that there are "no universally accepted objective criteria for assessing the need for nursing home care." While determining the eligibility of a client for institutional services was the original focus in the development of assessment tools, the focus has shifted to determining eligibility for home and community-based services. As the population of seniors increases, the identification of those entitled to these services is an increasingly important issue. Ultimately though, the decisions arrived at through screening will depend on how need is defined and how much the public wishes to fund it. "Although evaluation techniques can be used to identify the intended "eligible" population, national values will determine who is and who is not "deserving" of these services" (p.52).

The need for services can theoretically include several areas, such as functional need, cognitive need, environmental need, social need and medical need. If need can be more clearly specified, then programs can be provided according to those who qualify based on assessed needs. However, needs-based policies are not easy to define and may require skilled professionals to accurately decide the elements of need (Chappell, Strain, Blandford, 1986). In Canada, long-term care services are generally delivered "to individuals who have a demonstrated need, usually by some index of functional incapacity" (Health and Welfare Canada, 1988, p.2). In addition, most provinces have included the evaluation of the availability of informal support as an additional consideration in deciding service provision (Health Canada, 1993).

2.2.2 Determining Need

Fortinsky, Granger and Salzter (1981) explored the use of functional assessment as a means for understanding individuals' needs for long-term care in the home setting. A primary focus of this study was to test the usefulness of a modified Barthel index (Appendix :B, p.121) as the functional assessment instrument that measured personal care need. In addition to personal care need, the study explored the psychological, socioeconomic and demographic characteristics of these individuals, as well as the specific services delivered. The authors concluded that, to make home care an attractive model of service delivery, "objective measures of individual need are imperative" (Fortinsky et al, 1981, p.489). They were also critical of the traditional practice of assessing personal care need for home-based services (Fortinsky et al, 1981) on the basis of diagnostic definition (i.e. the typical limitation imposed by a disease) rather than in functional terms (i.e. according to the actual functioning of the individual client). The

data indicated that chronic illnesses, diagnostically defined, are not necessarily concurrent with limitations in the ability to perform activities essential for living at home. Rather, "it is when functioning is affected... that chronic illness becomes a matter of both public and private concern" (Fortinsky et al, 1981, p.490). To the authors, "achieving maximum functioning for the client for as long as possible should take precedence over the more traditional emphasis on treatment and cure. Thus, the nature of long term care is such that ability or inability to maintain independent living is a principle determinant of need ..." (Fortinsky et al, 1981, p.490).

In the context of home-based long-term care, however, it is also recognized that the lack of physical function alone does not dictate need for service delivery from an outside agency. As discussed by Kahana and Coe (1975) such factors as the availability of family helper (so-called informal support), the psychological characteristics of the elderly person, and economic resources must be considered when responding to patient need.

The principal determinant of need for long-term care is the ability or inability to maintain independent living. It is usually not until functional and cognitive abilities decline that elderly individuals become dependent on others for informal support. However, need for formal long-term services typically does not occur unless the elderly person has no informal support to turn to for assistance or the assistance is no longer available or adequate (Fortinsky et al, 1981).

According to Brody, Poulshack and Maschiocchi (1978, p.557), "there is a significant body of research evidence which demonstrates that families are effective resources for the elderly and are responsive to the critical needs of elderly individuals." They contend that, despite the popular view that kinship ties have weakened and are

much looser than in the past, research demonstrates that "strong relational bonds still exist." However, they conclude that irrespective of the type of service, no one factor should be viewed as the sole independent criteria for retaining the elderly in the community indefinitely, including the availability of informal support. Spector and Kemper (1994) on the other hand, suggest defining need in two ways: 1) As the total care needed regardless of the availability of family resources; or 2) Unmet needs allowing for what the family can provide.

Unfortunately, home care has been perceived as a way to control and reduce the cost of long-term care rather than as a way to improve the quality of life of incapacitated elderly persons. Home care reduces perceived unmet needs and improves the quality of life of both clients and family caregivers. In a more positive light, then, home care can be seen as only one of many options for meeting long-term care needs (Palmer, 1983). In this view, the foremost goal of public long-term care programs should be meeting the care needs of persons with functional disabilities regardless of setting. Taking this perspective means shifting the objective of assessment from identifying persons likely to enter nursing homes to identifying persons who need long-term care that can be provided at home. Need can, of course, be defined in many ways: total care needed regardless of the availability of family or financial resources, unmet need after allowing for what family can provide, or financially provide. Each definition forms a basis for establishing a goal, each of which is consistent with a different view of who is responsible for providing long-term care.

The goal of serving persons based on the total amount of care needed reflects the view that needing long-term care is a risk that everyone faces and that it should be spread

across the entire population, regardless of the availability of family to provide care or financial resources. Targeting based on need for care beyond what the family can provide reflects the view that the family has a primary responsibility for providing long-term care and that scarce public resources should be reserved for those without sufficient informal care. Financial need is an independent goal, typically combined with a total or unmet need goal. Targeting based on financial need reflects the view that public financing should be used only for services that the individual cannot afford (Spector and Kemper, 1994).

The conceptualization and operationalization of need poses a serious problem that must be resolved to determine whether resources are allocated appropriately. According to Hirdes, Botz, Kozak, and Lepp (1996), "a variety of factors, including population aging, has led to changes in the health care needs of the population and one might expect that institutional services will focus increasingly on frail individuals with complex chronic illnesses, long-term disabilities and a variety of co-morbid conditions" (p.40). They argue that identifying the needs and resource requirements of elderly clients must reach beyond the diagnostic model of assessment to incorporate a series of indicators of various domains of physical, psychological and social functioning. Hirdes' research confirms the difficulty in assessing the health care needs of the elderly. (For a further discussion of geriatric assessment, please refer to Appendix B.)

2.2.3 Matching Need to Service

The literature suggests that relatively little has been reported with regards to unmet needs of elders (Tennstedt et al, 1994). Tennestedt et al. (1994) contend that longitudinal data mapping of unmet needs patterns is necessary prior to using these rates

as a needs estimate for formal long term care services. Furthermore, they suggest that an analysis of the extent and type (personal vs. instrumental) of unmet need as well as any changes in unmet needs over time would be a better predictor of service allocation. The study conducted was performed over a four year period and showed that unmet IADL needs were more common than PADL. The unmet needs were temporary rather than permanent and were predicted by a lack of "an engaged (not necessarily unavailable) caregiving" system. The data suggest that the rate of unmet personal care need rather than the rate of any unmet need was a more accurate estimate of the number of elders for whom community long-term care services were critical (Tennstedt et al, 1994, p.915).

De Veer and De Bakker (1994), interviewed 311 elderly with chronic disease concerning the presence of unmet needs. The measurement involved two dimensions that were represented by six need scales. The two dimensions referred to were: physical functioning and psychosocial well-being. A considerable difference was found in the amount of formal and informal care and in the presence of unmet needs between the need scales found in one dimension. The results suggest a relationship between need and source of care (formal/informal). Their data indicates that formal care-givers are best suited for tasks involving a specific interval of time and requiring technical skills. Informal care-givers, on the other hand, were involved in IADL needs and psychosocial needs. The conclusion of the study was that the presence of unmet needs can be used as an indicator of the quality of home health care (De Veer and De Bakker, 1994).

2.3 Description of the Alberta Home Care Client Classification System (HCCC)

The difficulty in determining levels of need and methods for assessing them is, in part, related to the basic assumption of assessment – that a single continuum of functionality exists. This assumption is an erroneous one, given the variety of assessment techniques and their different foci.

To counteract some of these difficulties, a matrix of needs, in which physical and psychosocial aspects of need are assessed both independently and jointly, is more appropriate. Using this approach, physical needs would be defined as those needs that fit the more rigid medical model, including nursing care (such as changing of dressings, bedsore treatment, and bowel and bladder training) impairment in activities of daily living, and so forth. Psychosocial needs would refer to various types and degrees of mental impairment such as cognitive deficits and behavioural problems like antisocial behaviour as well as social and economic resources available to the affected client. Different types of patient care needs would fit different cells of the matrix. Each cell would, in turn, represent specific types of interventions. The matrix model attempts to bring some objectivity to the assessment process yet it still requires the consideration of various patient characteristics (Salamon, 1986).

The province of Alberta uses such a matrix approach to determine the level of care for persons receiving long-term care services in the province. Their resident classification system (RCS), introduced in 1988, serves two purposes: 1. To measure the care requirements of residents in long-term care facilities and 2. To provide case mix information so that funding could be based on resident need rather than a system of global funding (Armstrong-Esther, 1994). The classification data could serve a number of other

valuable functions, such as policy planning, staffing and determining workload. In addition, the RCS could be useful for measuring outcomes in acute care, rehabilitation, and community and long-term facility care. The RCS is integrated into the Home Care Client Classification System (HCCC), the assessment tool used for this thesis. The HCCC is described later in this chapter.

The RCS covers seven categories (A-G), with A signifying the most independent levels of need, and G the most dependent levels of need. The categories have been developed so that a patient's need for care is used to correct or compensate for two types of functional impairment: ADLs (activities of daily living) and BDLs (behaviors of daily living). These are two major determinants of resources used in long-term care facilities (Armstrong-Esther, 1994). The items included in the RCS are thought to "reflect services required, not services provided: capture variation among patients on that specific variable; predict overall care needs; be stable over time, assuming the patients condition was unchanged; minimize negative impact on the patient and maximize positive outcomes" (Armstrong-Esther, 1994, p.107). In addition, continence levels of care (CCL) was added to the ADL and BDL component of the RCS. The inter-relationships between them were used as models for the categories in RCS because they reflect the major types of care required by long-term care clients with functional problems to prevent independent living, and thus lead to their admission to long-term care facilities.

The authors of the Alberta RCS believe that three types of interdependent problems determine the care required by long-term care patients: 1. Functional problems, 2. Environmental problems, 3. Medical problems. Despite its attributes, the RCS is a poor tool for identifying and quantifying resources for meeting psychosocial care needs, the

kinds of indirect care activities that support direct care, and the amount of time devoted to such activities (Alberta Health, August 1989).

Following the implementation of the Resident Classification System, the Alberta government developed a Home Care Client Classification (HCCC) system to measure home care needs of long-term care clients in the province of Alberta (Alberta Health, March 1994). This classification process, which is integrated with the RCS assessment process, is based on an analysis of functional needs and the adequacy of informal support. Needs that cannot be met by informal support are identified as requiring intervention by Home Care or by other community agencies. To provide the opportunity for cross-sector comparisons, the functional need indicators selected for the HCCC system are, except for the addition of five new items, the same as those used in the RCS. A translation scheme was developed to score the Alberta Assessment and Placement Instrument for long-term care indicators in a manner that would be consistent with the RCS indicators. In addition, the assessment involved scoring the willingness, availability, and ability of the informal support network to meet the clients' particular needs on each specific functional need indicator. The HCCC system is based on the assessment of thirteen functional need indicators as well as the assessment of the adequacy of an informal support network in meeting the clients' needs on the same indicators, which are: urinary management, bowel management, eating, dressing, grooming, bathing, toileting, indoor mobility, outdoor mobility, transferring, memory, coping and potential for injury.

Scores on the indicators are entered into the home care information system, which then calculates the four component classifications that make up the system: the estimated RCS, a functional need classification, a classification of the adequacy of informal support

networks to meet client needs, and a classification combining functional need and informal support.

2.3.1 Functional Need Classification

The sum scores for the thirteen functional need indicators provide the base information for distinguishing five categories of functional need, ranging from low to high. It is expected that the functional need classification may prove to be useful in tracking the changing levels of functional need and home care caseload.

2.3.2 Adequacy of Informal Support

The summed informal support scores on the thirteen indicators constituted the base for distinguishing five informal support categories. The first category represents no informal support required and the rest range from high to low informal support. Scoring on the informal support indicators reflects both an element of need (i.e. whether there is a need or not) and the adequacy of the informal support network in meeting a defined need. Therefore, adequacy of informal support represents a combination of a two-classification dimension and may be used to monitor change in the overall composition of home care caseload.

2.3.3 Combined Classification

As the informal support classification is sensitive only to the presence of an identified need and not to the level of functional need, a further classification, based on a sum of two sets of scores, is included in the HCCC system. The ten categories in the combined classification are deciles representing 1/10 of the provincial home care caseload. The combined classification will permit the prediction of resource use at the

health unit, and assessment levels which can be compared to a common and current standard (Alberta Health, March 1994).

2.3.4 Validity and Reliability of the Alberta HCCC

The system proved to have high reliability, and to be positively related to such validity criteria as resource use and functional need. The reliability of the HCCC assessment tool was done with inter-rater reliability for the functional need indicators. Four statistics were computed: "whether raters agreed exactly in their scores on the indicators, whether they agreed within one category, the Pearson correlation coefficient and Cohen's Kappa." (Alberta Health, March 1994, p.iv). The results showed high reliability for all need indicators. Furthermore, "strong internal consistency for the functional need and informal support classifications was found. Cronbach alpha reliability coefficients were .87 and .76 on retest." (Alberta Health, March 1994, p.iv).The validity of the HCCC was performed via a measure of resource use and professional judgements. The Pearson correlation coefficients for the validators are outlined in the aforementioned document. The results were interpreted as showing that "the categories distinguished real differences in caseload composition based on predicted need for intervention and that these differences encompassed more than the cost to Home Care, which is frequently limited by funding availability. " (Alberta Health, March 1994, p.iv).

2.4 Assessment and Implementation of Home Support Services in the St. John's Health Region

2.4.1 Principles and Provision of Home Support Services

Home support services are services provided to individuals and their families to assist with activities of daily living. Service is based on a care plan developed by a

Continuing Care professional in partnership with clients whose well-being in their home depends on the provision of formal support. The philosophy underlying home support services is to promote, maintain, and enhance personal and familial independence and responsibility, as well as to provide, within financial limitations, the support services necessary to enable an individual to remain in his/her own home in the community.

The principles underlying the delivery of home support services are as follows: 1. The service plan is based on a professional assessment or re-assessment of need; 2. The plan for service delivery respects the rights of clients, and where applicable, their families to participate in the decision-making process pertaining to care; 3. The service is meant to supplement, not replace, existing family and social supports; 4. The services are to be assessed at the minimal level required to maintain individuals in their homes; 5. Services are provided within a self-managed care framework. This ensures that the client and/or the family chooses the method of service delivery, is the primary contact for the service provider, and that the assessed home support needs are met.

The provision of home support services involves a co-ordination process, which includes: the completion of a client assessment/reassessment to determine home support needs, the determination that a client's home environment is safe and suitable for the provision of services, the monitoring of the quality and effectiveness of the service on an ongoing basis by a continuing care professional, and the implementation of a discharge plan when services are no longer required.

2.4.2 Home Support Categories

The Continuing Care Program, Health and Community Services in the St. John's Region, provides a subsidy for clients eligible for home support under five categories of services, depending on identified need. Services are categorized as follows:

1. Emergency Home Support Services
2. Palliative Home Support Services
3. Alzheimer Respite Home Support Services
4. Short Term Home Support Services
5. Long-Term Home Support Services (Seniors)

Long-term home support services are available to clients 65 years of age and older, based on assessed need for ongoing care. Clients must first access services from other sources for which they may be eligible, such as third party insurance, Department of Veteran's Affairs or Worker's Compensation, before applying for a Continuing Care home support subsidy. Clients must also meet the initial financial screening criteria – client self-declaration of liquid assets less than or equal to $5,000 per individual and/or less than or equal to $10,000 per couple – as well as agree to pay the client contribution as determined through a financial assessment. The maximum contribution from the Continuing Care Program of the Community Health for St. John's region is $2,268/month per client.

In addition to Long Term Home Support Services, individuals who have liquid assets equal to or less than $3,000 and couples with liquid assets equal to or less than

$5,500 may also be eligible to receive a drug card, health care supplies, and/or equipment, based on assessed need.

2.4.3 Service Delivery Options

Once the assessment has been completed and a plan of care developed, the client has the right to choose the method of service delivery. Two options are available: 1) Service delivery through an agency; 2) Client as employer. An employee hired under this option can be: a) a non live-in employee or; b) a live-in employee. The client or her family may also choose a combination of the above methods of service delivery when arranging care.

If service delivery through an agency is chosen, the client/family is given the list of home support agencies so they may choose the one they wish to provide the service. When the client/family does not wish or are unable to choose a home support agency, the assessor uses a home support agency rotational assignment list to assign an agency by rotation. The agencies on the list are approved to operate within the St. John's Region.

If the client as employer service delivery option is chosen, the client becomes the employer, and is responsible for the hiring, training, and supervision of staff. The client/family is also required to maintain employment records, administer a payroll, and forward the appropriate employee deductions and employer contributions to the appropriate government agencies.

2.4.4 Guidelines for Recommending Hours of Service

According to the home support case manager, it is impossible to apply strict standards for recommending hours of service because each client has his or her own unique set of circumstances. Some basic guidelines that may be considered when

developing care plans are detailed below. These guidelines are not meant to override the assessor's professional judgment regarding required client care. If these guidelines are not sufficient in a particular case, additional time, in half-hour increments, may be added.

Guidelines for Personal Care Hours

A minimum of one hour daily for bathing may be needed if a client is incontinent and requires extra attention to protect skin condition and maintain personal hygiene. Two one-hour calls per week for a shower, tub or sponge bath is usually sufficient for continent clients. Where personal care and light meal preparation are required, both tasks can usually be completed in a one hour visit. A personal care hour can frequently be used to incorporate delegated functions, such as the application of prescribed creams or assisting with range of motion exercises.

Guidelines for Household Management Hours

The preparation of a main meal and clean-up require one hour according to the established home support criteria. The preparation of a light lunch (i.e. a sandwich that can be left for the client) can usually be included in a morning breakfast/personal care hour. Under normal circumstances, two hours per week for heavy household work and or laundry is sufficient. If a client is incontinent, an extra hour maybe needed for laundry. Handyman duties such as snow clearing and yard work, are not included as duties of a home support worker.

Guidelines for Respite Hours

Six to eight hours of flexible respite per week may be provided for caregivers living with dependent family members. This is exclusive of respite time for a caregiver

to be at work outside the home and for which the actual number of working hours might be needed, based on assessed client need.

2.4.5 Delegation of Function

The home support worker may be required, through the mechanism of delegation of function, to perform procedures that may not be considered to fall within his or her usual range of duties. The delegation of function refers to a formal process whereby an appropriate professional, in accordance with their professional standards of practice and organizational policy, makes a decision to delegate a client-specific function to a home support worker. A certificate of competency is issued to the worker, and policies of supervision and re-certification are followed.

In certain cases, delegation of function can impact on the number of hours of care recommended. For example, if a client requires a delegated exercise program, personal care hours may need to be increased to allow time to do the prescribed exercises. The availability of delegation of function to home support workers may, in some cases, enable a client to be cared for in the community rather than in an institutional setting.

2.4.6 Ongoing Monitoring

Following the assessment for an implementation of Long Term Home Support Services, a Continuing Care professional is responsible for the ongoing monitoring of the care plan and service provision. It is the client and or family's responsibility to contact the service provider and the Continuing Care professional to advise them of any break in or discontinuation of home support services. The Continuing Care professional is responsible for notifying the account clerk and financial assessment officer, using a

Discharge/Break in Service Notification Form, and where appropriate, confirming the break or discontinuation of services with the service provider (Crowley, 1998).

2.5 Assessment Strategies

It is recognized and expressed, by community health workers in the St. John's region, that there is a need to improve assessment of the extent of home care required by the elderly population. Furthermore there is a need to assess accurately the relationship between formal care (provided by paid care workers, usually Department of Health employees and Community Services) and informal care (provided by unpaid caregivers, usually family members or friends, who are usually females. The government of Newfoundland and Labrador has developed an assessment tool for these purposes, the Newfoundland and Labrador Continuing Care Assessment for Adult Long Term Care (NLCCA). It has not been scientifically evaluated and is considered inadequate by field workers who have stated that it relies too much on their subjective judgment, and that the NLCCA does not effectively relate the current provision of care to a standardized assessment. For an assessment tool to be useful, it must be able to accurately identify the needs and services of the individual client. The Alberta Home Care Client Classification tool has been shown to accurately identify both needs and services, and for this reason it was the assessment tool used for this research (Alberta Health, March 1994, p.iv).

An important issue in the assessment of seniors needs is their gender. Gender is critical when considering health status and utilization, because the health needs of elderly women are likely to be substantially different from those of elderly men. Being an elderly woman is associated with other factors relevant to health, particularly the likelihood of living alone and having a low income. In addressing the issue of service provision, it is

especially important to consider the living arrangement of elders because those living alone are less likely to have informal support networks. To remain in their communities, women living alone are more likely to be dependent on formal services when in poor health and in need of help. To provide substance to these issues, we need to bring the health status of today's elders and their use of health care services into sharper focus. (Moore & Rosenberg, 1997).

2.6 Purpose of Study

The primary purpose of this study is to assess the relationship between home care support needs and the services available to meet those needs in a sample of women aged 75 years or greater, currently receiving financially subsidized home support services in the St. John's region. A secondary purpose is to assess the possibility of transposing the narrative description of Activities of Daily Living found in the Newfoundland and Labrador Continuing Care Assessment for Adult Long Term Care (NLCCA) into the quantitative description of the Alberta Home Care Client Classification System (HCCC). More specifically, the aims of this study are:

1. To describe the needs of clients according to functional need indicators for formal care provision;
2. To describe services that are currently being provided to these women through both formal and informal systems;
3. To describe the relationships between needs and services. Relating needs and services will assist in planning for long-term care services to accommodate increases in Newfoundland's elderly population. Furthermore, the ability to relate these two domains will allow us to examine the appropriateness of the matching

of services to needs as well as the predictors of service allocation in the St. John's Continuing Care sector.

In addition, this thesis aims to contribute to the research identified in the literature review by exploring the value of the assessment tools, (i.e: NLCCA as it translates into the HCCC) which contribute to assessing senior needs for home care in Newfoundland and Labrador. Since the NLCCA was developed and based on the HCCC, it was hypothesized that descriptive information from the NLCAA could be translated into equivalent numerical score used in by the HCCC.

CHAPTER III – DESIGN AND METHODS

3.1 Introduction

It is evident that an assessment of home support client needs, formal services, as well as the appropriateness of their relationship is crucial to the future evolution of the home support program in the St. John's Region (Appendix C). Key points arising from the literature review centered around factors used in determining need for long-term care clients and the ability to use this information for understanding how to serve this target group. Functional problems interfering with independent community based living are also addressed as they related to eventual outcomes (i.e. placement in nursing homes or other long-term care facilities and predictors of formal support). In addition, issues of functional ability and priority of indicators with respect to activities of daily living are essential in assessing the care needs of elderly clients. Finally, in understanding the home support system's ability to classify and serve its clients, issues enabling effective resource allocation become important.

3.2 Research Design

Part A: Formal Care Need and Formal Service Provision

A retrospective design was used to assess clients' formal care needs and the amount of formal service provided by the community health staff delivering continuous services to meet those needs. A validated scoring system was used to measure these two domains (Appendix: D).

Each study subject was evaluated based on two major criteria: (a) formal needs assessed using thirteen functional need indicators (the thirteen functional need indicators were: eating, urinary incontinence, bowel continence, toileting, indoor mobility, outdoor

mobility, transferring, memory, ineffective coping, potential for injury, grooming, dressing and bathing (Appendix E)) and; (b) formal hours of home support provision, which encompasses three subcategories; personal care, household management, and respite hours.

Data recorded in the Newfoundland and Labrador Continuing Care Assessment for Long Term Care (NLCCA) were used to classify client functional needs. Data extracted from the Home Support Service Referral Work Sheet (See Section 3.6.5) was used to classify client amounts of formal service hours (Appendix D).

Part B: Informal Support

A cross-sectional design was used by administering a questionnaire eliciting information about informal support to the community health staff member delivering continuing care services to the client (n=52). The questionnaire focused on the perceived capabilities of all informal supporters of a client to provide care.

The community health staff member most directly involved in the care of the client assessed the client's informal supports based on the same thirteen indicators used to assess that of functional need in part A.

3.3 Sample Selection

All clients meeting the following government based eligibility criteria and the inclusion criteria described below were assessed.

Eligibility Criteria

- Client self-declaration of liquid assets less than or equal to $5,000 per individual and/or less than or equal to $10,000 per couple – as well as client agreement to pay the client contribution as determined through a financial assessment.

- The cut off age of 75 years was determined by discussion with the continuing care manager in the St. John's Region. Females were selected based on data that showed a suitable population size for study. The existing data file kept by Community Health indicated that this was a cohort that had not been examined and thus analysis would benefit future policy planning in the region (Crowley, 1998).

Inclusion Criteria

To be included, a client was required to have met the following parameters:

- Be a female aged 75 years or more
- Be in receipt of long-term home support services between January 1 and January 31, 1998
- Have their chart held at the Central Office location of Community Health in St. John's Newfoundland

Exclusion Criteria

Applicants were excluded from this group if:

- They were males. Spread sheet data collected by the Community Health staff showed that only 21 males would have been eligible for participation in the study. This was considered an insufficient sample size for data analysis.
- They were females under the age of 75 years.
- They were missing data in their chart.
- Their eligibility criteria changed during the course of the data collection period.

3.4 Ethics

This study was approved in two parts. The Memorial University of Newfoundland Human Investigations Committee approved Part A: assessment of formal need and services on March 13, 1998. Part B: assessment of informal support questionnaire administered to the community health care staff member, received full approval from the Human Investigation Committee on May 27, 1998 (Appendix F). In addition, Community Health (Senior Management Committee) approved the research. Informed consent of clients was not required because the information was obtained through chart abstraction without client participation. Confidentiality was maintained, however, by not using any client identifiers on any documents or reports to be seen by anyone other than those providing care or the principal investigator in the study. Furthermore, all client files remained at the office of Community Health, St. John's Region.

3.5 Research Instruments

3.5.1 Data Collection Instrument

A data collection instrument was developed for this study that combined key data elements from each of the HCCC and NLCCA client classification systems (see descriptions below). The rationale for using the HCCC in analyzing data from the NLCCA is based on the fact that the NLCCA was initially developed on the HCCC model. Therefore, to take the similar descriptions provided in the NLCCA and match it to the corresponding numerical value found in the HCCC seemed a logical method for collecting patient information. To this end, a cross-walk (to transform data) between the NLCAA and HCCC was developed by the research team at the Patient Research Center, Memorial University of Newfoundland in 1996-1997 (MacDonald, 2002). This instrument was tested by obtaining information relating to activities of daily living and functional need indicators from the single entry assessment form. The necessary information was then transferred to the HCCC using the specific and consistent criteria (Appendix G).

3.5.2 Newfoundland & Labrador Continuing Care Assessment for Adult Long Term Care (NLCCA)

In February 1995 the government of Newfoundland and Labrador's Department of Health created a continuing care assessment document for adult long-term care. This classification scheme involved an assessment conducted by a Community Health Care staff member with ongoing reassessment of clients, at intervals of approximately six months. Five client care components of this document were evaluated: (1) physical assessment; (2) a mental status assessment; (3) behavioral assessment; (4) social

assessment and; (5) an environmental assessment. Included in this document were activities of daily living (physical and instrumental). Activities of daily living information included levels ranging from independent to dependent, as well as the category of non-applicable (Appendix D).

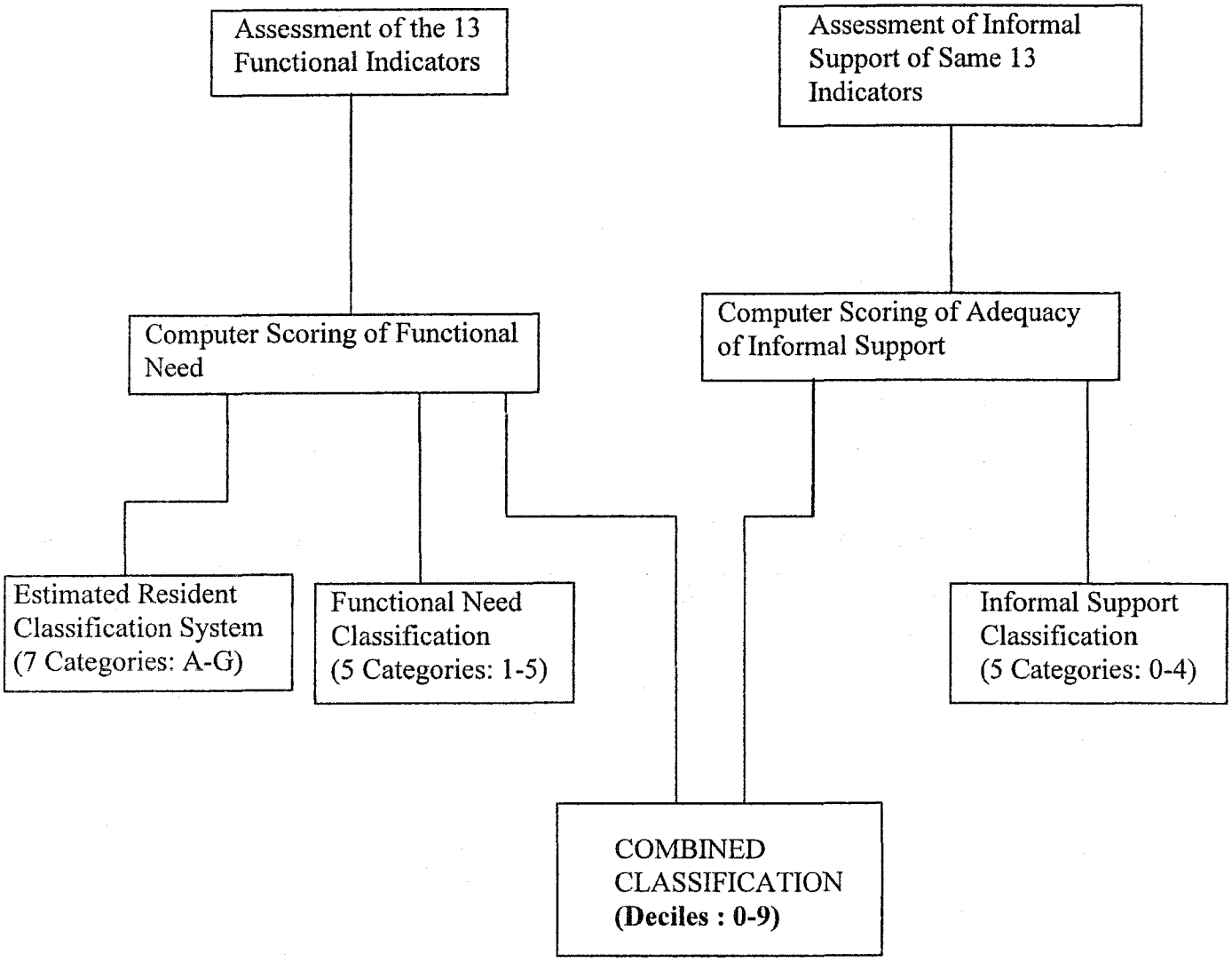
3.5.3 Alberta's Home Care Client Classification System (HCCC)

The HCCC classification is based upon indicators of assessed functional need. An individual will demonstrate a need for assistance by some index of functional incapacity. A level of independence is defined in terms of the amount and type of services a client requires to maintain functional capacity, which in turn allow the estimation of a cost of care that is required. An arbitrary ceiling of cost then determines a "level of care funding" classification scheme. This classification system assumes that there is a linear relationship between the amount of resource use and care requirements. The HCCC is based on the assessment of thirteen functional need indicators (Appendix H). This system utilizes these thirteen key indicators to measure functional need and ranks need into five categories or levels ranging from low (1) to high (5) (Figure 3.1). This assessment tool was chosen since it fitted closely the study objectives outlined in Section 3.6 and was designed with similar components found in the NLCCA. Furthermore, the Patient Research Center at Memorial Medical School had developed a cross-walk between these two assessment tools.

3.5.4 Alberta's Resident Classification System (RCS)

The RCS was developed to assign nursing home residents a level of care based on the degree of disability, using scales that integrate problems with activities of daily living (ADLs) continence (CCL's), and behavior (BDL's). This system uses seven levels of care with (1) being the lowest and (7) being the highest. Each level is associated with increased resource utilization as measured by nursing time equivalent per day (Appendix I). There is a correlation between the RCS and the HCCC since the same functional need indicators are used in the assessment process.

Figure 3.1 Conceptual Diagram of the Four HCCC System Components (Alberta Health, 1994)



3.5.5 Home Support Service Referral

The St. John's Region Community Health Board utilizes a Home Support Service Referral Work Sheet that indicates the many factors relating to the care of a client. Data were extracted from this worksheet and used to classify client amounts of formal service hours. Items included in the worksheet are: selection of agency used by the client, the diagnosis of the patient, the type of care and amount of assistance they are receiving with respect to bathing, grooming, eating, toileting, continence, ambulation, medical treatment, meals and household management as well as transfer and turns. Allotment of service hours per day is indicated in the domains of personal care, household management, and respite, which is then summed for each of these categories to a subtotal of hours per week. Finally, the total combination of these three domains is calculated for the "total formal hours" required. The health care staff member directly involved in the care of the client also includes comments, considerations, and progress notes for other involved staff members (Appendix D).

