3 Editorial
Thanksgiving

5 Topical Medical Issues
Whither Rheumatology?
Or Wither Rheumatology?

10 Topical Medical Issues
Population Projections for Arthritis and Rheumatism:
Implications for Rheumatology

16 CRA News
Mission Statement

The mission of the CRAJ is to encourage discourse among the Canadian Rheumatology community for the exchange of opinions and information.
At Thanksgiving, as this issue is going to press, most of us are reflecting on those things in life for which we are grateful. Life as a rheumatologist provides a wonderful opportunity to interact with patients and to make a positive difference in improving health and quality of life. Furthermore, we, as rheumatologists, are fortunate to experience this amazing medical era, when new therapies are being brought forth every year to assist us in treating even resistant cases of disease.

Canadian arthritis research is in the best position it's seen for at least a decade. Lobbying by The Arthritis Society and many individuals has brought about the Canadian Arthritis Network and a new institute for arthritis research within the context of the Canadian Institutes of Health Research. After the bleak funding situation of the 1990s, there now appears to be considerable light at the end of the tunnel.

Individually, most rheumatologists are satisfied. Our interaction with our patients each day, however, would suggest that we not become complacent.

Access to rheumatologists has plateaued, and is now, actually, on the decline in this country. As Elizabeth Badley and Naomi Kasman’s article in this issue (p. 10) suggests, as our population increases and the percentage of elderly people in the population grows, there will be fewer and fewer rheumatologists to serve the needs of patients with rheumatic diseases. In the past year and a half, Drs. Michel Zummer and Jamie Henderson have done extensive research into the area of Canadian rheumatology manpower (p. 5). Their findings show that access to rheumatology specialty care in Canada is, at best, a patchwork quilt. While large urban centres with training programs have the most rheumatologists per capita, even these numbers are not sufficient to give ready access to all patients in need. Individuals in rural and remote areas would appear to have little or no access to adequate rheumatology specialty care. The situation is becoming grimmer, as our training programs do not train enough individuals to replace those of us who will retire in the next 10 to 20 years. While we all revel in the new therapies and their potential, we are reminded that we do not have the same access at this time to therapies already approved in the United States. We are also further frustrated by large economic barriers that may soon prevent many of our patients from gaining access to almost all of the new medications.

Glen Thomson, MD, FRCPc
Past-President, Canadian Rheumatology Association
Rheumatologist
Director, CIADS
Associate Professor
University of Manitoba
Winnipeg, Manitoba
Editor-in-Chief, CRAJ

While large urban centres with training programs have the most rheumatologists per capita, even these numbers are not sufficient to give ready access to all patients in need. Individuals in rural and remote areas would appear to have little or no access to adequate rheumatology specialty care.

Ultimately, the policies of federal governments and provincial governments are responsible for the
delivery of arthritis care to patients. The provinces fund universities, which have considerable influence over training priorities. The fee schedules and other conditions of practice set by the provincial governments further determine the distribution of rheumatologists in this country. Rheumatologists are the lowest net income earners of all internal medicine specialties: Is it a small wonder that it’s difficult to attract medical students and internal-medicine residents to become rheumatology trainees, when choosing another specialty may more than double their future net earnings? Why has the public not demanded from its governments more appropriate access to arthritis care?

Recently, our members received a draft of The Arthritis Society’s "Patient Bill of Rights". This document was drawn up by The Arthritis Society to raise public awareness. Unfortunately, the document is written as practice guidelines and standards of care, and clearly puts the onus of the current lack of access to arthritis care squarely on the shoulders of the rheumatologists. There appears to be a great hesitancy in The Arthritis Society’s "Patient Bill of Rights" to demand that governments provide sufficient resources, so that scientifically derived evidence-based medicine can be practiced optimally—and can truly give arthritis patients the access to rheumatology specialty services that they require. The references in the glossary of the "Bill of Rights" about complementary therapies simply trivializes the seriousness of rheumatic diseases as not requiring proper medical attention. How is it possible, on the one hand, that scientific research is a great priority for all arthritis "stakeholders", but scientifically based medicine is not?

