THE ANNUAL INSTITUTIONAL LONG-TERM CARE NEEDS IN THE ST. JOHN'S REGION

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by

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ABSTRACT

The St. John's region has approximately 1400 long-term care (LTC) beds in nursing homes and personal care homes. Despite this there are concerns that excessivie numbers of acute care beds are occupied by clients awaiting long-term care placement, that the waiting list for placement is too long, and that there is a mismatch between needs of clients and level of care provided in nursing homes.

Actual placement within the long-term care (LTC) sector is influenced by services that are currently available, the desires/demands of clients as well as their needs. Accordingly, relating needs to utilization will assist in rational planning for LTC services to accommodate the expected growth in need as the population ages.

The primary objective of this study was to determine the current status of the long-term care sector in the region. This analysis determined the needs of the clients entering the long-term care sector using validated scoring systems. It identified:

- the needs of the clients awaiting institutional placement;
- the proportion of acute care beds occupied while awaiting placement;
- the annual demands on the long-term care sector;
- appropriateness of client placement;
- time to placement.

The availability of home support, the need for professional care provided in a nursing home (NH) and degree of disability was estimated for the 426 clients entering the LTC sector in 1995/96. Using validated assessment tools, the needs of these clients were compared to the actual placement. 4% of clients had no measurable disability and another 8% may have managed with home support. 20% of the clients recommended for

NH care did not have a clinical indication for NH placement. Thus, the development of minimal criteria for placement in supervised care and in NH care may help maximize the utilization of the current number of beds.

The median time to placement in a private personal care home was 8 days, whereas average wait for government-subsidized, level 1 supervised care in a NH was 302 days. There is a need for supervised care in the city aimed at clients who have disability, but who do not have need for NH level of care. The median time to placement of clients requiring nursing home placement (levels 2/3) was 96 days. A target time for placement should be developed.

139 LTC clients awaiting placement from an acute care hospital bed had an average wait of 97 days, and occupied less than 4% of the acute care beds.

The annual incidence of clients requiring placement in a supervised environment was 110/426, and the incidence of those requiring the professional care available in a nursing home was 316/426, as determined by the assessment panel. Using objective criteria the former rate was 108/426 and the latter 268/426.

The actual annual rate of placement in both supervised and nursing home care was commensurate with the demand when mortality and client wishes were taken into account. In fact there was no increase in the waiting list after 1 year of follow-up.

We conclude that minimal criteria should be developed for admission to institutional long-term care. The current system is providing reasonable access to nursing homes, without excess blocking of acute care beds or increasing size of waiting lists. Restructuring of the long-term care system requires study of the needs and outcomes of current residents.

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CHAPTER I

INTRODUCTION

1.1 Background

Over the years, the combined effects of low fertility and mortality levels in Canada have resulted in an age structure with a larger proportion of older and a smaller proportion of younger people. In 1995, the number of young Canadians accounted for just one in four people (24%), compared with four in ten people under the age of 18 in 1961. At the same time, seniors accounted for 12% of the population, compared with 8% in 1961. By 2041, the number of seniors will have tripled its present level to nearly 10 million. By then, almost one in four people (23%) will be aged 65 and over.[1]

As in the rest of Canada, seniors represent a diverse and rapidly growing segment of Newfoundland's population. In 1991, 9.6% of the province was 65 and older. Within the next 40 years, it is projected that seniors will represent 36.8% of the total population.[2] The aging of our population has begun to capture the interest of politicians, economists, policy-makers, and health care professionals. What impact will dramatic increases in our elderly population have on health care in Canada? How should we respond to the demographic challenge soon to be posed by aging baby boomers?[3]

Population aging may make it increasingly difficult to provide quality long-term care services and programs within the resources available especially given that Newfoundland relies heavily on institutional care. In 1991, the number of long-term care

beds per 1,000 people ≥ 75 years in Newfoundland was 176 (the highest in the country) vs. 160 for Canada.[4] Thus, the number of beds provided to care for persons who, because of chronic illness and marked functional disability, require long-term hospitalization, but not the resources of an acute care hospital, is high compared to the national average.[5 6] Despite the generous provision of long-term care beds, the occupancy of acute care beds by patients awaiting placement to long-term care and the existence of a waiting list for long-term care, suggest a mismatch between the needs of the community and the health care being delivered.

There is evidence in the literature that the demographic structure of the population will not in itself create a financial crisis in the future. However, attention needs to be focused on the real issues: increased utilization rates and necessary changes to our health care system.[3] Angus and associates[7] found that aging alone was responsible for less than 5% of the increase in health care costs in Canada between 1980 and 1990. These results are in agreement with those found in a study[8] which investigated the effects of aging and population growth on physician care cost devoted specifically to elderly people in Quebec. This study found that aging accounted for only 0.5% of the total cost increase in physician care costs between 1982 and 1992 and 27.0% to the shift in the growth of the elderly population. The major finding of this paper was that the increase in utilization was the most important factor on the increase in physician care costs during the time period. Roos et al.[9] also found that the relation between age and pattern of hospital usage almost disappears. However, the authors did find that increasing numbers of the

older elderly will have a much greater impact on the nursing home sector than on the hospital sector. It follows that it is not the aging of our population that threatens to precipitate a financial crisis in health care, but a failure to examine and make appropriate changes to our health care system, especially patterns of utilization. Any crisis that occurs will result from our failure to address the question of how research, education, patterns of clinical care and the organization of our system are affecting the current provision of health care for elderly people.

The purpose of this study, as part of a larger study, was to assess the needs for institutional long-term care in the St. John's region (Appendix A). Specific aims of this study were: 1. to determine the long-term care needs of clients on the waiting list for long-term institutional placement, and 2. to determine the likely expected annual demands for institutional long-term care, and how these demands match with the opportunities for placement. Relating needs to utilization will assist in rational planning for long-term care services to accommodate the expected growth in need as the population ages.

1.2 Significance of the Study

The government of Newfoundland and Labrador realizes that it needs to focus increasing attention on meeting the health and other service needs of Newfoundland seniors. Government has already taken steps to change the status of long-term care in the St. John's region through the initiation of a single point of entry to ensure a more efficient and coordinated system of access to institutional long-term care. In addition, a single

management board for all nursing homes has been put in place. The accurate identification of the differing care needs of institutional long-term care applicants in the St. John's region will contribute to the planning of residential and other long-term care services and at the same time reducing inappropriate nursing home admissions.

CHAPTER II

REVIEW OF LITERATURE

Use of long-term care resources could be made more appropriate by improving the placement decisions before an individual's assignment to a long-term care facility. This depends on the ability to determine appropriate level of care, based on true level of need. At present these determinations are usually made implicitly, using relatively broad guidelines. Both appropriate level of care and placement decisions could be greatly improved if the decisions could be made in an objective and reproducible manner, based on data easily collected from client assessments and supporting documentation.[10]

To classify need in the elderly, a review of the available literature was undertaken. The major foci of the literature reviewed were: (a) research on methods used for assessment of functional need for long-term care services; and (b) studies that determine factors used to make decisions regarding long-term care placement. The review is not exhaustive, however, the literature reviewed assisted in the development of a simple and understandable classification method to group clients according to their care requirements.

2.1 Geriatric Assessment Tools and Determination of Need for Long-Term Care

The conceptualization and operationalization of "need" poses a serious problem that must be resolved to determine whether resources are allocated appropriately. A variety of factors, including population aging, has led to changes in the care needs of the

population. While correct diagnosis and treatment are necessary, they are insufficient to address the health needs of the frail elderly. A concise, systematic approach to functional assessment is therefore required.[11] One must examine a series of indicators of various domains of physical, psychosocial and social functioning to understand clearly their needs, or at least their resource requirements.[12] Provision of appropriate long-term care services is influenced by assessments in several areas of functional ability including physical, cognitive and social dimensions. Scarce resources have accelerated the design of assessment tools to aid in decision-making regarding need and levels of health care services for the dependent elderly.[13]

There is an abundance of measures of functional ability in the elderly published in the scientific literature. Virtually all of the health assessment and screening tools have been refined from initial work by Katz and colleagues done in the 1960's.[14] These instruments rate an elderly persons' ability to perform "activities of daily living" or ADLs.[15 16 17 18] Activities of daily living encompass tasks related to care of the body and include such activities as bathing, feeding, ambulation, toileting, and dressing. Many assessment tools now incorporate additional scales to gather information on more complex activities, such as managing finances or doing housework, and are known as instrumental activities of daily living or IADL. All of these functions are defined in terms of independence, or lack of assistance, with assistance defined as active physical assistance, to directive assistance, or supervision. Phillips [19] studied 30 measures of dependency in old people and found that they all contained five specific measures:

activities of daily living; mobility; orientation; social integration; and less frequently, emotional dependency. Multidimensional assessment instruments can be used to understand the full range of potential care and service needs of the elderly and has the potential to make more objective the process of determining the proper placement of clients.[20] However, to date, relatively little regarding unmet need for long-term care services has been reported in the literature.

2.2 A Review of Selected Multidimensional Assessment Instruments

Physical frailty and disability in the elderly have been defined and measured in a variety of ways. The selection of instruments should depend on the population being studied and the purpose of the assessment. Appropriate measurement of disability can provide a great deal of important information on the health status and health care and service needs of the older population.

Multidimensional assessment instruments have been used for three primary types of research problems: needs assessment, quality of life determinations, and outcome measurement in intervention studies.[21] In this section, 6 multidimensional assessment instruments are reviewed. Several criteria were used in selecting them. First, the instruments provide information about the broad range of functional dimensions relevant to understand the full range of potential service needs of older adults (e.g., personal care as well as health care). Second, these instruments were designed for older adults, for institutional as well as community residents, and focus on relatively objective data about the respondent. Third, the conceptual foundations and scope, as well as the intended uses of the instruments reviewed are similar, namely, the amount of assistance required from others as the frame of reference in the assessment of functioning. It should be recognized that the methods and instruments used to estimate functioning can not completely distinguish physical functioning from other domains of functioning. For example, the inability to perform self-care activities such as dressing and bathing may result from physical, cognitive, and/or sensory dysfunction.[22]

A study conducted in 1981[23] set out to test the usefulness of a functional assessment instrument, namely a modified Barthel Index, and other instruments as a means of measuring and understanding individuals' personal care needs. The premise for this study was that the "ability or inability to maintain independent living is the principal determinant of need." The authors also recognize that the lack of physical function alone does not dictate need for service delivery from an outside agency. Such factors as the availability of informal support and psychological characteristics must be considered when assessing client need so these were measured as well. One of the pitfalls of the paper had to do with the instrument used to measure need, Granger's modified Barthel Index was initially developed to measure the functional ability of patients during rehabilitation, it is not clear whether this same instrument can be used to measure need for services in the home setting. In addition, the definition of care needs in this study primarily address the need for human physical assistance and the assistance requirements of the cognitively impaired which makes up a large portion of the elderly population, are more often for supervision and cueing.[24]

According to Salamon,[25] the difficulty in determining levels of need and methods of assessing them are, in part, related to the most basic assumptions of assessment which implies that a single continuum of functionality exists. This assumption is an apparently erroneous one as can be seen in the variety of assessment techniques and their differing focus. As a result, Salamon suggests that a more productive approach to the issue of providing appropriate care is to separate physical from psychosocial needs when

performing functional assessment and to rearrange them into a matrix. Using this method, the physical needs would be defined as the client's medical requirements, 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 social and economic resources as well as type and degree of mental impairment such as cognitive defects and behavioural problems like antisocial behaviour. Different types of client care needs would fit different cells of the matrix. Different cells can, in turn, represent differing types of interventions. This model attempts to bring some objectivity to the assessment process yet it still requires the consideration of various client characteristics. This matrix of care suggests a positive relationship between level of need and level of care, as need increases, level of response is available and can react appropriately. The concept of a broader view of assessment can only lead to a better understanding of a client's care needs and better response to them, but Salamon makes no mention about what to include in each cell of the matrix and how to measure function.

The Province of Alberta uses a similar matrix approach to determine the level of care of persons residing in long-term care institutions in the province. In 1988, the Alberta government, introduced a patient (now called resident) classification system (RCS) to serve two purposes: 1) to measure the care requirements of residents in long-term care facilities; and 2) provide case-mix information so that funding could be based on resident need rather than a system of global funding.[26] Clients are classified into seven categories (A-G) reflecting nursing care requirements where A represents the most

independent and G the most dependent levels of need. The categories were derived from the interrelationship among ADL, behaviours of daily living (BDL) and incontinence levels of care (CCL). These three 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 clients are admitted to long-term care facilities. Although the RCS was not developed for policy and planning purposes it is believed that the classification data obtained from using this system may be useful to serve these two purposes.[27]

Following the implementation of the Resident Classification System, the Alberta government developed the Home Care Client Classification (HCCC) System to measure the Home Care needs of long-term care clients in the Province of Alberta.[28] The classification process is integrated with the assessment process and is based on an analysis of functional need and the adequacy of informal support. Needs that cannot be met by informal support are identified as requiring intervention by Home Care or other community agencies. To provide the opportunity for cross-sector comparisons, the functional need indicators selected for the HCCC system were the same as those used in the RCS. A translation paradigm was developed to score the Alberta Assessment and Placement Instrument for Long Term Care indicators consistent with the RCS indicators. In addition, the assessment involved scoring the willingness, availability and capability of the informal support network to meet the client's particular needs on each specific functional need indicator. The informal support scale was tested for validity separately

and in the professional opinion of the assessors there was 87% acceptance of the informal support classification. The validity of using unblinded professional opinions of the assessors as a criterion for validity is questionable. Part of the validity study also involved calculating the relationship between the HCCC System and the Easley-Storfjell patient classification instrument for Home Care, as adapted by Alberta conditions. The correlations of the informal support classification with the adapted Easley-Storfjell were low. This was not surprising since the Easley-Storfjell instrument was designed to assess the needs of the client and the informal support system from professional caregivers, not to assess the availability of informal support. Using Cohen's Kappa inter-rater reliability on both the functional need and informal support classifications was "moderate". Based on these tests it is unclear how the researchers could conclude that "as a whole, the system proved to have high reliability." At the same time, it was demonstrated that the system was positively related to such criteria as resource use and functional need.

Fries and Cooney[29] conducted a study in the United States involving 1,469 residents in Connecticut nursing homes in order to provide a methodology to describe and measure the resident case mix of long-term care facilities and their resource use. This measurement would enable prospective pricing methodologies to be linked to a case-mix classification system. This classification system relates resident characteristics to resource use and partitions skilled nursing facility patients into nine Resource Utilization Groups (RUGs), each of which contains residents relatively homogeneous for their care needs, in particular, the requirement for nursing time to meet these care needs.[30]

The latest version of RUGs, the RUGs III system, incorporates up to three dimensions in describing a resident. The first dimension indicates one of seven major characteristics of nursing home residents: 1) special rehabilitation; 2) extensive service; 3) special care; 4) clinically complex; 5) cognitive impairment; 6) behaviour problems; and 7) reduced physical function). The second dimension is an ADL index, a summary measure of functional capability, produced by combining four ADL measures (toileting, eating, bed-to-chair transfer, and bed mobility). The final dimension describes particular services (such as nursing rehabilitation) or problems (such as resident depression).[31]

In summary, formally derived assessment instruments may be useful aids in determining level of long-term care needs and deciding where best these needs can be met. In the case of nursing home placement decisions, they could be particularly useful in determining the need for nursing home admission. It should be noted here that the area has been mainly driven by policy needs, with science taking a back seat, and the degree of validity of the instruments used is unknown. The next section focuses upon the literature pertaining to decision-making techniques and instruments used for determining appropriate long-term care placement.