3.6 Measurment

3.6.1 Needs Assessment

The first study aim centered on describing the needs of clients with respect to functional need indicators. This was assessed through examination of client files with respect to activities of daily living indicators found in the NLCCA document. The data abstracted from the charts were then transformed to the Alberta Home Care Classification System (HCCC) through a validated tool (Appendix G). A long-term care classification work sheet was created in order to record information pertaining to functional needs of the clients with respect to the thirteen functional need indicators. A functional need score

(raw score) ranging from (0) signifying independent to (5) signifying unable to manage, needs constant assistance was used to evaluate each of indicators of eating, indoor mobility, outdoor mobility, transferring, toileting, ineffective coping, grooming, dressing and bathing. An ordinal scale (raw score) ranging from (0) indicating no alteration to (4) indicating unable to manage, needs constant supervision/assistance was used to evaluate each of urinary management and bowel management. Memory was assessed on an ordinal scale (raw score) from (0) indicating immediate/recent and remote memory intact to (3) indicating significant impairment in immediate and remote memory. Potential for injury to self and others was evaluated on an ordinal scale (raw score) from (0) indicating no intervention required to (6) indicating close and constant intervention required every 15 minutes or more often (Appendix G).

Summing up the raw scores for the thirteen indicators allowed a base of information for distinguishing five categories of functional need levels ranging from low (1) to high (5). The breakdown of raw scores is as follows:

- Level (1) – Corresponding summed raw values between 1 and 5
- Level (2) – Corresponding summed raw values between 6 and 10
- Level (3) – Corresponding summed raw values between 11 and 20
- Level (4) – Corresponding summed raw values between 21 and 25
- Level (5) – Corresponding summed raw values between 26 and 52

A Paradox program was used to enter this raw scored data into a computer file that computed the overall raw score and corresponding levels of need (i.e. 1-5).

To describe the needs of the clients, eight RCS indicators were also used. The functional need classification included the eight indicators used in the RCS, with items

translated where necessary to allow comparable scoring with the Alberta Home Care Client Classification System, the HCCC. The indicators were drawn from the Alberta Assessment Instrument (AAPI, 1989 version) and included: Activities of Daily Living indicators (ADL) of eating, dressing, toileting, transferring; Behavior of Daily Living indicators (BDL) of coping, potential for injury to self and others and; Continuing Care Level or Continence indicators (CCL) of urinary management and bowel management. These RCS indicators were expressed in seven categories of functional need ranked A to G indicating low to high in terms of care requirements and resource use (Appendix I).

Mathematical equations based on inclusion data were used to create a Paradox program that would automatically calculate the RCS values for each of the three domains and assign the appropriate letter value indicating overall category placement.

3.6.2 Support Systems

The second study aim centered around describing the current services being provided through formal and informal systems. This was assessed in two parts.

Part A: Formal Support

Formal support hours were assessed by abstraction of information from the Home Support Service Referral Worksheet regarding hours of service in three domains: personal care, household management, and respite. Each client's total hours were recorded and ranked from the individual with the least total formal support hours to the individual receiving the most total formal support hours. Quartiles were then established with the help of a Microsoft Access program. The program had specifically designed queries that ranked clients as receiving low formal service to receiving high formal service and calculated the corresponding hours for each quartile.

Part B: Informal Support

Informal support service provision was assessed by the distribution of a questionnaire to 52 health care team members providing care to the 103 identified client population. This was administered on June 12, 1998 to the health care team member who was in closest association with the client. A memorandum was sent to each community health care team member explaining the aims and purpose of the study as well as instructions on how to fill out the appropriate responses to the questions. The principal investigator was available to provide more information on the study if needed, and to answer questions regarding the informal support questionnaire. The continuing care staff members signed consent for participation in the study in the presence of the principal investigator (Appendix E).

The health care team member provided information pertaining to the perceived capabilities to provide care of all informal supporters of a client. Specifically, information was provided on the informal support systems' willingness and ability to meet the thirteen functional need indicators. Recall issues over this time were handled by allowing the health care team member to consult their patient records and by virtue of a policy that necessitates re-evaluation of a clients informal supports every three to six months. Responses to each of the 13 questions were rated on the following scale: (0) indicated not required, meaning that the informal support is not required as the client is able to meet the identified need; (1) almost all, meaning that the informal support system is able and willing to meet the need all or almost all of the time; (2) indicating most, more than half plus, meaning the informal support system is able and willing to meet need most (more than half) of the time; (3) indicated some, less than half, meaning that the informal

support system is able and willing to meet need, some (less than half of the time) of the time; (4)indicating none, meaning none or very little of the informal support system is able/willing to meet the client need (very little or none of the time), or there is no identifiable informal support system.

Informal support scoring categories were utilized to indicate informal support levels (summed up values for thirteen informal support indicators). The first category represents no informal support required and the rest range from high to low levels of informal support. Upper boundary scores were 0 for no informal support required indicating level 0, and 5, 10, 20 and 52 for corresponding levels of 1 to 4.

3.6.3 Relationship of Needs to Services and Predictors of Service Allocation

The third aim of the study was to describe the relationship between the needs of the client and the services provided to the client. The functional needs of a client are defined first regardless of whether they are being met or not. (Study Aim One) Then the adequacy (i.e. the availability, capability and willingness) of the informal support network is reviewed. (Study Aim Two). Scoring on the informal support indicators reflects both the element of need (i.e. whether there is need or not) and the adequacy of the informal support network at meeting a defined need and results in a combined classification score depicted in Figure 3.1. Therefore, the combined classification score may be used to monitor change in the overall composition of home care caseload.

The clients combined classification scores were ranked in deciles ranging from (0) indicating low level to (9) indicating high level. Their needs score was summed with the informal support score to arrive at this decile score. A decile ranking of (0) equaled a total combined raw score ranging from 0-2, a decile ranking of (1) equaled 3-6, (2)

equaled 7-9, (3) equaled 10-13, (4) equaled 14-17, (5) equaled 18-21, (6) equaled 22-24, (7) equaled 25-31, (8) equaled 32-42 and (9) equaled 43-114.

The relationship between clients needs level and formal service provision in the areas of personal care, household management and respite care was examined. Furthermore, the relationship of informal support level and formal service provision was also investigated.

Identified mismatches of need level and service provision are examined in terms of under-utilization and over-utilization of formal support services. These mismatches were compared to those corresponding clients receiving appropriate (correct) matching of services to needs. This was done using SPSS (version 6.0), and by creating queries in the computer program Microsoft Access.

An examination of the predictors of formal service provision was also calculated by the principal investigator. Furthermore, a spreadsheet was developed in order to provide data on formal service provision, need, informal supports, and combined decile rankings.

3.7 Data Analysis

A Paradox computer program was developed by the principal investigator to combine the assessment data of the clients' formal care needs and informal support. The program would automatically rank clients into the appropriate decile by summing up their scores. In addition, the program was able to calculate the level of client need and rank each client into the appropriate RCS category.

The Microsoft Access program provided stratification of data where appropriate. The Access program allowed a tabular, visual representation of the mismatched scenarios

that might exist in the St. John's community health care system. Data were analyzed using the Statistical Package for Social Sciences (SPSS-version 6.0). Correlation analysis examined the relatedness of domains (i.e. service as it relates to need.) Finally, a McNemar test analysis (for two related measures on the same sample) provided information on the association between need level and care provision. A multiple linear regression analysis was performed in order to determine which factors predict formal service allocation.

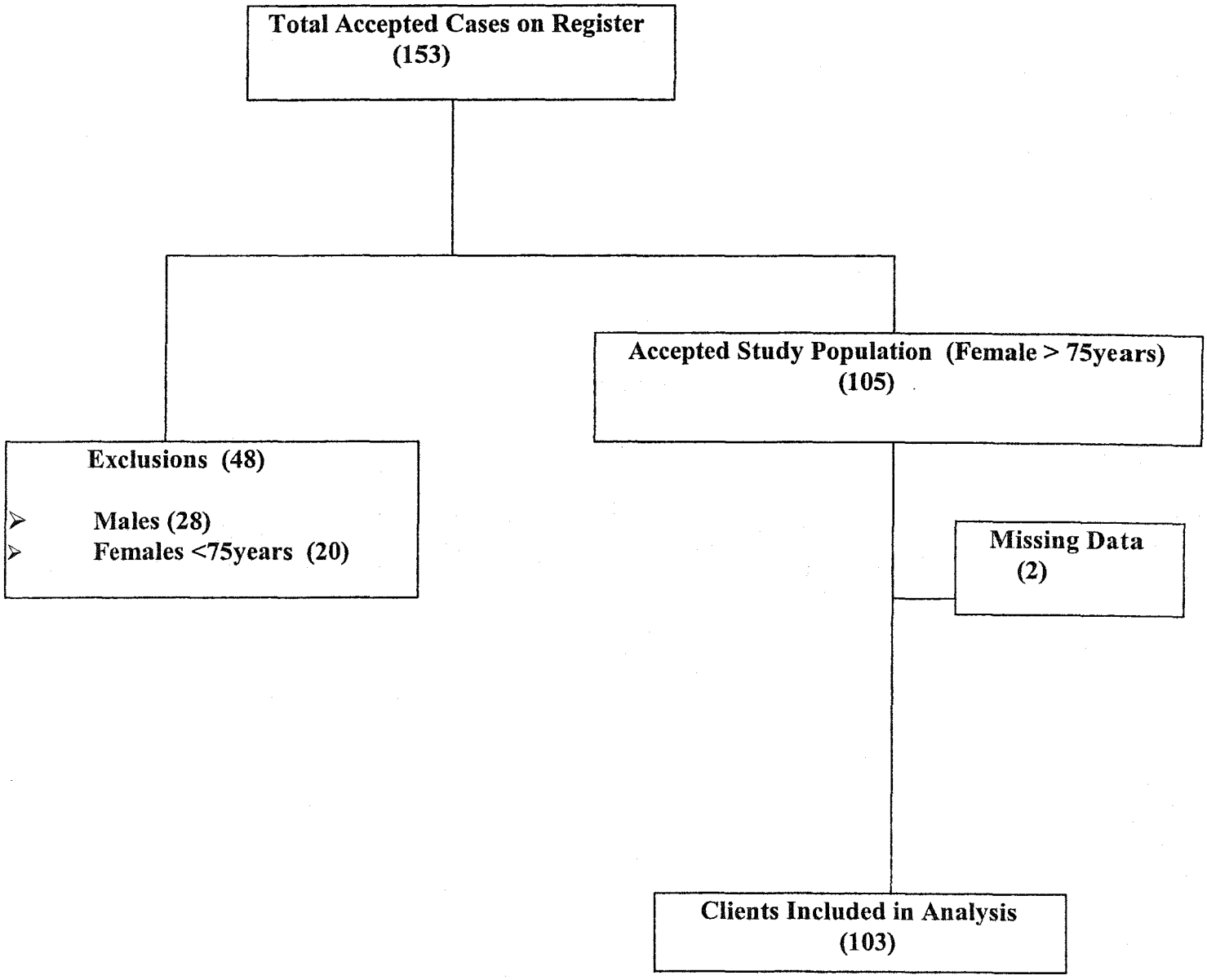
CHAPTER IV – RESULTS

This chapter is divided into four major sections. The first section provides demographic information on the study population. The second section is related to the first study aim and provides a descriptive analysis of levels of formal need and specific scores on the 13 need indicators of clients in the St. John's region. Section three provides a descriptive analysis of the levels of formal and informal support and specific scores on the 13 indicators for informal service for these clients. This section is related to the second study aim of service provision. The fourth section addresses the third study aim of describing the relationship between client needs and services being provided. A description of the Combined Decile ranking is provided to this end. (The combined classification is used as a predictor of total Home Care resources required by the client currently in the Home Support system.) Furthermore, the appropriateness of the matching of services to needs (ie: Under-utilization / Over-utilization of home support services) and predictors of service allocation are examined.

4.1 Clients Accepting Home Support Services

A register of 153 cases was obtained from Community Health, St. John's Region. The list contained all clients accepting home support services between January 1 and January 31, 1998. Out of 153 accepted client cases on register, 50 were excluded from the study for the following reasons: 28 were males and 20 were females under the minimum age requirement. In addition, two client cases contained incomplete data files and thus were not included in the analysis of the study. The number of clients included in the analysis was 103, 67% of the total clients accepting home support services (Figure 4.1).

Figure 4.1 Total Clients Accepting Home Support Services - January 1998



4.1.1 Client Characteristics

The demographic characteristics of the study population are shown in Table 4.1.1 Of the 103 female clients assessed and in receipt of home support services as of January 1st, 1998, the average age was approximately 86 years with a range from 76 to 104 and standard deviation of six years. A large proportion of the study population, about 42%, was living alone at the time of assessment. Only 27% lived with children, and 12% lived with a spouse. The overwhelming majority, 87%, of clients was widowed.

The source of admission to home support services were varied. A family member was involved in the admission in 27% of the studied cases. The hospital and the Department of Social Services were each involved in 14% of cases of clients' admission to home support services. In 26% of the total cases examined, no information was provided on the source of admission to home support services (Table 4.1.1).

Table 4.1.1 Demographics Characteristics of Female Clients 75 years or older (n=103) Receiving Government Subsidized Home Support Services in the St. John's Region as of January 1998.

Variable	Frequency
Mean Age, yr (Range)	85.76 (76-104)
Age Standard Deviation	5.89
Household Composition (%)	
Alone	43 (41.7)
Children	28 (27.2)
With Spouse	12 (11.7)
Other	11 (10.7)
Not Given	4 (3.9)
Non-Relatives	3 (2.9)
Spouse/Children	1 (1.0)
Other Relatives	1 (1.0)
Marital Status (%)	
Widow	90 (87.3)
Married	12 (11.7)
Single	1 (1.0)
Source of Admission (%)	
Family Member	28 (27.2)
Not Given /Missing	27 (26.2)
Hospital	14 (13.6)
Department of Social Services	14 (13.6)
Other	8 (7.8)
Family Doctor/Consultant	7 (6.8)
Self	4 (3.9)
Public Health Nursing	1 (1.0)

4.2 Describing the Needs of Clients

Table 4.2 provides a descriptive overview of functional need scores for the study population (n=103) with respect to the 13 indicators used in the Alberta Home Care Client Classification System.

The mean, median and standard deviation for these indicators are provided, as are the proportion of clients scoring a high need value on each of the variables. The most common problems identified concerned bathing, dressing and grooming followed by toileting, mobility and eating. This cluster of problems is concerned with activities of everyday living. Less common problems were continence (urinary and bowel), and behavior (coping and injury potential). This cluster of problems is more health-related.

4.2.1 Alberta Resident Classification Scores (RCS) for Activities of Daily Living

The Alberta Resident Classification System was used to assess clients in order to determine the level of care they would require if they resided in a nursing home. This is considered a part of the Home Care Client Classification since it allows tracking of clients through the long-term care system.

The Activities of Daily Living indicators used in the RCS included eating, dressing, toileting, and transferring. These four indicators were then grouped together to arrive at overall levels of need with respect to Activities of Daily living. Of the 103 clients examined about 42%, (n=43) received a level of need score of 1-2. (1 being low, 2 being low -medium). A medium level of 3 was scored by 14% (n=14). A medium-high to high level of need was represented by level 4-5 and encompassed 44% (n=46) of the total study population (Table 4.2.1).

4.2.2 RCS for Behaviour

The Behaviour indicators used in the RCS included ineffective coping, and potential for injury to self and others. The two indicators were then grouped to arrive at an overall level of need with respect to Behaviour indicators (BDL). Of the 103 clients examined, about 7% (n=7) received a score greater than or equal to 3 indicating a high level of need for the behavior indicators (Table 4.2.2).

4.2.3 RCS for Continence

The Continence indicators used in the RCS included urinary and bowel continence. The two indicators were then grouped to arrive at overall level of need for continence (CCL). Of the 103 clients examined, approximately 63% (n=65) had no CCL problems (scored as 0). About 18% (n=19) received a score of 3 indicating a high level of need for the incontinence indicators (Table 4.2.3).

Table 4.2 Measures of the Average of 13 Alberta Home Care Client Classification Formal Care Need Indicator Scores for Clients in Receipt of Home Support Services in the St. John's Region as of January 1998. (n =103)

Functional Need Indicator	Indicator Score Range / High Proportion value	Mean	Median	Standard Deviation	Percentage Above High Proportion
Bathing	0-5 / >3	4.04	5.00	1.54	81.6
Dressing	0-5 / >3	2.88	3.00	1.99	59.2
Grooming	0-5 / >3	2.52	3.00	2.13	51.5
Toileting	0-5 / >3	3.55	3.00	1.56	46.3
Outdoor Mobility	0-5 / >3	2.80	2.00	1.48	44.1
Indoor Mobility	0-5 / >3	2.39	2.00	1.51	36.3
Eating	0-5 / >3	1.79	2.00	1.74	34.9
Memory	0-3 / >2	2.05	2.00	1.27	30.3
Transferring	0-5 / >3	1.33	1.00	1.82	27.7
Urinary Continence	0-4 / >3	1.07	1.00	1.58	25.2
Bowel Continence	0-4 / >3	0.75	1.00	1.49	19.4
Potential for Injury	0-6 / >4	0.66	1.00	1.27	6.8
Ineffective Coping	0-5 / >3	0.32	1.00	0.79	3.8

Table 4.2.1: Alberta Resident Classification Level of Care Scores (RCS) For Activities of Daily Living Indicators (ADL- Eating, Dressing, Toileting, Transfering) (n=103)

ADL Level of Care Score	n	%	Cummulative %
1 (low)	32	31.1	31.1
2 (Med Low)	11	10.7	41.7
3 (Med)	14	13.6	55.3
4 (Med High)	29	28.2	83.5
5 (High)	17	16.5	100.0

Table 4.2.2: Alberta Resident Classification Level of Care Scores For Behaviour Indicators (BDL- Ineffective Coping, Potential for Injury to Self and Others) (n=103)

BDL Level of Care Scores	N	%	Cummulative %
1 (Low)	79	76.7	76.7
2 (Med)	17	16.5	93.2
3 (High)	6	5.8	99.0
4 (V. High)	1	1.0	100.0

Table 4.2.3: Alberta Resident Classification Level Of Care Scores For Continence Indicators (CCL – Urinary Continence, Bowel Continence) (n =103)

CCL Level of Care Score	N	%	Cummulative %
0 (None)	65	63.1	63.1
1 (Low)	11	10.7	73.8
2 (Med)	8	7.8	81.6
3 (High)	19	18.4	100.0

4.2.4 RCS Total Level of Care

The Alberta Resident Classification System was used to assess clients in order to determine their level of care if they were to reside in a nursing home. Of the 103 clients receiving government subsidized home support services, 40% (n=41) received a score of 1-2 (1 being the lowest anticipated resource utilization in a nursing home), 47% (n=48) received a score of 3-5, and 14% (n=14) received a score at the second to highest level of care (score 6). It should be noted that no clients scored the highest level of care (score 7). About 60% (n=62) had a score greater than or equal to 3 (Table 4.2.4).

4.2.5 Home Care Client Classification (HCCC) Need Scores

The level of care for each client was also assessed using the 13 home care functional need indicators. The indicators were used to assess the needs of the client while receiving home support services in the St. John's region. Of the 103 clients, 25% (n=26) had need levels that were considered low to medium low (score level 1-2). A medium score of 3, to a high score of 5, was obtained by 75% (n=77) of the 103 clients (Table 4.2.5).

Table 4.2.4: Alberta Resident Classification Summary Level Of Care Scores for Clients Receiving Government Subsidized Home Support Services (n=103)

Level of Care	n	%	Cummulative %
1	27	26.2	26.2
2	14	13.6	39.8
3	13	12.6	52.4
4	20	19.4	71.8
5	15	14.6	86.4
6	14	13.6	100.0
7	0	0	100.0

Table 4.2.5: Alberta Home Care Client Classification Level of Formal Care Need Scores for Clients Utilizing Home Support Services in the St. John's Region (n=103)

Level of Care – Needs Score	N	%
1 (Low)	12	11.7
2 (Med Low)	14	13.6
3 (Med)	23	22.3
4 (Med High)	13	12.6
5 (High)	41	39.8

4.3 Describing Service Provision

4.3.1 Formal Service Provision

The results of the Microsoft Access Program queries revealed the following limits for each of the corresponding quartiles:

- ***Lowest quartile*** – all patients receiving 7 hours or less of personal care, 5 hours or less household management and no respite care for a total of 26.88 hours or less.
- ***Second quartile*** – clients receiving between 7.01 and 12 hours of personal care; between 5.01 and 10.5 hours of household management, and between 0 and 30 respite hours with total care hours between 26.89 and 48.50.
- ***Third quartile*** – clients who were receiving between 12.01 and 14 hours of personal care; between 10.51 and 17.50 hours of household management; and between 30.01 and 50.62 respite care hours with a total ranging between 48.51 and 73.94 hours.
- ***Highest quartile*** – clients receiving between 14.01 and 38 personal care hours; between 17.51 and 36 household management hours and 50.63 and 133 respite care hours. This summed up to between 73.95 and 168 of formal service hours.

4.3.2 HCCC Adequacy of Informal Support

Table 4.3 provides a descriptive overview of informal support scores for the study population (n=103) with respect to the same 13 indicators used to describe the needs of the client in section 4.2.

The mean, median and standard deviation for these indicators are provided as are the proportion of clients scoring high for informal supports. A high value is less than or

equal to two, indicating that the client has a high amount of informal support. A description of the interpretation of the indicator scores is provided in Appendix D.

Using the 13 functional need indicators the informal supporter(s) ability and willingness to meet the clients needs was assessed. In this part of the HCCC system, the numerical representation for levels are opposite to that used in assessing level of need. Of the 103 clients examined in the study, 2% (n=2) scored 0 and hence required no informal support since the client themselves were able to meet their identified need. A high to medium level of informal support, scored as 1-2 was found in 13% (n=13) of clients in receipt of Home Support. A large number of clients, 85.4% (n=88), had low informal support (score 3-4) (Table 4.3.1).

Table 4.3: Measures of the 13 Alberta Home Care Client Classification Informal Support Indicator Scores for Clients in Receipt of Home Support Services in the St. John's Region as of June 1998 (n = 103)

Informal Support Indicator	Indicator Score Range/ High Proportion Value	Mean	Median	Standard Deviation	Percentage Above High Proportion
Memory	0-4 / ≤2	1.86	1.00	1.58	67.7
Eating	0-4 / ≤2	1.77	2.00	1.60	62.8
Transferring	0-4 / ≤2	1.78	1.00	1.66	62.4
Bowel Continence	0-4 /≤ 2	1.88	2.00	1.73	58.8
Urinary Continence	0-4 /≤ 2	1.97	2.00	1.75	55.9
Indoor Mobility	0-4 /≤ 2	2.11	2.00	1.66	55.5
Outdoor Mobility	0-4 / ≤2	3.04	3.00	1.36	49.5
Toileting	0-4 / ≤2	2.27	3.00	1.66	48.1
Grooming	0-4 /≤ 2	2.45	3.00	1.54	45.1
Potential for Injury	0-4 / ≤2	2.50	3.00	1.32	44.1
Dressing	0-4 / ≤2	2.76	3.00	1.51	39.0
Bathing	0-4 / ≤2	2.97	3.00	1.34	29.4
Ineffective Coping	0-4 /≤ 2	1.93	2.00	0.92	4.8

Table 4.3.1: Alberta Home care Client Classification – Adequacy of Informal Support Scores for clients Utilizing Home Support Services in the St. John's Region (n = 103)

Level Of Informal Support	N	%
0 (No Support)	2	1.9
1 (High)	3	2.9
2	10	9.7
3	30	29.1
4 (Low)	58	56.3

4.4 Describing the Relationship of Client Needs and Services

The Combined Classification uses a decile ranking to link client need to theoretical prediction of home care resource utilization. It also allows comparison of clients to each other and to a common standard. For example, a client in decile ranking 3 is ranked in the 31-40% range and can be expected to use more resources than 30% of clients, and fewer resources than 60%.

Table 4.4 displays the decile rankings of the 103 clients. A significant number, 79% (n= 82) of clients had high decile rankings (score 7-9). On the other end, only 11% (n=11) of clients obtained low combined scores (score 0-4) (Table 4.4).

A correlation was calculated for the decile ranking of clients (ie: the combined score of needs and informal support) and formal service provision. A correlation value of 0.613 was found to be significant at the 0.01 level (2-tailed).

Table 4.4: Alberta Home Care Client Classification – Combined Decile Rankings For Clients Utilizing Home Support Services in the St. John's Region (n=103)

Decile Rankings	N	%
0	1	1.0
1	0	0.0
2	2	1.9
3	4	3.9
4	4	3.9
5	6	5.8
6	4	3.9
7	7	6.8
8	14	13.6
9	61	59.2
Total 0-9	103	100.0

4.4.1 The Relationship Between Need Levels and Formal Service

The total sample size of 103 clients was used in this assessment. The research team decided to group a need level score of 3 with the low assessed need level. An examination of the raw score was used in this decision. The raw score corresponding to level 3 was closer to that of level 2 and 1.

Table 4.4.1 examines the relationship between need levels and formal service provision by use of the McNemar test. In the domain of personal care, household management, and respite care, there was no association between need level and level of formal service.

Overall, there was not a significant association between need level and formal care provision.

A correlation was calculated for the need levels and formal service provision for the study population. A correlation value of 0.623 was found to be significant at the 0.01 level (2- tailed).

Table 4.4.1: A Cross tabulation (McNemar test) of the Relationship between Formal Service Provision in Domains of Personal Care, Household Management Respite Care and Total Care Service by Client Need Levels (n=103)

Formal Service Provision (level in hours)		Need Level		X^2 McN	P value
		Low level 1-3, n=(49)	High level 4-5, n=(54)		
Personal care	Low (1-2) Quartile	73.4% (36)	29.6% (16)	0.14	0.71 (N/S)
	High (3-4) Quartile	26.6% (13)	70.4% (38)		
Household Management	Low (1-2) Quartile	57.1% (28)	51.9% (28)	0.73	0.39 (N/S)
	High (3-4) Quartile	42.9% (21)	48.1% (26)		
Respite care	Low (1-2) Quartile	77.6% (38)	25.9% (14)	0.16	0.69 (N/S)
	High (3-4) Quartile	22.4% (11)	74.1% (40)		
Total	Low (1-2) Quartile	75.5% (37)	25.9% (14)	0.04	0.85 (N/S)
	High (3-4) Quartile	24.5% (12)	74.1% (40)		

4.4.2 The Relationship Between Informal Support Level and Formal Service Provision

Table 4.4.2 shows the relationship of informal support levels with formal service provision. Of the 103 clients in the entire study population, 2 scored an informal support level of 0 indicating that no informal support was required. For the purpose of establishing the relationship, these clients were not included in the analysis.

Table 4.4.2 examines the relationship between informal support levels and formal service provision using the McNemar test. In the domain of personal care, there was a significant association between level of informal support and level of personal care provided.

In the domain of household management, there was a significant association between level of informal support and level of formal household management provided.

In the domain of respite care, there was a significant association between informal support level and the level of formal respite care provided.

Overall, there was a significant association between informal support levels and the formal service provision given to clients.

A correlation was calculated for the informal support level and the formal service provision. A correlation value of 0.504 was found to be significant at the 0.01 level (2-tailed).

These analyses indicate that those seniors with high levels of informal support receive less formal service provision.

Table 4.4.2 A Cross tabulation (McNemar test) of the Relationship of Informal Support Level by Formal Service Provision in the Domains of Personal Care, Household Management, Respite and Total Care Service (n=101)

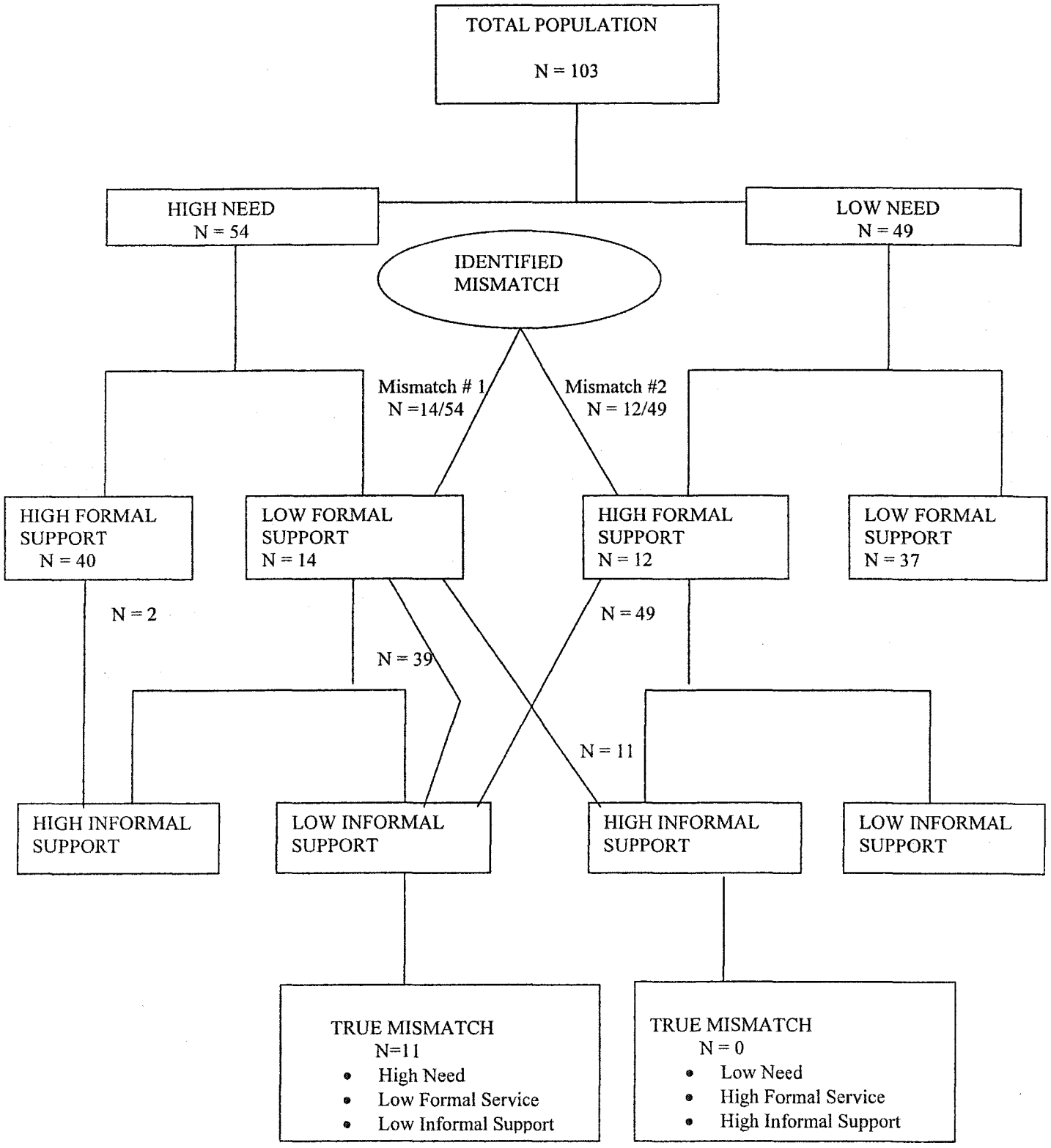
Formal Service Provision (level in hours)		Informal Support Level		X^2 McN	P value
		Low level 3-4, n=(88)	High level 1-2, n=(13)		
Personal care	Low (1-2) Quartile	47.7% (42)	61.5% (8)	25.35	$1.38x10^{-7}$
	High (3-4) Quartile	52.3% (46)	38.5% (5)		
Household Management	Low (1-2) Quartile	52.3% (46)	61.5% (8)	21.78	$1.16x10^{-6}$
	High (3-4) Quartile	47.7% (42)	38.5% (5)		
Respite care	Low (1-2) Quartile	44.3% (39)	84.6% (11)	22.82	$7.56x10^{-7}$
	High (3-4) Quartile	55.7% (49)	15.4% (2)		
Total	Low (1-2) Quartile	44.3% (39)	84.6% (11)	22.82	$7.56x10^{-7}$
	High (3-4) Quartile	55.7% (49)	15.4% (2)		

4.4.3 Identified Mismatches of Need Level and Formal Service Provision.

The relevant mismatch scenarios exist in 25% (n=26) of clients identified as having one of two possible mismatches. Mismatch # 1, n =14 (15.9%) includes those clients that have a high need score (4-5) and low formal service provision scores (1-2). Mismatch # 2, n =12 (24.5%) identifies those with a low need score (1-3) and high formal service provision (3-4).

Figure 4.4.3 provides an illustration of inappropriate matching of needs to formal service being provided to the study population.

Figure 4.4.3 Conceptual Diagram of Identified Mismatch of Care Need to Formal Home Support Services (n=103)



4.4.4 Identified Under-Utilization of Home Support Services (n=14) Compared to those Clients Appropriately Matched for Needs and Services (n=40).

Fourteen clients were identified as receiving an under-utilization of home support services (high need and low formal service provision) (table 4.4.4). These clients are matched to 40 clients who were appropriately matched for needs to services (high need and high formal service provision). The data suggest that those aged 85+ were more often using less formal service (71%) than those appropriately matched (52%). In the domain of memory, 57% of the under-utilized formal service provision had no memory impairment versus only 33% in the appropriately matched group. This would suggest that memory status did not influence those that received less than expected formal service provision.

In examining figure 4.4.3 there are 11 clients that are identified as "true mismatches". The formal service provision of these clients are provided below:

- In the domain of personal care, the average hours provided was 16.4 with a range of 0 to 32.5 hours.
- In the domain of respite care, the average hours provided was 12.4 with a range of 0 to 35 hours.
- In the domain of household management, the average hours provided was 8.5 with a range of 0 to 21 hours.
- The total hours provided averaged 37.3 with a range of 21 to 47 hours.

Table 4.4.4 A Comparison of Identified Under-Utilization of Home Support Services (Mismatch #1 = High need and Low formal Service Provision) (n=14) and those Appropriately Matched for Needs and Services (High Need and High Formal Service Provision) (n=40).

