A National
Primary
Health Care
Community
Initiative

GETTING A GRIP ON ARTHRITIS

FINAL REPORT

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Executive Summary

Background and Rationale

Arthritis is a serious, chronic, and disabling disease affecting more than four million Canadians. Several barriers to the delivery of arthritis care at the primary health care level have been identified. These include difficulty in diagnosing arthritis; delay of physicians in referring patients with arthritis to specialists; long waiting lists for hip and knee replacements, most of which are the result of arthritis; and a lack of information for patients on self-management strategies, community resources, and medications and their side effects.

To effectively address these barriers, an integrated team approach to care delivery at the primary health care level is required. Following a successful pilot project in Ontario, The Arthritis Society in partnership with several organizations, received funding through the Primary Health Care Transition Fund to implement the Getting a Grip on Arthritis project across Canada.

Goals and Objectives

The Getting a Grip on Arthritis project addressed the following PHCTF's program objectives:

- to increase emphasis on health promotion, disease and injury prevention, and management of chronic diseases
- to establish interdisciplinary primary health care teams of providers, so that the most appropriate care is provided by the most appropriate provider
- to facilitate coordination and integration with other health services, e.g. in institutions and in communities

The specific goal of the Getting a Grip on Arthritis project was to increase the capacity of primary care health providers and people with arthritis to collaboratively manage the disease by supporting the delivery of arthritis care and emphasizing prevention, early detection, comprehensive care, more appropriate and timely access to specialty care and self-management.

Activities

The Getting a Grip on Arthritis project included four components:

- needs assessment (survey of community arthritis resources, patient focus groups, baseline patient and provider survey)
- development of educational materials for providers and their patients
- 30 accredited inter-professional workshops on osteoarthritis (OA) and rheumatoid arthritis (RA) for providers working in primary health care organizations.
- reinforcement activities following the workshop to reinforce the learning and support the delivery of arthritis best practices in the community

At baseline, each community or region was surveyed to describe current arthritis resources. Patient focus groups were held in rural and urban communities prior to the workshops to identify gaps in care and learning needs. As well, primary health care providers attending the workshops were asked to complete a survey on arthritis best practices and barriers to arthritis care.

To address identified barriers and educational needs, the project produced educational materials for use by primary health care providers, people with arthritis and the general public. In addition, 30 workshops on arthritis best practices (24 English, 6 French) were delivered for primary health care providers in rural and urban communities across Canada.

Workshop content focused on best practices for the primary care management of OA and RA and included evidence-based pharmacological and non-pharmacological interventions (education, psychosocial support, exercise, weight management/nutrition, assistive devices and joint protection). Faculty included multidisciplinary health professionals as well as Arthritis Self-management Program leaders and Patient Partners. The Patient Partner session provided participants with an opportunity to enhance their musculoskeletal examination skills. After the workshops, activities were provided to reinforce the messages on arthritis best practices and to support the delivery of integrated arthritis care in the community.

Challenges and Barriers to Success

Implementation challenges included difficulties in establishing an infrastructure to support the project (recruiting project staff, national communications); the varied and changing health care environment; different models of primary health care delivery across Canada; the lack of computerized databases and/or appropriate coding of OA and RA in primary health care organizations making it difficult to identify patients with arthritis; multiple ethics submissions required by groups participating in our project across Canada; and some challenges in workshop delivery relating to regulatory, scope of practice and referral issues.

Addressing these issues required major infrastructure support from The Arthritis Society both nationally and provincially, and the support of our partners and arthritis stakeholders across Canada. We worked with provincial governments and Regional Health Authorities to identify appropriate primary health care organizations and where needed, worked with local arthritis stakeholders to develop teams. Our stakeholder groups were also instrumental in helping us identify local ethics requirements and in many cases, facilitated the process within their jurisdictions. In each province, we ensured that all workshop faculty met the requirements of the provincial regulatory bodies. In some provinces, we adjusted workshop content to reflect the unique roles of team members.

Evaluation Plan and Activities

The evaluation plan was developed collaboratively with our partners and included qualitative and quantitative approaches. Both process and outcome measures were included. The impact of the program was evaluated at the individual, organization, community, provincial and national levels. The strategies included: provider feedback on the workshops; tracking of dissemination/educational and reinforcement activities as well as the assessment of reach, provider and patient outcomes and impact on workshop faculty.

Dissemination Plan and Activities

The dissemination plan focused on communicating with members of our partner groups and

advisory committee organizations, and with project participants (patients and providers) and arthritis stakeholders across Canada, including 21 presentations to professional audiences, 13 articles in professional or partner newsletters and 16 articles in local newspapers. A paper on the results of this project is currently being written for publication in a scientific journal.

Outcomes and Results

Needs Assessment

Seventy-seven adults with OA or RA who were patients at CHCs participated in one of 8 focus groups. Suggestions for improving quality and access to care included increasing public and patient education about arthritis and its management, improving the education of health professionals and improving team work. At baseline, providers reported low confidence in assessing and managing arthritis.

Educational Materials

To address these needs, educational materials were developed and included a poster on arthritis prevention with a message to encourage people who had early symptoms of arthritis to see their physician; a patient resource kit; a provider toolkit (folded, laminated card) summarizing arthritis best practices identified through a review of the current literature; and a prescription pad to encourage appropriate referrals to rehabilitation specialists and community resources.

Inter-professional Workshops

A total of 470 primary health care sites were invited to participate in the project; 268 agreed and 219 sent 646 providers to the workshops. In addition, 254 providers from other health care agencies attended for a total of 900 providers. Participants reflected the inter-professional model of care (physicians: 15%; nurse practitioners: 11%; other health care providers 63%; non-clinical staff/students: 10%).

Thirty workshops were successfully completed in 10 provinces. A total of 249 multidisciplinary faculty contributed to workshop content and delivered standardized evidence-based messages. Over 90% of the participants found the workshops were relevant, met stated objectives, met their personal learning objectives and expectations, allowed opportunity to interact with colleagues, were credible and non-biased and were well organized. The most common strengths identified included team learning and the team model of care presented, the interactive and varied format, the involvement of people with arthritis, the opportunity for hands on skill development, and the opportunity to link with local resources.

Reinforcement Activities

A total of 219 primary health care sites were eligible for reinforcement activities. Activities included newsletters, arthritis educational materials for providers and patients, a reflective practice exercise, follow-up of individual goals, a list of community arthritis resources, and letter templates. Patient books and videos were donated to local libraries. Forty-six sites requested additional reinforcement activities, most commonly additional educational materials or staff training. There were 87 regional or provincial reinforcement activities provided to support the delivery of arthritis care in the community.

Evaluation
Impact of the intervention was assessed by a survey (online or mailed) completed by providers prior to the Getting a Grip on Arthritis workshop in their region and six months post workshop (n=384). The survey assessed providers' confidence in assessing and managing arthritis, barriers to care and use of best practices. Questions also asked about providers' perceptions of the impact of the initiative on different areas of arthritis care. There were significant improvements in their confidence in assessing and managing arthritis and satisfaction with their ability to manage arthritis in their practice. Providers indicated the Getting a Grip on Arthritis project had the most impact in the areas of arthritis collaborative care and patient self-management.

Twenty-six sites agreed to identify patients to receive surveys. At follow-up, patients (n= 567) reported receiving significantly more recommendations for arthritis best practices from their primary health care providers including information regarding arthritis community resources, how to deal with pain, exercise and maintaining a healthy weight (in OA).

To help us determine the impact of the program on arthritis care delivery in the community, we sent a survey to 377 workshop faculty, facilitators and guests. Respondents (n=207) reported that the greatest influence of the project was in the area of improved arthritis care in the community.

Implications
Patient focus groups identified common barriers and gaps that needed to be addressed including issues around access to information and the training of health professionals. The Getting a Grip on Arthritis project addressed these issues through the development of patient and provider educational resources and the training and support of the team of health professionals working in the primary health care environment. This educational model, based on social learning theory, was successful in improving arthritis care delivery in the primary health care environment. The content could be adapted for other audiences (hospitals, home care settings, clinics, rehabilitation centres, fee for service environments, aboriginal communities) or to address other types of arthritis or other chronic diseases.

Sustainability
The changes achieved by the Getting a Grip on Arthritis initiative will be sustained through the relationships established through the project. This project has built the capacity of communities to deliver arthritis care by identifying, training and supporting the team of providers in primary health care organizations. The development of appropriate tools for providers and people with arthritis, and linking providers and patients with local resources will support the long-term sustainability of this project.

There is so much more to be done. The Getting a Grip on Arthritis intervention offers an upstream solution to preventing and managing arthritis and potentially addresses the long wait lists for hip and knee replacements, most often the result of failure to successfully manage this chronic disease. The partners in this project are committed and with ongoing funding, this evidence-based intervention could be delivered to other providers delivering care to people with

arthritis.

Background and Rationale

Arthritis is a serious, chronic, and disabling disease affecting more than four million Canadians. It is predicted that the burden of arthritis will increase with the aging population and that by 2031, the prevalence of arthritis in Canada will increase to 6.5 million. Disability attributed to arthritis in the population aged 15+ is projected to increase to 3.3% (1.13 million) in 2031. It is the most common reason for long-term physical disability. Arthritis and other musculoskeletal (MSK) diseases cost the Canadian economy an estimated $l7.8 billion annually and accounts for approximately 25% of the visits to primary care physicians in Canada emphasizing the need for a primary health care strategy that affectively meets the needs of this population. Several barriers to the delivery of arthritis care at the primary care level have been identified. These include:

- difficulty in diagnosing RA
- delay of physicians in referring patients with arthritis to specialists
- long waiting lists for hip and knee replacements, most of which are the result of arthritis
- lack of information for patients on exercise, community resources, medications and their side effects, maintaining a healthy body weight, how to cope with their arthritis, and how to deal with pain

To effectively address these barriers, an integrated team approach to care delivery at the primary care level is required.

