

ARTHRITIS COMMUNITY RESEARCH & EVALUATION UNIT (ACREU)

The Wellesley Hospital Research Institute

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NORTHERN ONTARIO

DELIVERY OF COMMUNITY-BASED SERVICES FOR PEOPLE WITH ARTHRITIS

A Survey of Disability and Mobility among Consultation and Therapy Service Clients seen in May 1993

May 1994

Prepared by:

*Linda Rothman
Elizabeth M. Badley*

Mailing Address:

c/o The Wellesley Hospital
160 Wellesley Street East
Toronto, Ontario
M4Y 1J3

Location:

Churwell Site, 4th Floor
65 Wellesley Street East
Toronto, Ontario



The Wellesley
Hospital

*In partnership with The Arthritis Society
Ontario Division*



University of
Toronto

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION	1
METHODS	1
1. Procedure	1
2. The Questionnaire	1
3. Analysis	2
RESULTS	3
1. Characteristics of CTS Clients	3
a. Services received	3
b. Demographic characteristics	4
c. Diagnosis	5
2. Level of Disability	6
a. Disability Scores (Health Assessment Questionnaire)	7
3. Mobility	7
a. Independent mobility and confinement to home	7
b. Frequency of outings	8
4. Therapists' Assessment of Suitability for Groups	9
DISCUSSION	10

Appendix A

**THE ARTHRITIS SOCIETY CONSULTATION AND THERAPY
SERVICE CLIENT SURVEY**

LIST OF TABLES AND FIGURES

Table 2.1	DEMOGRAPHIC CHARACTERISTICS OF CLIENTS
Figure 1.1	QUESTIONNAIRES RETURNED BY SERVICE
Figure 1.2	MOST FREQUENTLY REPORTED DIAGNOSES
Figure 2.1	LEVEL OF DISABILITY-FUNCTIONAL DIFFICULTIES
Figure 2.2	LEVEL OF DISABILITY-FUNCTIONAL ACTIVITIES REQUIRING ASSISTANCE FROM ANOTHER PERSON
Figure 3.1	INDEPENDENT MOBILITY
Figure 3.2	FREQUENCY OF OUTINGS

EXECUTIVE SUMMARY

- With current emphasis on efficient health service delivery in Ontario, it has become important to investigate methods of defining the optimal balance between home-based versus group and ambulatory care services for people with arthritis. With this in mind, a survey of all adult clients seen by The Arthritis Society's Consultation and Therapy Service (CTS) was conducted in May, 1993. Since April 1, 1994, the CTS has been divided up according to District Health Council Regions. This report is for clients living in the North East and North West Regions together (referred to as the Northern Region).
- The survey used a self-administered questionnaire to gather data on disability, pain, and mobility in the community. A total of 244 questionnaires were returned (159 from the North East Region and 85 from the North West Region), from 297 clients. Although most of the questionnaires were completed by home therapy clients (68.4%), a larger proportion of clients were seen in ambulatory care services as compared to the province (31.6% versus 16% in the province). The findings from this survey are broadly applicable to all clients seen in these two regions annually.
- The average age of clients seen in the Northern Region was 58 years and 82% were female. The most frequently reported diagnoses were rheumatoid arthritis (RA->60%), followed by osteoarthritis (OA-28%), and fibromyalgia (15%). In the Northern Region, clients reported osteoarthritis alone more frequently than in combination with other musculoskeletal diagnoses. In the provincial study, osteoarthritis was more frequently checked off in combination with other diagnoses, especially with rheumatoid arthritis. Almost one quarter of clients surveyed in this region indicated at least one other non-musculoskeletal comorbid condition.
- The average HAQ disability index score obtained by clients in the Northern Region indicated significantly greater disability than clients in the Central West and South West Regions, but was similar to the province overall. The majority of clients had much difficulty or were unable to; grip, do errands/chores, reach and do hygiene activities. Forty-five percent of clients in the Northern Region reported having much difficulty, or being unable to walk. Assistive devices were most commonly used for hygiene activities. The single most commonly used assistive devices were canes and jar openers.
- Approximately one fifth of clients reported some restriction in independent mobility, with 14% being unable to leave the immediate surroundings of their homes independently.