There was a great opportunity missed in 1997 at "Arthritis 2000". The invited individuals and groups could have demanded that the federal government return transfer payments to the provinces for health care, and that the provincial governments recognize the gravity of many rheumatic diseases by assigning funding priority. Although this was a strong recommendation from the sub-committee on access to care, the organizers of the meeting chose to omit these potentially politically embarrassing demands from the final communiqué. (The federal government, at the time, was being courted for support for research funding.) The opportunity was lost to demand sufficient resources from governments for appropriate access to care. Perhaps the victories of establishing the Canadian Arthritis Network and an institute within the CIHR were worth it.

At this time, however, it is the practice of rheumatology itself that is in serious trouble. Support is necessary to retain rheumatologists in practice and to train rheumatologists if we are to maintain sufficient numbers in the country. This goal must be the new priority. The Canadian Arthritis Patient's Bill of Rights must demand that our governments be held accountable and responsible for the access to arthritis specialty care in this country. The Arthritis Society should join with the Canadian Rheumatology Association in endorsing scientific research into arthritis and its corollary scientific evidence-based medicine.

Perhaps at a future Thanksgiving, both patients and rheumatologists will truly be able to give thanks for appropriate access to the specialists and the therapies needed to defeat arthritis.
There is a deepening crisis in the provision of care for Canadians with rheumatic disease. Inadequate numbers of trainees are coming through Canada’s rheumatology training programs. The workforce is increasingly aging. And there is a projected increase in the number of patients who will develop arthritis over the next 15 years.

Rheumatologists are the experts in caring for patients with arthritis; specialized postgraduate studies enable them to provide accurate diagnoses for the more than 100 distinct types of arthritis and connective-tissue diseases. Rheumatologists are also well versed in the variety of treatments available and their associated side effects. Finally, they are the major proponents of coordinating arthritis care with other members of a health-care team—a step proven to benefit arthritis sufferers.

A FOE MOST CAUSE OF DISABILITY

A recent study commissioned by the Canadian Rheumatology Association confirms that arthritis/rheumatism is one of the most prevalent chronic conditions in the Canadian population today—and the foremost cause of physical disability.

In 1996, there were 3.2 million Canadians, ages 15 years and older, who reported “arthritis or rheumatism” as a “long-term health condition”.1 This study forecasted that, by the year 2016, with the aging of the population, the number of people in Canada with arthritis will increase from 3.2 million to five million people. The study also found that 19% of adult women in Canada have some form of arthritis, and that more than half of these individuals are under 65 years of age. Eleven percent of adult men in Canada, it was noted, have some form of arthritis.

One of the conditions that represents a significant proportion of the workload for rheumatologists is rheumatoid arthritis (RA). Workplace disability occurs in 25% of those patients with a more persistent, aggressive form of this disease after six years of disease duration; the figure increases to 50% after 20 years.2 Several international studies of patients with the more severe forms of RA consistently show increased mortality rates compared to persons of the same age and sex in the general population.3-5 (This comparison is in direct association with the increase in the number of joints involved, the presence of heart disease, older age and poorer functional status at the onset of disease.)

In patients with the most severe form of RA (greater than thirty joints active, with poor functional status) a five-year survival expectancy is 40% to 50%—which is directly comparable to individuals with three-vessel coronary-artery disease or Stage-IV lymphoma.6 A recent study revealed that the total cost of musculoskeletal disorders in Canada was $25.6 billion, with direct costs at $7.5 billion and indirect costs at $18.1 billion.7 Arthritis and rheumatism were in the third-highest category in this study, after injuries and back/spine disorders. The cost of arthritis and rheumatism was $5.9 billion. (Direct costs comprised resources—including the labour of health professionals, equipment, buildings and supplies—while indirect costs included lost productivity due to disability and premature mortality.) Long-term and short-term disability attributed to musculoskeletal diseases in Canada accounted for 31.9% and 11.7% of all lost income due to disability, respectively.
RHEUMATOLOGICAL CARE VS. NON-RHEUMATOLOGICAL CARE

Several studies have examined the provision of care to patients RA. In one recent study, outcome measures were compared for patients with RA who were managed by rheumatologists versus those managed by non-rheumatologists. It was found that the patients treated by rheumatologists reported significantly better functional status, fewer painful joints, a lower overall pain rating and general improvement in all outcome measures.

