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EM Badley, DPhil





Introduction

Arthritis is a leading cause of pain, physical disability and health care utilization in Ontario. Chapter 1 of *Arthritis and Related Conditions in Ontario* highlights some of the emerging issues facing the province in the management of these widespread diseases, and provides an overview of the major themes addressed in subsequent chapters to help facilitate intervention in the improvement of care for Ontarians living with arthritis. Key topics include: Emerging Issues, Burden of Disease, Availability of Services, Primary and Specialist Care, Use of Medication, Surgical Services, and Rehabilitation for Total Joint Replacement. Although this report provides a comprehensive examination of arthritis in Ontario, some relevant matters, such as children and certain rehabilitation services, could not be included due to the lack of data.

Background

Arthritis and related disorders make up a large group of disorders affecting the joints, ligaments, tendons, bones and other components of the musculoskeletal system. Arthritis is one of the most common chronic conditions in Ontario. 1,2 It is a leading cause of pain, physical disability and use of health care services. Arthritis-related pain and disability affect wider aspects of life including travel, leisure and social activities, and labour force participation. 3–6 These challenges have a significant impact on affected individuals and their families, and also have consequences for society as a whole. 7,8

The effects of arthritis are frequently underestimated. Because it is usually not life-threatening, physicians, the general public, and even those who have the condition, often dismiss it as "just aches and pains" and an inevitable part of aging.^{2,9} As a result, individuals with arthritis may fail to seek or receive appropriate and adequate help. Services with proven efficacy in reducing pain and improving disability are not seen as a priority.

All forms of arthritis share symptoms such as pain, swelling or stiffness in or around the joints. If left untreated, arthritis can affect the structure and functioning of the joints, leading to increased pain, disability and difficulty performing everyday activities. 10-15 Although there is no known cure for arthritis, appropriate treatment has been shown to prevent disability, maintain function and reduce pain. 13,15-19 While the exact nature of medical treatment varies according to the type and severity of arthritis, general management and rehabilitation strategies are similar for all types. Typically, arthritis lasts for the rest of the affected person's life and has a course that fluctuates between exacerbations and remissions. Care must be available over the full course of the disease, and different types of care are likely to be needed at different points in time. Management of the disease is focused on controlling symptoms, secondary prevention of pain and disability, and improving quality of life where possible. Proposed reforms for

primary care, improved access to specialist and hospital services, and expansion of publicly-funded drug coverage, are crucial to successfully managing arthritis and rheumatism.

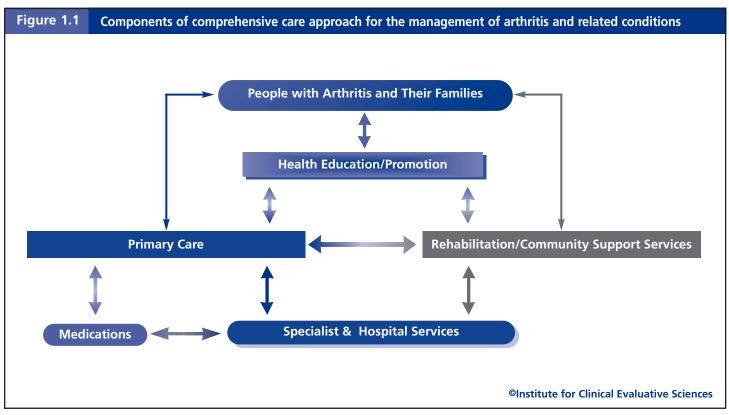
Acquiring information to document the impact of arthritis in Ontario presents a number of challenges. First, the term "arthritis" covers a range of conditions and the best known of these are described in Appendix 1.A^{1,20} which outlines the key features, prevalence, possible risk factors and disease management. While every effort has been made to maintain a consistent definition throughout this report, the use of a variety of data sources necessitates some variation in the range of arthritis conditions included. Where considered relevant, these variations are noted.

Second, the underlying diagnosis of arthritis is not always recorded in administrative databases, such as physician billings or hospital admissions. Other databases, such as the Ontario Drug Benefits (ODB) database, do not include diagnostic codes. In population survey data, only a general descriptor "arthritis or rheumatism" is used. Despite these challenges, which are not unique to arthritis, a compelling picture emerges.

