

### Chronic Disease Management

The chronic disease management approach is an alternative to standard episodic care. It recognizes that episodic care fails to provide optimum results for patients with chronic diseases.

The distinctions between the standard approach to care and the chronic disease management approach are laid out in the chronic care model. The model aims to produce improved outcomes through the interaction of prepared provider teams with activated patients. Support for the interaction comes from information systems, decision support tools, the design of the delivery system, and patient self management, all embedded in a supportive health system and community.

The Arthritis Society has been a leader in promoting patient self management in British Columbia.

### Arthritis

Arthritis is a term applied to a large number of distinct disorders, some quite common and some very rare. The diverse nature of the disorders included under the title "arthritis" distinguishes it from other diseases considered for chronic disease management, but also draws attention to the fact that the approach is the similar for all disorders.

### Information Needs

The chronic disease management approach benefits when:

- The subset of the population with the disorder can be identified (a registry can be developed);
- A standard of care exists (usually in the form of a guideline or care plan);
- The care provided to those in need can be identified and compared with the standard (in the form of performance measures).

### Medical Services Plan Data

Almost all residents of British Columbia are covered by the Medical Services Plan (MSP). Physician services are provided under the Plan and about 90% of them are paid on a fee-for-service basis. Fee-for-service claims identify the service provided, the recipient of the service and a single diagnostic code to indicate the reason for the service.

In 2000/01 MSP paid for about 59 million physician services at a total cost of about \$1.64 billion. Some of these services (laboratory, imaging and anesthetic services) do not require diagnostic codes on the claims. The remaining 32 million claims valued at about \$1.2 billion can be analyzed by diagnosis.

By grouping paid claims from 2000/01 by ICD-9 diagnosis provided on the claim, we can gain an impression of the volume of physician services provided to patients with arthritis.

Some forms of arthritis – gout for example – have not been included in the table. In the table, patients can appear in more than one row. The total of the patients reported for all rows – 864,209 – shows that there is some overlap between forms of arthritis as reported by diagnostic code, but implies that the groups are largely distinct. Moreover, these patients probably received services for other diagnoses, so the totals shown should not be interpreted as the total care they received during the year.

The result, which shows that 17.4 percent of the population received care for diagnoses related to arthritis, compares with the recent survey data.

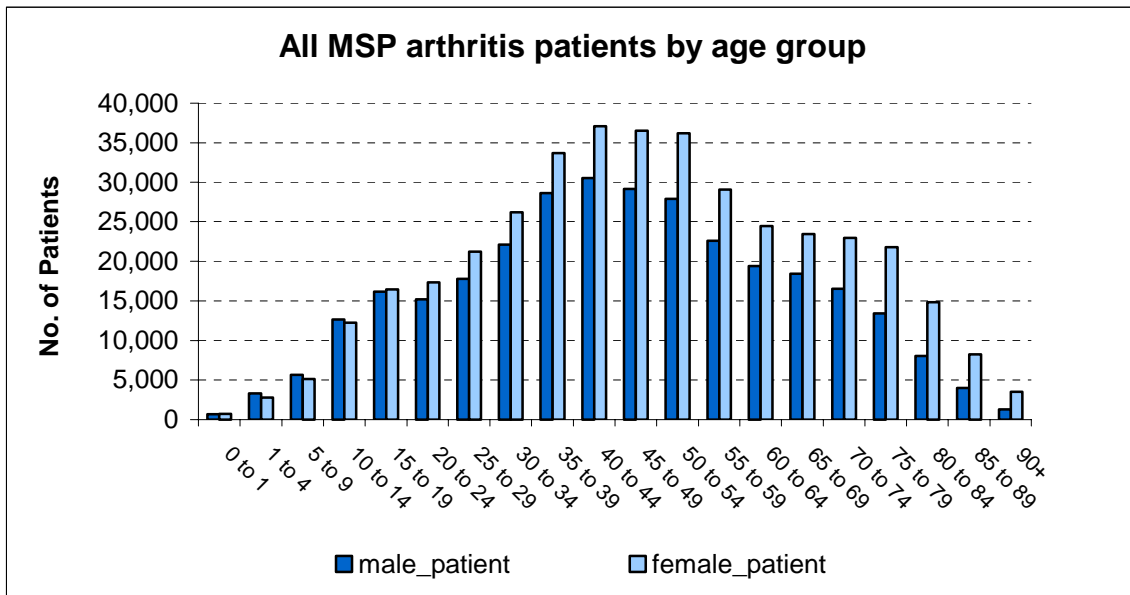
<b>Arthritis by Diagnostic Code</b>	<b>Services</b>	<b>Expenditure</b>	<b>Distinct Patients</b>	<b>Patients as % of Population</b>
1) Rheumatism, excluding the Back (725-729)	516,948	\$ 18,889,123	307,770	7.6%
2) Other Arthropathies and Related Disorders (710-712, 715-719)	567,472	\$ 26,403,271	262,783	6.5%
3) Other Dorsopathies (720, 721, 723, 724)	478,673	\$ 17,812,811	246,666	6.1%
4) Rheumatoid Arthritis and Inflammatory Polyarthropathies (714)	94,800	\$ 3,654,439	29,080	0.7%
5) Intervertebral Disk Disorders (722)	31,004	\$ 2,076,299	16,482	0.4%
6) Osteomyelitis, Periostitis, Other Bone Infections (730)	7,261	\$ 335,159	1,428	0.04%
<b>Total</b>	<b>1,696,158</b>	<b>\$ 69,171,102</b>	<b>707,107</b>	<b>17.4%</b>