2.3 Decision-Making for Appropriate Placement in Long-Term Care

The majority of articles reviewed stated that a thorough medical, nursing, and social evaluation is essential for the appropriate placement of chronically ill and aging persons for whom institutional care is being considered.[32 33] The problem is that there are no clearly defined guidelines or methods for placing clients within long-term care.[34 35] As a result, there has been an ongoing search for a method by which the dependency of a population can be measured. Researchers and planners have attempted to develop classification tools to define the quality of dependency in ways which will help them assess the need for nursing home care and identify those who may benefit from other care facilities and services.[32 33 36]

Quartararo and others [33] conducted a study to provide a model of prediction that can be used to correlate the level of client need with placement in the long-term care system. Using logistic regression analysis, the authors found that a combined score on both the Barthel Index of Activities of Daily Living (ADL) and the Mini-Mental State Examination (MMSE) were significant predictors of a multidisciplinary team's decision for nursing home care. A low Barthel score, that is, a high level of physical dependence, was sufficient to classify subjects for nursing home care whether or not dementia or cognitive impairment was also present. In the case of high Barthel scores, however, the decision was dependent on this information. It was found that the combination is important in determining a requirement for nursing home care. The limitations of these data are that they can only be used to predict a decision for nursing home care, and that

the team's decision for nursing home care and assessment findings must be accepted as "gold standards". In addition, the decision for nursing home care would be influenced by the range of care available in the region and logistic regression analysis does not define the structure of the decision-making process. Until outcomes of decisions based on the test are evaluated, the generalizability of the combined score is limited. However, the research done by Quartararo and others suggests the potential usefulness of a classification method to provide objective support for decisions regarding long-term care placement and thus provided the current study with a rationale to develop a continuous measure for classification of nursing home care needs, including the prevention of inappropriate nursing home admission.

Based on the data from the aforementioned study by Quartararo et al., another group of researchers lead by Quartararo,[37] developed a classification tree for decision making in long-term care. This retrospective study examined data for their predictive ability for the outcome of interest, in this case, a decision for nursing home care or other care. The best performing tree was based on a combination of the Barthel and Mini-Mental State scores.

Kane et al.[10] collected comprehensive data on 3,579 residents in Baltimore nursing homes in an attempt to explain the implicit level-of-care judgments made by various health care professionals. The authors were motivated to seek better ways of making these judgments. Two approaches were used to fit the resident data to the level of care judgments: several versions of an algorithm adapted from a utilization review

scheme based on simple clinical criteria and a series of mathematical equations based on logistic regression. Both approaches yielded comparable results. The equations based on logistic regressions could correctly classify 86 per cent of those needing skilled care and 63 per cent of those not needing such care compared with 71 per cent and 69 per cent for the best variation of the algorithm respectively. The logistic regression method showed that four predictor variables were found to be accurate predictors of a skilled level of care judgment. The four variables used were 1) the total number of functional limitations or problems experienced by the client; 2) the number of skilled nursing procedures used; 3) the number of rehabilitative therapy procedures being used; and 4) the number of medications prescribed. The mathematical model described in this study can offer a means of making a very reliable preliminary screening judgment. However, models such as these are difficult to use and understand by professionals making the decisions.

In 1977, the New York State Health Department mandated the DMS-1, a patient evaluation form used as a rating tool for decisions related to proper placement of individuals in both intermediate care (on-going supervision but not at the level provided in a skilled nursing facility) and skilled nursing facilities. The form assesses functioning in five broad areas: nursing, functional status, mental status, level of impairments, and need for rehabilitation. Individuals receive "points" for their care needs. If a patient scores above 180 points, he or she is a candidate for a skilled nursing facility. Scoring 179 or below makes the patient a candidate for a health-related facility. This form is, however, of questionable utility in appropriate client placement. A major drawback is

that an individual can be recommended for skilled nursing care based exclusively on mental or physical impairments so as a result, there is not distinction between the individual needs of the clients. [25]

2.4 Summary

There is agreement in the literature that the assessment of an applicant's needs requires a multidimensional approach and this multidimensionality is obtained by deciding which areas to cover, deciding for each area which topics to include and, finally, deciding how best to aggregate the information gathered within each area. Despite the great amount of effort which has gone into the development of functional assessment tools, the various techniques often have different foci and yield different interpretations of older adult's needs.

There is no doubt that there is a relationship between dependency and need, although the dependency levels of clients cannot be used in isolation as evidence that their needs cannot be met in a variety of settings.[38] The dependency scale must also measure social dependency. There are two dimensions to 'social dependency'. The first is related to the physical dependency of the individual. The second is more complex, and reflects the needs of the individual to be in contact with society.

CHAPTER III

DESIGN AND METHODS

3.1 Introduction

It is obvious that a systematic long-term care needs assessment is essential for the future development of programs in continuing care in the region. It became apparent from the review of the literature that the factors used to determine need were those that reflect the major type of care required by long-term care clients with functional problems that prevent independent living and result in admission to long-term care facilities. In assessing the care needs of dependent elderly people, issues of priority are important, and it was thought that a classification method could assist in providing objective support for decisions. Included in this chapter are sections on the research design, sample selection, the study populations, ethical issues, the instruments, the data collection procedure, and methods of data analysis.

3.2. Research Design

An inception cohort of new clients and a cross sectional group of clients on the waiting list were assessed to determine appropriate placement options for clients entering long-term care, using validated scoring systems to measure needs.

Each study subject was assessed on three major categories (a) home support; (b) clinical need for professional care provided in a nursing home and; (c) degree of disability. We evaluated:

- the needs of the clients awaiting institutional placement;
- appropriateness of client placement;
- annual demands on the long-term care sector;
- proportion of acute care beds occupied while awaiting placement;
- time to placement.

3.3 Sample Selection

All clients, meeting the inclusion criteria, who were entered on the waiting list via the St. John's Single Entry System for institutional placement during the year 1995/96, were assessed, as were all clients on the waiting list at one instant in time (May 14, 1996).

Inclusionary criteria

- contacted Community Health St. John's Region for institutional placement and subsequently assessed.

Exclusionary criteria

- precautionary applications;
- transfers from one long-term care institution to another; or
- there was missing data in their chart;

3.4. Study Populations

3.4.1 Waitlist Cohort

A register was obtained from Community Health St. John's Region of all clients on the waiting list for long-term care placement on May 14, 1996. The total number of

cases on the register was 181 and almost all of them were included in the final analysis (Figure 3.1).

3.4.2 Cohort to Determine Annual Incidence

A list containing all of the clients seeking placement in the institutional long-term care sector for the year beginning February 20, 1995 and ending February 20, 1996 was obtained from Community Health St. John's Region. 158 of the clients were excluded for a variety of reasons leaving 91% of the study population to be analyzed (Figure 3.2).

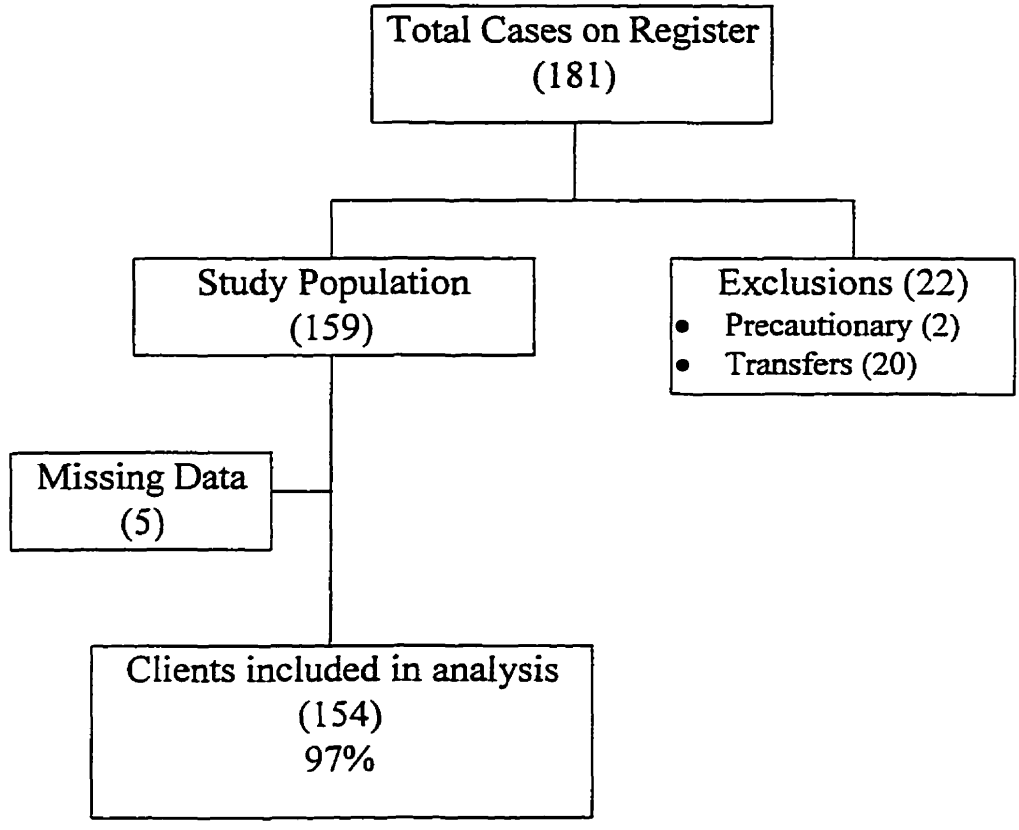


Figure 3.1 Waitlist Cohort Study Population (n=154)

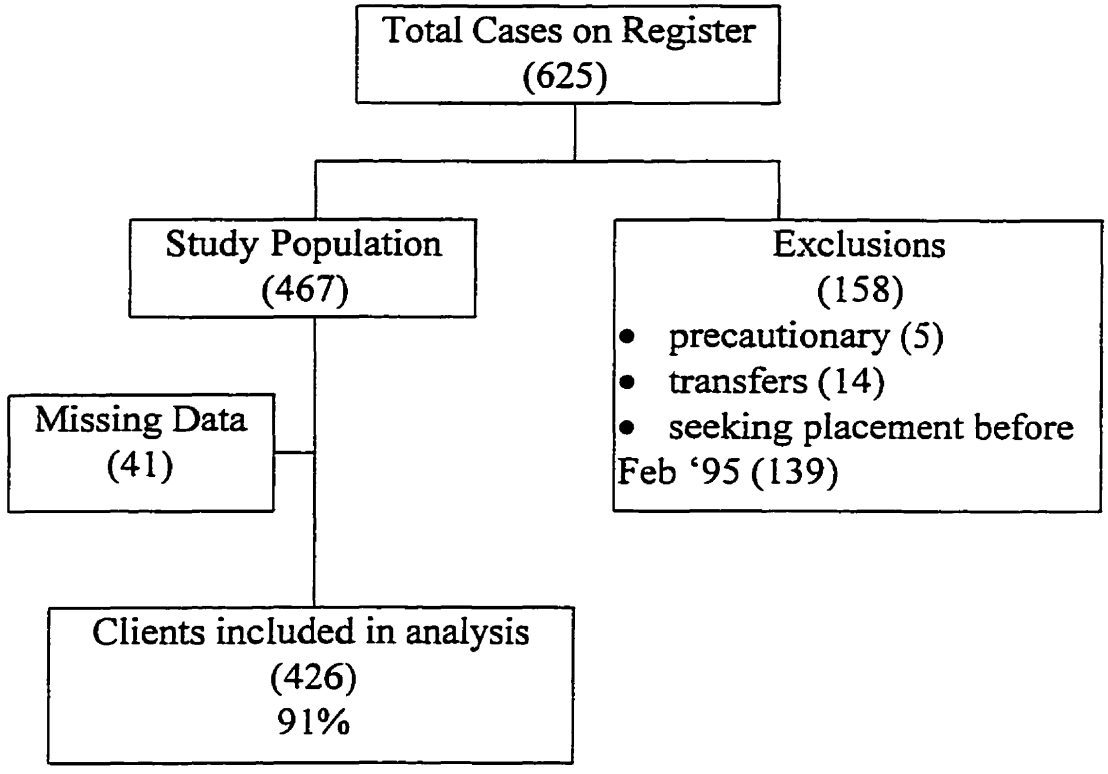


Figure 3.2. New Clients Entering the LTC Sector Annually-Study Population (n=426)

3.5 Ethics

This study was approved by the Human Investigations Committee at Memorial University of Newfoundland. Informed consent of clients was not required because their information was obtained through chart abstraction without client participation. However, confidentiality was maintained by not using client identifiers on any study documents or reports.

3.6 Research Instruments

3.6.1 Data Collection Instrument

A data collection instrument (Appendix B) was developed for this study that combined key data elements from each of the client classification systems. This instrument was pre-tested by obtaining data from the single entry assessment form (Newfoundland and Labrador Continuing Care Assessment for Adult Long Term Care, NLCCA), to determine whether the necessary information was contained in the assessment form in order for the research team to assign a level of care using the new instrument.

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

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 incapacity. 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 used was that there is a linear relationship between the amount of resource use and care requirements. Alberta's Home Care Client Classification System is based on the assessment of 13 functional need indicators (Appendix C). This system utilizes these 13 key indicators to measure functional need and ranks need into 5 categories.

The informal support component of the HCCC involved scoring the willingness, availability and capability of the informal support network to meet the client's particular needs on each specific functional need indicator. This approach could not be used in the current study because the information was not available in the client's chart.

3.6.3 Resource Utilization Groups Version III (RUGs III)

As discussed previously, this classification system is based on the premise that a residents' functional status and major physical conditions explain the resource use in nursing homes. Thus the RUGs classification system groups nursing home residents by their characteristics so as to explain resource use (Appendix D). It assumes that these groups require the professional skills available in a nursing home.

3.6.4 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 which integrate problems with activities of daily

living (ADLs), continence and behaviour. This system uses 7 levels of care, with 1 being the lowest and 7 the highest. Each level is associated with increased resource utilization, as measured by nursing time equivalent per day (Appendix E).

3.7 Procedure

Once approval had been granted from the Human Investigations Committee of the Medical School all clients who were entered on the waiting list for institutional placement during the year 1995/96 and who met the inclusion criteria were assessed, as were all clients on the waiting list on May 14, 1996. All relevant information needed to determine appropriate placement, as well as background data were extracted and recorded on the Long-Term Care Classification Worksheet.

Long-term care decisions by the research team fell into the following four categories: nursing home care, personal care home, care at home and no care requirements identified. In Newfoundland, nursing homes provide 24-hour physical and supportive care, as well as nursing care. Most personal care homes provide limited physical care (usually assistance with personal care), maintenance services such as meals and housekeeping. Personal care homes provide intermediate care between nursing homes and home support services. Finally, care at home includes community services.

In order to place clients in the appropriate sector of the continuing care system, a simple and understandable classification method was used by the research team, to group clients according to their care requirements. Classification data were obtained from information contained in the earliest assessment form in a client's chart. Most clients

were assessed using the Newfoundland and Labrador Continuing Care Assessment for Adult Long Term Care (NLCCA), but information was also extracted from the Gander Long-Term Care Assessment Tool as well as the old version of the Newfoundland assessment instrument if this was the only information available. The assessment process began with a home care assessment adopted from Alberta's Home Care Client Classification (HCCC) System.[28] In addition to the scoring of the client's functional needs, the adequacy (availability, capability and willingness) of their informal support network was also assessed. Needs that could not be met by informal support were identified as requiring intervention by Home Care or other community agencies. If the adequate level of care needed could not be provided through any form of community services then institutional placement options were explored. Because there is no gold standard for nursing home placement in the country, medical care needs, requiring the professional skills available in a nursing home (including clients with large deficits in the ability to perform activities of daily living), comprised the critical criteria that differentiated the clients requiring nursing home care from the personal care home clients.[39] The clinical indicators were outlined by the case-mix classification system developed in the United States, the Resource Utilization Groups Version III (RUGs-III). Clients who required institutional care were then assigned a level of care based on the degree of disability, using scales which integrate problems with activities of daily living, continence and behaviour derived from the Alberta Resident Classification System.[26 31 40 41] This system uses 7 levels, with 1 being the lowest and 7 the highest. Each level is

associated with increased resource utilization, as measured by nursing time equivalent per day. The scores on the relevant indicators were translated onto the abbreviated worksheet. Figure 3.3 outlines the steps in the classification process.