UNDER-UTILIZATION (HIGH NEED AND LOW FORMAL SERVICE)		APPROPRIATE MATCH (HIGH NEED AND HIGH FORMAL)
Category	**N = 14 (%)**	**N = 40 (%)**
AGE = 75-84	4 (29)	19 (48)
AGE = 85+	10 (71)	21 (52)
NO MEMORY IMPAIRMENT	8 (57)	13 (33)
SIGNIFICANT MEM. IMPAIRMENT	4 (29)	19 (48)
MEMORY IMPAIRMENT MISSING	2 (14)	8 (19)
LIVING ALONE	4 (29)	13 (33)
LIVING WITH OTHERS	10 (71)	27 (67)
INFORMAL SUPPORT SCORE HIGH **	2 (15)	1 (2)
INFORMAL SUPPORT SCORE LOW **	11 (85)	39 (98)

** The informal support category only had an under-utilization of n = 13 since one person scored informal support score = 0 indicating no support required (see section 4.4.2)

4.4.5 Identified Over-Utilization of Home Support Services (n=12) Compared to those Clients Appropriately Matched for Needs and Services (n=37).

Table 4.4.5 identifies 12 clients as receiving an over-utilization of home support services (low need and high formal service provision). These clients are matched to 37 clients who were appropriately matched for needs to services (low need and low formal service provision). The data suggests that those clients who were over-utilizing formal service for their need were living alone 42% of the time. In contrast, 57% of clients were appropriately matched and living alone. In the domain of informal support provided, no cases where there was over-utilized formal service provision had high informal support versus 30% in the appropriately matched group. This would suggest that informal support provision did influence formal service provision.

Table 4.4.5 A Comparison of Identified Over-Utilization of Home Support Services (Mismatch #2 = Low need and High formal Service Provision) (n=12) and those Appropriately Matched for Needs and Services (Low Need and Low Formal Service Provision) (n=37).

OVER-UTILIZATION (LOW NEED AND HIGH FORMAL SERVICE)		APPROPRIATE MATCH (LOW NEED AND LOW FORMAL)
Category	**N = 12 (%)**	**N = 37 (%)**
AGE = 75-84	6 (50)	17 (46)
AGE = 85+	6 (50)	20 (54)
NO MEMORY IMPAIRMENT	8 (66)	32 (86)
SIGNIFICANT MEM. IMPAIRMENT	2 (17)	2 (6)
MEMORY IMPAIRMENT MISSING	2 (17)	3 (8)
LIVING ALONE	5 (42)	21 (57)
LIVING WITH OTHERS	7 (58)	16 (43)
INFORMAL SUPPORT SCORE HIGH	0 (0)	11 (30)
INFORMAL SUPPORT SCORE LOW	12 (100)	26 (70)

4.4.6 Predictors of Formal Service Provision

The results of a linear regression analysis for 83% (n=85) of clients with the independent variables being age group, household composition, memory status, assessed need and the dependent variable being level of formal support provided.

The age of clients was classified into two groups, those aged 75 to 84 and those aged 85 years and up. Household composition was divided into those living with others and those living alone. Memory status was evaluated based on the level of memory impairment. Informal support and need score ranged from a low level to a high level. (ie. 1-5). Forty seven percent of the variance of formal service provision was explained by the five variables utilized. The assessed need was the most important predictor of formal support followed by level of informal support, and then assessed level of memory impairment of the clients. The age of the client and the household composition were not important predictors of level of formal support. All clients with incomplete or missing data (n = 18) were excluded from the regression analysis.

Table 4.4.6 Results of Regression Analysis of Age, Household Composition, Memory Status and Assessed Need on Level of Formal Support Provided (n=85).

Variable	Coefficient	S.E.	P
Age	- 0.14	0.18	0.44
Memory Status	0.16	0.08	0.06
Household Composition	0.05	0.04	0.17
Informal Support	0.30	0.11	0.01
Assessed Need	0.37	0.08	<0.0001

Note: F (5,79) = 15.99; Adjusted R2 = 0.47

CHAPTER V - DISCUSSION

The purpose of this study was to assess the needs of elderly female clients, the services provided to them, and the relationship that exists between these needs and services. Since an examination of cases of inappropriate matching would be useful for designing and adopting a more comprehensive long-term care assessment tool in the future, a regression analysis and cross tabulations of characteristics and outcomes were examined in the context of the above relationship.

The information collected will provide a foundation for comparing similar future studies on the nursing home population and future planning of Home Support provision.

In this chapter, the methodological considerations associated with the study will be addressed. This will be followed by a discussion of issues arising from the study as they relate to the three specific study aims.

5.1 Methodological Considerations

This study used secondary data sets and therefore has some serious limitations. The kind of data selected and collected, and the quality of the data gathered for analysis, are predetermined (Hulley SB & Cummings SR, 1998, p.53). Consequently, there are several methodological considerations to be examined in relation to this study: inconsistencies in the quality of the information recorded by different assessors; variability and limitations in determining adequacy of informal supports; and the temporal relationship of the study.

5.1.1 Inconsistencies in the Quality of the Data Collected

The NLCCA is completed for all persons approved for and accepting home support services in the St. John's region. The quality of the information recorded on the assessment form is variable due to the fact that different people, with various degrees of training and from a variety of disciplines are performing the assessments. Furthermore, it is not uncommon for information to be recorded imprecisely or inaccurately when multiple individuals are involved in the assessment process. This is a potential limitation of the study, since errors in data could not be detected. (Hulley SB & Cummings SR, 1988). In several instances, the assessor for a client changed over time. As a result, the ongoing evaluation of a client also resulted in shifting patterns of formal service provision. This may or may not have been appropriate home support resource utilization. Another limitation is that a January census of clients may not be characteristic or representative of all home support clients in the St. John's region.

5.1.2 Variability and Limitations in Determining Adequacy of Informal Supports

One of the components of the HCCC system was to determine the adequacy of informal supports. This was based on the willingness, availability, and capability of all informal supporters to meet the client's particular needs. Unfortunately, the NLCCA document was not designed to adequately evaluate the level of informal support provided to the client. The NLCCA does not describe the potential gap between the client's needs and the ability of informal supports to meet the identified needs. The current home support system uses a negotiation (barter) system in which conditions and terms of service provision are negotiated with the family prior to the commencement of home support.

Using the HCCC framework, the study assessed the perceived capabilities of all informal supporters to meet the needs of the client on the 13 functional need indicators. Due to ethical considerations and time constraints, the informal support evaluation was administered to the health care staff member most directly involved in the care of the client. They were then asked to fill out the informal support questionnaire while keeping in mind their perception of all the clients' informal supporters' capabilities to provide care. Ideally, each informal supporter, or a key informant for each client of a client would have been asked to fill out the informal support questionnaire. This would have allowed for a more direct measurement of their ability to provide care and reduced the incidence of health care staff member perception bias. Since 52 health care staff members were used in this evaluation, many of the methodological considerations outlined in section 5.1.1 are also applicable in this section.

5.1.3 Objectivity vs. Subjectivity with Evaluating Functional Need Indicators

The NLCCA document uses different categories to evaluate a client's level of need with respect to activities of daily living. However, the NLCCA categorization parameters used have been described as ambiguous and too subjective by the health staff members who utilize them.

For the purpose of this study, a translation paradigm (cross-walk) was employed to convert the information in the NLCAA document to that utilized in the HCCC. The HCCC was thought to be more specific and provide greater objectivity through its rigorous validity and sensitivity testing (Alberta Health, March 1994). Furthermore, mathematical weighing of assigned scores to the 13 functional need categories provides a higher degree of reproducibility of examined measures. In translating the data, a certain

amount of subjective evaluation was unavoidable, but the principal investigator performed this task on all clients' files in order to avoid variability.

The matching of client care needs to the service provided to meet those needs using objective research criteria reveals the existence of inappropriate matching scenarios which could be particularly useful for future planning by policy makers.

5.1.4 Temporal Relationships

Cross-sectional data do not allow for the analysis of temporal order or causal relationships (ie: one point in time is an issue). The development of longitudinal data would be beneficial for analyzing the associations between formal and informal supports and an additional component of caregiver burden over time. With longitudinal data, individuals could be followed through the continuing care sector, and changes in need and service provision could be monitored. This would also enable policy makers and researchers to make more informed choices in the identification of target populations that are eligible for institutional placement.

5.2 Issues arising from the study and the Significance of the Results

5.2.1 Study Aim 1- Assessing Clients Needs

(a) Activities of Daily Living Indicators

The literature on institutional risk and the eligibility criteria show that measures of functional limitations and activities of daily living are important indicators of who needs institutional care. The ability to perform activities of daily living is central to independent self care in the community (Morris et al. 1997). The HCCC system does not differentiate between the number of ADL limitations. It only indicates the degree of dependence of a client in each of the 13 functional need indicators. The number of ADL/IADL limitations

required will significantly affect the number of elderly persons eligible for a long-term care bed. The HCCC does distinguish between the levels of supervision (as decile rankings) required in performing these activities in its eligibility criteria.

Differentiation between early loss and late loss ADL may also be useful in determining who is really in need of services. It is possible that treatment approaches and services for all, or at least some seniors with early loss ADL's, can be modified or adapted to the senior's community through preventive or community care services. It is more likely that late loss ADL's will require more intensive services than those available through community services. An examination of the Minimum Data Set for Home Care (MDS-HC) instrument by Morris et al (1997) outlined the expected markers of physical decline. Activities of daily living that are labeled such as early loss activities (i.e. bathing and dressing), are the most common areas of loss for community-based elderly persons. A home care sample assessed with the MDS-HC, found that 24.9 percent are independent in bathing, while 47.6 percent are independent in dressing (Morris et al, 1997).

Utilizing the HCCC, section 4.2 identifies the most common problems as bathing, dressing and grooming. High need was identified for bathing (81.6%) and dressing (59.2%) thus supporting the findings of Morris et al. (1997). Furthermore, the HCCC found a mean score of 4.04 for bathing. This value indicates that for the entire study population of 103 clients, most were unable to manage in this ADL; thus required constant assistance to meet this need. This suggests that the majority of clients were dependent in this need indicator. The value for dressing was 2.88. Of the 103 clients studied, most were able to manage with some supervision or assistance in dressing. In addition most participated in this need indicator (Table 4.2).

The physical capabilities that the individual will maintain the longest, such as bed mobility and eating, are called late loss ADL's. Approximately, nine percent of the home care population studied by Morris and colleagues (1997) were totally dependent in bed mobility, and 5.7 percent were totally dependent for eating functions (Morris et al, 1997).

This study showed that most clients were independent with equipment in the indicator of transferring and mobility. It was found that up to 44.1% of all clients scored in the percentage above high proportions for these indicators. Transferring (mean score of 1.33) is the closest indicator to that of bed mobility found in the MDS-HC. Furthermore, a mean value of 1.79 was found for the eating indicator in the study population. Thus, most clients were able to manage with meals provided they had assistance with setting up (Table 4.2). Furthermore, these clients were in the early loss ADL stages. Consequently, it seems reasonable that eligibility criteria for long term care placement should focus on late loss ADL, while early loss ADL's should be used to determine eligibility for community care services.

Spector (1991, 54) comments that "it is surprising how many persons with both five ADL limitations and cognitive impairments were being cared for in the community." Morris et al (1997) report that the ADL limitations among individuals in home care settings and nursing home settings are similar. The results of the RCS scores obtained from the study support this notion with 65% having an RCS score of 3 or higher (section 4.2.4). Furthermore, the results of this study parallel those results conducted on institutionalized patients by the patient research centre in St. John's Newfoundland (O'Reilly, 1997). The availability of informal support to care for the frail elderly in the community setting best accounts for the distinction between them. Further, Spector

(1991) contends that the debate on redefining institutional eligibility should focus on the amount of care (formal and informal) needed to treat a particular level of impairment. The HCCC was designed to incorporate these differing types of care.

In both the risk literature and the HCCC, inadequate attention has been paid to Instrumental Activities of Daily Living (IADLs). Although the NLCAA document examines IADL, the Alberta Home Care Resident Classification does not. The examination of IADL is beyond the scope of this study. Branch and Jette (1982) and Shapiro and Tate (1985) have found one IADL limitation or more correlates with institutional placement but suggest that risk of inappropriate placement might be modified by appropriate community services.

In their examination of the variables associated with institutional risk, Tsuji, Whalen, and Finucane (1995), studied the predictors of nursing home placement among a group of elderly receiving home care. They found that ADL and IADL performance difficulties were not an indicator of nursing home placement; bowel incontinence was the only significant predictor. An examination of the HCCC data found in this study indicates that most of the clients were able to manage their bowel continence care independently. A mean value of 0.75 was found for the entire study population on this functional need indicator. Less than 25.2% of all clients scored in the percentage above high proportion for urinary and bowel incontinence (Table 4.2). This suggests that the study population was predominantly of the pre-nursing home placement variety.

(b) Behaviour Indicators

The HCCC system includes two behavior indicators: ineffective coping and potential for injury to self and others. In considering only these BDL factors, the choice of residential facility is important. A Long-Term Care facility setting may not be an appropriate eventual placement for elderly individuals who's functional and health conditions are intact. Perhaps there are better alternatives, such as sheltered apartments or retirement homes, which provide an environment more appropriate to their functional and mental capacities.

It has been argued that supervision for ADL indicators often includes cognitively impaired elderly, hence those with elevated behaviour problems may already be detected. However, Spector (1991) notes that behavioral problems are generally not included in the measurement of cognitive impairment, as both mental disorders and cognitive deficits can also cause them.

The behaviour HCCC indicators for the study population show mean values of 0.32 for ineffective coping and 0.66 for potential for injury to self or others. Both these values indicate that observation by an outside guardian was required less frequently than once every 24 hours, but at least twice a week. A memory mean value of 2.05 indicates that most clients had immediate and recent memory impairment with some further impairment in remote memory as well. The percentage above high proportion for memory was 30%, 6.8% and 3.8% for potential for injury and ineffective coping respectively (Table 4.2).

Kemper (1992) also stresses that after controlling for ADL disability, cognitive impairment, behavioural problems, and need for medical treatments, are important predictors of home care utilization. Impaired mental functioning, which can cause erratic behaviour, may discourage families from continuing to help the elderly to remain in their community. Lagergren (1996) found that caregivers of persons suffering dementia were three times more likely than caregivers of elderly without cognitive impairments to apply for long-term care placement. Caregivers frequently find it difficult to cope with behaviour problems, and family members often feel that their relative may be safer in an institutional setting. Weissert and Hendrick (1994) argue that those at high risk of institutionalization are older, extremely dependent, cognitively impaired, and socially deprived patients with behavioural problems. Lagergren also found that a lower provision of formal community support was provided elders with dementia and their caregivers. Table 4.4.4 does not support this notion. Those with high need and low formal service were found to be fewer in number in the domain of significant memory impairment (29%) compared to those appropriately matched (48%).

(c) Continence Indicators

Incontinence, an integral part of the HCCC and RCS systems, has been shown to be an important risk factor for institutionalization. The U.S. Congress has not included continence as either an ADL eligibility criteria or a separate eligibility criterion for institutionalization. In defence of this position, it has been argued that incontinence is considered an impairment, not a disability, by the World Health Organization. However, incontinence in combination with other factors, especially caregiver strain, may increase the likelihood of nursing home admissions (Kane and Kane, 1987). Galzebrook and

colleagues (1994) found that IADL impairment, self-care and incontinence in the absence of a caregiver all contributed to a high level of risk of institutionalization.

The present study measured incontinence by CCL indicators in the HCCC system. Assessed need for urinary continence (1.07) and bowel continence (0.75) indicated that in the study population, there was an alteration but that the clients managed their care independently (Table 4.2). Table 4.2.3 indicates that only 18.4% of the total population had high need scores for the continence indicators.

The informal support scores for those indicators shows values of 1.97 for urinary continence and 1.88 for bowel continence. These values indicate that the informal support system is able and willing to meet the need of the client most (more than half) of the time in those indicators. This is perhaps evidence of the importance of informal support in maintaining elderly in the community (Table 4.3). Thus, according to continence and informal support criteria, the study population is at a low risk for institutionalization.

At the point where an individual's personal care needs become continuous, in the case of incontinence, or when nursing care becomes a daily requirement, most families request institutional care (Dunlop, 1980). Thus, incontinence is an important variable to examine, especially in relation to the level of care provided by informal support. Yet, incontinence is often under-treated and may, in some cases, be medically modifiable.

5.2.2 Study Aim 2 - Service Provision

(a) Formal Support

The level and kinds of formal support provided to the elderly are not included as items in the HCCC. In the literature, the relationship between the provision of formal support services and institutional risk is ambiguous. Hughes, Manheim, Eldelman, and

Kendon (1980) found that formal community services decreased the risk of nursing home admission. However, others (Newman et al., 1990; McFall and Miller, 1992) found that the use of formal services was associated with a 10 percent higher probability of admission. Tsuji and colleagues (1995) argue that such inconsistent findings can be attributed to differences in the depth of services provided.

In an addition to the HCCC system, one of the study aims was to assess the formal support provision. Establishing quartiles based on the Home Support Service Referral Worksheet was used to this end. Cross tabulations in Table 4.4.1 and Table 4.4.2 provide information on formal service provision. Further, discrepancies exist regarding those who use formal services. Some studies have found a significant positive relationship between the receipt of formal care and ADL disability levels (McAuley and Arling, 1984). Correlation analysis indicates a strong positive relationship (0.623) between need and formal service provision found in the study sample affirms McAuley & Arling (1984) statements (section 4.4.1). Others report that caregiver problems were significant predictors of formal service use, while functional disabilities were not (Tsjui et al, 1995). Correlation analysis indicates that there was a positive association (0.504) between informal support levels and formal service provision given to clients. The analysis indicates that those seniors with high levels of informal support received less formal service provision (section 4.4.2).

(b) Informal Support

The importance of informal support to the elderly is well-established in the gerontological literature. National health statistics in the United States demonstrate that families provide approximately 80 percent of the support required by elderly individuals

to maintain an independent lifestyle in their homes (Brody et al, 1978). A Canadian study found that 94 percent of the elderly were receiving assistance from informal supports (Chappell, 1985). The results of a study by Lindsey and Hughes (1981, 312) demonstrated that "of the community-based frail elderly classified as being in poor functional health, 50 percent had daily contact with at least one of their informal support persons and 75 percent had contact from two to seven times per week." However, Brody and colleagues (1978) argue that economic resources, family structures, the quality of relationships, and the availability and energy of family members are important determinants of the amount and quality of support provided to the frail elderly. Lindsey and Hughes (1981) found that the primary source of support for the frail elderly is the family who turn to institutions only when they can no longer provide care, or when alternative care options are exhausted. It is evident, from the above sited references, that informal support plays a crucial role in assisting the elderly to remain in their communities. Yet there has been concern that informal LTC may be on the decline due to the high female labour force participation rates and decreased family size (Manton, Corder, and Stallard, 1993).

Kemper (1992) notes that the availability of informal care creates difficult equity choices for policy makers regarding the allocation of public long-term care benefits. Kane and Kane (1987) argue that the availability of informal support should not make the elderly ineligible for LTC placements. The philosophy of all LTC services should be to strive to "recruit family involvement without family exploitation" (Kane and Kane, 1987:378). In addition, Shapiro (1990,102) questions "what the LTC system will gain if they let the circumstances of the elderly and their caregivers who require minimal support

services deteriorate to the point where they require more, or to the point where their families insist on institutionalization." Further, heavier care patients who have available informal support regardless of its quality, may also be denied eligibility, while those with lighter care needs but no informal support may be eligible.

Arguably, the maintenance of the caregivers' contributions to caring for elderly persons should be considered within the context of a continuous evaluation of caregiver burden. The need for assessment and evaluation of a family's ability to care for its elderly members, in order to determine if the family can provide a viable alternative to institutionalization, has been stressed (Lindsey and Hughes, 1981). Once again, the HCCC was designed with this in mind (Table 4.4.2).

Why some elderly individuals are institutionalized while others with identical characteristics are able to continue living in their communities can be explained by the availability of informal support. Focusing how to reasonably increase informal support may reduce the risk of LTC institutionalization for frail elderly persons (Brody et al, 1978, Wan and Weissert, 1981; Doty, 1986; Newman, Struyk, Wright and Rice, 1990).

The concept of informal social support as a modifying factor corresponds with the argument that informal support reduces institutional risk as it is believed to have an independent main effect on risk of institutionalization (Branch and Jette, 1982, Newman, Struyk, Wright and Rice, 1990). Typically, the provision of informal support, which most often occurs in the context of deteriorating physical or mental health, enables elders to maintain independent lives in their community (Chappell, 1992). However, no standardized method exists for measuring informal social support. Some measures examine help received, availability or family members, while others examine living

arrangements, marital status, and the number of children lending support (Wan and Weissert, 1981). Thus, measurements of informal support have tended to be imprecise and inconsistent (Newman et al, 1990). The HCCC system measures the informal supporter(s) willingness and availability to meet the need on the same 13 functional need indicators used to assess need levels. The data obtained in Table 4.3.1 indicated that the majority (56.3%, n=58) of clients received low levels of informal support meaning that the informal support provided care less than half of the time needed by the client. The decile ranking in section 4.4 illustrates the combination of functional need and informal support. Data (table 4.4) shows that 73% of clients had high decile rankings indicative of high theoretical home care utilization. This data, along with data from table 4.3, suggests that clients informal supports are low for a cohort with relatively high functional need requirements. Unfortunately the availability of informal support is not in itself, a reliable indicator and does not necessarily indicate that the elderly person is receiving sufficient support to remain independent and healthy in the community.

5.2.3 Study Aim 3 - The Relationship Between Client Needs and Service Provision

(a) The Formal and Informal Support systems

In the allocation of long term care services, the relationship between care needed and the care provided through both informal and formal supports is an important consideration. It has been reported that more assistance is received from informal than formal sources (Branch and Jette, 1983). The amount of informal care provided increases with the severity of the disability at a much greater rate than formal care under similar circumstances (Kemper, 1992). Formal services account for approximately 15 percent of the assistance received by the elderly in the community (Stone, Cafferatea, and Sangle,

1987); among the 15 percent receiving formal support, approximately 80 percent receive informal support concurrently. In Canada, recent estimates suggest that the monetary value of family care already exceeds the value of formal services by three to four times (Angus et al, 1995). Spector and Kemper (1994) estimated that an elderly individual with functional disabilities needs, on average, 49 hours of care provided through both formal and informal supports, and that hours needed range from 29 hours for an elder with no functional disabilities to 76 hours for an elder with 5 ADLs.

A cross tabulation of the relationship of informal support level by formal service provision is provided in Table 4.4.2. In examining the table, it is evident that most (87%, n=88/101) in receipt of home support services are in receipt of low levels of informal support. True mismatch scenarios arose in n=11 of clients who had low informal support levels, low formal service provision and high need (Figure 4.4.3). Denton (1997) has reported that most Canadians receive either informal or formal care, but not both.

This study could be argued to fit many of the models described by Denton (1997) (literature review). The findings of Table 4.4.2 tend to illustrate that those with low informal support have high formal service provision 55% (n=49). In discussions with a continuing care manager in the St. John's region it became evident that the intended model of use was the complementary model. The St. John's Home Support Program uses a negotiation between the clients informal support and the formal care provision guidelines to arrive at a care level in which the formal supports are used when the informal supports are not available or are experiencing burden and require respite services.

When formal care is used as a substitute for informal care, it is usually a temporary measure to accommodate for the changing availability of the primary caregiver (Tennstedt, Crawford and McKinaly, 1993). This is also the case in the St. John's region as outlined in emergency home support services (Crowley, 1998).

One might predict that as the provision of formal home care increases, as has been occurring throughout North America, the amount of informal care provided by family and friends will decrease. However, what little has been written on this subject is contradictory and counter-intuitive. To better comprehend the relationship between formal and informal care, the concepts of "supplementation" and "substitution" have been introduced into the study of care.

"Supplementation" refers to the addition of care services to complement services already provided, with the goal of completing the total realm of care of the elderly person. Supplementation then, is meant to work synergistically with informal care. "Substitution" refers to the replacement of an existing service by another type of care; hence, the substitution of informal care with formal care decreases the amount of informal care being provided.

Correlation analysis of the data obtained from the HCCC indicates that there is a relative relationship between informal and formal services provided to the client (0.504). Further correlation analysis of decile ranking (which incorporates informal support and need) and formal service provision, reveal that a moderate relationship exists between these variables (0.613).

Using data from the US National Long Term Care Survey and interviews with elderly clients, Hanley, Wiener and Harris (1991) determined the amount of formal and

informal care a group of elderly persons received. Services the client had paid for were considered formal services, and those he or she did not pay for were considered informal. Hours of care were not considered. Their hypothesis was that, as formal care increases, unpaid caregivers would reduce the amount of care they provide; however, they found no significant decrease in informal services provided after formal services increased. Rather, informal caregivers increased the amount of care they provided for the most severely disabled elderly group. Once again, supplementation, rather than substitution was evident.

Tennstedt, Crawford, and McKinlay (1993,609) conducted an extensive study of the substitution of formal care for informal care. Data were collected from the Massachusetts Elder Health Project, a longitudinal study of the need for assistance with activities of daily living. The study helped to identify " potential predictors of service substitution from the point of view of both the elder and the caregiver". Increasing disability of the elder over time, increased cognitive impairment, the gender of the elder, elders' living arrangements, and elders' income over time predicted differing usage of varied services. From the caregiver perspective, predictors of service substitution were caregiver relationship at baseline and co-resident status, a change in the primary caregiver over time and a possible change in the number of caregivers. Formal and informal care provided was determined from self-reports of primary caregivers and was recorded as number of hours per week. Some substitution did occur. Among specific areas of care, the arrangement of various services for the elderly person was the most frequently substituted. Overall, however the rates of service substitution were small. The most consistent predictor of service substitution was the loss of the primary caregiver. Also,

service substitution did not necessarily precede institutionalization. The authors concluded that service substitution is not a widespread phenomenon. However, it does occur under certain circumstances, and under these situations, service substitution could help to ensure continued community care for elderly persons.

In summary, there seems to be a positive association between informal care and formal support with respect to personal care, household management and respite care. Analysis using the McNemar's test on the HCCC data suggests that these variables are linked by some means (Table 4.4.2). These analyses indicate that those seniors with high levels of informal support receive less formal service provision. The majority of the studies reviewed indicate that formal care is not substituted for informal care, and that informal care is not significantly reduced by the introduction of formal care. However, the balance of informal and formal care is a complex one with many variables involved, including human emotions and stresses, the age of caregivers, and caregiver health.

In many of the above cited studies, investigators usually had no problems with defining and quantifying the amount of formal care clients receive, because of its specific and measurable parameters. The amount of time spent with the elderly client is easily logged, with the formal care provider completing specific tasks for the care recipient. However, it is much more difficult to measure the informal component of the care spectrum. The few studies in the literature which have attempted to measure informal care usually relied on self-report by the primary care-giver; even when the hours of informal care-giving were measured, no attempt was made to define the intensity of the care given; only one study attempted to assess the relationship between the health of the care-giver and the care provided.

(b) Predictors of Formal Service and Mismatch

The literature shows that taken together, the predictors of institutionalization are only able to explain modest degrees of variance in nursing home admission (Branch and Jette, 1982; Cohen, Tell and Wallack, 1986). The demonstrated differences in study populations (hospitals, nursing homes and the community), and differences in research methods and statistical analyses may contribute to inconsistencies in findings and limit the ability to compare or generalize identified risks of institutionalization (Kane and Kane, 1987; Foley, Ostfeld, Branch, Wallace, McGloin and Cornoni, 1992). This however is not the case in using the HCCC since it incorporates the RCS indicators in its analysis. The analysis shows that there are similar need indicator scores in both the community dwelling and LTC facility dwelling elderly (table 4.2.4). Furthermore, as Shapiro and Tate (1988) argue, combinations of characteristics should be examined rather than looking independently at the prevalence of individual risk characteristics. Identifying the elderly with only one predictor is not always as useful as targeting those elderly with several high risk factors. A regression analysis indicated that 5 variables (need, informal support, memory status, age, and household composition) accounted for 47% of the predictors of total formal service provision to the study population.

The present study scores functional need indicators and then combines it to an informal support level. In doing so, the HCCC system (decile ranking) displays the positive characteristics of an assessment tool identified by Shaprio and Tate (Table 4.4). Weissert (1986) furthers this argument by stating that it is not so much the individual traits, but the multiplicative risks that predict rates of institutionalization.

Several major problems arose in the reviewed studies on institutional risk. Most importantly, each study used different combinations of variables in their examination of institutional risk, partly because an independent variable important to one study may not be important to all studies and partly because studies disagree on the group of variables that evaluate institutional risk. These variables may also have been examined too simply by additive studies, which ignore that interactive effect with other risk factors (Newman et al, 1990). In addition, some studies investigated residents of institutions, while others looked at elderly entrants to nursing homes, and still others examined community-based elderly. External factors also influence the results and have not been controlled for in most studies. These external factors include the supply of nursing home beds, the selection of individuals by nursing homes with lower care requirements, the availability of community care services, and the ability to purchase support services in the community in order to delay or prevent institutionalization.

Age alone, is not the main risk factor for formal service provision or admission to a nursing home: "After controlling for the other variables (e.g. cognitive impairment) included in any multivariate study, age by itself becomes a much weaker predictor or nursing home placement" (Greenberg and Ginn, 1979; Nasar and Rubenstein, 1995). Based on age alone, an elderly person has only about a 16 percent chance of long term care institutionalization. Glazebrook, Rockwood, Stolee, Fisk and Gray (1994) report that up to age 84, age had an association with institutionalization that was independent of other predictor variables. Among those 85 years of age or older, age did not have an effect independent of functional impairment, dementia, the absence of a caregiver, poorly-rated self health, and recent hospitalization. The study also examined the

characteristics of the age of clients with respect to the level of formal support provided (table 4.4.6). This table demonstrates that age is not an important predictor of level of formal support.

In their study of the elderly in Massachusetts, Branch and Jette (1982) report that living alone was one of the characteristics significantly associated with long term care institutionalization. Shapiro and Tate (1985) contend that living alone increased the odds of institutionalization by over 2.5 times. The relative odds of long term care institutionalization for the very old with no spouse at home are over 12 times higher than for the youngest elderly living with a partner (Shapiro and Tate, 1985). Elderly persons who lived permanently with their informal support providers, particularly their spouses or children, were more likely to remain independent in the community, even if they were cognitively and functionally disabled.

A regression analysis was performed with the aim of identifying predictors of service provision. Table 4.4.6 shows the regression results of five variables against the variable of formal service provision. Results show that assessed need, informal support and memory status influenced the amount of formal service provision a client received. Interestingly, age and household composition seemed to have no predictive power on the independent variable. Further analyses involving the stratification of three variables (age, household composition and informal support) with respect to the under-utilization of home support services showed some discrepancies between the stratification of each variable. The sample size, however, was too small to draw significant findings (table 4.4.4). Much of the cited literature states that these variables are amongst the most

difficult to incorporate into an analysis of home support provision and thus may be predictors of utilization and nursing home placement.

CHAPTER VI - CONCLUSIONS AND RECOMMENDATIONS

Of the 103 female clients assessed and in receipt of home support services, the average age was 86 years of which 42% were living alone and 87% were widowed. The high need problems concerned bathing, grooming, dressing and toileting. This cluster of problems is concerned with Activities of Daily Living (ADLs). Less common problems were continence and behavior. This cluster of problems is health related. In examining levels of informal support, a large number of clients (85%) had low informal support provision. Formal service provision was measured in hours and divided into quartiles. A combined decile ranking evaluated functional need with informal support provided. A significant number of clients (74%) scored in the 8^{th} and 9^{th} decile indicating high resource use. A correlation between decile ranking and formal service provision was found to be significant. No association, however, was found between formal service provided and clients need levels. A correlation between informal support and formal service provision was found to be significant. There was a positive association between informal support levels and formal service provision given to clients. Clients identified as receiving an under-utilization of home support services (n=14) were compared to those appropriately matched for needs and services (n=40). Mismatches between these two groups existed in the domains of age and memory status. Clients identified as receiving an over-utilization of home support services (n=12) were compared to those appropriately matched (n=37). Mismatches between these two groups existed in the domains of living arrangement and informal support. The most important predictors of formal service provision were need and informal support variables. Forty-seven percent of the variance of formal service provision was explained by the variables examined.

None of the previous studies examined in the review of literature has attempted to assess the availability and the capacity (physical, emotional, knowledge and skill level) of the primary caregiver. Nor has any study attempted to determine the intentions of the primary caregiver to continue in that role. It is clear that more detailed measures of the ability and capacities of the caregivers as well as their contributions of time are needed to more fully assess the informal care given to an elderly client. As already mentioned, this study combines the needs of clients with the informal supporters' availability and willingness to meet those needs. Furthermore it allows for prediction of resource utilization as a client progresses through the Home Care System (Table 4.4). This has inherent policy implications.

Additional conclusions are derived from this study. First, the family, social services and hospital accounted for the majority (55%) of sources of referral to the home support system. Second, ADL limitations among individuals in home care settings and nursing home settings are similar. This notion is supported by the RCS scores of this study. Furthermore, it seems that eligibility criteria for long term care should focus on late loss ADL, while early loss ADL's should be used to determine eligibility for community care services. It was found that the availability of informal support to care for the elderly may account for some of the distinction between community dwelling and nursing home placement. This is supported by cited references.

Objective research criteria reveal the existence of inappropriate matching scenarios (25%) between client care needs and the service provided to them. This is particularly useful for future planning by policy makers in the province of Newfoundland and Labrador.