The 1998 Institute for Clinical Evaluative Sciences (ICES) research atlas presented a template for a comprehensive health strategy including primary care, medications, specialist and hospital care, rehabilitation and community support services, as well as education and health promotion, to reduce the impact of arthritis on the Ontario population (Figure 1.1).^{5,21} The ultimate goal of care is to improve the quality of life for individuals with arthritis and their families.²²

The components of a comprehensive care approach may be viewed as subcomponents of the already-existing health care system. Not all of these components are part of the publicly-funded health care system. Some, including a large portion of outpatient rehabilitation and community-based initiatives, fall outside the public funding envelope. Even with most services in place, inadequacy of care, and lack of availability and accessibility for people with arthritis and related conditions may lead to less than optimal outcomes.

In Ontario, access to hospital and specialist care depends on referral at the primary care level. Likewise, access to medication is mainly dependent on prior access to primary or specialist care. How well the components within the health care system work together likely has great impact on the success of achieving integrated care. Relevant aspects include triage and patient referral, the comprehensiveness and continuity of services, and the appropriateness of care to the stage of disease.⁵ The research atlas chapters examine these elements of the health care system.



Source: Adapted from Patterns of Health Care in Ontario: Arthritis and Related Conditions. An ICES Practice Atlas, 1998

Chapter Overviews

Burden of disease

Chapter 2 compares figures on the impact of arthritis in Ontario to other chronic conditions. Data from the Ontario portion of the 2000/01 Canadian Community Health Survey (CCHS) shows a higher proportion of people with arthritis than other chronic conditions report pain, disability, poor self-rated health, low labour force participation, and higher use of medications and health care services.²³ The prevalence of arthritis is higher in some sectors of the population. It increases with age, is higher among poor people and those with less education, and twice as many women as men report arthritis.²⁴ People of Aboriginal origin are also more likely to report arthritis. If the Aboriginal population had the same age composition as the overall Canadian population, the prevalence of arthritis would be equivalent to 27% compared to a national average of 16%.²⁴

This chapter also reports on regional variation in arthritis, examines predictors of health care utilization and presents projections for future growth.

Availability of services

Inadequate availability of arthritis health professionals throughout the province clearly results in reduced access to care for arthritis. Chapter 3 updates the findings from the previous report with results from recent surveys of rheumatologists and orthopaedic surgeons. Regional disparities persist in availability of rheumatological and orthopaedic services. The surveys of specialists point to specific barriers in the provision of care.

Primary and specialist care

Data on use of primary care and specialist services for arthritis and related conditions are presented in Chapter 4, using analyses of provincial physician-billing data. Arthritis and related conditions are among the most frequent reasons for visits to primary care physicians. 12,28,29 These physicians provide the majority of prescriptions for arthritis drugs and act as gatekeepers to other services such as consultations with specialists and rehabilitation professionals.^{28,29} Building on the findings presented in the 1998 edition of this report, this chapter provides a more complete picture of ambulatory care by including information on visits to specialists, particularly rheumatologists, internists and orthopaedic surgeons, as well as looking at trends in usage over time.^{28,30–32} Rates of visits with these physicians are presented for different types of arthritis, focusing on the grouping of all arthritis and related conditions in general, and specifically on osteoarthritis (OA) and rheumatoid arthritis (RA).

Use of medication

The most frequent type of treatment for arthritis and related conditions is the use of medications.³³ Drug coverage and expenditures are major challenges in the management of arthritis. Chapter 5 builds on the previous edition³⁴ and examines the prescription and cost of medications commonly advocated for these conditions, including conventional non-steroidal anti-inflammatory drugs (NSAIDs) and the newer COX-2 inhibitors.^{13,35,36} The chapter also examines corticosteroids and disease-modifying antirheumatic drugs (DMARDs), presenting information on trends over time in prescription of the different types of DMARDs.^{37–40} Data on the newly developed biologic response modifiers, a new category of medications for treating inflammatory conditions such as RA, were not yet available for inclusion in this chapter.