Minutes from the Assessment and Placement meetings held at Community Health St. John's region were provided in order to obtain information regarding the status of each client's nursing home application i.e., time to placement, transferred out of region, withdrawal, et cetera.

The data from those on the waitlist were combined together with the annual expected demands for placement, and which together with the annual opportunities for placement provided an estimate of the current needs of the community for long-term care.

3.8 Analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics were used to describe the sample. Kaplan Meier distributions of the time to institutional placement for the different levels of care were constructed and were compared with the log-rank test statistic.

A comparison was made between the decisions of the research team and the Assessment and Placement Committee on the appropriateness of placement using cross tabulations. As well, the Kappa statistic (K) was used to measure agreement for appropriateness of placement. Landis and Koch's[42] guidelines for interpretation of kappa were used to evaluate strength of agreement between raters (Table 3.1).

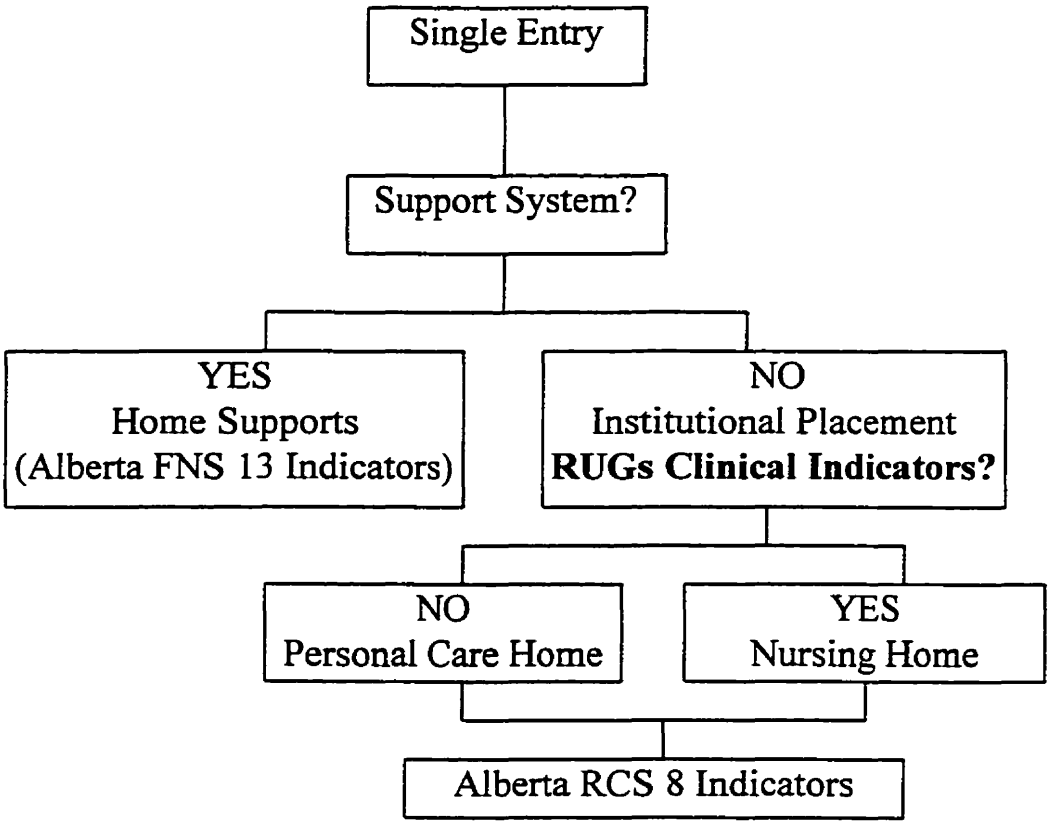


Figure 3.3 Client Classification

Table 3.1 Guidelines for Interpreting Kappa (K)

Value of K	Strength of Agreement
< 0	poor
0.00 - 0.20	slight
0.21 - 0.40	fair
0.41 - 0.60	moderate
0.61 - 0.80	substantial
0.81 - 1.00	almost perfect

CHAPTER IV

RESULTS

This chapter is divided into four major sections. The first section includes demographic information on the study populations.

The second section provides an estimate of the annual demands placed on the institutional long-term care sector in the St. John's region. This estimation is based on the need for nursing home and personal care home placement using the objective research criteria.

Thirdly, the efficiency of the system to place clients in a long-term care facility is addressed. Factors such as, residence at time of application and level of care will be reviewed for their effect on the waiting time to placement.

The final portion of the chapter deals with the appropriateness of client placement. This analysis will include a comparison between the research decision using objective criteria with the decision of the Assessment and Placement committee.

4.1 Client Characteristics

The demographic characteristics of both the waitlist and the annual incidence study populations are shown in Table 4.1. More than 60% of the clients in both populations were female and the average age for both was approximately 80 years. Most of the clients from both the waitlist and annual incidence cohorts were residing in their

own homes while awaiting institutional placement and were from the St. John's region. The majority of clients were seeking placement in a level 2 or level 3 nursing home bed.

4.2 Long-Term Care Needs Using Objective Criteria

4.2.1 Need for Nursing Home Placement

4.2.1a. *Waitlist Cohort*

According to the research criteria, about half of the 154 clients on the waiting list for institutional placement on May 14, 1996 had a clinical indication for placement in a nursing home because of impaired cognition, reduced physical function, behaviour problems or various medical reasons. The latter included such things as pressure ulcers, hemiplegia, and respiratory failure (Table 4.2).

The Alberta Resident Classification System was used to assess the clients recommended for nursing home placement by the research team to determine their level of care. Of the 73 applicants that the research team decided required the level of care provided in a nursing home, one-third received a score of 1-2 (1 being the lowest anticipated resource utilization), and only a small proportion had a score at the highest levels of care (score 6-7) (Table 4.3).

Table 4.1 Characteristics of Persons on the Waiting List (n=154) and Persons Applying for Long-Term Institutional Care Placement in One Year (n=426)

Variable	waitlist (n=154)	annual (n=426)
Mean Age, yr. (range)	81 (44-96)	80(32-101)
Female, %	62.3	63
Area of residence (%)		
St. John's	129(84)	346(81)
Eastern	20(13)	59(14)
Other	5(3)	21(5)
Location at application (%)		
Community	111(72)	227(53)
Acute care hospital	22(14)	139(33)
Chronic care hospital	11(7)	38(9)
Personal care home	11(7)	22(5)
Type of placement		
PCH/ nursing home level 1	55(36)	110(25.8)
Nursing home level 2, 3 & PCU	99(64)	314(73.7)
Adult/youth disabled	--	2(0.5)

Table 4.2 RUGs-III Clinical Indicators for Clients the Research Team Decided Needed Nursing Home Placement

Clinical Indicator	Waitlist - n (%)	Annual - n(%)
impaired cognition	26(35.6)	114(42.5)
reduced physical function	24(32.9)	78(29.0)
hemiplegia	8(11.0)	26(9.7)
aphasia	--	12(4.5)
respiratory/oxygen therapy	5(6.8)	8(3.0)
stasis ulcer	2(2.7)	--
terminal illness	2(2.7)	3(1.1)
pressure ulcers	1(1.4)	7(2.6)
aspirations	1(1.4)	--
internal bleeding	1(1.4)	--
urinary tract infection (UTI)	1(1.4)	3(1.1)
dialysis	1(1.4)	3(1.1)
wound care	--	3(1.1)
behaviour problems	1(1.4)	3(1.1)
tube feeding	--	2(0.7)
special rehabilitation	--	2(0.7)
burns	--	1(0.4)
septicemia	--	1(0.4)
dehydration	--	1(0.4)
pneumonia	--	1(0.4)
no clinical indicators	81(53)	158(37)
Total	154(100)	426(100)

Table 4.3 Resident Classification Level of Care Scores for Clients on the Waitlist the Research Team Decided Needed Nursing Home Placement (n=73)

Level of Care	n	%
1	7	9.6
2	15	20.5
3	12	16.4
4	20	27.4
5	6	8.2
6	12	16.4
7	1	1.4

4.2.1 b. *Annual Incidence Cohort*

A little over 60 % of the cases entering the long-term care institutions in the St. John's region during the past year required the professional care provided in a nursing home (Table 4.2). To get a sense of the specific needs of this group of applicants, the next section will describe the needs of clients awaiting placement during the year 1995/96 from their respective residences.

i) Clients Awaiting from the Community (53%, n=227)

The greatest proportion of the total population were awaiting placement to a long-term care facility from the community. 52% of the clients fit the research criteria for nursing home placement. Professional intervention was required for the following: impaired cognition, reduced physical function, behaviour problems, and various medical conditions. 34% of this particular group of applicants had levels of care scores of 1-2, more than half had scores ranging from 3-5, and a small number required the highest level of care with scores of 6 and 7 (Table 4.4).

ii) Clients Awaiting from Acute Care Facility (33%, n=139)

According to the researchers, almost three quarters of the total number of clients awaiting placement from acute care required professional care in conjunction with inadequate informal supports necessitating placement in a nursing home. Clinical indicators included reduced physical function, impaired cognition, behaviour problems, and medical indicators. Examples of the latter included such things as pressure ulcers,

Table 4.4 Resident Classification Level of Care Scores for Clients Entering the LTC Sector from the Community that the Research Team Decided Needed Nursing Home Placement (n=117)

Level of Care	n	%
1	4	3.4
2	36	30.8
3	20	17.1
4	31	26.5
5	15	12.8
6	9	7.7
7	2	1.7

hemiplegia and aphasia (Table 4.5). Of the 103 patients, approximately 10% had a level of care of 1-2 according to the Alberta Resident Classification System (RCS), 39 had a score of 3-5, and a little more than half a score at the highest level of care (6-7) (Table 4.6).

iii) Clients Awaiting from Chronic Care Facility (9%, n=38)

There were only 38 clients awaiting institutional placement from a chronic care facility. Again, impaired cognition, reduced physical function, and medical conditions precluded more than 75% of the population to need nursing home level of care (Table 4.7). Of this group, 45% had scores of 6 or 7 (Table 4.8).

iv) Clients Awaiting from a Personal Care Home (5%, n=22)

There were 22 clients seeking placement in a nursing home that were residents in various personal care homes in 1995-96. 19 applicants possessed a clinical indication to warrant placement in nursing home (Table 4.9).

4.2.2 Need for Personal Care Home Placement

4.2.2 a. *Waitlist*

Fifty three per cent of the waitlist population did not have a clinical indication for admission to a nursing home and a very small number of these had no measurable functional needs (Table 4.10). There were approximately 20 applicants who had minimal disability such that it was considered by the research team that the client could be maintained at home. One third of the study population needed supervised care and thus

personal care home placement was recommended. The majority of these latter group had low Alberta Resident Classification Level of Care scores (Table 4.11).

Table 4.5 RUGs-III Clinical Indicators of Clients Entering the LTC Sector from an Acute Care Facility that the Research Team Decided Needed Nursing Home Placement (n=103)

Clinical Indicator	n	%
reduced physical function	39	37.9
impaired cognition	24	23.3
hemiplegia	15	14.6
aphasia	8	7.8
respiratory therapy	3	2.9
special rehabilitation	2	1.9
tube feeding	2	1.9
dialysis	2	1.9
wound care	2	1.9
burns	1	1.0
pressure ulcers	1	1.0
dehydration	1	1.0
pneumonia	1	1.0
terminal illness	1	1.0
behaviour problems	1	1.0
Total	103	100

Table 4.6 Resident Classification Level of Care Scores for Clients Entering the LTC Sector from an Acute Care Facility that the Research Team Decided Needed Nursing Home Placement (n=103)

Level of Care	n	%
1	4	3.9
2	7	6.8
3	10	9.7
4	19	18.4
5	10	9.7
6	52	50.5
7	1	1.0

Table 4.7 RUGs-III Clinical Indicators of Clients Entering the LTC Sector from a Chronic Care Facility that the Research Team Decided Needed Nursing Home Placement (n=29)

Clinical Indicator	n	%
impaired cognition	11	37.9
reduced physical function	9	31.0
hemiplegia	3	10.3
pressure ulcers	2	6.9
aphasia	2	6.9
septicemia	1	3.4
respiratory therapy	1	3.4
Total	29	100.0

Table 4.8 Resident Classification Level of Care Scores for Clients Entering the LTC Sector from a Chronic Care Facility that the Research Team Decided Needed Nursing Home Placement (n=29)

Level of Care	n	%
1	--	--
2	3	10.3
3	5	17.2
4	5	17.2
5	3	10.3
6	12	41.4
7	1	3.4

Table 4.9 RUGs-III Clinical Indicators of Clients Entering the LTC Sector from A Personal Care Home that the Research Team Decided Needed Nursing Home Placement (n=19)

Clinical Indicator	n	%
impaired cognition	7	36.8
reduced physical function	7	36.8
pressure ulcers	2	10.5
aphasia	1	5.3
hemiplegia	1	5.3
behaviour problems	1	5.3
Total	19	100

Table 4.10 Placement Decisions Made by the Research Team for the Waitlist (n=154) and Annual Incidence Cohorts (n=426)

Type of Placement	Waitlist (%)	Annual (%)
No need	11 (7)	15 (4)
Home Support	19 (12)	35 (8)
PCH	51 (33)	108 (25)
Nursing Home	73 (47)	268 (63)
Total	**154**	**426**

Table 4.11 Resident Classification Level of Care Scores for Clients on the Waitlist the Research Team Decided Needed PCH (n=51)

Level of Care	n	%
I	19	37.3
2	20	39.2
3	5	9.8
4	7	13.7
5	--	--
6	--	--
7	--	--

4.2.2 b. *Annual Incidence Cohort*

The population of people applying for institutional long-term care placement during 1995/96 that the research team recommended for supervised care was analyzed with respect to where the applicant was residing while awaiting placement.

i) Clients Awaiting from the Community

Close to fifty percent of the people awaiting placement in a long-term care facility from the community did not require professional care provided in a nursing home. 6% were identified as having no functional need, 12% could be cared for at home, and 30% required placement in a personal care home to meet their needs.

ii) Clients Awaiting from Acute Care Facility

Twenty six per cent of the total 139 patients awaiting placement from an acute care facility did not have a clinical indication for admission to a nursing home. 30 clients required personal care home level of care.

iii) Clients Awaiting from Chronic Care Facility

Almost one quarter of the patients at the Leonard A. Miller Centre in the St. John's region applying for placement in a long-term care facility did not possess a clinical indication for admission to a nursing home. 8 clients (21% of this population) required the level of care provided in a personal care home, and one patient could have been adequately cared for at home.

4.3 Appropriateness of Client Placement

Tables 4.12a and 4.12b describe the comparison between the panel and the research team for appropriateness of placement of clients along the long-term care continuum. There was agreement between the panel and research team in 80% of decisions concerning placement to level 2/3 nursing home beds. 20% of the applicants that the panel recommended for nursing home placement could have their needs met in a lower level of care (personal care home or home support). Interestingly, the research team decided that 12% of the applicants for long-term institutional placement could remain at home because no need was identified or home supports would suffice. In addition, of the 110 clients that the panel decided needed personal care home placement, 43% could have managed with home support or no need was identified according to the objective research criteria. The overall agreement using Cohen's Kappa was 0.52 (Table 4.13). It should be noted here that the St. John's Community Health Placement Committee does not deny an applicant institutional placement if it has been requested. In other words, if a client is seeking placement in a nursing home or personal care home, the panel does not pursue any alternative care options.