The results of correlation analysis reveal that significant associations exist between informal support, formal service provision, and level of need. Further regression analysis reveals that a portion of formal service provision was predicted by the five variables examined (47%), particularly assessed need. There are however, other non-identified variables that account for predicting formal service provision. The identification of these variables is of central importance in the evolution of appropriate home support service provision. This research analysis is currently being conducted by provincial policy makers.

In order to analyze the associations between formal and informal supports and the additional component of caregiver burden, longitudinal data analysis is required. This would enable policy makers and researchers to make informed decisions regarding the identification of target populations. This research is also currently underway in Newfoundland and Labrador.

The future of Home Support Services, its growth and evolution must be grounded in a multidisciplinary team approach of collecting and evaluating complex data. Furthermore, future research in the area of IADL and its interaction in the home care realm requires clearer delineation and objective study.

REFERENCES

Alberta Health. (August 1989). Alberta Assessment and Placement Instrument for Long Term Care(A.A.P.I.); Reference Manual. Edmonton.

Alberta Health. (March 1994). Home Care Client Classification (HCCC) System; Final Report. Edmonton.

Alberta Health. (June 1994 a.). Home Care Client Classification (HCCC) System; Final Report. Edmonton.

Alberta Health (June 1994 b.). Alberta Resident Classification System for Long Term Care Facilities. Instructions for Completing the Resident Classification Form. Edmonton.

Angus, D.E., Aver, L., Cloutier, J.E., & Albert, T. (1995). Sustainable Health Care for Canada. Ottawa: University of Ottawa.

Applegate, W.B., Blass, J.P., Williams,T.F. (1990). Instruments for Functional Assessment of Older Patients. New England Journal of Medicine, 322, 1207-1214.

Armstrong-Esther, C.A. (1994). Long Term Care Reform in Alberta Canada: The Role of the Resident Classification System. Journal of Advanced Nursing 19, 105-113.

Becker, B. (1982). The Nursing Home Scoring System: A Policy Analysis. The Gerontologist, 22 (1), 39-44.

Branch, L.G. & Jette, A.M. (1983). Elders' Use of Informal Long-Term Care Assistance. The Gerontologist, 23, 51-56.

Branch, L.G. & Jette, A.M. (1982) A Prospective Study of Long-Term Care Institutionalization Among the Aged. American Journal of Public Health, 72(12), 1373-1378.

Brody, S.J., Poulshock, S.W., & Masciocchi, C.F. (1978). The Family Caring Unit: A Major Consideration in the long-term Support System. The Gerontologist, 18(6), 556-561.

Chappell, N.L., Strain, L.A., & Blandford, A. A. (1986). Aging and Health Care: A Social Perspective. Canada: Holt, Rinehart & Winston of Canada Ltd.

Chappell, N. (1985). Social Support and the Receipt of Home Care Services. The Gerontologist, 25, 47-54.

Chappell, N. (1992 a.) Social Support and Aging. Toronto: Butterworths.

Chappell, N. (1992 b.). Utilization of Health and Social Services in Bermuda. International Journal of Health Sciences, 3, 91-103.

Chui, T. (1996). Canada's Population: Charting into the 21st Century. Canadian Social Trends: Statistics Canada. Autumn: 3-7.

Cohen, M.A., Tell, E.J., & Wallack, S.S. (1986). Client-Related Risk Factors of Nursing Home Entry Among Elderly Adults. Journal of Gerontology, 41(6), 785-792.

Coughlin, T., McBride., & Liu, K. (1990). Determinants of Transitory and Permanent Nursing Home Admissions. Medical Care, 28(7), 616-631.

Crowley, A. (1998). Orientation to the Assessment and Implementation of Home Support Services. Personal Communication with Home Support Case Manager. St. John's Newfoundland.

Dalziel, WB. (1996). Demographics, Aging and Health Care: Is there a crisis? Canadian Medical Association Journal, 155(11), 1584-1586. December.

Denton, F.T. & Spencer, B.G. (1995). Demographic Change and the Cost of Publicly Funded Health Care. Canadian Journal on Aging. 14(2), 174-192.

Denton, M. (1997). The Linkages Between Informal and Formal Care of the Elderly. Canadian Journal on Aging, 16(1), 30-50.

De Veer, A.J. & De Bakker, D.H. (1994). Measuring Unmet Needs to Assess the Quality of Home Health Care. International Journal for Quality in Health Care, 6(3), 267-274.

Doty, P. (1986). Family Care of the Elderly: The Role of Public Policy. The Millbank Quarterly, 64(1), 34-75.

Edelman, P. & Hughes, S. (1990). The Impact of Community Care on Provision of Informal Care to Homebound Elderly Persons. Journal of Gerontology, 25(2): 74-84.

Fillenbaum, G., & Smyer, M. (1981). The Development, Validity and Reliability of the OARS Multidimensional Functional Assessment Questionnaire. Journal of Gerontology, 36, 428-434.

Fleming, K.C., et al. (1995). Practical Functional Assessment of Elderly Persons: A Primary Care Approach. Mayo Clinic Proc, 70, 890-910.

Foley, D., Ostfeld, A., Branch, L., Wallance, R., McGloin, J., & Cornoni-Huntley. J. (1992). The Risk of Nursing Home Admission in three Communities. Journal of Aging and Health, 4(2), 155-173.

Fortinsky, R., Granger, C. & Seltzer, G. (1981). The Use of Functional Assessment in Understanding Home Care Needs. Medical Care, 5(3), 489-497.

Glazebrook, K., Rockwood, K., Stolee, P., Fisk, J., & Gray, J.M. (1994). A Case Control Study of the Risks for Institutionalization of Elderly People in Nova Scotia. Canadian Journal on Aging, 13(2), 104-117.

Government of Newfoundland and Labrador. (2001). Statistical Data on Population Trends; Finance, Economic Research & Analysis Division. http://www.economics.gov.nf.ca/popAssump.htm#med - Aug. 14, 2002

Grabble, L., Demi, A., Whittington, F., Jones, J., Branch, L., & Lanbert, R. (1995). Functional Status and the Use of Formal Home Care in the Year Before Death. Journal of Aging and Health, 7(3), 339-364.

Granger, C.V., Albrecht, G.L.,& Hamilton, B.B. (1979). Outcome of Comprehensive Medical Rehabilitation: Measures of PULSES profile and Barthel Index. Archives of Physical Medicine and Rehabilitation, 60, 145-154.

Greenberg, J. & Ginn, A. (1979). A Multivariate Analysis of the Predictors on Long Term Placement. Home Health Care Services Quarterly, 1, 75-99.

Hanley, R., Alecxih, L., Wiener, J., & Kennell, D. (1990). Predicting Elderly Nursing Home Admissions: Results from the 1982-1984 National Long-Term Care Survey. Research on Aging, 12(2), 199-228.

Hanley, R.J., Weiner, J.M., & Harris, K.M. (1991). Will Paid Home Care Erode Informal Support? Journal of Health Politics, Policy and Law, 16(3), 507-521.

Health and Welfare Canada. (1992). Future Directions in Continuing Care. Federal/Provincial/Territorial Subcommittee on Continuing Care. Ottawa: Health and Welfare Canada.

Health and Welfare Canada. (1990). Federal/Provincial/Territorial Working Group on Home Care. Report on Home Care. Health Services and Promotion Branch, Health and Welfare Canada, Ministry of Supply and Services, Cat. No. H391861990E.

Health and Welfare Canada. (1988). Assesment and Placement for Adult Long Term Care: A Single Entry Model. Subcommittee on Institutional Program Guidelines. Ottawa: Health and Welfare Canada.

Health Canada (1993). Description of Long-Term Care Services in Provinces and Territories of Canada. Ottawa: Health Canada.

Hebert, R. (1997). Functional Decline in Old Age. Canadian Medical Association Journal, 157 (8), 1037-1045.

Hellman, E.A., & Stewart, C. (1994). Social Support and the Elderly Client. Home Healthcare Nurse, 12(5), 51-60.

Hirdes, J.P., Botz, CA., Kozak, J. & Lepp, V. (Spring 1996). Identifying an Appropriate Case Mix Measure for Chronic Care: Evidence from on Ontario Pilot Study. Health Care Management Forum, 9(1). 40-46.

Hollander, M.J., & Walker, E.R. (1998). Report of Continuing Care Organization and Terminology. Ministry of Public Works and Government Services Canada, Cat. No. H88-3/23-1999E.

Jackson, M.E., Eichorn, A. & Blackman, D. (1992). Efficacy of Nursing Home Preadmission Screening. The Gerontologist, 32(1), 51-57.

Kahana, E., Coe, RM. (1975) Alternatives in Long Term Care in Sherwood S, ed. Long Term Care: A Handbook for Researchers, Planners and Providers. New York: Spectrum Pub, 511.

Kane, R.A., & Kane, R.L., Assessing the Elderly. Lexington (MA): Lexington Books, 1981.

Kane, R.A., & Kane, R.L. (1987). Long Term Care: Principles, Programs and Policies. New York: Springer Publishing Company.

Kane, R.L., Saslow, M.G., & Brundage, T. (1991). Using ADL's to Establish Eligibility for Long-Term Care among the Cognitively Impaired. The Gerontologist, 31(1), 57-60.

Kasper, J.D. (1990). Cognitive Impairment among Functionally Limited Elderly People in the Community: Future Considerations for Long-Term Care Policy. The Millbank Quarterly, 68 (1), 81-107.

Katz, S et al. (1963). Studies of Illness in the Aged, The Index of ADL: A Standardized Measure of Biological and Psychosocial Function. Journal of the American Medical Association, 185 (12), 94-99.

Kemper, P. (1992). The Use of Formal and Informal Home Care by the Disabled Elderly. Health Services Research, 27(4), 421-451.

Lagergren, M. (1996). Transfers between Levels of Care in a System of Long-Term Care for the Elderly and Disabled. Canadian Journal of Aging, 15(1), 97-111.

Lesemann, F., Nahmias, D. (1993). Home-Based Care in Canada and Quebec: Informal and Formal Service in Lesemann, F., & Martin, C. (eds.), Home-Based Comparison. Ottawa: University of Ottawa Press.

Lindsey,A.M., & Hughes, E.M. (1981). Social Support and Alternatives to Institutionalization for the At-Risk Elderly. Journal of the American Geriatrics Society, 7, 308-315.
Linn, M.W., & Linn,B.S. (1982). The Rapid Disability Rating Scale:2. Journal of the American Geriatric Society, 30 (6), 378-382.

Litwak, E. (1985). Helping the Elderly, The Complementary Roles of Informal Networks and Formal Support Systems. New York: Guildford Press.

MacDonald, J. (2002). The Limitations and Testing of The Alberta Home Care Client Classification System as it Relates to the Newfoundland and Labrador Continuing Care Adult Form. Personal Communication, London, Ontario.

Manton, K.G., Corder, L.S., & Stallard, E. (1993). Estimates of Change in Chronic Disability and Institutional Incidence and Prevalence Rates in the U.S. Elderly Population From the 1982, 1984 and 1989 National Long Term Care Survey. Journal of Gerontology: Social Sciences, 48(4), S153-S166.

McAuley, W.J. & Arling, G. (1984). Use of In-Home Care by Very Old People. Journal of Health and Social Behaviours, 25, 54-64.

McFall, S., & Miller, B. (1992). Caregiver Burden and Nursing Home Admission of Frail Elderly Persons. Journal of Gerontology: Social Sciences, 47(2), S73-79.

Moore, E.G., & Rosenberg, M.N. (1997). The health of Canada's elderly population: current status and future implications. Canadian Medical Association Journal. 157; 1025-1032.

Morris, J.N., Fries, B.E., Steel, K., Ikegami, N., Bernabei, R., Carpenter, G.I., Gilgen, R., Hirdes, J.P., & Topinkova, E. (1997). Comprehensive Clinical Assessment in Community Setting - Applicability of the MDS- HC. Journal of American Geriatric Society, 45(8) 1017-1024.

Nagi, S.Z. (1976) An Epidemiology of Disability Among Adults in the United States. Milbank Mem. fund Q Health Soc, 54, 439-467.

Nasr, S.Z., & Rubenstein, L.Z. (1995). Use of Institutional Long-Term Care by Elderly Persons in Vellas, B.J., Albarede, J.L., & Garry, P.J. (eds.) Facts and Research in Gerontology Journal: Long Term Care. New York: Springer Publishing Company.

Nelson, E. et al. (1987). Assessment of Function in Routine Clinical Practice: Description of the Coop Chart Method and Preliminary Findings. J Chronic Dis, 40 (1), 55.

Newman, S., Struyk, R., Wright, P. & Rice, M. (1990). Overwhelming Odds: Caregiving and the Risk of Institutionalization. Journal of Gerontology: Social Sciences, 45(5), S173-S183.

O'Reilly, D. (1998). Home Care and Nursing home Issues. Personal Communication, St. John's Newfoundland.

Palmer, H.C. (1983). The Alternatives Question. In R.J. Vogel & H.C. Palmer (Eds.),Long Term Care: Perspectives from Research and Demonstrations (pp. 255-306). Washington, DC: US Government Printing Office.

Palmore, E. (1976). Total Chance of Institutionalization Among the Aged. The Gerontologist, 16(6), 504-507.

Pinholt, E.M. et al. (1987). Functional Assessment of the Elderly: A Comparison of Standard Instruments with clinical Judgment. Archives of Internal Medicine, 147, 484-488.

Reisberg, B. (1986). Dementia: A Systematic Approach to Identifying Reversible Causes. Geriatrics, 41(4), 30-46.

Rubenstein LV, Clakins DR, Greenfiels S, et al. (1988). Health Status Assessment for Elderly. Patient Report of the Society of General Internal Medicine Task Force on Health Assessment. JAGS 37: 562-569.

Salamon M.J. (1986). The Matrix of Care: A Heuristic for Assessment and Placement. International Journal of Aging and Human Development, 23(3); 207-216.

Shapiro, E. (1990). There's No Place Like Home in Deber, R. (ed.), Case Studies in Canadian Health Policy and Management. Ottawa: Canadian Hospital Association.

Shapiro, E., & Tate, R. (1988). Who is Really at Risk of Institutionalization? The Gerontologist, 28(2), 237-245.

Shapiro, E., & Tate, R. (1985). Predictors of Long Term Care Facility Use Among the Elderly. Canadian Journal on Aging, 4(1), 11-19.

Spector, W.D. & Kemper, P. (1994). Disability and Cognitive Impairment Criteria: Targeting Those Who Need the Most Home Care. The Gerontologist, 34(5), 640-651.

Spector, W.D. (1991). Cognitive Impairment and Disruptive Behaviours Among Community Based Elderly: Implications for Targeting Long-Term Care. The Gerontologist, 31(1), 51-59.

Stone, R., Cafferata, G.L. & Sangl, J. (1987). Caregivers of the Frail Elderly, A National Profile. The Gerontologist, 27, 616-626.

Tennstedt, S., Crawford, S.L., & McKinlay, J.B. (1993). Is Family Care on the Decline? A Longitudinal investigation of the Substitution of Formal Long-Term Care Services for Informal Care. The Millbank Quarterly, 71(4), 601-624.

Tennestedt, S., McKinlay, J.B., & Kasten, L. (1994). Unmet Need Among Elderly Disabled Elders: A Problem in Access to Community Long Term Care? The Millbank Quarterly, 38 (7), 915-919.
Tsuji, I., Whalen, S., & Finucane, T. (1995). Predictors of Nursing Home Placement in Community-Based Long-Term Care. Journal of the American Geriatric Society, 43(7), 761-766.

Wan, T.H., & Weissart, W.G. (1981). Social Support Networks, Patient Status, and Institutionalization. Research on Aging, 3(2), 240-256.

Ware, J.E., et al. (1981). Choosing Measures of Health Status for Individuals in General Populations. American Journal of Public Health, 71. 620-625.

Weissert, W., Mathews Cready, C., & Pawelak, Je. (1989). Home And Community Care: Three Decades of Findings in Peterson, D., & White, D (eds.) Health Care of the Elderly: An Information Source Book. Newbury Park: Sage Publications.

Weisert, W.G. & Hendrick, S.C. (1994). Lessons Learned from Research on Effects of Community-Based Long-Term Care. Journal of the American Geriatric Society, 42(3), 348-353.

Weissert, W. G. (1986). Hard Choices: Targeting Long-Term Care to the "At Risk" Aged. Journal of Health Policies, Policy and Law, 11, 381-463.

Williams, T.F., Hill, J.G., Faibank, M.E. et al. (1973). Appropriate Placement of the Chronically Ill and Aged: A successful Approach by Evaluation. Journal of the American Medical Association, 226, 1332-1335.

Williams, T.F., & Williams, M. (1982). Assessment of the Elderly for Long Term Care. Journal of the American Geriatrics Society, 30 (1), 71-75.

Wingard, D., Jones, D., & Kaplan, R. (1987). Institutional Care Utilization by the Elderly: A Critical Review. The Gerontologist, 27(2), 156-163.

Young, J.E., Forbes, W.F., & Hirdes, J.P. (1994). The Association of Disability with Long Term Care Institutionalization of the Elderly. Canadian Journal on Aging, 23(1), 15-29.

APPENDICES

APPENDIX A - Issues and Challenges in Continuing Care

Utilization

The issues and challenges involved in continuing care are numerous and complex in nature, especially in meeting the challenge of providing health care for an aging population. Demographic changes have profound implications on the degree of variation in utilization of health services across various age and sex groups. For example, women of 85 years or older are three times more likely to receive "homemakers services" and home care than women between the ages of 65 and 74. Furthermore, within the same age groupings, women typically use home care services at higher rates of utilization than men. Although the greatest proportional increase over the next 20 years will occur in those aged 85 and older, the absolute number of persons in this age group will remain relatively small (Health and Welfare Canada, 1992).

Demographics

Compressed morbidity must also be taken into consideration when analyzing demographic projections. With the promotion and practice of healthier lifestyles, greater retirement planning, and a greater proportion of people retiring with pensions, seniors will generally be healthier at the onset of their golden years, and their need for health services will be "compressed" into their last few years of life. It is predicted that a lower total lifetime usage of health care services will result. However, it is generally accepted that there is no consensus on this issue. The potential impact of a number of other socio-demographic factors on continuing care services such as population growth, the increasingly multicultural make up of Canada and increased urbanization, should also be taken into account (Health and Welfare Canada, 1992).

Technology

Technological advancement may have some contradictory consequences. On the one hand, technology may extend life expectancy; on the other hand, longer life spans may lead to longer periods of disability. Technology may also have clearly beneficial impacts. Better informed and more responsive approaches to building design for the elderly may substantially improve mobility and increase the potential for independent functioning. New procedures and equipment may make it possible to provide services in the home which once could only be provided in the hospital: for example parenteral nutrition and home IV therapy (Health and Welfare Canada, 1992).

Service Delivery

There are many challenges related to service delivery to elderly persons including further development in the areas of quality assurance, research and development and evaluation:

Currently, not all workers in the continuing care field have the range and depth of training and/or experience desired. With increased training, it should be possible to care for more complex cases in the community and to provide more culturally sensitive care to our increasingly multicultural and multilingual population. (Health and Welfare Canada, 1992;12)

As the increasing number of elderly persons choose to maintain their independence by remaining at home for as long as possible, it will become necessary to restructure continuing care services to provide a "clear community emphasis in which placement in a residential setting is seen as a last resort" (Health and Welfare Canada, 1992). Additionally, care plans and services will have to become increasingly flexible,

taking into account community resources and living arrangements. Also, clients need to be matched to appropriate workers to optimize functioning:

> To optimize our human resource potential, it would be helpful to analyze which service functions can be provided by which categories of caregivers and, where comparable, have services provided by the lowest cost worker (Health and Welfare Canada, 1992, p.19).

This will decrease unnecessary overlaps and duplications in services. It will also require further negotiation and refinement of current "transfer of function" arrangements.

Single Entry

Other issues related to service delivery include the problems caused by multiple points of entry and the increasing care needs of clients who "age in place", that is deteriorate with regard to their health status and over time require more services, while staying in the same setting. The adoption of a single entry system to manage entry could also increase efficiency, effectiveness and consumer access. Single entry systems offer clients the advantage of a case manager who can customize a care plan by selecting available services to suit individual needs. By developing the service plan under a "one-stop shopping" model, managers can save clients from the stress of having to contact multiple providers to meet their needs and/or to understand how the overall system works (Health and Welfare Canada, 1992).

APPENDIX B - Geriatric Assessment

Purpose of Geriatric Assessment Tools

There are numerous studies in literature that measure the functional ability in the elderly. However, virtually all of the health assessment and screening tools have been refined from the initial work done by Katz and colleagues in the 1960's. The Index of ADL(Activities of Daily Living) was developed to study results of treatment and prognosis in the elderly and chronically ill. Grades of the Index summarize overall performance in bathing, dressing, toileting, transferring, continence and feeding. More than 2,000 evaluations of 1,001 individuals demonstrated use of the Index as a survey instrument, as an objective guide to the course of chronic illness, and as a tool for studying the aging process. The ADL index also offers a means of making quantitative assessments of illness and the effects of illness on the aged (Katz, Ford, Moskowitz, et al, 1963).

The need for improved measures of function has long been evident to those who are concerned with the problems of the aged and chronically ill. Investigators and those who care for patients need means to evaluate the results of treatment, as well as quantitative information about the nature of changes of function in the both those who are ill and those in good health. Administrators could use quantitative measures of function to assess the need for care in community facilities such as hospitals, rehabilitation centers, nursing homes, and home care programs.

Theory and Terminology Used in Geriatric Assessment

(a) A Framework for Functional Autonomy

According to the International Classification of Impairments, Disabilities and Handicaps published by the WHO, "disability represents the consequences of impairment of an organ or a system on the functioning of the individual in terms of limitation of functions or restriction of activities", and "handicap refers to the gap between the person's disability and the material and social resources available to him or her to offset the disabilities." This gap puts the disabled person at a social disadvantage (Hebert, 1997, p. 1038). Together, these definitions provide the framework for an understanding of functional health and functional autonomy. At the personal level, disability caused by impairment of a person made vulnerable by "biological or psychological aging" compromises that person's autonomy. Socially, "autonomy is compromised by the handicap, which is based on the balance between, on the one hand, the persons physical and mental disabilities and, on the other, the material and social resources available to him or her." (Hebert, 1997, p.1038) These resources are tempered by the social vulnerability associated with aging, such as income level, social network and living conditions. Typically, the efforts of families and communities to provide resources to maintain the elderly person at home and compensate for disabilities represents social autonomy. When resources to counterbalance the disabilities are insufficient, the elderly are likely to be placed in long-term care, where the institution will try to provide the resources to offset the disabilities. Usually, the imbalance leading to a loss of one's social autonomy results from "a sudden or long-term increase in disabilities, which reach a level

exceeding the capacities of the formal and informal support networks" (Hebert, 1997, p. 1039).

There are many forms of intervention to prevent, delay or offset the process of functional decline: Primary prevention, secondary prevention and geriatric assessment and rehabilitation. Primary prevention is intended to reduce aging persons' vulnerability to decline through individual or collective efforts (e.g. by altering their nutrition and physical activities) or their material and social resources (e.g. preparation for retirement.). As a secondary prevention those at risk for functional decline can be screened to allow for pre-emptive interventions. One advantage of this approach is that the screening can be opportunistic (e.g. when an elderly person consults a physician, visits an emergency department or receives home care services) or universal, as in a public health approach (e.g. by means of a mailed questionnaire). As a tertiary approach, geriatric assessment and rehabilitation services help to reduce the impacts by aiming to correct impairments, rehabilitate those afflicted with disabilities, and mobilize social and material resources. Community support services are essential, for they provide complementary assistance by intervening within the network of informal caregivers (Hebert, 1997).

(b) Measurement of Functional Autonomy

Which measure of functional autonomy is most appropriate and valid depends on the purpose for which it is being measured. Hebert 1997 notes that for clinical or research purposes, it is crucial to be able to measure the extent of a handicap in clinical settings, but it is very difficult to do so in the context of epidemiological surveys because a handicap is a very unstable state, one that usually generates medico-social crisis and the need for urgent intervention. Various instruments have been used to measure disabilities

for epidemiological studies. There may be various definitions of disability and modes of administration such as questionnaires, tests or rating scales to choose from, and the number of items included in the measurement may vary: "Some instruments assess actual performance, whereas others define disabilities in terms of the potential to accomplish the tasks" (Hebert, 1997, p. 1039).

The ADL measure is most frequently used to measure the "personal care index and dexterity disabilities" in the WHO classification. This measure was developed to assess an individual's ability to conduct six basic functions: eating, dressing, bathing, using the toilet, continence, and transferring, whereas the IADL (instrumental activities of daily living) which encompasses the domestic functions of housekeeping, cooking, shopping, washing, using the telephone, using transportation, taking medication and budgeting is useful for measuring the WHO "body disposition disabilities." Men and women should be measured differently on some domestic functions given the strong influence because of sex roles. However, in the WHO framework, differentiating on the basis of sex roles is unjustified: "A man who cannot perform domestic tasks, regardless of the reason, is disabled and must rely on his social resources, usually represented by his wife to compensate for the disabilities" (Hebert, 1997, p.1040).

A broad array of psychiatric scales have been used to measure the "behavior disabilities" The validity of these scales, however, is questionable, given that their designers often confused mental impairment (e.g. anxiety, depression and cognition) with mental disabilities (e.g. judgement and behavior). Such confusion complicates the task of measuring disabilities accurately, especially since "a mental impairment such as depression or dementia can induce disabilities in mental functions as well as in other

functional areas. Likewise a physical impairment such as a stroke may induce disabilities in ADL, IADL, mobility, communication and mental functions (Hebert, 1997).

Numerous ADL scales assess locomotion disabilities, which can also be measured by using the physical functioning scales proposed by Nagi in 1976. Finally, "communication disabilities" are less often assessed as such and may be included in either ADL or IADL scales.

In summary, formerly derived classification methods can be useful aides in decision making. In the case of home care placement decisions, classification methods could be particularly useful in determining the extent of home care services required.

(c) Defining Functional Status

The high degree of agreement among experts on what kinds of measures are useful in determining functional status is demonstrated by the similarities in content apparent in established functional status instruments. Health experts have often used the terms "quality of life", "health status" and "functional status" interchangeably. Ideally "quality of life" should include, in addition to health status, socioeconomic or environmental factors. Financial security, availability of food and quality of housing all contribute to quality of life.

Health status encompasses physical, mental, and social health. Measures of disease, such as symptoms, signs, and physiologic measures, as well as measures of illness, such as functional status, are included in the concept of health status. Functional status is the end result of a person's health (absence of disease), well-being (capacity to participate fully in life) and coping (capacity to overcome health problems). Furthermore,

functioning is observable: it consists of the individuals everyday behaviours and they occur in his of her home and community.

Functional status can be described as narrowly as physical functioning (the classic activities of daily living [ADLs],) or as widely as the general ability of a person to meet her or his own needs in the community (the accomplishment of the instrumental activities of daily living [IADLs]). Secondly, function depends on the person's physical health, mental health and cognitive ability, social and economic resources, environmental situation, and the level of strain that other sources place on caregivers.

Two physical health symptoms are strongly related to physical and social functioning in the elderly. These are incontinence and pain. Because of the frequency and impact of these symptoms in elderly populations, both are often included in instruments that measure physical functioning. There are also two mental health measures that are strongly related to physical and social functioning. These are measures of depression and measures of mental status.

Direct measures of a person's ability to walk, hold objects, open doors, or perform other behaviours important in daily life are difficult to classify. These measures help to explain, confirm, or cast doubt upon assessments of how a person is functioning in his or her natural environment.

Commonly used measures of functional status mix items that are related to physical health with items that are more related to social or mental health. Many versions of Instrumental Activities of Daily Living, for example, combine mobility-related items, such as the ability to do errands, with items about a sedentary activity, such as handling finances. Certain instruments, such as those derived from the Rand Health Insurance

Experiment, have carefully designed physical, mental and social measures that are as pure as possible (i.e. each factor is relatively independent of the others).

Most functional status assessment instruments use similar items, such as the ability to dress, but instruments vary in terms of what they ask about the item. They may ask about the assistance needed, the adaptive equipment used, or the difficulty experienced when performing a particular task. In the end, functional assessment and the treatment strategies should bridge the gap between the person's needs and the resources available for improving function for the individual and family (Williams and Williams, 1982).

(d) Purposes of Health Status Assessment

According to Williams & Williams, "the most important purpose of geriatric assessment is to serve the patient and the patient's family through identifying difficulties and quantifying their impact: through attention to any treatable or remedial conditions; through identifying long-term care services needed and helping to arrange them; through reinforcement of adaptive and supportive mechanisms already in place" (Williams and Williams, 1982, 71).

The reasons for measuring functional status as part of routine patient management can be classified into five general categories. These include: detecting disease and dysfunction, assessing the extent of disease and dysfunction, selecting treatments and other interventions, assessing need for community resources and evaluating the effects of these interventions. In addition, because a functional change can be a warning sign of a beginning pathological process, (Pinholt. et al, 1987) comprehensive functional assessment is useful in the diagnosis of illness and self-care deficits. It also assists in

subsequent measurement of disease activity and therapeutic efficacy. Assessment can establish baseline functional profiles (Nelson et al, 1987); can be helpful in determining optimal placement and can help reduce the number of hospital days; and, when performed with specific assessment instruments and scales, can provide a common language for use among all health professionals and for communication of research.

Some functional status assessment instruments were developed primarily to determine the amount of assistance needed by patients in daily living. These instruments may be particularly helpful in making placement decisions. Among in-patients, many functional status problems are temporary. Awareness of current and prior health status including functional status, mental status and living situation, may be crucial in terms of assessing long term nursing, rehabilitation and home care needs (Williams, Hill, Fairbank, 1973).

(e) Assessing Need for Community Resources

Many functional disabilities can be improved in the home through use of community resources. A patient who has difficulty walking may benefit from physical therapy, home safety assessment by visiting nurses, transportation resources, or social activities geared to the disabled individual. Identification of specific problems is more likely to generate creative solutions. For example, if a patient has difficulty eating, changing her diet, her dentures or any nausea-producing medications she may have been prescribed might make the difference between a nursing home placement and a return to home. If the patient is unable to cook, a meal service (i.e. Meals on Wheels) may provide the solution. If the patient is unable to walk, but can transfer from a bed to a chair, a wheelchair might enable the patient to return home; if transfer is not possible,

nursing home placement may be the only possible solution. Formal functional status assessment can help clinicians analyze these major decisions correctly.

Functional assessment can also be integrated into the initial nursing assessment in a long-term care and rehabilitation setting. Recognition of functional strengths and limitations is the basis of nursing care planning to correct deficits that are amenable to treatment. Compensating for ADL/IADL deficits through use of adaptive equipment and home health aide assistance and adding social supports can result in successful discharge to the community. Functional assessment instruments can be used periodically to monitor rehabilitation progress and discharge readiness.

Functional assessment is particularly vital in holistic care in the community-dwelling elderly, as it may prevent hospitalization and premature institutionalization.

(f) Evaluating the Effects of Interventions

Health status measures have the additional advantage of identifying outcomes that are highly valued by patients, such as the ability to get together with friends and relatives. While the ability of health status assessment questionnaires to determine differences in group outcomes is well-established, the ability of these questionnaires to measure change in an individual over time has not been rigorously examined. The successful use of health assessment instruments for detecting health status changes in individuals will require a high degree of sensitivity of instruments to change, as well as reliability and validity (Ware, Brook, Davis, 1981). Widespread clinical experience with these instruments will provide further understanding of the limitations and benefits of using functional status instruments to detect clinically relevant change.

Broadly speaking, patient assessment has been developed over the past twenty years for the purposes of making the process of determining the proper placement of clients and determining their care and service needs more objective. The procedures developed by Becker attempted to routinize the practice of reviewing clients by evaluating them on a number of dimensions which vary according to the specific purposes of assessment. In the assessment process, raters complete pre-printed forms based on the professional knowledge they have gained about the client through interviews, observations, records, and discussions with other involved professionals. The form includes classifications of items or descriptors which reflect the dimensions of the clients to be assessed (Becker, 1982).

Rehabilitation nurses can use functional assessment to learn about the patient and family, to understand their needs and strengths as well as the obstacles to progress in rehabilitation; and to facilitate case finding, intra-facility transfer, discharge planning, long-term care placement or case management. To gain this information, clinical interpretation of the client's history and standardized scales ought to be combined. Some data demonstrate that clinical judgement alone does not reveal moderate (vs severe) impairments in some vital areas of function. An in-patient study comparing standard instruments with clinical judgement (Pinhole. et al, 1987) demonstrated that moderate impairments in mental status, nutrition, vision and continence are poorly recognized using clinical judgement alone; this is significant because these impairments, if found in their early stages, may be amenable to remedial intervention. Another researcher found that assessment screening in ambulatory settings typically reveals undetected concerns in one-third to one-half of elderly patients, even if the patients'

physicians are well acquainted with the particulars of the case (Pace, 1989). Hence, functional assessment should be applied periodically to all clients so as to determine new areas of loss, improvement, or need for changes in the provision of rehabilitation services.

(g) Selecting Measures of Functioning

A wide range of instruments has been developed for the assessment of physical functioning. The specific use, the setting, and the population to be evaluated should guide the choice of assessment tools. Functional assessment plays an important role both in the clinical management of older patients and in clinical and epidemiological research. In the clinical setting, measurement of functional status may be used to establish a baseline functional level, screen for problems undetected by the standard clinical examination, aid in diagnosis, set goals for therapy or rehabilitation, and follow a patient's course (Applegate et al, 1990).