Pilot Work

In Ontario, the ICES Practice Atlas on Arthritis & Related Conditions documented gaps in services across Ontario and the need for improved arthritis management and integration of care. In response to these issues, the Ontario Minister of Health committed Ministry staff to work with The Arthritis Society, Ontario Division, to explore ways to improve the care for people with arthritis. This led to the formation of the Arthritis Strategic Action Group (ASAG), a group of key stakeholders in arthritis care in the province. The ASAG commissioned a team to implement a multi-disciplinary approach to arthritis care in five Community Health Centres (CHCs) in Ontario. Two additional CHCs were selected to serve as comparison (control) sites. The design team included CHC providers, researchers, Arthritis Society and Ministry of Health and Long-Term Care representatives and a person with arthritis. The implementation phase of this project focused on the implementation of arthritis clinical practice guidelines and included:

- an educational 'toolkit' of written materials on Arthritis Best Practices for providers and people with arthritis.
- a MAINPRO-C accredited educational intervention on Arthritis Best Practices for all providers
- reinforcement strategies; and
- ongoing evaluation and feedback

Following the 10 month intervention, providers in the intervention group reported: improved physical examination of the joints; greater awareness of community resources for people with arthritis; improved communication skills with patients and specialists; and better overall management and education of people with arthritis. More providers in the intervention group made appropriate recommendations for the management of arthritis and reported increases in

confidence in completing a comprehensive examination of the joints. Patients in the intervention CHCs reported significant increases in referrals to rehabilitation specialists and greater satisfaction with information about arthritis and services available in the community.

This multifaceted intervention increased awareness of Arthritis Best Practices for both people with arthritis and providers. It is one of the first to show changes in the management of arthritis in a primary health care setting. The partnership between primary health care providers, non-profit organizations, researchers, and the Ministry of Health in designing, implementing and evaluating the intervention was effective in altering care for persons with arthritis. This project also demonstrated a practical approach to the implementation and dissemination of clinical practice guidelines in a primary health care environment, which may serve as a model for other chronic diseases. This intervention demonstrated the importance of collaboration between the various members of the primary health care team (physicians, nurses, nurse practitioners, health promoters and others) and the person with arthritis. By June 2003, providers from all 56 CHCs in Ontario had been offered training through this program.

The Getting a Grip on Arthritis project, funded by Health Canada, built upon this successful pilot project. In order to increase the impact of this project, several partners[1] came together to implement the project Canada wide in CHCs and other primary health care organizations and also to pilot test the intervention in the fee for service environment.

Goals and Objectives

The Getting a Grip on Arthritis project addressed the following PHCTF's program objectives:

- to increase emphasis on health promotion, disease and injury prevention, and management of chronic diseases
- to establish interdisciplinary primary health care teams of providers, so that the most appropriate care is provided by the most appropriate provider
- to facilitate coordination and integration with other health services, e.g. in institutions and in communities

The project also addressed the following objectives specific to the National envelope:

- to create the necessary conditions on a national level to advance primary health care reform beyond what any single jurisdiction can achieve on its own
- to address common barriers or gaps to primary health care reform
- to improve the availability and quality of information on primary health care nationally (e.g. evaluation, progress indicators)

[1] Arthritis Community Research and Evaluation Unit (ACREU), Arthritis Health Professions Association (AHPA), Canadian Alliance of Community Health Centre Associations (CACHCA), Canadian Nurses Association (CNA), Canadian Rheumatology Association (CRA), Ontario Ministry of Health and Long-term Care, Patient Partners® in Arthritis, Sunnybrook and Women's College Health Sciences Centre, The Arthritis Society

- to create common practical tools to address the challenges that will arise during the renewal process
- to facilitate collaboration among professions involved in primary health care
- to facilitate changes to practice patterns for primary health care providers

Getting a Grip on Arthritis Specific Goal and Objectives

The specific goal of this project was to increase the capacity of primary care health providers and people with arthritis to collaboratively manage the disease by supporting the delivery of arthritis care and emphasizing prevention, early detection, comprehensive care, more appropriate and timely access to specialty care and self-management. Our objectives were:

- to define community, patient and provider arthritis educational needs
- to enhance the capability of communities and primary health care providers to manage the burden of arthritis illness
- to improve the ability of people with arthritis to self-manage their disease
- to improve outcomes for people with arthritis (reduced pain, fatigue and disability)

Activities

The Getting a Grip on Arthritis project was comprised of four components:

- needs assessment (survey of community arthritis resources, patient focus groups, baseline patient and provider survey)
- development of educational materials for providers and their patients
- 30 accredited inter-professional workshops on arthritis best practices **(Appendix 1)** for providers working in primary health care organizations.
- reinforcement activities for following the workshop to reinforce the learning and support the delivery of arthritis best practices in the community

Objective 1: To define community, patient and provider arthritis educational needs

At baseline, each community or region was surveyed to describe current arthritis resources ie. community exercise programs, community rehabilitation and education programs, and arthritis specialists. This information was shared with workshop participants, and updated based on discussion in the workshops.

Patient focus groups were held in eight communities prior to the workshops, hosted by a CHC (four urban and four rural; six English, two French). Adults with either OA or RA from CHCs in communities across Canada (Prince Albert, Winnipeg, Courtney, Montreal, Lameque, Halifax, Calgary, Charlottetown) were interviewed. Interview topics included access to care, quality of care, getting information, and barriers and facilitators to using arthritis best practices[2]. These findings were presented in brief to providers at the workshops in the regions where the focus

[2] Adam P. Touching Base: A Cross-Canada Look at the Experiences of People with Rheumatoid Arthritis and Osteoarthritis in Managing their Disease. August 2005.

groups took place so that they could consider how the workshop content could help them address these issues for local patients. The full report of the focus groups has been previously submitted.

Prior to each Getting a Grip on Arthritis workshop, providers were asked to complete a survey on arthritis best practices and barriers to arthritis care. When possible, preliminary results from this survey were discussed in the introductory part of each Getting a Grip on Arthritis workshop.

Objective 2: To enhance the capability of communities and primary health care providers to manage the burden of arthritis illness

Educational Materials (Tool) Development

A full report summarizing the development of the Getting a Grip on Arthritis educational materials has been submitted previously. The project produced educational materials for use by primary health care providers, people with arthritis and the general public. These materials are revised versions of those developed as part of the original Getting a Grip on Arthritis pilot project in Ontario. A process to review/update the original educational materials began in early 2004.

As a result of discussions with Ministry of Health representatives across Canada, the poster from the pilot project was modified to focus more on primary arthritis prevention messages. A literature search was done on prevention and arthritis. One article provided an excellent summary of the literature[3] and these messages were used in the poster. A secondary prevention message (Do you have arthritis?) was then added to the poster to encourage people who had early symptoms of arthritis to see their physician.

The Provider Toolkit on arthritis clinical practice guidelines was well received during the pilot project. The content of this folded, laminated card was reviewed for accuracy by the Scientific Advisor and a primary care physician who had participated in the pilot project. The content was reviewed for consistency with the best practices identified through a review of current literature.

The content of the patient resource kit '*Getting a Grip on Arthritis, A Resource Kit for People with Arthritis'* was updated through a review of literature published since 2000, when the first toolkit was developed. As a result, new sections were added to the content specifically around the role of the primary health care team, the role of the pharmacist and the role of the dietitian in nutrition counseling and weight management.

Efforts were made to ensure that the *Resource Kit* was easy to read and understand. It was written to be at a seventh to eighth grade reading level, which is similar to that used by most Canadian newspapers. The text was reviewed for readability by a person living with arthritis and the literacy level of each section of the resource kit was then assessed using Flesch Reading Ease

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[3] Prevention research and rheumatic disease. Jaya K. Rao and Jennifer M. Hootman, Current Opinion in Rheumatology 2004, 16:119–124

and Flesch-Kincaid Grade Level available in MS Word[4].

The readability statistics for each section of the resource kit were:

Section	Flesch Reading Ease	Flesch-Kincaid Grade Level
What is Arthritis?	57.0	8.6
Your Team	51.9	9.5
Tips	65.5	7.5
Exercise	57.8	7.8
Healthy Eating	57.9	8.0
Medications	54.7	8.6
Surgery	71.1	6.2
Recommended Reading	24.7	12
Financial resources – national content (insert)	35.5	12

The full-colour mock-up of the main portion of the *Resource Kit* was the subject of two focus groups held in Toronto and Regina. The focus groups consisted of men and women of a wide variety of ages, who had OA or RA. Based on their feedback, revisions were made to the content and format.

Province-specific sections about Financial and Other Resources for People with Arthritis were created. A committee reviewed the core national support programs for people with disabilities. A section about transportation and travel was added. Province-specific information was then added which resulted in 10 versions, one for each province.

The Canadian National Institute for the Blind (CNIB) provided the audio-taping of the *Resource Kit* (with only core national programs for the Financial and Other Resources section). Having the Resource Kit in cassette and CD format was important for those who could not read the *Resource Kit*, due to limited vision or literacy.

The list of books and videos recommended for patients in the pilot project were reviewed and the list was updated with input from the National Education Team and Divisional Executive Directors of The Arthritis Society, the Canadian Arthritis Patient Alliance and Patient Partners®

[4] *Flesch Reading Ease:* Computes the readability based on the average number of syllables per word and the average number of words per sentence. Scores range from 0 (zero) to 100. Standard writing averages approximately 60 to 70. The higher the score, the greater the number of people who can readily understand the document.

Flesch-Kincaid Grade Level: Computes readability based on the average number of syllables per word and the average number of words per sentence. The score in this case indicates a grade-school level. For example, a score of 8.0 means that an eighth grader would understand the document. Standard writing approximately equates to the seventh-to-eighth grade level.
Source: http://www.wats.ca/resources/determiningreadability/1

in Arthritis. It was decided that Websites would be added to the recommended resources portion of the *Resource Kit*.

Based on recommendations from a knowledge translation specialist involved with the Cochrane Musculoskeletal Review Group in Ottawa, a checklist was developed against which all new materials were reviewed. The checklist, based on information from the Canadian Health Network (CHN) and Consumer and Patient Health Information Section of the Medical Library Association (CAPHIS), is included in **Appendix 2.**

Inter-professional Workshops on Arthritis Best Practices

Thirty workshops on arthritis best practices (24 English, 6 French) were delivered for 900 health care providers in rural and urban communities across Canada between the period of September 2004 and November 2005. Participants included 646 providers from 219 primary health care organizations and 254 providers from local hospitals, home care organizations, private clinics and rehabilitation facilities.

Objectives of the workshops were for providers to:

- understand arthritis clinical practice guidelines and ways to improve the delivery of arthritis care
- review/improve their musculoskeletal physical examination skills, and
- make a plan for local implementation of arthritis best practices

A full report of the workshops has been previously submitted. Briefly, eligible primary health care sites across Canada were identified through a number of sources including partner organizations and Ministry of Health representatives. Since primary health care organizations are defined differently in each province, we used the following criteria for a primary health care site: not-for-profit, serves adults with arthritis and delivers primary health care services. A letter of invitation was sent to the executive director of each prospective organization outlining the project and the benefits of participating. There was one workshop targeted to fee for service providers (Owen Sound). For this workshop, letters of invitation were sent to a variety of health care providers who were expected to treat and educate people with arthritis.