Table 4.12a **Comparison of Decisions Between the Placement Committee Panel and the Research Team for the Annual Incidence Cohort (n=426)**

	RESEARCHER				
PANEL	**No need**	**Home support**	**PCH**	**N H**	**Total**
No need	--	--	--	--	--
Home Support	--	--	--	--	--
PCH	15	32	47	16	110
Nursing Home	--	3	61	252	316
Total	15	35	108	268	426

Table 4.12b **Decisions Made by the Placement Committee Panel and the Research Team for the Annual Incidence Cohort (n=426)**

Decision	Panel	Researcher
No Need	**0**	**15**
Home Support	**0**	**35**
Personal Care Home	**110**	**108**
Nursing Home	**316**	**268**

Table 4.13 Agreement for Appropriateness of Placement Decision

Agreement Using Weighted Kappa	
Pairwise Comparisons (Panel vs. Researcher)	**Appropriateness of Placement Decision (CI)**
Annual Incidence Cohort	0.52 (0.48-0.57)

4.4 Demand for Long-Term Care in the St. John's Region

4.4.1 Need for Level 1 or Personal Care Home Level of Care

Assuming the research team, using objective criteria, identified the minimum needs and the placement committee, using more client-specific information, identified the maximum needs, the minimum number of people who need level 1 care each year is 118 and the maximum number is 120. These 120 clients were followed for 12 months from their panel date, 24 people (20%) came off the list because they either died while awaiting placement, or the applicant changed their mind regarding placement, or they were referred elsewhere (Table 4.14). Of the 96 applicants available for placement, 81 (84%) were placed in a level 1 facility, resulting in an annual deficit of 15 clients. However, when the number of clients requiring level 1 care as of May 14, 1996 was compared to that on May 14, 1997 the difference was negligible (57 vs. 58 respectively). As a result, the current rate of placement in level 1 care seems to be maintaining a balance between the demands placed on the system and the supply of beds.

According to Community Health, the number of clients who were actually placed in a level 1 care institution in the year 1995/96 was 80. Using this annual placement value of 80 and given that 81% of the clients on the waitlist during 1995/96 were from the St. John's region, the rate of placement of people requiring supervised level of care from the area was 3.4 per 1,000 population $\geq$ 65 years of age.

Table 4.14 Annual Demands for Long-Term Care in the St. John's Region*

Outcome at Follow-up	Nursing Home Care	Level 1 Care
Assessed for placement	344	120
Placed	243	81
Still Waiting	15	15
Deceased	40	7
Precautionary	30	13
Referred Elsewhere	16	4

* All values have been adjusted to account for missing cases

4.4.2 Need for Nursing Home Level of Care

Of the population of clients requesting institutional long-term care placement in the St. John's region during the past year, 293 clients were recommended for the level of care provided in a nursing home by the research team and the placement committee recommended 344 for nursing home placement. These 344 people were followed for 12 months, 25% (n=86) were removed from the waiting list because of death, referred elsewhere, and the status of the application was changed to precautionary (Table 4.14). Of the remaining 258 clients available for placement, 94% (n=243) were placed in a nursing home in the St. John's region, leaving 15 clients to be added to the waitlist at the end of the next year. When the number of people needing nursing home level of care on the waiting list on May 14, 1996 was compared to the waitlist on May 14, 1997, the result was that the number had actually decreased from 102 people to 92 people. Therefore, it appears that the demands for nursing home placement are not increasing but that the current rate of placement is actually keeping the system in balance.

According to Community Health, they placed 240 people in nursing homes in the St. John's region. Using this value, the rate of placement of people requiring the professional care of a nursing home from the area was 10.1 per 1,000 population $\geq$ 65 years of age. If objective criteria were used in conjunction with this rate of placement, the Committee would have been able to accommodate 16 more from the St. John's region.

4.5 Waiting Time to Institutional Placement

For an applicant seeking placement in a level 1 nursing home from the community, the average waiting time was 314 days. The median time to admission in a personal care home was 9 days, 142 days to a level 2 nursing home, and 66 days to a level 3 nursing home (Table 4.15 & Figure 4.1).

The median time to placement in a personal care home for clients in an acute care facility was 8 days, 100 days for level 2 nursing home and 85 days for level 3 nursing home (Table 4.15 & Figure 4.2).

Fifty per cent of the patients at a chronic care institution were admitted to a personal care home or a level 1 nursing home within 5 days of paneling. The median time to level 2 nursing home placement was 174 days, and 84 days for level 3 nursing home (Table 4.15 & Figure 4.3).

Median time to nursing home placement (level 2/3) was not significantly different for clients residing in the community or an acute care hospital, yet 46% of clients awaiting from hospital had very high level of care needs versus 8% with the same needs from the community (Figure 4.4).

The rapid placement of clients in personal care homes implies that there is an overabundance of personal care home beds. Level 1 nursing home beds accept the same type of client as personal care homes, but are available only in the city of St. John's. The long time to placement implies a deficit of these beds.

It is important to note here that the level of care assigned to each client at initial paneling was used in the analysis of the time to placement and some clients may have changed their level of care while awaiting placement, which in turn may have affected the time to placement.

Table 4.15 Median Time to Placement in Long-Term Care

	n	Days
From the Community		
PCH	33	9
Level 1 Nursing Home	47	314(mean)[†]
Level 2 Nursing Home	56	142
Level 3 Nursing Home	91	66
From Acute Hospital		
PCH[*]	21	8
Level 2 Nursing Home	20	100
Level 3 Nursing Home	96	85
From Chronic Hospital		
PCH/Level 1 Nursing Home	5	5
Level 2 Nursing Home	3	174
Level 3 Nursing Home	30	84

[†] The mean was reported here because 50% of the clients waiting for level 1 nursing home placement had not been placed during the follow-up time period.

[*] 2 applicants were awaiting placement into a level 1 nursing home and 1 was placed in 8 days while the other client was placed after 114 days.

Figure 4.1

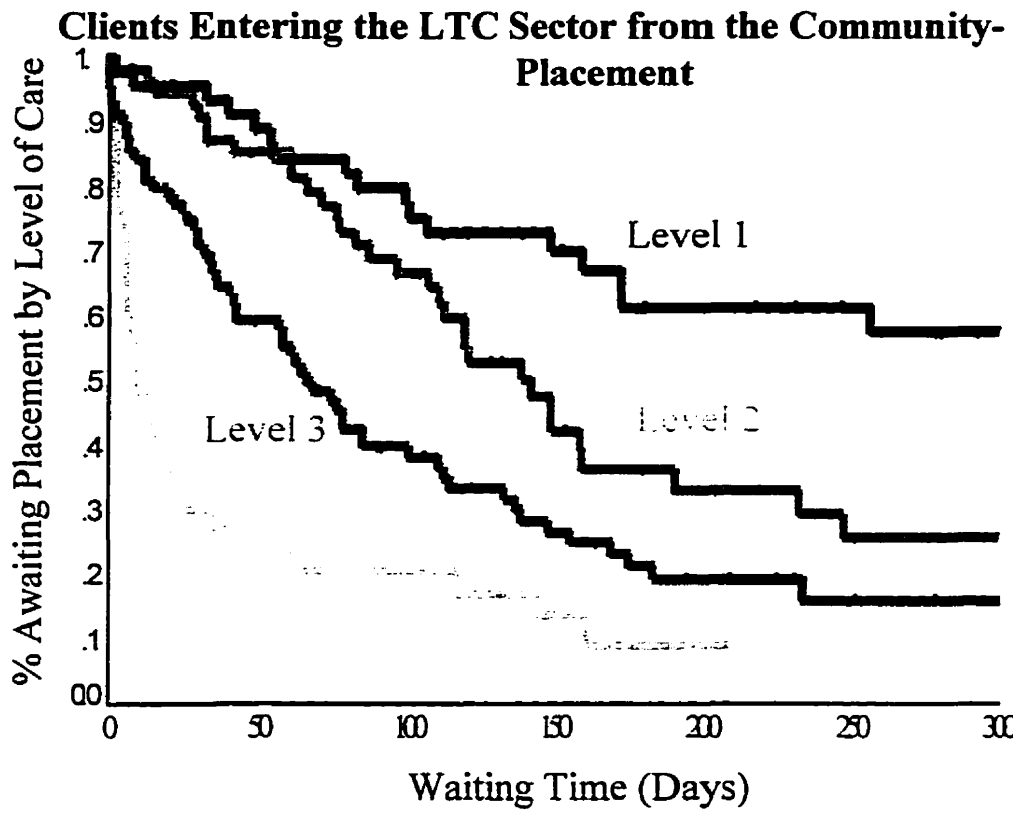

Clients Entering the LTC Sector from the Community- Time to Placement
% Awaiting Placement by Level of Care
1
.9
.8
.7
.6
.5
.4
.3
.2
.1
00
Level 1
Level 2
Level 3
0
50
100
150
200
250
300
Waiting Time (Days)

Figure 4.2

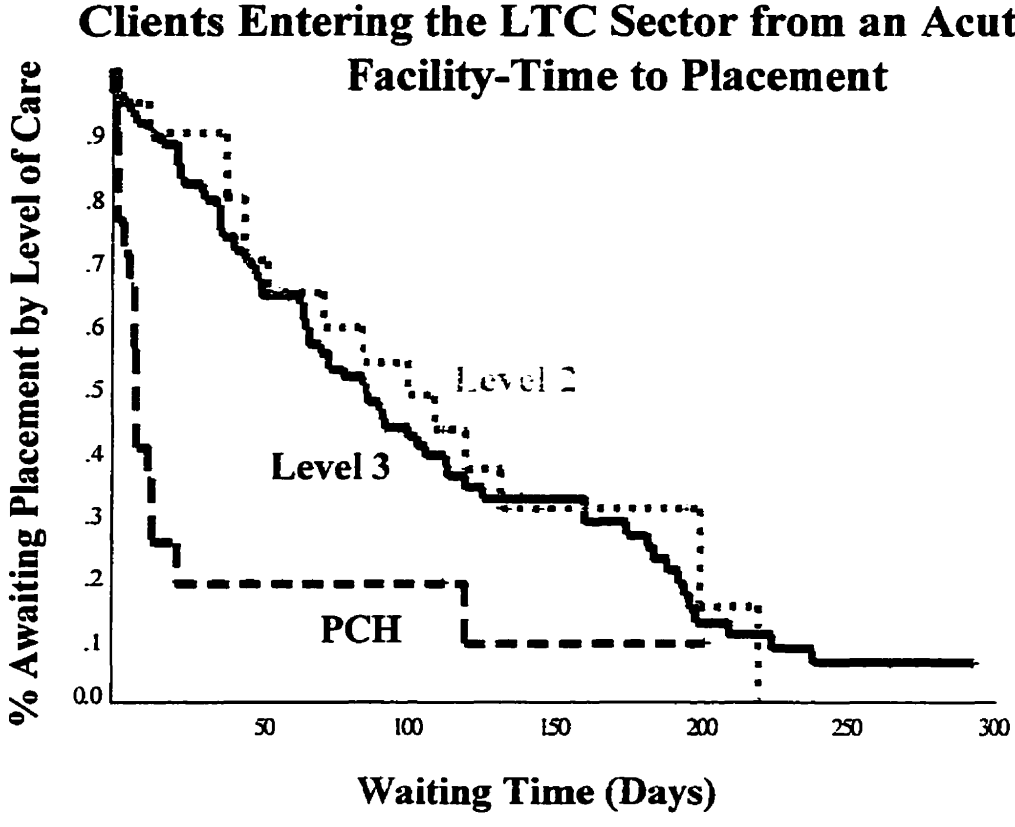

Clients Entering the LTC Sector from an Acute Care Facility-Time to Placement
% Awaiting Placement by Level of Care
.9
.8
.7
.6
.5
.4
.3
.2
.1
0.0
Level 2
Level 3
PCH
50
100
150
200
250
300
Waiting Time (Days)

Figure 4.3

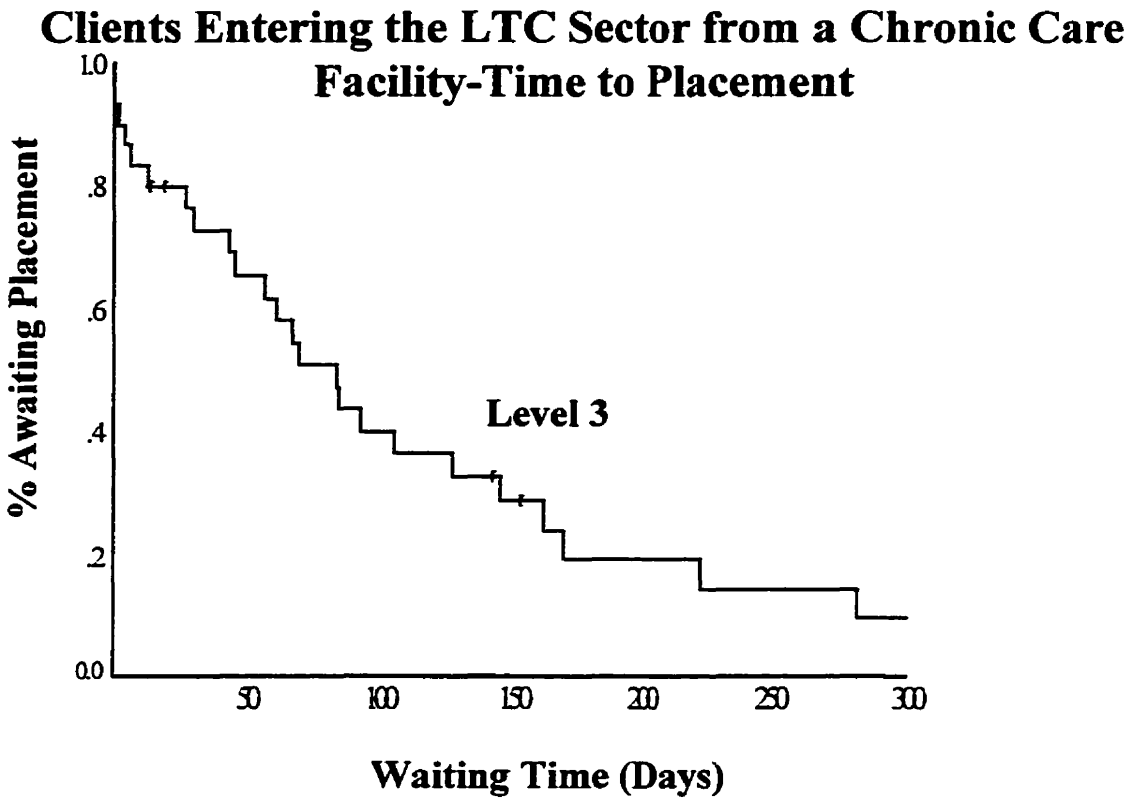
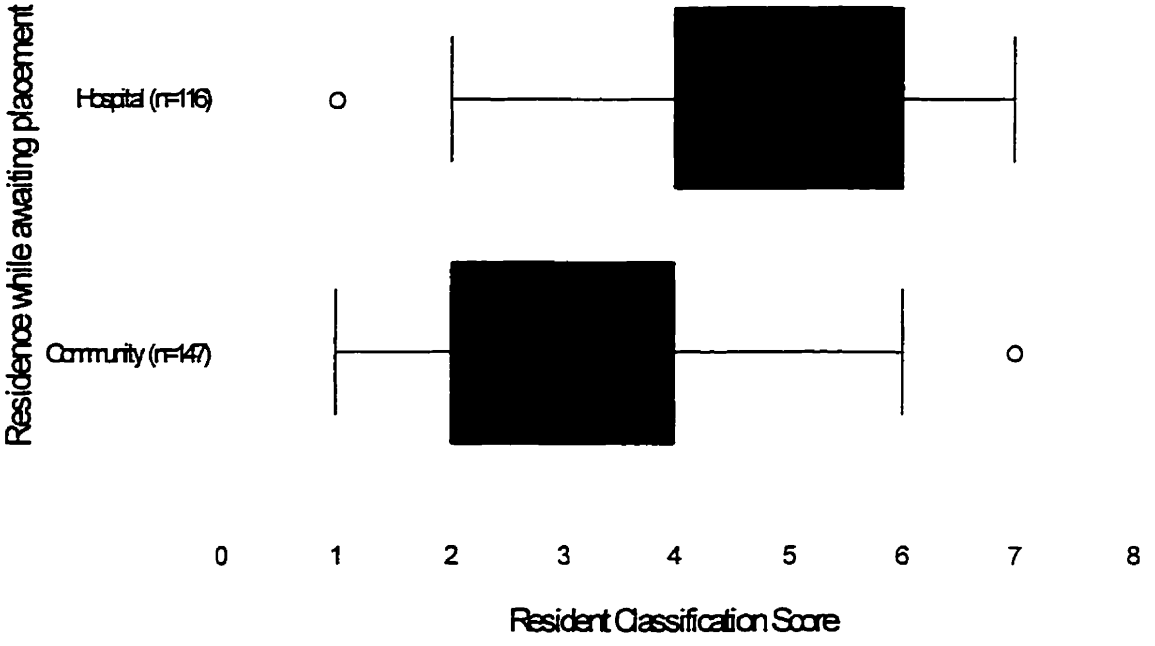

Clients Entering the LTC Sector from a Chronic Care Facility-Time to Placement
% Awaiting Placement
1.0
.8
.6
.4
.2
0.0
Level 3
50
100
150
200
250
300
Waiting Time (Days)

Figure 4.4 Box Plot Distribution of Resident Classification Scores for Clients Awaiting Long-Term Care Placement from Hospital and from Community.