- Most CTS clients in the Northern Region reported going out of their homes more than once a week (78%). Eighty eight percent of clients in this region had access to a car in their households.
- Therapists indicated that 71% of clients seen at home in this region could potentially go out to participate in a group setting.
- It is estimated that 14%-29% of clients need to be seen at home in the Northern Region, based on the proportion of clients with reduced mobility and the therapists' assessment. Home therapy services will continue to be a necessity for those clients too disabled or otherwise unable to attend services in a group setting. Clients who could receive the bulk of their care in ambulatory settings may also require at least one visit for assessment of the home environment.
- The results of this survey provide some preliminary information that could be used to develop guidelines to facilitate decision-making with regard to type of service delivery for clients with arthritis, with the goal of providing more efficient services.

THE ARTHRITIS SOCIETY CONSULTATION AND THERAPY SERVICE (CTS) CLIENT SURVEY, MAY 1993: Northern Region

I. INTRODUCTION:

The Arthritis Society, Ontario, together with the Arthritis Community Research and Evaluation Unit (ACREU) conducted a survey of the Consultation and Therapy Service (CTS) clients seen over one month, to gather information regarding disability and mobility status of this client group. Data collected during this survey were analyzed provincially, and by Arthritis Society regions in the original report (see client survey-provincial report, for more details). Since April 1, 1994, the CTS has been divided up according to District Health Council Regions (DHC). Five additional DHC regional reports have been prepared. This report describes the results of the survey in both the North East and the North West Regions combined (referred to as the "Northern Region"), as the numbers were too small in these regions to prepare two individual reports.

The goal of the survey was to provide information about the disability and mobility status of CTS clients to enhance service planning and development.

Specific objectives of the survey included:

1. To provide descriptive information for CTS clients overall, for the three therapy home services (physiotherapy, occupational therapy, and social work), for the ambulatory services (hydrotherapy, groups, clinics), and for the DHC Regions;
2. To provide information regarding disability in CTS clients;
3. To provide descriptive information regarding pain reported by CTS clients;
4. To provide descriptive information regarding mobility in the community for CTS clients;
5. To investigate how the characteristics of clients might provide information to help determine the balance between home and ambulatory care services.

II. METHODS:

1. *Procedure*

Therapists were requested to give questionnaires to all CTS clients age 18 and over seen in the month of May, 1993. Clients who were seen in more than one service completed a questionnaire for each service.

2. *The Questionnaire*

The self-administered questionnaire was designed to measure clients' perceptions of their disability and mobility status. The questionnaire consisted of three sections (see Appendix A). The first section contained some basic questions relating to client characteristics, such as date of

birth, diagnosis, and whether the client was a new referral and/or a consultation only. A consultation is defined by the CTS, as a limited intervention for a client of three visits or less. Additional demographic information was retrieved from client case data forms at The Arthritis Society (see provincial report for details).

The second section consisted of the disability and the pain subscales of the Health Assessment Questionnaire (HAQ)¹. The HAQ is a standardized validated questionnaire designed to measure disability in clients with arthritis. A disability index is calculated ranging from 0 to 3, with the level of disability increasing with the score (see provincial report for more details). The amount of pain experienced due to arthritis in the past week was measured on a scale of 1 to 7, with 1 labelled as "none", 4 labelled as "moderate", and 7 labelled as "extreme" pain.

The third section of the questionnaire was composed of several questions related to the client's level of mobility in their environment (mobility handicap). The mobility questions were originally developed in the context of an earlier population survey.² Clients were asked about their ability to move around in their home, and to leave their home and its immediate surroundings taking into account the assistive devices/equipment that they normally used.

3. Analysis

Analyses by service was not done in this regional report, as the majority of the clients surveyed were home therapy

clients, most of whom were seen by physiotherapy. Therefore, analysis was generally conducted by individual. The first completed questionnaire by each client was used for the analysis. Analysis by service (and by ambulatory versus home care clients) is reported in the provincial report.

