

**Profile of Community Therapy Services Inc. Clients
Receiving Occupational Therapy and Physiotherapy Through
The Winnipeg Regional Health Authority Home Care Program**

by

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A thesis submitted in partial fulfillment of
the requirements for the degree of

Master of Science

Department of Community Health Sciences

Faculty of Medicine

University of Manitoba

2004

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FACULTY OF GRADUATE STUDIES

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ABSTRACT

Community Therapy Services Inc. (CTS) provides contracted occupational therapy and physiotherapy services to the Winnipeg Regional Health Authority (WRHA) Home Care Program. The WRHA Rehabilitation Service Role Review recommends enhanced rehabilitation services in the community. Redirecting appropriate health care services from institutions to integrated community provision is a current initiative of the WRHA. This endeavour is consistent with the identification of home care as a priority initiative to be funded under the Health Reform Fund.

The purpose of the study is to describe the profile of individuals referred to CTS and to conduct a pilot client satisfaction survey and evaluation of outcomes of care.

The literature review explores evidence supporting the appropriateness and effectiveness of therapy services delivered in the home setting. Client - centred care, outcomes of care and quality of care references are included to support the choice of client satisfaction questionnaire and format of reporting the outcomes of therapist's actions and recommendations.

Data was obtained from CTS administrative records to determine referral trends and to describe the profile of clients referred in the most recently

completed fiscal year April 1, 2002 – March 31, 2003. Client referrals to CTS have increased about 60% from 1990 to 2003. Priority referrals have increased to 33% of referrals from 24% in 1999 – 2000. Currently 70% of referrals are for individuals over the age of 65; 55% are for individuals over the age of 75. The most common services requested related to personal care, transfers, walking education, exercise techniques, home management, wheelchairs and environmental modifications.

There was a significantly higher referral rate ($p < .001$) for individuals from high socioeconomic status community areas compared to individuals from moderate and low socioeconomic status areas. This referral rate differed from the proportion of clients receiving WRHA home care services which is higher in areas of low socioeconomic status. Individuals with multiple sclerosis who are generally younger and represent a disabling chronic illness received significantly more visits ($p < .0005$) than clients with other diagnoses. The majority of clients were satisfied with CTS services and the majority of actions undertaken and recommendations made by therapists were achieved according to the pilot evaluation.

ACKNOWLEDGMENTS

The author wishes to express sincere appreciation to the thesis committee for their assistance in preparing the proposal for this research and in the preparation of this document. Many individuals contributed to gathering the data for this research project and its completion. The board, management and staff of Community Therapy Services Inc. supported the project through approval and financial assistance, as well as by obtaining the data from the agency billing system, completing outcome evaluations and requesting individuals to complete client satisfaction questionnaires. The Winnipeg Regional Health Authority contributed the caseload and referral data for the Winnipeg Home Care Program. Thank you to each of you.

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1.0 Introduction

The Winnipeg Regional Health Authority, established in 1999, is comprised of health care providers and management professionals who are responsible to coordinate, manage, deliver, allocate funds to and evaluate health care and health promotion in Winnipeg, Manitoba (Winnipeg Regional Health Authority, 2004). The Winnipeg Regional Health Authority Rehabilitation Service Role Review (PWC Consulting - A business of Price Waterhouse Coopers, 2002) recommended enhanced rehabilitation services in the community including home rehabilitation treatment. The report indicated that planning should reflect, at a minimum, the potential for in-home rehabilitation referrals to continue their trend of averaging 10% growth per year for the next five years followed by population based growth rates of approximately 1% per year.

Community Therapy Services Inc. (CTS) provides contracted occupational therapy and physiotherapy services, delivered in a consultation and education model, to the Winnipeg Regional Health Authority (WRHA) Home Care Program. The Manitoba Home Care Program, established in 1974, is the oldest comprehensive, home care program in Canada providing services to Manitobans of all ages assessed as having inadequate informal resources to return home from hospital or to remain at home in the community (Martens et al., 2003).

Since 1992 public expenditures for Home Care in Canada have grown at three times the pace of total health spending. Predictions are that expenditures will increase almost 80% between 1999 and 2026 (Canadian Health Services Research Foundation, 2002). Manitoba experienced a 34% growth in the number of home care clients and a 119% increase (in constant dollars) in expenditures between 1990 and 1997 (Roos et al., 2001). An analysis of the Aging in Manitoba Longitudinal Study data found that 31% of the oldest old (85 + years old) participants were using home care services (Finlayson & Havens, 2001).

The mandate of the Home Care Program is twofold: 1) to provide services to persons assessed as having inadequate informal resources to return home from hospital or to remain in the community; and 2) to assess and place individuals in long-term care facilities if and when home care services cannot maintain them safely and/or economically at home and to provide them with home care services until they are placed. (Roos et al., 2001). Therapy is a core service component of the Home Care Program (Roos et al., 2001) and is integral to maintaining individuals in the community as long as possible. The Manitoba Centre for Health Policy and Evaluation Report, A Look at Home Care in Manitoba, (Roos et al., 2001) documented an upward trend from 1995/96 to 1998/99 in the number of home care clients and in the duration of their use of home care services. The report suggested that the Manitoba Home Care Program is accumulating an increasing clientele of functionally disabled children, younger adults and elders

over time. This report and the Perspectives on Home Care Data Requirements report (Roos, Mitchell, Peterson, & Shapiro, 2001) identified the importance of data availability and analysis to ensure accountability for the Home Care Program.

The Commission on the Future of Health Care in Canada (Romanow, 2003) identified that the biggest changes since Medicare was introduced in 1957, when the government of Canada passed legislation to allow the federal government to share in the cost of provincial insurance plans (Health Canada, 2004), have been outside the traditional Medicare core in areas such as pharmaceuticals and home care. The report recommended that Medicare should be modernized by expanding publicly insured services to include priority home care services. In February 2003 the Prime Minister and the Premiers reached agreement on health care renewal; this agreement identified home care as a priority initiative to be funded under the Health Reform Fund (Health Canada, 2003).

Redirecting appropriate health care services from the institutional base to integrated community provision is a current initiative of the WRHA (Winnipeg Regional Health Authority, 2002; Winnipeg Regional Health Authority, 2003a; Winnipeg Regional Health Authority, 2003b).

Community Therapy Services Inc. (CTS) has provided occupational therapy and physiotherapy services in Manitoba since the 1950's, initially as the Manitoba

Branch of the Canadian Arthritis and Rheumatism Society. The focus of CTS services is to enhance the quality of life and optimize the health and independence of its clients by providing direct services, consultation and education through collaborative partnerships with government, regional health authorities, health care providers and other organizations. (Board of Directors Community Therapy Services Inc., 2002). CTS is the primary provider of therapy services to the Manitoba Home Care Program (Roos et al., 2001) and the only provider of Occupational Therapy (OT) and Physiotherapy (PT) in the WRHA Home Care Program. An analysis of the client and service data within the agency relevant to the Winnipeg Home Care Program is a timely endeavour.

1.1 Goals:

The primary goal of this thesis is to describe the profile of clients who receive CTS services through the WRHA Home Care Program. The literature reviews evidence of the outcomes of therapy provided in the home setting and the positive impact of client centred care. A secondary goal of this thesis is to determine client satisfaction with current CTS Home Program services and to evaluate the outcomes of therapists' recommendations and actions within a program evaluation framework.

1.2 Objectives:

1. To describe characteristics of clients referred to CTS.
2. To describe the nature of services provided by CTS to clients and their caregivers.

3. To determine if clients with multiple sclerosis receive a greater number of visits than clients with other diagnoses.
4. To determine if referral patterns differ between community areas of low, moderate and high socioeconomic status.
5. To determine if the majority of clients are satisfied with CTS services.
6. To determine if the majority of therapists' recommendations and actions are achieved.

2.0 Literature Review

A literature review of therapy services provided in the home setting indicated that they are multifaceted, include a variety of diagnoses and interventions, and result in generally positive outcomes.

2.1 Diagnostic Group

2.1.1 Arthritis

Helewa et al. (1991) conducted a study to determine the effectiveness of comprehensive occupational therapy delivered in the home. One hundred and five (105) individuals with rheumatoid arthritis were randomized to receive a 6 week comprehensive occupational therapy home service; the control group received the home service at the conclusion of the 6 week trial with the experimental group. Both groups improved significantly after intervention. The experimental group was reassessed at 6 weeks after the intervention and remained stable.

An interview based study of 66 individuals found that assistive device use by home-based elderly persons with arthritis is common and that there is generally a high rate of satisfaction with device use. However subjects were found to have inadequate information on assistive devices. The authors suggested the importance of more occupational therapy involvement with elderly persons in selecting devices (Mann, Hurren, & Tomita, 1995).

Sharma (2002) reviewed a number of low-cost non-pharmacologic interventions for osteoarthritis which incorporated self-management or home-based activities and suggested that they may ultimately have a substantial public health impact.

Thirty-four (34) adults were randomized to neuromuscular stimulation plus education or education only. The authors concluded that a home-based protocol of electrical muscle stimulation for quadriceps muscle strength in older adults with osteoarthritis of the knee appeared to be a promising therapy for increasing quadriceps muscle strength without exacerbating painful symptoms. The neuromuscular stimulation group demonstrated a significant difference in quadriceps muscle strength, and improvements for chair rise time and walk time which were not significant. The control group participated in a 12 week Arthritis Self Management course only (Talbot, Gaines, Ling, & Metter, 2003).

In summary, home-based education accompanied by interventions such as exercises and assistive device acquisition are promising therapies for individuals with arthritis.

2.1.2 Cancer

Courneya et al. (2003) conducted a randomized control trial (N = 108) to determine if exercise could improve quality of life in cancer survivors beyond the known benefits of group psychotherapy. Significant differences were noted in

functional well being, level of fatigue and sum of skin folds. They concluded that a home-based moderate intensity exercise program may improve quality of life in cancer survivors beyond the benefits of group psychotherapy particularly in relation to physical and functional well being.

2.1.3 Cardiac Diseases

A randomized control trial (N = 242) of 6 months of hospital-based exercise training versus 6 months of monitored home-based exercise training after coronary artery bypass graft surgery concluded that low risk surgery patients may be served as well or better with a monitored, home-based exercise program compared with an institution-based program. Health related quality of life and social support were perceived to be greater among the individuals in the home-based group (Arthur, Smith, Kodis, & McKelvie, 2002).

Fourteen (14) individuals with heart failure were randomly assigned to an exercise only group or an exercise with adherence program group over a 24 week period. The individualized graphic feedback on exercise goals and participation and problem solving support in the adherence program resulted in more frequent exercise and improved outcomes (Duncan & Pozehl, 2003).

2.1.4 Chronic Obstructive Pulmonary Disease

Strijbos, Postma, van Altena, Gimeno and Koeter (1996) conducted a randomized control trial (N = 45) comparing a 12 week outpatient hospital-based

pulmonary rehabilitation program and a 12 week home-based pulmonary rehabilitation program for individuals with chronic obstructive pulmonary disease. Results demonstrated beneficial effects for both programs, however the home based group maintained improvement longer and demonstrated further ongoing significant improvement over 18 months.

Home-based neuromuscular electrical stimulation was provided for severely disabled persons with chronic obstructive pulmonary disease and incapacitating dyspnoea. Muscle strength and endurance and whole body exercise tolerance increased significantly and breathlessness decreased significantly during activities of daily living. The 15 participants in the study were randomly assigned either to the 6 week intervention group or to the 6 week control period before receiving the intervention (Neder et al., 2002).

2.1.5 Dementia

One hundred and seventy-one (171) families of dementia patients were randomized to an intervention group or usual care control group. Education and physical and social environmental modifications provided during a series of 5 home visits by occupational therapists improved the self-efficacy and decreased the level of upset in some caregivers and resulted in modest improvement in the daily function of individuals with dementia. A trend toward improvement was noted in all areas assessed; however, it was suggested that caregivers need

more time than the 3 month post-test to consider, accept and implement environmental strategies (Gitlin, Corcoran, Winter, Boyce, & Hauck, 2001).

Community dwelling individuals (N = 115) and their caregivers were randomly assigned to a combined exercise and caregiving program or to routine medical care. The trial group exercised more, had fewer days of restricted activity, improved scores in physical role functioning, and were less depressed at 3 months when the intervention ended in comparison with the routine care group. Better physical role functioning was maintained at 2 years and there was a trend to less institutionalization due to behavioural disturbance. The improvements in depression were also maintained at 2 years (Teri et al., 2003).

There is modest evidence in the literature that interventions provided in a familiar home environment demonstrate benefits for individuals with dementia.

2.1.6 Fibromyalgia

Minimal improvement was found in a 16 week progressive program of home-based, videotaped-based, low-impact aerobic exercise program targeted to improve physical function and signs and symptoms of fibromyalgia in previously sedentary women aged 20 to 55 years (N = 143) . Fractionation of exercise training i.e. 2 short bouts versus 1 long bout of training provided no advantage in terms of exercise adherence, improvements in fibromyalgia symptoms or physical function. High attrition rates and problems with adherence were noted

in both exercise groups. Adherence problems and smaller improvements suggested that supervised aerobic exercise training using modes such as walking and cycling may be superior for women with fibromyalgia (Schachter, Busch, Peloso, & Sheppard, 2003).

2.1.7 Hip Fracture

Sikorski and Senior (1993) reported that a Domiciliary Rehabilitation and Support Program (N = 615) providing early surgery, rapid mobilization, avoidance of sedation and early discharge with physiotherapy and nursing support provided in the home for elderly patients with proximal femoral fractures was found to be safe and cost effective.

Levi (1997) conducted a prospective cohort study of a consecutive sample of community living women (N = 130), aged 65 years and over discharged after hip fracture to three types of settings - home, inpatient rehabilitation and skilled nursing. She concluded that the type of posthospital setting was associated with resource utilization, but not self-care outcome after hip fracture.

A randomized control study (N = 42) of one month duration was conducted to determine the effect of a home exercise program of weight-bearing exercise established at a visit by a physiotherapist on strength, postural control and mobility. Subjects were over 64 years of age, were recruited an average of

seven months after hip fracture and demonstrated significantly improved strength and mobility (Sherrington & Lord, 1997).

A demonstration study (N = 148) to describe the development, implementation and results of a home-based rehabilitation protocol for older persons after hip fracture concluded that a systematic assessment and intervention protocol, targeting impairments and activities of daily living was feasible, safe and effective (Tinetti et al., 1997).

A randomized control trial (N = 304) with 12 months of follow-up of a home-based systematic multicomponent rehabilitation program for individuals over 65 years of age was found to be no more effective at 6 months and 12 months in promoting recovery than usual home-based rehabilitation. However, compared with previous cohorts, participants randomized to usual care in the study, received more rehabilitation and home care services and experienced a higher rate of recovery. The authors identified that the challenge is to determine the composition and the duration of rehabilitation and home services that will ensure optimal functional recovery most efficiently in older persons after hip fracture (Tinetti et al., 1999).

Ambulation outcomes for individuals (N = 81) with hip fracture with a mean age of 75 years were evaluated in a randomized control trial comparing home and institutional rehabilitation. The home group received 5 visits by a physiotherapist

after discharge home from an acute hospital for surgical treatment of hip fracture. Significantly higher ambulation scores for community and household ambulation were observed in this group compared with the group receiving 1 month of conventional institution-based rehabilitation (Kuisma, 2002).

Neuromuscular stimulation at home of the quadriceps muscle of the affected leg to promote recovery after surgical fixation for hip fracture was evaluated in a double-blind study with stratified randomization (N = 24). Participants were females over the age of 75 and showed faster recovery of mobility than the placebo group. The authors concluded that neuromuscular stimulation at home is feasible and may be effective in speeding recovery of mobility after surgical fixation of hip fracture (Lamb, Oldham, Morse, & Evans, 2002).

In summary, the literature supports the effectiveness of home-based treatment for persons with hip fractures. Early discharge with rehabilitation interventions such as exercises, weight-bearing, ambulation and attention to function in activities of daily living have resulted in positive outcomes.

2.1.8 Multiple Sclerosis

A randomized controlled crossover trial (N = 40) was undertaken by Wiles et al. (2001) to determine if physiotherapy can improve mobility in chronic multiple sclerosis and if there is a difference between being treated at home and as a hospital outpatient. Both the home-based and the outpatient-based therapy

resulted in a significant treatment effect over no therapy. There was no significant difference between home and hospital groups. Benefits of improved mobility, subjective well-being and mood, although clinically significant, were relatively short lived (~ 8 weeks) suggesting that ongoing physiotherapy input might be necessary for sustained benefit. This benefit could be defined as improvement in mobility or prevention of deterioration. The home-based therapy was more costly, mainly due to travel time for skilled staff.

The effectiveness and cost of multidisciplinary home-based care in multiple sclerosis was compared to hospital care in a prospective randomized control trial (N = 201) with a 1 year follow-up. There was a significant difference between the two groups favouring home based management in four SF-36 health survey health dimensions – general health, bodily pain, role-emotional and social functioning. The cost of home-based care was slightly less than that of hospital care, mainly due to a reduction in hospital admissions (Pozzilli et al., 2002).

2.1.9 Osteoporosis

Papaioannou et al. (2003) conducted a randomized control trial (N = 74) to investigate the effect of a 6 month home-based exercise program versus usual activities on the quality of life for women with osteoporosis. Results demonstrated significant improvement in the exercise group in the quality of life domains of symptoms, emotion and leisure and also in a balance test.

2.1.10 Parkinson's Disease

Pelissier and Perennou (2000) concluded that to be performed at home effectively, exercise programs should be taught early in the course of the disease, and during an on phase, with physiotherapists giving special attention to postural control and prevention of falls. For the most severely impaired patients they concluded that rehabilitation and home adaptations are the only means to achieve a less dependent status when secondary occurrence of motor decline develops and DOPA therapy is no longer effective.

2.1.11 Stroke

The DOMINO study (N = 327) comparing domiciliary and hospital-based rehabilitation services after discharge from hospital after stroke found no difference between the services at 6 months, but home therapy was more effective than outpatient department therapy at improving household ability and leisure activity in the patients discharged from the stroke unit. At 6 months and at 1 year follow-up the difference in benefits shown by the home therapy group discharged from the stroke unit were lost, largely because the patients who had been treated in the outpatient departments continued to improve (Gladman & Lincoln, 1994).