Workshop attendance, content and faculty reflected the inter-professional model of arthritis care. Workshop content focused on best practices for the primary care management of OA and RA and included evidence-based pharmacological and non-pharmacological interventions (education, psychosocial support, exercise, weight management/nutrition, assistive devices and joint protection). Faculty included multidisciplinary health professionals (rheumatologists, pharmacists, occupational therapists, physiotherapists, social workers, dietitians) as well as Arthritis Self-management Program leaders and Patient Partners. The Patient Partner session provided participants with an opportunity to enhance their musculoskeletal examination skills. Individual sessions are described briefly below in Table 1. Local faculty contributed to workshop content and delivered standardized evidence-based messages. Wherever possible, we used faculty who were considered experts in the field of arthritis. All faculty received a bibliography

of evidence, courseware package, PowerPoint presentations, props, and standardized training (teleconference, pre-workshop meeting, support).

Workshops were accredited for 9 MAINPRO-C credits by the College of Family Physicians of Canada. MAINPRO-C accreditation required that the physicians completed a baseline and post workshop survey (online or paper-based) and a reflective practice exercise during the reinforcement phase after the workshop.

Table 1: Workshop Content, Format and Objectives

WORKSHOP SESSION	FORMAT	OBJECTIVES	PRESENTER(S)
Best Practices in Arthritis (OA/RA)	large group	-understand the overall goals and objectives of the workshop -be aware of the content and process of the individual workshop sessions -understand the level of personal participation desirable to maximize the workshop experience	regional coordinator
Burden of Illness from Musculoskeletal (MSK) Disorders	large group	-understand the current and future burden of illness from MSK disorders -describe the Getting a Getting a Grip on Arthritis national project	director/regional coordinator/scientific advisor
Overview of Arthritis Best Practices	large group	-understand what clinical practice guidelines are and what role they play in improving the delivery of health care -become familiar with current best practices for arthritis care and the evidence base which supports these practices -consider the appropriateness and feasibility of the implementation of arthritis best practices in the community -review materials for providers and patients that reinforce best practices	rheumatologist
Communications Module	interactive large group	-understand the referral-consultation process and the role of written and oral communication -develop an effective writing style for referral and consultation letters including the use of templates -develop strategies for including practice guidelines into letters	rheumatologist/regional coordinator
Exercises for Arthritis management (Part 1: range of motion exercises; Part 2: aerobic and strengthening exercises)	interactive large group	-learn appropriate range of motion, aerobic and strengthening exercises for patients with arthritis -learn to demonstrate these exercises correctly through practice	physiotherapist/occupational therapist

WORKSHOP SESSION	FORMAT	OBJECTIVES	PRESENTER(S)
Pharmacologic/Complementary Therapies for Arthritis	large group	-understand the role of pharmacological interventions and nutraceuticals in the management of arthritis -use a systematic approach to assessing the patients' risks for adverse effects -develop a monitoring plan for appropriate follow-up of patients	pharmacist/rheumatologist
Patient Partners® in Arthritis: Hands-on Musculoskeletal Examination Skills Review	interactive small group	-review a basic MSK physical examination and practice the examination techniques with a Patient Partner -learn how to differentiate inflammatory from degenerative arthritis using physical examination techniques -raise awareness of the value of gait analysis in the assessment and management of people with arthritis -increase providers' ability to assess and manage gait problems	Patient Partners in Arthritis®[5]
Non-pharmacologic Management of Arthritis	four rotating small groups	-understand the best practice guidelines relating to the non-pharmacological interventions for arthritis (self-management, exercise, social support, education, physical and occupational therapy, nutrition and weight management) -understand the barriers, challenges and solutions -understand the stages of change approach to behaviour modification	occupational therapist; physiotherapist; social worker/ psychologist; ASMP leader; dietitian
Implementing Arthritis Best Practices/Resource Development in Your Community	facilitated small groups followed by large group feedback session	-discuss methods of mobilizing your facilities and the community to better provide for the needs of patients with arthritis -provide an opportunity for participants to use and adapt the best practices for patients -describe ways of overcoming barriers to providing arthritis care - introduce a template for outlining the implementation plan	facilitators

Workshops were allocated within Health Canada regions as follows: BC/AB –4 rural, 3 urban; SK/MB – 3 urban, 3 rural; Ontario – 4 urban, 1 rural; Quebec – 3 urban, 3 rural; Atlantic Canada – 6 rural or urban. All workshop locations were chosen in consultation with stakeholder groups in each province as outlined in Table 2 below.

[5] The Patient Partners in Arthritis program is funded through an unrestricted educational grant from Pfizer Canada Inc.

Table 2: Workshop Locations (Urban and Rural) by Province

PROVINCE	LOCATION	URBAN	RURAL
British Columbia (BC)	*Vancouver*	X	
	Kamloops		X
	Prince George		X
	Courtenay		X
Alberta (AB)	*Calgary*	X	
	Edmonton	X	
	Lethbridge		X
Saskatchewan (SK)	*Prince Albert*		X
	Regina	X	
	Saskatoon	X	
Manitoba (MB)	*Winnipeg*	X	
	Brandon		X
	Thompson		X
Ontario (ON)	*Ottawa (2)*	X	
	Kitchener	X	
	Owen Sound		X
	Hamilton	X	
Quebec (QC)	*Montreal (English and French)*	X	
	Quebec City (French)	X	
	Rimouski (French)		X
	Sherbrooke (French)		X
	Outaouais (French)	X	X
New Brunswick (NB)	*Fredericton*		X
	Tracadie-Sheila (French)		X
Nova Scotia (NS)	*Halifax*	X	
Prince Edward Island (PE)	*Charlottetowm*		X
Newfoundland/Labrador (NL)	*St. John's (2)*		X

Reinforcement Activities

Primary health care sites that agreed to participate in the Getting a Grip on Arthritis project and sent providers to one of the workshops were eligible for reinforcement activities during the six months following the first 27 workshops and the three month period following the last three

workshops (less time due to funding timelines).

The objectives of the reinforcement activities were to reinforce the messages on arthritis best practices delivered in the workshops and to support the delivery of integrated arthritis care in the community. Reinforcement activities were defined as;

- Primary – activities offered to all sites during the reinforcement timeframe following the workshop (newsletters, books, videos, resource lists)
- Secondary – activities requested by sites during the reinforcement timeframe (ASMP leadership training, advanced arthritis education, equipment)
- Tertiary – provincial or regional activities to support arthritis care delivery in the community.

A full report of reinforcement activities has been previously submitted. Briefly, primary (core) reinforcement activities were provided to both the primary health care sites and the participants from those sites who attended the workshops. Community reinforcement included the donation of patient books and videos to a public library identified by the participating site. Workshop participants were invited to request additional support and resources for their site to help them implement arthritis best practices in their community.

Objectives 3 and 4: To improve the ability of people with arthritis to self-manage their disease and to improve outcomes for people with arthritis (reduced pain, fatigue and disability)

It was assumed that these objectives would be met through improved arthritis care delivery by the health care providers who attended the workshops and participated in the reinforcement activities provided through the project. Please see the evaluation section for a description of the patient surveys and the results.

Challenges and Barriers to Success

Staff Recruitment

A major challenge was recruiting contract staff for this project. We had expected more internal applicants but this only happened in three cases. This was likely due to the short length of the contract positions, the lack of benefits with these positions and higher salary expectations. There were also different salary scales and benefit plans in each Arthritis Society provincial office (some unionized, others not), which made it difficult to offer equitable salaries for the project staff across Canada. Similar problems occurred when recruiting staff externally, requiring flexibility in hiring policies.

Communication

Communications for a complex national project with multiple partners, stakeholders and staff in 10 provinces, was a challenge both internally and externally. It proved critical to work closely with the provincial staff of The Arthritis Society in planning and implementing this project in each province. We involved the ten provincial Executive Directors in the hiring of project staff,

in identifying the key arthritis stakeholders and resources in each province, and in the planning of all meetings and workshops in their areas. This was critical because provincial staff know the resources and health service delivery systems extremely well and they helped us take advantage of opportunities to partner with other groups. The project also required the involvement of many staff in The Arthritis Society national office to ensure good reporting mechanisms, infrastructure and support for information technology. Fortunately the National office was able to make that expertise available to the project.

Different Models of Primary Health Care

As we held meetings across Canada, we became increasingly aware of the provincial differences in health care delivery systems/structures between provinces as well as the different language used to describe primary health care delivery models. In the proposal, our primary target group was the CHCs across Canada, represented by our partner, CACHCA. CHCs have different names in each province (Family Health Centres in PEI; Centre Locaux de Services Communautaires (CLSCs) in Quebec, Community Clinics in SK, etc). Some CHCs were not members of CACHCA, therefore we had to use multiple methods of inquiry to identify these sites. In addition, by the CACHCA definition, some provinces had very few CHCs, e.g. Saskatchewan had four CHCs. Therefore, we also targeted other primary health care organizations and worked with provincial governments and Regional Health Authorities to identify the appropriateness of this project for these groups. An additional challenge occurred because new primary health care organizations were being created in all provinces across Canada. Together with our partners and MOH contacts, we worked to identify these sites, and to include them whenever possible. Some primary health care sites did not have interdisciplinary teams i.e. physicians or nurse practitioners only. Since our project emphasized the team approach to managing arthritis, we endeavoured to create community teams by identifying and, in some cases, training, health professionals from other organizations to work with these sites to deliver comprehensive care for people with arthritis.

Lack of Electronic Databases in Primary Health Care Sites Across Canada

The lack of computerized databases and/or appropriate coding of OA and RA in primary health care sites to allow identification of appropriate patients resulted in difficulties identifying people with arthritis and fewer patients being surveyed than expected. We therefore offered some primary health care sites the opportunity to do manual chart reviews to identify patients with arthritis. However, only a few sites had the time and human resources to contribute to this effort. In the Family Health Networks in Ontario, this was not the only problem. There was a hesitation on the part of the Networks to agree to survey patients due to the new privacy legislation and also the extra level of commitment that this required.

Challenges in Meeting Ethics Requirements in Each Province/Region

We had to prepare multiple ethics submissions to meet the various requirements of groups participating in our project across Canada. For example, in Alberta, ethics approval is required from the Alberta College of Family Physicians in order for a physician to participate in a study.