4.6 Occupancy of Acute Care Beds

Of the 426 who were recommended for placement within the continuing care system in the year 1995/96, 139 (33%) clients occupied acute care beds while awaiting placement. With a median time to placement in long-term care of approximately 3 months from an acute care facility, then 35 acute beds on average were occupied by clients awaiting placement, amounting to less than 4% of acute care beds in the city. On the day the waiting list was assessed, 22 acute care beds were occupied by people awaiting long-term placement.

CHAPTER V

DISCUSSION

The purpose of this study was to assess the annual needs of clients entering the long-term care sector and of clients on the waiting list, to provide a foundation for current and future planning.

In this chapter, methodological considerations associated with the study will be addressed, followed by a description of the peculiar structure of nursing homes providing level 1 care in the St. John's region. Next, a discussion of the issues arising from the study will be highlighted, and the last section of this chapter will provide an overview of various long-term care systems both internationally and nationally to provide a means with which to compare that of the St. John's Region.

5.1 Methodological Considerations

This study used secondary data sets and as such has some serious limitations. The selection of which data to collect and the quality of the data gathered are predetermined.[43] As a result, there are several methodological considerations to be examined in relation to this study. They include; the limitations in determining adequacy of informal supports, the variability in the quality of recording information by different assessors, difficulty in determining accurate score on the memory indicator, the objectivity and subjectivity of the placement decisions, and reliability of the research teams' decisions.

5.1.1 Limitations in Determining Adequacy of Informal Supports

Determining whether an applicant could remain in the community or whether a person needs to be institutionalized was dependent on the willingness, availability and capability of the informal support network to meet the client's particular needs. The problem lies in the fact that the NLCCA document was not designed to adequately evaluate the level of informal support provided to the client to describe the gap between the clients' needs and the ability of the support system to meet those needs. The adequacy of the support system of each client was determined by reading any and all narratives recorded in the assessment instrument in an attempt to piece together the social situation of each applicant. It is certainly possible that the assessment panel had more client-specific information available than was recorded on the assessment document.

5.1.2 Variability in the Quality of the Data Collected

The NLCCA is completed for all persons accessing the Single Entry System through Community Health St. John's Region for long-term care services. There are many different people from a variety of disciplines doing the assessments. As a result, the quality of the information recorded on the assessment form is also variable. In addition, inaccurate and imprecise information is an insidious problem when more than one person is involved in the measurements. This potentially could be a problem in this study since errors in the data cannot be detected.[44] However in the vast majority of cases we had little difficulty in completing the relevant scores.

5.1.3 Difficulty in Determining Accurate Score on Memory Indicator

The 13 functional need indicators used to determine the home care needs of the applicants are measured using an ordinal scale for each indicator. The NLCCA document uses the Canadian Mental Status Questionnaire which consists of eleven (11) questions testing rote memory, awareness of current events, and mathematical ability to assess memory. As a result, it was difficult at times for the research team to translate the information from the questionnaire to the ordinal scale for the memory indicator as it is presented in Alberta's Home Care Classification manual.

5.1.4 Objectivity vs. Subjectivity of Placement Decisions

The objectiveness of the long-term care placement decisions by the research team in this study is a point of possible criticism. In particular, the placement decision excluded the element of choice for individuals placed and as such does not encompass some important quality of life measures. In addition, there are barriers i.e. geographic or inability to purchase private care, to the equal accessibility and availability of long-term care services that would undoubtedly necessitate an element of subjectivity in the decision-making process. However, for the purpose of this study, the matching of client care needs to the appropriate services to meet those needs, using the objective research criteria reveals the existence of a demand for particular services which policy makers could use in planning for the future. Some of these limitations may be overcome by assuming that the placement committee's decisions provide a measure of maximum need

and the objective criteria derived from the research provides a measure of the minimal need.

5.1.5 Reliability

Inter-reliability for the classification process used by the research team to determine the needs of clients was not estimated and as a result is a limitation of the study in terms of demonstrating objectivity.

5.2 Peculiar Structure of Nursing Homes in St. John's Region

Long-term institutional care may be delivered by nursing homes or by personal care homes. In St. John's, the nursing homes have been responsible for institutional care, whatever the level of care required. Nursing homes in the city offer a range of long-term residential services including medical services, nursing, rehabilitation, social work, pastoral care, dietetics, pharmaceutical services and recreational services. They provide care to adults who are chronically ill and/or have a functional disability requiring nursing and medical supervision. [5] Despite this, a number of nursing homes in the St. John's region admit clients who require low levels of care because there are no personal care homes and in some nursing homes the structure of the buildings themselves is unsatisfactory to accommodate heavy long-term care.

5.3 Issues Arising from Study and Possible Solutions

5.3.1 The Current Balance Between Supply and Demand

The results chapter contains an evaluation of the annual demands placed on the long-term care sector for institutional placement, which indicates that the demands are being met by the current rate of placement. This is contrary to the initial predictions. It is likely that recent reorganization of the single entry system has optimized the type of client being admitted to institutional care. One hypothesis is that those who are admitted to a long-term care facility are remaining in the institutions for only short periods of time, i.e., residents are dying quickly after admission. A study is in progress to determine the mortality of the cohort in the current study.

It is important to remember that even the maximum number of people requiring placement here is conservative because it assumes that the demand equals the need e.g., all who required institutional care accessed the single entry system. For example, the current unemployment rates in Newfoundland may have resulted in more family members becoming available to provide informal support which in turn reduces the number of people seeking institutional placement. Despite the current efficiency of the long-term care system, one can expect the problem to become different as the system attempts to accommodate for the projected demands of an expanded elderly population.

5.3.2 Waiting List Management for Institutional Placement

In this era of ever-decreasing health care resources, health care providers are often unable to immediately meet the needs of everyone who require care. In any situation

where resources are inadequate to meet needs, many fundamental ethical issues arise surrounding the management of the waiting list, in addition to the question of allocation: among those waiting, who will receive care? One answer is to serve those who have been waiting the longest, adopting a first-come, first-served approach to waiting list management. An alternative is to allocate resources on the basis of need, providing care first to those who need it most. Many considerations including patients' needs and preferences, nursing homes' requests, utilization of health care (inappropriately placed patients) and bargaining tactics all contribute to 'a melting pot for conflicting demands'.[45] Thus, the challenge facing health care administrators is to choose among various models of waiting list management.[46]

Upon first glance, the time to placement curves (Figures 4.1, 4.2 & 4.3) provided in the results section seem to suggest that the length of time waiting for nursing home admission appears to correlate with indicators of need in long-term care clients. This may not always be the case. A client deemed priority by the panel because of their functional needs or living situation, may not be considered as priorities by facilities. For example, some nursing homes may use attached seniors housing as a source of new residents with lower care requirements than those on a priority waitlist. Homes may also make special arrangements to allow residents of attached seniors housing to bypass the regular admission process. This indicates that a supposed priority system is not necessarily admitting clients strictly on the basis of care needs or social support.[4]

MANITOBA

Manitoba was the first province to treat nursing home beds as a scarce resource and the waiting list for placement as of March 31, 1996 contained 1,329 persons.[47] Only assessed need determines admission, and only priority of need, aside from bed availability in the home of choice, determines waiting time to entry. Policy dictates that clients have the right to be placed in a nursing home of their choice and that each nursing home has the right to refuse admission even if a person requires the type of care it delivers. As a result, some facilities have longer waiting lists than others, because they are chosen by more people awaiting placement and facilities vary in the rate at which they have vacancies. Evidence supports that other factors, such as the need for a high level of care and cognitive impairment, especially in people perceived to have behavioural problems as well, also adversely affect waiting time.[48]

BRITISH COLUMBIA

The waitlists for institutional placement in British Columbia are maintained by assessors/case managers who notify facilities of the next eligible client, preventing the potential practice of facilities selecting clients who are the easiest to manage, or those who need comparatively fewer services.[49] The waitlists are managed according to the date and time a client's name is placed on the list. Clients admitted to an alternative choice may retain their position on the preferred list and transfer to the preferred facility when their name comes to the top of that list. However, if a client declines a vacant bed that is considered acceptable, the client's name may be removed from, or moved to the

bottom of the list. The provincial waitlist system for residential care is cumbersome and does not always address the needs of individual clients. A system managed chronologically forces some individuals to enter residential care facilities before they are ready. If they don't, they forfeit their position and are placed at the bottom of the waitlist again.[50] Although chronologically based, the waitlist allows emergency admissions to jump the queue.

In British Columbia there are no targets established for waiting times for admission to facility care. Over the past 5 years the average waiting time is approximately 7 months, depending on the facility selected, waiting times vary between 0 days and more than 5 years.[50]

ALBERTA

The Alberta waitlist is divided into three priority groups: (1) people waiting in acute care facilities; (2) people in the community that Home Care can no longer manage and are at extreme risk requiring urgent admission; (3) people in the community waiting on the regular waitlist. The target waiting time is different for each of the above groups. Those waiting from acute care are expected to be placed within one week of receiving a completed referral. Clients who are deemed urgent in the community are to be placed within a few weeks to a month depending upon degree of urgency and the cost of services by Home Care. Finally, people waiting in the community can wait a long time depending upon the length of the waitlist for the centre of their choice. The province is evaluating the need for this category because people are priorized to the urgent category when they

are at extreme risk and require continuing care.[51] It is not known whether Alberta actually achieves their target waiting times

PRINCE EDWARD ISLAND

For public funded nursing homes in Prince Edward Island, a client is assessed, a level of care is determined and the client makes two choices of placement. Clients approved for nursing home placement will be put on one of four waitlists: 1) emergency (these clients are given first priority), 2) high priority (i.e. clients in hospital and are medically discharged), 3) transfer (people placed in an institution which was not their first choice), and 4) pending (the need for a bed is not immediate).[52] Betty McNab of the Health and Community Services Agency in PEI claims that there are only between 10-20 people on a waitlist at any one time and the waiting time can be anywhere from 3 weeks to 6 months. According to McNab, the waiting time to placement is currently about 6 months but they are targeting 3 months as the acceptable time. [53]

NEW BRUNSWICK

New Brunswick is broken down into 7 regions. Debbie Peters of Nursing Home Services in the province states that some regions have vacant beds and when clients are assessed by Single Entry as needing nursing home placement they are often placed on the same day. As a result, in most of the regions there is virtually no waiting time for placement. In other regions, the waiting time may range from 1 week to 1 month. As of March 31, 1995 there were only 49 people in the province awaiting nursing home

placement. Peters says that the reason for such an efficient system is because of the increase in community services. [54] [55]

ONTARIO

Ontario is in a state of flux with regards to long-term care. There are 68 long-term care facilities in the Toronto area, each of which has it's own waitlist and people can place their name on any number of facility waitlists, clients are then placed chronologically. [56] The Toronto region has ethno specific facilities which affect the length of time waiting to be placed. There are some homes which have no waitlist, whereas others have 400 people on them. Thus the waiting time ranges from 0 days to 4 years with an overall average of 3-6 months depending on client choice of facility.[56]

A study conducted in London, Ontario [46] used a simple computer modeling technique to model a long-term care waiting list under two different policies: a first-come, first-served basis or a needs-based admission criterion. The authors found that the re-ordering of placement priority according to need resulted in a system that offered care first to those who required it most, without seeming to place at risk people who may have been waiting longer for placement.

5.3.3 Inappropriate Placements

The new environment of fiscal pressures has created the momentum for re-examination and change throughout the health care system. It has been recognized that a focus on facility-based care creates a system which is expensive to maintain, yet in many cases does not sufficiently meet the needs of long-term care clients. Recent years have

seen the introduction of community-based alternatives to nursing homes such as adult day care and formal home care. This increase in lower-level care options and continuing pressures on government budgets by nursing home costs, should motivate policy makers to reduce inappropriate nursing home placements. Despite this, long-term care facilities still admit clients who do not require the intensity of services provided by these facilities. This study is no exception. There were a small number of clients seeking long term institutional placement who had no measurable disability and another small number may have managed with home support. Thus, there were persons who were "inappropriately" placed in a higher level of care than their assessment needs indicated. Similarly, a proportion of clients recommended for placement in a nursing home (level 2 or 3) did not have a clinical indication for the professional care available in a nursing home. In 1996, the Government of Newfoundland and Labrador's Department of Health estimated that about one-tenth of all people living in nursing homes and personal care homes in the St. John's region require a lower level of care, suggesting that some of these individuals could be maintained in the community. [57] A possible explanation for this is that the distribution in and across settings depends on the interaction of both demand and supply factors. [58] Although clinical need is an important influence on demand, other factors affect the number of light-care residents who end up in nursing homes. It is believed by some nursing home officials in this region that people in need of some level of care are ignorant of the full range of available options. A second reason is that public financing of long-term care favors nursing homes over alternatives. This encourages the demand for

nursing home care. Government funds nursing home care but limits support for care in lower-level settings (e.g., home care). Moreover, eligibility requirements for nursing home services are often more liberal than those applied to home and community-based care. The very fact that no applicant is denied access to nursing home care but may be denied home supports, provides evidence for this statement.

