Community based physiotherapy services in the Kivalliq Region of Nunavut, Canada

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ABSTRACT
Objectives. Community based physiotherapy services are an integral component of the recent implementation of a medical rehabilitation program in the Kivalliq Region of Nunavut. Since the year 2000, the Inuit people of Canada’s central Arctic have had direct access to physiotherapy in their home communities. Study Design. A quantitative review of physiotherapy services from January 1, 2001 to December 31, 2002. Methods. Workload measurement data gathered by the physiotherapists in the field will be utilized to present information on referral sources, location of services provided, client diagnoses and average duration of treatment provided. Administrative data will provide information on staffing complements and challenges to date. The need for physiotherapy referrals out of the Kivalliq Region will be reviewed. Results. Referral sources to physiotherapy services are varied, the majority of diagnoses are musculoskeletal in nature, followed by neurological and cardiovascular. Recruitment of the physiotherapy positions has been successful to date. Referrals out of the region for physiotherapy services have been rare since community based services have begun. Conclusions. Access to physiotherapy services by the residents of the Kivalliq Region has been significantly enhanced since the implementation of the medical rehabilitation program.

Keywords: Inuit, musculoskeletal, rehabilitation

INTRODUCTION
On July 9th 1993 Canada’s newest territory was formed. Nunavut, or "our land" makes up one-fifth of Canada’s land mass. Nunavut has a population of 23,000 inhabitants, most of whom are Inuit, and who live in the regions of Baffin (eastern region), Kivalliq (central region), and the Kitikmeot (western region) (1).

In 1999, the J.A. Hildes Northern Medical Unit, a division of the University of Manitoba, with support of the Department of Health and Social Services, conducted a needs assessment for rehabilitation services in the Kivalliq region of Nunavut. This assessment was led by Moni Fricke, Coordinator of Medical Rehabilitation Services. The study showed that there was, in fact, a need for rehabilitation services in the region. As a result, rehabilitation services are provided to the seven communities on the Kivalliq Region of Nunavut: Whale Cove, Rankin Inlet, Baker Lake, Arviat, Chesterfield Inlet, Coral Harbour, and Repulse Bay, as well as the hamlet of Sanikiluaq (2).

Client Encounters

The number of clients seen varies per community depending on community population size, needs, awareness of services, travel schedule and staffing levels. Table I shows the number of clients seen in each community and the percentage of the total caseload.

| Community               | Number of Client (%). |
|-------------------------|-----------------------|
| Arviat                  | 231 (7)               |
| Baker Lake              | 271 (8)               |
| Chesterfield Inlet      | 239 (7)               |
| Coral Harbour           | 255 (8)               |
| Rankin Inlet            | 1783 (51)             |
| Repulse Bay             | 223 (7)               |
| Sanikiluaq              | 259 (8)               |
| Whale Cove              | 139 (4)               |
The Rehabilitation services contract has provisions to employ two physiotherapists for the region. The therapists travel alternately to the 6 outlying communities every other week, in order to provide uninterrupted physiotherapy services to Rankin Inlet. Each therapist services three communities other than Rankin Inlet in the region, scheduling frequent community visits to provide continual services. Since the fall of 2002, Sanikiluaq has been serviced by therapists from Winnipeg, Manitoba. This has been done in an attempt to increase the number of visits that the community receives, increase communication with the family physician who also travels from Winnipeg, as well as greater ease in travel scheduling as flights depart from Winnipeg. When Rehabilitation Services does not have two full-time Physiotherapists employed, locum therapists are hired to maintain the continuity of services. In the time reviewed 3.5 EFTs and 10 locum physiotherapists serviced the region.

**Referral Sources**

Referral Sources vary slightly between communities, however, the majority of referrals to Physiotherapy Services, 95% of cases, have come from Health and Social Services staff (nurses, physicians, home care staff, midwives and consultants). Referrals are also received from the Department of Education (approximately 10% student support teachers). Other sources (4%) include referrals from other programs (Physiotherapy and Occupational Therapy referrals for clients returning to the Kivalliq region after hospitalization in the south), daycare and self-referrals.