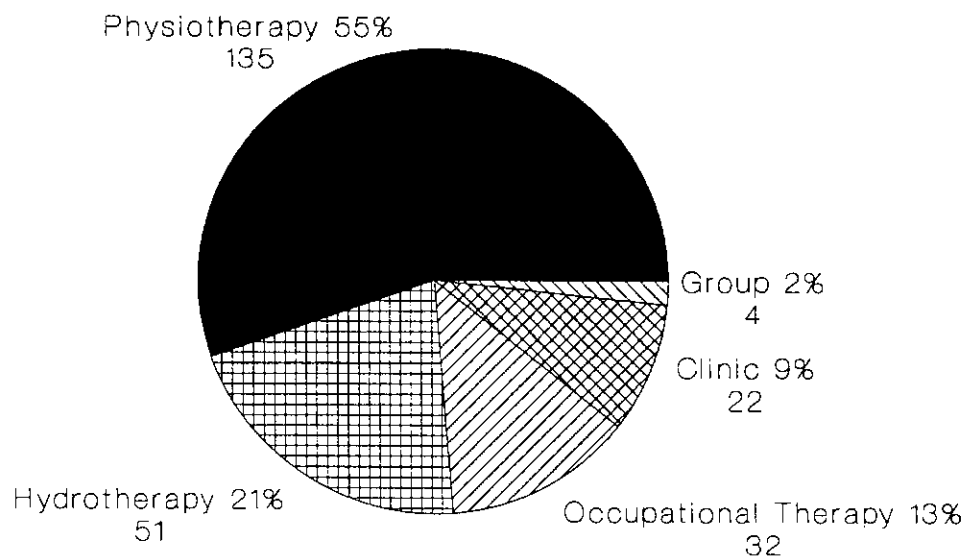
In the presentation of results, percentages have been calculated excluding missing data. The proportion with missing data from the client completed questionnaire is generally low.

III. RESULTS:

1. *Characteristics of CTS Clients*

a. Services received

**FIGURE 1.1
QUESTIONNAIRES RETURNED
By Service**



A total of 244 questionnaires were returned from the Northern Region (159 from the North East Region and 85 from the North West), from 227 clients. Although most of the questionnaires were completed by home therapy clients (68.4%) a larger proportion of clients were seen in ambulatory care services

as compared to the other regions. Physiotherapy clients completed only 55% of all surveys, as compared to 67% provincially. The majority of clients were continuing clients, with 34% of those who responded identified as new referrals. Of the new referrals, 21% were identified as consults only.

b. Demographic characteristics

TABLE 2.1: Demographic Characteristics of Clients (N = 227).

Age (years)	Mean (s.d.)	57.8 (15.6)	
Sex	Female	185 (81.5%)	
Marital Status	Married/Common Law	127 (71.3%)	
Primary Language	English	136 (80.5%)	
Household Size	Lives Alone	33 (18.5%)	
Total Years of Education	Mean (s.d.)	11.6 (3.4)	
Employment Status	Employed:	Full-time	18 (7.9%)
		Part-time	7 (3.1%)
		Self-employed	4 (1.8%)
	Not Employed:	Retired/Voluntarily not working	55 (24.1%)
		Homemaking	41 (18.1%)
		Ltd.	32 (14.1%)
		Other*	23 (10.1%)