In another study, the management of patients with osteoarthritis of the knee by general internists, family physicians and rheumatologists were all compared. The rheumatologists showed a greater sensitivity of the risks of gastroenteropathy, and were more likely to have a thorough discussion of non-pharmacological interventions (e.g., exercise, joint protection).

Yet another study examined the frequency of visits by RA patients to rheumatologists and correlate them with outcomes in functional disability and pain. More frequent visits to rheumatologists were associated with greater improvements in pain and functional disability over six- and twelve-month periods. Outcomes seemed improved, in fact, in patients having more than seven visits per year.

Criswell et al looked at the differences in the use of second-line agents and prednisone for the treatment of RA by rheumatologists versus non-rheumatologists. It was found that the patients managed by rheumatologists experienced a better response to treatment—a finding that seemed to be based on the predilection of rheumatologists to treat early in the disease course with remittive drugs.

In a 1994 U.S. article by Carias and Panush, rheumatologists were again compared to non-rheumatologists in the provision of care—this time in patients with acute arthritis. The rheumatologists established a definite diagnosis by ACR criteria significantly more often than did the non-rheumatologists. The trend outcomes also strongly favored rheumatologists’ patients, who improved significantly and more rapidly, and had shorter hospital stays at considerably less cost.

Primary-care physicians may have some difficulties in diagnosing common rheumatic disorders, according to several studies that examined the management of rheumatological problems by primary-care physicians. In one review, as many as 50% of referred diagnoses were modified at rheumatology outpatient clinics. Furthermore, in some situations, there was a significant delay in the referral of patients with RA to rheumatologists. This finding obviously has a significant implication in a disease where it is now recognized that early assessment, diagnosis and treatment are essential in preventing patients from developing joint damage, as well as in reducing their morbidity, maintaining their function, prolonging their lives and reducing overall health-care costs.

Time and again, studies show that rheumatologists have the greatest expertise for performing a thorough history and physical examination, and, ultimately, to confirm the appropriate diagnosis. If it is necessary, rheumatologists are the ones best suited to select and initiate disease-modifying antirheumatic drug (DMARD) treatment, and to adjust or combine the use of these agents in the aggressive management of arthritis.

It is well recognized that the health-care costs of rheumatic diseases are directly proportional to an individual’s functional capabilities and, thus, interventions that have been shown to reduce functional disability (i.e., rheumatological intervention) should be pursued.

RHEUMATOLOGY MANPOWER SHORTAGE

A recent survey by the Economics and Manpower Committee of the CRA has revealed that members in most areas of the country feel there is a shortage of rheumatologists in both the community and academic institutions. A recent report by the Canadian Council of Academic Rheumatology revealed 21 vacant positions in nine centres across the country. This survey also revealed that the current programs are generating 10 to 12 trainees per year, with a percentage of these individuals planning to return to their country of origin, leaving approximately seven trainees per year available to address the present shortfall of rheumatologists.

Upon examining the demographics of the Canadian rheumatology community, it is found that over 50% of practicing rheumatologists are currently over the age of 45, with approximately 15% of those surveyed indicating they intend to retire within the next 10 years.
Recent examination of rheumatology numbers in Canada have led to the belief there is an immediate need for 50 rheumatologists. The goal is one rheumatologist per 50,000–70,000 people, depending on the population.

RECOMMENDATIONS
How can these concerns—increasing prevalence of rheumatological disease, the need for specialist disease management and a lack of rheumatology manpower—be addressed?