Despite the literature indicating that a plateau in mobility function is reached by 6 months after stroke, postacute training of gait in hemiplegic subjects (N = 18) using a home-based training model resulted in improved gait and the perception

of improved function after training emphasizing weight bearing, balance, segmental control, stretching and bracing (Rodriquez et al., 1996).

A randomized control trial (N = 111) was conducted by Logan, Aherne, Gladman and Lincoln (1997) to determine whether stroke patients would benefit from an enhanced occupational therapy service. Participants in the enhanced group received more frequent and timely visits after referral and received significantly more visits. Results showed that the enhanced service was beneficial in the short term, but long term benefits remained unclear.

A randomized control trial (N = 147) of individuals with a stroke who were not admitted to hospital demonstrated that occupational therapy significantly reduced disability and handicap. Differences were still apparent at one year (Walker, Gladman, Lincoln, Siemonsma, & Whiteley, 1999).

A single blind randomized control study (N = 138) demonstrated that a six week home program of occupational therapy post discharge, tailored to the recovery goals identified by the client, improved the functional outcome and satisfaction of persons with stroke compared to the routine follow-up group. Initial benefits, statistically significant at 8 weeks, were diminished at the 6 month follow-up possibly reflecting the method of follow-up (postal versus interview) or a transient effect of the rehabilitation input which the authors concluded may justify a more

prolonged therapy input. (Gilbertson, Langhorne, Walker, Allen, & Murray, 2000).

A 6 month study (N = 83) of early supported discharge with continuity of rehabilitation at home, concluded that using goal directed functional activities based on the patient's personal interests, should be the rehabilitation service of choice for moderately disabled stroke patients fulfilling certain criteria, provided that further evaluation during the first year after stroke reveals no great changes in outcome or resource use (Holmqvist, von Koch, & Pedro-Cuesta, 2000).

A randomized clinical trial (N = 60) with mean follow-up after 60 days compared therapeutic and neuromuscular exercises with multidisciplinary professional supervision in Turkish inpatient settings, with conventional exercises with family caregiver and limited professional supervision. They found that patients rehabilitated in acute inpatient settings had better motor, functional and cognitive outcomes. Spasticity changes did not differ (Ozdemir, Birtane, Tabatabaei, Kokino, & Ekuklu, 2001).

A randomized controlled study (N = 185) of community occupational therapy services demonstrated a greater level of independence in activities of daily living over a period of 1 year for individuals receiving up to 5 months of occupational therapy at home compared to those with no intervention (Walker, Hawkins, Gladman, & Lincoln, 2001).

A short term community-based exercise program for individuals (N = 25) with a history of stroke demonstrated significantly improved mobility, functional capacity and balance, and an ability to retain these improvements in a repeated measures design trial (Eng et al., 2003).

In summary there is evidence of the effectiveness of home based and community rehabilitation services for persons who have had a stroke. Early supported discharge with the continuity of therapy services at home, and home therapy services for individuals not admitted to hospital are also supported by the literature.

2.1.12 Total Joint Arthroplasty

A descriptive comparative study (N = 96) compared functional outcomes of total joint hip and knee arthroplasty patients discharged to subacute rehabilitation programs with those discharged home with home physical therapy follow-up. A self evaluation questionnaire was administered pre-operatively and at 1 month and 3 months after surgery. All individuals improved significantly over time with no statistically significant difference between the home and subacute rehabilitation group. The authors suggested that rehabilitation in a subacute facility may be most useful for the elderly patient with comorbidities, particularly those who live alone (Kelly & Ackerman, 1999).

Individuals with a total knee arthroplasty (N = 160) randomly assigned to either outpatient clinic based rehabilitation provided by physiotherapists or home-based rehabilitation monitored by periodic telephone calls from a physiotherapist, with emphasis on a common home exercise program, performed similarly with no significant differences noted on the measures used (Kramer, Speechley, Bourne, Rorabeck, & Vaz, 2003).

2.2 Falls

An intervention strategy was implemented for a population (N = 301) with multiple risk factors, i.e. postural hypotension, use of sedatives, use of at least 4 prescription medications and impairment in arm or leg strength or range of motion, balance, transfers skills or gait. The intervention resulted in a significant reduction in the risk of falling among elderly persons in the community. In addition, the proportion of persons who had the targeted risk factors was reduced for the intervention group at 1 year follow-up post intervention. The authors suggested that this risk factor modification may partially explain the reduction in the risk of falling (Tinetti et al., 1994)

A randomized control trial (N = 233) of a general practice program of home-based strength and balance retraining exercises to prevent falls in elderly women was effective in significantly reducing falls and injuries after 1 year in women 80 years of age and older (Campbell et al., 1997).

A home-based program of strength and balance retraining exercises, individually prescribed by a physiotherapist during a randomized controlled trial (N = 152) to reduce falls and injuries in women 80 years of age and older continued to show benefits over a 2 year period for those who kept exercising. Those complying with the exercise program at 2 years follow-up had a higher level of physical activity at baseline, were more likely to have reported falling in the year before the study and had remained more confident in the first year about not falling compared with the rest of the exercise group (Campbell, Robertson, Gardner, Norton, & Buchner, 1999).

In depth interviews explored the perspectives of 9 older women who had not followed through with environmental modification recommendations to reduce their risk of falls in the home. Findings suggested that exerting control was a behavioural, cognitive and affective process the women used to make decisions about whether or not to follow through with recommendations made during an occupational therapy home visit, based on their knowledge of environmental risks, perceptions of degree of risk, perceived ability to mediate these risks through behaviour and the degree of freedom they had in decision making (Clemson, Cusick, & Fozzard, 1999).

Home visits by an occupational therapist for assessment and modification of environmental hazards were found to prevent falls among older people at increased risk of falling. However, the effect may have been attributed to

changes in behaviour that enabled older people to live more safely in both the home and the external environment in addition to the effect of the home modifications (Cumming et al., 1999).

Home safety assessment on its own did not result in significant differences in falls incidence rates and injuries in a randomized trial (N = 252) including falls prevention strategies such as education and awareness raising, exercise, home modifications and medical assessment. The home assessment group did, however, have lower rates of falls and injuries than persons who did not receive a home safety assessment and these were sustained post intervention. The home assessment group was significantly more likely to modify their home environment; all participants reported a significant reduction in concern about falling (Peel, Steinberg, & Williams, 2000).

Cumming et al. (2001) conducted a study (N = 178) to examine the adherence to home modification recommendations made by an occupational therapist. They concluded that the only significant predictors of adherence were a belief that home modifications can prevent falls and having help at home from relatives.

Robertson, Gardner, Devlin, McGee and Campbell (2001) found that a controlled trial (N = 450) of an individually tailored exercise program delivered by trained nurses from within general medical practices with 1 year follow-up was effective in reducing falls.

In a randomized, controlled trial 60 clients who were hospitalized in a geriatric hospital for falling were visited at home by an occupational therapist to assess environmental hazards and make recommendations. Rate of falls, hospitalization for falls, institutionalization and death were not significantly reduced; however, the intervention group demonstrated more activity and autonomy and were therefore likely increasing the risk for falls (Pardessus et al., 2002).

A meta-analysis of 4 controlled trials (N = 1016) of home exercise programs to prevent falls in older people demonstrated that the overall effect of such programs was to reduce the number of falls and the number of fall-related incidents. Participants 80 years of age and older benefited significantly more than those aged 65 to 79. The program resulted in a higher absolute reduction in injurious falls when offered to those with a history of a previous fall (Robertson, Campbell, Gardner, & Devlin, 2002).

A randomized intervention trial (N = 38) to determine the relative effect of education and of activity programs on the fear of falling, balance, strength and health status demonstrated that both programs reduced the fear of falling. Individuals in the activity program significantly improved balance, and gains were noted in the perception of physical health status. Balance scores declined in the

education group but this group gained in perception of mental health status (Brouwer, Walker, Rydahl, & Culham, 2003).

In summary, positive outcomes have been found for home visits targeting personal risk factors for falls, environmental hazards and modifications, and addressing perceived risk and the ability to mediate the risk.

2.3 Frail Elderly

Rockwood described “frail” as a failure to integrate responses in the face of stress. The atypical disease presentations are related to functions that require integration of many systems: higher order cortical processing, staying upright, maintaining balance and walking. Failure to maintain these complex integration activities can result in delirium, falls or immobility and often urinary incontinence from problems unrelated to the urinary tract (Rockwood, 1997).

A randomized control trial (N = 167) to ascertain whether older people could maintain their quality of life and independence after home modification and use of community services as recommended by an occupational therapist found no difference at 6 months between the group that had the occupational therapist's recommendations carried out and the group that did not. The authors suggest that the responsiveness of the outcome measures used in the short term may differ in the 12 month assessments that were in progress (Liddle et al., 1996).

Strength training is an intervention that can potentially improve the physical health status of many frail elders. Functionally impaired frail elderly (N = 140) were randomly assigned to strengthening exercises in their homes 3 times a week for 10 weeks while control subjects continued their normal activities. Participants demonstrated a significant improvement of strength gain on chair rise performance, gait speed and in mobility tasks such as gait, transfers, stooping and stair climbing, but not with endurance, balance or disability (Chandler, Duncan, Kochersberger, & Studenski, 1998).

Frail elderly persons (N = 104) who underwent a comprehensive functional assessment and evaluation of their home environment experienced functional decline over time regardless of whether they were in the control group receiving usual services or in the intervention group receiving home environmental interventions and assistive technology. However, results indicated that the rate of decline can be slowed and institutional and certain in-home personnel costs can be reduced through a systematic approach to providing environmental modification and assistive technology (Mann, Ottenbacher, Fraas, Tomita, & Granger, 1999).

Persons 75 years of age and older (N = 94) who were physically frail and living at home participated in a 6 month, home-based intervention program that included physical therapy and that focused primarily on improving underlying impairments in physical abilities. The control group received an education program. Persons

in the intervention group had less functional decline over 12 months from the time of entering the study. The benefit was observed among participants with moderate frailty but not those with severe frailty. Frequency of admission to personal care home did not differ significantly between the groups (Gill et al., 2002).

A systematic review and meta-regression analysis (18 trials including 13,447 individuals) of home visitation programs to prevent functional decline concluded that preventative home visitation programs appear to be effective, provided interventions are based on multidimensional geriatric assessment and include multiple follow-up visits and target persons at lower risk for death (Stuck, Egger, Hammer, Minder, & Beck, 2002).

A randomized trial (N = 94) of a preventative home-based physical therapy program for community dwelling, physically frail persons over the age of 75 years demonstrated the feasibility and safety of the program. It also highlighted the challenges of such a program when it is implemented among persons of advanced age and physical frailty. An adherence program was implemented before the start of an intervention (Gill et al., 2003).

In summary, studies support home based interventions for the frail elderly to slow their functional decline.

2.4 Pain Management

Persistent pain is common among older persons and is even more pronounced among those who need professional help for their daily living. A Swedish study (N = 94) of persons 75 years of age and older, receiving professional home help supports the belief that older persons make use above all of everyday activities such as distraction, rest and medication to manage pain. The study also indicated the need to experiment with specific physical and cognitive methods to relieve pain (Blomqvist & Hallberg, 2002).

2.5 Prevention

Significant benefits for an occupational therapy preventative treatment group were found across a variety of health, function and quality of life domains from services specifically tailored for multi-ethnic, independent living older adults. This was examined in a randomized controlled trial (N = 361) set in two government subsidized apartment complexes. The authors suggested that the results indicated that preventive health programs based on occupational therapy may mitigate against the health risks of older adulthood (Clark et al., 1997).

A 9 month program of preventive occupational therapy demonstrated cost effectiveness in conjunction with a trend toward decreased medical expenditures in a randomized trial (N = 163) of independent living older adults. The authors concluded that it is not activity per se but activity that is personally meaningful

and contextually anchored within older people's everyday lives that has the greatest ability to enhance health-related outcome (Hay et al., 2002).

2.6 Additional references

Additional references report positive outcomes of home exercise programs and other interventions, however these programs were initiated in outpatient departments or community based settings, rather than the individual's home.

2.7 Occupational Therapy in Community Care

Occupational therapy is concerned with the engagement of individuals in occupations of their choice. The profession is committed to client-centred practice and the belief that engagement in occupations which are personally meaningful enhances health and well-being (Hobson, 2004).

Several studies document the role of occupational therapists in the recommendation and provision of assistive devices and training persons in their use (Finlayson & Havixbeck, 1992; Mann, Hurren, & Tomita, 1993; Mann et al., 1995; Mann et al., 1999).

Discharge planning for transition from hospital to home and developing therapeutic relationships with family caregivers are additional roles of occupational therapists in a home setting (Clark, Corcoran, & Gitlin, 1995; Gage, Cook, & Fryday-Field, 1997; Patterson, Viner, Saville, & Mulley, 2001).

In a recent special issue of OT Now, highlighting the contributions of occupational therapists in home and community services, Egan (2003) outlined the role of occupational therapy as an essential service in the community, promoting continued participation in daily activities throughout the lifespan even with persons with acute and/or chronic conditions.

A critical literature review describing the provision of education and functional training programs by occupational therapists with older adults to maximize their occupational performance concluded that programs are effective in three areas: prevention of functional decline and falls, stroke and rheumatoid arthritis (Wilkins, Jung, Wishart, Edwards, & Norton, 2003).

The Canadian Association of Occupational Therapists recognizes and publicizes the contributions and effectiveness of occupational therapists in home care with position statements and a home care marketing kit (Canadian Association of Occupational Therapists, 2004a; Canadian Association of Occupational Therapists, 2004b).

2.8 Physiotherapy in Community Care

Physiotherapists assess and treat disorders of the cardiorespiratory, musculoskeletal and nervous systems causing impaired function. The goal of

physiotherapy is to enhance an individual's capacity for functional movement, thereby maximizing independence (Hobson, 2004).

Koch et al. (1994) developed a standardized physiotherapy assessment and intervention protocol for prevention and treatment of community-living elderly persons at risk for falls and immobility.

Collins et al. (1998) examined physical therapy services in home health care in one community. Therapists reported that direct care was the most time consuming portion of each home visit and that exercise was the most frequent treatment. Older patients received shorter treatments, and patients with neurological diagnoses received the longest treatments. Patient education was provided in 54% of all home visits.

The Canadian Physiotherapy Association encourages the delivery of physiotherapy care in the community and in the home (Canadian Physiotherapy Association, 2000).

2.9 Client-Centred Care

Law, Baptiste and Mills (1995) defined client-centred practice as:

“Client-centred practice is an approach to providing occupational therapy, which embraces a philosophy of respect for, and partnership with, people receiving services. Client-centred practice recognizes the autonomy of

individuals, the need for client choice in making decisions about occupational needs, the strengths clients bring to a therapy encounter, the benefits of client-therapist partnership and the need to ensure that services are accessible and fit the context in which a client lives.” (p. 253)

Client-centred care to enable occupation of elderly disabled persons living in their home involves adjusting to the current situation since the client’s capacities, goals and environment change over time (Lilja & Borell, 2001).

The Occupational Performance Process Model (Fearing, Law, & Clark, 1997) is based on core concepts of occupation and client-centred practice and incorporates other theoretical perspectives. It is a problem-solving model designed as a guideline for practice that can be applied to all clients. The seven stages of the model are:

- 1) name, validate and prioritize issues
- 2) select potential intervention models
- 3) identify occupational performance components and environmental conditions
- 4) identify strengths and resources
- 5) negotiate targeted outcomes and develop action plans
- 6) implement plans through occupation and
- 7) evaluate occupational performance outcomes

2.10 Outcomes

The Concise Oxford Dictionary (Allen, 1990) defines outcome as a result or visible effect. The literature reports positive outcomes through client involvement in care and provision of services in a client-centred manner.

Greenfield, Kaplan and Ware (1985) demonstrated that client involvement in care and assuming an active role in decision making resulted in fewer limitations imposed by disease on a client's functional ability.

Clients who participated in goal setting were more able to recall goals, felt they were active participants in the goal formulation process and perceived themselves better able to manage after completing rehabilitation (Wressle, Eeg-Olofsson, Marcusson, & Henriksson, 2002).

Compliance with recommended environmental modifications and exercises related to the client exerting control and making choices, to a willingness to accommodate changes and exercises within everyday life, to client perceived severity and risk, to the number of exercises prescribed, and to the effectiveness of the recommendations and exercises in ameliorating unpleasant symptoms (Campbell et al., 2001; Clemson et al., 1999; Henry, Rosemond, & Eckert, 1999).

Harms and Law (2001) indicated that a number of factors positively affect client outcomes: a contract between service provider and the client, educating clients

and providing them with the information to allow them to participate in decision making, and providing services in a client-centred or family-centred manner.

An American study of occupational therapy home visit recommendations for equipment and modifications demonstrated that recommendations varied little, but that publicly insured persons received fewer home modifications than privately insured persons and were discharged from rehabilitation with significantly lower levels of functional independence (Lysack & Neufeld, 2003).

An Australian study of the use of assistive equipment at 10 weeks after hospital discharge found that 89.9% of the 407 items of prescribed equipment were used. They found 100% use of 3 types of equipment – bath boards, hand-held shower hoses and stair rails (Hoffmann & McKenna, 2004).

Today's health care climate expects program evaluation measures to demonstrate outcomes (Higgins, 2002; Valluzzi, 2002). Canadian accreditation standards (Canadian Council on Health Services Accreditation, 2000) include client-centred care, quality improvement measures, goal setting and achievement of positive outcomes. In addition common themes in health care reform include client-centred care, emphasis on evidence-based care and an accountable health system, a shift from institutional care and illness to community-based services and a focus on wellness, an increased focus on long term care, community services and home care (Mitchell, 1997).

2.11 Outcome Measures

Finch, Brooks, Stratford and Mayo (2002) indicated that an outcome measure is best seen by clients in terms of their ability to perform an activity or participate in some desired role. The authors also cautioned to evaluate close to what you treat as the primary outcome and to evaluate where the impact of your strategy, intervention or program is the strongest with a measurement plan that is ideally tailored to your treatment and your client's outcomes. They also recommended an undertaking that is a balance between what is ideal and what is possible and to include the client's perspective if you believe that your interventions are client-centred.