Surgical services

Although most people with arthritis are treated on an outpatient basis, some require admission to a hospital or surgical intervention. Medical admissions may be required to manage the complex consequences of arthritis, arthritis-related pain and disability, or the side effects of drugs used to treat arthritis.⁴¹ Orthopaedic surgery presents a viable alternative for individuals for whom attempts at non-surgical management have failed to adequately prevent joint pain or damage.^{33,41} Chapter 6 examines hospital services for arthritis and related conditions, focusing particularly on arthroscopic (keyhole) surgery of the knee, and updating trends in hip and knee replacement surgery.^{41–44,45,46} This chapter also reviews some of the critical matters that must be addressed to improve access to hip and knee joint replacement surgery in Ontario.

Rehabilitation for total joint replacement

Rehabilitation is another component of the health care system where access is lacking. Rehabilitation, including physiotherapy and occupational therapy, helps prevent the loss of physical function and restore function after surgery or severe episodes of inflammatory arthritis. 15,47–53 Chapter 7 updates previous findings on the utilization of rehabilitation services for patients following total hip and knee replacements. 54 Unfortunately, systematic information about outpatient rehabilitation and privately-funded rehabilitation for people with arthritis and related conditions is not available.

Education and health promotion

The final component of a comprehensive approach to care for arthritis is education and health promotion. Education and health promotion are important and essential components of a comprehensive approach to the management of arthritis and related conditions.^{55–57} Many types of arthritis and related conditions are minor and do not require medical intervention. Education to manage and prevent the complications of these disorders should not only include information on the use of

over-the-counter medication and the appropriate use of simple remedies such as ice, heat or mechanical support, but should also provide guidance on when an individual should seek medical care.

Research shows that, compared to the effects of pharmaceutical treatments, patient education interventions provide additional benefits that are 20%–30% as effective for pain relief in arthritis, and 40% as effective for improvement in functional ability in RA.⁵⁸ Exercise programs for people with arthritis have been shown to yield significant improvements in pain and disability as well as a decrease in the need for medication.^{59–61} Unfortunately, there are no routine sources of data on the use of these modalities. As documented previously, there is also limited availability of programs in Ontario for people with arthritis, in addition to access barriers to those that do exist.^{21,62} Like a large proportion of the non-arthritis Canadian population, many people with arthritis are physically inactive, despite the potential benefits of exercise.⁶³

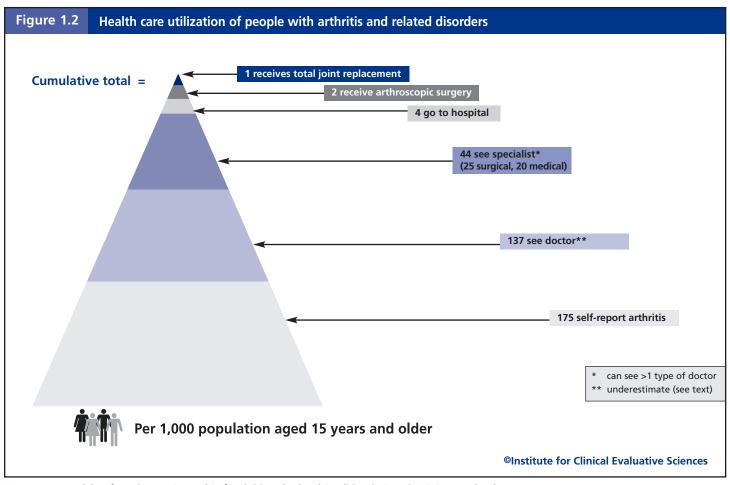
Findings and Discussion

Impact of arthritis on Ontario's health care system

Integrating the findings of all the chapters provides an overview of arthritis care in Ontario (Figure 1.2). In 2000/01, 175 of every 1,000 people in Ontario self-reported arthritis. This rate is somewhat higher than the national average of 160 per 1,000 (Chapter 2). In 2000/01, 137 per 1,000 people made an average of 2.2 physician visits that were allocated billing codes for arthritis or a related diagnosis (Chapter 4). This is a lower estimate than the pooled national average of 160 people, but much of this difference is likely due to a smaller range of possible arthritis billing codes in Ontario.²⁹ Over 80% of these visits were to primary care physicians.