It is imperative for the rheumatology community in Canada to make all stakeholders aware of the existing situation, and to encourage certain steps to ensure that this problem is alleviated:

1) There is a need to increase reimbursement schedules for rheumatologists. Studies have consistently shown rheumatologists to be at the bottom end of earnings scales when compared to other sub-specialties in internal medicine. Standardized equitable fees for rheumatologists must be advocated with the Canadian Medical Association and provincial governments.

2) It must also be recognized that rheumatologists, to have the desired impact on patient outcomes, spend longer meeting times with patients, and often spend time each day monitoring laboratory data to prevent the side effects associated with treatments. Equitable reimbursement for these time-consuming, non-procedure-oriented services should be advocated.

3) The profession itself must take steps to encourage medical students to choose rheumatology as an option. The recent decision by the CRA to establish a summer “studentship” in rheumatology for Canadian medical students is certainly a step in the right direction.

4) Rheumatologists must have a more direct role in the teaching of history-taking and musculoskeletal examination, to improve the diagnostic capabilities of medical students and family practitioners.

5) The profession must advocate, with the academic centres, to increase the number of places available for rheumatology trainees, and to appropriately fund these trainees.

References
The medical specialty most concerned with the treatment of arthritis is rheumatology. Rheumatology has become a predominantly outpatient specialty, so that, currently, most of the care is delivered in outpatient or clinic settings.

There are some data to suggest that care for arthritis provided by rheumatologists results in a better outcome than that provided by non-rheumatologists. Evidence is emerging, for example, that patients with rheumatoid arthritis (RA) who receive early and aggressive treatment with disease modifying anti-rheumatic drugs (DMARDs)—which require administration and follow-up by a rheumatologist—have better outcomes in terms of decreased disability and deformity and increased function. The implication of these studies underlines the importance of prompt and ready access to rheumatological care for people with RA and related conditions.

Arthritis is one of the most common long-term conditions, and its prevalence increases with age. With the population of Canada growing older, it has been shown that there are likely to be large increases in the number of people in this country with arthritis and related conditions.

This article examines the effect of the aging population on the incidence and prevalence of arthritis in Canada, and the implications this may have for the provision of rheumatological services. This article is based on a special report to the Canadian Rheumatology Association (CRA) prepared as a working paper by the Arthritis Community Research and Evaluation Unit.

METHODS
Data on arthritis prevalence were obtained from the 1996 National Population Health Survey (NPHS). This survey was designed to collect information related to the health of the Canadian population. The target population of the NPHS includes all household residents in all provinces, with the principal exclusion of populations on Indian Reserves, Canadian Forces Bases, and some remote areas in Quebec and Ontario.

RESULTS
The population of Canada is aging and growing. Between 1996 and 2016, the number of Canadians aged 15 years and older is expected to grow from 23.9 million to 30.9 million, and the modal age group of the population will increase from 35-39 years of age to 50-54 years of age. Figure 1 displays the changing population of Canada by age distribution, and illustrates the large increase in numbers that the older age groups (i.e., 50 years and older) are expected to experience by the year 2016.

In the 1996 NPHS, 13.2% of Canadians aged 15 years and older reported arthritis or rheumatism as a long-term health condition that had been diagnosed by a health professional. This figure represents 3.2 million Canadians. According to the authors’ projections, due to the aging of the population, the number of people with arthritis or rheumatism is expected to increase by 1.8 million people over the next 20 years—to a total of five million people. The overall prevalence of arthritis or rheumatism in Canada will, therefore, increase from 13.2% in 1996 to 16.1% in 2016.

The proportionate increase in numbers is greater than the increase in prevalence, because the number of people with arthritis is influenced by the overall population growth, as well as by the changes in age structure over time. The increase in prevalence is related only to changes in the age distribution of the population.

There are projected increases in the both the prevalence and the number of people with arthritis in all provinces. The prevalence of arthritis or rheumatism, however, does not necessarily reflect the potential need for services, which is, rather, a function of the number
of people affected. Figure 2 shows that, although the prevalence of arthritis or rheumatism tends to be highest in the Maritime and Prairie provinces, the largest numbers of people living with the disease reside in Ontario and Quebec—a reflection of the size of these provincial populations.