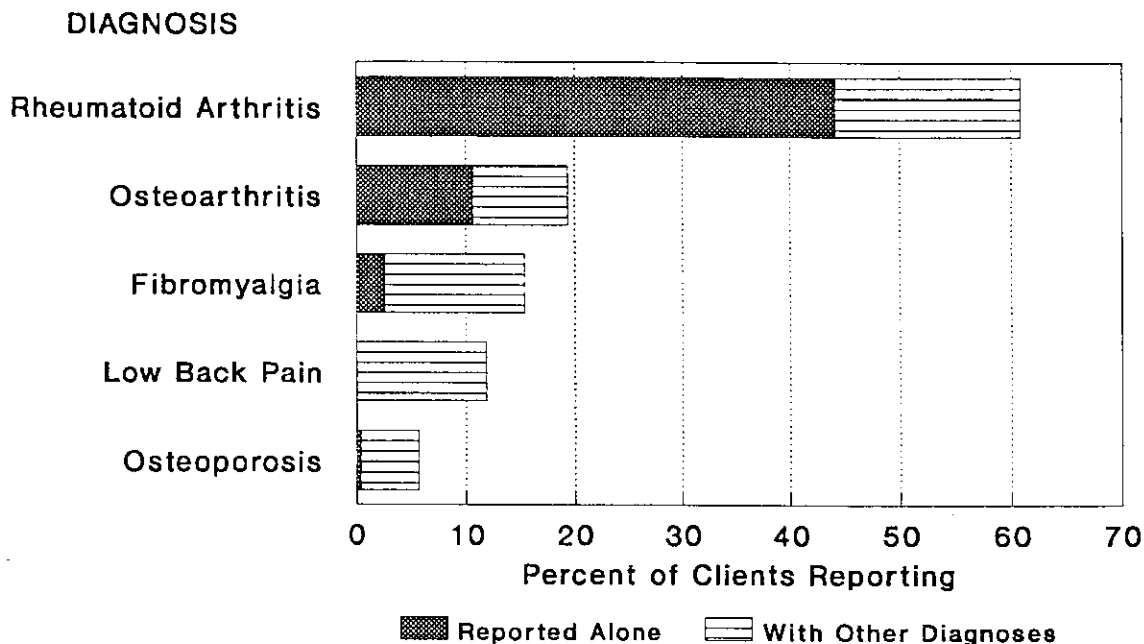
*Other category includes: student, unemployed/looking for work, volunteer, maternity leave, temporarily laid off, sick leave, short-term disability.

The average age of clients seen in the month of May was 58 years (Table 2.1). Most clients were women (82%) who were married or living common-law (56%). Almost 81% of clients reported english as their first language and almost

19% of clients lived alone. The majority of clients were not working for pay, and were either retired or voluntarily not working, homemakers, or on long-term disability.

c. Diagnosis

**FIGURE 1.2
MOST FREQUENTLY
REPORTED DIAGNOSES**



As the clients could report more than one diagnosis, Figure 1.2 depicts the proportion who checked off the diagnosis alone, as well as in combination with other musculoskeletal diagnoses.

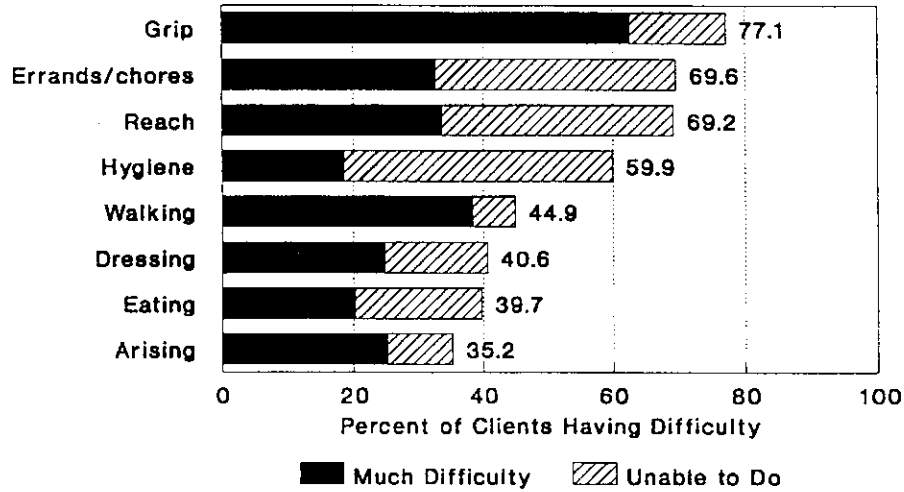
The most prevalent diagnosis reported was rheumatoid arthritis (>60%), followed by osteoarthritis (28%), and fibromyalgia (15%). Both rheumatoid arthritis and osteoarthritis were checked more frequently alone than in combination with other diagnoses. In the provincial study, osteoarthritis was more frequently

checked off in combination with other diagnoses, especially with rheumatoid arthritis. Low back pain, osteoporosis, and fibromyalgia were also more frequently checked off with other diagnoses. Generally, 82 (36%) of clients checked off more than one musculoskeletal diagnosis.