One approach aimed at reducing the inappropriate placements of clients and thus maximizing the use of existing beds is to make preadmission screening criteria for nursing home admission more stringent. The results of this project suggest that criteria based on the need for professional care provided in a nursing home may reduce the need from 20.4/1,000 to 17.5/1,000 for people ≥ 65 years of age. Thus, up to 19% of the people recommended for nursing home placement could potentially continue with appropriate assistance in supervised residential settings more suitable to their needs.[32]

It is important to control who enters a nursing home and determine ways in which this control can be used to increase the rate at which a given supply of beds becomes available to new entrants without abandoning the principle of equitable access. Most provinces in Canada have eligibility criteria in place to ensure that only those clients with heavy care needs will gain admission to long-term care facilities. [53 56 59] The problem is is that the criteria are not clearly defined (there is currently no gold standard for nursing home placement), the process results from a panel which includes an element of professional judgment and usually entails a very complex and confusing set of considerations.[34 35 60] For example, a long-term care facility will be recommended based

on the applicant's needs and service requirements, the applicant's choice of facility, and the availability of a placement within the facility. The preferences of the applicant, primary caregiver, and assessor are also taken into consideration. [27]

It has been suggested that the development of key indicators that predict length of nursing home stay could have important policy implications for admission criteria. A Manitoba study showed that the average expected length of survival for all persons under 65 and for females 65-74 admitted as level 1 is 15 years. The data did not tell why these persons who require a minimum amount of care are admitted, but their long term survival suggests the need to develop alternative strategies to provide their care. In addition, the long survival time of these residents shows that admission policies can make a substantial difference in maximizing the use of nursing home beds as the population ages. At the same time, it is important to remember that those that enter as level 1 may not remain at level 1 for a long period of time, thus firm projections of savings cannot be made.[61]

During the 1970s in the United States, data was reported concerning the accelerated rise in health care costs and the concomitant amount of public dollars Medicare and Medicaid spent for long-term care. In response, states across the nation started to develop methods to assess more closely the characteristics and needs of the long-term care population in long-term care facilities and to exert tighter controls to contain spending in this area. For example, New York State, developed a standardized assessment instrument for Residential Health Care Facilities (RHCFs) the use of which would begin at the time of placement and was intended to provide level of care placement

guidelines. It was assumed that by using this assessment procedure, the patient population in RHCFs would be changed to reflect more "appropriate" placements and thus contain or control costs by controlling the utilization of long-term care facilities.[20]

Some other states in the US have adopted criteria that target persons for personal care homes. These clinical criteria should be used in conjunction with the other considerations needed to form judgments about appropriate care settings i.e., the availability of alternative care settings; consumer preferences for the nonclinical benefits of less restrictive settings; and relative cost. [58] Oregon represents a high estimate of the number of clinically inappropriate nursing home residents, in contrast to the low estimate represented in the Washington criteria.

The state of Oregon has been ambitious in treating home- and community-based care as a lower-cost alternative for some nursing home residents and thus has been considered as a possible model for future policy. Oregon takes a broad view of who is appropriate for assisted living facilities. In general, it accepts residents who have no severe medical conditions or rehabilitation needs and can function socially; some behaviour problems are allowed. Acceptable residents may need extensive personal care but are not totally bed- or chairbound. Residents with the following criteria are deemed clinically appropriate for nursing home care and unsuitable for lower levels of care:

- has substantial medical/rehabilitation needs
- is comatose
- is bed/chairfast

- hurts self/others
- cannot communicate
- cannot understand conversation
- has bedsores

The following criteria refer to the type of residents unable to participate in the Washington State assisted-living program (in addition to the criteria mentioned above):

- is incontinent of feces
- is incontinent of urine
- requires ADL help, beyond bathing and dressing
- is unable to avoid dangers
- wanders
- has hallucinations/delusions

When health care resources are scarce, waiting lists may be used as a distribution measure in order to enhance the fair allocation of resources through selection of patients. In the current situation, where demands for care outweigh the supply, two requirements must be met: the available care resources should be used efficiently and distributed fairly. When selecting a client from the waiting list for a vacancy in a nursing home the following questions must be considered: How is the waiting list organized and used? How and on what grounds are clients selected from the waiting list? Is there a fair selection of clients for nursing home care? Qualitative research done in the Netherlands[45] used waiting list criteria like urgency, chronology, efficiency and quality of care

considerations (patient's preferences for particular nursing homes and nursing homes' considerations of matching the unit and work load) to determine the final selection decision.

Favouring the admission of older, higher level of care clients increases the turnover rate but raises the nursing home costs. On the other hand, their nursing home stay, in addition to making beds available faster, also reduces their hospital consumption.[58] Lack of accurate targeting by the screening criteria may deny access not only to persons identified as appropriate for lower levels of care but also to many persons who should receive nursing home care. The development of such policies requires data on factors that influence length of stay, data that are not yet available. [61]

A second approach could be to expand public subsidies of long-term care to lower-level care settings. This policy, however, may not result in public savings for two reasons: (1) lower levels of care may not necessarily be less costly for all persons; (2) public costs may not decline when subsidies are expanded to lower levels of care because of the demand that may be induced by the reduction in relative price of these settings. The cost savings would depend on the ability to target benefits tightly to those who would be diverted from nursing homes.[58]

5.3.4 'Bed-blocking' by Elderly Patients in Acute Care Facilities

Nursing shortages and budget cuts resulting in bed closures in Canada and the United States have made the acute care hospital bed a scarce resource. Compounding this problem is the inappropriate housing of chronic status patients in acute care beds. [60] Governments and the media receive frequent complaints from hospitals that too many acute care beds are being occupied by elderly patients who are no longer acutely ill but are waiting to be transferred to a long-term care facility. Hospital costs per day, even of nonacute care, are higher than costs for nursing home care. Therefore, a small difference in the number of hospital days per capita has a notable effect on total costs. Although it was found in this study that the occupancy of acute care beds by clients awaiting placement is not currently excessive, long delays in acute care beds is neither economical nor appropriate for clients who need the professional care of a nursing home. A major organizational factor preventing discharge of patients from acute beds is the length of the waiting lists for nursing home beds. The problem of waiting lists, however, is compounded by the patients' choice of facility. [48 62]

Policy dictates that long-term care patients in an acute care facility in Manitoba have the right to be placed in a nursing home of their choice and that each nursing home has the right to refuse admission even if a person requires the type of care it delivers. If the client chooses a facility that has a long waiting list they can remain in hospital until they are admitted. [48] In recognition of the demand on urban acute care beds and of the inevitability that some in-hospital patients cannot subsequently be discharged, except to a

nursing home, each acute care hospital in the city of Winnipeg has an assigned number of beds based on historical utilization which indicates the maximum number of patients paneled for long-term care that should be in that facility. If a hospital reaches this "trigger" number the continuing care program gives priority to placements from that hospital until the number awaiting transfer falls below the limit. However, giving a hospital priority does not mean that patients who have been waiting the longest or for whom the move would be most beneficial are the first to be transferred. Those who are transferred under these conditions are people for whom the Continuing Care Program can most quickly arrange a placement. The maximum proportion of beds assigned to people awaiting transfer in all Winnipeg hospitals is 8.6%, but the last day of the census in March 1989 revealed that only 6.8% of the beds were so occupied. [48]

In 1993, a policy was put into place in the Winnipeg Region to further protect the access to acute care beds. The new policy continued to honour the patient's choice of facility but required that people accept an interim placement in another facility, until space became available in the nursing home of their choice. The advantage was that patients who had been in the hospital a very long time were transferred before those who were assessed by the panel later. This raises the issue of two transfers, which may be problematic, especially if the patient is very old or debilitated. It is thought by some that moving twice may be the "lesser evil", because studies have shown that the attitudes of medical and hospital staff toward long-stay patients are less than desirable and that

elderly hospital patients are at considerable risk of nosocomial infection. [48] This new policy is referred to as the Interim Placement Policy and is outlined below:

- patients in acute care beds who are paneled and waiting placement into a nursing home or chronic care hospital may be required to accept transfer to a designated "interim facility" pending admission on a permanent basis to a facility of choice.
- the authorized daily charge will be paid by all paneled patients while waiting in acute or interim facility for a permanent placement.
- paneled patients in an acute care facility who refuse a transfer to an interim facility when it is offered will be charged the full per diem for the acute care bed. [63]

It has been suggested by some nursing home administrators in this region that the same policy be adopted here in Newfoundland. [64]

In British Columbia, no distinction is made regarding where the client is residing at the time of the assessment e.g. a hospital or his own home, their position on the waitlist is in chronological order by the date waitlisting was requested. This policy ensures that all clients are treated on an equal basis, and stops attempts to circumvent the process of obtaining long-term care services by having a short initial admission to an acute care hospital. The acute care environment requires clients to accept the first available bed then await placement into their first choice facility. However, there is a provision for more rapid placement when the needs of the client are of an emergency nature. Only clients in the community can be designated as emergency placements. [49] [50] The analysis of the time to institutional placement in the St. John's Region showed that the median time to

placement for clients awaiting from the community was not significantly different from patients residing in an acute care facility, yet 46% of clients awaiting from hospital had very high level of care needs versus 8% with the same needs from the community. This implies that, like BC, the Placement Committee makes no distinction regarding where the client is waiting for admission.

Alberta has put in place an Acute Care Funding Plan for hospitals which has placed new pressures on it's long-term care system. The Plan promotes the discharge of individuals who have been admitted to acute care facilities while awaiting admission to long-term care facilities. The Home Care Program will be expected to meet the high cost, short term needs of individuals who have been discharged to the community until they can be admitted to LTC facilities.[65]

Debbie Peters of New Brunswick says that clients awaiting from acute care institutions are not given priority for placement, placement is done chronologically--probably because there is no waiting time to placement, so no policy needs to be implemented for these patients i.e. they are not blocking beds. Nevertheless, the acute care institutions do have the authority to charge patients the per diem nursing home rate under the 100km rule. Patients are permitted to refuse the first bed offer but if they refuse to accept the second available nursing home bed that is within 100 km of where the client lives then the person is taken off the waitlist. [34]

Clients awaiting from hospitals in the Toronto area are not treated any differently than those waiting in the community setting, i.e. their position on the waitlist is in

chronological order. The hospitals themselves are responsible for billing the clients who are medically discharged and awaiting long-term care placement. In 1991-92, based on Ontario Ministry of Health calculations, the number of beds occupied by long-term care patients in Toronto hospitals was between 9 and 19%, and between 10 and 24 % for the entire province. [66]

The occupancy of acute care beds by elderly people who are not acutely ill, may be attributed to many inadequacies in our health care delivery system. Pressures on the dependent elderly and their families inevitably reach a breaking point, since neither community nor medical and social services are well equipped to identify problems at an early stage and respond to them.[64 67] As a result, emergency departments may be used inappropriately, particularly at night and on weekends, to gain access to the health care system.

A study conducted at a 686-bed university hospital in Montreal, Quebec[60] examined the lengths of stay of chronic status patients in an acute care hospital, to identify discharge stages that contribute to excessive stays, to estimate the length of stay at each discharge stage. The researchers found that, on average, only 77.2 (8.7%) of the days were spent in acute care. The remaining days were at the chronic level: 24.1% were spent waiting for completion of an application to a long-term care facility, 25.3% for application approval and 41.9% for an available bed in the assigned long-term care institution. This amounts to 91% of the days. By the end of the two-year study period only 32 patients had been transferred to a public long-term care facility; 22 were still in

hospital, and 35 had died awaiting placement. At the same time the Quebec Ministry of Social Affairs requires that all acute care hospitals reserve 10% of their beds for patients formally declared by the hospital as achieving chronic status. It has been noted that in the Montreal health jurisdiction the proportion of elderly people is more than double the national average, and there is a severe shortage of both home care services and long-term care beds.[68]

Based on the findings of this study, the authors concluded that lack of access to the assigned resource is the most important reason for a delay in discharge. Interventions, whether undertaken at the patient, hospital or provincial level, must to some degree address this issue.

5.3.4.a *Interrelationship Between the Utilization of Hospital and Nursing Home Beds*

The effect of nursing homes on hospital usage is clearly of major importance to policy-makers and planners who are attempting to control increasing hospital and nursing home costs. The question as to whether admission to a nursing home reduces future need for hospital beds is highly relevant. Using the Manitoba Longitudinal Study on Aging[69] data, Shapiro et al.[70] found that when age, sex and rate of mortality are taken into account, nursing homes significantly reduce hospitalization rates after the elderly have been institutionalized for more than 1 year.

The fact that institutionalization decreases hospitalization rates should not be interpreted to mean that the nursing home bed supply or the number of nursing home

users should be increased. Providing nursing home care, although less expensive than delivering hospital care, is also costly. Besides, institutionalization is neither the most desired nor the most desirable living arrangement. Community care provides most elderly with an option to remain at home.

A second important issue which must be considered is that the acute care medical setting encourages elderly patients to be passive and dependent while the necessary investigations and treatments are undertaken, since the emphasis is on diagnosis, treatment and cure rather than on rehabilitation. Patients who cannot be cured but who have the potential for functional improvement will tend to take second place to those who are more acutely ill. Measures may also be taken for the staff's convenience, such as using catheters and physical and chemical restraints; these actions will compound the problem and lead to further physical and mental regression. The increased dependency of patients resulting from these practices may lead to decreased levels of performance in self-care and even in walking.

Public policy must take account of the interrelationship between the utilization of hospital and nursing home beds in order to plan effectively for the future.[70]

5.4 Experiences Elsewhere

5.4.1 International Perspectives

North America has traditionally relied on a medical model of long-term care, rather than a social support model. Most European countries have more seniors housing and fewer institutional beds per senior than North America. Evidence[4] shows that seniors

housing with basic home care and other social support services can successfully replace lighter institutional long-term care. Even individuals with heavy care needs can remain in their own home if they receive appropriate social and home care. [4 71]

The US long-term care system has developed in a piecemeal manner, resulting in inefficiency and problems with access, quality, and financing. Public funding of long-term care is directed heavily toward institutionalization, especially nursing home care, which accounts for the greatest share of public and private spending on long-term care. [72] In the 1970s several studies in the United States reported that between 10 percent to 40 percent of nursing home residents either did not have the medical need or were not sufficiently disabled to warrant care in these settings. Medicaid, the primary public program supporting persons needing long-term care, funded nursing home care but limited support for care in lower-level settings. In the 1980s and 1990s, there were major expansions in public funding of paid home care, and the supply of providers has grown accordingly. Not only have opportunities for care expanded outside of the nursing home milieu, but increasingly states have also taken measures to ensure that nursing home care is limited to those who need it. Most states now have preadmission screening programs that apply to persons who would qualify for Medicaid benefits in a nursing home, or who are likely to qualify for Medicaid within a certain time period after admission. Furthermore, a number of states have moved toward case-mix reimbursement systems to neutralize the incentive to select low-needs residents. Around 1990, the courts also began enforcing the Boren amendment, which requires states to set payment rates for nursing

homes and hospitals that reasonably reflect cost. As a result, reimbursement incentives to admit low-needs residents to nursing homes have diminished.[58] Despite these efforts, current research has found that there are still many nursing home residents in the US who do not require the level of care offered in nursing homes. [72]

During the late 1980's, it was reported that both Britain and the Federal Republic of Germany (FRG) were providing long-term care in general hospitals. The reason for this inappropriate use of hospitals for long-term care arose out of the health-care system's failure to address explicitly the long-term care needs of the elderly.[73] A recurrent theme in the European literature is the problem of homes built to care for the independent elderly that are increasingly forced to cater to disabled populations without sufficient funds to provide needed nursing care. The balance both of medical to nonmedical institutions and of nonmedical institutions to less institutional forms of sheltered housing is shifting. Increasingly, it appears that the low-income elderly who are still independent in activities of daily living, though perhaps in need of help with instrumental activities of daily living, are residing in service flats and other sheltered housing arrangements rather than in nonmedical institutions. The movement to phase out nonmedical institutions in favor of service flats has been particularly striking in Britain since the late 1980s when the focus of the new British central government's policy was to provide people with services and supports to allow them to live as independently as possible in their own homes, or in 'homely' settings in the community.[74] The medicalization of the institutional sector has been particularly strong in France, Belgium, and Great Britain.