DISCUSSION

All provinces in Canada are likely to experience an increase in the number of people with arthritis or rheumatism as the population ages. Most of this increase is expected to occur in people with arthritis who are 45 years of age and older, with the largest relative increases in the groups aged 55-64 years and 75 years and older.

The relative sizes of the projected increases vary somewhat between provinces, depending on the age structure of their populations, but are nevertheless substantial. The age distribution of the expected increases is also likely to differentially influence the case-mix of the arthritis population, and to have a relatively higher impact on those conditions that either affect older people or show onset in the middle age or older (Figure 3).

The baseline prevalence of arthritis and rheumatism varies somewhat between provinces, and this variation remains following an adjustment for the different age and gender profiles of the baseline population. The reason for this variation is not well understood, and, in theory, could be as much a consequence of aspects of the survey and survey sampling in different provinces, as actual differences in the proportion of people reporting arthritis. The projections, however, are influenced more by the age distribution of the population than by the absolute magnitude of the baseline.

The authors’ projections are subject to several limitations. First, the data refer to self-reported arthritis or rheumatism that has been diagnosed by a physician. There is no confirmation that these individuals did, in fact, have arthritis or rheumatism. Second, the projections refer only to the household population of Canada, and the assumption was made that the prevalence of arthritis in the institutional population would be the same as that in the household population. The authors’ previous work shows that this is likely to be a reasonable assumption. Third, the authors’ arthritis projections to 2016 depend on the accuracy of the baseline...
Canadian population projections. In these projections, it has also been assumed that the age-sex prevalence of arthritis will remain constant over time. The prevalence of arthritis in the future, however, may be influenced by variations in incidence or new methods of treatment. The incidence of arthritis may be affected by changes in the population at risk. Advances in knowledge leading to prevention and treatment for other conditions (e.g., prevention or effective treatment of causes of premature death such as cancer), could also have a substantial effect on the nature of the population at risk for arthritis. Advances in treatment methods for the various types of arthritis could also reduce the number of people reporting these conditions. Advances in care, however, are likely to have concomitant consequences for the need for physicians, particularly rheumatologists, to provide these treatments.

Overall, the anticipated increases in the number of people with arthritis or rheumatism are likely to have consequences for the demand of rheumatological services. Data on the provision of rheumatology services is not available nationally. In 1997, there were 168 rheumatologists in Ontario, which represents 1.5 rheumatologists per 100,000 population. A 1990 estimate of the optimum provision of rheumatology services for the U.S. is 1.2 rheumatologists per 100,000 population, and within the European Community, the rate of provision is estimated to vary from 0.3 in the Republic of Ireland to 3.5 in Denmark. These figures indicate that Ontario’s provision is within the range found in other places. The per-capita rheumatology provision, however, is likely to overestimate the amount of rheumatological care actually available, since, in many cases, teaching hospitals and research/administrative commitments (particularly in university centres), reduce the real availability of care.

Coverage of rheumatology services across the province of Ontario is far from complete. Within the province, the availability of local rheumatology services in 1997 varied across the 33 District Health Councils in Ontario, ranging from zero to 18.9 half-days per week per 100,000 population, with a median of 5.8 half-days per week per 100,000 population (excluding four districts with no service). In general, the districts in the northern regions of the province had
lower levels of service provision. Similar variations are to be expected within Canada as a whole and, given the shortage of rheumatologists in some provinces, may be even more pronounced.

With the increasing number of cases of arthritis or rheumatism expected in the near future, a growing need for rheumatology services is anticipated. There are areas of Ontario and of Canada that are currently considered to be under-serviced, particularly the areas away from the major population centres.

Unless action is taken, it is likely that rheumatology services will fall even further behind in providing the necessary services to the people who require them.

Figure 3. Number of cases of physician-diagnosed arthritis or rheumatism by five-year age groups, in Canada for 1996, based on the 1996/97 National Population Health Survey, and estimates for 2016, using Statistics Canada population projections, assuming medium growth and medium interprovincial migration.