Individualized outcome measures identified in the rehabilitation and psychology literature have been reviewed by Donnelly and Carswell (2002).

Chiu (2001) described initiatives of COTA, Comprehensive Rehabilitation and Mental Health Services, to develop a Service Outcome System and a Client Feedback System to demonstrate service effectiveness and to enhance service quality. Few outcome measures appropriate for use in community practice were found. COTA chose to use the Functional Autonomy Measurement (SMAF), developed by Hebert, Carrier and Bilodeau (1988) as a pre and post test to evaluate outcomes in physical rehabilitation.

The Westcotes Individualized Outcome Measure was developed by the Community Occupational Therapy Service in Leicester, England as an outcome measure and clinical audit system to evaluate whether the desired or predicted client outcomes have been achieved (Eames, Ward, & Siddons, 1999).

The Questionnaire on the Quality of Community Based Occupational Therapy Services which is congruent with client centred practice values has been under development since 1996 (Hebert, Thibeault, Landry, Boisvenu, & Laporte, 2000).

2.12 Quality of Care

Campbell, Roland and Buetow (2000) define quality of care for individual patients as their ability to access effective care with the aim of maximizing health benefit in relation to need. These authors regard quality of care to be a concept that has the most meaning when it is related to individual users. They suggest that people presenting to a health professional expect good individual care which they will evaluate in relation to how it meets their individual needs. Different stakeholders value different components of quality of care; the authors' conceptual framework places interpersonal care equally with clinical care as a key process of quality of care. Questions proposed by the authors include:

“...is a user who receives good access but ineffective care receiving worse or better care compared to a user who has had difficulties accessing effective care? Moreover, is a procedure rated as effective by a health professional, but rated poorly as an outcome by a user, good or bad care?” (p.1622)

Pascoe (1983) asserted that the conceptual context of many patient satisfaction measures is not sensitive to the range of dimensions that may influence a patient's evaluation. Measures that focus on only one dimension of care or inquire primarily about general service satisfaction are insensitive to the multiple dimensions that may influence a patient's reactions. Unidimensional or general measures may not adequately consider aspects of care responsible for relative dissatisfaction, which would lead to inflated reports of satisfaction.

Cleary and McNeil (1988) also stated that a global measure of satisfaction is likely to reflect numerous features of the care received and may not necessarily reflect aspects of care that are the most closely related to the quality of care.

2.13 Summary

There is evidence in the literature of the provision and effectiveness of occupational therapy and physiotherapy services in the community for a variety of diagnoses and concerns. The occupational performance model is useful for consultative practice in the Community Therapy Services Home Care Program to ensure that priority problems are identified and addressed in a client-centred manner. The client's problems impact others around them, including caregivers, and the definition of client is expanded to include family members and employed caregivers. Client, therapist and community resources are identified to achieve expected outcomes and meaningful action is taken to address identified issues or

environmental conditions. Negotiated targeted outcomes result in a greater understanding of when to start and stop interventions and provide a reference for evaluating client satisfaction, outcomes and quality of care.

3.0 Methods

3.1 Study Design

This was a descriptive study of Community Therapy Services Inc. (CTS) using data from a variety of sources:

- CTS RISE Health Suite Version 4.1.044 that contains client demographics, diagnostic, service request, visit, and billing information.
- Winnipeg Regional Health Authority (WRHA) Home Care Program – Minimum Data Set – Home Care database.
- WRHA Postal Code Conversion File – October 2002.
- CTS Client Satisfaction Questionnaires.
- CTS Outcome of Therapist's Actions and Recommendations Survey.

Four hypotheses were generated.

Hypothesis 1 (Objective 3) Individuals with Multiple Sclerosis received more visits than clients with other diagnoses.

Hypothesis 2 (Objective 4) The proportion of home care clients referred to CTS did not vary between low, moderate and high socioeconomic status community areas.

Hypothesis 3 (Objective 5) The majority of clients were satisfied with CTS services.

Hypothesis 4 (Objective 6) The majority of therapist's recommendations and actions were achieved.

3.2 Approvals

The board of directors, administration and staff of Community Therapy Services were oriented to this proposal; their support and participation was requested and granted. The proposal was granted approval by the University of Manitoba Bannatyne Campus Health Research Ethics Board and the Winnipeg Regional Health Authority Research Review Committee. A Research Access Application submitted to the Research Review Committee of the Winnipeg Regional Health Authority was also approved.

3.3 Program Evaluation – Program Logic Model

A Programme Evaluation Workbook (Letts et al., 1999) incorporates a program logic model to guide a systematic approach to collect reliable information in an efficient and effective manner about how well a program is meeting its goals. It is designed as a guide to incorporate program evaluation into everyday practice. A draft of the Program Logic Model for the CTS Home Therapy Program was developed using the Programme Evaluation Workbook (Letts et al., 1999) as a guide. The evaluation of the outputs of home visits and several short term objectives outlined in the draft program logic model (Appendix A) were included in this design.

3.4 Profile of CTS Clients (Objective 1 & 2)

Data to allow a descriptive study of the profile of individuals referred to the Community Therapy Services Inc. (CTS) Winnipeg Home Care Program were

obtained from the CTS RISE Health Suite Version 4.1.044 using Crystal Reports software with the assistance of the accounting department. This database records client demographics, diagnostic, service request, visit, and billing information. Where the data could not be analyzed directly from these systems and reports, it was exported to Microsoft Excel. A postal code conversion file for conversion of CTS client's postal codes to Winnipeg Regional Health Authority (WRHA) Community Area was obtained from the WRHA. The chart number and postal code for CTS clients obtained from the RISE Health Suite, and the postal code conversion file were both imported to Microsoft Excel to convert the client's postal code to a community area.

Many clients have numerous diagnoses. The diagnostic information in the database is limited to the one or two diagnoses most likely to have instigated the referral to Community Therapy Services. Service data is limited to a maximum of five categories per client. Both diagnostic and service categories were coded based on information provided at the time of referral and may not include all service categories that were actually provided once the client was on the CTS caseload and service needs were verified.

The profile of clients was characterized by descriptive statistics. The sample to describe the profile of CTS Winnipeg Home Care Program clients and the service provided consisted of all referrals to the program during the fiscal year April 1, 2002 – March 31, 2003. This included clients who were referred to therapy

services only and who were not receiving other services from the WRHA Home Care Program at the time of referral.

Data to evaluate hypothesis 1 and 2 were also obtained from the CTS RISE Health Suite Version 4.1.044. The WRHA Home Care Program client count as of April 1, 2002 and intake from April 1, 2002 to March 31, 2003, categorized by community area, was obtained from the WRHA Minimum Data Set - Home Care database in order to assess hypothesis 2.

Sample size calculations were completed for hypothesis 1 and 2 (Hassard, 1991). Details of the sample size calculation for hypotheses 1 & 2 are located in Appendix B.

3.5 Hypothesis 1 (Objective 3) Individuals with Multiple Sclerosis received more visits than clients with other diagnoses.

Preliminary analysis of data indicated that there should be sufficient clients during one fiscal year; an n of 13 was required. Hypothesis 1 was analyzed by means of a nonparametric Mann-Whitney U Test to determine if there was a significant difference in the number of visits for clients with multiple sclerosis and clients with other diagnosis.

3.6 Hypothesis 2 (Objective 4) The proportion of home care clients referred to CTS did not vary between low, moderate and high socioeconomic status community areas.

Socioeconomic status takes into account the non medical determinants of health such as environmental, household and individual conditions associated with poor health and hence a greater need for health care. Assessing the Health of Manitoba's Children: A Population – Based Study (Brownell et al., 2001) characterized the community areas of Winnipeg according to relative socioeconomic risk. A Look at Home Care in Manitoba (Roos et al., 2001) has established that the poorer the neighbourhood of residence, the higher was the use of home care in Manitoba. It was hypothesized that referrals to CTS followed the same pattern and that, during the period studied, the proportion of home care clients referred to CTS did not vary significantly between neighbourhoods of low, moderate and high socioeconomic status. For the purposes of this study neighbourhoods/ community areas of low socioeconomic status included Downtown, Point Douglas and Inkster, communities of moderate socioeconomic status included River East, Seven Oaks and River Heights, and communities of high socioeconomic status included Assiniboine South, Fort Garry and St. Vital. An n of 342 in each group of community areas was required. Hypothesis 2 was analyzed by means of a Chi-squared (χ^2) test for a difference in proportions between home care clients referred to CTS in low, moderate and high socioeconomic status community areas. The Bonferroni correction for multiple tests was used to establish the significance level, ie $p = 0.05/3 = .0167$.

3.7 Hypothesis 3 (Objective 5) The majority of clients were satisfied with CTS services.

The Questionnaire on the Quality of Community Based Occupational Therapy Services has been under development since 1996 (Hebert et al., 2000). During the development of the questionnaire the authors reported that construct validity was ensured by following a model of sound service evaluation and through respecting the values of client-centred practice promoted by the Canadian Association of Occupational Therapists (Canadian Association of Occupational Therapists, 1997). Prior to reaching the questionnaire's fourth and current version, questions that remained unanswered by more than 10% of clients in earlier versions were removed by the authors, as were questions with minimal variance. Questions that were conceptually similar and yielded a high correlation were withdrawn. Reliability was reported as Cronbach's $\alpha = .84$. According to the authors, test – retest reliability κ values were adequate for all items, ranging from .43 to 1. A factor analysis identified three major factors responsible for 60% of the observed variance: 1) overall satisfaction and organizational parameters 2) interpersonal nature of therapeutic intervention 3) technical issues such as enhancing autonomy, quality of life, and integration.

The Questionnaire on the Quality of Community Based Occupational Therapy Services (Hebert et al., 2000) was modified to suit CTS clients. Wording was modified to refer to therapy in general, rather than exclusively to occupational

therapy, to decrease the reading comprehension level and to be consistent with the French language version. Questions were reframed to the first person and response choices were changed from categories of “Yes”, “In Part” and “No” to “Agree”, “Partly Agree” and “Do Not Agree”. The revisions were piloted with two individuals of senior age whose first language was not English. They were able to understand the questions and the response choices.

Data to evaluate client satisfaction with services were to be obtained from a subset of clients; a stratified sample of discharged clients was requested to complete a questionnaire regarding the quality of therapy services (Appendix C). The stratified sample of clients requested to respond to a client satisfaction survey was planned to include 10 respondents from the 3 low socioeconomic status community areas, 10 from the 3 moderate socioeconomic status community areas, and 10 from the 3 high socioeconomic status community areas (N = 30) within the WRHA (Winnipeg Regional Health Authority, 2000). In addition responses of 5 clients from each of the 10 major diagnostic categories (cerebrovascular accident, rheumatic diseases, osteoarthritis, neurological conditions, orthopedic surgery, multiple sclerosis, general medical conditions, cardiovascular conditions, cancer and cognitive impairment) referred to the agency were to be included (N = 50).

Therapists were requested to ask individuals at the time of discharge if they were willing to participate in a survey about client satisfaction by completing the brief

questionnaire and returning it by mail. The request could be addressed to the individual or to a family member who was knowledgeable about the services provided by the therapist. If the individual/family expressed interest, the therapist explained the information included in the Research Participant Information and Consent Form (Appendix D). If the individual/family remained interested, the Research Participant Information and Consent Form, together with the questionnaire, were left at the home for completion. Responses were completed by the individual who received the service or by a family member who was involved. The first page of the questionnaire included statements and responses to indicate consent to participate.

Responses on questionnaires returned with the appropriate consent were recorded in Microsoft Excel and comments were recorded in Microsoft Access for analysis. Results of the client satisfaction survey were summarized using descriptive statistics.

3.8 Hypothesis 4 (Objective 6) The majority of therapists' recommendations and actions were achieved.

Agency documentation procedures were revised to clearly identify targeted outcomes and recommendations/actions as well as progress toward or achievement of same on the client record. The Westcotes Individualized Outcome Measure, developed as an outcome measure and clinical audit system to evaluate whether the desired or predicted client outcomes had been achieved

was modified to suit agency targeted outcomes (Eames et al., 1999). Therapists were requested to complete this modified measure (Appendix E) at the time of client discharge, identifying categories of recommendations and actions and status of achievement at discharge for any clients who agreed to participate in the client satisfaction survey and to submit the completed forms to the investigator. Returned client satisfaction questionnaires were matched with summaries of the outcome of therapists' actions and recommendations that were submitted to ensure consent for their use had been granted. The sample included the same clients who responded to the client satisfaction survey. Details of the outcome of therapists' actions and recommendations were recorded in Microsoft Excel and related comments were entered in Microsoft Access for analysis. Outcomes of therapists' actions and recommendations were summarized using descriptive statistics.

3.8.1 Quality of Care

Responses on client satisfaction questionnaires were compared for clients where therapists indicated all outcomes were achieved with clients where therapists indicated partial achievement of outcomes to determine whether client satisfaction contributed to the outcome of the interventions. Significance was tested by means of a Mann-Whitney U Test.

4.0 RESULTS

4.1 Profile of Community Therapy Services WRHA Home Care Program

Clients

4.1.1 Annual Referrals Fiscal Years 1989 – 1990 to 2002 – 2003

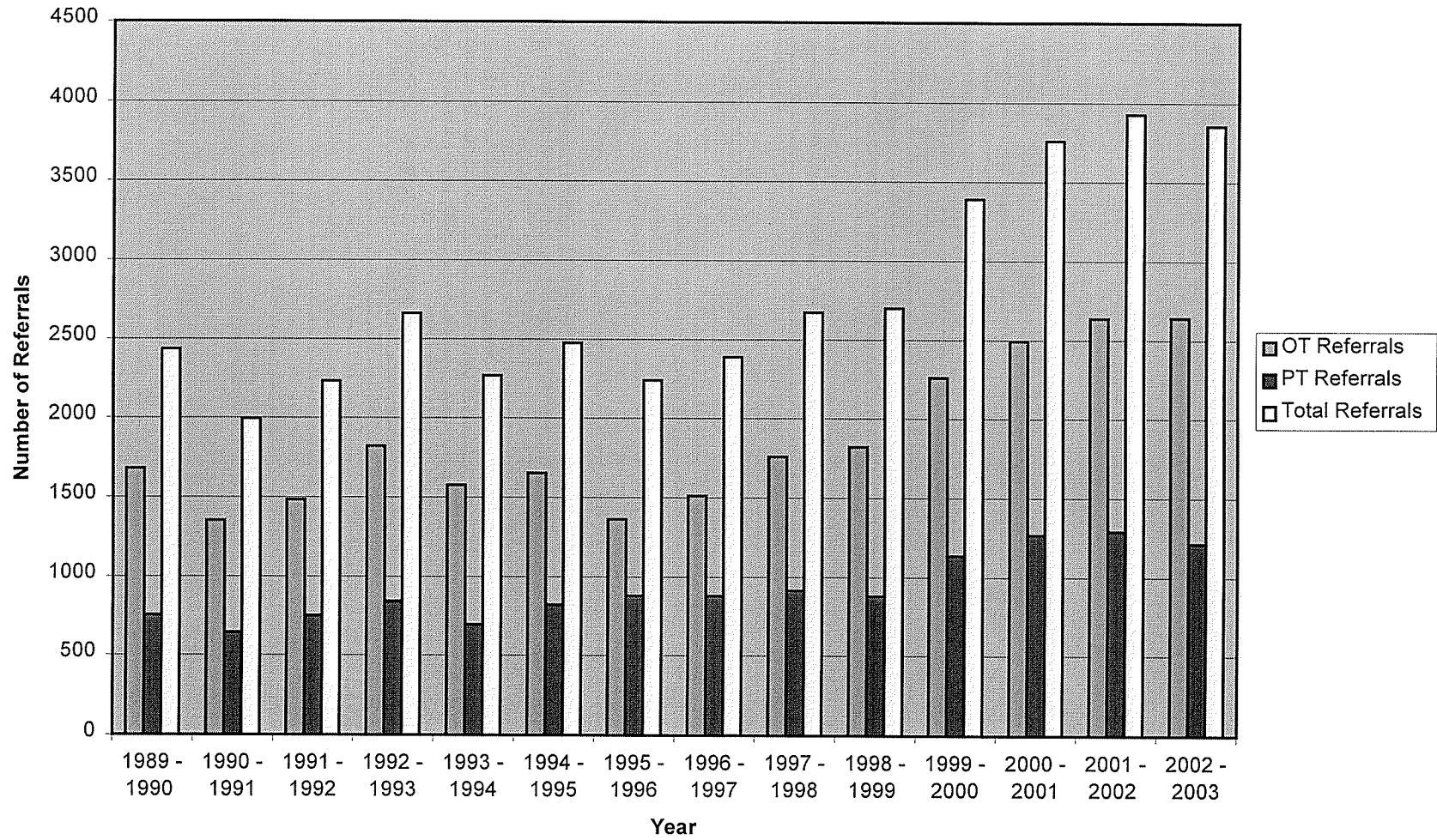
Data for the most recent five years were obtained from the current version of the Rise Health Suite database. Referral numbers for the years prior to 1998 – 1999 were obtained from agency files and may include some referrals to other programs for occupational therapy within the Winnipeg region. Annual referrals are shown in Table 4.1 and Figure 4.1.

Table 4.1: Annual Referrals to CTS Winnipeg Home Care Program

Fiscal Year	OT Referrals	PT Referrals	Total Referrals	Year/ 1989 - 1990 Change
1989 - 1990	1679	755	2434	
1990 - 1991	1352	642	1994	-18.08%
1991 - 1992	1483	749	2232	-8.30%
1992 - 1993	1820	840	2660	9.29%
1993 - 1994	1576	693	2269	-6.78%
1994 - 1995	1653	820	2473	1.60%
1995 - 1996	1362	878	2240	-7.97%
1996 - 1997	1509	878	2387	-1.93%
1997 - 1998	1759	914	2673	9.82%
1998 - 1999	1821	877	2698	10.85%
1999 - 2000	2260	1132	3392	39.36%
2000 - 2001	2492	1265	3757	54.35%
2001 - 2002	2637	1289	3926	61.30%
2002 - 2003	2639	1213	3852	58.26%

The total number of referrals to the Community Therapy Services Home Care Program increased approximately 10% in the ten years from 1989 – 1990 to 1998 – 1999. Data from the two most recent fiscal years indicated an increase in referrals of approximately 60 % from 1989 - 1990. Fiscal year 1999 - 2000 demonstrated the biggest year over year increase of approximately 25%.