The consequences of this process included a delay in sending out baseline surveys and the extra staff time required by our partner, the Arthritis Community Research and Evaluation Unit, to manage the multiple submissions (as much as a day a week at some points during the project). As well, in some situations, we were not been able to get ethics approval in time to do surveys prior to the workshops. On a positive note, our stakeholder groups were instrumental in helping us identify these requirements in each province and in many cases, facilitated the process within their jurisdictions.

Adverse Events

We have had three adverse events associated with this project; two related to the handling of patient names. This was in part due to the logistical challenges of sending surveys to patients from the primary health care sites where staff were not familiar with survey methods and privacy requirements (required by privacy legislation). Events were reported immediately to the University of Toronto Research Ethics Board. To address these issues, two project staff were sent to each survey site and additional support and training were provided to staff at the CHCs. Letters were received from the Board indicating the satisfactory handling of these events.

Reinforcement Costs

Two hundred and nineteen primary health care organizations in 10 provinces signed up to participate in the project. We had expected 100 sites to participate, so this was both a huge success and also a challenge financially, since these sites required materials, reinforcement and support following the workshops. This resulted in some challenges in managing our costs to the end of the project.

Turnover of Staff in the Primary Health Care Sites

The health care environment is generally in a state of change in Canada and this resulted in high staff turnover at the primary health care level. This affected the project in several ways but most recently, we lost the ability to send out follow-up surveys to patients in two sites because our contacts in those sites had left the organizations.

Workshop Faculty/Scope of Practice Issues

We experienced some interesting challenges in project implementation relating to regulatory, scope of practice and referral issues. At our French NB workshop, we could not identify a physiotherapist with special expertise in arthritis. We therefore brought an Ontario therapist to NB to deliver this part of the workshop. We later received an email from the College of Physiotherapists in NB indicating that we were not allowed to use faculty in our workshops that were not registered with the NB College. A temporary license is required. We advised all our staff about this situation to ensure that all future workshop faculty met the requirements of the provincial regulatory bodies. As a reference, we compiled information to identify regulatory and licensing requirements for occupational and physical therapists in each province (previously submitted).

In some provinces, the roles of health professionals (pharmacists, nurse practitioners, dietitians, occupational therapists) varied. We adjusted the content of our workshops to reflect the unique roles of providers in each province. In addition, we heard the frustration of primary health care providers (nurses, physiotherapists, occupational therapists) who could not refer directly to specialists. This was particularly a challenge and a barrier in communities with no family physicians. Addressing this issue of course would require regulatory changes and different incentives and reimbursement formulas for physicians.

Workshop Attendance

It was a challenge to attract participants to some of our Quebec workshops. We had two workshops with low attendance (Gatineau, Quebec City), one workshop was cancelled (Trois Rivieres, French) and the Montreal English workshop was postponed due to low registration. We believe this was due to competing priorities, the rapidly changing health care environment in that province and the more complex structure of the CSSSs making communication with providers challenging. We don't believe it was a lack of interest from providers or a lack of need. We planned a new communications strategy with staff at the Constance-Lethbridge Centre (workshop host) to more directly reach providers and their coordinators. As a result, we had full registration for our last workshop in Montreal on November 30th.

Scope of the Project

One of the biggest challenges was to contain the scope of the project, given the interests of many external organizations and the potential to offer the program to other audiences. We had inquiries about modifying the program content to address arthritis in children (we focused on OA and RA in adults) and about extending the project to address aboriginal populations with arthritis and people with arthritis in the territories, students in the health professions, and 'fee for service' practitioners. These new initiatives would require additional funding.

Evaluation Plan and Activities

The evaluation plan was developed collaboratively with our partners. Both process and outcome measures were included. The outcome evaluation of this project was conducted by staff of the Arthritis Community Research and Evaluation Unit (ACREU), a partner in this project. The impact of the program was evaluated at the individual, organization, community, provincial and national levels. The strategies included: provider feedback on the workshops; tracking of dissemination/educational and reinforcement activities as well as the assessment of reach, provider and patient outcomes and impact on workshop faculty, facilitators and guests.

Quantitative evaluation of the project was possible for providers attending the first 27 workshops and their patients. Primary outcome for providers was the impact of the intervention on their use of best practices in the management of arthritis. This was assessed by a survey (online or mailed) completed by providers prior to the Getting a Grip on Arthritis workshop in their region and six months post workshop. The survey was based on the ACREU Primary Care Questionnaire,

which examines the primary care management of arthritis. Secondary outcomes included confidence levels in the management of musculoskeletal (MSK) conditions. In addition, the impact of the project on different areas of arthritis care was evaluated six months after the workshop.

Participating primary health care sites were asked if they would like to have their patients surveyed before and after the Getting a Grip on Arthritis project. Impact on patients was determined through a mailed survey administered to all eligible patients prior to the provider workshop (baseline survey), and a follow-up survey of patients six months after the provider workshop. Survey questions explored 1) use of arthritis best practices and self-management strategies; 2) disability status, self-rated health and pain; 3) client- centeredness of provider care; and 4) demographics. Questions were added to the follow-up survey to determine if patients recalled seeing the arthritis materials and educational events provided by their centre.

Throughout the project, we heard many stories from our workshop faculty, facilitators and guests indicating that they had learned so much through their participation and how they have changed their practice. We decided it would be important to capture this as a reflection of organizational or community impact. We developed a survey (Faculty Survey), received ethics approval and sent it out to this group (n=377) at the end of the project (three to 12 months following the workshops). The survey asked about the impact of the program on several areas of arthritis care, its influence on them personally, their organizations and their communities and the usefulness of the educational materials developed for patients, providers and faculty.

Dissemination Plan and Activities

A dissemination plan (previously submitted) was developed with input from our Partners' Group and Advisory Committee members. We focused on disseminating results first to members of our partner groups and advisory committee organizations, and to project participants (patients and providers) and arthritis stakeholders across Canada. As a result, the following activities took place:

- 21 presentations (12 peer-reviewed and 9 non-peer-reviewed) were made to professional audiences. Upcoming presentations include a presentation to the national CACHCA conference in October in St. John
- 13 articles were written for publication in various newsletters
- as a result of donating arthritis books and videos to local libraries, 16 articles appeared in local newspapers (copies previously submitted)
- two radio interviews took place, one with Owen Sound Today and one with CBC in Regina.

All educational materials developed for the project are now available for download on The Arthritis Society website in French and English at www.arthritis.ca/gettingagrip or www.arthrite.ca/prendreenmain. An audio version of the patient resource kit is also available online for patients who have difficulty reading. Partner organizations have placed links to our website on their websites.

We produced a short video profiling our workshops in French and English to help promote the project. Copies were provided to Health Canada, the Public Health Agency of Canada, National Primary Health Care Awareness Strategy, the Primary Health Services Branch of SK Health, Arthritis Society divisional offices and our partners.

We were fortunate to be able to collaborate with the Cochrane Musculoskeletal Review Group to translate four Cochrane reviews of arthritis treatments into French for use in our project (occupational therapy and rheumatoid arthritis, exercise and osteoarthritis, glucosamine, and education). These summaries are now available to patients and the public through The Arthritis Society website.

An article on the barriers and challenges of implementing this project was presented to the National Chronic Disease Management conference in Toronto in April 2006. A paper based on this presentation will be published as conference proceedings this year. In addition, a paper on the results of this project is currently being written for publication in a scientific journal.

A partnership with the National Primary Health Care Awareness Strategy (NPHCAS) resulted in a Getting a Grip representative being invited to attend the launch event for the Awareness Strategy. At the launch event, Canada's Chief Public Health Officer, Dr. David Butler-Jones made a speech in which he cited Getting a Grip on Arthritis as an example of a successful PHCTF project. As well, the NPHCAS website has added a link to the Getting a Grip on Arthritis website. The NPHCAS site also features an article under the 'Healthy Living' pillar called 'Getting a Grip on Arthritis' highlighting one of our participants who was diagnosed with rheumatoid arthritis at the workshop in Prince Albert, SK. Go to: http://www.phc-ssp.ca/html_files/healthy_living.html.

The Getting a Grip on Arthritis 'Best Practice Guidelines' were cited in the draft guideline 'Rheumatoid Arthritis: Diagnosis and Management', produced by the Rheumatoid Arthritis Working Group, Guidelines and Protocols Advisory Committee of the British Columbia Medical Association and the Medical Services Commission.

Outcomes and Results

Objective 1: To define community, patient and provider arthritis educational needs

Patient Focus Groups

Seventy-seven adults with OA or RA who were patients at CHCs in the fall of 2004 and spring of 2005 participated in one of 8 focus groups. Focus group size ranged from 4 to 20, and 80% of the participants were female. Group discussions identified the need for more public/patient education around when and how to seek care for arthritis. Often this lack of knowledge delayed diagnosis and management. Many experienced a long wait for specialist opinion. Some believed that primary health care professionals were poorly informed about arthritis care. Suggestions for improving quality and access to care included increasing public and patient education about

arthritis and its management, improving the education of health professionals and improving team work. The Getting a Grip on Arthritis project addressed these issues by educating providers about arthritis best practices, helping them work together better as a team and by providing them with tools to help educate their patients and the public.

Provider Baseline Surveys

At baseline, the main type of barrier reported by the providers was the waiting time for patients to be seen by orthopedic surgeons (52%), rheumatologists (43%), and rehabilitation medicine specialists (39%). The distance patients had to travel to access these specialists was also a concern (13, 18, 12% respectively). Additional barriers mentioned were the following:

- Shortage of health human resources (e.g., family physicians, dietitians and chronic pain clinics)
- Diagnostic imaging not available
- Nurse practitioner extended practice regulation issues
- Home care eligibility
- Lack of transportation for patients

Providers also reported low confidence in assessing and managing arthritis, including ordering tests, assessing the musculoskeletal system, and injecting joints.

Objective 2: Enhancing the capability of communities and primary health care providers to manage the burden of arthritis illness

Workshop Implementation

Thirty workshops were successfully completed in 10 provinces with 900 health care providers attending. Table 3 presents the number of primary health care organizations invited to participate in the project by province, the number that agreed to participate in the project (sites) and the number that sent at least one provider to a workshop. A total of 470 primary health care sites were invited to participate in the project; 268 agreed and 219 (47%) sent providers to the workshops reflecting both a significant need for the program and the successful educational model developed. Figure 1 is a map of the participating sites reflecting the extensive reach of the program to both urban and rural communities across Canada. Table 14 presents the breakdown of primary health care sites by model of care.