## Canadian Community Health Survey

The Canadian Community Health Survey (CCHS) for 2000/01 identified the number and proportion of the population 12 years and older who reported having been diagnosed by a health professional as having arthritis or rheumatism. In British Columbia there were an estimated 186,666 males (11.1 % of the male population) and 308,260 females (17.8 % of the female population). Overall the survey estimated 494,926 British Columbians had been diagnosed with arthritis or rheumatism, or 14.5 per cent of the population.

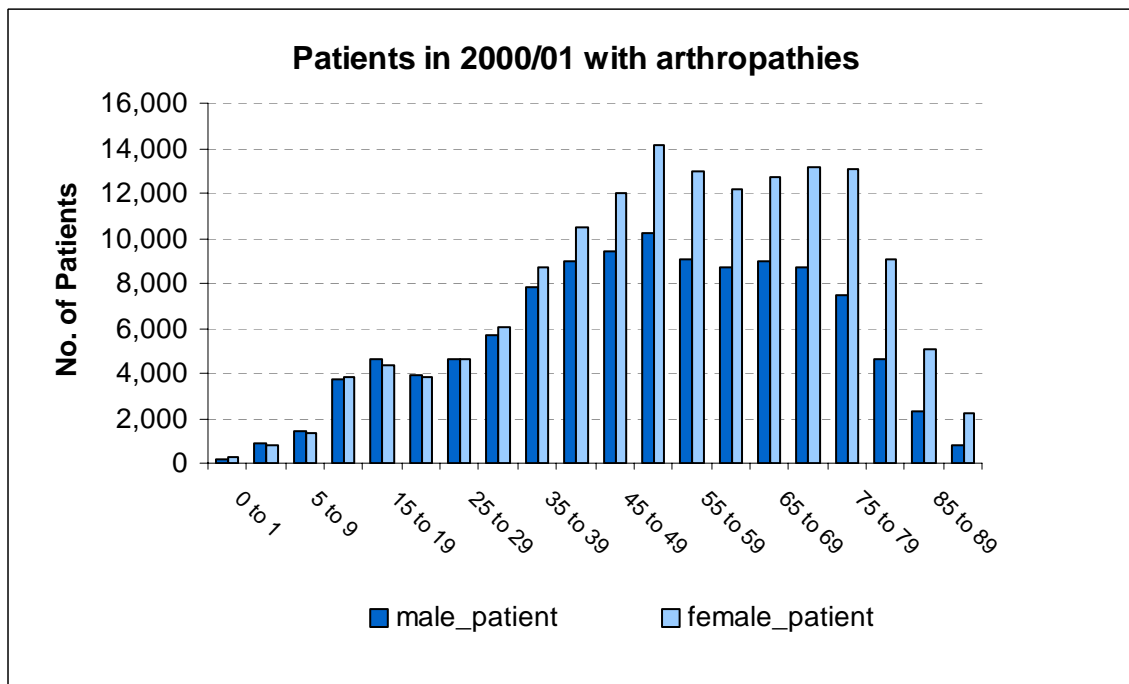
## Age/Gender Distributions of MSP Service Recipients

The 707,107 patients who received services in 2000/01 can be distributed by age and gender. In this analysis the numbers of males and female are much closer (313,316 males to 393,791 females) than in the CCHS.