Overall, it is estimated that 44 people visited specialists, with 20 visiting medical specialists (including 11 to rheumatologists and three to general internal medicine specialists) and 25 visiting surgeons (of whom 20 visited orthopaedic surgeons). Some people visit more than one type of specialist; therefore, the estimated number of visits to various types of specialists does not equal the overall number of visits to specialists. Only 4 per 1,000 were treated in hospital: 2 had arthroscopic surgery, 1 had a hip or knee replacement and 1 had some other orthopaedic surgery or other type of admission. Thus, the overwhelming burden of care for arthritis is in ambulatory care settings, with most visits taking place in the community. Hospital-based care plays only a minor role.

The situation with regard to need for arthritis care is far from static. With the aging of the baby boomer generation, the number of people with arthritis is increasing.⁶⁴ In Ontario, the numbers reporting arthritis have increased from 1.3 million in 1994/95 to 1.6 million in 2000/01. Projections of the number of



Source: Integrated data from chapters 2, 4 and 6 of Arthritis and Related Conditions in Ontario: ICES Research Atlas

people who will have arthritis in Canada within the next two decades suggest a further increase to 2.8 million by 2026. This is an estimated net annual increase of 70,000 people. Half of this increase will be those aged less than 65 years old, currently the normal age of retirement.

Trends over time are perplexing. Substantial increases in the number of people with arthritis continue, while trends in the numbers of consultations with specialists are static. Although there have been encouraging increases in the numbers of DMARDs prescribed, only half of the estimated one percent of the population with RA and other types of inflammatory arthritis receive prescriptions for these drugs. Modest increases in numbers of hip and knee replacements have largely been achieved by reduced lengths of stay.⁶⁵ These do not keep pace with the annual increase in total number of people with arthritis. The use of arthroscopic surgery has shown a slight decline. These trends indicate a widening care gap—an increasing number of people with arthritis not matched by an increase in use of service—that requires further investigation to determine its origin and potential impact.

The care gap is not restricted to trends over time, as the findings presented in this edition of *Arthritis and Related Conditions in Ontario* also show considerable geographic variations in the

reported prevalence of arthritis and in access to care, including prescription of various categories of drugs, different types of surgery, and visits to physicians. There are also wide area variations in the availability of primary care physicians, rheumatologists, orthopaedic surgeons, and physical and occupational therapists. Shortages and poor distribution of these professionals are major barriers to service access for arthritis management, particularly in rural and remote areas of Ontario. Bridging this care gap is a major challenge for the future of arthritis care, requiring innovative and imaginative solutions to counteract the resource shortage.

Emerging issues

Costs

Arthritis and related conditions are costly to treat. With the projected increases in numbers of patients the related costs are likely to increase. Arthritis is a member of the larger family of musculoskeletal conditions which, taken together, are second in associated costs only to cardiovascular disease in Canada. In fact, musculoskeletal conditions are more costly than cancer.^{66,67} Costs for arthritis have been estimated by Coyte (1998) as \$6.2 billion CDN (baseline estimate, converted to 1998 dollars) and in a 2003 Health Canada report as \$4.4 billion CDN (1998 dollars), although the latter estimate included a smaller subset of arthritis

conditions.^{68,69,67} All costs are likely underestimates as they do not include circumstances in which arthritis is a secondary diagnosis, or costs for care in non-hospital institutions and non-physician health professionals (such as rehabilitation). Also excluded are direct health expenditures such as privately-funded rehabilitation, assistive devices, caregiving (paid out-of-pocket, or provided by family and friends), and over-the-counter (OTC) medications. The costs of OTC non-steriodal anti-inflammatory medications and alternative remedies, such as glucosamine, can be substantial.

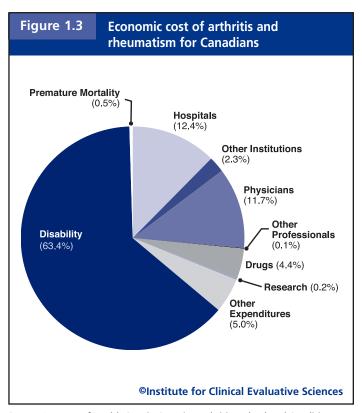
Figure 1.3 shows the breakdown of arthritis costs according to Coyte's estimate. The major elements of the direct costs are hospital expenses (12.4%) and medications (4.4%). Until recently, medication costs for arthritis have been modest, however, these costs are likely to rise with the advent of COX-2 inhibitors and new and highly effective biologic drugs for the treatment of inflammatory arthritis. All cost estimates for arthritis concur that at least two-thirds are indirect costs of disability, which provides a measure of lost productivity.