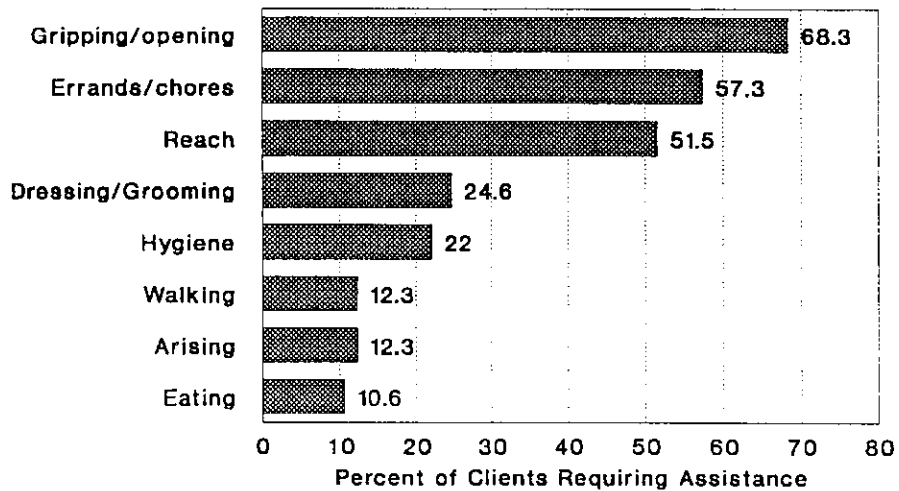
The mean duration of arthritis diagnoses was 10.8 years. Twenty three percent of clients surveyed in this region also indicated at least one other non-musculoskeletal comorbid condition.

2. *Level of Disability*

**FIGURE 2.1
FUNCTIONAL ACTIVITIES
Performance**



**FIGURE 2.2
HAQ FUNCTIONAL CATEGORIES
Activities Requiring Assistance
from Another Person**



The majority of clients had the most difficulty with grip, errands/chores, reach, and hygiene. Smaller proportions of clients were unable to grip as compared to the other top categories, but experienced much difficulty in activities requiring gripping. Forty-five percent of clients reported having much difficulty or being unable to walk.

These findings are generally similar to those shown in Figure 2.2, which portrays the functional activities that clients required assistance from another person. The majority of clients required assistance with gripping/opening, errands/chores, and reach.

Almost one third of clients used a cane for walking. Assistive devices were most commonly used for hygiene activities; 26% of clients used a raised toilet seat, 30% used a bathtub bar, and 19% used a bathtub seat. A large proportion of clients also used jar openers to assist them with gripping/opening (33%). Clients in the Northern Region used overall, an average of 2.6 assistive devices.

a. Disability Scores
(Health Assessment
Questionnaire)

The average HAQ score obtained by clients in the Northern Region was 1.57. This score was significantly greater (indicating greater disability) than those obtained by clients in the Central West and South West Regions (see provincial report for more details regarding HAQ scores). Generally, HAQ scores increased with age, and were greater for females than for males.

Clients with rheumatoid arthritis only (excluding those with any other musculoskeletal diagnosis), had a significantly higher average HAQ score than those with only osteoarthritis ($P < .01$). Clients with osteoarthritis only and fibromyalgia only reported similar disability levels.

3. Mobility

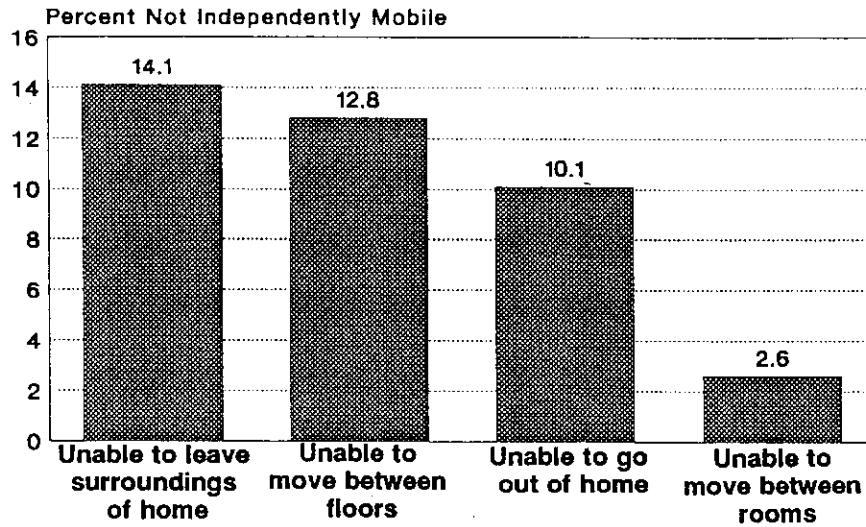
a. Independent mobility and
confinement to home

