

# ARTHRITIS COMMUNITY RESEARCH & EVALUATION UNIT (ACREU)

The Wellesley Hospital Research Institute

*WORKING PAPER: 94-2E*

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## EASTERN 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**

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Ontario Division*



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## 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 Eastern Region.
- The survey used a self-administered questionnaire to gather data on disability, pain, and mobility in the community. A total of 383 questionnaires were returned in the Eastern, from 371 clients. Most questionnaires (86%) were from home therapy services. The findings from this survey are broadly applicable to all clients seen in this region annually.
- The average age of clients seen in the Eastern Region was 58 years and 80% were female. The most frequently reported diagnoses were rheumatoid arthritis (RA->60%), followed by osteoarthritis (OA-29%). There was a smaller proportion of clients reporting a diagnosis of fibromyalgia in this region as compared to the provincial study (8% versus 17%). Twenty eight percent of clients surveyed in this region also indicated at least one other non-musculoskeletal comorbid condition.
- Although clients in the Eastern Region reported the same levels of disability as home therapy clients overall in the province, clients in this region were significantly less disabled than those in the Central East and the North East Regions. The majority of clients in the Eastern Region had much difficulty or were unable to; grip, do errands/chores, hygiene activities, and reach. More than 45% of clients reported having much difficulty, or being unable to walk. Assistive devices were most commonly used for hygiene activities. The most commonly used assistive devices were canes and jar openers.
- Approximately one fifth of clients reported some restriction in independent mobility, with 17% being unable to leave the immediate surroundings of their homes independently.
- Most CTS clients in the Eastern Region reported going out of their homes more than once a week (74%). Eighty two percent of clients in this region had access to a car in their households.
- Therapists indicated that 61% of clients seen at home in this region could potentially go out to participate in a group setting.

- It is estimated that 17%-39% of clients need to be seen at home in this 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: Eastern 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 provincial report for more details). Since April 1, 1994, the CTS has been divided up according to District Health Council (DHC) Regions. Five additional DHC regional reports have been prepared. The following report is for the Eastern Region.

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 home therapy 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)<sup>1</sup>. 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.<sup>2</sup> 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**

Analysis 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.

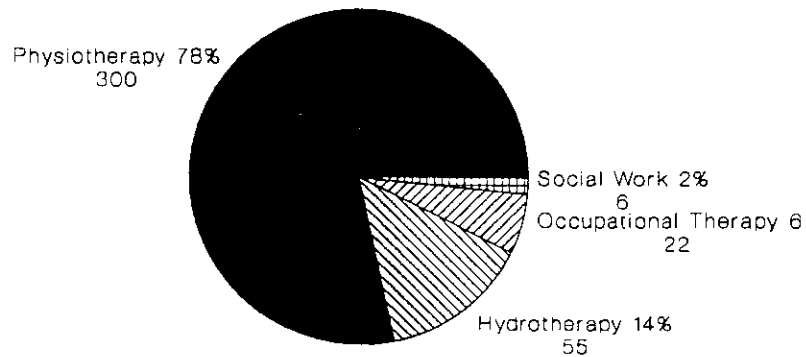
In the presentation of results, percentages have been calculated excluding missing data. The proportion with missing data from the client completed questionnaire is generally low.

III. RESULTS:

1. *Characteristics of CTS Clients*

a. Services received

**Figure 1.1**  
**QUESTIONNAIRE RETURNED BY SERVICE**



A total of 383 questionnaires were returned from the Eastern Region from 371 individual clients. The findings for these clients are generally applicable to all clients seen in the Eastern Region annually (see provincial report for more details). Most of the questionnaires were completed by home therapy clients (86%), with physiotherapy clients

completing 78% of all surveys (Figure 1.1). Hydrotherapy was the only ambulatory care setting in which clients completed surveys in the Eastern Region during the month of May. The majority of clients were continuing clients, with 30% of those who responded identified as new referrals. Of the new referrals, 34% were identified as consults only.



