

# **'People with Arthritis can Exercise Safely'**

**The Arthritis Community Research and Evaluation Unit  
(ACREU)**

**Health Communication Strategy for Arthritis and Exercise**

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## **EXECUTIVE SUMMARY**

Many Canadians reporting arthritis or rheumatism are physically inactive and may be deconditioned as a result of inactivity imposed by the disease. These patients may also be at risk for other conditions, such as osteoporosis, diabetes and cardiovascular disease. Obesity adds to the problem and is a risk factor for osteoarthritis of the knees.

Health promotion is a process of enabling people to increase control over and improve their health. One way to promote better health is through health communication. This paper outlines the ACREU Health Communication Strategy for Arthritis and Exercise. The Health Communication Action Steps, recommended by the Health Communication Unit at the University of Toronto, have been used to develop this strategy. Based on current literature, the problems associated with activity limitation are described and the efficacy of exercise in improving health outcomes for people with arthritis is summarized. Barriers to exercise are also identified.

The overall goal of the ACREU health communication strategy is to increase the number of people with arthritis who exercise regularly. The target groups for the strategy are The Arthritis Society, physicians, allied health professionals and exercise program leaders (including fitness instructors). The characteristics and needs of each target group are outlined and communication resources are identified, including those available through ACREU, The Arthritis Society, our partners and professional associations. Key communication objectives are presented and vehicles for dissemination of the key messages are identified.

A draft version of the key messages has been developed. These messages will be developed further, seeking input from members of the target audiences. Sample materials and products have been suggested and an implementation plan to meet the communication objectives has been outlined with suggested evaluation strategies.

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# INTRODUCTION

Health Promotion is a process of enabling people to increase control over and improve their health(1). Health promotion aims to reduce adverse health risks in an entire population by targeting those at high, low and no risk. Interventions are aimed at each risk group in order to lower the risk and to prevent the no risk group from becoming at risk. Health promotion is accomplished through community organization and health communication which includes education and persuasion(2). Through education, information is provided to help people make healthy decisions and engage in healthy activities by increasing knowledge and motivation, by changing attitudes and by increasing the skills and techniques needed to avoid or reduce risk behaviours, pursue good health or change the environment. In order to do this, the strategy must also counter health-damaging behaviour. A review of the literature suggests that mass media communications campaigns increase awareness, information seeking, knowledge and intent to change behaviours, improve attitudes and result in behaviour change(3).

The twelve Health Communication Action Steps(2), recommended by the Health Communication Unit at the University of Toronto, have been used to develop the ACREU Health Communication Strategy for arthritis and exercise.

## **Step 1. Define the Issues**

### **Arthritis in the Population**

Arthritis is common in the population and its prevalence increases with age(4-11). Data from the 1990 Ontario Health Survey indicated that the prevalence of arthritis and rheumatism in the population aged 45+ was 31.6% and was 41.9% for those aged 65 years and older(5). It is estimated that the number of people with arthritis and arthritis associated disability will more than double by the year 2031(6).

Many Canadians are inactive and inactivity levels increase with age (12,13). Many Canadians reporting arthritis or rheumatism are physically inactive (64.7%)(4,13) and may be deconditioned, secondary to inactivity imposed by the disease(14). People with arthritis may also be at risk for other conditions, such as osteoporosis, diabetes and cardiovascular disease(12). In addition, obesity is a risk factor for arthritis in the knees and may result in further limitation of activity(15). Decreased strength and physical activity may also result in pain(14).

### **Exercise in General**

Exercise is widely acknowledged as beneficial for the general population(12) and it is suggested that increasing activity levels in the population may result in reduced functional decline (16) and important savings to the health care system(12). Canada's Physical Activity Guide recommends 60 minutes of daily moderate activity. The literature suggests that regular moderate physical activity can decrease triglyceride levels, reduce hypertension, increase aerobic capacity, improve muscle strength and endurance, and assist in weight reduction(17-19). Interval training (several shorter exercise sessions of 10 - 15 minutes each) can be an effective strategy for reaching daily exercise goals(20). Lighter intensity activities such as gardening, walking or lawn bowling can also have positive effects on general health and well-being.

### **Exercise and Arthritis**

A recent report from the Canadian Fitness and Lifestyle Research Institute and the College of Family Physicians of Canada states that “regular physical activity maintains functional ability with aging and reduces arthritis pain”(20). Joint movement and loading as a result of physical activity promotes nutrition of cartilage and healthy bone formation(21). Properly prescribed and supervised exercise is beneficial for reducing pain, functional disability and depression and increasing activity levels for patients with arthritis without increasing joint symptoms (14,22-26). Moderate intensity exercise for 15-60 minutes, 3-5 days per week for 8 to 12 weeks can improve muscle strength and endurance and assist in weight reduction (14,). In osteoarthritis specifically, there is a growing body of evidence to support the efficacy of range of motion and stretching exercises, strength training, aerobic conditioning and light to moderate physical activity for patients with osteoarthritis (OA) of the hip and/or knee(15,23-28).