Inability to leave the surroundings of their home was the most frequently reported mobility-related limitation (Figure 3.1). Of the clients surveyed in the Northern Region, 14% reported that they were unable to leave the immediate surroundings of their homes independently. Limitations were also reported in ability to move between floors (13%), and ability to go out of the home independently (10%). Most clients were able to move from room to room inside of the home independently. Independent mobility decreased with increasing age (see provincial report for more details).

Overall, 20% of clients seen by the CTS in the Northern Region during the month of May, reported restriction in independent mobility within their homes, or upon leaving their homes.

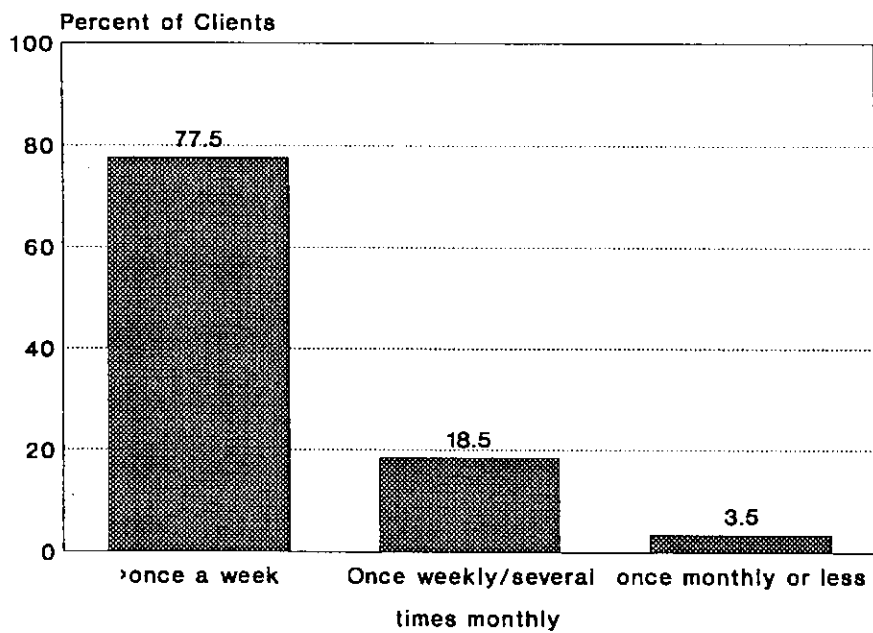
Clients with some restriction in their mobility had a significantly higher HAQ disability index than those who didn't (2.37 versus 1.37, $p < .001$).

**FIGURE 3.1
MOBILITY ACTIVITIES
Restrictions in
Independent Mobility***



* with regularly used assistive devices

**FIGURE 3.2
FREQUENCY OF OUTINGS**



b. Frequency of Outings

Most CTS clients in this region go out of their homes more than once a week (Figure 3.2). Nineteen percent of clients get out once weekly or several times monthly, and 4% of clients are only able to get out once a month or less. Frequency of outings decreased with increasing age (see provincial report for more details). Eighty-eight percent of clients in this region had access to a car in their households.

4. ***Therapists' Assessment of Suitability for Groups***

Therapists who saw clients at home were requested to check off which of their clients they felt would be suitable candidates to go out of their homes for group therapy in an ambulatory setting. Therapists in the Northern Region indicated that a much larger proportion of their home therapy clients could potentially go out of their homes to receive therapy in an ambulatory setting, as compared to the provincial study (71% versus 60%).