Table 3: Invited Primary Health Care Organizations, Sites Agreeing to Participate and Sites Sending Providers to a Workshop by Province

PROVINCE	INVITED PRIMARY CARE ORGANIZATIONS n	SITES AGREEING TO PARTICIPATE n	SITES SENDING PROVIDERS n (%)
BC	120	71	62 (52)
AB	40	33	20 (50)
SK	35	26	23 (66)
MB	37	32	24 (65)
ON	49	18	15 (31)
QC	111	46	38 (34)
NB	19	15	14 (74)
NS	14	8	6 (43)
PE	8	6	6 (75)
NL	37	12	11 (30)
NU*	0	1	1 (0)
Total	**470**	**268**	**219 (47)**

*Nunavut, the Yukon and the Northwest Territories were not included in this project, however a site in Nunavut asked to be included and sent representatives to the workshop

Figure 1: Map of Participating Sites

Table 4: Type of Participating Site by Model of Care (Ntotal=219)

TYPE OF SITE BY MODEL OF CARE	n (%)
Community Health Centre (CHC)	58 (26.5)
Centre de sante et service sociaux (CSSS) / Groupes de médecine de famille (GMF)	38 (17.4)
Family Health Network (FHN) / Primary Care Network (PCN)	14 (6.4)
Other primary health care organizations	109 (49.7)
TOTAL	**219 (100)**

The 219 participating primary health care sites sent 646 providers to the workshops. In addition, 254 providers from other health care agencies (hospitals, rehab centres, home care, fee for service clinics) attended for a total of 900 providers. Participants reflected the inter-professional model of care (physicians: 15%; nurse practitioners: 11%; other health care providers 63%; non-clinical staff/students: 10%).

A total of 249 multidisciplinary faculty contributed to workshop content and delivered standardized evidence-based messages. This included 20 ASMP leaders, 26 dietitians, 1 internist, 25 occupational therapists, 18 pharmacists, 27 physiotherapists, 18 rheumatologists, 17 social workers, 3 psychologists, and 94 people with arthritis (Patient Partners).

Workshop Evaluations

A total of 942 participants completed workshop evaluations. This number includes participating health care providers as well as workshop guests, facilitators or faculty. Table 5 below provides data on the number/percentage of survey respondents by province. Table 6 provides data on the number/percentage of survey respondents by discipline for all provinces combined.

Table 5: Participants Completing Workshop Evaluations in Each Province

WORKSHOP LOCATION	PARTICIPANTS n (%)
British Columbia	156 (16.6)
Alberta	123 (13.1)
Saskatchewan	110 (11.7)
Manitoba	100 (10.6)
Ontario	140 (14.9)
Québec	147 (15.6)
New Brunswick	51 (5.4)
Nova Scotia	26 (2.8)

Prince Edward Island	27 (2.9)
Newfoundland and Labrador	62 (6.6)
N_{total}	**942**

Table 6: Professional Designation of Participants Completing Workshop Evaluations in All Provinces

PROFESSIONAL DESIGNATION	PARTICIPANTS N (%)
Family Doctor	141 (15.0)
Nurse Practitioner	104 (11.0)
Other Health Care Provider (Nurse, Occupational Therapist, Physiotherapist)	591 (62.7)
Other (non-clinical staff, student or trainee)	96 (10.2)
N_{total}	**942**

Note: Percentages do not total 100 because of missing data.

Figure 2 below illustrates the percentage of health care providers responding to the extent of agreement or disagreement to eight statements regarding the evaluation of the workshops. Over 90% of participants found the workshops were relevant, met stated objectives, met their personal learning objectives and expectations, allowed opportunity to interact with colleagues, were credible and non-biased and were well organized. The major complaint was related to the lack of adequate time allowed for the content covered (77.2% agreed there was adequate time).

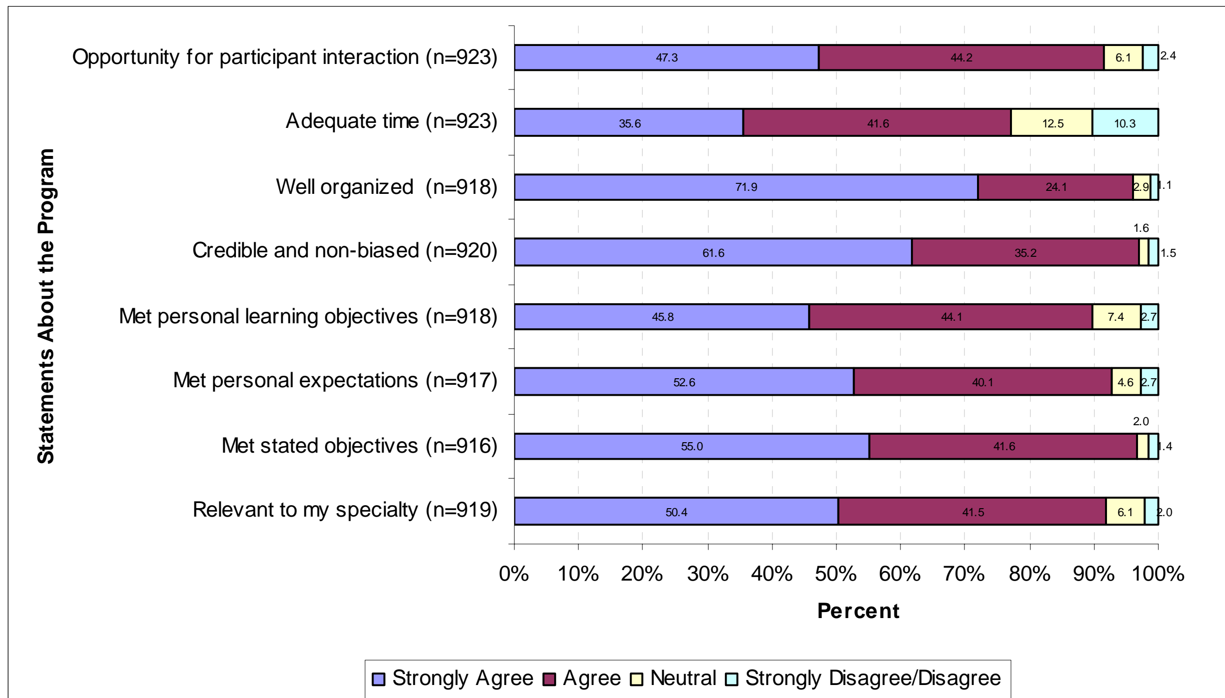

Figure 2: Evaluation of Getting a Grip on Arthritis Workshops by All Participants in All Provinces (Ntotal=942)

Table 7 below presents the average scores for the sessions/speakers for each component of the program. These scores were generated based on the sum of the participants' ratings (one to five) for 4 statements regarding the sessions/speakers:

- was consistent with stated objectives
- information was presented clearly
- information was relevant to practice and
- discussion time was adequate

Table 7: General Impression Scores for the Sessions/Speakers in All Provinces (Maximum Score=20)

SESSIONS/SPEAKERS	AVERAGE SCORE (minimum, maximum)
Introduction / Welcome / Objectives (n=843)	18.0 (5.0, 20.0)
Burden of Illness of MSK Disorders, Overview of Best Practices and Arthritis (n=868)	17.8 (4.0, 20.0)
Communications Module (n=803)	17.3 (4.0, 20.0)
Exercise for Arthritis Management: Range of Motion, Aerobic and Strengthening (n=842)	17.8 (4.0, 20.0)
Pharmacological / Complementary Therapies (n=885)	16.7 (4.0, 20.0)
Patient Partners in Arthritis: Hands on MSK Examination Skills Review (n=883)	18.3 (4.0, 20.0)

Non-Pharmacological Management of Arthritis: Exercise and Physiotherapy; Occupational Therapy, Assistive Devices; Psychosocial Interventions and ASMP; Nutrition and Weight Management (n=865)	17.5 (4.0, 20.0)
Mobilizing Your Community Resource Development (n=822)	17.1 (4.0, 20.0)
Wrap Up and Next Steps (n=595)	17.8 (4.0, 20.0)

Workshop sessions/speakers evaluated well with scores varying from a high of 18.3 for the Patient Partners session to a low of 16.7 for the pharmacological session.

Participants were asked to describe two particularly strong features of the workshop and two areas needing improvement. The most common strengths identified included team learning and the team model of care presented, the interactive and varied format, the involvement of people with arthritis, the opportunity for hands on skill development, and the opportunity to link with local resources. Challenges included limited time for delivery of the content, the mixed needs of the participants and skill level of the faculty, and scope of practice issues.

Participants were asked to list two ways that they planned to use the information from the workshop in their practice. The most common statements related to being better able to identify and treat arthritis, and to improve how they work together as a team and coordinate delivery of care.

Results of the evaluation of the workshops *for each province* were provided in the full workshop report submitted previously.

We piloted one workshop with fee for service providers in the Owen Sound area. This workshop evaluated the best of all our workshops, suggesting that this educational model would work successfully in a fee for service environment.

Reinforcement Activities

The objectives of the reinforcement activities were to reinforce the messages on arthritis best practices delivered in the workshops and to support the delivery of integrated arthritis care in the community. A total of 219 primary health care sites were eligible for reinforcement activities.

Primary reinforcement activities included the following:

- Newsletters: All providers received at least one newsletter following the workshop. A total of 21 newsletters were distributed to workshop participants and stakeholders across Canada.
- Patient and Provider Books and Videos: A set of books and videos was delivered to 165 sites (75%).
- Reflective Practice Exercise: The reflective practice exercise was sent out to providers in 213 sites (97%); 58/151 physicians (38%) completed the reflective practice exercise and

received MAINPRO-C credits**.** In addition, 98 non-physicians participated in this process. An additional 92 physicians received M1 credits for attending the workshop only.

- Follow-up of Individual Goals: Providers from 193 sites (those attending the last 27 workshops) were asked to identify personal goals at the workshops; providers from 191 sites (99%) received follow-up calls or emails relating to these goals.
- Patient Books and Videos to Libraries: Arthritis books and videos were donated to 159 libraries. Go to www.arthritis.ca/gettingagrip or www.arthrite.ca/prendreenmain for a list of libraries that received books in each province. As a follow-up, we were able to communicate by phone or email with the contact person at 75 libraries to find out how many times these resources had been checked out. The most popular books were The Arthritis Helpbook (checked out 878 times), Alternative Therapies (checked out 493 times) and Arthritis, by John Thompson (checked out 419 times).
- List of Arthritis Community Resources: Providers from 203 sites (93%) received a copy of the arthritis resource list for their community or region.
- Letter Templates: Providers at 210 sites (96%) were emailed electronic copies of the referral and consultation templates.
- Educational Materials: 143 sites (65%) ordered educational materials. The most common requests were for educational materials for patients and providers as itemized in the following list of materials ordered.
    - Resource Kit for Patients with Arthritis: 26,495
    - Financial Resources for People with Arthritis: 24,638
    - Grippers (rubber pad to improve grip): 7,573
    - Best Practice Guidelines: 4,545
    - Prescription pads: 2,467
    - Prevention posters: 1,476
    - Audio versions of Patient Resource Kit: 105

Forty-six sites (21%) requested additional reinforcement activities that were funded by the project. The most common request was for PACE (Patient Assessment and Counseling for Exercise) materials (27 requests); the second most common request was for additional staff training (workshops, Patient Partners sessions, The Arthritis Society Ottawa Polyarthritis Training Course, ASMP leader training, etc.) (18 requests).