The net result is that, within the institutional sector of the advanced industrial countries, there is a growing emphasis on medically oriented facilities, which reflects the older, more functionally dependent populations in these countries. In addition, a prime force in the development of specialized medically oriented long-term care facilities has been the drive to cut hospital costs. This policy has been most explicitly pursued during the 1980's in Belgium and Great Britain. In addition, Britain has one of the lowest levels of elderly institutional use among the Western industrialized countries.

In the less industrialized countries of Greece, Spain, Turkey, Argentina, and Costa Rica, long-term care institutions tend still to be largely nonmedically oriented and, indeed, often accept only the independent elderly. This then raises the question of where the chronically impaired elderly are receiving care. One hypothesis is that medically oriented long-term care of the elderly is not differentiated from acute inpatient care and that both types of care are provided in general hospitals. [73]

In Sweden, Denmark and The Netherlands, the recurrent theme and a national goal for old-age care over at least the last 30 years has been that long-term care at home should replace the 'inhumane and expensive' long-term care provided in institutions. The belief is that institutional care for frail elderly persons should be limited and that public long-term care systems must strengthen home and community supports, in some cases with increased involvement by the private sector. As a result, many elderly persons are being deinstitutionalized as older homes for the aged are converted into service flats with supportive services. The results of the deinstitutionalization during a period (1982-1992)

when the number of persons aged 80 and over-the most likely users of institutional care-increased by 30 percent, the number of residents in traditional institutions (old-age homes and long-term care) decreased by 15 percent.[75] [76]

For example, the Swedish national government has supported the development of special housing by offering incentive grants to localities to make more housing alternatives available and to improve the quality of existing housing for the elderly and disabled. Municipalities are responsible for the care of elderly persons and as such are expected to support caregivers through day care, respite care, or cash payments, or by employing the family member as a caregiver. [76]

Denmark developed a high quality and comprehensive publicly financed health and social services system at a time of economic growth before the 1980s. However, like many other European countries today, Denmark is coping with greater fiscal constraints and growing numbers of elderly persons, making its commitment to its older citizens much more difficult to meet. The strategy adopted by the government was to reduce costs by developing alternative forms of housing and community services that enable older persons to remain in the community rather than be institutionalized. A project team in a small community of 5,000 agreed to abandon what was termed the "service-package solution" of the traditional nursing home-providing all residents with the same package of services regardless of their needs and wants. The results of this project indicated that more people could benefit from the same resources of staff time and expenditures through better utilization of resources. [76]

For many years, the Netherlands had a higher proportion of its elderly population in institutional settings (nursing homes and old-age homes) than any other European country. Government policy is now aimed at "substitution"-shifting resources from institutional forms of care to home-based services or the replacement of costly services with less expensive ones. [76] Even with all the changes, nursing homes have high occupancy rates and elderly individuals may have to wait nearly a year for admission to a facility. The minimum age for admittance to a nursing home has been raised from 65 to 75. [76]

Great Britain has had a long history of supporting the concept of community-based long-term care for elderly persons. Only about 5 percent of older persons in Great Britain become residents of institutions such as residential care facilities and nursing homes and this percentage has remained fairly stable over the last decade. [76]

The trend in Sweden, Denmark, the Netherlands, and Great Britain has been to put greater emphasis on informal care with more support for caregivers: to decentralize finances and delivery of services to the level of government closest to the recipient of services; to expand the provider system to include the private and voluntary sectors; and to tailor services more closely to the specific needs of each client. [76]

5.4.2 Interprovincial Comparisons

Canada does not have a national centrally funded and administered health care system. Health care in Canada is constitutionally a provincial, not a federal,

responsibility and consequently, it has ten provincial health care systems and ten provincial guidelines for delivering long-term care to its residents. As a result, comparisons are difficult because one is not usually comparing like with like, in that no two provinces have identical systems for delivery of long-term care services. They may be similar in many ways, but they are not identical.[77]

In any event, there is general agreement in the literature, and the policy directions of Canadian provinces, on the policy changes needed to achieve a more effective long-term care system. The key changes are: a single entry point system; replacement of institutional beds with home care and community services; and case management through the continuum of care. With a single entry point approach to the long-term care system and case management, the focus shifts from offering financial incentives to keep beds full to providing the best service at the lowest cost per individual. [4]

Manitoba and British Columbia have been using a single entry point system to long-term care for at least 10 years, while other provinces, including Newfoundland and New Brunswick, have also recently introduced a single entry point system. It has been shown that the single entry point concept dramatically shortens waiting lists for institutional care. [4 34] In Alberta, Manitoba and British Columbia the Home Care Programs have been given the responsibility to assess the needs of individuals for long-term care. Because community-based care is currently the preferred option for clients requiring long-term care, it is essential that Home Care do the assessments. Home Care

ensures that an individual's needs are met in the most appropriate environment.[65] The aim is to provide care in the home as an alternative to institutional care, to promote greater community and personal responsibility for health, encourage independence, and enable people with health limitations and disabilities to stay within their homes and communities as long as possible.[47] The philosophy of these Home Care programs is that individuals are more likely to achieve, and continue to maintain, a high level of well-being in the familiar environment of their own homes and that individuals are responsible and wish to care for themselves and their families for as long as they are able to do so.[78] [79] This shift from institutional to community care is reflected in the increased funding for home care and other community support programs in these provinces. For example, Alberta Health's three-year business plan outlined an increased priority on community health, health promotion and home care programs. Albertans home care budget has grown more than 300% since 1990, demonstrating the commitment to move away from an institutionalized system to community-based health delivery.[51] [80]

Manitoba has moved the furthest towards successfully reducing the use of nursing home beds and expanding community care. There are currently a total of 8,925 nursing home beds in Manitoba resulting in a rate of 128 beds per 1000 persons 75 years of age or older, the lowest in the country.[81] [82] This was achieved because access to home care services and nursing home care is through a mandatory single-entry system and is based solely on assessed need.[47] [78] Manitoba has been reported as having "one of the best long-term care systems in North America".[83]

The growing trend reveals that efforts to restrain the growth of long term institutional costs as the size of the elderly population increases have concentrated primarily on limiting institutional beds and on expanding community services. However, pressure for beds will grow as the number of elderly over 75 increases.[84] The reduction in bed ratios has not increased the number of persons awaiting institutional placement in Manitoba. It has, however, increased the level of care requirements of those admitted. Because an increase in age and level of care at admission reduces lengths of facility stay, that same bed supply can serve to accommodate additional admissions as the number of elderly grows. [61]

There are other provinces in Canada who are not quite as progressive as Manitoba with regards to long-term care. Long-term care in Ontario and Nova Scotia, for example, are currently in a state of flux and Saskatchewan is just beginning to implement policy changes in an effort to decrease the cost of long-term care and increase the efficiency of its delivery.[85]

The province of Ontario is currently restructuring their hospitals, mainly because the belief is that it is often more appropriate for people to be in nursing homes and homes for the aged than in hospital. As a result, on June 30, 1997, the Ontario Ministry of Health announced that it is adding $100 million in annual funding to the province's 57,000 residents of Ontario's 495 nursing homes and homes for the aged to help equip them to serve residents who have greater care needs. This brings the total annual Ministry funding on nursing homes and homes for the aged to $1.3 billion.

Ontario has also introduced a funding system for long-term care facilities that distributes funds based on the actual care requirements of residents. It has set new standards for care and services. And the province has placement co-ordination services that make sure the people who need services most are first in line to get them.

Nova Scotia is in the process of trying to restructure their long-term care sector. They do not, as yet, have clear concise policies and information on things such as waitlists. Nova Scotia does not have a single point of entry for long-term care and no common assessment instrument, which inevitably leads to the inefficiencies that are characteristic of their system. The province has been moving slowly towards reforming the continuing care delivery system, but has yet to put in place any well organized system for determining priority of placement. Currently it is being driven more by the need to reduce acute care usage than by any systematic assessment of relative need. Waitlists are still done on a facility basis only, with most individuals seeking placement having their name on several facility waitlists.[35] Nursing homes in Nova Scotia only provide a maximum of level 2 care which is 2.5 hours of personal care per day, with nursing supervision. Since the nursing homes are only funded for this level of care, only light care clients are admitted, clients with a greater need for care must remain in the community or alternatively occupy an acute care bed. Approximately one year ago a survey revealed that long-term care clients were occupying anywhere from 2% to 30%. of acute care beds.[86]

Nova Scotia uses an arbitrary benchmark to determine bed requirements for persons 65 years of age and older. The benchmark is 5 beds for every 100 people. It has been recommended by the Long-Term Care Review Committee that the bed requirements should be based on the population aged 75 and older and that the benchmark should be based on a determination of need since utilization does not necessarily reflect need.[87]

The lack of co-ordination in the long-term care sector in Saskatchewan has resulted in an excessive and costly dependence on institutional care. In 1989-90, for example, Saskatchewan had 174 long-term care beds for every 1000 seniors over 75, the second highest provincial ratio in Canada. Despite the large number of beds, clients with heavy care needs frequently waited a long time for admission to institutional care. [4 88]

The long waits of clients with heavy care needs for institutional placement resulted from the fact that Saskatchewan funds long-term care institutions according to occupancy rates, and as a result there is a powerful incentive for facility administrators to fill beds. However, this funding scheme makes it difficult to assess the true level of need for institutional care in the province. Nursing home operators are reluctant to accept heavy care residents because they don't receive additional funding to do so and as a result, the light care needs of residents who were admitted to institutions potentially could have been met through home care.[4] In addition, these placement problems are affecting acute care hospitals. A preliminary report estimated that between 20 and 35 per cent of adult medicine days in the province's twenty largest hospitals were used for

patients who could have been cared for more appropriately and at less cost in long-term care institutions.[4]

In response to these findings, the Saskatchewan government implemented a district-based system of long-term care delivery. Under the new district-based system (46 home care districts), the province will provide health boards with one lump sum funding for all health care services. This policy change represents an opportunity to more fully integrate services and expand community-based services to better serve clients' needs and recognize clients' capacities for independent living. [4] In addition, some of these districts decided to reduce the number of long-term care beds they provide at the same time as community and home care services were expanding and a single entry system was adopted. It was necessary to coordinate these changes because if districts increase community and home care services without closing beds, facilities will continue to admit clients who could live independently. If districts reduce institutional beds but do not increase community services, a vulnerable population of elderly and their caregivers will be at risk.

Results of the implementation of these new policies include: the number of persons waiting in hospital for a nursing home bed decreased by half, admissions to nursing homes increased by 11% in the first year, despite there being fewer beds. As well, those people admitted had heavier care needs than clients admitted the previous year (29% were level 4, up from 23%). In addition, the Saskatoon district found a reduction in their priority waiting list from 130 clients to 72 clients in the past 4 years.[89]

5.5 Restructuring

The population is aging and the demands made on the long-term care sector will increase. The sector may need to be restructured to meet the changing demands of the community. In order to restructure, the long-term care requirements in the St. John's region need to be identified. To determine these needs 4 questions should be answered in order to set targets for the provision of long-term care and to develop an action plan to achieve these targets:

1. What are the needs of clients on the waiting list for long-term care?
2. What is the rate and description of clients entering and leaving the long-term sector?
3. What kind of care is currently provided and what resources are utilized?
4. What is the impact of change of client status over time on the kind of care that should be provided?

This thesis describes the annual demands made on the single entry system and the needs of clients on the waiting list for long-term care placement. A study is in progress by the Patient Research Centre at Memorial University in conjunction with the Department of Health to do an assessment of the care currently being provided in nursing homes.

When the results of this evaluation are combined with the annual incidence of new clients, it may be possible to develop a model based on outcomes to deal with the impending demographic changes.

The final phase of the project will evaluate the current allocation of beds, by level of care, in each nursing home. The potential to alter this allocation, together with the costs of structural and staffing alterations, will be determined in each nursing home. A plan to restructure the provision of long-term care will be developed, incorporating the potential to create alternative care facilities and restructure/upgrade existing nursing homes.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

1. A small number of clients seeking placement had no measurable disability and another small number may have managed with home support. Therefore, minimal criteria should be developed for placement in a personal care home or level 1 nursing home environment.

2. The time to placement in a personal care home was very short, whereas the time to placement in a level 1 nursing home bed within the city was very long. There is a need for supervised long-term care in the city of St. John's aimed at clients who have disability, but who do not have need for the professional care provided in a nursing home. This in turn raises the issue of whether the government should be responsible for clients not requiring professional institutional care. In St. John's, publicly funded level 1 nursing home beds are being used as personal care beds traditionally managed by the private sector. Perhaps the for-profit service providers could play a role in the delivery of this service within St. John's. It is difficult to speculate what effect this would have on the existing homes that provide this level of care i.e., whether they would be upgraded, closed or even sold.

3. A proportion of clients recommended for placement in a nursing home (level 2 or 3) did not have a clinical indication for the professional care provided in a nursing home. Therefore, minimal criteria should be developed for placement in nursing homes or maximal criteria in terms of burden of care should be established for PCH/level 1 sites.

4. The occupancy rate of acute care beds by clients awaiting placement is not currently excessive. However, long delays in acute care beds are neither economical nor appropriate for clients who need the professional care of a nursing home. A policy which gives clients with extreme need priority for placement should be considered. This would give priority to clients in acute care institutions, without encouraging admission to acute care for those with less extreme need. Also an interim placement policy, based on Manitoba's, should be introduced.

5. The time to placement of clients requiring nursing home care seems reasonable. However a target time for placement should be developed.

6. Stricter application of criteria for admission to nursing homes will be associated with lower annual demands for placement, higher level of care admissions to nursing homes, and higher turnover rates. Consequently, the nursing home sector may be able to decrease the number of beds available, but will have to increase the quantity of care provided per client.

7. The current system is providing reasonable access to nursing homes, without excess blocking of acute care beds or increasing the size of waiting lists. Restructuring of the long-term care system requires study of the needs and outcomes of current residents. Collection of the latter data is presently underway.