The overall health status of the population to be evaluated should play an important role in the choice of an assessment tool or battery of tools. Many of the most commonly employed physical functioning instruments were originally developed to assess severe decrements in function, such as needing help with eating or dressing. In a nursing home population this is an entirely appropriate target for assessment. In a community-dwelling older population, however, these problems are much less common, even at the oldest ages. Although it is valuable to identify the small minority of elders who suffer from severe functional decline, the use of additional instruments is necessary if the older population is to be characterized across the full spectrum of functioning. If the

aim of a study is to identify those with severe disabilities as well as those functioning at a high level, then the use of more than one assessment instrument will clearly be required.

The choice of functional measures also depends on whether they will be used to describe a population or to study the functional consequences of a specific disease or intervention. Descriptive studies of functional status play a valuable role in our understanding of the health problems and needs of the aging population. Measures of physical functioning reflect the impact of one or more diseases, as well as a host of environmental influences; and as such, they can be very valuable in summarizing the health status and level of independence of older populations. Measures to describe a population should capture a wide range of dysfunction. In contrast to the broad instruments useful for descriptive studies, research on specific risk factors or interventions should focus on functional assessments specific and appropriate to the problem under study.

Finally, in selecting an instrument, one must consider whether the assessment will evaluate function at one point in time only or assess change in function over time. An instrument that may be ideal for describing the functional status of a population may not be sensitive to the kinds of changes important to longitudinal observational studies or intervention trials. A dichotomous measure, such as needing help walking versus not needing help walking, may not perform as well in the evaluation of change over time as an instrument that has several gradations of function. Continuous variables may have a real advantage in longitudinal studies.

(h) General Approaches to Measuring Physical Function

Although the Activities of Daily Living (ADL) scale was among the first formal instruments to be introduced for the assessment of physical functioning, numerous others have been created as gerontological research has increased (Kane and Kane, 1981).

Physical functioning is only one aspect of functioning that affects the overall health status of elderly persons. Other aspects including cognitive, psychological, social, and sensory function (e.g. vision and hearing) are interrelated with physical functioning, a fact that must be kept in mind when attempting to make measurements in any of these areas.

(i) Instruments for Assessing Functioning

Because of the wide range of instruments and approaches used in the assessment of physical functioning in elderly populations, a general classification scheme for these measures eases the process of selecting instruments to be applied in a clinical or research situation. Five general categories of instruments will be discussed:

(i) The most commonly assessed measures of functioning are self-care activities, usually known as activities of daily living (ADLs). These measures were originally developed to assess older individuals in long-term care or rehabilitation settings, and reflect a substantial degree of disability. They are now widely utilized in representative community-dwelling populations, and although the prevalence of difficulty or the need for help in these populations is low, these items are well-suited to the purpose of identifying the most severely disabled individuals. In most uses of ADLs, five basic activities are always assessed. These include, in order or decreasing prevalence of disability: bathing, dressing, transferring from bed to chair, using the toilet, and eating. The original ADL scale introduced by Katz and colleagues also included continence

(Katz et al, 1963). Although continence is an important area of assessment in older populations, it is generally not included in population estimates of ADL impairment, as incontinence has many forms and may be present in persons who are otherwise in very good health. Walking has also been incorporated as an ADL measure (Branch, et al, 1984), which may be appropriate as a component of self-care when it addresses walking a short distance such as across a room.

(ii)The instrumental activities of daily living (IADLs) are activities that are necessary for independent living in the community but are more difficult and complex than those of the personal self-care domain, represented by ADLs. Lawton and Brody (1969) first described a scale with a number of these activities, including shopping, food preparation, housekeeping, doing laundry, using transportation, taking medications, handling finances, and using the telephone. By their nature, the IADLs incorporate more than just the physical domain of functioning, and may be difficult to interpret as direct measures of physical functioning and disability. Cognitive functioning plays a particularly important role in the ability to perform these tasks, although it should be noted that cognitive impairment may play a role in ADL disability as well (Kane & Kane, 1981). Interpreting responses to IADLs can also be quite difficult. Reporting difficulty in shopping can mean many things, depending on the respondent's geographic location, the availability of transportation, and the types of shopping being done. Nevertheless, the IADLs can play a valuable role as indicators of need for help with tasks that are necessary if the individual is to continue to reside in the community.

(iii) In addition to ADLs and IADLs, a number of other activities have been used to assess physical functioning in older populations. Although these items represent a

miscellaneous class, they may be characterized as being less complex than the IADLs, or even the ADLs, although they may actually be more vigorous. In general, questions for this class assess a particular function of the human body, rather than a task that has multiple components. These functions fall into the categories of mobility, range of motion, strength, and endurance. Examples of these kinds of items are found in the "Supplements on Aging" section of the Framingham Disability Study (Jett & Branch, 1981), and all employ modified scales (Nagi, 1976). The Nagi scale assesses a heterogeneous group of tasks, including lifting arms above the shoulders, handling small objects, lifting weights over ten pounds, moving large objects, and stooping, crouching or kneeling.

(iv) In addition to ADLs, IADLs, and other measures of usual functioning, physical activity, exercise, and vigorous recreational activities may serve as a measure of physical functioning in older populations. Assessments of physical activity in the segment of the older population with no serious disability may be of value in placing them along the continuum of the full spectrum of physical functioning. As such, they may not be valid indicators of health status in those who are very healthy but simply choose not to engage in such activities. However, they do indicate high levels of functioning in those who do perform more vigorous activities outside of necessary or usual functioning, and assessment of these kinds of activities can give insight into the effects of physical activity on numerous diseases and conditions of aging.

(v) The performance measure of physical functioning may be defined as an assessment instrument in which an individual is asked to perform a specific task and is evaluated in an objective, standardized manner using predetermined criteria. For some

measures, these criteria may define whether the task was successfully completed, whereas for others the assessment may include the counting of repetitions or timing of the activity. For example, cognitive functioning is assessed by asking the respondent or family member about such areas as difficulty with memory and problem solving skills, and is also assessed directly by having the respondent demonstrate performance in these areas.

(j) Scoring Geriatric Assessment

The development of useful aggregate scales demands a great deal of methodological work, and many scales of physical functioning have not been fully evaluated. There are several necessary steps for both the development and evaluation of scales. To create a scale, a pool of items must be selected, the number of items must then be reduced so that each item provides non redundant information, and a scoring system must be applied to the remaining items. The scale must then be evaluated for reliability, validity and responsiveness or sensitivity to change.

The aggregation of multiple items into a single scale or index may be accomplished through a number of techniques, which have generally been developed and refined by those working in the social sciences, where scale construction is common. The two most commonly used types of scales are the summated and cumulative scales. In the summated scale, also often called an index, individual items are scored and then summed to arrive at an aggregate score. Before adding items, certain summated scales apply weights, obtained through various analytic techniques, to each item. Cumulative scaling, also called Guttman scaling, is appropriate when the items being assessed are hierarchical, such as when they have been ranked in some order related to level of difficulty. The scores that clients receive place them in an exact location on the scale.

When clients endorse an item with a certain level of difficulty, it can be assumed in a cumulative scale that they will also endorse all easier items. This is the main feature that distinguishes cumulative scales from summated scales, in which identical total scores can be obtained through multiple patterns of response.

Rubenstein and colleagues (1981) conducted a study relating to health status assessment of elderly patients, the purpose of which was to suggest practical, validated measures for assessing physical, psychological, and social functioning in daily life. These measures, often called instruments, are particularly relevant and useful among elderly individuals, who frequently have multiple disabilities. Functional status instruments can be used in office or hospital practice to achieve clinical goals such as detecting disability, measuring patient progress over time, planning for long-term care, and assessing disease severity.

Studies have shown that the use of formalized comprehensive geriatric assessments can result in improved survival, reduced hospital and nursing home stays, decreased medical costs, and improved functional status. In addition, geriatric assessment can help in determining patient placement, assistance needed for daily activities, selection of medications and prognosis. The paradigm shift of care from disease-oriented to function-oriented assistance requires knowledge of social, cognitive, and mobility factors that are seldom considered within the scope of traditional medical practice (Fleming et al, 1995).

(k) Issues Arising from Geriatric Assessment

Tools and scales assist; but cannot replace clinical judgement. Furthermore, no single instrument meets all assessment needs. For this reason, it is important to be knowledgeable about various tools to be able to determine their use and potential effectiveness in a particular situation. In evaluating the applicability of various tools, one should begin with an understanding of what is to be measured and what drawbacks or limitations are involved.

It is well known that deterioration in functioning is a common and often lethal manifestation of disease among elderly patients. The vicious cycle of deteriorating function, complications of the disability and prolonged institutionalization can be difficult to break. Consequently, the current standard of care for treating geriatric patients places a high priority upon assessing patients' functioning. Multi-disciplinary team assessment, one of the key advances in geriatrics, has functional status assessment at its core.

The current problems of assessment can be seen more clearly when viewed in comparison to the matrix approach in which physical and psychosocial needs are assessed both independently and jointly. If a patient with a severe psychosocial impairment, but with a low or moderate level of physical need, is assessed with an evaluation technique that emphasizes physical need, she may be deemed appropriate for placement in a domiciliary care facility or, at most, an intermediate care facility. However, if the patient is assessed with a scale very sensitive to psychosocial needs, the patient may be deemed appropriate for skilled nursing care. In fact, neither one of these may be correct options for care intervention for this patient. Only those assessment techniques in which both

physical and psychosocial needs are combined may properly assess the individual (Solamon, 1986).

2.3.3 Description of Selected Geriatric Assessment Tools

Although there are several tools available, not all were developed specifically for older adults. The investigator must consider the setting (s) in which the tool has been tested for reliability and validity. Ideally, the functional assessment instrument should be multi-dimensional, easily administered, and sensitive to changes.

(a) Barthel's Self-Care Index

This tool rates 15 self-care ADL's, sphincter-control and mobility factors. The Barthel index has been used to measure severity of disability and to monitor progress in rehabilitation. The best score is 100, the worst score is 0; a score of 40 or less corresponds to severe disability. Areas that are not included in the Barthel index are health/physical condition, and social, emotional, family, and financial supports available to the client (Granger, Albrecht, & Hamilt, 1979).

(b) OARS –MFAQ

The Older American Resource Scale Multidimensional Functional Assessment Questionnaire, (OARS – MRAQ) is a very extensive, 45 page, comprehensive tool employed by trained interviewers/raters to gather information. Length of training in its use, costs and the time required for administration limit the applicability of the OARS – MFAQ (Fillenbaum & Smyer, 1981).

(c) FAI

The Functional Assessment Inventory (FAI) (Pfeiffer, 1982) is a short form of the OARS-MFAQ, and consists of a structured interview followed by an interviewer rating. Like the OARS, the five areas rated are social resources, economic resources, mental health, physical health, and ADLs. It includes the Pfeiffer Short Portable Mental Status Questionnaire (SPMSQ).

(d) FAST

The Functional Assessment Staging (FAST) is an instrument specific to dementia of Alzheimer's type (DAT). Stages range from stage 1 (normal adult) to stage 3 (deficit and demanding employment settings) to stage 7F (consciousness lost/severe DAT). Advantages of FAST are that it can be rapidly applied in clinical practice and that it may be useful in detecting problems that may be reversible (Reisberg, 1986).

(e) PULSES

The PULSES profile, developed in 1957 by Moskowitz and McCann (Granger et al, 1979) to determine the needs of the chronically ill, has been adapted to measure independence in life functioning. The acronym PULSES is derived from P-physical condition; U-upper limb functions; L-lower limb functions; S-sensory components; E-excretory function; S-support factors. Each of the six areas is rated on a scale of one to four; with a best score of six and a worst score of 24. Support factors considered include emotional and intellectual adaptability, family support, and financial ability.

(f) Katz Index of Activities of Daily Living

This tool involves rating independence and dependence in six areas: bathing, dressing, toileting, transfer, continence and feeding. The patient's actual status, rather than ability, is noted. ADL offers the advantage of a quick assessment that can be repeated periodically to measure patients' progress (Katz, Ford, Moskowitz, Jackson and Jaffee, 1963).

(g) Rapid Disability Rating Scale – 2

This scale is designed to provide a rapid rating of assistance with ADLs, degree of disability, and degree of special problems, i.e. mental confusion, uncooperativeness, or depression. Adaptive tasks, such as managing money and using a telephone, constitute one of the eighteen areas rated in a four choice/item scale. Degree of disability items include communication, hearing, sight, diet, incontinence, and medication. (Linn and Linn, 1982)

(h) The SMAF

The Functional Autonomy Measurement System or SMAF is a 29 item comprehensive scale developed according to the WHO classification of disabilities. It is used in clinical settings for assessment follow-ups of elderly patients living in institutions or in the community. SMAF measures functional ability on the basis of actual performance in five areas: 1. ADL ; 2. Mobility (transfer, walking inside and outside, donning a prosthesis or orthosis, propelling a wheelchair, and negotiating stairs); 3. Communication (vision, hearing, speaking); 4. Mental functions (memory, orientation, comprehension, judgement, behaviors; and 5. IADL (housekeeping, meal preparation, shopping, laundry, telephone, transportation, medical use and budgeting). Each item is

scored on a 4-point disability scale from 0 (independent) to 3 (dependent). On most items, a 0.5 score indicates difficulties performing the activity. The maximum score is 87, and sub-scores can also be calculated for each dimension. A change of 5 points or more should be considered metrically and clinically significant. For each item, a handicap score is calculated, and resources available to compensate for the disability are evaluated. The SMAF test must be administered by a trained health care professional, who rates the person after obtaining information either by questioning both the individual and proxies or by observing or testing the person. Many studies on its reliability, and responsiveness have been conducted. A recent study with a representative sample of 1,987 elderly people living in different settings linked the SMAF score with the costs associated with their care to quantify the economic benefits of a rehabilitation program in the context of a cost benefit analysis (Hebert, 1997).

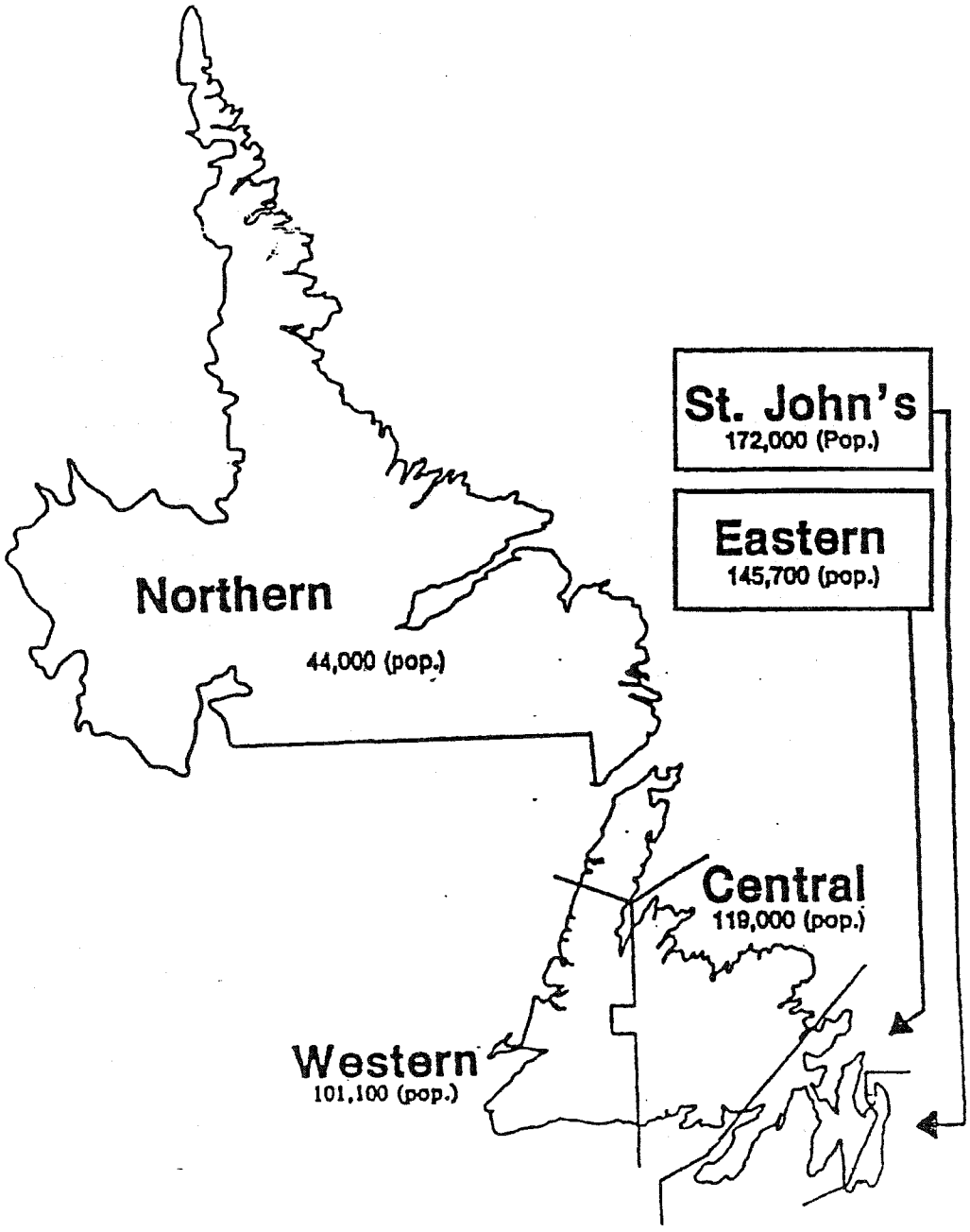
(i) The RAI – HC

The RAI – HC is comprised of two elements: 1. The Minimum Data Set – Home Care (MDS-HC) assessment component, and 2. The Clinical Assessment of Protocols (CAPs). The MDS-HC is used by a home care clinician to assess multiple domains of function, health, social support, and service use. It offers "a standardized mechanism to identify persons who could benefit from further evaluation of specific problems or at risk for functional decline" (Morris, Fries et al., 1997). CAPs provide "general guidelines for further assessment and individualized care planning of triggered problems ". They include background (with prevalent data, etc) and care planning guidelines to serve as a "training manual and reference for the home care professional " (Morris, Fries et al., 1997).

Seeing an 'overlap' among the elders in nursing homes and home care programs, and consequently that many RAI assessment items could be applied to the community, the inter-RAI group established design guidelines for the RAI-HC: 1. It should be client-based, and designed for longitudinal use; 2. It should support care planning; 3. It should be applicable in various cultural and national settings; 4. It should act as a foundation for future development of outcome measures; 5. It should provide home care professionals with a valuable reference and training tool; 6. It should encourage a " broad, multidisciplinary standard of care" and; 7. It should offer a rapid means of assessment (i.e. the assessment and recording of information should not take longer than one hour.)

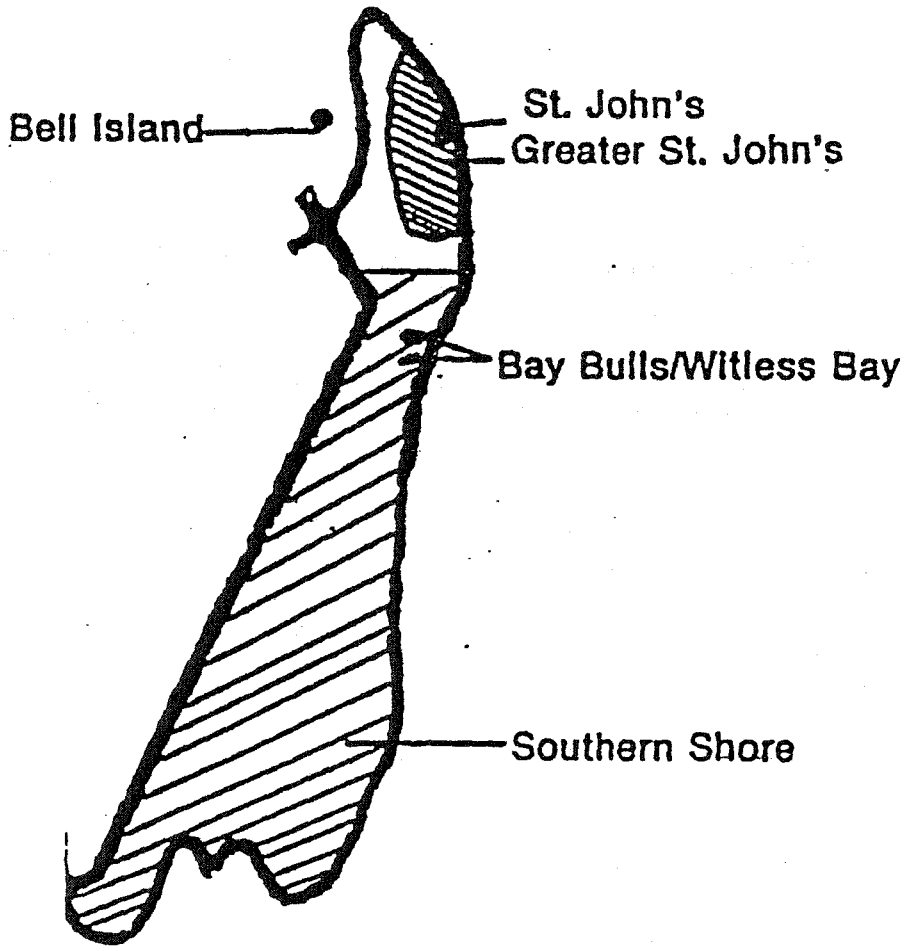
Measures in the MDS-HC include: "personal items, cognitive patterns, communication/hearing, vision, mood and behavior, social functioning, informal support services, physical functioning, continence, disease diagnoses, health conditions and preventative health measures, nutrition/hydration, dental status, skin condition, environmental assessment, service utilization and medications" (Morris, et al 1997).

Appendix C



(Crowley, 1998)

St. John's Region



(Crowley, 1998)

Appendix D

GOVERNMENT OF
NEWFOUNDLAND
AND LABRADOR
Department of Health

Continuing Care Assessment for Adult Long Term Care

Continuing Care
Community Health
February 1995

Table of Contents

Continuing Care Assessment

Agency Profile

File Number

Provincial Region

Assessment Agency | Address

	Dates Y/M/D	Primary Assessor	Computer ID#	Telephone Number	Place of Assessment
Assessment (A)					
Reassessment (R_1)					
Reassessment (R_2)					

AGENCY PROFILE

Client Profile

Personal Data

Name: Last | First | Middle | Maiden Name

A

Permanent Address | Current Address

Postal Code | Telephone Number | Postal Code | Telephone Number

Directions to Current Address (if applicable) | District

R_1

☐ as above

Permanent Address | Current Address

Postal Code | Telephone Number | Postal Code | Telephone Number

Directions to Current Address (if applicable) | District

R_2

☐ as above

Permanent Address | Current Address

Postal Code | Telephone Number | Postal Code | Telephone Number

Directions to Current Address (if applicable) | District

CLIENT PROFILE

Identification Numbers

MCP # _____ GIS/Drug # _____

SIN# _____ Other # _____ Specify _____

OAS # _____ War Veteran DVA # _____

DOSS # _____ Veteran Status _____

Third Party Insurance (If applicable)

Name _____

Group _____

Policy # _____

File No. _____

Client Profile

Date of Birth (Y/M/D)	Gender	Religion (Optional)	Marital Status A _____ R_1 _____ R_2 _____

Language:	Spoken	Written	Is client able to:	Does client require an interpreter?	Name of Interpreter
English	☐ _____	☐ _____	Read? ☐ Yes ☐ No	Yes ☐	_____
French	☐ _____	☐ _____	Write? ☐ Yes ☐ No	No ☐	Telephone Number
Other	☐ _____	☐ _____	Education Level Completed _____		

Ethnic Background (Optional)	Place of Birth	Father's Name: Last	First
	Client _____		
	Father _____	Mother's Maiden Name: Last	First
	Mother _____		

	Emergency Contact	Next of Kin
A	Name	Name
	Address	Address
	Postal Code	Postal Code
	Res. Telephone	Res. Telephone
	Bus. Telephone	Bus. Telephone
	Relationship	Relationship

☐ as above	Emergency Contact	Next of Kin
R_1	Name	Name
	Address	Address
	Postal Code	Postal Code
	Res. Telephone	Res. Telephone
	Bus. Telephone	Bus. Telephone
	Relationship	Relationship

☐ as above	Emergency Contact	Next of Kin
R_2	Name	Name
	Address	Address
	Postal Code	Postal Code
	Res. Telephone	Res. Telephone
	Bus. Telephone	Bus. Telephone
	Relationship	Relationship

CLIENT PROFILE

File No. _____

Client Profile

Spousal Data (If Applicable)

	A	R_1	R_2
Name: Last First Middle			
Address (if different from client)			
Postal Code			
Res. Telephone			
Bus. Telephone			
Date of Birth (Y/M/D)			
Health Status of Spouse as perceived by Client:			
	Poor ☐ Fair ☐	Poor ☐ Fair ☐	Poor ☐ Fair ☐
	Good ☐ Excellent ☐	Good ☐ Excellent ☐	Good ☐ Excellent ☐

Referral Data

Referral Date	Source of Referral
Name of Person Initiating Referral	
Address or Agency	
Res Telephone	
Bus Telephone	

Why is this assessment being completed

A _____

R_1 _____

R_2 _____

Diagnoses (Include ICD-9 coding for primary and secondary diagnoses)

A	_____ ( ) _____ _____ ( ) _____
R_1	_____ ( ) _____ _____ ( ) _____
R_2	_____ ( ) _____ _____ ( ) _____

CLIENT PROFILE

File No. _____

Client Profile

Hospital Data (To be completed only if client is in hospital at time of assessment/reassessment)

A	Hospital Admission Date (Y/M/D)	Projected Discharge Date (Y/M/D)	Date of Written Medical Discharge Order (Y/M/D)
	Hospital Name	Unit	Telephone Number ___-___-____
	Address		
☐ as above R_1	Hospital Admission Date (Y/M/D)	Projected Discharge Date (Y/M/D)	Date of Written Medical Discharge Order (Y/M/D)
	Hospital Name	Unit	Telephone Number ___-___-____
	Address		
☐ as above R_2	Hospital Admission Date (Y/M/D)	Projected Discharge Date (Y/M/D)	Date of Written Medical Discharge Order (Y/M/D)
	Hospital Name	Unit	Telephone Number ___-___-____

Physician Data (List family physician first)

A	R_1	R_2	Name	Telephone	Regular Visit Schedule or Upcoming Appointments
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			

Current Community Services Utilized

Which community services are currently utilized and how frequently?

	A	R_1	R_2
Day Hospital	☐ _____	☐ _____	☐ _____
Day Support Service	☐ _____	☐ _____	☐ _____
Meals on Wheels	☐ _____	☐ _____	☐ _____
Out Patient Department	☐ _____	☐ _____	☐ _____
Clinic Service	☐ _____	☐ _____	☐ _____
Respite	☐ _____	☐ _____	☐ _____
Volunteer Visiting	☐ _____	☐ _____	☐ _____
Wheels to Meals	☐ _____	☐ _____	☐ _____
Home Support	☐ _____	☐ _____	☐ _____
Laboratory	☐ _____	☐ _____	☐ _____
Dietician	☐ _____	☐ _____	☐ _____
Nursing	☐ _____	☐ _____	☐ _____
Occupational Therapy	☐ _____	☐ _____	☐ _____
Physiotherapy	☐ _____	☐ _____	☐ _____
Social Work	☐ _____	☐ _____	☐ _____
Other _____	☐ _____	☐ _____	☐ _____
_____	☐ _____	☐ _____	☐ _____
_____	☐ _____	☐ _____	☐ _____
_____	☐ _____	☐ _____	☐ _____

CLIENT PROFILE

File No. _____

Client Profile

Attitude To Receiving Service

	Client			Family		
	A	R_1	R2	A	R_1	R2
Does not see the need for service and does not want service	☐	☐	☐	☐	☐	☐
Sees need for service but does not want service	☐	☐	☐	☐	☐	☐
May accept service with some persuasion	☐	☐	☐	☐	☐	☐
Wants and feels need for service	☐	☐	☐	☐	☐	☐
Feels unable to manage without service	☐	☐	☐	☐	☐	☐

Comments: A _____
R_1 _____
R_2 _____

Provider of Information

Did client personally provide the information on this form?

	A	R_1	R_2
Yes	☐	☐	☐
No	☐	☐	☐

If no, give reason why information is being given by someone other than client.

A _____
R_1 _____
R_2 _____

Provider of Information

A	R_1	R_2
Name	Name	Name
Address	Address	Address
Postal Code	Postal Code	Postal Code
Res. Telephone	Res. Telephone	Res. Telephone
Bus. Telephone	Bus. Telephone	Bus. Telephone
Relationship	Relationship	Relationship

Power of Attorney (If Applicable)

Name

Address

Postal Code

Res. Telephone

Bus. Telephone

Relationship

Guardianship

☐ Legal Guardian ☐ No Guardian

☐ Application in progress

Name

Address

Postal Code

Res. Telephone

Bus. Telephone

Relationship

Does client understand that this assessment could lead to the provision of community support services or institutional placement?

	A	R_1	R_2
Yes	☐	☐	☐
No	☐	☐	☐

File No. _____

Client Profile

Consent for Release of Information

I HEREBY CONSENT TO THE RELEASE OF ANY INFORMATION CONTAINED IN THIS APPLICATION IN ORDER TO FACILITATE MY ACCESSING THE APPROPRIATE LEVEL OF CARE/SERVICES. (Signature of applicant or, if applicant is incapable of signing, signature of person applying on applicant's behalf.

A _____ Signature of Applicant	Date ___ ___ ___ Y/ M/ D	A _____ Signature of Assessor	Date ___ ___ ___ Y/ M/ D		
		_____ Signature of Witness	Date ___ ___ ___ Y/ M/ D		
A _____ Signature of Applicant	Date ___ ___ ___ Y/ M/ D	A _____ Signature of Assessor	Date ___ ___ ___ Y/ M/ D		
		_____ Signature of Witness	Date ___ ___ ___ Y/ M/ D		
A _____ Signature of Applicant	Date ___ ___ ___ Y/ M/ D	_____ Signature of Assessor	Date ___ ___ ___ Y/ M/ D		
		_____ Signature of Witness	Date ___ ___ ___ Y/ M/ D		

	Signature of Primary Assessor	Date
A		
R_1		
R_2		

CLIENT PROFILE

File No. ____________

Physical Assessment

Health History (Briefly describe)

____

____

____

____

____

____

____

Immunization History ____

____

Date of Last Chest X-Ray A ________ R_1 ________ R_2 ________

Surgery (from most recent)	Date (Y/M)	**Surgery** (From most recent)	Date (Y/M)

Current Health Problems (Indicate A, R_1, R_2)

____

____

____

____

____

____

____

____

____

____

Allergies and Sensitivities

A	R_1	R_2	
☐	☐	☐	None Known

A	R_1	R_2	Medication	A	R_1	R_2	Food	A	R_1	R_2	Environment	A	R_1	R_2	Other
☐	☐	☐	________	☐	☐	☐	________	☐	☐	☐	________	☐	☐	☐	________
☐	☐	☐	________	☐	☐	☐	________	☐	☐	☐	________	☐	☐	☐	________
☐	☐	☐	________	☐	☐	☐	________	☐	☐	☐	________	☐	☐	☐	________
☐	☐	☐	________	☐	☐	☐	________	☐	☐	☐	________	☐	☐	☐	________

Comments: A ____

R_1 ____

R_2 ____

P H Y S I C A L A S S E S S M E N T

File No. ____________

Physical Assessment

Medications (List all medications, including over the counter medications (i.e. laxative, antacids)

A	R_1	R_2	Medication	Dosage	Frequency	Route**	Date Started	Physician	Managed by: Self	Managed by: Other
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
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☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								
☐	☐	☐								

**Route PO - Oral SC - Subcutaneous IM - Intramuscular IV - Intravenous OTH - Other

Comments: (Include overall ability to manage medications, including obtaining prescriptions, safety, compliance, abuse, incompatibilities and need for monitoring drug levels.)

A ____________________

____

____

R_1 ____________________

____

____

R_2 ____________________

____

____

PHYSICAL ASSESSMENT

File No. _____

Physical Assessment

Vision (With visual aids)

	A	R_1	R_2
Adequate, normal vision: demonstrates that he/she can see well enough to read or do handwork	☐	☐	☐
Inadequate vision; cannot read news print, medication labels	☐	☐	☐
Limited vision; cannot see objects/obstacles in environment; uses hands or cane to navigate	☐	☐	☐
Distinguishes only light and dark/shadow	☐	☐	☐
Totally blind	☐	☐	☐

Is Client Registered With CNIB?