Figure 4.1: CTS Winnipeg Home Care Program Referrals



4.1.2 Five Year Comparison of Urgent and A.S.A.P. Referrals

Priority referrals which met the criteria for urgent visits (within two working days) or visits as soon as possible (A.S.A.P. - within two weeks) have increased from 801 in 1999 – 2000 to 1268 in 2002 – 2003, an increase of 58%. (Table 4.2)

Table 4.2: Priority Referrals 1998 – 1999 to 2002 – 2003

Fiscal Year	Total Urgent	% Urgent	Total A.S.A.P.	% A.S.A.P.	Total Priority
1998 – 1999	60	39%	92	61%	152
1999 – 2000	264	33%	537	67%	801
2000 – 2001	284	35%	529	65%	813
2001 – 2002	396	35%	735	65%	1131
2002 – 2003	363	29%	905	71%	1268

The number of priority referrals for occupational therapy exceeded the number for physiotherapy as shown in Table 4.3. Physiotherapy urgent referrals ranged from 18 % to 29% of the total number of urgent referrals for the last three years; physiotherapy a.s.a.p. referrals ranged from 28% to 32% of the total number of a.s.a.p. referrals for the past three years.

Table 4.3: Comparison of OT and PT Urgent and A.S.A.P. Referrals 1998 - 1999 to 2002 - 2003

Fiscal Year	Urgent Referrals					A.S.A.P. Referrals				
	#OT	% OT	#PT	% PT	Total	#OT	% OT	#PT	% PT	Total
1998 - 1999	50	83%	10	17%	60	66	72%	26	28%	92
1999 - 2000	186	70%	78	30%	264	393	73%	144	27%	537
2000 - 2001	202	71%	82	29%	284	381	74%	148	28%	529
2001 - 2002	304	77%	92	23%	396	525	71%	210	29%	735
2002 - 2003	298	82%	65	18%	363	612	68%	293	32%	905

The percentage of priority referrals for each discipline for the last five fiscal years is shown in Figure 4.2 and Figure 4.3. For fiscal year 2002 – 2003 the priority referrals to occupational therapy accounted for 35% of the total occupational therapy referrals and priority referrals to physiotherapy accounted for 30% of the total physiotherapy referrals.

Figure 4.2: Occupational Therapy Priority Referral Distribution

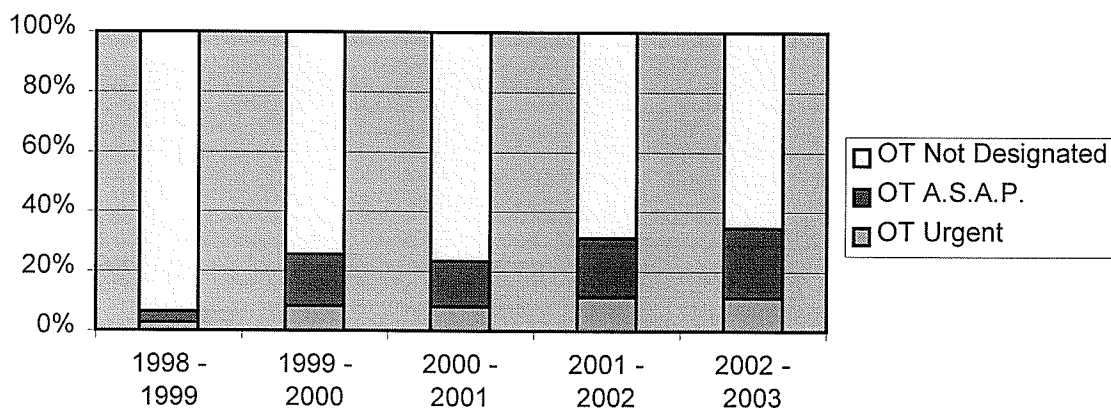
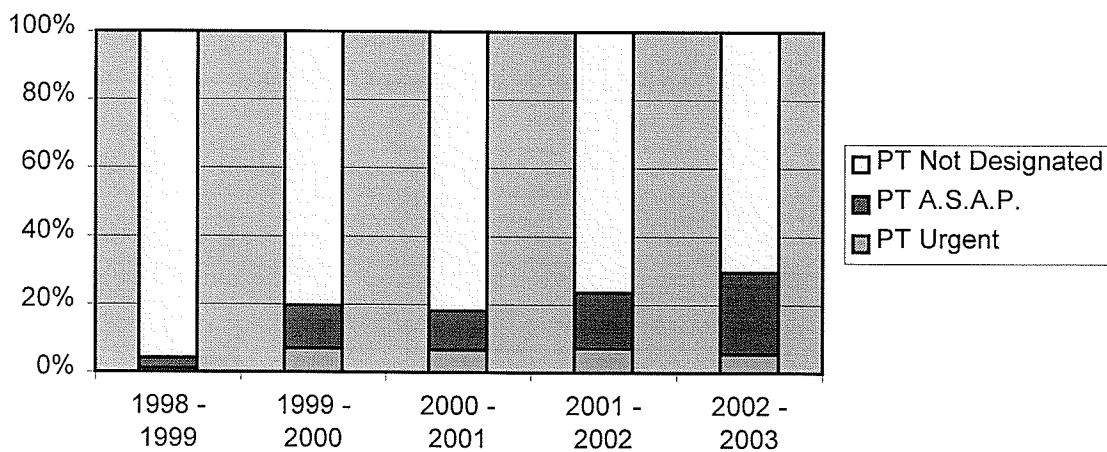


Figure 4.3: Physiotherapy Priority Referral Distribution



4.1.3 Distribution of Referrals by Age Category 2002 - 2003

Referrals were rarely for individuals under the age of 18. Referrals for individuals age 85 and over accounted for 23% of total referrals; referrals for individuals age 75 – 84 accounted for 32% of total referrals. Seventy percent of referrals were for individuals over the age of 65. Table 4.4 illustrates the distribution of referrals by age.

Table 4.4: Distribution of Referrals by Age Category 2002 - 2003

Age Category	# of OT Referrals	# of PT Referrals	Total Referrals	% of Referrals
0 - 18	12	1	13	0.3%
19 - 44	223	94	317	8.2%
45 - 64	584	231	815	21.2%
65 - 74	408	197	605	15.7%
75 - 84	837	397	1233	32.0%
85+	575	293	868	22.5%
Total	2639	1213	3852	100%
0 - 64	819	326	1145	30%
65+	1819	887	2706	70%
75+	1411	690	2101	55%

4.1.4 Distribution of Referrals by Diagnosis 2002 - 2003

The ten most common diagnoses identified on the referrals to Community Therapy Services Inc. Home Care Program during 2002 – 2003 are presented in Table 4.5.

Table 4.5: Ten Most Common Diagnoses Referred to CTS 2002 - 2003

Diagnoses	Frequency	%
Cerebrovascular Accident	517	7.8%
Cardiovascular Conditions incl. CHF	463	7.0%
Medical Conditions – General	436	6.6%
Cancer, Leukemia, Multiple Myeloma	414	6.3%
Osteoarthritis	409	6.2%
Cognitive Impairment and Alzheimer's Disease	304	4.6%
Neurological Conditions incl. CNS and PNS	292	4.4%
Rheumatic Disease (excl. OA and RA)	282	4.3%
Diabetes incl. Diabetic Neuropathy	263	4.0%
Multiple Sclerosis	240	3.6%

There was some variation between Occupational Therapy and Physiotherapy in the most commonly referred diagnoses as illustrated in Table 4.6. Those diagnoses with a “*” did not appear in the list of the twelve most common diagnoses of the other discipline.

Table 4.6: Most Common Diagnoses Referred to Occupational Therapy and Physiotherapy 2002 – 2003 (in descending order)

Occupational Therapy	Physiotherapy
Cardiovascular Conditions incl. CHF	Cerebrovascular Accident
Cerebrovascular Accident	Medical Conditions – General
Cancer, Leukemia, Multiple Myeloma	Osteoarthritis
Medical Conditions - General	Cardiovascular Conditions incl. CHF
Osteoarthritis	*Orthopedic Conditions – General
Cognitive Impairment and Alzheimer's	Multiple Sclerosis
Neurological Conditions	*Orthopedic Surgery
*Rheumatic Disease excl. OA & RA	Cancer, Leukemia, Multiple Myeloma
Diabetes incl. Diabetic Neuropathy	Cognitive Impairment and Alzheimer's
*Orthopedic Conditions – Back	Diabetes incl. Diabetic Neuropathy
Multiple Sclerosis	Neurological Conditions
*COPD	*Fracture without Surgery

4.1.5 Services Requested at Time of Referral 2002 - 2003

The most common categories of services requested include personal care, transfers, walking education, exercise techniques, home management, wheelchairs and environmental recommendations. These services accounted for 96% of the requests indicated on the referral. Again, there is some variation among the most commonly requested services from occupational therapy and physiotherapy as shown in Table 4.7 and Table 4.8.

Table 4.7: Occupational Therapy Services Requests 2002 - 2003

Service	Number of Requests	% of Requests
Personal Care	1740	26.97%
Transfers	1528	23.68%
Home Management	1223	18.96%
Walking Education	746	11.56%
Wheelchair	618	9.58%
Environmental	234	3.63%
Exercise Techniques	199	3.08%
Skin Care/Pressure Care	65	1.01%
Cognitive Assessment	40	0.62%
Splints/Braces/Slings	23	0.36%
Other	13	0.20%
Pain Management	7	0.11%
Feeding/Swallowing	7	0.11%
Behaviour Management	5	0.08%
Respiratory Assessment	2	0.04%
Mental Health Functional Assessment	1	0.02%
Return to Work Assessment	1	0.02%

Table 4.8: Physiotherapy Services Requests 2002 - 2003

Service	Number of Requests	% of Requests
Exercise Techniques	837	38.11%
Walking Education	643	29.28%
Personal Care	177	8.06%
Transfers	176	8.01%
Home Management	139	6.33%
Pain Management	64	2.91%
Environmental	45	2.05%
Splints/Braces/Slings	42	1.91%
Wheelchair	35	1.59%
Other	18	0.82%
Respiratory Assessment	13	0.59%
Cognitive Assessment	3	0.14%
Skin Care/Pressure Care	3	0.14%
Return to Work Assessment	1	0.05%

4.1.6 Distribution of Community Therapy Services Referrals by Community Area 2002 - 2003

Data for the Winnipeg Regional Health Authority is subdivided into its 12 community areas (Figure 4.4).

Table 4.9 and Figure 4.5 compare Community Therapy Services referrals to the number of clients on the WRHA Home Care database for each community area for fiscal year 2002 – 2003. The referral rate by community area varied from 20% to 38% with an overall referral rate of 23% of WRHA Home Care clients.

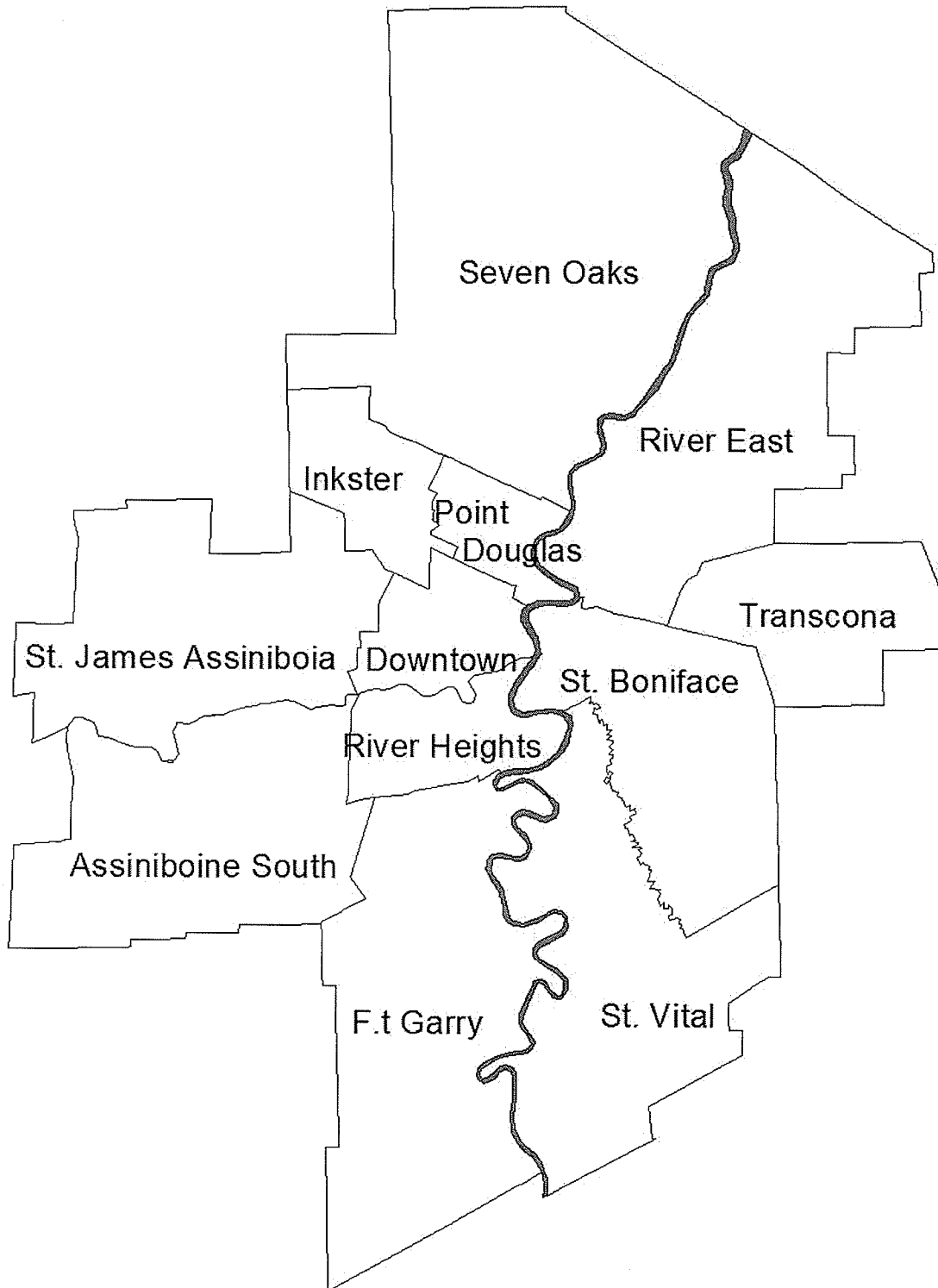


Figure 4.4: Winnipeg Regional Health Authority Community Areas

Roos, N.P., Stranc, L., Peterson, S., Mitchell, L., Bogdanovic, B., & Shapiro, E. (2001). *A Look at Home Care in Manitoba Winnipeg*: Manitoba Centre for Health Policy and Evaluation

Table 4.9: Comparison of Home Care Clients and CTS Referrals 2002 - 2003

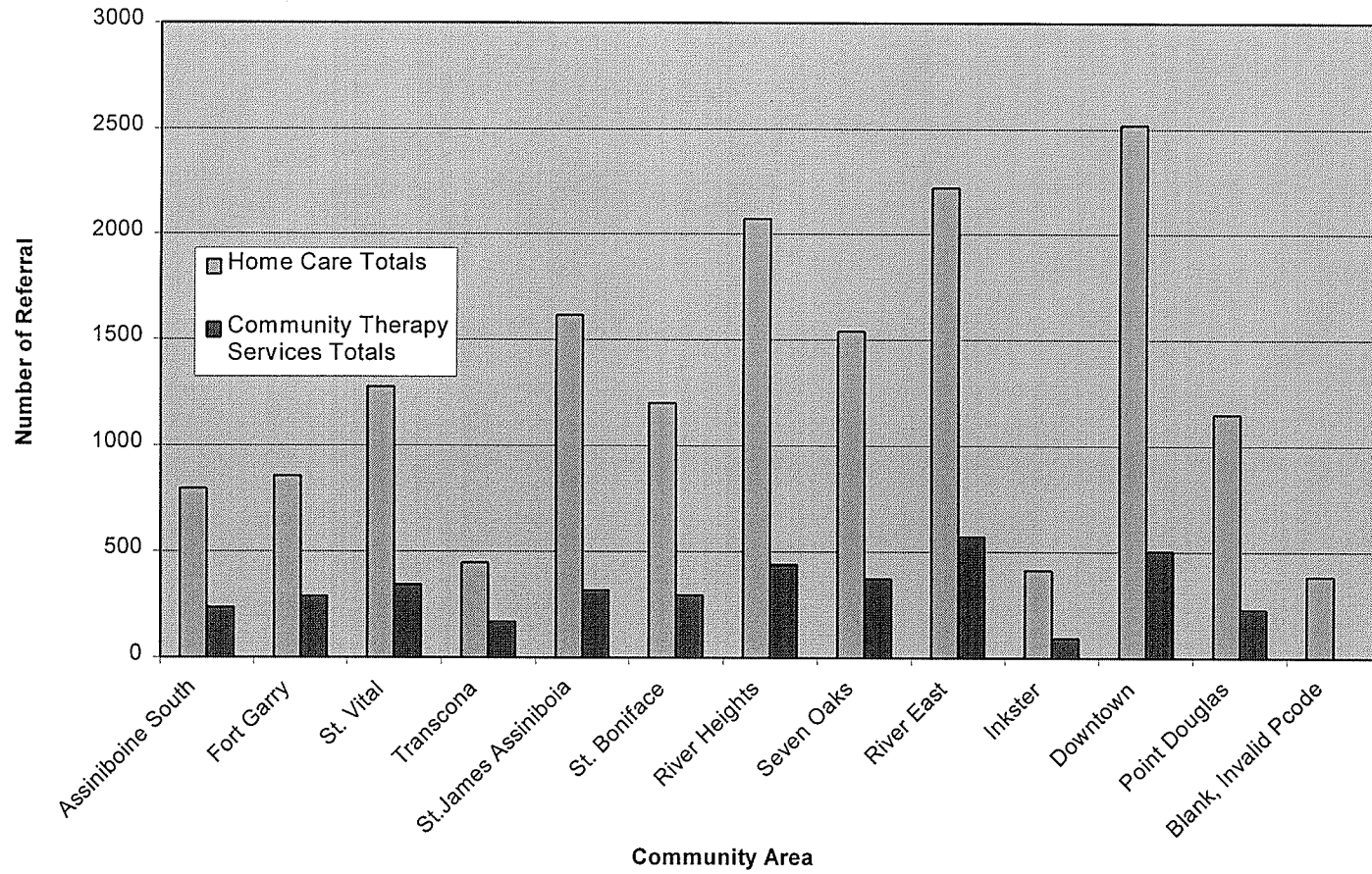
Community Area	WRHA Home Care Clients	Community Therapy Services Referrals	%
Assiniboine South	796	237	30%
Fort Garry	854	289	34%
St. Vital	1275	342	27%
Transcona	448	168	38%
St. James Assiniboia	1616	317	20%
St. Boniface	1200	294	25%
River Heights	2072	438	21%
Seven Oaks	1540	373	24%
River East	2221	570	26%
Inkster	412	93	23%
Downtown	2519	503	20%
Point Douglas	1146	228	20%
Blank, Invalid Pcode	383		
TOTAL	16482	3852	23%

Distribution of Community Therapy Services referrals by community area is indicated in Table 4.10 and Figure 4.6. Occupational therapy referrals accounted for 69% of total referrals with a variation among community areas from 62% to 75% of total referrals.