IV. DISCUSSION:

The primary purpose of the Consultation and Therapy Service (CTS) client survey was to provide information regarding clients' disability and mobility status in order to enhance service planning and development. An important question underpinning the survey was what proportion of home therapy clients needed to receive their care in the home, and what proportion could participate in ambulatory care programs.

There were several differences found among clients in the Northern Region as compared to the clients provincially. A much larger proportion of clients were seen in ambulatory care settings in the Northern Region as compared to the province (32% versus 16%). Despite the higher proportion of ambulatory care clients, therapists in the Northern Region indicated that a much larger proportion of their home therapy clients could potentially go out of their homes to receive therapy in an ambulatory setting, as compared to the province (71% versus 60%). In the Northern Region, clients reported osteoarthritis alone more frequently than in combination with other musculoskeletal diagnoses. In the provincial study, osteoarthritis was more frequently checked off in combination with other diagnoses, especially with rheumatoid arthritis.

The average HAQ disability index score obtained by clients in the Northern Region indicated significantly greater disability than clients in the Central West and South West Regions, but was similar to the province overall. The frequency of reported mobility restriction were also similar to that found in the province, with 20% of clients indicating some limitation in independent mobility, and 19% of clients

getting out of their homes once weekly or several times monthly.

While all clients may benefit from home-based services, it appears that many who are currently seen at home could potentially be seen in an ambulatory setting. A limited appraisal suggests that the proportion of clients who need to be seen at home in this region ranges from 14%-29%. Conversely 71%-86% of home therapy clients could potentially participate in groups in ambulatory settings. This is based on the proportions of clients unable to leave the surroundings of their homes independently, and clients whom the therapists identified could not participate in therapy in an ambulatory setting.

An increased level of ambulatory care provision could lead to greater efficiency in the use of staff, and savings of both time and travel costs of therapist home visits. Results indicate that home therapy services will however, continue to be a necessity, not only for those clients too disabled or otherwise unable to attend services in a group setting, but also for ambulatory clients who may require important input in the home environment to facilitate their continued independence in the community.

REFERENCES

- ¹ Fries JF, Spitz P, Young DY. The dimensions of health outcomes: the health assessment questionnaire disability and pain scales. *J. Rheumatol* 1982;9: 137-45.
- ² Badley EM, Tennant A. Calderdale health and disablement survey. Manchester, England. *Arthritis and Rheumatism Council for Research*, 1988.

**APPENDIX A:
The Arthritis Society Consultation and Therapy Service**

CLIENT SURVEY

Dear Client:

We are asking all people seen by the Arthritis Society Consultation and Therapy Service to complete a Client Survey during the month of May. This information will help us identify the needs of all people with arthritis and help us plan for future services and programs. Make sure that you complete all 5 pages. All information given in this survey will be kept confidential and will not affect your current treatment. If you have any questions, please call Lyn Maguire or Linda Rothman at 416-926-5156.

CLIENT NAME _____
 First Surname
 (please print)

Date of Birth ___/___/___
 dd/ mm/ yy

SEX: M F

1. Please check (✓) the main kind(s) of arthritis that you have.

- | | |
|--|---|
| <input type="checkbox"/> Rheumatoid Arthritis | <input type="checkbox"/> Fibromyalgia |
| <input type="checkbox"/> Osteoarthritis/Degenerative Arthritis | <input type="checkbox"/> Gout |
| <input type="checkbox"/> Scleroderma | <input type="checkbox"/> Psoriatic Arthritis |
| <input type="checkbox"/> Reiter's Syndrome | <input type="checkbox"/> Low Back Pain |
| <input type="checkbox"/> Tendonitis/Bursitis | <input type="checkbox"/> Osteoporosis |
| <input type="checkbox"/> Systemic Lupus Erythematosus | <input type="checkbox"/> Ankylosing Spondylitis |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Don't Know |

Therapist Only

Completed by:

- Client independently
 Therapist assisted
 Other assistance

Consult Only yes no
 New Referral yes no
 Today's Date ___/___/___
 dd/ mm/ yy

Therapist Name _____
Region _____
Date of Opening ___/___/___
 dd/ mm/ yy

For future programs: Suitable for clinics/groups yes no

5. Please check the one response which best describes your usual abilities OVER THE PAST WEEK:

Without Any Difficulty	With Some Difficulty	With Much Difficulty	Unable To Do
------------------------	----------------------	----------------------	--------------