	A	R_1	R_2
Yes	☐	☐	☐
No	☐	☐	☐

Client Has	A	R_1	R_2
Prescription eyeglasses	☐	☐	☐
Contact lenses	☐	☐	☐
Eye prosthesis	☐	☐	☐
Cataracts	☐	☐	☐
Magnifying glass	☐	☐	☐

Physician Prescribing Eyeglasses/Contact Lenses

Name _____

Address _____

_____ Postal Code _____

Bus. Phone _____

Approximate Date prescribed _____

Comments A _____

Comments R_1 _____

Comments R_2 _____

Hearing

	A	R_1	R_2
Hears normal speech with or without aids	☐	☐	☐
Has difficulty hearing even with hearing aid or when spoken to clearly	☐	☐	☐
Recognizes sound, but cannot distinguish sound	☐	☐	☐
Totally deaf; unable to hear loud noises	☐	☐	☐
Left hearing aid	☐	☐	☐
Right hearing aid	☐	☐	☐

	A	R_1	R_2
Hearing aid is satisfactory	☐	☐	☐
Hearing aid is not satisfactory	☐	☐	☐
Hearing has been tested	☐	☐	☐
Hearing has not been tested	☐	☐	☐

Hearing Tested by: _____

Place _____ Date _____

Comments A _____

Comments R_1 _____

Comments R_2 _____

PHYSICAL ASSESSMENT

File No. _____

Physical Assessment

Expressive Speech

	A	R_1	R_2
Able to speak and be understood	☐	☐	☐
Able to speak; is understood with difficulty	☐	☐	☐
Uses structured (sign) language, symbol board or writes to communicate	☐	☐	☐
Unable to communicate effectively using any means	☐	☐	☐

Current Conditions/Treatments

	A	R_1	R_2
Aphasic	☐	☐	☐
Laryngectomy	☐	☐	☐
Speech Disorder	☐	☐	☐
Speech Therapy	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Receptive Speech

	A	R_1	R_2
Demonstrates ability to understand verbal communication	☐	☐	☐
Has limited understanding of verbal communication	☐	☐	☐
Uses lip reading, written materials or sign language to understand	☐	☐	☐
Able to understand only gestures/facial expression/simple pictures or environmental cues	☐	☐	☐
Unable to understand any cues	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Nutrition

Has The Client's Weight:

	A	R_1	R_2
Stayed the same	☐	☐	☐
Increased	☐	☐	☐
Decreased	☐	☐	☐

If Increase/Decrease:

How much A _____ R_1 _____ R_2 _____

Time frame A _____ R_1 _____ R_2 _____

What Reason Does The Client Give For Gain/Loss?

Comments A _____

Comments R_1 _____

Comments R_2 _____

How Does The Client Describe His/Her Appetite:

	A	R_1	R_2
Good	☐	☐	☐
Fair	☐	☐	☐
Poor	☐	☐	☐

Has The Client Experienced a Change in Appetite Recently?

	A	R_1	R_2
Yes	☐	☐	☐
No	☐	☐	☐

If Yes:

	A	R_1	R_2
Increase	☐	☐	☐
Decrease	☐	☐	☐

What Reason Does The Client Give For The Change In Appetite?

Comments A _____

Comments R_1 _____

Comments R_2 _____

File No. _____

Physical Assessment

How Many Times A Day Does The Client Have Something To Eat Or Drink?

Meals (B/D/S) ..... A _____ R_1 _____ R_2 _____

Number snacks: ..... A _____ R_1 _____ R_2 _____

Who Prepares These?

Meals: ..... A _____ R_1 _____ R_2 _____

Snacks: ..... A _____ R_1 _____ R_2 _____

Does The Client Include Foods From:	Yes			NO		
	A	R1	R2	A	R_1	R_2
Grain Products (5-12)	☐	☐	☐	☐	☐	☐
Vegetables & Fruits (5-12)	☐	☐	☐	☐	☐	☐
Milk Products (2-4)	☐	☐	☐	☐	☐	☐
Meats & Alternates (2-3)	☐	☐	☐	☐	☐	☐
Does client use a variety of foods within each group?	☐	☐	☐	☐	☐	☐
Does client include foods which are high in fiber?	☐	☐	☐	☐	☐	☐

On average, how many cups of tea/coffee does the client drink each day? A _____ R_1 _____ R_2 _____

How much fluid does the client consume each day, including the above? A _____ R_1 _____ R_2 _____

Diet Followed At Home		A	R_1	R_2
Type/Texture of Diet (Regular, etc.)				
Food Allergies, sensitivities, dislikes				
Special or prescribed diet				
Compliance with above				
Duration client has been on above				
Instruction provided by:				
Supplements taken: (type, amount, frequency)				
Vitamin/mineral				
Nutrition/dietary				
Tube Feeding (If Applicable)	Route			
	Type			
	Amount			
	Frequency			

Does The Client Have Episodes Of:

	Nausea			Vomiting		
	A	R_1	R_2	A	R_1	R_2
Yes	☐	☐	☐	☐	☐	☐
No	☐	☐	☐	☐	☐	☐

If Yes

Occurrence of nausea (when) A _____ R_1 _____ R_2 _____

Frequency of nausea (time/duration) A _____ R_1 _____ R_2 _____

Occurrence of vomiting (when) A _____ R_1 _____ R_2 _____

Frequency of vomiting (time/duration) A _____ R_1 _____ R_2 _____

PHYSICAL ASSESSMENT

File No. _____

Physical Assessment

Ability to Eat (Cross reference with ADL Eating)

	A	R_1	R_2
Able to eat without assistance; may use special devices	☐	☐	☐
Needs assistance with opening cartons, cutting meat, etc. but does not require further assistance; needs reminding	☐	☐	☐
Needs intermittent encouragement and/or occasional assistance	☐	☐	☐
Needs constant encouragement with frequent physical assistance	☐	☐	☐
Needs complete feeding by another person	☐	☐	☐

Nutrition Risk For This Client Is

	A	R_1	R_2
Low	☐	☐	☐
Moderate	☐	☐	☐
High	☐	☐	☐

		A	R_1	R_2
Nutrition Counselling is required	Yes	☐	☐	☐
	No	☐	☐	☐
Nutrition Intervention is required:	Yes	☐	☐	☐
	No	☐	☐	☐

Client Has

	A	R_1	R_2
Dentures	☐	☐	☐
Partial Plate	☐	☐	☐
No Teeth	☐	☐	☐
Mouth lesions	☐	☐	☐
Dry mouth	☐	☐	☐
Other prosthesis	☐	☐	☐

	A	R_1	R_2
Problems chewing	☐	☐	☐
Poor fitting dentures	☐	☐	☐
Altered taste or smell	☐	☐	☐
Frequent indigestion	☐	☐	☐
Choking/swallowing problems (specify reason)	☐	☐	☐

Date of last dental exam

A _____

R_1 _____

R_2 _____

Comments A _____

Comments R_1 _____

Comments R_2 _____

Skin Integrity (Specify skin color and texture in comment section)

	A	R_1	R_2
Skin intact	☐	☐	☐
Skin intact, but at risk of breakdown from poor circulation, immobility or nutritional status	☐	☐	☐
Wounds, lesions, rashes or ulcers present; no infection	☐	☐	☐
Wounds, lesions, rashes, or ulcers present with infection. Specify type _____	☐	☐	☐

Skin Care

	A	R_1	R_2	Comments
Unsterile dressing	☐	☐	☐	
Sterile dressing, daily or less often	☐	☐	☐	
Sterile dressing, more than daily	☐	☐	☐	
Irrigation	☐	☐	☐	
Wound packing	☐	☐	☐	
Other	☐	☐	☐	

Management of Skin Care

	A	R_1	R_2
Does not require special skin care or can manage required care by self	☐	☐	☐
Requires assistance assembling materials and equipment only	☐	☐	☐
Requires intermittent supervision for encouragement/direction/minimal assistance	☐	☐	☐
Requires constant physical assistance or supervision with skin care	☐	☐	☐
Requires someone else to perform all aspect of skin care	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

PHYSICAL ASSESSMENT

File No. _____

Physical Assessment

Urinary/Bowel Function (Check all applicable responses)

Urinary Function	A	R_1	R_2	Bowel Function	A	R_1	R_2	Equipment used or Required	A	R_1	R_2
Continent	☐	☐	☐	Continent	☐	☐	☐	Raised toilet seat	☐	☐	☐
Dysuria	☐	☐	☐	Constipation	☐	☐	☐	Grab bar	☐	☐	☐
Strong Odor	☐	☐	☐	Diarrhea	☐	☐	☐	Commode	☐	☐	☐
Stress Incontinence	☐	☐	☐	Pain upon Defecation	☐	☐	☐	Bed Pan	☐	☐	☐
Urinary Incontinence	☐	☐	☐	Colostomy	☐	☐	☐	Urinal	☐	☐	☐
Chronic Urinary Infection	☐	☐	☐	Ileostomy	☐	☐	☐	Other (Specify)	☐	☐	☐
Chronic Urinary Retention	☐	☐	☐	Bowel Incontinence	☐	☐	☐	_____			
Indwelling Urethral Catheter	☐	☐	☐	Other (Specify)	☐	☐	☐	_____			
Suprapublic Catheter	☐	☐	☐	_____				_____			
Other (Specify) _____	☐	☐	☐	_____							
				_____							

Toileting (Cross reference with ADL Toileting)

	Urinary A	Urinary R_1	Urinary R_2	Bowel A	Bowel R_1	Bowel R_2
Independent with or without equipment	☐	☐	☐	☐	☐	☐
Requires someone to bring equipment or to assist to bathroom; may need reminding	☐	☐	☐	☐	☐	☐
Requires intermittent supervision for safety, minor physical assistance, or prompting	☐	☐	☐	☐	☐	☐
Requires one person to provide constant supervision and/or physical assistance	☐	☐	☐	☐	☐	☐
Requires two people to provide assistance	☐	☐	☐	☐	☐	☐
Does not use toilet for either bowel or bladder elimination	☐	☐	☐	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Circulation

	A	R_1	R_2
No cardiovascular or peripheral vascular symptoms apparent	☐	☐	☐

Cardiovascular Symptoms

	A	R_1	R_2
Does not interfere with most daily activities	☐	☐	☐
Easily fatigues; limits some activities	☐	☐	☐
Severely limits activities	☐	☐	☐

Does client have:

	A	R_1	R_2		
A pacemaker?					
Yes	☐	☐	☐	Specify Type _____	Rate _____
No	☐	☐	☐		
A Central Venous Access Device?					
Yes	☐	☐	☐	Specify Type _____	
No	☐	☐	☐		
Vascular support hose?					
Yes	☐	☐	☐	Specify Type _____	
No	☐	☐	☐		

Comments A _____

Comments R_1 _____

Comments R_2 _____

File No. _____

Physical Assessment

Respiration

	A	R_1	R_2
Normal respiration pattern	☐	☐	☐
Experiences fatigue, cyanosis or shortness of breath on exertion	☐	☐	☐
Experiences fatigue, cyanosis or shortness of breath with limited or no activity	☐	☐	☐

Respiratory Care

	A	R_1	R_2		A	R_1	R_2
Nebulization Therapy	☐	☐	☐	Tracheostomy Care	☐	☐	☐
Oxygen: Continuous	☐	☐	☐	Nasal/Oral Suctioning	☐	☐	☐
Intermittent	☐	☐	☐	Chest Physiotherapy	☐	☐	☐
Oxygen Concentrator	☐	☐	☐	Postural Drainage	☐	☐	☐
Respirator/Ventilator	☐	☐	☐				

Management of Respiratory Care

	A	R_1	R_2
Able to manage treatment independently	☐	☐	☐
Requires assistance with set-up and/or cleaning of equipment only	☐	☐	☐
Requires intermittent supervision or physical assistance throughout treatment	☐	☐	☐
Requires presence of one person for assistance and encouragement throughout treatment	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Mobility (Cross reference with ADL - Ambulation)

	A	R_1	R_2		A	R_1	R_2
Fully Independent	☐	☐	☐	Wheelchair - independent	☐	☐	☐
One person assistance	☐	☐	☐	Wheelchair - requires assistance	☐	☐	☐
Two person assistance	☐	☐	☐	Geriatric chair	☐	☐	☐
Independent with walker, cane, etc	☐	☐	☐	Bedfast, or bed to chair only	☐	☐	☐
Requires some physical assistance using walker, cane, etc.	☐	☐	☐				

Stair Climbing (Cross reference with ADL - Stair Climbing)

	A	R_1	R_2
Independent with special equipment or devices	☐	☐	☐
Needs someone available for physical support due to fatigue or to maintain balance	☐	☐	☐
Unable to climb stairs, even with physical support	☐	☐	☐
Not applicable	☐	☐	☐

Transfers/Turns (Cross reference with ADL - Transfers/Turns)

	A	R_1	R_2
Can turn in bed independently, with or without assistive devices	☐	☐	☐
Depends on equipment; needs another person to position, otherwise manages transfer alone	☐	☐	☐
Requires intermittent supervision (verbal cues, guidance) and/or physical assistance for difficult manoeuvres only	☐	☐	☐
Requires one person to provide constant guidance, steadiness and/or physical assistance; client participates in transfer	☐	☐	☐
Requires two or more people to provide constant supervision and/or physical lift; may need mechanical devices	☐	☐	☐
Non-transferable (client is comatose, bedridden)	☐	☐	☐

PHYSICAL ASSESSMENT

File No. _____

Physical Assessment

Activity Tolerance

	A	R_1	R_2
No difficulty	☐	☐	☐
Becomes fatigued with exercise or exertion (i.e. climbing stairs)	☐	☐	☐
Becomes fatigued with low or moderate activity (i.e. walking)	☐	☐	☐
Unable to tolerate normal activity, including sitting in a chair for any length of time	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Mobility Limitations (Check all applicable responses and record details of the limitations)

	A	R_1	R_2		A	R_1	R_2	
No limitations	☐	☐	☐					
Weakness	☐	☐	☐	_____	☐	☐	☐	_____
Hemiplegia	☐	☐	☐	_____	☐	☐	☐	_____
Paraplegia	☐	☐	☐	_____	☐	☐	☐	_____
Quardriplegia	☐	☐	☐	_____	☐	☐	☐	_____
Systemic Disease	☐	☐	☐	_____	☐	☐	☐	_____

Equipment/Assistive Device

	A	R_1	R_2		A	R_1	R_2
Cane	☐	☐	☐	Geriatric Chair	☐	☐	☐
Walker	☐	☐	☐	Braces	☐	☐	☐
Wheelchair	☐	☐	☐	Orthopaedic shoes	☐	☐	☐

Other (Specify) _____

Current Treatments

	A	R_1	R_2
Physiotherapy	☐	☐	☐
Occupational Therapy	☐	☐	☐
Other (Specify) _____	☐	☐	☐

Equipment/Bed Attachments

	A	R_1	R_2		A	R_1	R_2
None required	☐	☐	☐	Trapeze or Overhead Bar	☐	☐	☐
High-Low Bed	☐	☐	☐	Siderails	☐	☐	☐
Air mattress	☐	☐	☐	Other (Specify) _____	☐	☐	☐
Water Mattress	☐	☐	☐	_____			

Comments A _____

Comments R_1 _____

Comments R_2 _____

Sexuality

	A	R_1	R_2			A	R_1	R_2
No problems identified	☐	☐	☐	Problems identified:	Interest	☐	☐	☐
Affected by physical					Arousal	☐	☐	☐
or mental impairment	☐	☐	☐		Performance	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Sleep Pattern

	A	R_1	R_2
Sleeps well; regular day/night routine	☐	☐	☐
Sleeps well; requires night light	☐	☐	☐
Disrupted sleep pattern, but safe on own	☐	☐	☐
Goes for 24 hour periods without sufficient sleep; non-disruptive and/or reversed day/night routine	☐	☐	☐
Disrupted sleep pattern requires supervision	☐	☐	☐
Sleeps during the day, requires constant supervision at night for safety reasons	☐	☐	☐
Goes 24 hours without sleep; disruptive	☐	☐	☐
Sleeps with H.S. (hours of sleep) sedation	☐	☐	☐

File No. _____

Physical Assessment

Acute Pain

Frequency	A	R_1	R_2	Site
None	☐	☐	☐	
Occasional	☐	☐	☐	
Frequently	☐	☐	☐	
Continuous	☐	☐	☐	

Chronic Pain

Frequency	A	R_1	R_2	Site
None	☐	☐	☐	
Occasional	☐	☐	☐	
Frequently	☐	☐	☐	
Continuous	☐	☐	☐	

Pain Limitations

	A	R_1	R_2
Pain does not interfere with daily activities	☐	☐	☐
Pain limits participation in some types of daily activities	☐	☐	☐
Pain limits participation in most daily activities	☐	☐	☐

Acute Pain Treatments

	A	R_1	R_2
Heating Packs	☐	☐	☐
Transcutaneous electrical nerve stimulation (TENS)	☐	☐	☐
Other (Specify)	☐	☐	☐

_____

Chronic Pain Treatments

	A	R_1	R_2
Heating Packs	☐	☐	☐
TENS	☐	☐	☐
Other (Specify)	☐	☐	☐

_____

Pain Management

	A	R_1	R_2
Pain not apparent or reported	☐	☐	☐
Able to manage pain control independently	☐	☐	☐
Requires supervision and/or reminding to take medication, perform treatments	☐	☐	☐
Requires assistance of one person in performing treatments and in taking medications	☐	☐	☐
Unable to take medications or perform treatments; totally dependent for pain management	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

PHYSICAL ASSESSMENT

Information required only if the person completing this section is not the primary assessor.

	Name (Print)	Profession	Date	Signature
A				
R_1				
R_2				

File No. _____

Mental Status Assessment

At The Time of This Assessment, the Client Was:	A	R_1	R_2
Responsive	☐	☐	☐
Drowsy, but responsive to verbal commands	☐	☐	☐
Drowsy, responsive only to tactile stimuli	☐	☐	☐
Comatose, responsive only to painful stimuli	☐	☐	☐
Comatose, non-responsive to painful stimuli	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Note: These questions are only to be answered by client; they are NEVER asked of anyone else.

	A	R_1	R_2
What is your full name? (Correct first name and surname)			
What is your Address? (Correct street address and municipality)			
What year is this? (Correct year)			
What month is this? (Correct year)			
What day of the week is this? (Correct day of week)			
How old are you? (Verified by another person or from birth date)			
What is the name of the Prime Minister of Canada? (Correct answer to include surname of current Prime Minister)			
When did the First World War start? (Correct answer "1914")			
Remember these three items. I will ask you to recall them in a few minutes ... bed, chair, window. (Have subject repeat items correctly before proceeding.)			
Count backwards from 20 to 1. (No error. Any uncorrected error = 0. If necessary like this: 20, 19, 18, and so on)			
Repeat the three items I asked you to remember. (All items correct = 1, any uncorrected error = 0)			

Mental Status: Questionnaire Scoring

At the time of this assessment the client was:

		A	R_1	R_2
Severe Cognitive Impairment	0 - 2 Correct	☐	☐	☐
Moderate Cognitive Impairment	3 - 6 Correct	☐	☐	☐
Normal Mental Functioning	7 - 10 Correct	☐	☐	☐

MENTAL STATUS ASSESSMENT

File No. _____

Behavioural Assessment

The following questions refer to behavioural problems that may or may not be evident during the client assessment. Whenever possible, the information should be obtained from the client or a resource person other than the client. Please note any existing interventions and strategies in the comment section.

Information provided by: A _____ R_1 _____ R_2 _____
Relationship: A _____ R_1 _____ R_2 _____

Smoking Behaviour:

	A	R_1	R_2
Client does not smoke	☐	☐	☐
Client smokes (pipe☐ , cigarettes ☐ , cigars ☐); poses no safety risk	☐	☐	☐
Client smokes (pipe☐ , cigarettes ☐ , cigars ☐); poses safety risk	☐	☐	☐
⇨ lighted cigarettes left unattended	☐	☐	☐
⇨ disposes cigarettes inappropriately	☐	☐	☐
⇨ smokes in bed	☐	☐	☐

Comments A _____
Comments R_1 _____
Comments R_2 _____

Substance Use

	A	R_1	R_2
Infrequent or no use of alcohol or drugs; does not impair ability to function	☐	☐	☐
Infrequent excessive drinking or drug use; does not impair day-to-day functioning	☐	☐	☐
Frequent excessive drinking or intoxication; occasional "blackouts", family/work/interpersonal relationships affected	☐	☐	☐
Functioning impaired; use of alcohol or drugs suspected	☐	☐	☐
Alcohol or drug dependent; frequent "blackouts"; unable to function in daily activities	☐	☐	☐

Comments A _____
Comments R_1 _____
Comments R_2 _____

Wandering

	A	R_1	R_2
Wandering behaviour not apparent	☐	☐	☐
Wanders, does not attemp to leave; able to locate environment without assistance	☐	☐	☐
Wanders, does not attempt to leave; unable to locate environment without assistance	☐	☐	☐
Wanders, will leave immediate environment if not prevented	☐	☐	☐

Comments A _____
Comments R_1 _____
Comments R_2 _____

Hoarding, Rummaging

	A	R_1	R_2
Hoarding, rummaging behaviour not apparent	☐	☐	☐
Hoards food or objects picked up in environment but does not search others' belongings	☐	☐	☐
Searches others' belongings looking for food or objects	☐	☐	☐

Comments A _____
Comments R_1 _____
Comments R_2 _____

BEHAVIOURAL ASSESSMENT

File No. _____

Behavioural Assessment

Aggressive Behaviour

	A	R_1	R_2
Agressive behaviour not apparent	☐	☐	☐
Exhibits hostility, argues, is verbally abusive either spontaneously or when approached or touched	☐	☐	☐
Strikes out physically when approached or touched by others	☐	☐	☐
Initiates contact with others in order to vent hostility, anger, verbal abuse	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Sexual Behaviour

	A	R_1	R_2
Inappropriate sexual behaviour not apparent	☐	☐	☐
Sexual comments directed to others during "social" settings of more than two persons	☐	☐	☐
Public touching of genitals or masturbation	☐	☐	☐
Sexual interest in children	☐	☐	☐
Unwanted touching of others (i.e. on breasts, legs, buttocks)	☐	☐	☐
Deliberate public exposure of genitals or other private parts of body	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Potential For Suicide

	A	R_1	R_2
Suicidal tendencies not apparent	☐	☐	☐
Verbalizes ideas of suicide, no prior threats or attempts	☐	☐	☐
Verbalizes ideas of suicide, history of prior threats or attempts	☐	☐	☐
Verbalizes plans for suicide	☐	☐	☐
Has previously attempted suicide	☐	☐	☐
Family history of attempted/actual suicide	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Affect Indicators

	A	R_1	R_2
Pleasant and cooperative	☐	☐	☐
Depressed and/or tearful	☐	☐	☐
Fearful, extremely anxious and/or agitated	☐	☐	☐
Withdrawn or lethargic	☐	☐	☐
Excessive physical complaints	☐	☐	☐
Paranoid and/or suspicious	☐	☐	☐
Bizarre or inappropriate in thought or action	☐	☐	☐
Excessively talkative	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

BEHAVIOURAL ASSESSMENT

File No. _____

Behavioural Assessment

Other Evident Unusual Behaviours

	A	R_1	R_2
Preoccupations	☐	☐	☐
Obsessive/compulsive behaviours	☐	☐	☐
Indiscriminant ingestion of foreign objects	☐	☐	☐
Other (specify)			
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

Safety Risk Appraisal (Check all potential risk behaviours)

Safety Risk	Unsupervised			Supervised			Not Applicable		
	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2
Smoking	☐	☐	☐	☐	☐	☐	☐	☐	☐
Administration of own medication(s)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Use of alcohol	☐	☐	☐	☐	☐	☐	☐	☐	☐
Operation of kitchen/household appliances	☐	☐	☐	☐	☐	☐	☐	☐	☐
Ambulation	☐	☐	☐	☐	☐	☐	☐	☐	☐
Operation of automobile	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other (Specify)	☐	☐	☐	☐	☐	☐	☐	☐	☐
_____	☐	☐	☐	☐	☐	☐	☐	☐	☐
_____	☐	☐	☐	☐	☐	☐	☐	☐	☐
_____	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments/Observations:

A _____

_____

R_1 _____

_____

R_2 _____

_____

Information required only if the person completing this section is not the primary assessor.

	Name (Print)	Profession	Date	Signature
A				
R_1				
R_2				

BEHAVIOURAL ASSESSMENT

File No. _____

Social Assessment

Marital Status

	A	R_1	R_2
Married	☐	☐	☐
Common Law	☐	☐	☐
Single	☐	☐	☐
Widowed	☐	☐	☐
Separated	☐	☐	☐
Divorced	☐	☐	☐
Other (Specify) _____	☐	☐	☐

Duration of Marital Status

	A	R_1	R_2
Less than 1 year	☐	☐	☐
1 to 5 years	☐	☐	☐
5 to 10 years	☐	☐	☐
More than 10 years	☐	☐	☐

Number of Living Children

	A	R_1	R_2
None	☐	☐	☐
One	☐	☐	☐
Two	☐	☐	☐
Three	☐	☐	☐
Four or more	☐	☐	☐

Household Composition (Check all applicable responses)

	A	R_1	R_2
Alone	☐	☐	☐
Spouse	☐	☐	☐
Spouse/Children	☐	☐	☐
Children	☐	☐	☐
Other Relatives	☐	☐	☐
Non-relatives	☐	☐	☐
Guest/Boarding Home	☐	☐	☐
Parents	☐	☐	☐
Other (Specify) _____	☐	☐	☐

Employment Status

	A	R_1	R_2
Retired (specify year) _____	☐	☐	☐
Home Support Worker	☐	☐	☐
Disabled and unable to work	☐	☐	☐
Employed	☐	☐	☐
Other (Specify) _____	☐	☐	☐

Occupation (specify) _____

If client is retired, state previous occupation _____

SOCIAL ASSESSMENT

File No. _____

Social Assessment

Family Profile

A	R_1	R_2	Name	Address	Phone	Relationship
☐	☐	☐				
☐	☐	☐				
☐	☐	☐				
☐	☐	☐				
☐	☐	☐				
☐	☐	☐				
☐	☐	☐				
☐	☐	☐				
☐	☐	☐				
☐	☐	☐				

Comments A _____

Comments R_1 _____

Comments R_2 _____

Persons Available And Willing To Provide Assistance/Support

A	R1	R2	Name	Phone Number	Assistance/Support
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			
☐	☐	☐			

Significant Life Changes During The Past Year

	A	R_1	R_2		A	R_1	R_2
Moved	☐	☐	☐	Illness/Disability	☐	☐	☐
Changed Job	☐	☐	☐	Change in Family Composition	☐	☐	☐
Separated	☐	☐	☐	Death of _____	☐	☐	☐
Divorced	☐	☐	☐	Other (Specify) _____	☐	☐	☐

Comments A _____

Comments R_1 _____

Comments R_2 _____

SOCIAL ASSESSMENT

File No. _____

Social Assessment

Client's Perception of Changes in Social Support System

	A	R_1	R_2		A	R_1	R_2
None at all	☐	☐	☐	Quite a bit	☐	☐	☐
A little	☐	☐	☐	A great deal	☐	☐	☐
A moderate amount	☐	☐	☐				

Frequency of Telephone Contact With Friends/Relatives In A Usual Week

	A	R_1	R_2
Once a day or more	☐	☐	☐
2 to 6 times weekly	☐	☐	☐
Once weekly	☐	☐	☐
Not at all	☐	☐	☐
No telephone access	☐	☐	☐

Frequency of Visits To Or From Friends/Relatives In A Usual Week

	A	R_1	R_2
Once a day or more	☐	☐	☐
2 to 6 times weekly	☐	☐	☐
Once weekly	☐	☐	☐
Not at all	☐	☐	☐

Current Volunteer, Church or Community Involvement and Role

A	R_1	R_2	Name of Group	Role
☐	☐	☐	_____	
☐	☐	☐	_____	
☐	☐	☐	_____	

Personal Hobbies Or Interests

_____

_____

_____

_____

Participation In Leisure/Social Activities

	A	R_1	R_2
Independent	☐	☐	☐
Independent with difficulty	☐	☐	☐
Requires supervision or verbal direction	☐	☐	☐
Requires physical assistance	☐	☐	☐
Unable to participate due to physical limitations	☐	☐	☐
Unable to participate due to transportation problems	☐	☐	☐

	A	R_1	R_2
Very active (2 or more times per week)	☐	☐	☐
Moderately active (weekly)	☐	☐	☐
Occasional participattion (monthly)	☐	☐	☐
Seldom (special occasions)	☐	☐	☐
Inactive (never)	☐	☐	☐

File No. _____

Social Assessment

Are You Satisfied With Your Current Life Situation?

A _____

R_1 _____

R_2 _____

Judgement and Decision Making Ability

	A	R_1	R_2
Perceptions, concentration, judgements, and decision-making logically related to events/circumstances (reality based)	☐	☐	☐
As above, but has relinquished decision-making role	☐	☐	☐
Occasionally impaired or inappropriate perceptions, concentration, judgements, decision-making based on apparent misinterpretation of specific circumstances or events (i.e. denial or excessive importance given in special events/circumstances)	☐	☐	☐
Consistently impaired perceptions, concentration, judgements/decision making	☐	☐	☐
Indicate if further evaluation is necessary	☐	☐	☐

HAS THERE BEEN A RECENT CHANGE IN DECISION MAKING ABILITY, A DETERIORATION FROM PREVIOUS STATUS OR IS THE STATUS CHRONIC BUT STABLE? INDICATE IF FURTHER EVALUATION IS NECESSARY.

Comments A _____

Comments R_1 _____

Comments R_2 _____

SOCIAL ASSESSMENT

File No. _____

Social Assessment

Social Statement (Include additional significant information pertaining to the individual, family or caregivers, stability of environment and conflict or stress within the household which may facilitate or be a barrier to the provision of care).

A

R_1

R_2

SOCIAL ASSESSMENT

Information required only if the person completing this section is not the primary assessor.

	Name (Print)	Profession	Date	Signature
A				
R_1				
R_2				

File No. _____

Environmental Assessment

Place of Residence (Check applicable response)

Place of Residence	Usual Residence A	Usual Residence R1	Usual Residence R2		Assessement Residence A	Assessement Residence R1	Assessement Residence R2
Private Residence	☐	☐	☐		☐	☐	☐
Apartment	☐	☐	☐		☐	☐	☐
Bed Sitting Room	☐	☐	☐		☐	☐	☐
Boarding Home	☐	☐	☐		☐	☐	☐
Personal Care Home	☐	☐	☐		☐	☐	☐
Nursing Home	☐	☐	☐		☐	☐	☐
Hospital	☐	☐	☐		☐	☐	☐
Other _____	☐	☐	☐	_____	☐	☐	☐

If an on-site accommodation appraisal was not conducted at the usual place of residence, record the reason:

A _____

R_1 _____

R_2 _____

Are There Observable Problems With The Current Or Anticipated Living Environment

Observable Problem Area	Yes A	Yes R1	Yes R2		No A	No R1	No R2
Housing	☐	☐	☐		☐	☐	☐
Household Heating	☐	☐	☐		☐	☐	☐
Cooking Surfaces	☐	☐	☐		☐	☐	☐
Refrigeration	☐	☐	☐		☐	☐	☐
Laundry: Washing	☐	☐	☐		☐	☐	☐
Drying	☐	☐	☐		☐	☐	☐
Water: Hot	☐	☐	☐		☐	☐	☐
Cold	☐	☐	☐		☐	☐	☐
Toilet/Plumbing	☐	☐	☐		☐	☐	☐
Bathroom: Tub	☐	☐	☐		☐	☐	☐
Shower	☐	☐	☐		☐	☐	☐
Stairs	☐	☐	☐		☐	☐	☐
Telephone	☐	☐	☐		☐	☐	☐
Raised Levels	☐	☐	☐		☐	☐	☐
Electrical Lighting	☐	☐	☐		☐	☐	☐
Floor Surfaces	☐	☐	☐		☐	☐	☐
Outdoor Assessibility	☐	☐	☐		☐	☐	☐
Indoor Assessibility	☐	☐	☐		☐	☐	☐
Smoke Detector	☐	☐	☐		☐	☐	☐
Other (Specify) _____	☐	☐	☐		☐	☐	☐

Comments (Include environmental modifications which are required that may increase the level of independence and/or client safety):

A _____

R_1 _____

R_2 _____

Information required only if the person completing this section is not the primary assessor.

	Name (Print)	Profession	Date	Signature
A				
R_1				
R_2				

ENVIRONMENTAL ASSESSMENT

File No. _____

Activities of Daily Living

Physical Activities of Daily Living		Independent			Minimal Assistance			Intermittent Assistance			Constant Supervision			Dependent			Not Applicable		
		A	R_1	R_2	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2
Grooming (e.g. facial shave, mouth care, etc)																			
Handcare (nail and hand care refers to client's ability to cleanse hands and trim nails)																			
Footcare (footcare refers to client's ability to care for his/her feet and toe nails)																			
Hair Care																			
Dressing	Upper Extremities																		
	Lower Extremities																		
Bathing	- Tub																		
	- Shower																		
	- Sponge/Bed																		
Toileting*																			
Eating*																			
Ambulation*																			
Stair Climbing*																			
Transfers/Turns*																			

Code * - cross reference with Physical Assessment

Independent	- needs no assistance; may use special devices
Minimal Assistance	- needs help assembling equipment/clothing/food
Intermittent Assistance	- needs intermittent assistance or supervision, may use special devices
Constant Supervision	- needs constant supervision
Dependent	- applicant is unable to perform the function even when assistance is provided
Not Applicable	- does not apply

Comments (Record function and specific type of assistance/supervision required)

A _____

_____

_____

R1 _____

_____

_____

R2 _____

_____

_____

ACTIVITIES OF DAILY LIVING

File No. _____

Activities of Daily Living

Instrumental Activities of Daily Living		Independent			Minimal Assistance			Intermittent Assistance			Constant Supervision			Dependent			Not Applicable		
		A	R_1	R_2	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2
Meal Preparation																			
Home-Management	Laundry																		
	Bathroom/Kitchen																		
	Bedmaking/Dusting																		
	Light Vacuuming																		
	Other																		
Ability to Use Telephone																			
Personal Financial Affairs																			
Self-Medication																			
Transportation																			
Shopping																			
Repairs/Yard Work																			
Snow Removal																			

Code

Independent	- able to perform all aspects of task independently, may use special devices
Minimal Assistance	- needs some assistance at all times in order to complete the task
Intermittent Assistance	- needs intermittent assistanceto complete the task
Constant Supervision	- needs constant supervision in order to complete the task
Dependent	- unable to complete the task even when assistance is provided
Not Applicable	- does not apply

Comments (Record function and specific type of assistance/supervision required)

A _____

_____

_____

R1 _____

_____

_____

R2 _____

_____

Information required only if the person completing this section is not the primary assessor.