Exercise in warm water is a frequently employed component of the management of arthritis. Several papers suggest that this intervention is safe and effective in reducing pain and stiffness and increasing aerobic fitness and function in people with arthritis(14,26,29-36) and in seniors generally (37-40). Although studies to date suggest that there is no benefit over exercise on land, patients with advanced disease and those pre-and post surgery are often excluded from these studies (14,26,34,35,41,42). Exercise in warm water is a safe and easy way to exercise the whole body all year round particularly if there is pain on weight-bearing, if patients are overweight, if they are waiting for surgery or have just had surgery(43).

Health professionals are in a position to assess a patient’s readiness to engage in exercise and physical activity(44-47).

### **Barriers to Exercise**

People with arthritis may receive mixed messages about arthritis and exercise, for example, they may be told that exercise will make the arthritis worse or damage the joints and health professionals may advise to rest the joints and avoid painful activities. This may be due in part to studies indicating an association between arthritis and activities causing wear and tear, continuous pressure and impact loading(49) and beliefs that too much joint loading may have negative effects on cartilage(49-51).

Medical students receive little education regarding arthritis and non-pharmacological rehabilitation strategies such as exercise (52). Practising physicians are often uninformed about the benefits of exercise for people with arthritis and they fail to advise patients appropriately and refer patients to community exercise programs or to physiotherapy. Glazier reported results of a survey of Ontario family physicians, asking physicians how they would manage a hypothetical case of a patient with knee osteoarthritis. Only 54% indicated that they would refer the patient to a physiotherapist, 33% would recommend exercise and 29% would advise rest(53,54). In Ontario, self-referral to physiotherapy is now allowed, however, the public is not always aware of this and hospital-based physiotherapy still requires a physician referral. In addition, the availability of physiotherapy services varies across Ontario(55).

Community exercise programs designed specifically for people with arthritis are often difficult to locate(56). A recent ACREU study identified a variety of community-based exercise programs specifically for people with arthritis in Ontario, though most were in urban areas and were targeted to English-speaking participants(56). Many of the programs identified in this study required a physician referral (57%), were time-limited or were only available in the daytime, limiting accessibility for those

who are in the workforce. Programs need to be ongoing, since the benefits of exercise are usually lost once the exercise is discontinued(57). There were fees associated with most exercise programs which may limit participation. Lack of availability of warm water pools may also be an issue. Men were under-represented in the majority of programs suggesting that men with arthritis may have different exercise or programming needs or may need to be targeted in different ways.

People with arthritis are often unaware of the benefits of exercise(58) and when aware, they are unaware of the what makes a program safe or unsafe and what safe programs are available in their community. There may be few safe programs available particularly for people with a low level of fitness or with more severe types of arthritis. In the ACREU study of programs, most programs for OA were water-based, which might not be a suitable option for some participants(56). Pain, fatigue, comorbidity, fear of falling and lack of transportation or time may be additional barriers to program participation.

Program leaders vary in their training and qualifications(59). Some instructors are certified but there are several governing bodies each with different standards and requirements. Specialty certification (e.g. for the elderly or those with a specific diagnosis) is rarely required. Certified fitness instructors are required to demonstrate an understanding of basic exercise principles and may not be knowledgeable about arthritis. Many programs do not include aerobic or strengthening exercises, perhaps due to the lack of awareness about the benefits for this population(56).

## **Step 2. Set the Goal for the ACREU Health Communication Strategy**

Given the risks of inactivity and the efficacy of exercise for people with arthritis, the overall goal of the ACREU health promotion strategy is to increase the number of people with arthritis who exercise regularly.

## **Step 3. Analyse and Segment the Target Group(s)/Audience**

The target groups for this strategy are The Arthritis Society, physicians, allied health professionals and exercise program leaders.

### **Target Group 1: *The Arthritis Society (Ontario and National)***

The Arthritis Society is a not-for-profit organization that raises funds for arthritis research and supports community-based programs for people with arthritis. A U.S. study has demonstrated how a similar partnership with a community-based agency can be a successful strategy for reaching people with arthritis over a large geographical area (60).