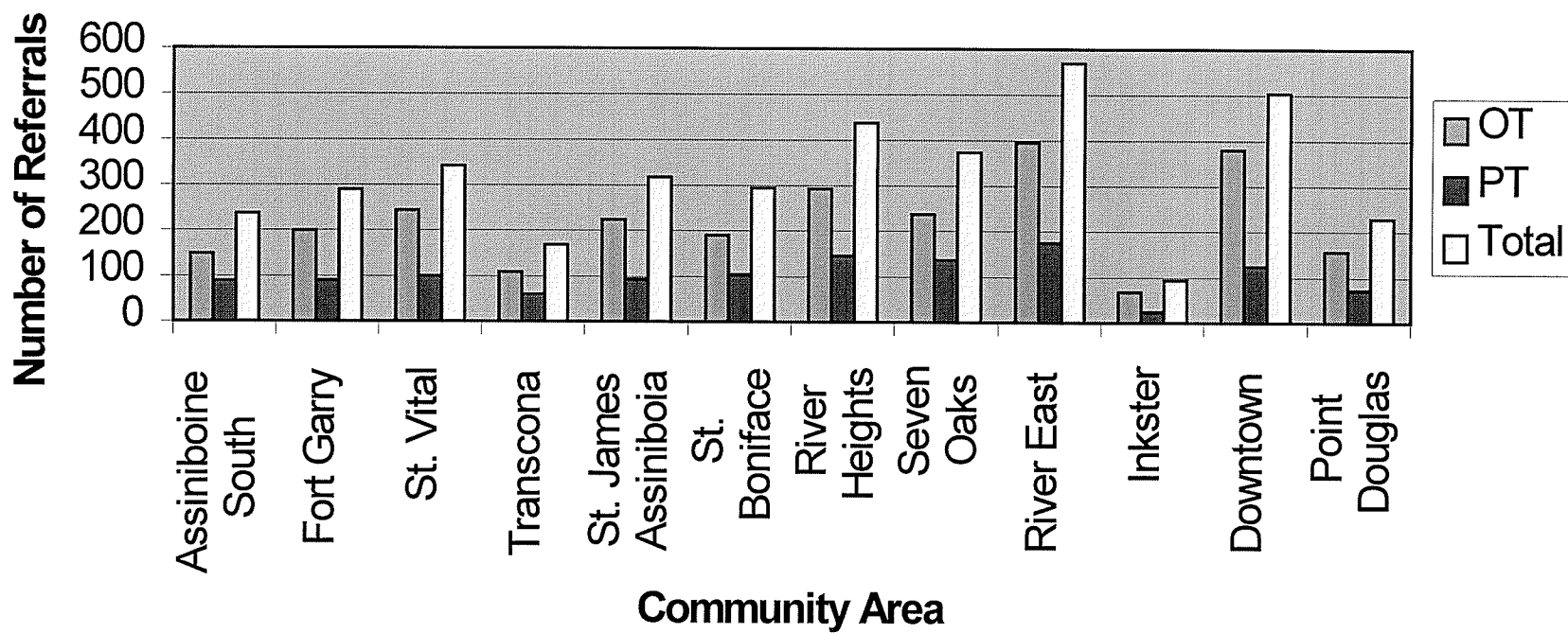
Table 4.10: Distribution of CTS Referrals by Community Area 2002 - 2003

Community Area	OT	PT	Total	% OT
Assiniboine South	148	89	237	62%
Fort Garry	199	90	289	69%
St. Vital	243	99	342	71%
Transcona	109	59	168	65%
St. James Assiniboia	223	94	317	70%
St. Boniface	190	104	294	65%
River Heights	292	146	438	67%
Seven Oaks	237	136	373	64%
River East	395	175	570	69%
Inkster	68	25	93	73%
Downtown	379	124	503	75%
Point Douglas	156	72	228	68%
Total	2639	1213	3852	69%

Figure 4.5: Community Area Home Care Clients and CTS Referrals 2002 - 2003



**Figure 4.6:
Occupational Therapy and Physiotherapy Referrals by
Community Area 2002 - 2003**



4.1.7 Community Therapy Services Visits 2002 – 2003

Totals for therapy visits included visits during fiscal year 2002 – 2003 for individuals whose intervention was continued from the previous fiscal year as well as individuals who were referred during 2002 – 2003 and received their first visit before April 1, 2003.

Table 4.11 illustrates the distribution of therapy visits by community area. Not all home care clients receive therapy services; refer to Table 4.9: Comparison of Home Care Clients and CTS Referrals 2002 – 2003 for the proportion of Home Care clients referred to Community Therapy Services in each community area. Occupational therapy visits are notably high in Transcona and physiotherapy visits are notably low in Downtown.

Table 4.11: Distribution of Home Care Clients and Therapy Visits

2002 - 2003

Community Area	Home Care Clients	CTS Visits	% CTS Visits/ Home Care Clients	OT Visits	% OT Visits/ Home Care Clients	PT Visits	% PT Visits/ Home Care Clients
Assiniboine South	796	602	75.6%	309	38.8%	293	36.8%
Fort Garry	854	651	76.2%	434	50.8%	217	25.4%
St. Vital	1275	796	62.4%	516	40.5%	280	22.0%
Transcona	448	487	108.7%	323	72.1%	164	36.6%
St. James Assiniboia	1616	747	46.2%	528	32.7%	219	13.6%
St. Boniface	1200	611	50.9%	375	31.3%	236	19.7%
River Heights	2072	930	44.9%	623	30.1%	307	14.8%
Seven Oaks	1540	937	60.8%	630	40.9%	307	19.9%
River East	2221	1589	71.5%	947	42.6%	642	28.9%
Inkster	412	177	43.0%	128	31.1%	49	11.9%
Downtown	2519	1017	40.4%	840	33.3%	177	07.0%
Point Douglas	1146	571	49.8%	406	35.4%	165	14.4%
Blank, Invalid Pcode	383						
TOTAL	16482	9115	55.3%	6059	36.8%	3056	18.5%

Number of Occupational Therapy Visits

The median number of visits from an occupational therapist was 2 visits per Community Therapy Services client. The mean number of visits from an occupational therapist was 2.53 per client.

Forty percent (40%) of clients received only one visit.

Forty seven (47%) received two to four visits.

Less than two percent (2%) received ten or more visits.

Number of Physiotherapy Visits

The median number of visits from a physiotherapist was 2 visits per Community Therapy Services client. The mean number of visits from a physiotherapist was 2.67 per client.

Thirty seven (37%) of clients received only one visit.

Forty nine (49%) received two to four visits.

Less than two percent (2%) received ten or more visits.

4.2 Hypothesis One – Individuals with Multiple Sclerosis Received More Visits than Clients with Other Diagnoses.

Table 4.12 illustrates the comparison of the number of visits for individuals with multiple sclerosis with the number of visits for individuals with other diagnoses. The median number of occupational therapy visits for individuals with multiple sclerosis was 3. The median number of occupational therapy visits for individuals with all other diagnoses was 2. The median number of physiotherapy visits for individuals with multiple sclerosis was 3. The median number of physiotherapy visits for individuals with all other diagnoses was 2.

**Table 4.12: Visits for Individuals with Multiple Sclerosis and Other Diagnoses
2002 - 2003**

Number of Visits	Individuals with Multiple Sclerosis		Individuals with Other Diagnoses	
	OT Services	PT Services	OT Services	PT Services
1	26	7	953	415
2	24	13	588	268
3	16	8	331	172
4	14	4	157	94
5	11	7	83	63
6	5	2	54	37
7	7	3	36	16
More than 7	8	2	82	35
Total	111	46	2284	1100

The proportion of visits for each group is illustrated in Figure 4.7 and Figure 4.8. There is a trend of individuals with multiple sclerosis receiving more visits than individuals with other diagnoses.

Figure 4.7: Occupational Therapy Visits for Individuals with Multiple Sclerosis

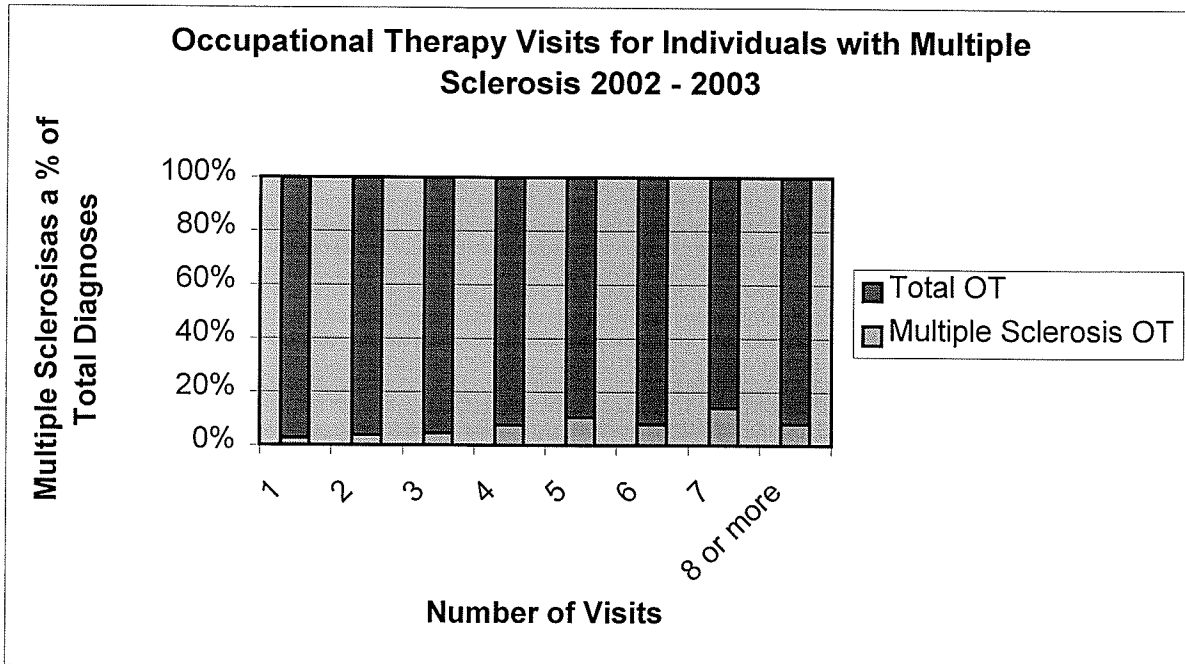
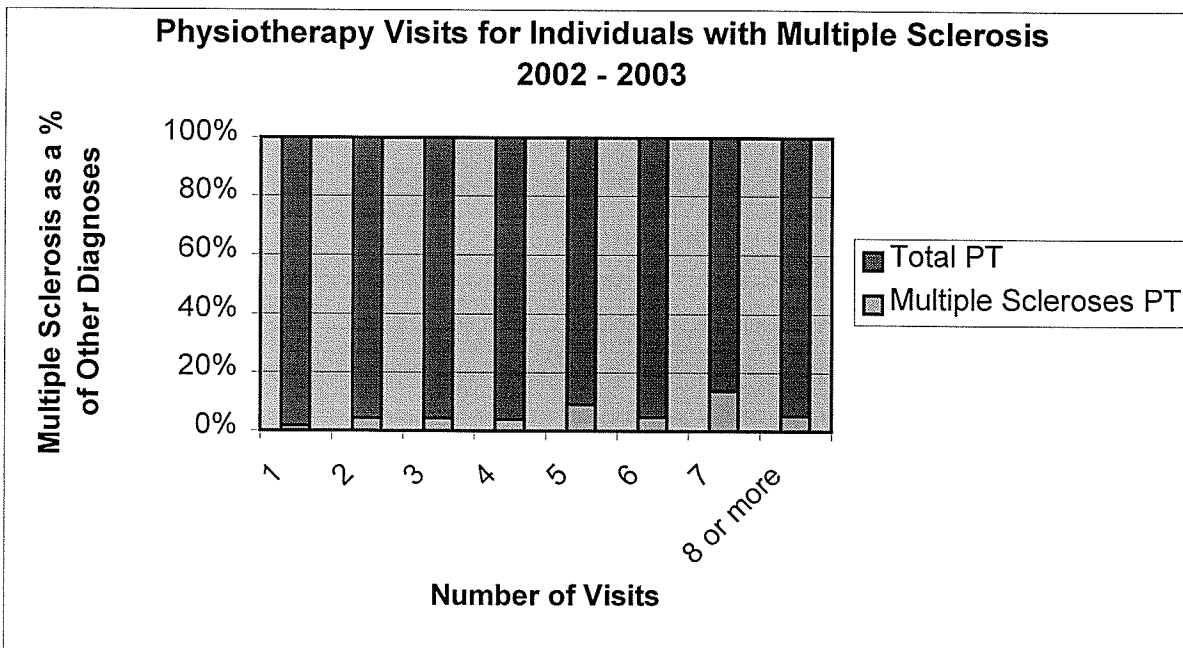


Figure 4.8: Physiotherapy Visits for Individuals with Multiple Sclerosis



Hypothesis one was analyzed using Number Cruncher Statistical System (NCSS 2001) software. The results from a non parametric Mann-Whitney U Test for a difference in medians were used to determine if the number of visits for individuals with multiple sclerosis was significantly higher than the number of visits for individuals with other diagnoses.

The number of occupational therapy visits for individuals with multiple sclerosis was found to be significantly higher than for individuals with other diagnoses (multiple sclerosis median = 3, other diagnoses median = 2, z-value 5.4295, $p = .00001$). The number of physiotherapy visits for individuals with multiple sclerosis was also significantly higher than for individuals with other diagnoses (multiple sclerosis median = 3, other diagnoses median = 2, z-value 3.4443, $p = .000286$).

The distribution of visits is illustrated in:

Figure 4.9: Multiple Sclerosis Occupational Therapy Visits

Figure 4.10: Other Diagnoses Occupational Therapy Visits

Figure 4.11: Multiple Sclerosis Physiotherapy Visits

Figure 4.12: Other Diagnoses Physiotherapy Visits.