	Name (Print)	Profession	Date	Signature
A				
R_1				
R_2				

File No. _____

Assessor's Care Plan

Assessor's Recommended Level of Care and Special Considerations

Level of Care

	A	R_1	R_2
0	☐	☐	☐
1	☐	☐	☐
2	☐	☐	☐
3	☐	☐	☐
Decision Deferred	☐	☐	☐

Special Considerations

	A	R_1	R_2
Cognitively Well	☐	☐	☐
Cognitively Impaired	☐	☐	☐
Protective Care	☐	☐	☐
Adult Disabled	☐	☐	☐
Developmentally Challenged	☐	☐	☐
Other _____			

Type of Care (Complete applicable areas)

Type of Care		Applicant Preference			Primary Care-giver Preference			Assessor Recommendation			Actual Plan Implemented (Y/M/D)			Date Actual Plan Initiated (Y/M/D)		
		A	R_1	R_2	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2	A	R_1	R_2
Continue or intitiate informal/ private support only																
Refer for inpatient assessment																
Continue or initiate Continuing Care services within Region																
Refer to other community service providers within Region																
Arrange Respite Care																
Refer to Placement Committee	**Nursing Home**															
	Personal Care Home															
	Other															
Refer to Continuing Care services outside region	St. John's Region															
	Eastern Region															
	Central Region															
	Western Region															
	Grenfell															
	Labrador															

If This Is An Interim Plan Of Care, Explain.

A _____

R_1 _____

R_2 _____

ASSESSOR'S CARE PLAN

File No. _____

Assessor's Care Plan

Placement Rationale

	No A	No R1	No R2	Yes A	Yes R_1	Yes R_2
Is placement recommendation different from the actual placement?	☐	☐	☐	☐	☐	☐
If yes, indicate the reason(s) for difference (check all that apply)				↓	↓	↓
Services not available in applicant's community				☐	☐	☐
Limited funds				☐	☐	☐
Applicant has an immediate need for personal and/or therapeutic services which cannot be provided by either the applicant's family or the Long Term Care System				☐	☐	☐
Applicant does not meet current eligibility criteria				☐	☐	☐
Applicant's preference is different from placement recommendation				☐	☐	☐
Family, primary caregiver, guardian preference is different from the placement recommendation				☐	☐	☐
Institutional bed not available: Applicant placed on waiting list				☐	☐	☐
Placement authorization denied				☐	☐	☐
Other _____				☐	☐	☐

Implemented Care Plan (Indicate particulars of actual care plan implemented and reason if applicable)

1. Informal/Private Support Only

A

☐ Family/Friend Support

			Continued	Initiated
☐ Private Purchased Service:	Dietician	☐	☐	☐
	Nursing	☐	☐	☐
	Physiotherapy	☐	☐	☐
	Social Work	☐	☐	☐
	Home Support	☐	☐	☐
	Other _____	☐	☐	☐

Comments: _____

R_1

☐ Family/Friend Support

			Continued	Initiated
☐ Private Purchased Service:	Dietician	☐	☐	☐
	Nursing	☐	☐	☐
	Physiotherapy	☐	☐	☐
	Social Work	☐	☐	☐
	Home Support	☐	☐	☐
	Other _____	☐	☐	☐

Comments: _____

R_2

☐ Family/Friend Support

			Continued	Initiated
☐ Private Purchased Service:	Dietician	☐	☐	☐
	Nursing	☐	☐	☐
	Physiotherapy	☐	☐	☐
	Social Work	☐	☐	☐
	Home Support	☐	☐	☐
	Other _____	☐	☐	☐

Comments: _____

File No. _____

Assessor's Care Plan

2. Inpatient Assessment Referral

A

Facility: _____
Comments: _____

R_1

Facility: _____
Comments: _____

R_2

Facility: _____
Comments: _____

3. Continuing Care Services Within Region

A

Program: _____

Services:	Continued	Initiated	Frequency
Dietician	☐	☐	☐	_____
Nursing	☐	☐	☐	_____
Occupational Therapy	☐	☐	☐	_____
Physiotherapy	☐	☐	☐	_____
Social Work	☐	☐	☐	_____
Laboratory	☐	☐	☐	_____
Home Support	☐	☐	☐	_____
Other	☐	☐	☐	_____

Comments: _____

R_1

Program: _____

Services:	Continued	Initiated	Frequency
Dietician	☐	☐	☐	_____
Nursing	☐	☐	☐	_____
Occupational Theraphy	☐	☐	☐	_____
Physiotheraphy	☐	☐	☐	_____
Social Work	☐	☐	☐	_____
Laboratory	☐	☐	☐	_____
Home Support	☐	☐	☐	_____
Other	☐	☐	☐	_____

Comments: _____

R_2

Program: _____

Services:	Continued	Initiated	Frequency
Dietician	☐	☐	☐	_____
Nursing	☐	☐	☐	_____
Occupational Therapy	☐	☐	☐	_____
Physiotheraphy	☐	☐	☐	_____
Social Work	☐	☐	☐	_____
Laboratory	☐	☐	☐	_____
Home Support	☐	☐	☐	_____
Other	☐	☐	☐	_____

Comments: _____

ASSESSOR'S CARE PLAN

File No. _____

Assessor's Care Plan

4. Other Community Service within the Region

A

	Continued	Initiated	Frequency
Day Hospital	☐	☐	
Day Support Service	☐	☐	
Meals on Wheels	☐	☐	
Out Patient Department	☐	☐	
Clinic Service	☐	☐	
Respite	☐	☐	
Volunteer Visiting	☐	☐	
Wheels to Meals	☐	☐	
Other _____	☐	☐	

Comments: _____

R_1

	Continued	Initiated	Frequency
Day Hospital	☐	☐	
Day Support Service	☐	☐	
Meals on Wheels	☐	☐	
Out Patient Department	☐	☐	
Clinic Service	☐	☐	
Respite	☐	☐	
Volunteer Visiting	☐	☐	
Wheels to Meals	☐	☐	
Other _____	☐	☐	

Comments: _____

R_2

	Continued	Initiated	Frequency
Day Hospital	☐	☐	
Day Support Service	☐	☐	
Meals on Wheels	☐	☐	
Out Patient Department	☐	☐	
Clinic Service	☐	☐	
Respite	☐	☐	
Volunteer Visiting	☐	☐	
Wheels to Meals	☐	☐	
Other _____	☐	☐	

Comments: _____

File No. _____

Assessor's Care Plan

5. Respite Care Arranged

A	Facility: _____ Dates: _____ Comments: _____
R_1	Facility: _____ Dates: _____ Comments: _____
R_2	Facility: _____ Dates: _____ Comments: _____

6. Placement Committee Referral

A	☐ **Nursing Home Preferences** 1. _____ 2. _____ 3. _____ ☐ Other Comments: _____ ☐ **Personal Care Home Preferences** 1. _____ 2. _____ 3. _____
R_1	☐ **Nursing Home Preferences** 1. _____ 2. _____ 3. _____ ☐ Other Comments: _____ ☐ **Personal Care Home Preferences** 1. _____ 2. _____ 3. _____
R_2	☐ **Nursing Home Preferences** 1. _____ 2. _____ 3. _____ ☐ Other Comments: _____ ☐ **Personal Care Home Preferences** 1. _____ 2. _____ 3. _____

File No. _____

Assessor's Care Plan

7. Continuing Care Service Referral Outside Region

A	Region: _____ Comments: _____
R_1	Region: _____ Comments: _____
R_2	Region: _____ Comments: _____

Persons Notified of Action Taken

Applicant _____

A By Whom _____ Date _____
R_1 By Whom _____ Date _____
R_2 By Whom _____ Date _____

Family _____

A By Whom _____ Date _____
R_1 By Whom _____ Date _____
R_2 By Whom _____ Date _____

Other _____

A By Whom _____ Date _____
R_1 By Whom _____ Date _____
R_2 By Whom _____ Date _____

Other _____

A By Whom _____ Date _____
R_1 By Whom _____ Date _____
R_2 By Whom _____ Date _____

File No. _____

Record of Assessments

A

___ ___ ___
Y M D

	Computer ID Number	Profession	Signature
Primary Assessor			
Additional Assessor			
Additional Assessor			
Additional Assessor			

Comments _____

R_1

___ ___ ___
Y M D

	Computer ID Number	Profession	Signature
Primary Assessor			
Additional Assessor			
Additional Assessor			
Additional Assessor			

Comments _____

R_2

___ ___ ___
Y M D

	Computer ID Number	Profession	Signature
Primary Assessor			
Additional Assessor			
Additional Assessor			
Additional Assessor			

Comments _____

RECORD OF ASSESSMENTS

COMMUNITY HEALTH - ST. JOHN'S REGION
HOME SUPPORT SERVICES REFERRAL

Copy to: ☐ Agency ☐ F.A.O
Copied by: _____

File #: _____

Services Arranged: Private ☐ Agency ☐

Name of Agency: _____ A ☐ R1 ☐ R2 ☐

Client's Name: _____ Phone: _____

Address: _____ D.O.B. _____ y/m/d

District: _____ Team: _____

Diagnoses: _____

Emergency Contact(s) _____ Phone #: _____

_____ Phone #: _____

BATH Tub ( ) Bed Bath ( )
Shower ( ) Skin Care ( )
Sponge ( ) Positioning ( )

GROOMING Shampoo ( ) Dress ( )
Shave ( ) Foot Care ( )

EATING Able to feed self ( )
Unable to feed self ( )
Requires some assistance ( )
Requires total assistance ( )

TOILETING Assist to Bathroom ( )
Assist to Commode ( )
Bedpan/Urinal ( )

INCONTINENCE
Bowel ☐ Change Adult Diaper ( )
Bladder ☐ Catheter ( )
Change Drainage Bag ( )

AMBULATION Independant ( )
Assist with Walking ( )
Assist with Routine Exercise ( )

TRANSFERS/TURNS Independant ( )
Assist with turns ( )
Assist with transfer( )

MEALS Prepare Breakfast ( )
Prepare Lunch ( )
Prepare Dinner ( )

HOUSEHOLD Laundry/Ironing ( )
Make/Change Beds ( )
Clean Bathroom/ Kitchen ( )
Clean Dishes ( )
Defrost Fridge ( )
Clean Stove ( )
Shopping ( )
Vacuum/Dust ( )
Other (specify): _____

RESPITE ( )

COMMUNITY ACCESSIBILITY
Arrange Transportation ( )
Provide Escort ( )
Specify: _____

TREATMENT Skin Care ( )
Assist with Medication( )
Other ( )
Specify: _____

DELEGATED FUNCTIONS
Specify: _____

_____

COGNITION
Normal ( ) Altered ( )
Specify: _____

Equipment in the Home:

_____

ctivities of Family/Support Systems

_____

_____

_____

CLIENT'S NAME: FILE #:

HOME SUPPORT HOURLY REQUIREMENTS

DAYS	PERSONAL CARE	HOUSEHOLD MANAGEMENT	RESPITE	
Sunday				
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				Grand Total
Sub-Total Hours Per/Wk.				

COMMENTS/CONSIDERATION:

_____

_____

_____

_____

SERVICE CATEGORIES:

☐ Short Term (Two (2) Weeks) Home Support Services
☐ Emergency Home Support Services
☐ Palliative Home Support Services
☐ Alzheimer Respite Home Support Services

Invoice Community Health, on behalf of client, from (date/time) _____ to _____ inclusive.

Completed by: _____ Date: _____

☐ LONG TERM HOME SUPPORT SERVICES Completed By: _____ Date: _____
Hours Authorized by: _____ beginning _____ (time) on _____ (y/m/d)

commended Review Date: _____
ARRANGED YES ☐ NO ☐ BY WHOM: _____
February 1998
AF.204(a)

Appendix E

MEMORANDUM

TO: Community Health Team Staff Delivering Continuing Care Services

FROM: Anil Duggal, MSc. Student

DATE: June 12, 1998

RE: **Home Support Research**

PHASE 1- The Clients Needs- COMPLETED

As part of my Master's thesis I am studying Home support and its related dimensions. I have reviewed the client records of 104 females, aged 75 or more, receiving subsidized long term home support through the Continuing Care Program in January 1998. The primary source document that I used to obtain the functional needs of the client was the Continuing Care Adult Long Term Care Assessment.

PHASE 2- The Clients Informal Supports- APPROVED BY SENIOR MANGEMENT
TO BE COMPLETED BY NURSE EVALUATION

The second part of my study involves a questionnaire (13 questions) pertaining to the **perceived capabilities of all informal supporters** of a client to provide care. An evaluation of all 104 clients in the study is required, even if they have since been discharged or deceased. For each client you should consider all informal supports and assign an overall score for each of the 13 questions representing your perception of the total informal supports provided to the client.

Your help would be greatly appreciated in the completion of Phase 2. The following points outline the specific assistance that I require from you.

1 - Complete the "Informal Support Questionnaire" which contains 13 questions for the clients identified. This questionnaire should take no longer than 10 minutes to answer per client. You will need to access the client record. Appendix A provides definitions of the terms used in the Informal Support Questionnaire and references the page number within the Continuing Care Adult Long Term Care Assessment where this indicator is found.

2 - Record the name and phone # of the Primary Caregiver, (if there is one) for each client, while you have the client record. This information will be needed for Phase 3 when it is approved

3 - Sign a consent form for your participation in the study. This will completed at the time you return your completed questionnaire to me

4 - Please Return the completed forms to me by Thursday, June 25th, 1998; 4:00 PM.

I will be available at the following times for you to :

- seek further information on the study, if needed
- ask questions regarding the Informal Support Questionnaire
- sign consent for participation in the study

Wednesday, June 17, 1998	13: 00 - 16:00 hours	Room 304	Visit or phone 738-4836
Wednesday, June 24, 1998	13:00 - 16:00 hours	Room 304	Visit or phone 738-4836
Thursday, June 25, 1998	12:00 - 14:00 hours	Room 304	Visit or phone 738-4836

PHASE 3 - The Primary Caregiver - NOT YET APPROVED BY SENIOR MANAGEMENT

The proposal for the final component of the study encompasses another 6 questions for you to answer with regards to the primary caregivers capabilities. In addition, you may be asked to administer a brief questionnaire to the primary caregiver (Caregiver Burden Inventory) that should take no longer than 15 minutes to answer. This is currently in the discussion phase. It has not been approved by the organization as yet.

Thank you for your anticipated cooperation in completing the Informal Support Questionnaire.

Anil Duggal

MEMORANDUM

TO: Community Health Team Staff Delivering Continuing Care Services

FROM: Ann Crowley, Continuing Care

DATE: June 12, 1998

RE: **Home Support Research**

Anil Duggal, a student in Clinical Epidemology, is completing a home support study for his Masters thesis. Attached is information regarding the project.

- Phase 1 of his study was approved by this organization earlier this year and he has completed the data collection.

- Phase 2 was approved by this organization June 11, 1998 and we are seeking your assistance in completing the Informal Support Questionnaire.

  You would have completed the Continuing Care Adult Long Term Care Assessment form which was used as a source document by Anil in Phase 1 of his study. It is important for us, when possible, to have the same individual complete the Informal Support Questionnaire. Therefore, you may receive forms on clients who are not currently in your district.

  If the primary assessor has left the organization then we would request the district staff to assume responsibility for completing the Informal Support Questionnaire.

  Also, in preparation for Phase 3, please note the caregiver's name and phone number.

- Phase 3 is under active discussion with senior management, however, it is not approved at this time. We will require your participation in Phase 3 once it is approved.

Thank you for your participation. If you require clarification, please contact Anil at the numbers he has outlined or visit him in room 304 at the scheduled times.

Ann Crowley

AC/lw
Attachment

INFORMAL SUPPORT QUESTIONNAIRE

Now we would like to know how you, as the nurse/assessor of the client, perceive the informal support system of the client. Your evaluation will be based on your knowledge and perception of all the clients informal supporters. Phase 2 will ask you 13 questions that will be based on your perception of the informal support system's willingness and ability to meet 13 functional needs.

PHASE 2: **Ability and willingness to meet the 13 functional needs.**

To assess the impact of informal support, the following question is asked for each of 13 functional need: **"Is informal support willing and able to meet the need?"**

The response to this question is rated on the following scale:

0 **NR= Not required**
- Informal support is not required as client is able to meet identified need.

1 **A= All/ Almost All**
- Informal support system is able and willing to meet need all or almost all of the time.

2 **M= Most (more than half. ½+)**
- Informal support system is able and willing to meet need most (more than half) of the time.

3 **S= Some (less than half.- < ½)**
- Informal support system is able and willing to meet need some (less than half) of the time.

4 **N/VL= None/Very Little**
- Informal support system is able and willing to meet need very little or none of the time, or there is no identifiable informal support system.

ON THE NEXT PAGE, PLEASE FILL THE APPROPRIATE BOX FOR THE QUESTIONS USING THE INSTRUCTIONS ON THIS PAGE AS A GUIDE.

Assessor:_____
Client Name:_____
Client CC# _____

Informal Support Questionnaire
Phase 2: Is Informal Support willing and able to meet the need?
(Response include 0-4 - previous page)

1. Urinary Management	0	☐	8. Indoor Mobility	0	☐
	1	☐		1	☐
	2	☐		2	☐
	3	☐		3	☐
	4	☐		4	☐
2. Bowel Management	0	☐	9. Outdoor Mobility	0	☐
	1	☐		1	☐
	2	☐		2	☐
	3	☐		3	☐
	4	☐		4	☐
3. Eating	0	☐	10. Transferring	0	☐
	1	☐		1	☐
	2	☐		2	☐
	3	☐		3	☐
	4	☐		4	☐
4. Dressing	0	☐	11. Memory	0	☐
	1	☐		1	☐
	2	☐		2	☐
	3	☐		3	☐
	4	☐		4	☐
5. Grooming	0	☐	12. Coping	0	☐
	1	☐		1	☐
	2	☐		2	☐
	3	☐		3	☐
	4	☐		4	☐
6. Bathing	0	☐	13. Potential for Injury	0	☐
	1	☐		1	☐
	2	☐		2	☐
	3	☐		3	☐
	4	☐		4	☐
7. Toileting	0	☐			
	1	☐			
	2	☐			
	3	☐			
	4	☐			

- Definitions of 13 indictors being examined.

- page number provided → corresponding to where this indicator is found in the Continuing Care Adult Long Term Care Document

Urinary Continence (page 13)-- Any inappropriate voiding causing hygienic or health risk. For this to apply, residents experience an involuntary loss of urine in a sufficient amount or frequency that it constitutes a social and/or health problem i.e., resident has no urethral sphincter control.

Bowel Continence (page 13) – Any inappropriate bowel elimination causing hygienic or health risk. For this to apply, clients experiencing bowel incontinence, or fecal incontinence, experience an involuntary loss of stool in a sufficient amount or frequency that it constitutes a social and/or health problem-i.e., resident has no anal sphincter control.

Eating (pages 12 & 27) – Level of functioning for most of the meal times during the daytime (excludes tube feeding and parenteral feeding). The client may require a person's continual presence and help because the client tends to choke, has a swallowing problem, or is quite confused and forgets to eat.

Dressing (page 27) Check level of assistance needed to dress for the first time during the day.

Grooming (page 27) – Check level of assistance needed to:

- comb hair;
- shave;
- clean teeth/mouth care;
- wash hair; and
- wash hands after toileting.

Bathing (page 27) -- Check level of assistance needed to bathe (either sponge/bed, tub or shower). Bathing involves the process of getting to and from the tub, transferring in and out of the tub, drying self after bath.

Coping (pages 18-20) -- The presence of behaviours that reflect an inability to deal appropriately with routine situations or individuals, and require interventions that are aimed at altering the ability to cope. Examples of behaviours that could lead to ineffective coping include any of the following:

- depression,
- anxiety,
- suspisciousness, and
- agitation.

Potential for Injury to Self and Others (pages 18-20) -- Refers to all types of behaviour or physical risk factors that might put the resident or others at risk and, consequently, require intervention. The intervention is aimed at reducing or removing the risk of the potential for injury to self or others. Clients whose physical condition or tendency towards violence contribute to the risk are included. The behaviours identified as physical risk factors, or conditions that qualify under Potential for Injury include:

- memory and orientation;
- judgement and decision-making;
- suicidal risk;
- wandering;
- alcohol, drug abuse;
- ingestion of foreign objects;
- aggressiveness.

others include:

- risk for falls. This risk may be the result of unsteady gait, dizziness, lack of balance, etc.;
- choking (if choking occurs outside of mealtimes);
- noncompliance with diabetic diet;

Note: Examples of "other" physical conditions/risk factors that do ***not*** qualify under Potential for Injury are:

- Immobility.
- Poor skin integrity/preventive skin care.
- Risk of infection.
- Hearing or vision impairment, unless specifically related to uncorrected problems that put the client at risk.
- Diabetes.
- Shortness of breath, angina, hypoglycemia, etc.
- Obesity.
- Urinary tract infection.
- Self-medication.
- Oxygen therapy, unless a client's behaviour creates a potential for injury, such as wrapping tubing around the neck or disconnecting the oxygen.

Toileting (pages 13 & 27)– Process of getting to and from a toilet or commode (or use of other toileting equipment), transferring on and off toilet, cleansing self after elimination and adjusting clothes. Level of functioning during the daytime.

Outdoor Mobility (pages 14 & 27) Includes the applicant's physical mobility outdoors and in the community. Consider how often the applicant went outside in the past week/month and what assistance was required. Outdoor mobility descriptors are ambulation and stair climbing.

Indoor Mobility (pages 14 & 27)– Includes the ability of the applicant to mobilize within the confines of his/her home or residence, or other indoor locations, whether by ambulation or use of other equipment. Indoor mobility descriptors are ambulation and stair climbing.

Transferring (pages 14 & 27)– Process of moving between positions (e.g. to/from bed, chair, standing) excludes transfer to bath and toilet. Also exclude positioning and turning.

Memory (pages 17) – Answers to questions regarding name, address, year, Prime Minister of Canada, date of First World War and the ability to count backwards are considered to characterize remote memory. The month, day of the week and age are questions which pertain to recent memory, and repeating three items that were asked minutes previously is classified as immediate memory.

CLASSIFICATION OF INFORMAL SUPPORT SYSTEM

This dimension represents the distinctive feature of the Home Care Classification System and introduces a systematic approach to understanding the key impact of family and friends upon the need for formal intervention.

The informal support system refers to family members, neighbours, or other unpaid and unsupervised individuals who provide any type or level of care to the client, which he/she is unable to provide for himself/herself, and which contributes to the well-being and/or safety of the client.

The contribution made by the informal support system is integral to the services provided by Home Care. An evaluation of the level of support provided to the client allows Home Care to describe the gap between the client's needs and the ability of the support system to meet those needs.

Key definitions are provided below to assist in your understanding of the classification process:

- **Primary Caregiver(s)**

  Primary caregiver(s) refers to one or more persons within the informal support system who provide the majority of informal support and/or assume responsibility for ensuring that the care needs of the client are met.

  In most cases, the assessor is able to identify a single individual as the primary caregiver. This definition does not require that the primary caregiver actually live with the client. If there is no primary caregiver, the HCCC System automatically sets the informal support classification at the lowest level of support.

- Other Informal Supporters

  Other informal supporters refer to the remainder of family members, neighbours, and other unpaid and unsupervised individuals who provide informal support to the client.

- Knowledge and Skills

  Refers to the knowledge and skills required to support the client. Skills can include housekeeping abilities, personal care skills, and the ability to provide emotional support to the client. In assessing knowledge and skill capacity, consider the needs of the client, the current skill level of the caregiver as well as the ability and willingness of the caregiver to learn necessary caregiving skills.

- Projected Capacity (stability over time)

  Projected capacity refers to the ability of the caregiver to provide ongoing support, and reflects the overall capacity of the caregiver. In projecting the stability of the caregiver, consider factors such as age, emotional and physical capability and the nature of the client's condition (i.e. chronic, degenerative, acute, etc.).

Availability of Other Informal Supporters

The availability of other informal supporters is defined as how often these individuals are able to assist in the care of the client and provide relief or support to the primary caregiver. The assessment of other informal supporters should consider the contribution of all individuals.

No Primary Caregiver

In the case of a client who does not have an identifiable primary caregiver disregard the remaining classification process and automatically assign a classification of "4" for the client's informal support system.

A. INFORMAL SUPPORT INDICATORS

Classification must address the problem of gathering and evaluating indicators of the adequacy of the support system in a systematic and reliable way. The proposed system uses indicators in three domains to develop a profile of the support system.

Availability of the Primary Caregiver

The availability of the primary caregiver is defined as how often the caregiver is able to provide assistance and support to the client. Judgements made by both the client and the caregiver are considered in the assessment of availability. If there is a discrepancy between the two sources, the assessor must determine actual availability. This judgement is required to make service decisions, not just to assign a score on this scale.

Capacity of the Primary Caregiver

Capacity refers to the ability and the potential of the caregiver to provide support and meet the needs of the client. Four measures of capacity are assessed which yield one summary score of capacity:

- **Emotional Capacity**

  Refers to the primary caregiver's emotional state and its effect upon the ability to provide care. The extent to which the caregiver's emotional state interferes with caregiving duties is the important factor for assessment of emotional capacity. Consider limitations/stressors such as pre-existing family dynamics: the caregiver's response to the client's condition; mental health of the caregiver; concerns or confidence of the caregiver about providing care; and other demands which may affect the caregiver's attitude to providing care.

- **Physical Capacity**

  Refers to the primary caregiver's ability to meet the physical demands of providing care to the client. In assessing physical capacity, consider physical limitations such as physical disabilities of the caregiver, general health of the caregiver, size of the client and/or caregiver.

Ms._____:

You have assessed the following clients. Could you provide the name and phone # of the primary caregiver. If there is no primary caregiver or if the client is discharged or deceased, please indicate so.

Client	District	CC #

1.

Primary Caregiver: _____
Phone Number: _____

Primary Caregiver(s)

Primary caregiver(s) refers to one or more persons within the informal support system who provide the majority of informal support and/or assume responsibility for ensuring that the care needs of the client are met.

In most cases, the assessor is able to identify a single individual as the primary caregiver. This definition does not require that the primary caregiver actually live with the client.

FACULTY OF MEDICINE - MEMORIAL UNIVERSITY OF NEWFOUNDLAND
AND
HEALTH CARE CORPORATION OF ST. JOHN'S

Consent To Participate In Bio-medical Research

TITLE: Assessing the informal service provision and the caregiver burden of primary caregivers of elderly women (75yrs. +) currently receiving subsidized home support services in the St. John's region.

INVESTIGATOR(S): Anil Duggal, Dr. M. Murray, Dr. P. Parfrey, Dr. G. Worrall, Dr. J. Segovia

You have been asked to participate in a research study. Participation in this study is entirely voluntary. You may decide not to participate or may withdraw from the study at any time.

Information obtained from you or about you during this study, which could identify you, will be kept confidential by the investigator(s). The investigator will be available during the study at all times should you have any problems or questions about the study.

1. Purpose of study:

More and more women in Newfoundland are living longer than ever before. As women get older, they often need help and support to remain at home. We are studying women to see what supportive care they need and are given. This will be accomplished by examining your perception of the informal support system's willingness and ability to meet 13 functional needs of the care recipient. An additional 6 questions will be asked in order to assess your perception of the primary caregiver capabilities. We are also interviewing the primary caregiver of the home support recipient in order to find out more about their comfort level (stress) in care provision. We hope to use information from this study to plan and provide better home care services in the future.

2. Description of procedures and tests:

We would like to ask you a series of questions to determine your perception of the informal supporters capabilities with respect to 13 functional need indicators as well as the primary caregivers' abilities in 5 areas (physical, emotional, skills, knowledge and projected capacity) in his/her provision of care towards the elderly recipient.

3. Duration of participant's involvement:

You will be asked about 19 questions that should take no longer than 15 minutes to answer.

4. Possible risks, discomforts, or inconveniences:

The interview will last for only about 15 minutes, and will be done at a time that is convenient to you.

5. Liability statement.

Your signature indicates your consent and that you have understood the information regarding the research study. In no way does this waive your legal rights nor release the investigators or involved agencies from their legal and professional responsibilities

Signature Page

Title of Project: Assessing the informal service provision and caregiver burden of primary caregivers of elderly women (75yrs+) currently receivingubsidized home support services in the St. John's region.

Name of Principal Investigator: Anil Duggal

To be signed by participant

I, , the undersigned, agree to my participation in the research study described above.

Any questions have been answered and I understand what is involved in the study. I realise that participation is voluntary and that there is no guarantee that I will benefit from my involvement.

I acknowledge that a copy of this form has been given to me.

(Signature of Participant) (Date)

(Signature of Witness) (Date)

To be signed by investigator

To the best of my ability I have fully explained the nature of this research study. I have invited questions and provided answers. I believe that the participant fully understands the implications and voluntary nature of the study.

(Signature of Investigator) (Date)

Phone Number

Assent of minor participant (if appropriate)

(Signature of Minor Participant) (Age___)

Relationship to Participant Named Above

Memorial
University of Newfoundland

Appendix F

Human Investigation Committee
Research and Graduate Studies
Faculty of Medicine
The Health Sciences Centre

1998 03 13

Reference #98.58

Mr. Anil Duggal
c/o Community Health
Faculty of Medicine
Health Sciences Centre

Dear Mr. Duggal:

At a meeting held on **March 12, 1998**, the Human Investigation Committee reviewed your application entitled **"Assessing the Relationship Between Needs and Services in Elderly Women (75 years +) Currently Receiving Home Support Services in the St. John's Region"** and granted approval.

We take this opportunity to wish you every success with your research study.

Sincerely,

H.B. Younghusband, PhD
Chairman
Human Investigation Committee

HBY\jglo

c Dr. K.M.W. Keough, Vice-President (Research)
Dr. E. Parsons, Vice-President, Medical Services, HCC

Memorial
University of Newfoundland

Office of Research and Graduate Studies (Medicine)
Faculty of Medicine
The Health Sciences Centre

1998 03 13

TO: Mr. Anil Duggal

FROM: Dr. Verna M. Skanes, Assistant Dean
Research & Graduate Studies (Medicine)

SUBJECT: Application to the Human Investigation Committee - #98.58

The Human Investigation Committee of the Faculty of Medicine has reviewed your proposal for the study entitled "Assessing the Relationship Between Needs and Services in Elderly Women (75 years +) Currently Receiving Home Support Services in the St. John's Region".

Full approval has been granted for one year, from point of view of ethics as defined in the terms of reference of this Faculty Committee.

For a hospital-based study, it is **your responsibility to seek necessary approval from the Health Care Corporation of St. John's**.

Notwithstanding the approval of the HIC, the primary responsibility for the ethical conduct of the investigation remains with you.

Verna M. Skanes, PhD
Assistant Dean

cc: Dr. K.M.W. Keough, Vice-President (Research)
Dr. E. Parsons, Vice-President, Medical Services, HCC

SUPPORT
THE OPPORTUNITY FUND

Memorial
University of Newfoundland

Human Investigation Committee
Research and Graduate Studies
Faculty of Medicine
The Health Sciences Centre

1998 05 27

Reference #98.57

Mr. Anil Duggal
c/o Community Health
Faculty of Medicine
Memorial University of Newfoundland

Dear Mr. Duggal:

This will acknowledge receipt of your correspondence wherein you provide clarification of issues, provide a revised consent form, and request approval of a protocol amendment for the research application entitled **"Assessing the Informal Service Provision and the Caregiver Burden of Primary Caregivers of Elderly Women (75 Years +) Currently Receiving Subsidized Home Support Services in the St. John's Region"**.

At a meeting held on **May 21, 1998,** the Human Investigation Committee granted full approval of your study and protocol amendment with the provision their request to obtain consent from the primary caregivers before the nurses' assessments are carried out remains a stipulation of the approval.

I wish you success with your research study.

Sincerely,

H.B. Younghusband, PhD
Chairman
Human Investigation Committee

HBY\jglo

c Dr. K.M.W. Keough, Vice-President (Research)
Dr. E. Parsons, Vice-President, Medical Services, HCC

Memorial
University of Newfoundland

Office of Research and Graduate Studies (Medicine)
Faculty of Medicine
The Health Sciences Centre

1998 05 27

TO: Mr. Anil Duggal

FROM: Dr. Verna M. Skanes, Assistant Dean
Research & Graduate Studies (Medicine)

SUBJECT: Application to the Human Investigation Committee - #98.57

The Human Investigation Committee of the Faculty of Medicine has reviewed your proposal for the study entitled **"Assessing the Informal Service Provision and the Caregiver Burden of Primary Caregivers of Elderly Women (75 Years +) Currently Receiving Subsidized Home Support Services in the St. John's Region"**.

Full approval has been granted for one year, from point of view of ethics as defined in the terms of reference of this Faculty Committee.

For a hospital-based study, it is your responsibility to seek necessary approval from the Health Care Corporation of St. John's.

Notwithstanding the approval of the HIC, the primary responsibility for the ethical conduct of the investigation remains with you.

Verna M. Skanes, PhD
Assistant Dean

cc: Dr. K.M.W. Keough, Vice-President (Research)
Dr. E. Parsons, Vice-President, Medical Services, HCC

Appendix G

Functional Need Score--Home Care Client Classification (Alberta)

Alberta has developed a classification system which groups clients according to their care requirements. Classification is based upon indicators of assessed functional need. For example, depending on a number of factors an individual will demonstrate a need for assistance by some index of functional incapcity. A level of independency is defined in terms of the amount and type of services a client requires to maintain functional capacity which in turn allows the estimation of the cost of care that is required. An arbitrary ceiling of cost then determines a level of care, a 'level of care funding' classification scheme. The assumption being that there is a linear relationship between the amount of resource use and care requirements.