There were 87 regional or provincial reinforcement activities provided to support the delivery of arthritis care in the community. The most common activities were the provision of educational materials to faculty, providers at non primary health care sites and The Arthritis Society; and professional development activities for community providers.

A full report of the reinforcement activities was submitted previously.

Provider Follow-up Survey Results

Providers (765/789) completed baseline surveys and were resurveyed at 6 months following the

workshop. At follow-up, 384/765 providers (50%) responded to the survey. Provider confidence in the musculoskeletal exam and initiating disease modifying anti-rheumatic drugs significantly increased at follow-up ($p<0.01$). Satisfaction with the ability to manage arthritis in their practice was also significantly increased [10 point scale 10= extremely satisfied; baseline 5.2±2.1; follow-up 6.5±1.7] ($p<0.01$). Providers from the Ontario region reported significantly higher satisfaction when compared to SK/MB, QC and Atlantic region ($p<0.01$). BC/AB did not differ significantly from any of the regions. Providers from Family Health Networks (Ontario) and independent providers were significantly more satisfied compared to Community Health Centres, CSSSs and other primary health care organizations (one way ANOVA, $p<0.01$). There was no significant difference in satisfaction in providers working in rural versus urban settings. Physicians and rehabilitation professionals were significantly more satisfied compared to nursing and other health care professionals. ($p<0.01$).

Providers were asked to provide quantitative and qualitative feedback on the influence of the Getting a Grip on Arthritis program in various aspects of arthritis care. Providers indicated that the initiative had the most impact in the areas of arthritis collaborative care (85%) and patient self-management (83%). In addition, the project was perceived to increase early arthritis detection (75%), access to specialty care (68%) and arthritis prevention (62%) (Figure 3).
Figure 4 presents the results by region.

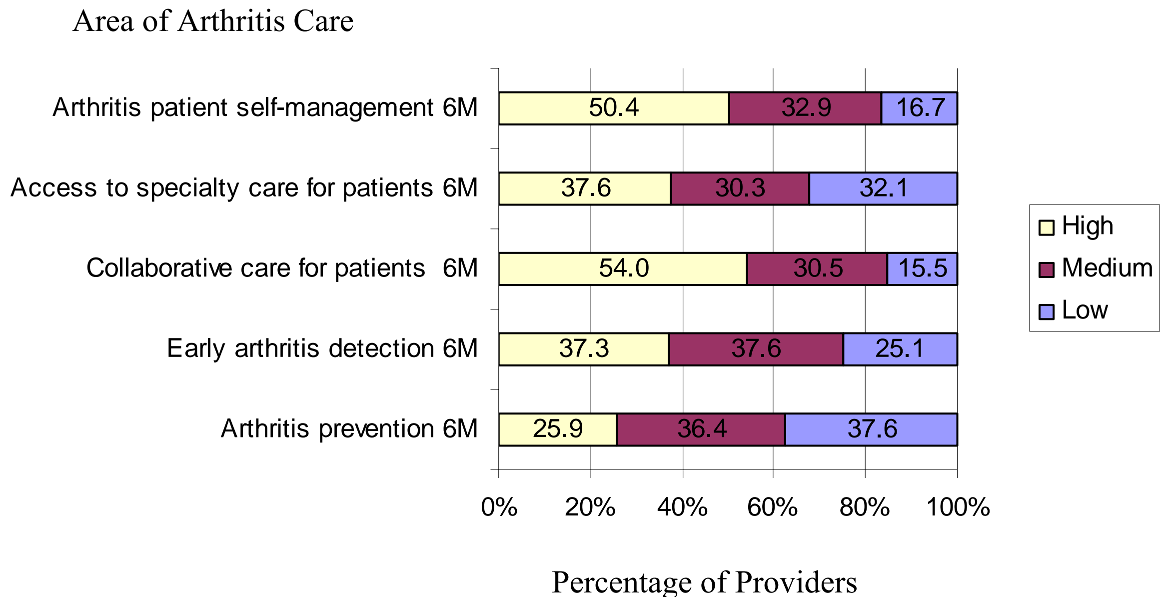

Figure 3: Percentage of Providers Indicating a Positive Influence of Getting a Grip on Arthritis on Areas of Arthritis Care

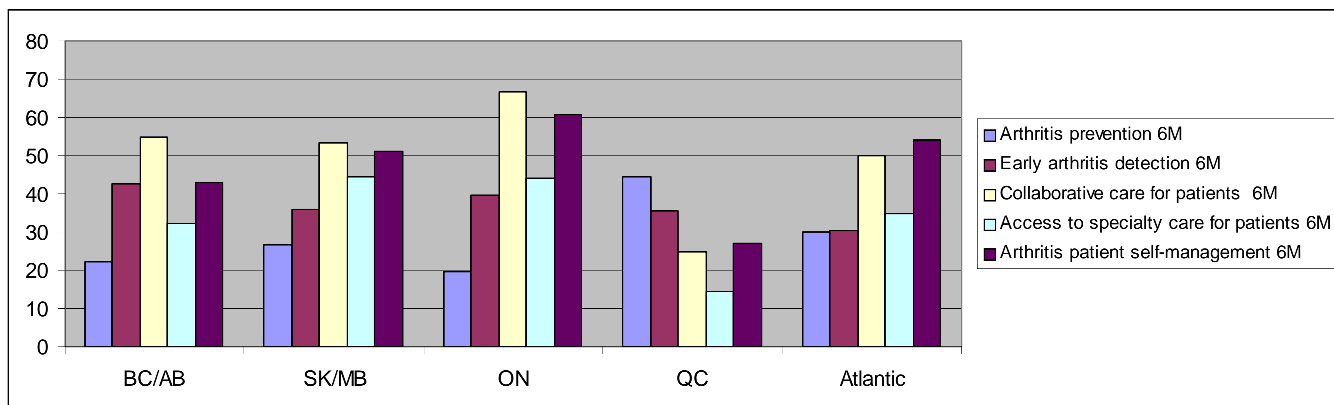

Figure 4: Regional Differences in Percentage of Providers Indicating High Impact of the Program on Areas of Arthritis Care

Survey to Workshop Faculty, Facilitators and Guests

To help us determine the impact of the program on arthritis community care, we sent a survey to the 377 people who were faculty, facilitators or guests at the 30 workshops (ie not the primary audience of our intervention). This included Patient Partners who led the hands-on session on the musculoskeletal assessment and guests (Ministry of Health representatives, local arthritis specialists). We received 207 surveys back representing a 55% response rate.

Survey respondents were asked what influence the Getting a Grip on Arthritis project had on several aspects of arthritis care delivery (Table 8). Responses were scaled on an 11 point scale with 0 = strongly negative influence to 10 = strongly positive response. Responses were recoded as follows: 0-4 = negative influence), 5=neutral/no influence, 6-10=positive influence. The greatest influence of the project appeared to be in the area of improved arthritis care in the community with 86% of the respondents indicating that there was a positive influence in this area of care delivery.

Table 8: Respondents' Opinions on the Influence of the Getting a Grip on Arthritis Project

Aspect of Arthritis Care Delivery	n	Negative Influence n(%)	Neutral/no influence	Positive Influence
Arthritis prevention	183	28 (13.5)	65(31.4)	90(43.5)
Early arthritis detection	189	10(4.8)	23(11.1)	156(75.4)
Collaborative care	188	4(1.9)	13(6.3)	171(82.6)
Access to specialty care	184	9(4.3)	30(14.5)	145(70.0)
Patient self-management	184	11(5.3)	26(12.6)	147(71.0)
Care in the community	185	9(4.3)	17(8.2)	76.8(85.9)

Respondents were asked about the impact of the program on them as individuals, their community and their organizations (Table 9). Responses were scored on an 11 point scale from

0=strongly disagree to 10=strongly agree. Responses were recoded as 0-3=disagree, 4-6=neither agree nor disagree, 7-10=agree. From their personal perspective, the greatest influence was on their ability to educate the public (78%), and their colleagues/students (75%). Interestingly, they also reported an influence on their own knowledge (73%). This surprised us, since we chose our faculty based on their level of expertise treating people with arthritis. From a community perspective, the greatest influence was improved community partnerships (59%). From an organizational perspective, the greatest influence was on their organization's ability to meet the needs of patients (41%) and on the timing of referrals for people with inflammatory arthritis (40%).