#### ***Characteristics of The Arthritis Society, Ontario and National***

- province-wide and national
- mandate to support self-funded programs and to advocate for people with arthritis,
- centralized media and communications functions
- large number of volunteers and volunteer - run programs
- current partnerships e.g. Searle, YWCA, Public Health Units, Community Health Centres, etc

- national and provincial support and information lines
- large number of donors

***Needs of The Arthritis Society, Ontario and National***

- information about the benefits of exercise in this population and barriers to exercise, available community programs, components of a safe program, when and where to refer; how to encourage and support exercise behaviours in this population.
- fundraising opportunities
- volunteer recruitment opportunities
- self-funded programs for patients

**Target Group 2:     *Physicians***

A majority of patients with arthritis visit their physician at least yearly(60). As the first point of contact with the health system, physicians act as gatekeepers for people with arthritis and have a key role in educating patients about the benefits of exercise(44-47,62,63). Treatment guidelines have been developed for the management of OA, RA and musculoskeletal conditions (64-67). These guidelines recommend exercise for people with arthritis and the Ontario guidelines (64) recommend referral to The Arthritis Society for information on community resources.

***Characteristics of Physicians***

- difficult to reach
- little training in assessment and management of patients with arthritis
- generally little time to educate patients or may underestimate the learning needs of their patients(46,53,54)
- there are more and more articles about the benefits of exercise in journals targeting physicians(44-48)
- physicians recognize the benefits of regular exercise for the healthy population, but generally do not prescribe or refer(52)

The literature suggests that the most effective way to influence physicians is through their network of influential physicians or opinion leaders(47,68,69).

***Needs of Physicians***

- material must be important and relevant to physicians and patients
- scientific evidence outlining the benefits and risks of exercise in this population
- information about available community programs and resources, components of a safe program, when and where to refer, how to encourage and support exercise behaviours in this population
- time efficient ways of providing information to their patients

**Target Group 3: *Allied Health Professionals (physiotherapists, occupational therapists, nurses, chiropractors)***

Patients with arthritis/musculoskeletal diseases make up a high proportion of health professional caseloads in Ontario(70). Practice guidelines for the management of RA recommend an exercise and aerobic fitness component (71). Public health departments in Ontario now have mandatory programs aimed to increase exercise behaviours in the general population (72).

***Characteristics of Health Professionals (HPs)***

- arthritis may not be seen as a high priority in practice; health professionals may treat more acute or post-operative conditions
- variable learning in assessment and management of these conditions
- lack of awareness of community resources

***Needs of Health Professionals***

- material must be important and relevant to them and to patients
- assessment skills specific to arthritis
- scientific evidence to support exercise prescription for patients with arthritis
- scientific evidence outlining the benefits and risks of exercise in this population
- information about available community programs and resources, components of a safe program, when and where to refer, how to encourage and support exercise behaviours in this population
- time efficient ways of providing information to their patients

**Target Group 4: Program Leaders**

***Characteristics of Program Leaders***

- trained/not trained; if trained, usually not about diseases
- certified/not certified, many different certifying bodies with different standards and requirements
- many instructors are certified by one of several governing bodies which requires its members to fulfill continuing education requirements
- paid/not paid, limited resources for ongoing training
- some leaders have arthritis
- fitness instructors are used to administering the Physical Activity Readiness Questionnaire (PAR-Q) to identify those who talk to a physician prior to starting an exercise program (Appendix 1)

***Needs of Program Leaders***

- information about arthritis, the benefits and risks of exercise in this population, components of a safe program, how to screen patients for exercise, when and how to refer to a physiotherapist, how to modify existing programs for people with arthritis, how to encourage and support exercise behaviours in this population
- effective ways to advertise their programs and attract members/participants

**Step 4. Identify the Communications Resources**

The communication strategy will be implemented using the following *existing* resources:

**ACREU Resources**

- newsletter
- journal articles, publications, presentations
- internet site
- advisory panel
- university connections - University of Toronto Faculty of Medicine and Department of Public Health Science, University of Toronto Graduate Department of Rehabilitation Science, University of Toronto and McMaster University Schools of Rehabilitation Science
- hospital connections - Sunnybrook Health Sciences Centre, Women's College Hospital, The Toronto Hospital
- connections with the scientific community - World Health Organization, etc
- connections with family physicians, fellows - gatekeepers
- rheumatologists, fellows
- Centre for Health Promotion internet site
- Patient Partners Program
- connections with health professionals (Arthritis Health Professions Association (AHPA), The Arthritis Society, Consultation and Rehabilitation Service, Association of Rheumatology Health Professionals (ARHP) newsletter)

**The Arthritis Society Resources: Ontario Division**

"Joint Effort" Community Arthritis Program (CAP). The CAP program (funded by the Toronto Community Foundation) was started by The Arthritis Society in 1997 to develop, coordinate, market and maintain quality exercise and education programs that provide people with arthritis a variety of opportunities within their community for participation in activities that promote self-management. The first year of this program has concentrated on the development of community arthritis pool programs in the Greater Toronto area. A physiotherapist Coordinator is responsible for the development and implementation of this program.