**Location of Services**

Services are generally provided at the Rehabilitation office in Rankin Inlet or in the Health Centres while in any outlying community. Home and community care is offered for those who are unable to attend the office or where rehab issues are better assessed within the client’s home, work or other community facility. Rankin Inlet and Chesterfield Inlet both have group homes for clients with disabilities. Baker Lake and Arviat have Elder’s Centres for community members who have difficulty living at home independently. Locations are shown in Table II.

**Physiotherapy Caseload**

The majority of diagnoses are musculoskeletal in nature, followed by neurological, rheumatologic and cardiovascular (Table III). Within the Orthopedic category, two common diagnoses stand out – knee pain/injury, and low back pain. It is unclear why this is occurring – due to genetics, geography, daily activities or otherwise.

**Education**

The physiotherapy program provides community education on rehab issues and health promotion. In-service topics have included the role of Physiotherapy, assessment and treatment of orthopedic injuries, management of COPD and exercise programs.

There has also been supervision of Physiotherapy students on clinical placements and rehabilitation summer students in student programs. The student programs are valued for their ability to allow students to obtain experience within their chosen field, participate in a multidisciplinary approach to health care, and for a chance to learn about the Inuit culture (3).

**Duration of Treatment Provided**

We were unable to accurately determine the duration of treatment provided by the Physiotherapy program.

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**Table II. Location of physiotherapy services**

| Location     | Percentage of services |
|--------------|------------------------|
| Health centre| 94 %                   |
| Group home   | 2 %                    |
| School       | 2 %                    |
| Long term    | 2 %                    |
| Workplace    | 0                      |

**Table III. Diagnoses of the physiotherapy patients**

| Diagnosis      | Percentage of patients |
|----------------|------------------------|
| Cardiovascular | 2 %                    |
| Rheumatologic  | 3 %                    |
| Neurological   | 11 %                   |
| Orthopedic     | 84 %                   |
rapists for two key reasons. First of all, the original stats did not indicate start or finish dates for each patient’s treatment. Secondly, number of patients performed "self-discharge" by continually missing Physiotherapy appointments. One is unable to assume that all of these discharges resulted in complete recovery. Inconsistent attendance to therapy appointments can also artificially lengthen the duration of treatment by extending the time between each successive appointment.

Services Prior to Community Based Rehabilitation Program
Prior to the Northern Medical Unit Medical Rehabilitation Service program, clients requiring physiotherapy were required to travel to the Churchill Regional Hospital. Since the program has been in place, patients can be seen in their home community or brought into Rankin to receive physiotherapy. This has eliminated the need for patients to be referred to a therapist in Churchill, Manitoba.

Challenges
Some of the challenges have included
- Limited physiotherapy treatment space due to office space shortages in the communities. This limits the number of clients that can be seen at a time. As well as the amount of equipment that can be used by the therapists.
- Frequent travel of the Physiotherapists resulting in many communities receiving physiotherapy services only once every six weeks. The clients in these locations receive much less hands-on therapy. They are therefore required to perform much of the treatment activities at home. Client motivation without regular follow up can be challenging, and can lead to low client compliance with therapy. Also, if their condition changes they must usually wait until the next visit to receive a change in their treatment program. The development of a community rehabilitation assistant is being eagerly awaited to assist with regular follow-up of treatment programs.
- Administrative responsibilities often require much of the therapists’ times due to a shortage of trained office personnel to act as clerks/interpreters.

Future
Community Therapy Assistant (CTA) program: The curriculum for this program is currently being developed, and local community members will be trained to act as therapy assistants for Occupational Therapists, Physiotherapists, Speech Language Pathologists and Audiologists. The CTAs will be based in each community to assist with the intervention program and follow-up and community health promotion.

Telehealth Services: The newly initiated and future expansion of telehealth will help rehab staff assess and treat clients by accessing specialized services without the inconvenience of client travel.

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