b. Demographic characteristics

**TABLE 2.1: Demographic Characteristics of Clients (N = 371)**

<b>Age (years)</b>	Mean (s.d.)	58.0 (15.5)	
<b>Sex</b>	Female	296 (80.0%)	
<b>Marital Status</b>	Married/Common law	194 (64.0%)	
<b>Primary Language</b>	English	243 (80.5%)	
<b>Household Size</b>	Lives Alone	69 (22.3%)	
<b>Total Years of Education</b>	Mean (s.d.)	11.4 ( 3.5)	
<b>Employment Status</b>	Employed:	Full-time	38 (10.2%)
		Part-time	19 ( 5.1%)
		Self-employed	14 ( 3.8%)
	Not Employed:	Retired/Voluntary not working	97 (26.1%)
		Homemaking	80 (21.6%)
		Ltd	29 ( 7.8%)
		Other	45 (12.1%)

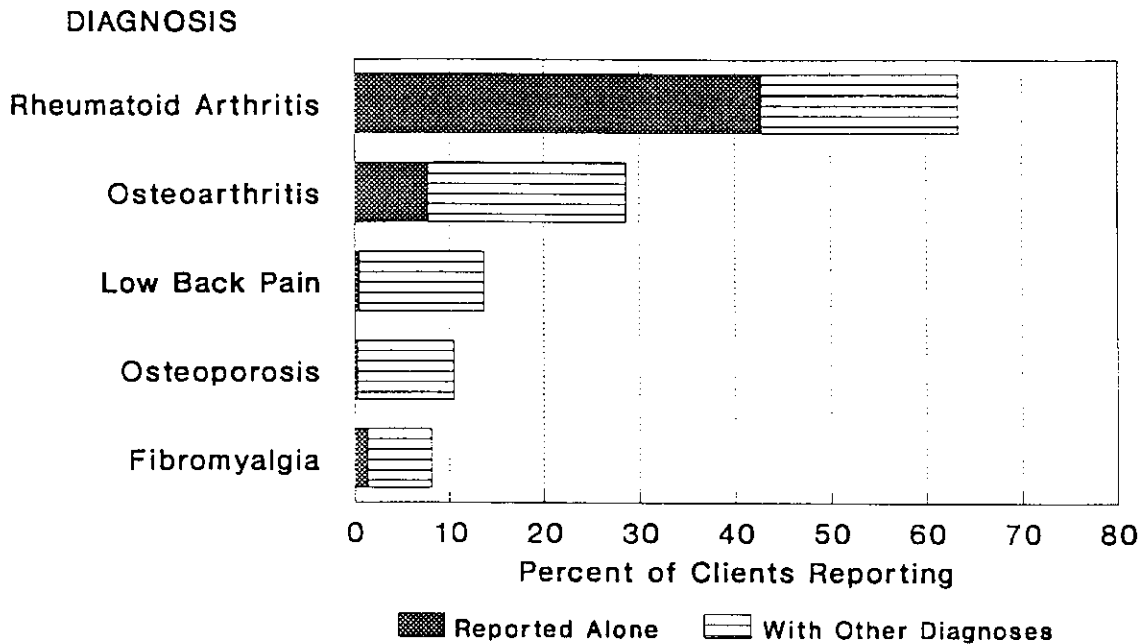
*\*Other category includes: student, unemployed/looking for work, volunteer, maternity leave, temporarily laid off, sick leave, short term disability.*

The average age of clients seen in the month of May was 58 years (Table 2.1). Most clients were women (80%) who were married or living common-law (64%). Eighty one percent of clients who responded reported English as their first

language, and 22% 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 (LTD).

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 one diagnosis as well as in combinations with other musculoskeletal diagnoses.