Alberta's Home Care Classification System is based on the assessment of 13 functional need indicators. These 13 indicators are:

1. Eating
2. Urinary Management
3. Bowel Management
4. Toileting
5. Indoor Mobility
6. Outdoor Mobility
7. Transferring
8. Memory
9. Coping
10. Potential for Injury
11. Grooming
12. Dressing
13. Bathing

Resident Classification System (Alberta)

Indicators in the following three domains proposed by Alberta's Resident Classification System (RCS) were used to classify clients needing institutional placement:

- **Activities of Daily Living (ADL) Indicators:**

1. Eating
2. Dressing
3. Toileting
4. Transferring

- **Behaviour (BDL) Indicators:**

5. Ineffective Coping
6. Potential for Injury to Self and Others

- **Continence (CCL) Indicators:**

7. Urinary Continence
8. Bowel Continence

These domains reflect the major types of care required by long term care clients with functional problems which prevent independent living, this being the primary reason why patients are admitted to long term care facilities. The indicators were combined to create a single measure of the level of care required. The aim was to define levels of care that ranked residents from low to high on resource use. Residents with the specified combinations of functional deficits would require the designated level of care. Definitions are stated in terms of the conditions sufficient to place a patient in a particular group. Category definitions (A-G) incorporate several combinations of ADL, BDL and incontinence levels (CCL). The inclusion of CCL focuses on the type of intervention required rather than on the type of patient behaviour stimulating the need for care.

(RCS) RESIDENT CLASSIFICATION CATEGORY DEFINITION

A resident's score on each of the 8 indicators is combined using a series of decision rules which places the individual in one of seven classification categories. These categories (A to G) are rank ordered from low to high in terms of care requirements and resource use. Weights were assigned to each category based on the differences between the nursing resources used by residents in the seven categories.

When these weights are standardized, with category A having a weight of 1.0, then the resource use measures for the seven categories are:

A	1.00	D	2.26	G	5.18
B	1.40	E	2.90		
C	1.93	F	3.40		

(a category B resident requires, on average, 1.4 times as much nursing care time as a category A resident , and a category G resident requires 5.18 times as much)

Category 'A' - patients with low ADL's, low BDL's and none-med incontinence problems. They have little or no functional impairment who require minimal supervision, although they may require a supportive environment to function at their potential levels (eg. patients prepared for independent living or who require supervision to prevent deterioration in their condition).

Category 'B' - patients with a low ADL and a med to high BDL, or those with a med-low ADL and a low to medium BDL. These combinations require about the same levels of care. (eg. patients with minor physical handicaps that require restorative rehab, or in patients with mild cognitive impairment - early Alzheimer's). Higher BDL's are offset by lower ADL's in this category. Patients with highest level of incontinence are excluded.

Category 'C' - comprise three clusters of patients. As in 'B', the clusters represent different combinations of ADL and BDL levels: lowest ADL with highest BDL, med-low ADL with high BDL & med ADL with low-med BDL levels. However, in 'C', the BDL's are higher for any given ADL level than they are for 'B'. Patients with highest level of incontinence are also excluded (patients with early stage multiple sclerosis requiring little physical care, but are emotionally labile, or stroke patients with moderate physical deficits who need emotional support.

Category 'D' - comprise the largest number of combinations: patients whose combined ADL & BDL would have put them in A,B, or C but who have incontinence of both bowel & bladder; patients with no or occasional incontinence if they have med-low ADL's & very high BDL's, med ADL's & high BDL's, or med-high ADL's & BDL's from low-high (paraplegics having bowel/bladder retrainng, younger CVA, MS, organic brain syndrome etc.).

Category 'E' - four different combinations: patients with lower ADL's must have either med-high CCL's or very high BDL's. Patients with med-low ADL's *only* if very high BDL's and need management or retraining for urinary incontinence. Those with medium ADL's and high BDL's and bladder management problems are also in this category. Patients with no or low incontinence are in this category only if they have very high BDL needs. Patients with med-high or high ADL requirements, whether they require management of urinary incontinence or have no incontinence, if they do not have very high BDL requirements (very frail, confused elderly, old stroke patient, severly arthritic patient, alcoholic with Korsakoff's syndrome, brain injured patient).

Category 'F' - primarily patients with heavy care requirements: highest ADL's who also have some incontinence problems. Without the highest ADL's a patient could fit in category F, if the physical care requirements (ADL & incontinence) are complicated by behaviour problems. Patients with very high BDL's are not

included unless they have lower ADL's (advanced dementia, bedridden, non mobile with incontinence, MS, or palliative care).

Category 'G' - Highest BDL's & med-high ADL's. Those with med-high ADL requirements must also have some incontinence (advanced neurological diseases such as MS, ALS, Huntington's Disease, Palliative Care, severe dementia requiring high physical care, severe rheumatoid arthritis).

Instructions for Determining a Client's Classification Category and Placement Options

In determining a client's classification category, it is important to note that only part of the information from the Newfoundland and Labrador Continuing Care Assessment instrument will be used. To determine a client's classification and placement options, you will be recording a client's scores on a number of critical indicators. The assessment process will begin with a Home Care assessment based on an analysis of functional need. Needs that cannot be met by informal support are identified as requiring intervention by Home Care or other community agencies. If the needs cannot be met through any form of community services then institution options will be explored.

The Home Care Client Classification System is based on the assessment of 13 functional need indicators. These 13 indicators are:

- Eating
- Urinary Management
- Bowel Management
- Toileting
- Indoor Mobility
- Outdoor Mobility
- Bathing
- Transferring
- Memory
- Coping
- Potential for Injury
- Grooming
- Dressing

I. Functional Need Score (Home Care Classification)

Indicators
(The page numbers in brackets correspond to the relevant pages of the NLCCA document)

Definitions:

Independent: Needs no assistance.

Supervision: Verbal encouragement and observation, not physical hands-on care.

Assistance: Physical hands-on care.

Intermittent: Caregiver does not have to be present during the entire activity, nor does the help have to be on a one-to-one basis.

Constant: One-to-one care requiring a caregiver to be present during the entire activity; otherwise the activity will not be completed by the resident.

Eating (pages 12 & 27) -- Level of functioning for most of the meal times during the daytime (excludes tube feeding and parenteral feeding). The client may require a person's continual presence and help because the client tends to choke, has a swallowing problem, or is quite confused and forgets to eat. If a client is at risk for choking only during eating, code only under the Eating indicator. If choking occurs at other times, code under Eating and Potential for Injury.

Ordinal Scale

0 Independent.
1 Independent with special devices.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance; applicant participates.
4 Unable to manage; needs constant supervision.
5 Unable to manage, needs constant assistance.

Urinary Continence (page 13)-- Any inappropriate voiding causing hygienic or health risk. For this indicator to apply, residents experience an involuntary loss of urine in a sufficient amount or frequency that it constitutes a social and/or health problem i.e., resident has no urethral sphincter control.

Ordinal Scale

0 No alteration.
1 Alteration; manages care independently.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance; applicant participates.
4 Unable to manage, needs constant supervision/assistance.

Bowel Continence (page 13) -- Any inappropriate bowel elimination causing hygienic or health risk. For this indicator to apply, clients experiencing bowel incontinence, or fecal incontinence, experience an involuntary loss of stool in a sufficient amount or frequency that it constitutes a social and/or health problem-i.e., resident has no anal sphincter control.

Ordinal Scale

0 No alteration.
1 Alteration; manages care independently.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance; applicant participates.
4 Unable to manage, needs constant supervision/assistance.

3 Able to manage with some supervision/assistance for safety and encouragement; applicant participates.
4 Unable to manage, needs constant supervision/assistance of one person.
5 Unable to manage, needs constant supervision and/or physical support of two persons.

Transferring (pages 14 & 27)-- Process of moving between positions (e.g. to/from bed, chair, standing) excludes transfer to bath and toilet. Also exclude positioning and turning.

Ordinal Scale
0 Independent.
1 Independent with equipment.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance for safety and encouragement; applicant participates.
4 Unable to manage, needs constant supervision/assistance of one person.
5 Unable to manage, needs constant supervision and/or physical support of two persons.

Memory (pages 17) -- Answers to questions regarding name, address, year, Prime Minister of Canada, date of First World War and the ability to count backwards are considered to characterize remote memory. The month, day of the week and age are questions which pertain to recent memory, and repeating three items that were asked minutes previously is classified as immediate memory.

Ordinal Scale
0 Immediate, recent and remote memory intact.
1 Immediate and recent memory impaired, remote memory generally intact.
2 Immediate and recent memory impaired, some impairment in remote memory.
3 Significant impairment in immediate, recent and remote memory.

Ineffective Coping (pages 18-20) -- The presence of behaviours that reflect an inability to deal appropriately with routine situations or individuals, and require interventions that are aimed at altering the ability to cope. Examples of behaviours that could lead to ineffective coping include any of the following:

- depression,
- anxiety,
- suspisciousness, and
- agitation.

Toileting (pages 13 & 27)-- Process of getting to and from a toilet or commode (or use of other toileting equipment), transferring on and off toilet, cleansing self after elimination and adjusting clothes. Level of functioning during the daytime. If the client has both an indwelling catheter and an ostomy, or uses incontinence products (e.g., pads or diapers such as "Attends" and is not taken to the toilet, code N/A. Incontinence is captured under Continuing Care Level.

Ordinal Scale

0 Independent.
1 Independent with special devices.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance; applicant participates.
4 Unable to manage; needs constant supervision.
5 Unable to manage, needs constant assistance.
N/A Not applicable (resident does not use toilet for either bowel or bladder elimination, i.e., has a catheter and an ostomy or uses incontinence products)

Indoor Mobility (pages 14 & 27)-- Includes the ability of the applicant to mobilize within the confines of his/her home or residence, or other indoor locations, whether by ambulation or use of other equipment. Indoor mobility descriptors are ambulation and stair climbing.

Ordinal Scale

0 Independent.
1 Independent with equipment.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance for safety and encouragement; applicant participates.
4 Unable to manage, needs constant supervision/assistance of one person.
5 Unable to manage, needs constant supervision and/or physical support of two persons.

Outdoor Mobility (pages 14 & 27) Includes the applicant's physical mobility outdoors and in the community. Consider how often the applicant went outside in the past week/month and what assistance was required. Outdoor mobility descriptors are ambulation and stair climbing.

Ordinal Scale

0 Independent.
1 Independent with equipment.
2 Able to manage with assistance to set up.

Note: Examples of "other" physical conditions/risk factors that do *not* qualify under Potential for Injury are:

- Immobility.
- Poor skin integrity/preventive skin care.
- Risk of infection.
- Hearing or vision impairment, unless specifically related to uncorrected problems that put the client at risk.
- Diabetes.
- Shortness of breath, angina, hypoglycemia, etc.
- Obesity.
- Urinary tract infection.
- Self-medication.
- Oxygen therapy, unless a client's behaviour creates a potential for injury, such as wrapping tubing around the neck or disconnecting the oxygen.

For potential for injury to qualify as present, a statement of planned intervention for the identified behavioural problem must be documented on the care plan. The documentation must indicate that the behaviour is currently an assessed need, what intervention controls the behaviour, and the frequency with which the intervention occurs. If no statements of planned interventions for behavioural problems are found in any of the documentation sources, then the indicator does not qualify for verification. Interventions may be physical, nursing, medical, or pharmacological aimed at limiting, controlling, or eliminating behavioural problems. Interventions can include redirection, behavioural modification, retraining, social interventions, or restrain (physical or chemical).

Ordinal Scale

0 No intervention required.
1 General observation required less frequently than once every 24 hours, but at least twice a week.
2 General observation and/or intermittent intervention required at least once every 24 hours.
3 General observation and/or intermittent intervention required at least two times in each 24 hour period.
4 General observation and intermittent intervention required more than two times a day, but less frequently than every hour.
5 Close observation and intermittent intervention required hourly or more often but less than every 15 minutes.
6 Close and constant intervention required every 15 minutes or more often.

Grooming (page 27) -- Check level of assistance needed to:

- comb hair;
- shave;
- clean teeth/mouth care;
- wash hair; and
- wash hands after toileting.

This indicator is intended to reflect the amount of care the client requires to control the behaviour in question. The need for intervention during the 24-hour period should be recorded whether or not the behaviour occurs (i.e. if intervention is actually preventing the behaviour and continues to be necessary to prevent the behaviour, it should be recorded). Interventions may be physical, nursing, medical, or pharmacological aimed at limiting, controlling, or eliminating behavioural problems. Interventions can include redirection, behavioural modification, retraining, social interventions, or restrain (physical or chemical).

For ineffective coping to qualify as present, a statement of planned intervention for the identified behavioural problem must be documented on the care plan. The documentation must indicate that the behaviour is currently an assessed need, what intervention controls the behaviour, and the frequency with which the intervention occurs. If no statements of planned interventions for behavioural problems are found in any of the documentation sources, then the indicator does not qualify for verification.

Ordinal Scale

0 No intervention required.
1 Intervention required, but less frequently than once a week.
2 Intervention required and more frequently than once a week, but less than every day.
3 Intervention required lasting less than 30 minutes in a 24 hour period.
4 Intervention required lasting 30 minutes or up to two hours in a 24 hour period.
5 Intense (one to one) intervention required lasting two hours in a 24 hour period.

Potential for Injury to Self and Others (pages 18-20) -- Refers to all types of behaviour or physical risk factors that might put the resident or others at risk and, consequently, require intervention. The intervention is aimed at reducing or removing the risk of the potential for injury to self or others. Clients whose physical condition or tendency towards violence contribute to the risk are included. The behaviours identified as physical risk factors, or conditions that qualify under Potential for Injury include:

- memory and orientation;
- judgement and decision-making;
- suicidal risk;
- wandering;
- alcohol, drug abuse;
- ingestion of foreign objects;
- aggressiveness.

others include:

- risk for falls. This risk may be the result of unsteady gait, dizziness, lack of balance, etc.;
- choking (if choking occurs outside of mealtimes);
- noncompliance with diabetic diet;

Ordinal Scale

0 Independent.
1 Independent with special devices.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance; applicant participates.
4 Unable to manage; needs constant supervision.
5 Unable to manage, needs constant assistance.

Dressing (page 27) Check level of assistance needed to dress for the first time during the day. If the client is ill in bed and clothed only in gowns and pajamas, code N/A.

Ordinal Scale

0 Independent.
1 Independent with special devices.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance; applicant participates.
4 Unable to manage; needs constant supervision.
5 Unable to manage, needs constant assistance.

Bathing (page 27) -- Check level of assistance needed to bathe (either sponge/bed, tub or shower). Bathing involves the process of getting to and from the tub, transferring in and out of the tub, drying self after bath.

Ordinal Scale

0 Independent.
1 Independent with special devices.
2 Able to manage with assistance to set up.
3 Able to manage with some supervision/assistance; applicant participates.
4 Unable to manage; needs constant supervision.
5 Unable to manage, needs constant assistance.

Step 1: Record client's score for the 13 indicators in the boxes provided on the worksheet.

Step 2: Sum up the scores for the 13 indicators. This score provides the base information for distinguishing 5 categories of functional need, ranging from low to high.

Low 1--(0-5)
2--(6-10)
3--(11-20)
4--(21-25)
High 5--(26-62)

III. Resident Classification Category (RCS)

Step 1: To determine a client's category, you will be referring to a client's scores on the following 8 indicators:

ADL Indicators	BDL Indicators	CCL Indicators
Eating	Potential for Injury	Urinary Continence
Toileting	Ineffective Coping	Bowel Continence
Transferring		
Dressing		

Use the following translation paradigm to convert the Home Care Classification scale to the Resident Classification scale:

Eating

RCS Indicators	HCCC Indicators
0 Eats without assistance; may use special devices	0 Independent 1 Independent with special devices
1 Needs assistance with opening cartons, cutting meat, etc., but does not require further assistance.	2 Able to manage with assistance to set up.
2 Needs intermittent encouragement with or without physical assistance	3 Able to manage with some supervision/assistance; applicant participates.
3 Needs constant encouragement with or without physical assistance.	4 Unable to manage; needs constant supervision.
4 Needs complete feeding by another person	5 Unable to manage, needs constant assistance.
8 Is tube fed	N/A

Toileting

RCS Indicators	HCCC Indicators
0 Needs no assistance. Is independent with or without equipment.	0 Independent 1 Independent with special devices
1 Requires someone to bring equipment to bathroom, or may need reminding, but otherwise needs no assistance.	2 Able to manage with assistance to the to set up.
2 Requires intermittent supervision for safety or encouragement, or minor physical assistance (eg. clothes adjustment or washing hands).	3 Able to manage with some supervision/assistance; applicant participates.
3 Requires one person to provide constant supervision and/or physical assistance with major or all parts of the task or the task will not be completed.	4 Unable to manage; needs constant supervision
4 Requires two people to provide assistance; may need mechanical aids.	5 Unable to manage, needs constant assistance.
8 Not applicable (resident does not use toilet for either bowel or bladder elimination, i.e., has a catheter and an ostomy or uses incontinence products.	N/A

Transferring

RCS Indicators	HCCC Indicators
0 Needs no assistance. Is independent with or without equipment.	0 Independent 1 Independent with special devices
1 Depends on equipment and needs another person to position wheelchair, walker, etc. but otherwise manages transfer alone.	2 Able to manage with assistance to set up.
2 Requires intermittent supervision (e.g., verbal cueing, guidance) and/or physical assistance for difficult maneuvers only.	3 Able to manage with some supervision/assistance; applicant participates.
3 Requires one person to provide constant guidance, steadiness and/or physical assistance; resident participates in transfer.	4 Unable to manage; needs constant supervision/assistance of one person.
4 Requires two or more people to provide constant supervision and/or physical support; or to lift resident physically (with or without mechanical aids).	5 Unable to manage, needs constant supervision and/or physical support of 2 persons.
8 Not applicable (e.g., resident is comatose, bedridden).	N/A

Dressing

RCS Indicators	HCCC Indicators
0 Dresses without assistance; may use special devices.	0 Independent 1 Independent with special devices
1 Needs help assembling clothes or equipment.	2 Able to manage with assistance to set up.
2 Needs intermittent supervision or assistance.	3 Able to manage with some supervision/assistance; applicant participates
3 Needs constant supervision to dress self.	4 Unable to manage; needs constant supervision/assistance.
4 Needs total assistance.	5 Unable to manage, needs constant assistance.
8 N/A	N/A

Potential for Injury to Self and Others

RCS Indicators	HCCC Indicators
0 No intervention required	0 No intervention required.
1 General observation and intermittent intervention required less frequently than every hour.	1 General observation required less frequently than once every 24 hours, but at least twice a week.
2 Close observation and intermittent intervention required hourly or more often but less often than every 15 minutes.	2 General observation and/or intervention required at least once every 24 hours. 3 General observation and/or intermittent intervention required at least two times in each 24 hour period.
3 Close and constant intervention required every 15 minutes or more often.	4 General observation and intermittent intervention required more than two times a day, but less frequently than every hour. 5 Close observation and intermittent intervention required hourly or more often but less than every 15 minutes. 6 Close and constant intervention required every 15 minutes or more often.

Ineffective Coping

RCS Indicators	HCCC Indicators
0 No intervention required	0 No intervention required
1 Intervention required, totalling less than 30 minutes over a 24 hour period.	1 Intervention required, but less frequently than once a week. 2 Intervention required more frequently than once a week, but less than every day. 3 Intervention required lasting less than 30 minutes in a 24 hour period.
2 Intervention required totalling from 30 minutes up to, but not including, 2 hours over a 24 hour period.	4 Intervention required lasting 30 minutes or up to 2 hours in a 24 hour period
3 Intense intervention required, totalling 2 hours or more over a 24 hour period	5 Intense (one to one) intervention required lasting 2 hours in a 24 hour period.

Urinary Continence

RCS Indicators	HCCC Indicators
0 None	0 No alteration
1 Requires routine catheter care or is occasionally incontinent	1 Alteration; manages care independently. 2 Able to manage with assistance to set up.
2 Incontinence requiring management procedures. 3 Incontinence requiring bladder retraining.	3 Able to manage with some supervision/ assistance; applicant participates. 4 Unable to manage, needs constant supervision/assistance

Bowel Continence

RCS Indicators	HCCC Indicators
0 None	0 No alteration
1 Requires routine ostomy care, or is occasionally incontinent	1 Alteration; manages care independently. 2 Able to manage with assistance to set up.
2 Incontinence requiring management procedures. 3 Incontinence requiring bowel retraining. of one person.	3 Able to manage with some supervision/ assistance; applicant participates. 4 Unable to manage, needs constant supervision/assistance.

Step 2: Determine client's **ADL Level of Care** based on scores in Step 1 (see decision tree on the following page). Record in ADL box on the worksheet.

1 **Low:** Has no score higher than 1 on any of the four ADL indicators.

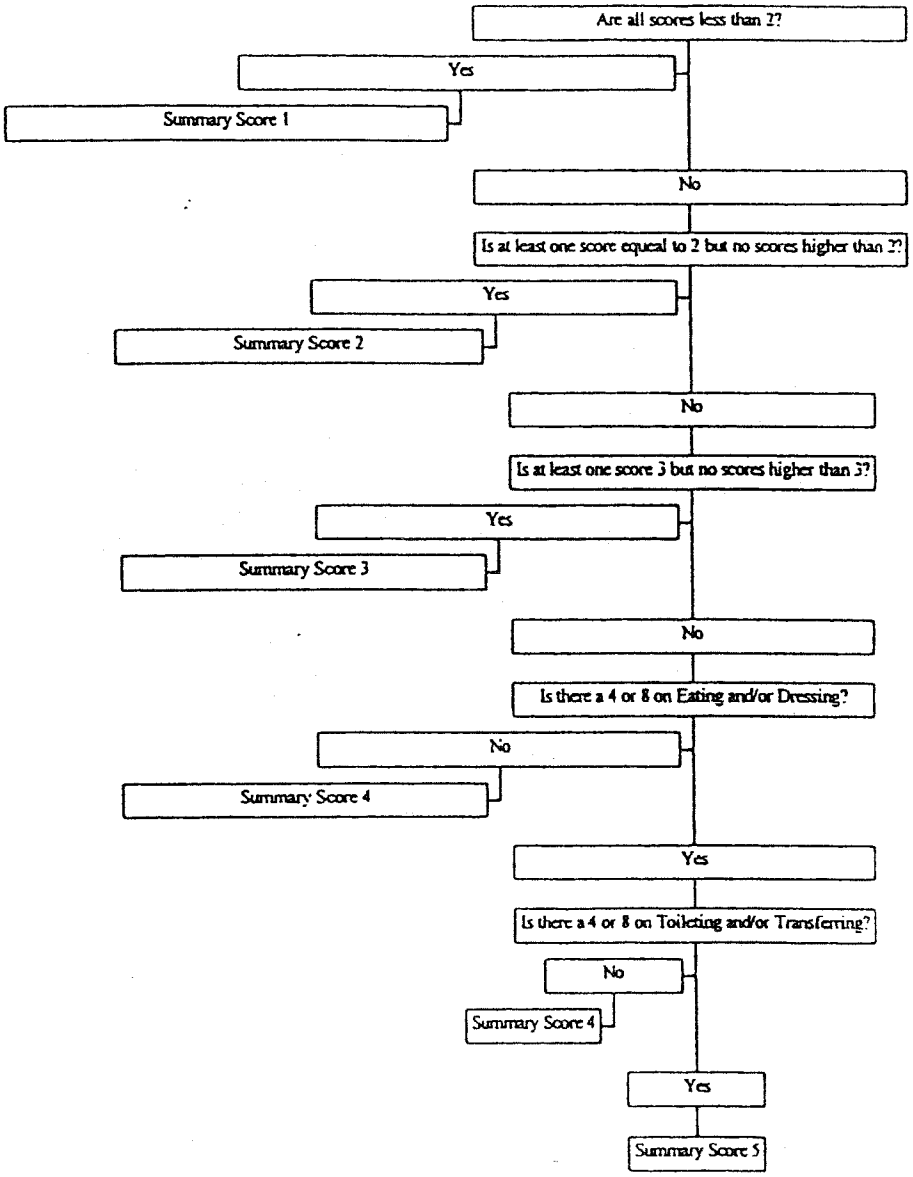
2 **Med Low:** Has at least one score of 2 but no scores higher than 2 on any of the four ADL indicators.

3 **Med:** Has at least one score of 3 but no scores higher than 3 on any of the four ADL indicators.

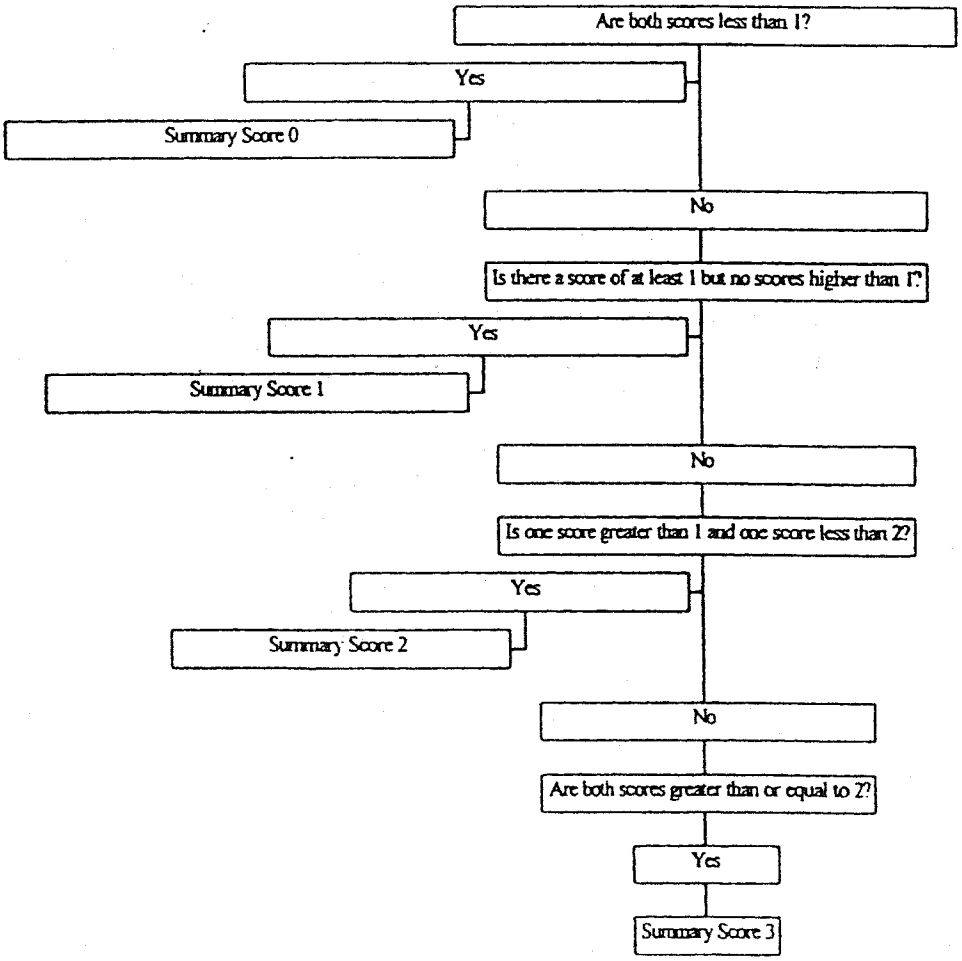
4 **Med High:** Has a 4 or 8 on at least one indicator, but does not meet the requirements for "high" ADL level.

5 **High:** Must have a 4 or 8 on one or both Eating and/or Dressing, **AND** a 4 or 8 on one or both Toileting and/or Transferring.

Decision Tree for ADL Indicators



Decision Tree for CCL Indicators



Step 3: Determine client's BDL Level of Care as follows, based on scores in Step 1. Record in BDL box on the worksheet.

1 Low: Has a 0 or 1 on the Potential for Injury indicator, AND a 0 on Ineffective Coping.

2 Med: Has a 2 on the Potential for Injury indicator, and a 0 or 1 on Ineffective Coping; OR a 0 or 1 on Potential for Injury and a 1 on Inffective Coping.

3 High: Has a 3 on the Potential for Injury indicator and a 0 or 1 on Ineffective Coping; OR a 0,1 or 2 on Potential for Injury and a 3 on Ineffective Coping.

4 V. High: Has a 3 on the Potential for Injury indicator and a 2 on Ineffective Coping; OR any score on Potential for Injury and a 3 on Ineffective Coping.

Step 4: Determine client's CCL Level of Care as follows, based on scores in Step 1 (see decision tree on the following page). Record in CCL box on the worksheet.

0 None: Has a score of 0 on both Continence indicators.

1 Low: Has a score of 1 on either or both Continence indicators, but no scores higher than 1 on either Continence indicator.

2 Med: Has a 2 or 3 on either Continence indicator, but not both Continence indicators.

3 High: Has a 2 or 3 on both Continence indicators.

Step 5: Use the following matrix to determine resident's classification category based on ADL, BDL, and CCL levels of care.

- Locate appropriate ADL level.
- Locate appropriate BDL level.
- Locate appropriate CCL level.

Record letter from the cell in the matrix in which the resident's ADL, BDL, and CCL levels meet, in **Resident Classification Category** box on the worksheet.

Matrix for Classifying Residents
Based on ADL, BDL and CCL (Continence) Levels

ADL Level	BDL Level	CCL (Continence Levels)			
		0 -None	1 - Low	2 - Med	3 - High
1--Low	1-Low	A	A	A	D
	2-Med	B	B	B	D
	3-High	B	B	B	D
	4-V.High	C	C	C	D
2-Med. Low	1-Low	B	B	B	D
	2-Med	B	B	B	D
	3-High	C	C	C	D
	4-V.High	D	D	E	E
3-Med	1-Low	C	C	C	D
	2-Med	C	C	C	D
	3-High	D	D	E	E
	4-V.High	E	E	F	F
4-Med. High	1-Low	D	D	E	E
	2-Med	D	D	E	E
	3-High	D	D	E	E
	4-V.High	F	G	G	G
5-High	1-Low	E	F	F	F
	2-Med	E	F	F	F
	3-High	E	F	F	F
	4-V.High	G	G	G	G

REFERENCES

1. Hollander, M.J., The Costs and Cost Effectiveness of Continuing-Care Services in Canada, University of Ottawa, October 1994. p.43,45.

2. Agnew Peckham Health Care Consultants, St. John's Nursing Home Council: Nursing Home Beds and Adult Day Care in St. John's Region, October, 1993, p. 45.

3. Department of Health, Government of Newfoundland and Labrador.

4. Department of Health, Government of Newfoundland and Labrador.

5. Agnew Peckham, p.26.

6. Alberta Health (March, 1994). Home Care Client Classification (HCCC) System. Final Report.

7. Carpenter, G.I., Main, A., Turner, G.F. Casemix for The Elderly Inpatient: Resource Utilization Groups (RUGs) Validation Project. Age and Aging. Vol. 24., 1995, pp. 5-13.

8. Clauser, S.B., Fries, B.E. Nursing Home Resident Assessment and Case-mix Classification: Cross-National Perspectives. Health Care Financing Review. Vol. 13., No. 4, Summer 1992, pp. 135-155.

9. Alberta Hospitals and Medical Care (January, 1988). Alberta Patient Classification System for Long Term Care Facilities. Final Report.

10. Alberta Health (June, 1994). Alberta Resident Classification System for Long Term Care Facilities. Instructions for Completing the Resident Classification Form.

11. Armstrong-Esther, C.A. Long-Term Care Reform in Alberta, Canada: The Role of the Resident Classification System. Journal of Advanced Nursing. Vol. 19., 1994, pp. 105-113.

Appendix H

HOME CARE CLASSIFICATION WORKSHEET (ALBERTA)

Initials:_____ Age:_____ ID Number:_____

Sex:_____ Current residence:_____

Functional Need Score ☐ (1-5) Resident Classification Score ☐ (A-G)

Informal Supports _____

Home Care

Assessor: _____

Researcher _____

comments: _____

Functional Needs

(same indicators as RCS) *(Other indicators used for Home Care classification)*

*Eating ☐	Bathing ☐
*Toileting ☐	Grooming ☐
*Transferring ☐	Indoor Mobility ☐
*Dressing ☐	*Outdooor Mobility ☐
Potential for Injury ☐	Memory ☐
Coping ☐	
Urinary Manabement ☐	
Bowel Management ☐	

Sum of 13 Functional Need Indicators _____*

Functional Need Score (1-5) ☐

1- (1-5)
2-(6-10)
3-(11-20)
4-(21-25)
5-(26-62)

* for categories with n/a, total will have to be adjusted

Resident Classification System "RCS" (using translation Paradigm from APPI)

Eating ☐ Potential for Injury ☐ Urinary Continence ☐

Toileting ☐ Ineffective Coping ☐ Bowel Continence ☐

Transferring ☐ BDL Score ☐ CCL Score ☐

Dressing ☐

ADL Score ☐

RESIDENT CLASSIFICATION SCORE ☐ (A-Low to G-Very High)

Appendix I

Informal Supports

**Eating* ☐ *Bathing* ☐

**Toileting* ☐ *Grooming* ☐

**Transferring* ☐ *Indoor Mobility* ☐

**Dressing* ☐ **Outdoor Mobility* ☐

Potential for Injury ☐ *Memory* ☐

Coping ☐

Urinary Management ☐ **Sum of 13 Informal Support Indicators** ____*

Bowel Management ☐

Informal Support Score (1-5) ☐

1 - (0)
2 - (1-5)
3 - (6-10)
4 - (11-20)
5 - (21-52)