- Arthritis Self Management Program (ASMP)

**Consultation and Rehabilitation Service (CARS)**

- provincial staff conference
- provincial and regional newsletters
- Assessment and Management Training Programs
- provincial staff
- students, university connection

**Other Arthritis Society, Ontario Division Resources**

- exercise resources (videos, tapes, pamphlets, Pace program)
- AHPA - newsletter, conference, Board representatives, internet site
- the Arthritis Bell Connection support and information line (1-800-line)
- support groups (Specific Disease Associations, Arthritis Bluebird Clubs, aquatics programs) - and their newsletters
- Regional offices - public forums, fundraising events, media connections

- communications department - media
- Health Professional Advisory Committee
- Client Services Committee
- Board of Directors
- Health Policy Committee
- Direct mail list
- Ontario Division regional meeting

**The Arthritis Society, National**

- Communications department (Arthritis 2000 mailing list, donor list, etc)
- Arthritis News Internet
- American College of Rheumatology booth
- Board of Directors
- corporate sponsors (Searle, Paramed)

**Partnerships**

- Rheumatic Disease Units
- Public Health Units
- Heart Health
- hospitals (St. Joseph's Hospital, Thunder Bay, St. Joseph's Hospital, Peterborough, Baycrest Centre for Geriatric Care, Toronto; St. Peters Hospital, Hamilton; Toronto Hospital, Women's College Hospital, St Joseph's Health Centre, Toronto; Centre for Activity and Aging, University of Western Ontario)
- corporate partnerships (Searle)
- District Health Councils
- the Anne Johnson Health Station, Toronto
- College of Physiotherapists of Ontario
- Centre for Studies in Aging

**Other Resources:**

- College of Family Physicians (not all physicians belong)
- Canadian Rheumatism Association
- American College of Rheumatology
- San Diego State University (PACE Program Dissemination Contact)

**Step 5. Set the Communications Objectives**

**Overall Communication Goal:**

Arthritis opinion leaders endorse regular exercise for people with arthritis.

**Specific Objectives:**

Individuals will be reached primarily through their networks and organizing bodies.

**At the network level:**

The network of physicians and other health professionals includes those arthritis opinion leaders who

work in rheumatology (AHPA members, ARHP members, instructors of arthritis education programs at the university level, rheumatic disease unit staff, staff of specialized rheumatology programs).

1. arthritis opinion leaders increase their confidence in the non-pharmacological management of arthritis, particularly in the use of exercise as a management strategy.
2. arthritis opinion leaders increase the number of conversations/interactions about arthritis and exercise with their peers and associates
3. arthritis opinion leaders influence their peers in such a way that they will:
  - a. increase the number of people with arthritis who are knowledgeable about:
    - the benefits of regular exercise and the risks of being unfit
    - safe community exercise programs
  - b. discuss and recommend exercise to more people with arthritis.
  - c. increase the number of appropriate referrals to physiotherapy services and community exercise programs.

**At the organization level:**

1. organizations allow the arthritis and exercise message to be communicated to their members
2. curriculum planners/educators adopt a curriculum that provides information about exercise and arthritis

**At the societal level:**

*Decision makers:*

1. increase the number of collaborations/partnerships with community groups that deliver or support the delivery of exercise programs or train leaders.
2. increase the number of appropriate exercise programs for people with arthritis.

These objectives will be operationalized in a work plan which will include measurable and time-limited objectives.

**Step 6. Identify Vehicles and Channels**

The following vehicles are currently available for disseminating the communication strategy:

**At the network level:**

*Media:*

- faculty newsletters
- newsletters of professional and licensing bodies
- ACREU working paper
- ACREU newsletter

- phone contacts through the Arthritis Bell Connection support and information line (1-800-line)
- ACREU brochures
- conference booth
- direct mailing. An ACREU study of family physicians reported that direct mail was the preferred method of receiving information for their patients, however this might not apply to information targeted for their own learning(72). A pamphlet was the preferred format for the material.
- conference posters

*Interpersonal Communications:*

- consultation to the “Joint Effort” Community Arthritis Program (CAP)
- CARS provincial conference workshop
- The Arthritis Society Annual Training Programs: Assessment and Management of Inflammatory Polyarthritis
- conference workshops
- individual contacts
- Patient Partners workshop
- workshops for The Arthritis Society regional staff
- The Arthritis Society participation in ACREU advisory group

*Events:*

- AHPA conference “Information Sharing Table”
- Arthritis Society community exercise events

**At the organizational level:**

*Media:*

- email lists
- The Arthritis Society internet site
- ACREU working paper
- ACREU brochures
- ACREU newsletter
- conference posters
- faculty newsletters
- newspapers of professional bodies
- hospital newsletters
- journal publications e.g. Canadian Journal of Family Practice, Journal of Rheumatology, Canadian Medical Association Journal
- university curriculum for arthritis and exercise

*Interpersonal communications:*

- individual contacts
- CARS directors group presentation
- conference workshops
- presentations at scientific meetings, conferences, hospital rounds. An ACREU working paper

reported that 65% of family doctors interviewed felt that continuing medical education conferences specifically on arthritis, were a good way of receiving information on this subject(73). Two other studies of physicians found that lectures were the preferred method of learning (47,52).