Table 9: Respondents' Opinions on the Influence of the Getting a Grip on Arthritis Project on Themselves, Their Organizations and Their Communities

Influence on…	n	Disagree/strongly disagree	Neither agree nor disagree	Agree/strongly agree
Me				
Improved knowledge	175	11(6.3)	37(21.1)	127(72.6)
Improved attitudes towards arthritis care	170	13(7.6)	54(31.8)	103(60.6)
Improved assessment skills	147	14(9.5)	55(37.4)	78(53.1)
Improved management	158	10(6.3)	53(33.5)	95(60.1)
Personal health behaviour changed for the better	167	20(12.0)	74(44.3)	73(43.7)
Better able to educate patients/families	162	11(6.8)	42(25.9)	109(67.3)
Improved ability to educate public	171	10(5.8)	28(16.4)	133(77.8)
Improved ability to educate colleagues/students	171	9(5.3)	34(19.9)	128(74.9)
Better access to resources	166	12(7.2)	40(24.1)	114(68.7)
Changed the way I educate others	163	12(7.4)	69(42.3)	82(50.3)
Improved ability to meet the needs of patients	150	9(6.0)	53(35.3)	88(58.7)
Better able to counsel patients about exercise and nutrition	143	12(8.4)	50(35.0)	81(56.6
Better relationships with others who treat arthritis	147	9(6.1)	49(33.3)	89(60.5)
Improved advocacy for patients	169	9(5.3)	47(27.8)	113(54.6)
Better community partnerships	150	11(7.3)	52(34.7)	87(58.0)
Better able to connect with government	143	35(24.5)	63(44.1)	45(31.5)
Improved relationship with The Arthritis Society	155	11(7.1)	51(32.9)	93(60.0)
Better ability to identify and diagnose	122	14(11.5)	55(45.1)	53(43.4)

Influence on…	n	Disagree/strongly disagree	Neither agree nor disagree	Agree/strongly agree
arthritis				
Better able to provide psychosocial support	142	11(7.7)	48(33.8)	83(58.5)
Feel less isolated	130	11(8.5)	48(36.9)	71(54.6)
Better able to manage chronic diseases in general	134	13(9.7)	50(37.3)	71(53.0)
My Community				
Better able to meet patient needs	80	4(5.0)	32(40.0)	44(55.0)
Improved community partnerships	80	4(5.0)	29(36.3)	47(58.8)
Arthritis is a higher priority in my community/region/province	79	8(10.1)	32(40.5)	39(49.4)
My Organization				
Increased number of arthritis referrals	75	10(13.3)	38(50.7)	27(36.0)
More appropriate referrals	75	10(13.3)	43(57.3)	22(29.3)
Earlier referral of patients with inflammatory arthritis	75	10(13.3)	35(46.7)	30(40.0)
Better able to meet needs of patients	71	19(14.1)	32(45.1)	29(40.8)
Arthritis is a higher priority in my organization	67	11(16.4)	31(46.3)	25(37.3)
Team is better able to work together	69	5(7.2)	38(55.1)	26(37.7)
Improved administrative processes	65	11(16.9)	36(55.4)	18(27.7)

Note: Not applicable responses removed.

Respondents were asked about the usefulness of the patient, provider and faculty educational materials that they received at the workshop. Patient materials were used by 30% of respondents after the workshops; provider materials were used by 34% and faculty materials were used by 33%. Responses were rated on a scale from 0=not at all useful to 10=extremely useful. Table 10 shows the mean rating for each item. Of the patient materials, the resource kit was considered the most useful (mean: 8.08). Of the provider materials, the best practices guidelines pocket card was considered the most useful (mean: 8.14).

Table 10: Faculty/Facilitator/Guest Rating of Usefulness of Patient and Provider Educational Materials

Educational Materials	n	Mean (SD)
Patient		
prevention poster	54	6.11(2.46)
resource kit	73	8.08(2.22)
prescription pad	42	5.12(2.95)
Provider		
best practices guidelines	70	8.14(1.73)

referral templates	50	6.58(2.90)
community resource list	69	7.64(2.00)
workshop binder/slides	70	7.99(2.29)

Objectives 3 and 4: To improve the ability of people with arthritis to self-manage their disease and to improve outcomes for people with arthritis (reduced pain, fatigue and disability)

Patient Surveys

Impact on patients was determined through a mailed survey administered to 3419 eligible patients (2233 English; 1186 French) from 26 primary health care sites prior to the provider workshop (baseline survey), and a follow-up survey six months after the workshop. The survey questions explored 1) use of arthritis best practices and self-management strategies; 2) disability status, self-rated health and pain; 3) client- centeredness of provider care; and 4) demographics. The Health Assessment Questionnaire was used to measure functional disability. Questions from the patient survey which addressed arthritis best practices were compared at baseline and follow-up. At baseline, 946 patients responded (28%), and 567 of 855 eligible patients responded on follow-up (66%). Approximately 20% of the questionnaires were completed by proxy or translation. Survey participants were primarily older females (73%); average age was 66.5 ±13.4 years. The most frequently identified type of joint problem was OA (65%).

At follow-up, patients reported receiving significantly more recommendations for arthritis best practices from their primary health care providers including information regarding arthritis community resources, how to deal with pain, treatment choices, exercise and nutrition and healthy weight (in OA) [Chi-Square; $p<0.05$].

Quality of Life: There was a trend towards improved self rated health at follow-up (22.3% improved their rating of self rated health).

Patient Satisfaction: We did not measure patient satisfaction per se but we did measure several aspects of the patients' perspectives on the care they received. At follow-up, significantly more patients indicated that treatment choices were fully explained to them ($p<0.01$). In addition, more patients reported receiving adequate information regarding arthritis community resources (The Arthritis Society and arthritis services in the community). More patients also received information about how to manage arthritis pain, and arthritis self management strategies such as exercise and maintaining or reaching a healthy body weight [Chi-Square; $p<0.05$].

Health Outcomes: There was no significant change in the patients' perceived health status (disability, pain or fatigue) measured six months after the provider workshop compared with baseline. We believe this is too short a timeframe to see these changes. We are optimistic that we will see changes at 12 months if we receive funding to analyze these results.

A full report of these results is being written for publication in a scientific journal.

Implications

Our patient focus groups across Canada identified common barriers and gaps that need to be addressed for primary health care reform. These included issues around access to information and the training of health professionals. Access to information is particularly important to allow patients to be good self-managers when they have a chronic disease. Patient recommendations included improving patient, public and health professional awareness of the range of arthritis services and resources, increasing team work among health professionals, reducing the delay to diagnosis and management, teaching health professionals how to intervene while patients are waiting for specialist consultation and how to establish priority for surgery, and simplifying arthritis information and distributing it widely using multiple methods of distribution. Many of these recommendations echo the objectives of the PHCTF. The Getting a Grip on Arthritis project addressed all of these recommendations through the development of patient and provider educational resources and the training of the team of health professionals working in the primary health care environment.

Our workshops reviewed well and identified the strengths of this model including the opportunities for team learning, hands on skill development and networking with local resources and the involvement of people with arthritis. We piloted one workshop with fee for service providers. This workshop evaluated the best of all our workshops, suggesting that this educational model would work successfully in a fee for service environment.

Provider satisfaction with their ability to manage arthritis was significantly increased six months after the workshop. This was reflected in the responses we received from patients. At follow-up, they reported receiving significantly more information about arthritis community resources, exercise and nutrition and how to deal with pain. This will support the patients' efforts to be good self-managers and potentially reduce health care costs. Providers and faculty survey respondents agreed that the project had a positive influence on arthritis self-management (83% and 71% respectively).

Our project was also successful in improving providers' confidence in doing a musculoskeletal examination and initiating disease modifying arthritis medications.

> 'Will be more confident in my ability to diagnose an inflammatory arthritis early and support the patient during treatment.' *Workshop participant*

Interestingly, there was no difference in provider outcomes based on urban or rural setting. This suggests that there is potential to improve the delivery of arthritis care regardless of location.

The project addressed the PHCTF's program objective of increasing emphasis on disease prevention through the development of a 'prevention' poster emphasizing evidence-based messages on arthritis prevention and encouraging people with early arthritis to seek care from their primary health care providers. Although not the primary emphasis our project, at six months post workshop, providers indicated that we had a positive influence on arthritis prevention (62%). Results of the faculty survey also reflected this; 40% of the respondents felt that the project had a positive influence on arthritis prevention.

Many of the messages for evidence-based arthritis care delivery are the same for other chronic diseases such as diabetes and heart disease. These include increasing physical activity and maintaining or achieving a healthy weight. These were core messages of the Getting a Grip on Arthritis workshops and providers were given tools to support them in counseling their patients to change these behaviours. Reflecting this, the results of the faculty survey indicated that 53% of faculty felt better able to manage chronic diseases in general and 57% felt better able to counsel patients about exercise and nutrition following their participation in our workshop. This suggests that this educational model might be one that would apply more broadly to other chronic diseases.

One of the goals of the PHCTF was to establish interdisciplinary primary health care teams of providers, so that the most appropriate care is provided by the most appropriate provider. Workshops were offered to the team of health care providers working in each primary health care site who provided care or education to people with arthritis (e.g., nurses, health promoters, etc). The participants truly reflected the interdisciplinary model of arthritis care with a mix of physicians (15%), nurse practitioners (11%), and other health care providers (63%) and non-clinical staff/students (10%). In sites, where the team did not exist, relationships were built with providers in the local community (physiotherapists, occupational therapists, etc).

Qualitative feedback showed the success of this model of learning in supporting team care.

> 'It also demonstrated that inter professional learning works, and enriches the experience, both to have allied colleagues in the audience, and as teachers and facilitators, all concepts that we need to implement at Northern Ontario School of Medicine.' *Northern Ontario family physician*
>
> '…and an emphasis on team work are strong features of this workshop.' *Edmonton workshop participant*

As well, 38% of the respondents to our faculty survey indicated that their team was better able to work together following the workshop.

Other objectives of the PHCTF were to facilitate coordination and integration with other health services and to facilitate collaboration among professions involved in primary health care. Our project brought together multidisciplinary providers from primary health care organizations and providers from surrounding hospitals, home care programs, private clinics and rehabilitation facilities and linked them with local arthritis specialists. Our survey of providers indicated that arthritis collaborative care was one of the areas where we had the most impact (85% agreed). In addition, 82% of workshop faculty agreed we had a positive influence on collaborative care and 86% agreed we had a positive influence on arthritis care in the community.

PHCTF objectives specific to the National envelope included the ability to create the necessary conditions on a national level to advance primary health care reform beyond what any single

jurisdiction can achieve on its own. Our partnership with several national organizations with an interest in arthritis care at the primary health care level provided us with an opportunity to implement a program that could not have been realized without this combined effort. CACHCA provided us with access to primary health care organizations across Canada through their database and provincial representatives. The Canadian Rheumatology Association and the Arthritis Health Professions Association linked us to arthritis specialists all across Canada. The Arthritis Society with its national links provided the support nationally and provincially to allow for efficient communication and implementation of this program.

Another national objective of the PHCTF was to facilitate changes to practice patterns for primary health care providers. In arthritis care, this would be reflected in earlier and more appropriate referrals to rheumatologists, orthopaedic surgeons and rehabilitation specialists. Workshops included a communication and referral session where guidelines for referral were discussed and letter templates were provided to support early and appropriate referrals. As well, the patient and provider educational tools provided guidelines for referral to specialists and other health professionals. This will ensure that care is provided by the most appropriate provider. Both providers and faculty survey respondents indicated that the project had a positive influence on early detection of arthritis (75%) and access to specialty care (68% and 70% respectively).

This educational intervention was successful in improving arthritis care delivery in a primary health care environment. It was based on social cognitive theory and involved strategies to influence provider behaviour - peer models, incentives, reinforcement, strategies to improve self-efficacy, demonstration and feedback, and hands-on skill development. This model could be used to train other providers who treat arthritis in hospital, home care, clinics, rehabilitation centres and fee for service environments. The content could be adapted for other audiences such as providers working in aboriginal communities or to address other types of arthritis or other chronic diseases.