Figure 4.9: Multiple Sclerosis Occupational Therapy Visits

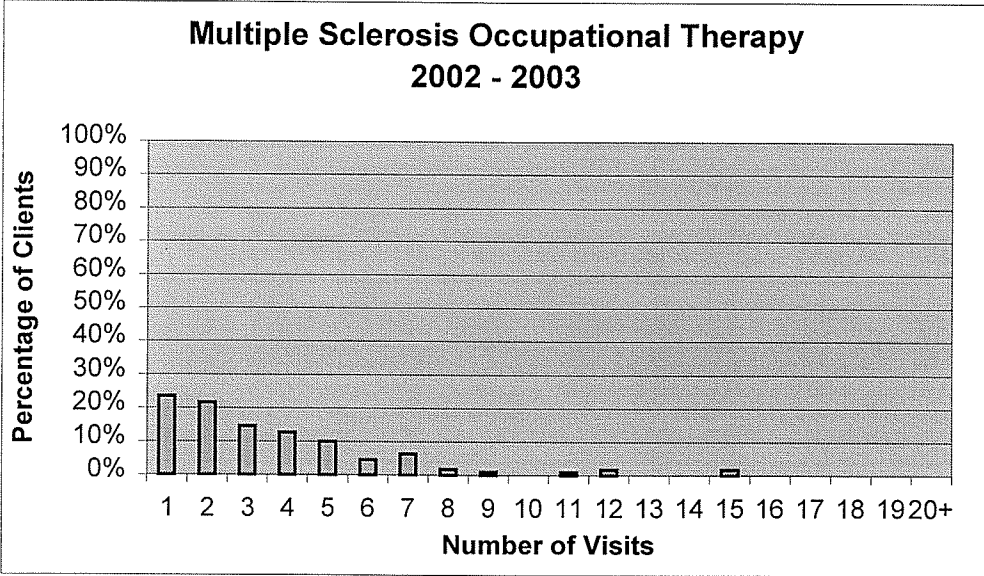


Figure 4.10: Other Diagnoses Occupational Therapy Visits

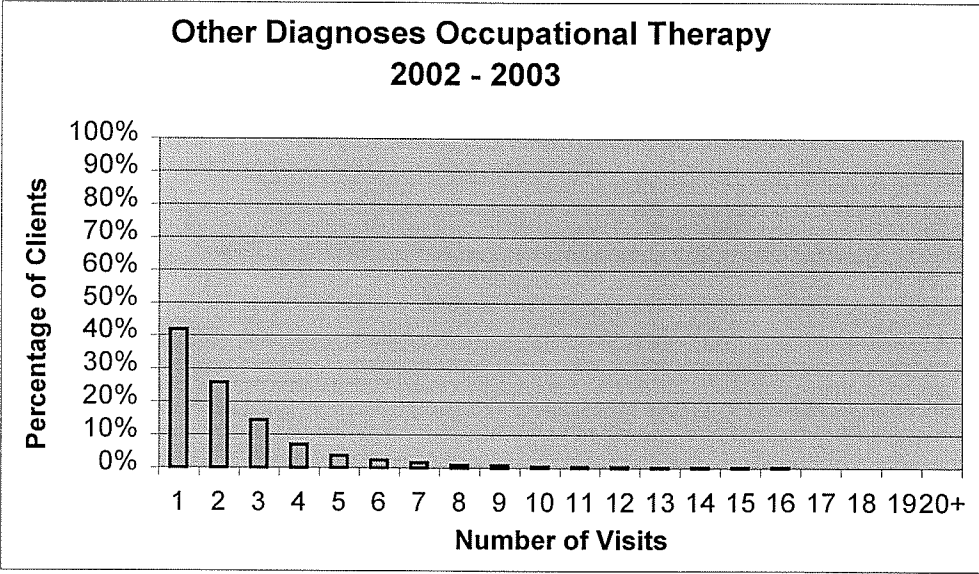


Figure 4.11: Multiple Sclerosis Physiotherapy Visits

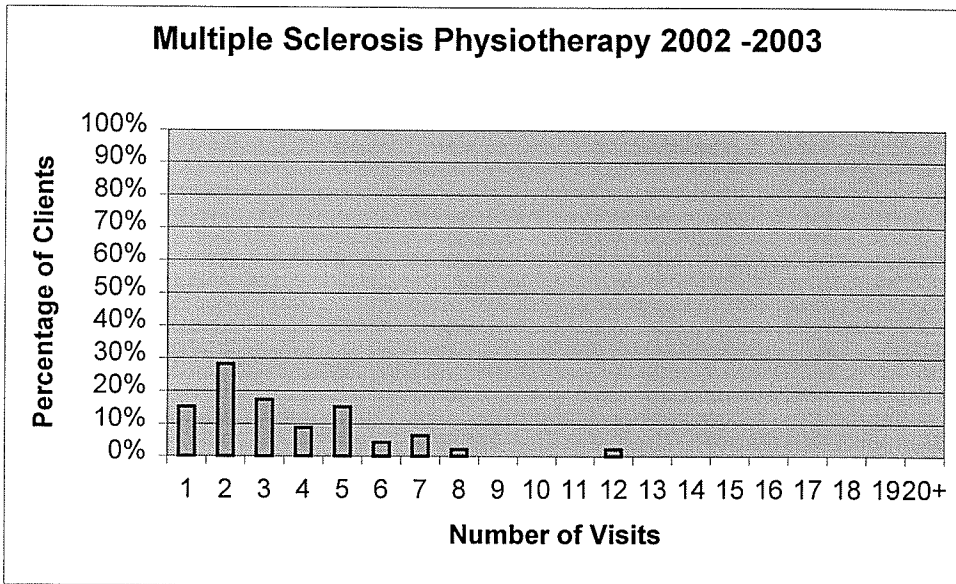
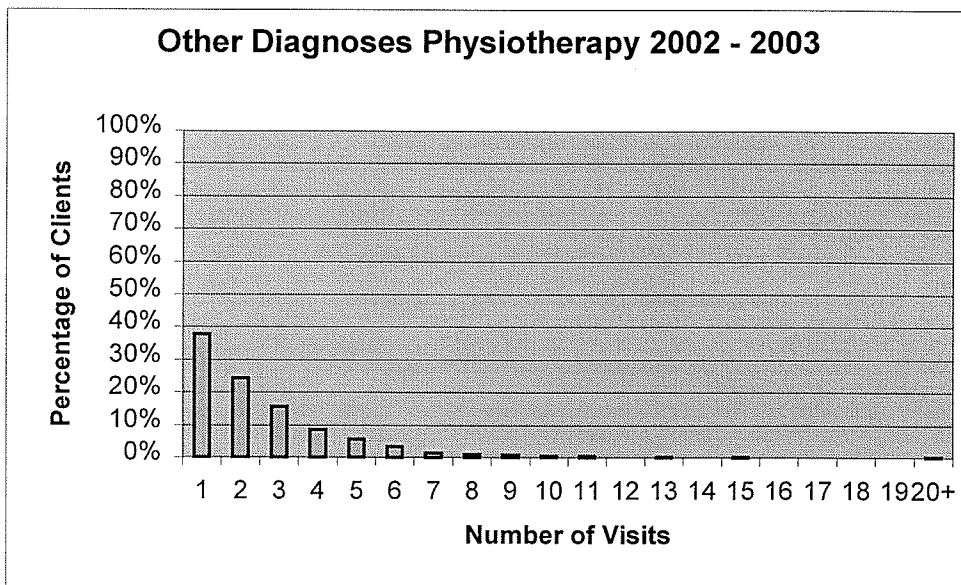


Figure 4.12: Other Diagnoses Physiotherapy Visits



4.3 Hypothesis Two – The Proportion of Home Care Clients Referred to CTS did not vary by Community Area

Details of distribution of Community Therapy Services referrals and home care clients by community area are illustrated in Tables 4.9 and 4.10 and Figures 4.5 and 4.6. Referrals to CTS grouped by Low, Moderate and High Socioeconomic Status Community Areas as identified under Hypothesis two (page 41) are illustrated in Figure 4.13 and Table 4.13.

Figure 4.13: Referrals from Communities of Low, Moderate and High Socioeconomic Status 2002 - 2003

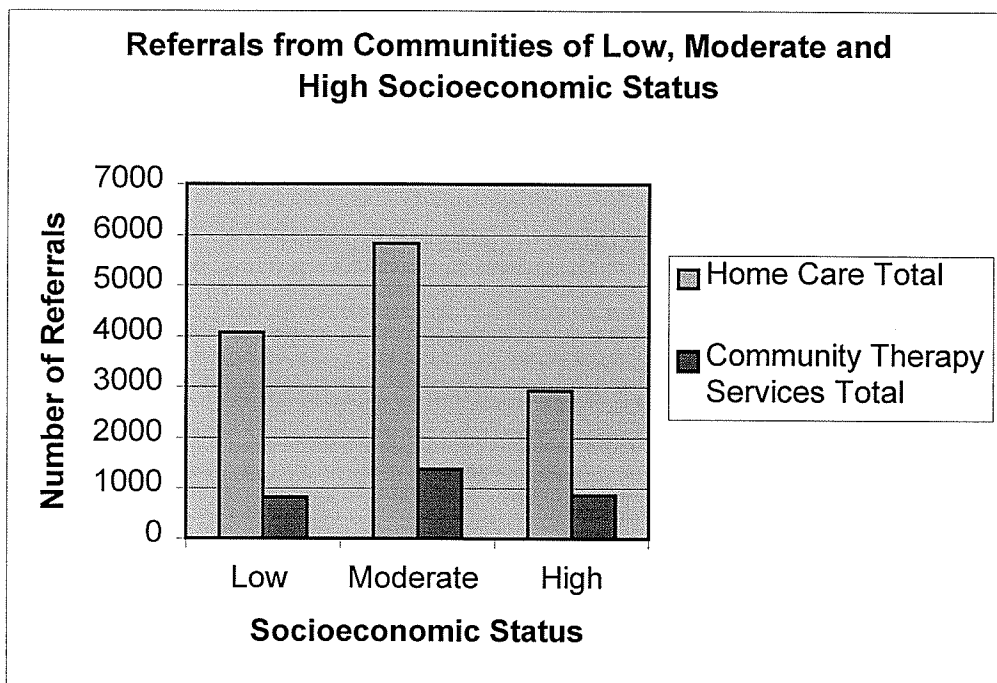


Table 4.13: CTS Referrals from Communities of Low, Moderate and High Socioeconomic Status 2002 - 2003

Socioeconomic Status	Home Care Total	Community Therapy Services Total	%
Low	4077	824	20%
Moderate	5833	1381	24%
High	2925	868	30%
Total	12835	3073	24%

The referral rate to Community Therapy Services from communities of high socioeconomic status was 10% higher than the referral rate from communities of low socioeconomic status. Hypotheses two was analyzed by means of a Chi-squared (X^2) test for a difference in proportions of home care clients referred to CTS from communities of low, moderate and high socioeconomic status. The difference was verified as significant ($X^2 = 84.18$ with 2 df, $p < .001$).

Additional chi-squared testing was undertaken between high and moderate socioeconomic status communities ($X^2 = 53.26$ with 1df, $p < .001$) and between high and low socioeconomic status communities ($X^2 = 83.98$ with 1df, $p < .001$).

Referral rate to Community Therapy Services among communities of high, moderate and low socioeconomic risk varied significantly. Additional testing verified that the difference in referral rate to CTS remained significant between communities of high and moderate socioeconomic status and between communities of high and low socioeconomic status.

Even in the unlikely event that all the 383 undistributed home care clients (see Table 4.9) were from communities of high socioeconomic status and increased the home care clients in that category from 2925 (see Table 4.13) to 3308 for a

referral rate of 26% to Community Therapy Services the difference in the proportion of home care clients referred to CTS from communities of low, moderate and high socioeconomic status remained significant ($X^2 = 40.84$ with 2df, $p < .001$). Additional chi-squared testing was undertaken with allocating all the 383 undistributed home care clients to communities of high socioeconomic status. The difference in referral rate to CTS between high and moderate socioeconomic status communities ($X^2 = 10.02$ with 1df, $p < .005$) and between high and low socioeconomic status communities ($X^2 = 40.64$ with 1df, $p < .001$) remained significant.

4.4 Hypothesis Three – The Majority of Clients are Satisfied with CTS Services.

Approximately 125 folders containing consent forms, client satisfaction surveys, outcome evaluations and instructions were prepared and made available to therapists in order for them to approach clients to participate in the survey at the time of discharge. Therapists were requested to include all clients, rather than to select clients according to diagnoses or community area. The plan was to survey clients until the intended numbers for a stratified sample as identified in Methods 3.7 were achieved. Seventy - five therapists' evaluation of outcomes were completed and returned. Sixty - three (63) client satisfaction questionnaires were returned for a response rate of $63/75 = 84\%$. Two (2) questionnaires were returned with the consent statements missing or not indicating authorization to include the questionnaire in the research project by checking off the consent

statements and were not used in the analysis. Nine (9) questionnaires did not have a corresponding therapist evaluation of achievement of outcomes and were likewise excluded from the analysis. Four (4) had no identifying information to allow a match with the therapist's evaluation of outcome; one (1) was completed by a client who was not discharged. The remaining 47 questionnaires were included in the analysis.

The anticipated distribution of responses by community areas and common diagnoses was not achieved. The 47 responses represented 9 community areas with distribution as indicated in Table 4.14. No responses were received from the Downtown, Inkster and Point Douglas Community Areas.

Table 4.14: Client Satisfaction Responses by Community Area

Community Area	Number of Responses	%
Assiniboine South	8	17%
Fort Garry	9	19%
River East	7	15%
River Heights	14	30%
Seven Oaks	1	2%
St. Boniface	1	2%
St. James Assiniboia	1	2%
St. Vital	3	6%
Transcona	3	6%

Distribution of responses by diagnoses is indicated in Table 4.15. The distribution of responses by diagnosis differed from the anticipated distribution

representing the ten most common diagnoses (Tables 4.5 and 4.6). However, eight common diagnoses were represented: Arthritis, Cancer, Cardiovascular Conditions, Cerebrovascular Accident, Cognitive Impairment, Diabetes, Fracture and Multiple Sclerosis.

Table 4.15: Distribution of Responses by Diagnostic Category

Diagnostic Category	Number of Responses
Amputation	1
Arthritis (incl. RA &OA)	10
Cancer	3
Cognitive Impairment	1
Connective Tissue	1
Cerebral Palsy	2
Cardiovascular Condition	1
Crohn's Disease	1
Cerebrovascular Accident	3
Diabetes	2
Encephalopathy	1
Haemarthrosis	1
Fracture	2
Multiple Sclerosis	5
Obesity	1
Orthostatic Hypertension	1
Osteoporosis	1
Parkinsons Disease	6
Post Polio Syndrome	3
Total Hip Replacement	1

Responses to individual questions are summarized in Table 4.16. The percentages do not necessarily add up to 100% due to rounding.

Table 4.16: Responses to Client Satisfaction Questionnaire N = 47

Question:	% Agree	% Partly Agree	% Do Not Agree	% N/A
I received my first visit soon enough.	79%	13%	6%	2%
I received all the services necessary to meet my needs.	96%	4%		
The therapy services helped me to manage better in my day to day living.	83%	9%		6%
The services helped me to return to my usual activities at home and in the community.	49%	21%	9%	21%
The services changed the quality of my life.	49%	38%	2%	11%
I felt supported throughout the process.	87%	9%		4%
The therapist listened to my opinions.	87%	4%	2%	6%
The information was given to me clearly.	96%	4%		
I was helped to understand my abilities and difficulties better.	77%	17%		6%
I believe that the therapist took my habits into account.	83%	6%	2%	9%
The therapist listened to the needs of my family and/or caregivers.	66%	13%		21%
The therapist was available when I needed him/her.	74%	4%	2%	19%
The therapist kept appointments made with me.	98%			2%
The number and the length of my visits were enough to meet my needs.	85%	6%		9%
The therapist was interested in the activities that are important to me	74%	17%		9%
I have confidence in my therapist's abilities.	94%	4%		2%
In general, I am pleased with the services that I received.	94%	4%		2%

Questions which received the lowest number of “Agree” responses were:

- “The services helped me return to my usual activities at home and in the community”
- “The services changed the quality of my life”

Questions which received the highest number of “Agree” responses were:

- “The information was given to me clearly.”
- “The therapist kept appointments made with me.”
- “I received all the services necessary to meet my needs.”

Responses to the question “What did the therapist help you with.” were completed by 35 respondents. Comments were consistent with the categories of recommendations and actions for that individual completed by the therapist. A number of individuals included complimentary comments about the services e.g.:

- “We have always had excellent service from the OTs.”
- “Thank you all and God blessed.”
- “A good long term program.”
- “I appreciated the support and feedback. The door was left open if I needed further service or if I have any questions.”
- “....gave me confidence in myself, very special care to me, very thoughtful checking of all avenues of my condition. A very special lady”
- “All aspects of my day to day living”

- “.... is very good at giving the support required by her clients. She was always very prompt, friendly and thorough.”
- “By following the suggestions made by my therapist, my activities became easier and I appreciated it. Also – answers to my questions helped – and were reassuring. Thank you.”
- “Everything – she was super.”
- “She was thorough in the examination of my mother and gave some pointers in putting safeguards in the house. We are very pleased with her concerns.”
- “.... do not make house calls. I needed to know how to manage in my home. CTS were able to come to my home sooner than what my neurologist could set up.””Little did I know just how much little things would help. I am surrounded by exceptional people all the way down to the home care workers.....All that said this service is priceless!....These ladies are genuinely concerned and kept working with me until we got it “right”. Countless hours spent educating me; adjusting the equipment and so on. A job well done!....Our government should know just how important this service is. I think I’ll tell Dave (Chomiak) just in case he’s not sure.”

The returned questionnaires supported the hypothesis that the majority of clients are satisfied with the services they receive from Community Therapy Services Inc.

4.5 Hypothesis Four – The Majority of Therapists’ Recommendations and Actions are Achieved.

Seventy-five therapists’ evaluation of outcomes were received. Twenty - six (26) did not have matching client satisfaction questionnaires returned or were missing demographic information and consent to use them could not be verified. An additional 2 were not included as there was no signed consent authorizing their use in the analysis. The 47 therapist evaluations included in the analysis represented the services provided to the same individuals whose client satisfaction surveys were included in the analysis for hypothesis three. The 47 evaluations were submitted by fourteen different therapists. Therapists who were new to the agency since May 2003 were not requested to participate in the client satisfaction survey as they had many other agency procedures to become familiar with during their orientation and probationary period. Therefore the responses were not representative of the participation of all therapists employed by the agency during the time of the survey.

Achievement of actions and recommendations was categorized by:

- Achieved by therapist or verified by therapist as achieved by client/caregiver.
- Achieved through education which anticipated client/caregiver follow-up.
- Achieved through recommendations provided to another responsible agency for follow-up.

Table 4.17 illustrates the achievement of outcomes according to the category of recommendation.

Table 4.17: Outcomes of Therapists' Actions and Recommendations

N = 47

Category Of Recommendation and Action	Total # of Recommendations and Actions	% Achieved by Therapist or Achievement Verified by Therapist	% Achieved by Education	% Achieved by Recommendation For Action by Another Agency	% Achieved
Mobility					
Ambulation	39	48.7%	28.2%	5.1%	82.1%
Manual Wheelchair	18	83.3%	11.1%	0.0%	94.4%
Power Wheelchair	3	66.7%	0.0%	0.0%	66.7%
Seating/Positioning	11	81.8%	0.0%	0.0%	81.8%
Transfers					
Bath	45	75.6%	20.0%	2.2%	97.8%
Toilet/Commode	21	66.7%	19.0%	4.8%	90.5%
Bed/Bed Mobility	29	69.0%	17.2%	0.0%	86.2%
Chair/Sofa	14	64.3%	21.4%	0.0%	85.7%
Other	1	0.0%	100.0%	0.0%	100.0%
Self Care	10	50.0%	20.0%	20.0%	90.0%
Home Management	26	38.5%	34.6%	11.5%	84.6%
Behavioral/Cognitive	0	0.0%	0.0%	0.0%	0.0%
Family Caregiver Training					
Exercises/PROM	3	0.0%	66.7%	33.3%	100.0%
Equipment	5	40.0%	40.0%	0.0%	80.0%
Transfers	4	100.0%	0.0%	0.0%	100.0%
Home Care HCA/RN Training					
Exercises/PROM	0	0.0%	0.0%	0.0%	0.0%
Equipment	1	100.0%	0.0%	0.0%	100.0%
Transfers	4	100.0%	0.0%	0.0%	100.0%
Community Access	2	100.0%	0.0%	0.0%	100.0%
Exercises	5	80.0%	0.0%	20.0%	100.0%
Pain Management	5	40.0%	60.0%	0.0%	100.0%
Environmental Modification					
Major Renovations	2	100.0%	0.0%	0.0%	100.0%
Minor Renovations	10	70.0%	10.0%	0.0%	80.0%
Remove Hazards/rearrange furnishings, etc	6	83.3%	0.0%	0.0%	83.3%
Other	4	75.0%	0.0%	25.0%	100.0%

Ambulation had 18% of recommendations noted as not achieved at the time of discharge. Therapist comments indicated that this was mostly due to client choice. Actions and recommendations pertaining to manual and power wheelchair mobility and related seating and positioning were reported as 67% - 94% achieved.