*Events:*

- ACREU dissemination conference

**At the societal level:**

*Media:*

- newsletters of professional organizations/licensing bodies
- list of Arthritis Society endorsed programs
- College of Physiotherapists of Ontario membership mailing

*Interpersonal Communications:*

- meetings with Heart Health, Public Health Units, YMCA, other agencies
- training workshops
- The Arthritis Society and the Ministry of Health working group meetings

*Events:*

- ACREU dissemination conference

**Groups to be targeted:**

- The Arthritis Society, National, Ontario Division and the Consultation and Rehabilitation Service
- Canadian Rheumatism Association
- Canadian Medical Association
- Canadian Association of Family Physicians
- Canadian Physiotherapy Association
- Canadian Association of Occupational Therapists
- Ontario Public Health Association
- Ontario Nurses Association
- Centre for Studies in Aging
- Ontario College of Nurses
- College of Occupational Therapists of Ontario
- Registered Nursing Assistants of Ontario
- Community Health Nurses
- Occupational Health Nurses
- Canadian Physiotherapy Association
- Canadian Occupational Therapy Association
- The Arthritis Society and the Ministry of Health Working Group
- Canadian and Ontario Home Care Associations
- Public Health and Epidemiology Report of Ontario
- Ontario Gerontology Association
- Arthritis Health Professions Association

- Association of Rheumatology Health Professions
- American College of Rheumatology
- Ontario Physical and Health Education Association (OPHEA)
- Public Health Branch, Ontario Ministry of Health
- 'Joint Effort' Community Arthritis Program
- Obesity Canada
- Osteoporosis Society
- YMCA
- fitness centres
- Canadian Aquafitness Leaders Alliance (CALA)
- Canadian Red Cross
- Ontario Fitness Council
- Canadian Personal Trainers Network
- American College of Exercise
- Canadian Aerobic Instructors Association (aquafitness instructors)
- mall walking programs
- other disease groups - Multiple Sclerosis Society, lung association, etc
- Participaction
- municipal recreation departments
- University departments of physical education and health
- Aerobics and Fitness Association of America
- Canadian Personal Trainers Network (personal trainers)
- American College of Exercise
- Ontario Fitness Council or Canadian Aerobic Instructors Association (land exercise instructors)
- Rheumatic Disease Units
- Patient Partners Program
- College of Family Physicians of Ontario

The convening of an ACREU Health Communication advisory group, which would include The Arthritis Society, might also help to identify additional vehicles for disseminating these messages.

#### **Step 7. Sequence Activities/Coordination of Efforts/Time lines**

The sequencing of events will be outlined in the work plan and cover a 2 to 5 year period.

#### **Potential Implementation:**

The following dates will be kept in mind:

- 1999 - International Year of Older Persons
- Joint Effort conference March 1999
- CARS provincial staff conference, May 26-28, 1999
- The Arthritis Society regional meetings
- AHPA conference held each May
- ACREU dissemination conference

- 2000 - CARS 50<sup>th</sup> anniversary
- September is Arthritis Month
- combined ACR/ARHP presentation, Nov. 99
- U of Toronto presentation to fellows, fall 99
- College of Family Physicians conference, Nov. 99
- combined PT/OT/Speech conference, 2000

A health communication advisory group would assist with the coordination of these events and time lines.

## **Step 8. Develop the Key Message(s)**

### **Key Messages:**

Based on evidence in the literature, a draft message has been developed. The message is formatted as “what”, “so what” and “what now”. Six University of Toronto physiotherapy students helped to develop the messages as part of their course work(59).

The message will be developed further through a pilot test seeking input from members of the target audience.

### ***The “What”***

- People with arthritis are often unfit as a result of inactivity and the secondary changes resulting from arthritis
- People with arthritis can exercise safely without exacerbating their joint symptoms
- There are few appropriate community programs for people with arthritis

### ***The “So what”***

- People with arthritis who do regular aerobic exercise report less pain, more energy and improved ability to do the things they want to do
- People who are overweight are at increased risk for arthritis in their joints
- People who exercise regularly may lose weight and in turn reduce their arthritis symptoms
- People who are unfit are at risk for other conditions such as heart disease, obesity and diabetes
- Physical therapists are experts in the assessment and management of arthritis, including the prescription and supervision of safe exercise programs

### ***The “What now”***

- Talk to the patient about their exercise habits
- Assess their readiness to engage in physical activity
- Recommend aerobic exercise now!<sup>1</sup>
- Recommend community aquatics programs!<sup>2</sup>

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<sup>1</sup>Safe options include: walking, aquatics/hydrotherapy, dancing. There appears to be no additional benefit of water exercise over land exercise, therefore both options can be presented to patients. Patients should start slowly (5 to 10 minutes a day) and gradually increase their daily exercise to 30-40 minutes three times a week. Contraindications include a swollen hot joint, an unstable joint (knees, ankles), acute systemic inflammatory disease with fatigue, weight loss, fever, or rash.