The challenge of reducing the overall costs of arthritis then is to reduce the associated pain and disability. Evidence-based guidelines for arthritis management have shown that the following interventions have the potential to reduce the pain and disability associated with its various forms: treatment of early RA with DMARDs, hip and knee replacement surgery for advanced arthritis, appropriate treatment with analgesics or NSAIDs, and exercise on land and in water (hydrotherapy).^{39,70–72} The latter is often part of a rehabilitation program.^{59,60,73} The delivery of most of these modalities lies within the scope of the health care system and a dilemma for health policy and planning arises: to reduce the societal costs of arthritis by relieving pain and suffering, health care expenditure must increase.

Access to primary care

Reducing the impact of arthritis in Ontario requires dealing with inequities in access and provision related to geography, gender, and socioeconomic status to ensure all citizens have similar opportunities for access. ^{15,74} At the same time, investments must be made to diminish gaps in care to ensure that people are not unnecessarily disabled. The challenge is to get the care to people with arthritis when they need it, where they need it, by the provider best suited to meet their needs, and, in a time of constrained resources, to make the best use of the resources that are available. Creative solutions are needed to extend the reach of existing services. The potential scope of some of these solutions is outlined below.

As indicated in Figure 1.1, primary care physicians play a crucial role in the management of arthritis and related disorders, providing the majority of related medication prescriptions and acting as gatekeepers to publicly and privately-funded services, such as specialists and rehabilitation professionals. Primary care



Source: Patterns of Health Care in Ontario: Arthritis and Related Conditions. An ICES Practice Atlas, 1998

reform needs to ensure access to services, improve diagnosis of arthritis, encourage use of appropriate medications, and assure timely referral to specialists. These issues are particularly significant in rural and remote areas of Ontario where access to specialist care is not readily available. Previous research has shown inadequacies in the primary care management of arthritis, including inappropriate prescription of medication and lack of timely referral to specialists, especially for early RA and OA needing joint replacement.^{37,38,75,76,77} Many primary care physicians report a lack of confidence in examining the joints, an essential step in making a correct diagnosis. Many of these inadequacies relate to lack of training in the management of arthritis, at all levels from undergraduate to continuing medical education.

Following the 1998 release of *Patterns of Health Care in Ontario: Arthritis and Related Conditions, An ICES Practice Atlas,* the Ministry of Health and Long-Term Care (MOHLTC) sponsored an initiative to implement a demonstration project for a patient-centred program for the primary care management of arthritis. This project was developed in collaboration with several Community Health Centres (CHCs) throughout the province, and evaluation showed that such a program had potential to improve patient outcomes.⁷⁸ Consequently, federal funding has been awarded to implement this intervention in Primary Health Care Centres throughout Canada. However, special interventions such as these, and those offered by other agencies including industry, while encouraging, have the potential to reach only a small

proportion of Ontario's primary care physicians. A comprehensive strategy is required for primary arthritis care that incorporates enhanced training, coordination across disciplines and community resources, public education about arthritis, and development of new care models.

Access to care for inflammatory arthritis

Rheumatoid arthritis and related types of inflammatory arthritis are autoimmune diseases that can result in severe illness and disability. Approximately one percent of the adult population (almost 100,000 people in Ontario) has RA and other forms of inflammatory arthritis. It is estimated that there is likely to be at most one new case each year in every 2,000 people. This represents less than one new case for each primary care physician. These people require access to specialist care and treatment with appropriate medications such as DMARDs. Mounting and compelling evidence shows that treatment of early RA with DMARDs can slow down the progression of the disease and prevent disability.³⁹ Technological advances in imaging are likely to have a major impact on diagnosis and identification, particularly of early disease. Treatment is most effective in preventing disability if the disease is identified early.