8. The issues within the system of long-term care are both diverse and complex. Economic and sociologic factors cannot be separated from political considerations. There must be long-range planning and research to provide a solid foundation for the decisions of today and for the decision that must still be made about the future of this important service.[90]

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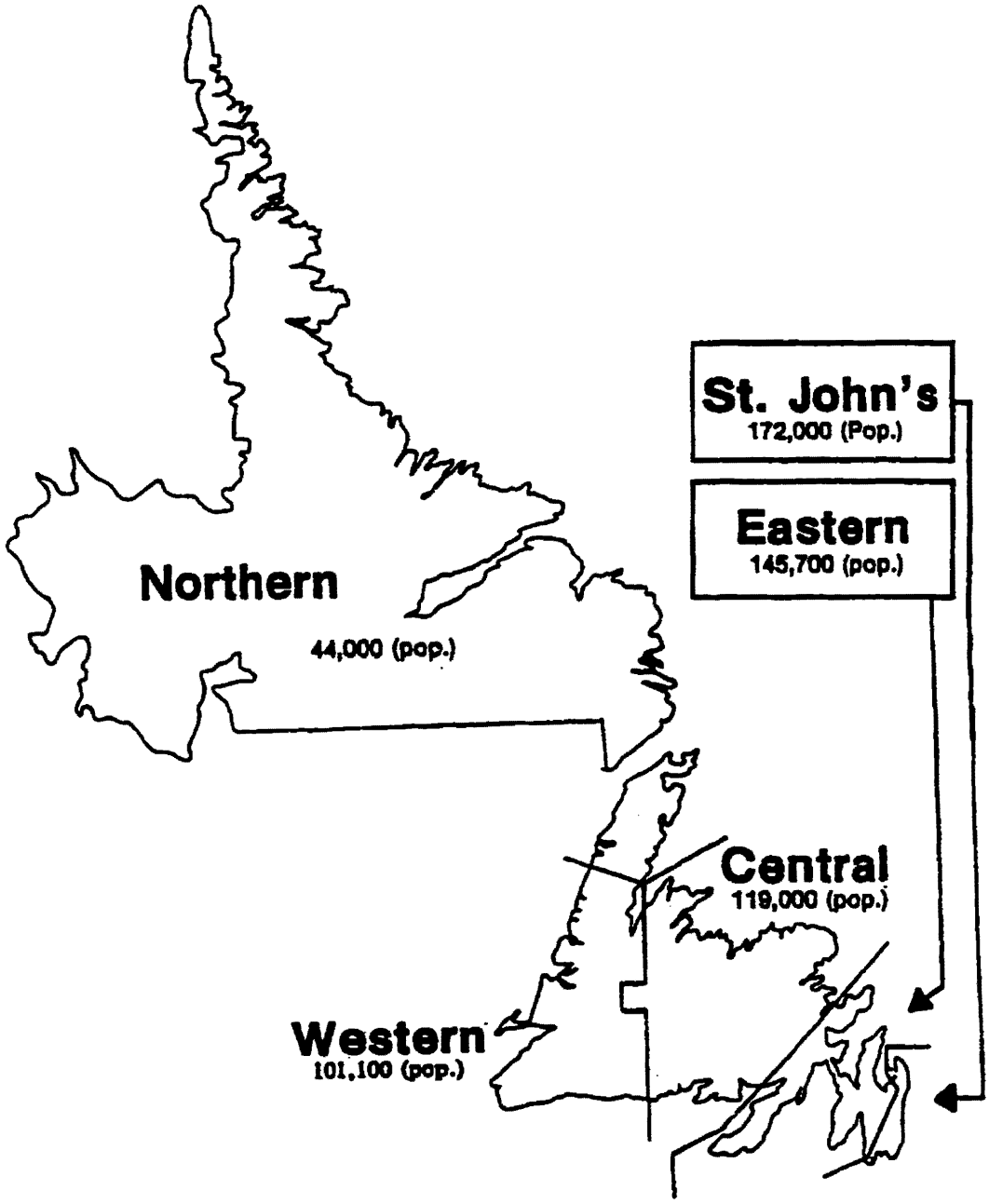
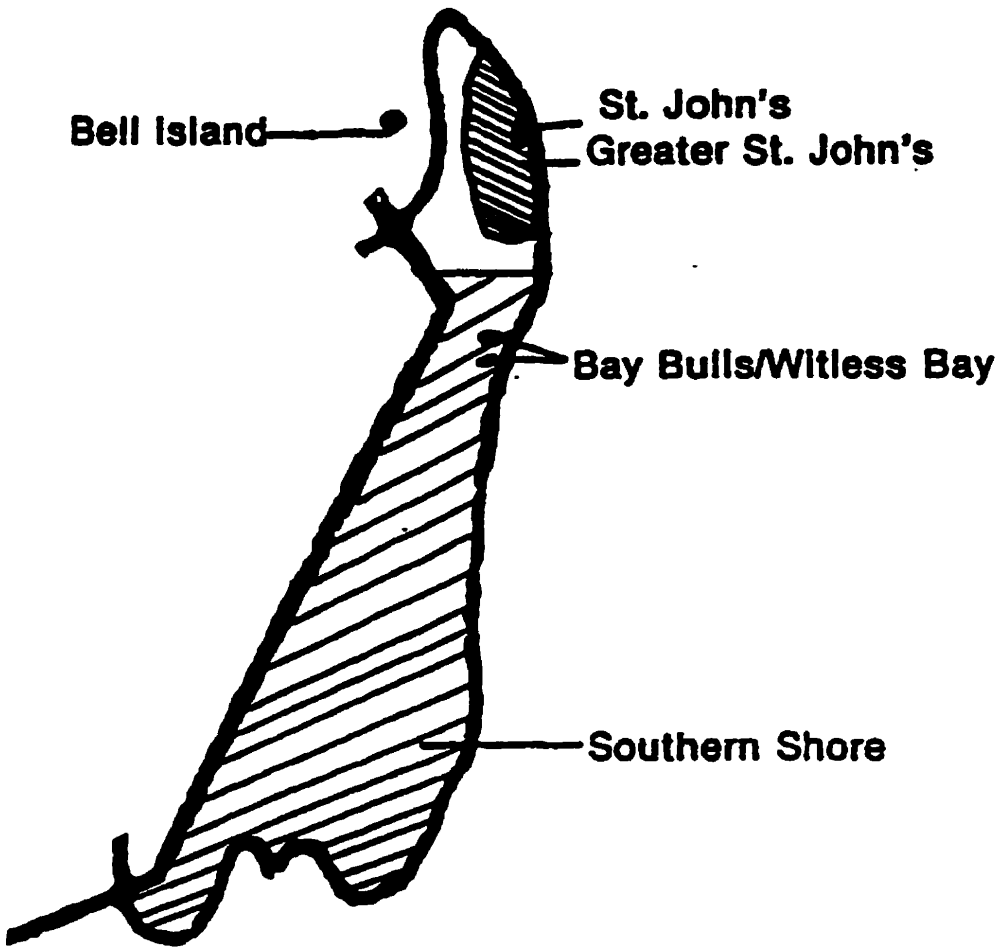
APPENDICES

Appendix A **St. John's Region**



St. John's Region



Appendix B LONG TERM CARE CLASSIFICATION WORKSHEET

Initials:_____ Age:_____ ID Number:_____
Sex:_____ Current residence:_____

Functional Need Score ☐ (1-5) **Resident Classification Score** ☐ (A-G)

Informal Supports _____ **RUG IIIADL Score** ☐ (4-18)

RUG III Index _____

Recommended LTC services:		***Home Care***	***PCH***	***Nsg. Home***
	Assessor:	_____	_____	_____(level)
	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 ☐ **Sum of 13 Functional Need Indicators** _____*

Bowel Management ☐

1- (1-5)
2-(6-10)
Functional Need Score (1-5) ☐ 3-(11-20)
4-(21-25)
5-(26-62)

* for categories with n/a, total will have to be adjusted

Informal Supports: (Y/N) _____
(unpaid & unsupervised persons eg. family, friends) _____
_____

Support services currently in place _____
_____

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)

RUGs III Professional Care Requirements ✓ if appropriate (describe in comments section)
(based on **RUGs III** seven Hierarchical Categories)

Special Rehabilitation ☐ Impaired Cognition ☐

Extensive Clinical Services ☐ Behaviour Problems ☐

Special Care ☐ Reduced Physical Function ☐

Clinically Complex ☐

Comments: _____
_____
_____
_____

***RUGs ADL:** (refer to RUGs index ordinal scale)

Bed Mobility ☐

Toilet Use ☐

Transfer ☐

Eating ☐

RUGs-III ADL Index Ordinal Scale

ADL Variables	Score	
Bed Mobility	Independent or supervision	1
Transfer	Limited assistance	3
Toilet use	Extensive assistance or total dependence:	
	Other than 2-person physical assist	4
	2 or more persons phyical assist	5
Eating	Independent or suprevision	1
	Limited assistance	2
	Extensive assitance or total dependence	3

RUGs III ADL SCORE ☐ sum of ADL's (ranges from 4 "completely independent" to 18- "high"

Appendix C

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

Appendix D

Resource Utilization Groups (RUGs III)

Residents' functional status and major physical conditions explain the resource use in nursing homes. RUGs classification system groups nursing home residents by resident characteristrics so as to explain resource use. Data of two types were studied for this classification system: *measures of resource use and resident characteristics.*

Resource use was collected by self reporting by staff (nurses, therapists, etc.) of the total time they spent over a 24 hour period caring for each resident, including time directly involved in providing care or indirectly provided through interactions with other staff, physicians, family and others that benefited the resident. Wage-weighted staff times were developed as the resource measure. The weights acknowledge the differences in cost of care provided by (eg. registered nurse or a nurse's aide).

Resident classification was assessed using a version of the MDS - Minimium data set - resident demographics, medical condition, diagnosis, mental function, ADL's, behaviour problems and services provided. Care was taken to use patient characteristics that could reliably be assessed or audited, which would reduce the possibility of nursing homes classifying residents into more expensive categories with little change in the actual cost of resources used.

RUGs III has seven hierarchy categories: special rehabilitation, extensive care, special care, clinically complex, impaired cognition, behaviour problems and reduced phyical function; describing types of residents in decreasing order of resource use.

Special Rehabilitation - four subcategories - based on amount of therapy resources (staff time) provided to the resident, with further splits based on ADL scores.

Extensive service and special care - based on the receipt of certain significant services (parenteral feeding, tracheotomy, suctioning, or ventilator care) or the presence of certain clinical conditions (eg. quadriplegia, stage three or four pressure ulcers, coma,) respectively. Additional splits are based on the amount of treatment or ADL level.

Clinically complex based on the presence of conditions such as aphasia, hemiplegia, or terminal illness, or on the receipt of services such as dialysis or chemotherapy.

Cognitive impairment &/or Behaviour problems - characteristics of cognitive impairment and residents without such characteristics but who daily have behaviour problems including wandering, physical or verbal abuse, regressive behaviour or hallucinations are assigned to the impaired cognition and behaviour categories respectively. These two categories are restricted to residents with an ADL index score of 10 or less.

Reduced Physical Function - Residents who do not meet any of the above categories, including those who would meet the criteria for the impaired cognition or behavior problem categories but have a RUGs-III ADL index of more than 10.

The decision to place the client in a Nursing Home versus a Personal Care Home depends on the **professional care requirements** in addition to the consideration of the **RUGs III ADL score.**

The ADL index is a summary measurement of functional capacity, produced by combining four ADL measures (toileting, eating, bed-to-chair transfer and bed mobility)

TOILETING - How the resident uses the toilet (or commode, bedpan, urinal), transfers on/off toilet, cleanses, changes pad, manages ostomy or catheter, manages clothes (scale= 1,3,4,5)

BED MOBILITY - How resident moves to and from lying position, turns from side to side, and position body while in bed - (scale = 1,3,4,5)

TRANSFER - How resident moves between surfaces - to/from bed, chair, wheelchair, standing position (exclude to/from bath/toilet) - scale (1,3,4,5)

EATING - How resident eats or drinks (regardless of skill) - scale (1,2,3)

Appendix E

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	3.86
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 3.86 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.).

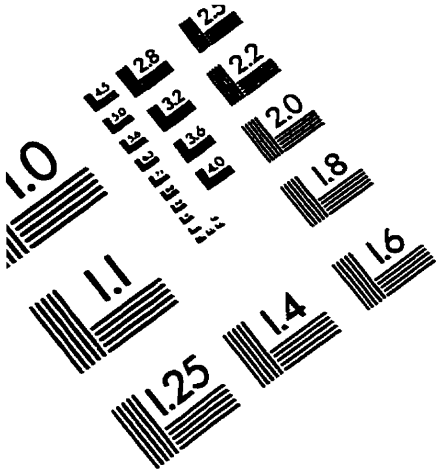
Category 'E' - four different combinations: patients with lower ADL's must have either med-high CCL's or very high BDL's. Patients with med-low ADL's *only* if very high BDL's **and** need management or retraining for urinary incontinence. Those with medium ADL's and high BDL's and bladder management problems are also in this

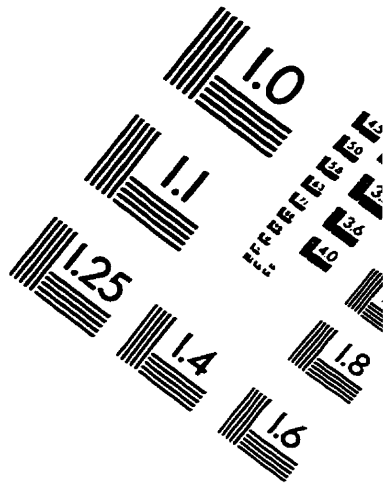
category. Patients with no or low incontinence are in this category only if they have very high BDL needs. Patients with med-high or high ADL requirements, whether they require management of urinary incontinence or have no incontinence, if they do not have very high BDL requirements (very frail, confused elderly, old stroke patient, severly arthritic patient, alcoholic with Korsakoff's syndrome, brain injured patient).

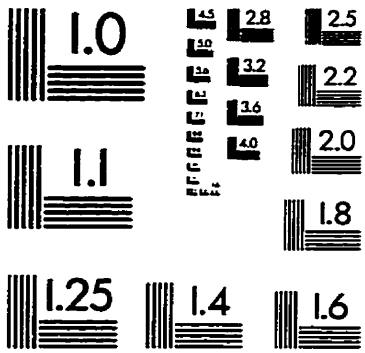
Category 'F' - primarily patients with heavy care requirements: highest ADL's who also have some incontinence problems. Without the highest ADL's a patient could fit in category F, if the physical care requirements (ADL & incontinence) are complicated by behaviour problems. Patients with very high BDL's are not included unless they have lower ADL's (advanced dementia, bedridden, non mobile with incontinence, MS, or palliative care).

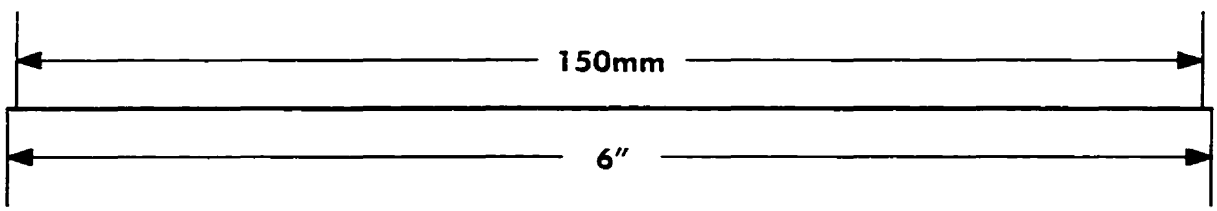
Category 'G' - Highest BDL's & med-high ADL's. Those with med-high ADL requirements must also have some incontinence (advanced neurological diseases such as MS, ALS, Huntington's Disease, Palliative Care, severe dementia requiring high physical care, severe rheumatoid arthritis).

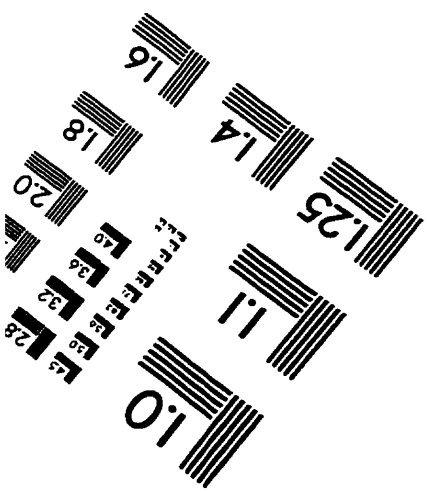
TEST TARGET (QA-3)

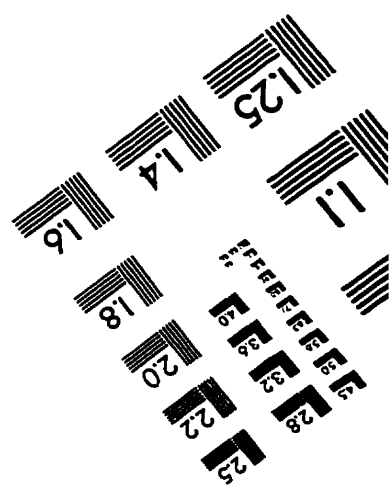












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