<sup>2</sup>People with more severe disease, who have pain when they walk, who are overweight or who have just had surgery often find they can

- Provide information about community exercise programs<sup>3</sup>
- Refer patients with severe arthritis or problem joints to a physiotherapist for a supervised exercise program

#### **Additional Messages For Program Leaders:**

- call the Coordinator of The Arthritis Society 'Joint Effort' Community Arthritis Program (416-398-2556 x26) to have your program assessed for appropriateness for people with arthritis or for information about arthritis leader training programs
- call your certifying body to inquire about special training for program leaders (for seniors or people with arthritis)
- administer the Physical Activity Readiness Questionnaire (PAR-Q)(Appendix 1) to determine if participants require medical clearance prior to starting an exercise program

#### **Who Reaches/Influences The Target Groups:**

The Arthritis Society, physicians, allied health professionals and program leaders all influence people with arthritis, however, people with arthritis also significantly influence these target audiences.

#### **1. People with Arthritis: Characteristics of People with Arthritis**

**Demographics:** large numbers, some seniors groups with powerful lobby potential, mostly female, many not working, comorbidity, pre and post op, early to late disease, mild to severe disease, some housebound or with limited mobility, culturally diverse, urban/rural, diverse family and economic situations, diverse educational backgrounds.

**Behavioural Characteristics:** past exercise history may be important, may have had a negative experience with exercise; may be at different stages in terms of their readiness for exercise; some are deconditioned and/or overweight, sedentary which makes them prone to other problems such as heart disease; may be passive re: disease management; may have family history of arthritis.

#### **Psychographic characteristics:**

- get most of their information from the physician

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exercise safely in warm water. Contraindications/precautions include open sores or wounds, uncontrolled high or low blood pressure, respiratory problems or shortness of breath, epilepsy/seizures, athlete's foot, infections, plantar's warts, rashes, incontinence, using nitroglycerine, fear of the water.

<sup>3</sup>Other Arthritis Society resources include exercise videos, tapes or brochures (call 1-800-321-1433) and the internet site ([www.arthritis.ca](http://www.arthritis.ca)) - see the exercise section under Living Well with Arthritis)

- older adults value the advice of physicians and testimonials from their peer group
- may be members of The Arthritis Society, a support group, or a senior's organization
- may have a negative opinion of exercise or inaccurate information about arthritis and exercise (arthritis is associated with aging; there is nothing you can do about arthritis; they are too old to exercise; exercise will make arthritis worse, exercise causes arthritis)
- arthritis is a chronic disease requiring lifestyle changes, they may have given up a lot of activities particularly in the area of leisure or relationships
- isolated, may not have any activity to participate in
- formal health care services are being reduced
- media presenting more elderly people engaged in exercise, i.e. a normal activity
- health care system emphasizing self-management
- fewer Canadians are inactive now than in 1981(12)

#### **Needs of People with Arthritis:**

- symptom relief (pain, fatigue, stiffness, weakness)
- information about the benefits of exercising, the risks of remaining unfit or not exercising
- how to identify and access safe programs, how to choose exercise options relevant to their stage of disease
- strategies to maintain their exercise behaviour, cautions
- accessible, safe community programs with knowledgeable leaders at a reasonable cost

#### 2. Friends and Family of People with Arthritis

Strong support systems may be important in helping people with arthritis cope with the effects of arthritis(74) and involving friends and family in exercise may be one strategy for increasing and supporting exercise behaviours(57,74,75).

#### **Needs of Family and Friends of People with Arthritis:**

- information about the benefits of exercise and how to support people with arthritis in their exercise behaviours
- information about how to prevent arthritis

Since ACREU does not have direct access to patients with arthritis and their families, these groups will not be targeted specifically.

### **Step 9. Develop Identity**

An identity for this strategy will be developed depending on the partners involved. A different identity may be required for each target group. For example, the Mississauga Parks and Recreation department program brochure uses a feather to identify programs which offer less vigorous activity and would be suitable for people with arthritis.