There are new therapeutic possibilities in biologic drugs, which seem to be effective in "switching off" the disease but are very expensive. While some of these drugs are listed on the Ontario Drug Benefit (ODB) Formulary/Comparative Drug Index (Formulary/CDI), others are available only under special conditions when a rheumatologist requests coverage for patients eligible for the ODB Program or through the Trillium Drug Program. 79,80,81,82 Some arthritis drugs need special arrangements for administration, for example, some are administered in hospital through an intravenous (IV) infusion which is repeated in two weeks, then one month later, and every two months thereafter. Access to these drugs for patients under age 65 years and without supplementary health insurance is an important issue affecting delivery of appropriate health care.

Even if drugs are available, as they are with many DMARDs, not all eligible patients have access. With the potential for serious side effects and the need for close monitoring, specialists usually prescribe these drugs. The nature of the disease and its relatively low incidence warrants special care. A study linking Ontario Health Insurance Plan (OHIP) and ODB data showed that patients with RA seen by a specialist were five times more likely to get appropriate drugs than those seen by a primary care physician, and that people living in areas with poor access to rheumatologists were also less likely to be prescribed DMARDs.⁸⁴ Access to appropriate care is clearly an issue given a shortage of rheumatologists in Ontario, difficulties in recruitment, and reported barriers to providing adequate care.²⁶ There is an urgent need to explore new ways of increasing the reach of these scarce

services, even before allowances are made for the aging population and technological advances.

Increasing access to specialist care for RA could be managed in a number of ways. One model is referral of patients with early disease to special clinics in major centres.⁴⁰ In Ontario, this might include arrangements to accommodate patients that travel long distances. An alternative is to have the rheumatologists travel and make regular visits to community clinics or hospitals in the underserved areas.⁸⁵ Such visits already happen to a limited extent in Ontario.^{26,32}

Another possibility is to increase the use of general internal medicine specialists to manage RA. While these specialists are more likely than primary care physicians to prescribe DMARDs, only a minority of RA patients currently see such specialists. Arrangements to provide augmented continuing medical education for these specialists may need to be considered. Primary care physicians may also choose to receive special education to be able to provide some secondary care at the primary level, although this would have implications for training and remuneration.⁸⁶

Therapist practitioner models have also been developed in pediatric rheumatology to assist in the early identification of inflammatory arthritis and the monitoring of therapy. To extend the model to adult care, therapists would work with primary care physicians, rheumatologists, or both.

Modern technology also offers alternative ways of delivering care through telemedicine, although the need to examine the joints, which is literally a hands-on process, means a partnership between a physician and a trained examiner.⁸⁷ The latter could be a primary care physician, a physical therapist, or a nurse.

Access to surgery for arthritis

Access to surgery, particularly total hip and knee replacements is another challenge facing patients with arthritis. These procedures have been shown to improve the quality of life of people with advanced hip or knee arthritis, are cost-effective, and may even be cost saving.^{70–72,88,89–91,92} Population studies show that there is considerable potential unmet need, even in areas that have comparatively high rates of surgery.⁷² Barriers to surgery not only include access to orthopaedic surgeons, but at a more basic level, the attitudes and knowledge of potential patients, and the preparedness of family doctors to make the necessary referrals.⁸⁸

To improve the health of this population the provision of this type of surgery must be increased. This need has to be viewed against the backdrop of scarce resources: the system is already under strain, there are large variations in access based on geography, and wait times for joint replacements are lengthening. A challenge for the profession, along with key stakeholders, is to define the

Arthritis and Related Conditions in Ontario

optimal use of orthopaedic resources. There are issues involving the balance of office and operating room time, and the types of surgical procedures carried out. Almost half of all orthopaedic procedures for arthritis are arthroscopic knee surgery.⁴¹ The role of this type of surgery in arthritis management is not well established.

Over and above these concerns are resource management issues, including policies to prioritize patients according to need; management of waiting lists; availability of resources including operating room time, prostheses, nurses and anesthetists; the role of joint replacement registries; and the role of post-surgical rehabilitation. These issues are discussed in more detail in Chapters 6 and 7.