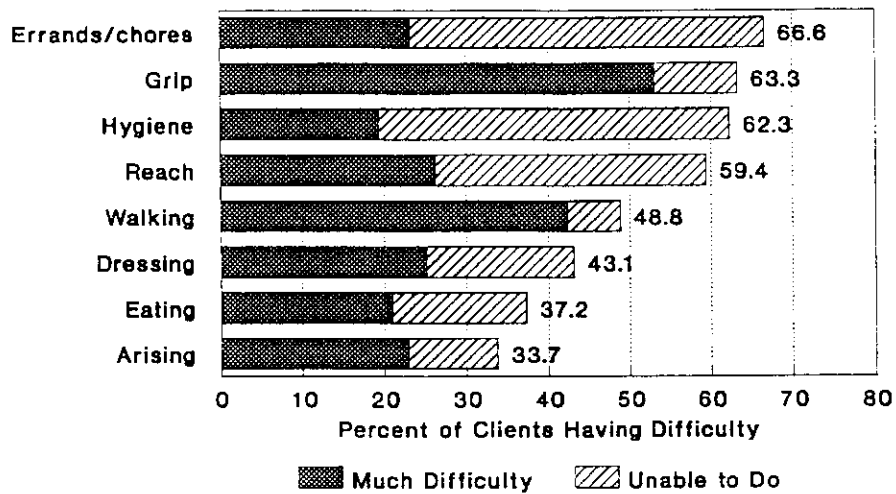
The most prevalent diagnosis reported was rheumatoid arthritis (>60%), followed by osteoarthritis (29%). There was a smaller proportion of clients reporting a diagnosis of fibromyalgia in this region as compared to the province (8% versus 17%). Rheumatoid arthritis was checked off more frequently alone than in combination with other diagnoses. 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. Thirty nine percent of clients checked off more than one musculoskeletal diagnosis.

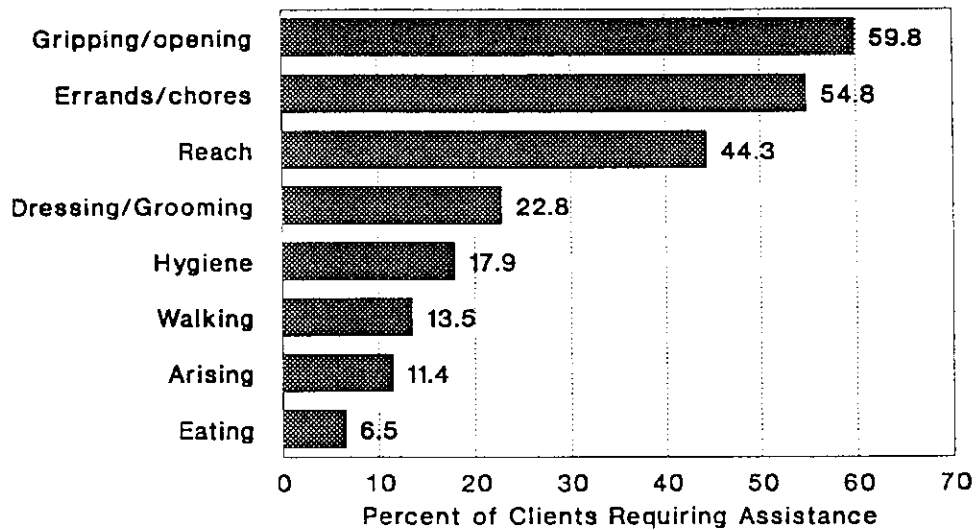
The mean duration of reported musculoskeletal condition by CTS clients in this region was 10.4 years. This was a shorter duration than the mean reported for the province (15.2 years). Twenty eight percent of clients surveyed in this region also indicated at least one other non-musculoskeletal comorbid 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 much difficulty or were unable to do errands/chores, grip, hygiene activities and reach (Figure 2.1). Smaller proportions of clients were unable to grip as compared to the other top categories, but experienced much difficulty in activities requiring gripping. More than 45% of clients had much difficulty or were 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; 27% of clients used a raised toilet seat, 26% 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 (26%). Clients in the Eastern Region used overall, an average of 2.4 assistive devices.

a. Disability Scores  
(Health Assessment  
Questionnaire)