### **Step 10. Develop Materials/Product Definition**

Examples of possible materials to be developed follow:

**For The Arthritis Society**

- a consistent exercise message
- a media message about exercise
- volunteer leaders manual for pool programs
- program leaders audit form
- modify CARS charting to influence education around fitness and exercise

**For the public**

- a province-wide endorsement program for community exercise programs through the Community Arthritis Program
- a list of exercise resources (videos, brochures, tapes)
- a list of arthritis specific and arthritis friendly pools
- a tear-off sheet for physicians to give to patients
- volunteer leaders manual for pool programs
- input to CALA training manual
- leaders audit form
- Brochure: Arthritis Aquatic Programs - Pool Locations
- Brochure- Arthritis Aquatic Programs - General Information
- ACREU brochure on how to find exercise programs - for health professionals
- self-assessment form on beliefs about exercise for health professionals

**For people with arthritis**

- ACREU brochure on how to find exercise programs - for the public
- Health promotion flyers: "People with arthritis tell us..."
- laminated sheet of water exercises for arthritis and for ankylosing spondylitis
- client satisfaction survey for pool participants
- list of books and videos for patients
- self-assessment form on beliefs about exercise for people with arthritis

**For curriculum planners**

- sample curriculum for all universities with overheads and references

**Step 11. Implement the Communication Strategy**

The following lists some of the planned implementation activities. Appendix 3 outlines activities which have already taken place.

**Conference presentations:**

- Ontario Physiotherapy Association March 1999
- Joint Effort conference March 1999
- AHPA May 1999
- ACR/ARHP November 1999

**Publications:**

- ACREU newsletter
- AHPA/ARHP newsletters
- The Arthritis Society Training Program Alumni Newsletter
- Community Arthritis Programs - a newsletter developed for physician waiting rooms
- Parks and Recreation brochures listing programs and services

**Internet:**

- The Arthritis Society site: [www.arthritis.ca](http://www.arthritis.ca)
- ACREU site: [www.whri.on.ca/acreu.html](http://www.whri.on.ca/acreu.html)

**Direct/Database Marketing:**

- flyer in Arthritis Society direct mail or with receipts to donors Special Promotions and Events
- Strike out Arthritis
- Line dancing fundraiser

**Partnerships**

- partnerships with CALA, Red Cross Link to Health, Municipal Parks and Recreation Departments., YMCA

**Joint Effort Community Arthritis Program (CAP):**

- planning underway to implement this program across Ontario

**Step 12. Evaluate Communication Campaign**

There are several possible ways of evaluating the success of this strategy. A specific research agenda for evaluating the outcomes of this strategy will be set out in the working plan. Some of the following outcomes are proxies or indicators of meeting the communication objectives. Work to date (March 1999) has been summarized in Appendix 3.

- # physicians educated re importance of exercise
- a consistent exercise message delivered by The Arthritis Society
- # partnerships with agencies promoting an exercise message
- # fundraising events with exercise as a focus
- # university programs/presentations with exercise message included
- # newspaper/magazine articles on exercise and arthritis
- # Arthritis Society special events with exercise as the focus
- # presentations made on exercise and arthritis
- # publications on arthritis and exercise
- # number of safe exercise options/programs
- # programs endorsed by The Arthritis Society
- # promotions or advertisements for Arthritis Society endorsed programs

- # program leaders trained/educated
- client satisfaction with programs

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## Appendix 2

### **ACREU Health Communication Strategy: Arthritis and Exercise**

#### **Implementation in the Greater Toronto Area to Date: March 1999**

##### **Presentations:**

- family physicians through the Interactive Educational Intervention study
- McGaw F. The development of community land and water exercise programs for people with arthritis. Arthritis Health Professions Association, May 1998
- McGaw F. The development of community land and water exercise programs for people with arthritis. Ontario Physiotherapy Association, March 1999
- McGaw F. Exercise: What it can do for you. Joint Effort conference, March 27, 1999.
- Clarke L, Dodd J, Flatman J, Frampton P, Ing S, Janda P. Education of family physicians, physical therapists and fitness instructors in the role of exercise in osteoarthritis. University of Toronto Research Day, April 22, 1998.
- Lineker SC, Badley EM, Hawker G, Wilkins A. Determining sensitivity to change in outcome measures used to evaluate community hydrotherapy programs for people with rheumatic diseases. Poster. Association of Rheumatology Health Professionals, San Diego, October 1998
- Lineker SC, Badley EM, Hawker G, Wilkins A. Determining sensitivity to change in outcome measures used to evaluate community hydrotherapy programs for people with rheumatic diseases. Poster. AHPA, Toronto, May 1998.
- message distributed to Arthritis Society volunteers during their training session Sept. 98. These volunteers are speakers who present to seniors centres and Bluebird Club meetings.