Although only a minority of people with arthritis have surgery each year, a higher proportion see an orthopaedic surgeon. The findings in Chapter 3 suggest that Ontario orthopaedic surgeons spend only 30% of their time in the operating room, compared to 62% recommended for their American counterparts. This finding is likely a reflection of the Ontario surgeons' contribution to the non-surgical management of arthritis, as well as limitations in access to financial, material and human resources for surgery, especially joint replacement. The lack of an upward trend over time, in either per capita visits to orthopaedic surgeons or for most types of surgery, suggests that the profession is already operating at near capacity.

Conclusions

Arthritis and related conditions create a large burden of morbidity and disability in the population and consequently represent a high direct and indirect cost to society. The Ontario health care system is oriented to acute care and short-term needs and, as a result, it may not be in the best position to deal with long-term and evolving chronic diseases such as arthritis and related conditions. As the population ages, this burden can only be expected to increase. This report provides an evidence-based foundation for the development of a coherent research agenda and strategies to reduce the impact of arthritis on the people of Ontario.





Appendix

1.A Major types of arthritis

Table 1.1	Major types				
	Osteoarthritis (OA)	Rheumatoid arthritis (RA)	Systemic lupus erythematosus (SLE)	Ankylosing spondylitis (AS)	Gout
Background	OA results from the deterioration of the cartilage in one or more joints. Leads to joint damage, pain, and stiffness. Typically affects the hands, feet, knees, spine, and hips.	RA is caused by the body's immune system attacking the body's joints (primarily hands and feet). This leads to pain, inflammation and joint damage. RA may also have involvement of other organ systems such as eyes, heart, and lungs.	SLE is a connective tissue disorder causing skin rashes and joint and muscle swelling and pain. There may also be organ involvement. This disease, as with RA, fluctuates over time, with flare-ups and periods of remission.	AS is inflammatory arthritis of the spine. Causes pain and stiffness in the back and bent posture. In most cases the disease is characterized by acute painful episodes and remissions. Disease severity varies widely among individuals.	Gout is a type of arthritis caused by too much uric acid in the body that is normally flushed out by the kidneys. Most often affects the big toe but car also affect the ankle, kneed foot, hand, wrist or elbow
Prevalence	The most common type of arthritis, affecting an estimated 10% of Canadian adults.	RA affects approximately 1% of Canadian adults, and at least twice as many women as men.	SLE affects 0.05% of Canadian adults. Women develop SLE up to 10 times more often than men.	AS affects as many as 1–2 in 1,000 Canadian adults. Men develop AS 3 times more often than women.	Gout affects up to 3% of Canadian adults. Men are 4 times more likely than women to develop gout.
Possible risk factors	Old age, heredity, obesity, and previous joint injury.	Sex hormones, heredity, and race (high disease prevalence is seen among Aboriginal Peoples).	Heredity, hormones and a variety of environmental factors.	Heredity and, possibly, gastrointestinal or genitourinary infections.	Heredity, certain medications (e.g. diuretics alcohol, and certain foods
Disease management	There is no cure for OA. Treatments exist to decrease pain and improve joint mobility, and include medication (e.g. analgesics, anti-inflammatory drugs), exercise, physiotherapy, and weight loss. In severe cases, the entire joint – particularly the hip or knee – may be replaced through surgery.	There is no cure for RA. Early, aggressive treatment by a rheumatologist can prevent joint damage. Drugs used for treatment include non-steroidal anti-inflammatory drugs (NSAIDs), corticosteroids, disease-modifying anti-rheumatic drugs (DMARDs), and biologic response modifiers.	There is no cure for SLE. The aim of treatment is to control symptoms, reduce the number of flare-ups and prevent damage. Commonly used medications include analgesics, anti-inflammatory drugs, cortisone, and disease-modifying antirheumatic drugs (DMARDs). Diet and exercise are also important in the management of lupus.	There is no cure for AS. Medications similar to those used for other types of arthritis are often prescribed to treat AS. Exercise is the cornerstone of AS management. If damage is severe, surgery may be considered.	There is no cure for gout. Non-steroidal anti-inflammatory drugs (NSAIDs) are often used to help reduce the pain and swelling of joints and decrease stiffness. Cortisone may also be use for this purpose. Drugs, suc as Allopurinol, can be used o a long-term basis to reducuric acid levels and preven future attacks. Other methods for controlling gout include dietary change weight loss and exercise.

Data source: www.arthritis.ca

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