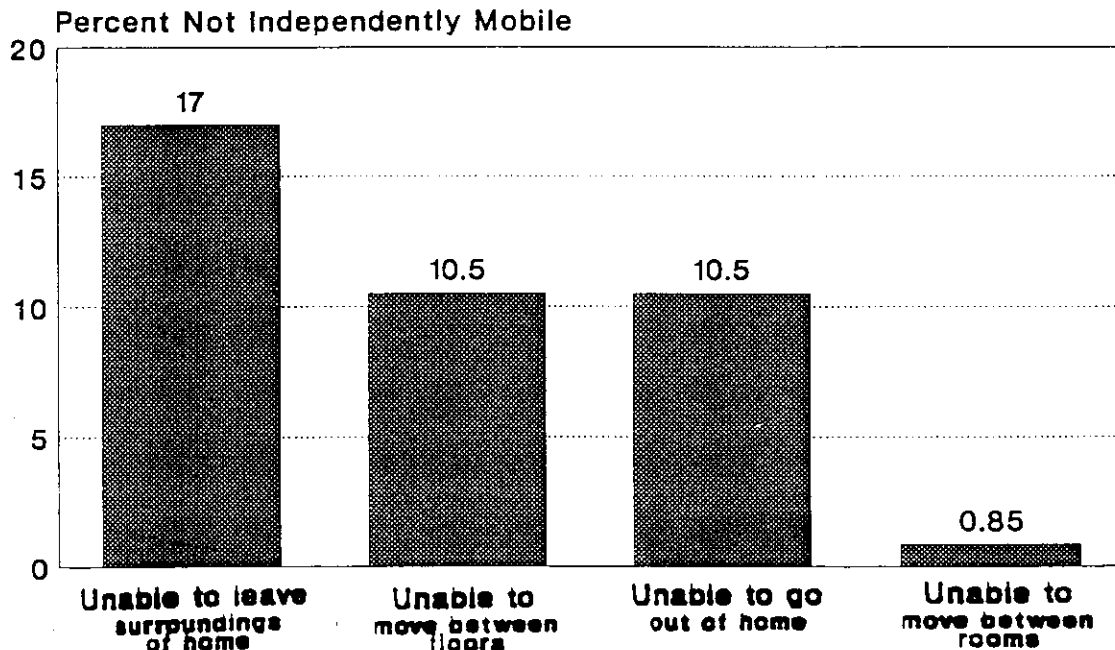
The average HAQ score obtained by clients in the East Region was 1.5. This score was significantly less (indicating less disability) than those obtained by clients in the Central East and North East Regions (see provincial report for more details regarding HAQ scores). Generally, HAQ scores increased with age, and were greater for females than for males.

Clients with rheumatoid arthritis only (excluding those with any other musculoskeletal diagnosis), had a higher average HAQ score than those with only osteoarthritis or fibromyalgia. This difference was not however, statistically significant as it was in the provincial study. Clients with fibromyalgia only and osteoarthritis only reported similar disability levels. It is possible that the numbers of clients with each of these diagnoses in the Eastern Region were not large enough to reach statistical significance.

### 3. *Mobility*

#### a. Independent mobility and confinement to the home

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



-with regularly used assistive devices

Inability to leave the surroundings of the home was the most frequently reported mobility-related limitation (Figure 3.1). Of the clients surveyed in the Eastern Region, 17% reported that they were unable to leave the immediate surroundings of their homes independently. Limitations were also reported in the ability to move between floors (11%), ability to go out of the home independently (11%). Most clients were able to move from room to room inside of the home independently. Independent