HYGIENE

Are you able to:

- Wash and dry your entire body..... _____
- Take a tub bath..... _____
- Get on and off the toilet..... _____

REACH

Are you able to:

- Reach and get down a 5 pound object (such as a bag of sugar from just above your head).. _____
- Bend down to pick up clothing from the floor... _____

GRIP

Are you able to:

- Open car doors..... _____
- Open jars which have been previously opened _____
- Turn faucets on and off..... _____

ACTIVITIES

Are you able to:

- Run errands and shop..... _____
- Get in and out of a car..... _____
- Do chores such as vacuuming or yardwork.... _____

6. Please check any AIDS or DEVICES that you usually use for any of these activities:

- | | |
|--|--|
| <input type="checkbox"/> Raised Toilet Seat | <input type="checkbox"/> Bathtub Bar |
| <input type="checkbox"/> Bathtub Seat | <input type="checkbox"/> Long-Handled Appliances for Reach |
| <input type="checkbox"/> Jar Opener (for jars previously opened) | <input type="checkbox"/> Long-Handled Appliances in Bathroom |
| Other (Please Specify) _____ | |

7. Please check any categories for which you usually need HELP FROM ANOTHER PERSON:

- | | |
|----------------------------------|--|
| <input type="checkbox"/> Hygiene | <input type="checkbox"/> Gripping and Opening Things |
| <input type="checkbox"/> Reach | <input type="checkbox"/> Errands and Chores |

8. How much pain have you had because of your arthritis in the past week?
(Please circle one number)

None			Moderate			Extreme
1	2	3	4	5	6	7

9. On your own, or using any assistive devices/equipment that you normally use, are you usually able to:

Move from room to room	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Go out of your home	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Leave the immediate surroundings of your home (yard, sidewalk)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Move to another floor in your home	<input type="checkbox"/> Yes	<input type="checkbox"/> No → <input type="checkbox"/> Does not apply

**** If you have answered "yes" (or does not apply) to all of the above, skip to question #11.**

10. WITH HELP from another person, are you usually able to:

Move from room to room	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Go out of your home	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Leave the immediate surroundings of your home (yard, sidewalk)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Move to another floor in your home	<input type="checkbox"/> Yes	<input type="checkbox"/> No → <input type="checkbox"/> Does not apply

11. Do you have access to a car in your household, as either a driver or a passenger?
(excluding taxis)

Yes No

12. Do you use:

- Taxis..... Yes No
Public Transit..... Yes No
Transportation for people with disabilities..... Yes No
Rides from family/friends who do not live with you..... Yes No

13. Where do you usually go, when you go out? (Please check all that apply)

- | | | |
|---|--|---|
| <input type="checkbox"/> Shop/do errands | <input type="checkbox"/> Work outside of home | <input type="checkbox"/> Overnight trips |
| <input type="checkbox"/> Visit friends/relatives | <input type="checkbox"/> Religious institution | <input type="checkbox"/> Meetings/club |
| <input type="checkbox"/> Hairdresser/barber | <input type="checkbox"/> Walk the dog | <input type="checkbox"/> Medical appointments |
| <input type="checkbox"/> Recreational activities
(e.g. movies, sports theatre) | <input type="checkbox"/> Volunteer | <input type="checkbox"/> Take the children to
school/daycare |
- Other (please specify) _____

14. Generally, how often do you usually go out? (Please check only one)

- | | | |
|---|---|---|
| <input type="checkbox"/> every day | <input type="checkbox"/> several times a month | <input type="checkbox"/> a few times a year |
| <input type="checkbox"/> several times a week | <input type="checkbox"/> once a month | <input type="checkbox"/> never |
| <input type="checkbox"/> once a week | <input type="checkbox"/> less than once a month | |

15. Have you had any of your joints replaced in the last six months?

- Yes No

If yes, please check which joint(s):

- Knee: Right Hip: Right
Left Left

- Other joint(s) (please specify) _____

Thank You!