References
CRA EXECUTIVE RETREAT
The CRA Executive and Committee Chairs met in Halifax for a full day to discuss issues affecting the CRA membership, including: the Annual Meeting 2001; industry relationships; manpower and economics issues; access to care; media relations; and incorporation of the CRA. CRA President Dianne Mosher wishes to thank all who were able to participate in this valuable meeting. As the association continues to become more involved in issues relevant to its members, communication becomes more important.

FIRST CRA INDUSTRY-COUNCIL MEETING
On August 18, members of the CRA executive, including President Dianne Mosher, members of the executive and Annual Meeting Programme Chair Paul Haraoui, met with members of industry at the first Industry-Council Meeting. Twelve potential sponsors were at the meeting.

An industry needs assessment preceded the meeting. Changes to the upcoming meeting including the development of mini and major symposia, both pre- and post-meeting.

CRA ANNUAL MEETING
The Annual Meeting for 2001 will be held at Mont Tremblant, Quebec, February 22-24, with a minor and major pre-meeting symposia to be held on the evening of February 21 and post-meeting symposia (major and minor) held on the evening of February 24. The deadline for submission of abstracts is November 1.

The Annual CRA President’s Dinner will be held on February 23, at which the awards for the Distinguished Rheumatologist, Senior Investigator and Junior Investigator will be presented. As well prizes for the fellows for Basic Science, presentations for the Clinical Presentation Award, Lupus Award and Overall Award will be made.

CALL FOR NOMINATIONS FOR CRA AWARDS
Please watch your mail for application forms for the major CRA awards for 2001.

The CRA identifies three individuals who have made or will make a difference to rheumatology in Canada. These individuals will receive the Distinguished Rheumatologist Award, the Senior Investigator Award and the Junior Investigator Award. Please carefully consider colleagues, near and far, for these prestigious awards, and send in your nominations by the December 1 deadline.

PRESIDENT SENDS LETTER TO TPP RE: NEW THERAPEUTICS DELAY
Many members have expressed their concerns over the delay in approval of new rheumatological medications (especially biologics) to the Canadian market. The CRA President responded by sending a letter to the Chair of Therapeutic Products Program (TPP). The CRA is still awaiting a reply.

CRA MEDIA RELEASE - SEPTEMBER 19
CRA President Dianne Mosher and Vice President Arthur Bookman were present at a September 19 news conference announcing that the CRA, The Arthritis Society of Canada and Canadian patients call for a national arthritis strategy.

The strategy must include:
1) appropriate numbers of rheumatologists and other health professionals to care for arthritis patients in all regions of Canada;
2) proper training for family physicians in the recognition of all forms of arthritis and appropriate referral practice; and
3) the need for early intervention and access to effective medication and other therapies.

For full details, see the CRA Web site at: www.cra.ucalgary.ca.

CRA NEEDS ASSESSMENT
Over seven years ago, Dr. Paul Davis initiated the first needs assessment of the CRA, which resulted in the currently successful organization. In an attempt to ensure further progress in the evolution of the association, Dr. Glen Thomson (past President) and Dr. Denis Choquette have developed a needs assessment. The document was mailed October 1, with a return date of October 15. All questionnaires received by the target date will be eligible for a drawing for economy airfare, registration and three nights accommodation at a CRA meeting within the next two years (either 2001-Mont Tremblant or 2002-Lake Louise).

INTERNET ACCESS SPONSORSHIP?
Almost 90 members of the CRA have taken advantage of Internet access through a special program sponsored by Searle Canada (recently merged with Pharmacia). Searle Canada was also instrumental in establishing the first CRA website.

Searle Canada (Pharmacia) has, however, reviewed its many commitments to the arthritis community (The Arthritis Society, the CRA and patients) and has informed the executive that its sponsorship of Internet access will terminate as of January 1, 2001. The CRA executive is currently looking at alternatives for Internet access for its members.