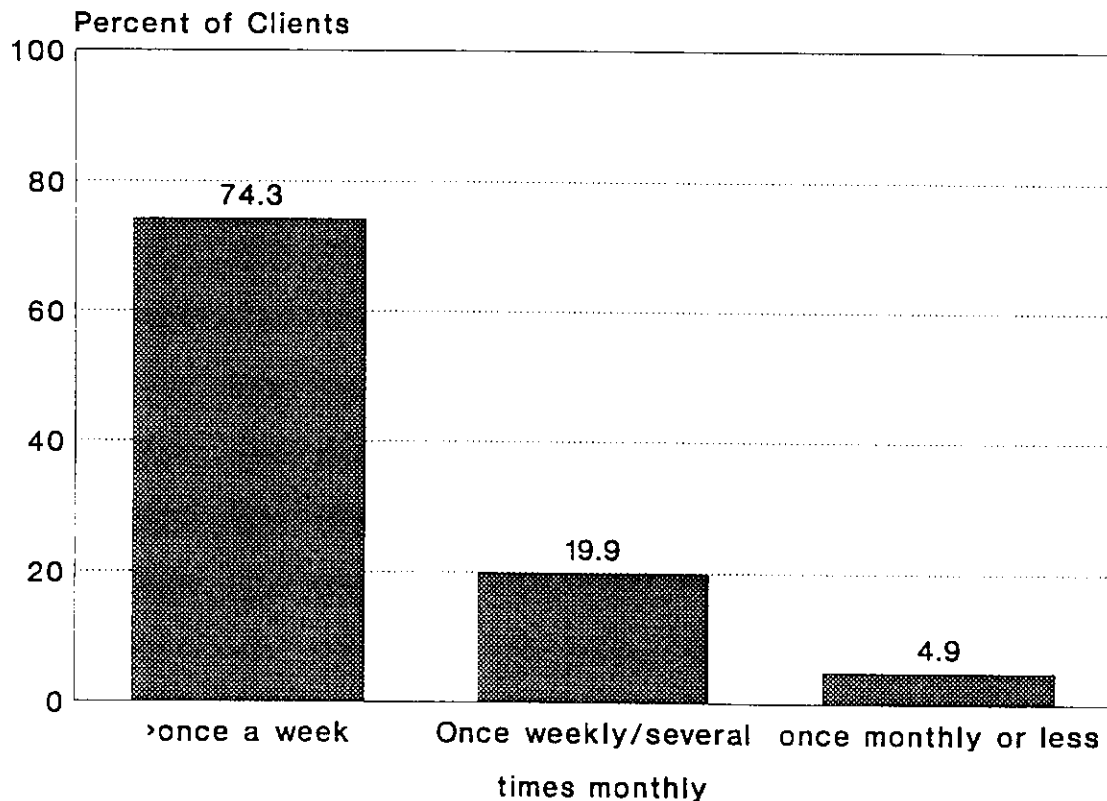
mobility decreased with increasing age (see provincial report for more details).

Overall, 19% of clients seen by the CTS in the Eastern 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 (2.33 vs. 1.31,  $p < .001$ ).

b. Frequency of outings

Figure 3.2  
FREQUENCY OF OUTINGS



Most CTS clients in this region go out of their homes more than once a week (Figure 3.2). Twenty percent of clients get out once weekly or several times monthly, and 5% of clients are only able to get out once a month or less. Frequency of outings decreases with increasing age (see provincial report for more details). Eighty two 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 indicated that 61% of clients seen at home in this region could potentially go out to receive therapy in a group setting.

#### 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 in clients in the Eastern Region as compared to CTS clients provincially. There was a smaller proportion of clients reporting a diagnosis of fibromyalgia in this region as compared to the provincial study (8% versus 17%). The average HAQ score for clients in the Eastern Region was 1.5, which was similar to that of home therapy clients in the province. This score was however, significantly less (indicating less disability) than those obtained by clients in the Central East and North East Regions. Although clients with rheumatoid arthritis only (excluding those with any other musculoskeletal diagnosis), had a higher average HAQ score than those with only osteoarthritis or fibromyalgia in this region, this difference was not statistically significant as it was in the provincial study. It is possible that the numbers of clients with each of these diagnoses in the Eastern Region were not large enough to reach statistical significance.

Despite clients in this region reporting somewhat lower levels of disability as compared to some of the other regions, restrictions in mobility were comparable to those reported in the province. Nineteen percent of clients reported some restriction in independent mobility, and one quarter of clients in this region

reported going out only once weekly or less.

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 suggest that the proportion of clients who need to be seen at home in this region ranges from 17%-39%. Conversely 61%-83% 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

- <sup>1</sup> 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.
- <sup>2</sup> 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** \_\_\_\_\_ **Date of Birth** \_\_\_\_/\_\_\_\_/\_\_\_\_ **SEX:**  M  F  
                    **First**                    **Surname**                                    **dd/ mm/ yy**  
                    **(please print)**

**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

Consult Only  yes  no

Therapist Name \_\_\_\_\_

Therapist assisted

New Referral  yes  no

Region \_\_\_\_\_

Other assistance

Today's Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
                                    **dd/ mm/ yy**

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:

- Raised Toilet Seat
- Bathtub Bar
- Bathtub Seat
- Long-Handled Appliances for Reach
- Jar Opener (for jars previously opened)
- Long-Handled Appliances in Bathroom
- Other (Please Specify) \_\_\_\_\_

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

- Hygiene
- Gripping and Opening Things
- Reach
- 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<br>(e.g. movies, sports theatre) | <input type="checkbox"/> Volunteer             | <input type="checkbox"/> Take the children to<br>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!