##### **Publications:**

- Arthritis News: Wyeth-Ayerst supplement on exercise in Arthritis News/ArthroExpress - also a physician "leave behind" - March 1999
- Community Arthritis Programs - newsletter for physician waiting rooms - tested with 12 rheumatologists
- Bell MJ, McConnell S, Thorne C, Badley EM, & the CRA OA and Exercise Guideline Subgroup. A critical appraisal of the efficacy of exercise in the treatment of osteoarthritis. Submitted to Arthritis and Rheumatism 1998
- ACREU working papers:
  - Lineker SC, Badley EM, Hawker G, Wilkins A. Determining sensitivity to change in outcome measures used to evaluate community hydrotherapy programs for people with rheumatic diseases. ACREU working paper 99-?, January 1999.
  - Elsbett-Koeppen RH, Badley EM. Nonpharmacological treatment modalities in the treatment of arthritis: patient education, exercise and social support. ACREU working paper 98-4, June 1998.
- Rheumatoid Arthritis Management Protocol, The Arthritis Society, Consultation and Rehabilitation Service, April 1998
- Arthritis Hits the Baby Boomers: A Splashing Success for Arthritis Sufferers. Canadian Fitness Magazine. Summer 1998 (Canada's national magazine for fitness providers)
- Johnson Sr. K. Managing Arthritis with Exercise, Active Living Magazine. Sept./Oct. 1998
- Pak S. Combating Arthritis at Your Own Pace, Active Living Magazine. Sept./Oct. 1998
- McGaw F. Arthritis Aquatics for Effective Exercise. Active Living Magazine. Sept./Oct. 1998
- McGaw F. Are you One in Seven? Good Times Magazine for Seniors. May 1998.
- McGaw F. input to Use It or Lose It, by K. Jackson, Arthritis News, Dec. 1998.
- McGaw F. Making a Difference. (About volunteering for community program leadership). Physiotherapy Today, professional newsletter of the Ontario Physiotherapy Association. Sept. 1998.
- McGaw F. Letter to editor, Good Times magazine, commenting on no mention of ASAP programs in OA

article. Sept. 1998.

- programs for people with arthritis listed in the Fall & Winter brochure of the City of Toronto Parks and Recreation department
- McGaw F. Sore, Stiff Joints Limber Up in Aqua Fitness Program. Oakville Beaver, Jan. 1999.

#### **Arthritis Society Products:**

- 1998 ASAP Volunteer Leaders manual
- input to CALA Arthritis Specialty Training Manual 1998
- client satisfaction questionnaire developed for pool programs
- pool leaders audit form
- list of arthritis specific and arthritis friendly aquatics programs (36 arthritis specific, 26 arthritis friendly in the greater Toronto area).
- Brochure: Arthritis Aquatic Programs - Pool Locations
- Brochure- Arthritis Aquatic Programs - General Information
- laminated recreational pool exercise sheet
- laminated recreational pool exercise sheet - for ankylosing spondylitis
- list of books and videos

#### **ACREU Products, ACREU brochures:**

- ▶ Education, exercise and self-help programs for people with osteoarthritis and osteoporosis (for health professionals).
- ▶ Education, exercise and self-help activities (for people with osteoarthritis).
- ▶ Education, exercise and self-help activities (for people with osteoporosis).
- ▶ What families and friends need to know about osteoarthritis.
- ▶ People with arthritis tell us about the benefits of exercising in warm water.
- ▶ People with osteoarthritis tell us about what to do about hand problems.
- ▶ People with rheumatoid arthritis tell us about helpful tips.
- ▶ People with osteoarthritis and osteoporosis tell us about the benefits of exercising.
- ▶ People with rheumatoid arthritis tell us about morning stiffness.
- ▶ People with osteoarthritis tell us about what families and friends need to know about osteoarthritis.
- ▶ People with osteoarthritis tell us about maintaining independence.
  - above brochures mailed to 9 Shoppers Home Health Centres in Toronto
  - laminated handout, "Do you have rheumatoid arthritis?", about the benefits of exercise, produced by the College of Physiotherapists of Ontario, 1998.
  - laminated handout, "Physiotherapist Information Sheet", about the importance of referring patients to community programs, produced by the College of Physiotherapists of Ontario, 1998.

#### **Arthritis Society Partnerships:**

- Canadian Red Cross Link to Health
- City of Toronto Parks and Recreation
- Canadian Aquatics Leaders Association
- College of Physiotherapists of Ontario

## Appendix 3

### **ACREU Health Communication Strategy: Arthritis and Exercise**

#### **Evaluation of the Strategy in the Greater Toronto Area to Date (March 1999)**

- # physicians educated re importance of exercise - >115
- # publications on arthritis and exercise: 5
- # partnerships with agencies promoting an exercise message: 3
- # university programs/presentations with exercise message included: 1
- # students involved in exercise projects: 6
- # newspaper/magazine articles on exercise and arthritis: 12
- # presentations/workshops made on exercise and arthritis: 15 workshops, 6 presentations
- # number of new exercise options/programs: 9
- # programs audited/endorsed by The Arthritis Society: 16
- # leaders trained/educated: 150 through The Arthritis Society, 60 through CALA