Sustainability

The changes achieved by the Getting a Grip on Arthritis initiative will be sustained through the relationships established through the project. This project has built the capacity of communities by identifying and training the team of providers responsible for arthritis care in primary health care organizations. Training of these providers, the development of appropriate tools for providers and people with arthritis and linking providers and patients with local resources will support the long-term sustainability of this project. Arthritis care in these communities will be maintained through the ongoing influence of a trained team of providers. Links and referral patterns between participating sites and community agencies and arthritis specialists will be ongoing. The Arthritis Society has the list of workshop participants (those who agreed to share contact information) and will continue to link with these providers.

We have worked with our partner, CACHCA, to develop their website and enhance communications with their members, CHCs across Canada. The website link is www.cachca.ca. The site links to The Arthritis Society website and the Getting a Grip on Arthritis project resources. We have also helped them with communications tools and have brought their board

members together on three occasions to discuss issues related to primary health care, including arthritis care.

Of course, sustainability will vary by community and we won't know about many of the activities that take place. However, we have evidence in some communities. For example,

- as a result of our project, the CSSS La Mitis has initiated a new interdisciplinary arthritis clinic in the Bas St-Laurent region in Quebec with rheumatologist, Dr. Fortin from Rimouski. Dr. Fortin plans to educate the family doctors on arthritis best practices including intra-articular injection skills. Here is her last note to Jocelyne Gadbois, Quebec coordinator of the Grip project, indicating local and sustainable implementation of the project in this region.

  «Le programme officiel de prise en charge de l'arthrite tire officiellement à sa fin, cependant, cela ne fait que commencé ici. La formation locale va bon train et j'ai commencé à former de façon structurée les omnipraticiens de toute la région. Aussi, la clinique de locomoteur est maintenant officiellement subventionnée par l'agence. Je trouve que nous avons faits de grands pas dans la dernière année, et je vous en remercie. Vous avez été une inspiration pour nous tous. Je serai contente de vous tenir aussi au courant des derniers développements. Je finis par vous réaffirmer mon support et ma disponibilité pour les projets de la Société d'arthrite. Au plaisir, Dre Fortin».

- the Albert County Health and Wellness Centre in Fredericton, NB has started a new multidisciplinary arthritis clinic as a result of their staff attending one of our workshops. The team at the clinic has invited Dr. Docherty (rheumatologist) and Darlene Buchanan (nurse) from Moncton, to support them in this effort.
- the First Nations and Inuit Health Branch, Ontario Region (FNIHB) requested a presentation for their nurses following the workshop. On March 9, 2006, Dr. Wesley Fidler, rheumatologist with the St. Joseph Care Group in Thunder Bay, presented Getting a Grip on Arthritis by teleconference to nurses working in at least 10 sites of the Ontario Region of FNIHB. The focus of this presentation was degenerative and inflammatory arthritis and best practices for treatment.
- Wendy McCrea, regional coordinator for the project in BC/AB successfully submitted a request for funding to the Fraser Valley Authority for a Getting a Grip on Arthritis workshop in Langley. The submission was in partnership with Agassiz Community Health Centre providers who participated in our Kamloops workshop in April 2005. The workshop was held in The Arthritis Society office in Langley on December 3, 2005. Susan Hutcheon, Registered Dietitian from Agassiz delivered the *Nutrition and Weight Management* session using our slides.
- Jill Seviour, AHPA provincial representative for NL and PT faculty at our NL workshop presented a poster on our project entitled 'Getting a Grip on Arthritis ©: A National Educational Intervention for the Diagnosis of Arthritis in Primary Health Care' to the "Making Life Better", Association of Allied Health Professionals conference, St. John's, NL, November 28th, 2005. Jill's efforts and others will help us influence arthritis care

delivery in the community on an ongoing basis.

- the Seniors Health Resource Team –River East has established a new arthritis self-help group, one of many of the staff's initiatives following attendance at the Winnipeg Getting a Grip on Arthritis workshop. There is also a new self-help group in McBride/Valemount (Eastern B.C.) as a result of our project.

Two initiatives are 'spin-offs' of our project. Dr. Mary Bell (scientific advisor for the project) and myself are co-investigators on a Canadian Institutes for Health Research grant awarded to Dr. Lucie Brosseau at the University of Ottawa to update and disseminate arthritis clinical practice guidelines for rehabilitation interventions (exercise, assistive devices, etc) to the public. One year funding started March 1, 2006. The project will provide us with the opportunity to develop lay versions of key messages about the efficacy of these interventions for patient organizations, the public and the media. We will develop a lay version of the Getting a Grip on Arthritis workshop to educate patient organization representatives and the media. This event takes place October 27, 2006 and will be called People with Arthritis Getting a Grip on Arthritis. Some of the Getting a Grip on Arthritis participants will act as faculty for this workshop. If the workshops are successful, there is potential for national implementation.

Under the direction of Sheila Renton, coordinator of our project in Ontario, the Getting a Grip on Arthritis team delivered an interdisciplinary session called Getting a Grip on Arthritis Pain to 160 undergraduate and graduate students at the University of Toronto (pharmacy, medicine, dentistry, nursing, social work, physical education, occupational and physical therapy) as part of their Interfaculty Pain Curriculum (March 2006). This was an opportunity for faculty trained in the Getting a Grip project to reach another audience with key messages about the early identification and management of arthritis. We are hoping that this session will become a permanent part of this annual university event.

There is so much more to be done. The Getting a Grip on Arthritis intervention offers an upstream solution to preventing and managing arthritis and potentially addresses the long wait lists for hip and knee replacement surgery, most often the result of failure to successfully manage this chronic disease. The partners in this project are a committed group and with ongoing funding, this evidence-based intervention could be delivered to other providers delivering care to people with arthritis.

Appendix 1: Arthritis Best Practices

Best Practices for Osteoarthritis (OA)	
Education	Patients receive education about self-management strategies and contacts for further information (e.g., Education and/or support groups, The Arthritis Society Help Line, Arthritis Self Management Program [ASMP])
Exercise & Physiotherapy	Patients receive a recommendation for exercise or referral to an exercise program or to a physiotherapist.
Joint Protection & Occupational Therapy	Patients receive instruction in joint protection and energy conservation techniques or a referral to an occupational therapist.
Assistive Devices	Patients with functional limitations in performing activities of daily living receive referral to rehabilitation specialist for assistive devices (e.g., canes, crutches, or walkers to improve ambulation)
Weight Management	Patients with a body mass index (BMI) greater than 30 receive a recommendation for weight loss or referral to a weight loss group or professional.
Social Support	Social support and coping strategies are discussed with patients. Counseling and referrals made as needed.
Analgesics	Patients requiring pharmacologic treatment for pain receive a recommendation for analgesics (e.g., acetaminophen, glucosamine, capsaicin cream, acupuncture).
Non-steriodal anti-inflammatory (NSAID) Risk	Patients with two or more of the following risk factors should avoid NSAID use: age > 75, history of peptic ulcer disease, history of GI bleeding, cardiovascular disease. If NSAIDs cannot be avoided, patients should receive misoprostol, a proton pump inhibitor, or a selective Cox-2 agent.
NSAIDs	Patients not responding to or not tolerating acetaminophen may progress to non-steroidal anti-inflammatory drugs (NSAIDs), advancing to higher doses as necessary
Intra-articular Injections	Intra-articular corticosteroids or hyaluronans are considered for an OA painful knee. Oral corticosteroids (≤15mg daily) or IM (80-120mg) or IA used as adjunctive therapy.
Surgery	Surgical referral is discussed with patients who continue to experience significant pain and functional disability despite optimal medical therapy.

Best Practices for Rheumatoid Arthritis (RA)	
Education	Patients receive education about self-management strategies and contacts for further information (e.g., Education and/or support groups, The Arthritis Society Help Line, Arthritis Self Management Program [ASMP])
Exercise & Physiotherapy	Patients receive a recommendation for exercise or referral to an exercise program or to a physiotherapist.
Joint Protection & Occupational Therapy	Patients receive instruction in joint protection and energy conservation techniques or a referral to an occupational therapist.
Assistive Devices	Patients with functional limitations in performing activities of daily living receive referral to rehabilitation specialist for assistive devices (e.g., canes, crutches, or walkers to improve ambulation)
Weight Management	Patients with a body mass index (BMI) greater than 25 receive a recommendation for weight loss or referral to a weight loss group or professional
Social Support	Social support and coping strategies are discussed with patients. Counseling and referrals made as needed.
Non-steriodal anti-inflammatory (NSAID) risk	Patients with two or more of the following risk factors should avoid NSAID use: age > 75, history of peptic ulcer disease, history of GI bleeding, cardiovascular disease. If NSAIDs cannot be avoided, patients should receive misoprostol, a proton pump inhibitor, or a selective Cox-2 agent.
NSAIDs	Patients should be started on a non-steroidal anti-inflammatory drugs (NSAIDs), advancing to higher doses as necessary
Rheumatology Referral **Disease modifying anti-rheumatic drugs (DMARDs)**	Providers initiate an immediate rheumatology consultation re: treatment for patients with suspected inflammatory arthritis; Disease-modifying anti-rheumatic drugs (DMARDs) are considered for treatment of early RA.
Surgery	Surgical referral is discussed with patients who continue to experience significant pain and functional disability despite optimal medical therapy.

Appendix 2: Criteria for Review of Educational Resources

Authorship criteria

1. Canadian (organizations)
2. non-profit
3. timely and credible information

   * author is known and has recognized credibility

Credibility

4. professional authority
5. if not, information given to establish an informed perspective
6. if non-professional gives info, clearly stated
7. graphics layout, etc. does not interfere with readability
8. spelling and grammar errors do not interfere

Content

9. within stated issue area
10. consideration is given to the characteristics of the client group

   *perspective is well-balanced and avoids fads
   *ethnic and cultural sensitivity

Relevance

11. relevant to the CHN mission statement
12. informative with the Canadian context

Timely

13. up-to-date

Disclosure

14. commercial sponsorships clearly indicated and distinct from health information
15. is there potential for conflict of interest

Clear and adequate caveats

16. clear statement that health information should not be taken as health advice, and is not a substitute for consultation with a physician

Usability

17. information is presented clearly

   * organized with well laid out table of content, chapter substantial enough to cover the topic
   * appropriate use of jargon
   * cost