Recommendations related to equipment and safe bath transfers were 98% achieved with 76% of the achievement observed and verified by therapists. Achievement of equipment recommendations and safe transfers to toilet, commode, bed, chair, sofa varied from 86% to 91%. Self care recommendations were recorded as 90% achieved.

With the exception of training in equipment use to family (80% achieved), family and home care caregiver training needs were 100% achieved.

Many therapist explanations regarding recommendations that were not achieved were related to client autonomy and choice to decline the recommendation or to postpone taking action. Some were related to the stigma attached to doing things differently, or believing that the task would not be completed to their satisfaction if done by someone else. One client rearranged throw rugs to increase safety rather than remove them as recommended. Some recommendations that were not achieved were related to the decision of a family member. A minor renovation was not pursued due to finances. One

recommendation became unnecessary as the equipment was no longer required in conjunction with an exercise program and proper transfer technique. A recommendation to obtain a wrist support was no longer required after modification to a work station.

Therapist comments related to the utility of the format for gathering this information and suggestions for improvement included:

- Format is quite user friendly. Only question is related to how far back in relationship with long term client outcomes should be counted.
- Also discussed/encouraged home care involvement for meal support which client agreed to – wasn't sure where this would be captured.
- Recommendations for proper seating to promote back and shoulder comfort and proper positioning in bed for same. I recorded under seating and positioning. I suppose they could also have been captured under either the bed and chair transfers or pain management. Which would be best?
- I picked the number 6 (for total recommendations and actions) somewhat at random. We reviewed numerous joint protection techniques and aids that would be useful for kitchen and general home management.
- I do not always have client's chart handy at discharge visit to write on their survey form as caseload book usually at office.

The outcomes of actions and recommendations submitted by therapists support the hypothesis that the majority of therapists' actions and recommendations are achieved.

4.5.1 Quality of Care

An additional analysis was undertaken in order to determine whether the non-achievement of outcomes was related to client satisfaction. The therapists' evaluation of outcomes and the client satisfaction responses were compared for clients whose therapists reported outcomes were achieved and for clients whose therapists reported partial achievement of outcomes. Of the 47 responses 31 clients had all outcomes achieved; 16 clients had partial achievement of outcomes. Responses to questions were grouped according to Technical Dimension, Interpersonal Dimension and Organizational Dimension as identified in an interpretation protocol provided to the investigator by the developers of the client satisfaction questionnaire (Hebert et al., 2000). The highest rating a statement could achieve was Agree which was recorded as (3). Ratings of Partly Agree (2) and Do Not Agree (1) or N/A (blank) represented the other choices in response to statements on the client satisfaction questionnaire.

See Tables 4.18 and 4.19 for the comparison of client satisfaction responses for clients who had all outcomes achieved and for clients with partial achievement of outcomes.

Table 4.18: Client Responses - All Outcomes Achieved N = 31 clients

Dimension	% Agree	% Partly Agree	% Do Not Agree	% N/A
Technical	70.97%	17.2%	1.61%	9.68%
Interpersonal	84.79%	7.83%	0.92%	6.45%
Organizational	83.87%	6.45%	1.94%	7.74%

Table 4.19: Client Responses - Outcomes Partially Achieved N = 16 clients

Dimension	% Agree	% Partly Agree	% Do Not Agree	% N/A
Technical	72.92%	17.71%	2.08%	7.29%
Interpersonal	83.93%	8.04%	0.00%	8.04%
Organizational	90.00%	3.75%	1.25%	5.00%

Table 4.20 compares the client satisfaction responses according to dimension of care to therapist ratings of outcomes achieved or partially achieved. There is no significant difference between them.

Table 4.20: Comparison of Client Responses with Therapist Ratings

Client Rating	Therapist Rating All Outcomes Achieved N = 31	Therapist Rating Outcomes Partially Achieved N = 16	Significance
Technical Dimension	Median = 3	Median = 3	N.S.
Interpersonal Dimension	Median = 3	Median = 3	N.S.
Organizational Dimension	Median = 3	Median = 3	N.S.

* Mann Whitney U Test - $p < .05$

5.0 Discussion

This thesis has described the therapy services and the population that receives occupational therapy and physiotherapy services from Community Therapy Services Inc. as part of the Winnipeg Regional Health Authority Home Care Program. This was a first comprehensive analysis of data in the CTS database and included analysis in relation to WRHA Home Care Program data and community areas.

Referrals to the program have increased by 60% since fiscal year 1989 – 1990. Eighty – three (83%) percent of this 60% increase has occurred since fiscal year 1999 – 2000. From fiscal year 1999 – 2000 to 2002 – 2003 priority referrals to Community Therapy Services have increased by 58%. Priority referrals represented 35% of the total occupational therapy referrals and 30% of the total physiotherapy referrals in 2002 - 2003. The Winnipeg Regional Health Authority (WRHA) was established in December 1999. These increases are consistent with the trend within the WRHA of earlier hospital discharges and maintaining individuals in the community rather than providing institutional care (Winnipeg Regional Health Authority, 2002; Winnipeg Regional Health Authority, 2003a; Winnipeg Regional Health Authority, 2003b). The growth in priority referrals is indicative of waiting lists and the need to prioritize individuals whose limitations require more timely intervention.

Referrals to Community Therapy Services Inc. (CTS) during fiscal year 2002 – 2003, the most recent year for which data was available, were examined in more detail. Seventy percent (70%) of individuals referred to CTS were over the age of 65; 55% were over the age of 75. With the aging of the population (Menec, MacWilliam, Soodeen, & Mitchell, 2002) the need for therapy services in the community is likely to increase. Individuals presented with a variety of diagnoses that contributed to their disability and limitations in participation in essential daily activities.

Referrals to CTS stratified by community area varied from 20% to 38% of home care clients with a mean rate of 23%. It is unclear why the highest rate of referrals (38%) was from the Transcona Community Area. Transcona has a lower percentage of seniors (10%) than the mean for the Winnipeg Health Region (14%). It also has a lower proportion of low income families (16%) than the mean for the Winnipeg Health Region (24%) (Winnipeg Regional Health Authority, 2000). Contributing factors may have been a new home care case coordinator in the area who was formerly a therapist working with CTS. CTS therapists also indicated a seemingly higher number of individuals with multiple sclerosis and high needs residing in the area. The higher rate may also be an aberration of the fiscal year which was chosen for analysis.

The median number of visits from an occupational therapist for an individual CTS client during the fiscal year was 2 with 87% of individuals receiving four or less

visits. The median number of visits from a physiotherapist was 2 with 86% of individuals receiving four or less visits.

Hypothesis one, that individuals with multiple sclerosis receive more visits than clients with other diagnosis, was supported. Multiple sclerosis is a diagnosis that is representative of younger individuals coping with chronic conditions and residing in the community with informal help and home care services. Two hundred and forty (240) referrals were for individuals with multiple sclerosis, representing 6% of referrals to CTS during fiscal year 2002 – 2003. The greater number of visits for individuals with multiple sclerosis is consistent with the findings of Wiles et al. (2001) suggesting that ongoing physiotherapy input might be necessary for sustained benefit.

Hypothesis two, that the proportion of home care clients referred to Community Therapy Services Inc. does not vary between low, moderate and high socioeconomic status community areas, was found to be false. The referral rate to Community Therapy Services from community areas of low and moderate socioeconomic status was significantly lower than the referral rate from high socioeconomic status communities. This finding is in contrast with the proportion of clients receiving services from the Winnipeg Regional Health Authority Home Care Program (Roos et al., 2001) that experiences a larger proportion of clients from lower socioeconomic status communities.

The elderly are the majority users of CTS services but the elderly represent a smaller proportion of the home care program clients in lower socioeconomic status communities. The Manitoba Centre for Health Policy and Evaluation Report, A Look at Home Care in Manitoba (Roos et al., 2001) indicates a significantly higher percentage of the population aged 0 – 64 were home care clients in the Downtown and Point Douglas communities.

Other potential contributing factors to a lower referral rate to Community Therapy Services from lower socioeconomic status (SES) community areas documented in the Manitoba Centre for Health Policy and Evaluation Report, A Look at Home Care in Manitoba (Roos et al., 2001) include:

- Some individuals in low and moderate SES communities remain on the home care caseload for a significantly longer period. These individuals may receive service from CTS periodically during their length of stay on the home care caseload but did not receive CTS services during 2002 - 2003. E.g.
 - A significantly longer mean duration of home care use in River East (moderate SES) and Downtown (low SES) among individuals age 65+.
 - A significantly longer mean duration of home care use in Seven Oaks (moderate SES) among individuals age 0 – 64.
 - Home care use between Personal Care Home paneling and admission was significantly higher in Seven Oaks (moderate SES).

- Home care use before death was significantly higher for Downtown (low SES),
- More individuals in low SES communities may have inadequate informal resources and require only home care nursing services or assistance with personal care and household management. E.g.
 - The percentage of non – married clients was higher in low SES communities.
 - Admission to home care post hospitalization was significantly higher in Downtown and Point Douglas (low SES).
 - A higher percentage of individuals age 65+ were clients of home care in Downtown and Point Douglas (low SES).
 - A higher percentage of individuals age 65+ were new home care clients in Downtown and Point Douglas (low SES).

The difference in referral rate to CTS may also be due to individuals from lower SES communities receiving services from other agencies or programs – e.g. day hospitals.

The higher referral rate from higher socioeconomic status communities may indicate that individuals from these communities are more likely to seek help or self refer for chronic conditions or specialist needs (Alberts, Sanderman, Gerstenbluth, & van den Heuvel, 1998; Dunlop, Coyte, & McIsaac, 2000). Individuals from higher socioeconomic status communities may also rely on

informal resources rather than home care for attendant, home support and nursing services.

Hypotheses three, that the majority of clients surveyed were satisfied with Community Therapy Services, was supported. However, the distribution of individuals who were requested to participate in this survey and returned their response did not meet the plan to stratify clients by including 10 respondents from each of the groups of low, moderate and high socioeconomic status communities. There were no responses from the low socioeconomic status communities; distribution from moderate (N = 22) and high socioeconomic (N = 25) status communities was about equal. Likewise the distribution of respondents to include 5 from each of the major diagnostic areas referred to the agency did not materialize. Limitations of the pilot survey method included requesting therapists to participate versus making it an expectation that each client be asked to participate at the time of discharge. Broader participation from therapists may have resulted in a more representative distribution of clients. There is also the possibility of selection bias by those therapists who chose to participate. Some clients were routinely discharged at the time of a follow-up phone call and would not have been offered the opportunity to participate. Therapists were also sensitive to the individual's and family's distress related to the health of a family member at the time of the discharge visit and would not have approached clients with a request to participate under these circumstances. A positive factor in conducting the survey through a personal invitation from a

therapist was the assurance that individuals were evaluating therapy services rather than other home care services or health care services in general.

High satisfaction ratings were achieved for technical, interpersonal and organizational dimensions of care. The global question related to satisfaction in general indicated 94% agreement, however agree responses to 12 of the 16 (75%) specific questions about aspects of client experience and satisfaction were lower than 94%. This is consistent with the literature which indicates that global questions of satisfaction of care generally receive a high rating and might not necessarily reflect the aspects of care that are most closely related to the quality of care nor be sensitive to the multiple dimensions that may influence satisfaction or relative dissatisfaction (Cleary & McNeil, 1988; Pascoe, 1983).

Hypothesis four, that the majority of therapist's recommendations and actions are achieved, was supported. Target outcomes and related recommendations and actions categorized as mobility that were not achieved were mostly due to clients exercising their autonomy in making an alternate choice to the therapists' recommendation or to postpone taking action. Recommendations related to safe transfers related to personal hygiene and self care achieved a higher rate of acceptance. This is similar to the findings of Hoffman and McKenna (2004).

Quality of care was investigated by comparing the individual's client satisfaction response with the therapist's evaluation of the outcome of actions and

recommendations for that individual client. Client comments regarding what therapists had helped them with were consistent with the recommendations and actions undertaken by the therapist. Interpersonal and clinical (technical) aspects of care were highly rated by consumers whether or not they chose to follow all of the therapist's recommendations. Cleary and McNeil (1988) indicate that the most consistent finding in the satisfaction literature is that the characteristics of the provider that make care more personal are associated with higher levels of satisfaction. They also caution that it is premature to argue that satisfaction measures should be used to assess the technical quality of care. The client may not have sufficient awareness of the technical aspects of care to evaluate this adequately. Campbell, Roland and Buetow (2000) report that persons presenting to a health professional expect good individual care which they will evaluate according to how it meets their individual needs. Individuals who chose not to incorporate all of the therapist's recommendations may indicate satisfaction with the care received but they are exercising client choice in declining or deferring action as they do not perceive the same need for the recommendation as the therapist recognizes.

Access to care evaluated by the questions related to the organizational dimension of care achieved a high rating as well. This would support the belief that incoming referrals are appropriately prioritized according to agency criteria to ensure that urgent and priority referrals are attended to promptly. The results of

the survey indicated that clients who were surveyed were able to access effective therapy services which met their needs.

5.1 Limitations

The data presented in this thesis was a first analysis of data in the CTS database. The database accepts a maximum of 2 diagnostic codes and 5 service codes per referral. This limits the ability to capture the numerous diagnoses, medical issues and functional difficulties that clients present with. The diagnoses are provided by the referring party and may not have been verified by a physician's report. Service request codes are determined at the time of accepting the referral; therapists may provide alternate or additional services once the client has been assessed.

The distribution of respondents to the client satisfaction survey was not as representative of the diagnostic groups and community areas as anticipated. There may have been therapist bias in selecting clients for participation. Clients who were discharged at the time of a follow – up phone call would not have had the opportunity to participate in the survey. The client satisfaction survey was modified from the original version which may have impacted the reliability and validity. The response rate of 84%, based on the 75 therapist evaluations returned, may be overestimated as the therapists were not requested to document the number of surveys left with clients and an accurate count of unused questionnaires was not available.

6.0 Conclusion

Individuals referred to Community Therapy Services Inc. and individuals receiving services during the fiscal year 2002 – 2003 have been investigated to describe the profile of individuals receiving therapy services as part of the Winnipeg Regional Health Authority Home Care Program. The pilot client satisfaction survey and outcomes evaluation is a model that can be tailored in approach to evaluate client services within the agency.

Recommendations for consideration by the agency related to delivery of care include:

- Consider additional investigation of lower referral rates to CTS from lower socioeconomic status community areas.
- Continue to provide an increased number of visits as needed for clients with chronic, fluctuating and progressive conditions such as multiple sclerosis to facilitate community living.
- Share results of the client satisfaction questionnaire and therapist outcomes with agency staff including a discussion of how satisfaction could be facilitated: e.g. assisting clients to understand their difficulties better, listening to the needs of family and caregivers, therapist interest in activities important to the client.

The results of this thesis are of value to Community Therapy Services Inc. in understanding its clients and interventions and provides evidence of accountable

practices to users of the agency's services. The research may be of interest to other providers of community health services during this time of focus and expansion of health services in a community environment.

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Program Logic Model CTS WRHA Home Care Program

Appendix A

Main Component

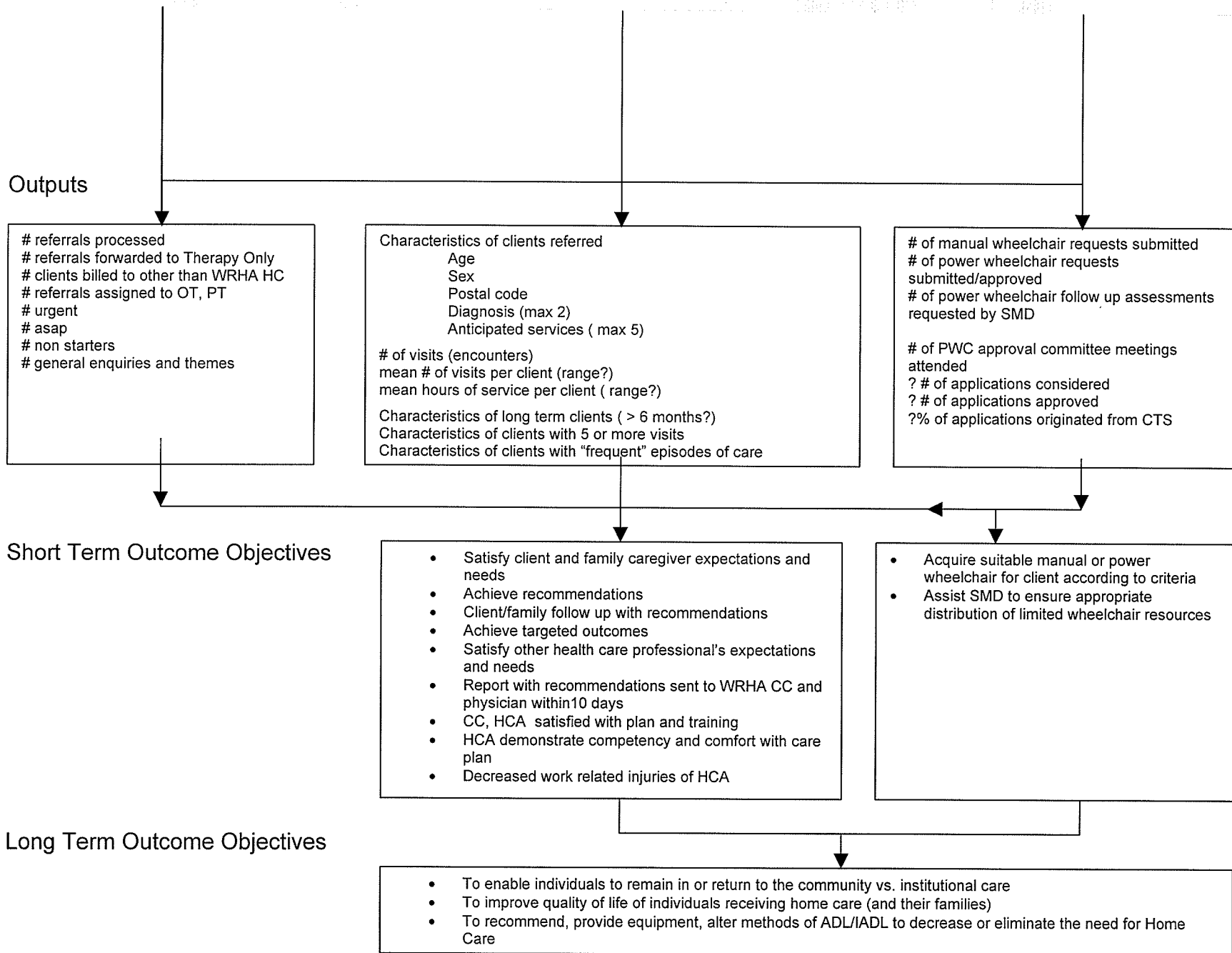


Implementation Objectives

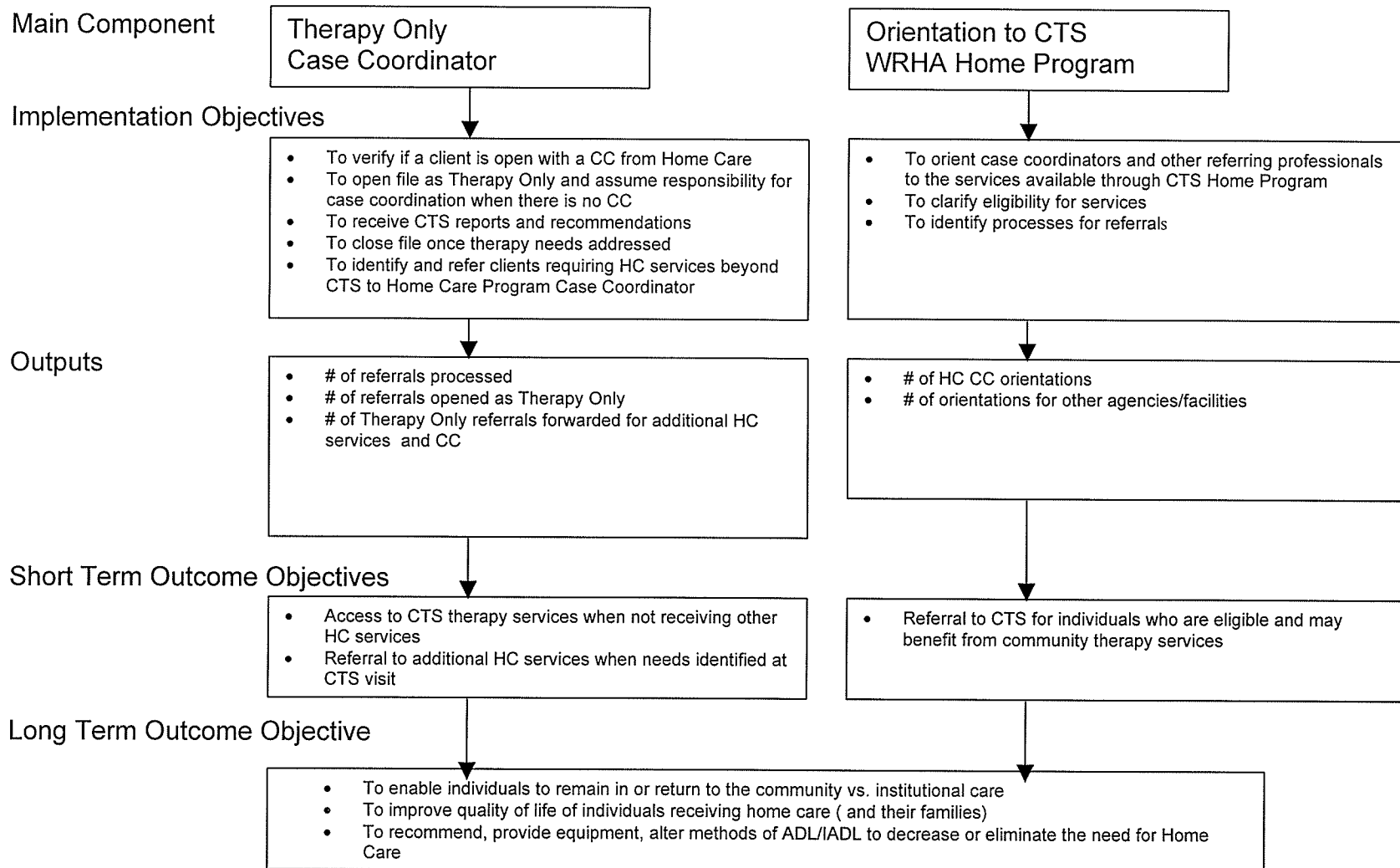
- To determine if referral meets criteria
- To ensure required information completed
- To prioritize according to criteria
- To allocate to OT or PT in designated area
- To assign chart # for new referrals
- To forward to Therapy Only CC when no WRHA CC
- To determine responsible party for billing purposes when other than WRHA

- Individual is client residing in community
 - To assess issues, function, needs
 - To educate clients, family caregivers
 - To provide recommendations re:
 - Environmental modifications
 - Mobility/Exercises
 - ADL/ IADL
 - Equipment
 - Cognitive/Behaviour Management
 -
 - To implement recommendations when task is a therapist's responsibility or when client, family require assistance
- Individual is client residing in community
WRHA - CC, RC, HCA as secondary clients
 - To train HCA in client specific:
 - Transfers
 - Lifts
 - Equipment
 - Prosthesis/Orthosis Management
 - Exercises
 -
 - To problem solve issues with WRHA CC, RC, HCA
- Individual is client, currently residing in facility
Facility & WRHA CC, RC, HCA as secondary clients
 - To facilitate "exceptional" discharge from hospital
 - To facilitate requested discharge from PCH
 - To train HCA in client specific care
 - To obtain equipment in preparation for discharge
 - To problem solve issues with PCH/CC, or to recommend alternative when community discharge does not seem feasible

- Individual is client residing in community
 - To assess and complete application for initial manual or power wheelchair
 - To set parameters and provide training for power wheelchair use
 - To refer to Easy Street for additional training as required
 - To assess environment and recommend modifications to accommodate wheelchair use
- Individual is client residing in community
SMD is secondary client
 - To assess for replacement manual or power chair or options
 - To assess use and suitability of supplied power wheelchair as requested by SMD
- Representation on Power Wheelchair Approval Committee



Program Logic Model CTS WRHA Home Care Program (continued)



Sample Size Calculations

Appendix B

Hypothesis 1: Individuals with multiple sclerosis receive a greater number of visits per individual than individuals with other diagnoses.

Source 2000 – 2001 Community Therapy Services data:

Total number of referrals to CTS = 3005. Total number of visits = 8559
Mean = 2.84 visits per client standard deviation = 2.68

Total number of referrals to CTS with Multiple Sclerosis (MS) = 208. Total number of visits = unknown.

One tailed test, using a more stringent $\alpha = 1.96$, $\beta = 1.64$ @ .05, and power index = 3.6

Assuming that a difference of 3 visits (i.e. twice as many) is meaningful.

$$n = \frac{R}{R-1} \left(\frac{PI \cdot \delta}{\mu_1 - \mu_2} \right) = \frac{15.45}{14.45} \left(\frac{3.6 \cdot 2.84}{3} \right) = 12.43$$

$n = 13$ for the smaller group of clients with Multiple Sclerosis.

Assuming ~ 200 is typical of the number of referrals for individuals with MS each year, should have no problem achieving this number. (Three different years MS referrals = 208, 182, 158)

Key:

- n is the size of the smaller group
- R is the relative size of the two groups
- PI is the appropriate power index
- δ is the anticipated standard deviation
- $\mu_1 - \mu_2$ is the anticipated mean difference

Hypothesis 2: The proportion of home care clients referred to CTS does not vary by high or low socioeconomic (SE) risk community area.

Reference: A Look at Home Care in MB (p.59) has established that the poorer the neighbourhood of residence, the higher was the use of home care in MB. Assumption is that if CTS referral rate as a proportion of home care clients does not vary significantly by high and low income community area, then CTS referral rate is also higher in poorer neighbourhoods of residence.

References:

1. WRHA Demographic Profiles - Appendix B for 1998 population
2. MCHPE Assessing the Health of Children in Manitoba: A Population-Based Study - p 20 fig. 2.5 for WRHA community areas of high and low socioeconomic risk.
3. MCHPE A Look at Home Care in Manitoba – p 117 Table B1 Elderly Manitobans in 1998/99 for population age 65+; p 53 figure 5.2 for percent of Population who were Home Care Clients Age 65+. 1998/99.

<u>High SE Risk</u>	Population	Residents 65+	% 65+	%Home Care 65+	Home Care Clients
Downtown	73567	9096	12.4	19.6	1783
Point Douglas	40171	5679	14.1	17.9	1016
Inkster	30879	2821	09.1	13.6	383
Total	144617	17596	12.2	18.1	3181
<u>Moderate SE Risk</u>	Population	Residents 65+	% 65+	%Home Care 65+	Home Care Clients
River East	90603	12781	14.1	~15.2	1943
Seven Oaks	57213	7872	13.8	~15.3	1204
River Heights	56450	9961	17.6	~15.2	1514
Total	204266	30614	15.2	~15.2	4661
<u>Low SE Risk</u>	Population	Residents 65+	% 65+	%Home Care 65+	Home Care Clients
Assiniboine South	36191	4307	11.9	14	603
Fort Garry	60344	6703	11.1	14.4	965
St. Vital	60293	7427	12.3	~16	1188
Total	156828	18437	11.8	14.9	2756

Reference: CTS data, slightly less than 75% of referrals are for individuals age 65+.

Reference: A Look at Home Care in MB (p.10) Number of persons receiving home care services in 1998/99 was 32,238. Estimate of referrals per community area = $32,238/12 = 2687$.

Reference: CTS data, number of referrals in 1998/99 was 2788. Therefore rough average per community area = $2788/12 = 232$. For a grouping of three community areas # of referrals is estimated as $232 \times 3 = 696$.

Proportion of Home Care clients referred to CTS = $.086 (2788/32238)$ or 8.6 per 100 referrals.

Hypothesis involves two proportions

Power index = 2.80 (two tailed .05 $\alpha = 1.96$, β at .2 = .84)

$$n = \frac{2PI^2 p(1-p)}{(p_1 - p_2)^2}$$

$$2PI^2 = 2(2.80)^2 = 15.68$$

$$p(1-p) = .086(1-.086) = .086(.914) = .0786$$

$$p_1 = .086 + .03 = .116$$

$$p_2 = .086 - .03 = .056$$

$$(p_1 - p_2)^2 = (.06)^2 = .0036$$

$$n = \frac{15.68 (.0786)}{.0036} = 342$$

Should have sufficient home care referrals in each community area to achieve a significant result if the difference between the two proportions is .06 or 6 per 100 referrals.

Key:

n is the size of the group

PI is the appropriate power index

p is the proportion of Home Care clients referred to CTS

p₁ is proportion 1

p₂ is proportion 2

Reference: Hassard, T. H. (1991). *Understanding Biostatistics*. St. Louis, Missouri: Mosby - Year Book Inc.

Appendix C

Please mark the boxes to show that you agree to participate.

I have read the Research Participant Information and Consent Form.

I agree to answer the questions.

I agree that you can use my therapist's records.

Date of Discharge
Therapist Name

Postal Code
Community Therapy Services Chart Number

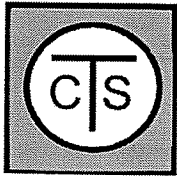
QUESTIONS ABOUT THE QUALITY OF THERAPY SERVICES

Please mark the box that best describes how you feel about your therapy services.

	Agree	Partly Agree	Do not Agree	Not Applicable
1. I received my first visit soon enough.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I received all the services necessary to meet my needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The therapy services helped me to manage better in my day to day living.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The services helped me to return to my usual activities at home and in the community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The services changed the quality of my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I felt supported throughout the process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. The therapist listened to my opinions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The information was given to me clearly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Agree	Partly Agree	Do not Agree	Not Applicable
9. I was helped to understand my abilities and difficulties better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I believe that the therapist took my habits into account.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The therapist listened to the needs of my family and/or caregivers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The therapist was available when I needed him/her.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The therapist kept appointments made with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The number and the length of my visits were enough to meet my needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. The therapist was interested in the activities that are important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I have confidence in my therapist's abilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. In general, I am pleased with the services that I received.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What did the therapist help you with?



COMMUNITY THERAPY SERVICES INC.

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Téléphone (204) 949-0533 Telephone

Télécopieur (204) 942-1428 FAX

RESEARCH PARTICIPANT INFORMATION AND CONSENT FORM

Title of Study:

Profile of Community Therapy Services Inc. Clients Receiving Occupational Therapy and Physiotherapy Services through the Winnipeg Regional Health Authority Home Care Program. The study includes a Pilot Outcomes Evaluation and a Pilot Client Satisfaction Survey – “Questionnaire on the Quality of Therapy Services”.

Principal Investigator:

Barbara Siemens
Profession Leader
Occupational Therapy
Community Therapy Services Inc.
201 – 155 St. James St.
Winnipeg, MB R3H 1B5
949 – 0533 ext. 227

You are being asked to participate in a research study. Please take your time to review this consent form and discuss any questions you may have with the investigator. You may take your time to make your decision about participating in this study. You may wish to discuss it with your friends and family before you make your decision. This consent form may contain words that you do not understand. Please ask the investigator to explain any words or information that you do not clearly understand. The principal investigator named above is an employee of Community Therapy Services Inc. Community Therapy Services Inc. is the financial sponsor of this research.

Purpose of Study: By completing this questionnaire you are helping Community Therapy Services Inc. to complete a pilot client satisfaction survey. A total of 80 participants will be included in the survey. You have been asked to complete this survey because you are an individual with whom we have completed services and you are being discharged in the year 2003. This is part of a bigger study to evaluate the services provided by Community Therapy Services Inc. to the Winnipeg Regional Health Authority Home Care Program. Additional purposes of the study are to describe the characteristics of clients referred, to describe the nature of services provided to clients and their caregivers and to evaluate the outcomes of therapist's actions and recommendations.

Study Procedures:

1. You are being asked to complete a survey about your satisfaction with the therapy services you received.
 - The survey can be completed by the individual who received the services or by a family member who was involved.
 - Participation in the study is for the amount of time it takes to complete the questionnaire ~ ten minutes.
 - A stamped self-addressed envelope is included for returning the questionnaire. Please return it within two weeks.
2. Returned questionnaires will be matched with the summary of the outcome of your therapist's actions and recommendations that are completed when you are discharged.

Benefits: There may or may not be direct benefits to you from participating in this study. We hope the information learned from this study will benefit other individuals receiving our services.

Costs: There are no costs involved as a stamped self addressed envelope is included.

Payment for Participation: You will receive no payment for taking part in this survey.

Confidentiality: Personal information on your questionnaire will remain confidential to the primary investigator. Anonymous, summarized information will be shared with Community Therapy Services Inc. Board of Directors and staff. The results will also be included as part of a Master's Thesis at the University of Manitoba. Results will be shared with the Winnipeg Regional Health Authority and other health programs. Community Therapy Services Inc. may also use the results of this research to highlight activities and achievements of the agency with other potential funders and purchasers of our services. Results gathered in this research study may be published or presented in public forums, however identifying information will not be used or revealed. Despite efforts to keep your personal information confidential, absolute confidentiality cannot be guaranteed. Your personal information may be disclosed if required by law. Study records that contain your identity will be treated as confidential in accordance with the Personal Health Information Act of Manitoba. The thesis examiners and the University of Manitoba Health Research Ethics Board may review records related to the study for quality assurance purposes.

Voluntary Participation/Withdrawal from the Study: Your decision to take part in this study is voluntary. You may choose not to be a participant. Your decision not to participate will not affect your care from Community Therapy Services Inc.

Questions: You are free to ask any questions that you may have about your rights as a research participant. If you have any questions before or after you complete the survey please contact the principal investigator, Barbara Siemens at 949 – 0533 ext. 227. For questions about your rights as a research

participant, you may contact The University of Manitoba, Bannatyne Campus Research Ethics Board Office at 789 – 3389.

Consent: I have read this consent form. I have had the opportunity to discuss this research study with the primary investigator. I have had my questions answered in language I understand. The risks and benefits have been explained to me. I understand that I do not need to return this consent form, but can keep it for my own information. I understand that my participation in this study is voluntary and that I may choose to withdraw at any time. I freely agree to participate in this research study.

I understand that information regarding my identity will be kept confidential, but that confidentiality cannot be guaranteed. I authorize inspection of any of my records that relate to this study by the University of Manitoba Research Ethics Board for quality assurance purposes.

On the returned survey I will indicate that:

1. I have read this Research Participation and Consent Form and agree to participate.
2. I agree to answer the questions on the survey.
3. I agree to the use of the summary of the outcome of my therapist's actions and recommendations that is completed when I am discharged.

Therapist's Evaluation of Outcomes

Appendix E

Category of Recommendation and Action	Total # of Recomm. Actions	# Achieved	# Education/recomm. given for client/care giver action	# For action by another agency/provider	# Not achieved *see comments on reverse	# Treatment discont'd * see comments on reverse
• Mobility						
Ambulation						
Manual Wheelchair						
Power Wheelchair						
Seating/Positioning						
• Transfers						
Bath						
Toilet/Commode						
Bed/Bed Mobility						
Chair/Sofa						
Other						
• Self Care						
• Home Management						
• Behavioural/Cognitive						
• Family Caregiver Training						
Exercises						
Equipment						
Transfers						
• Home Care HCA/RN Training						
Exercises						
Equipment						
Transfers						
• Community Access						
• Exercises/PROM						
• Pain Management						
• Environmental Modification						
Major renovations						
Minor renovation e.g. widen door, install railing, ramp)						
Remove hazards/rearrange furnishings etc.						
• Other						

Discharge Date

Diagnosis

Postal Code

Therapist

Chart Number

Please complete reverse side of sheet.

Comments:

Not achieved – your observation/opinion of why recommendation/action not achieved (e.g. client decision, reason given by client, questionable or decreased motivation or compliance, client reports inadequate finances, other priorities for finances)

Treatment discontinued – your observation/opinion of why treatment discontinued (e.g. hospitalization, progression of illness, new medical complications or illness, unable to contact, change of residence, deceased)

Other comments related to client:

Comments related to utility of format for gathering this information; suggestions for improvement.