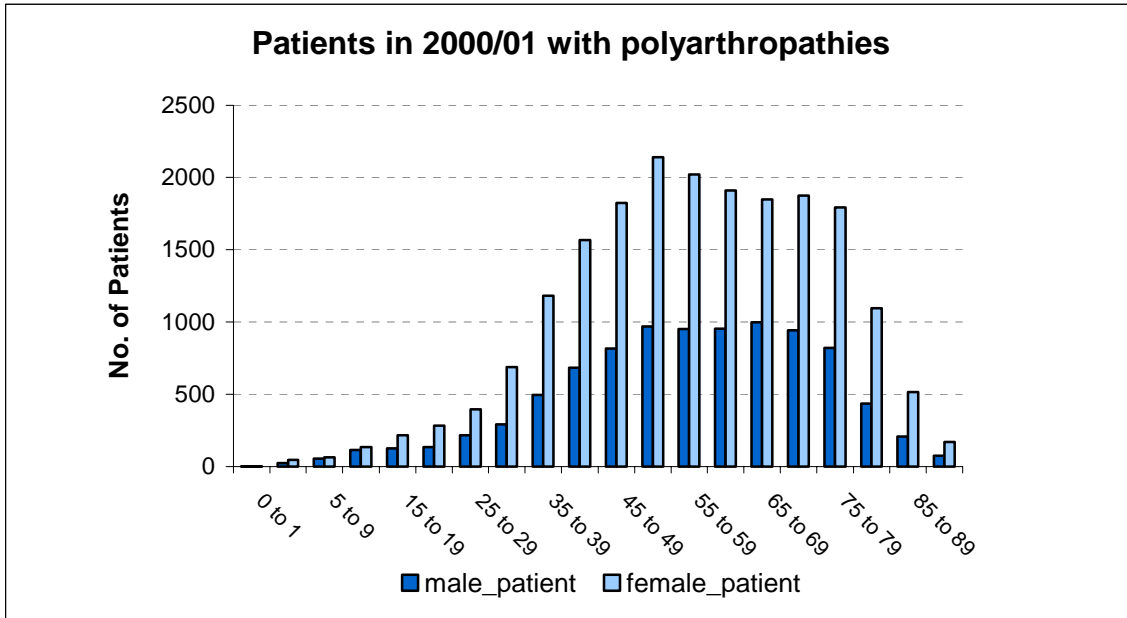
## Age/Gender Distributions of MSP Recipients with Arthropathies

A similar distribution can be done for patients diagnosed with arthropathies (including osteoarthritis).



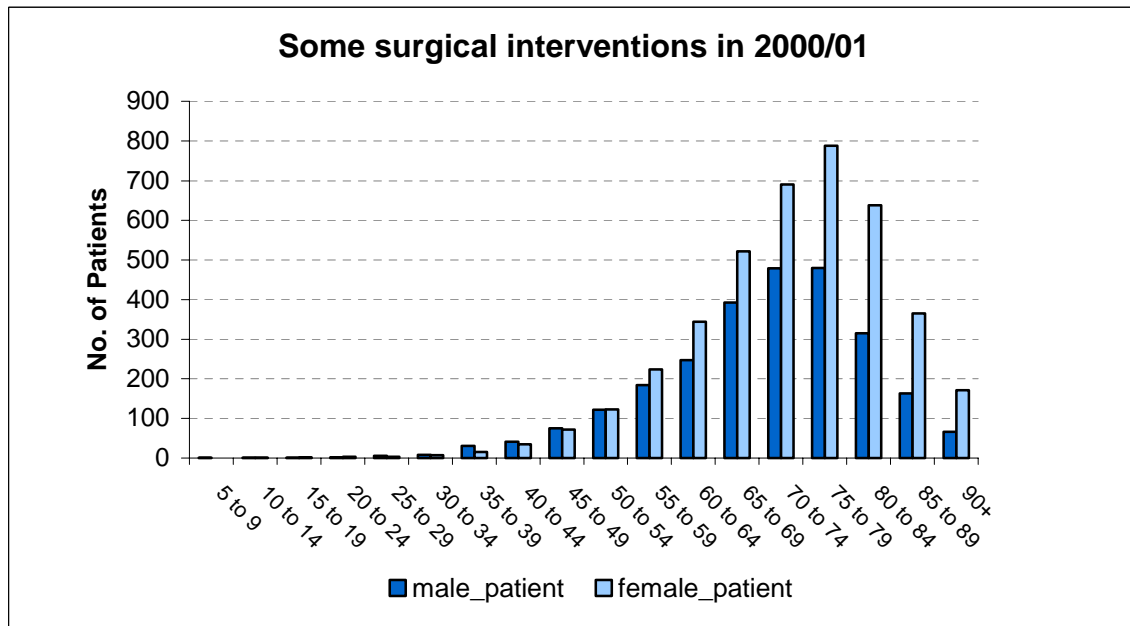
## Age/Gender Distributions of MSP Recipients with Polyarthropathies

Rheumatoid arthritis is the most common polyarthropathy.



## Surgical Interventions

A variety of surgical interventions around the hip and knee have been selected, including arthroplasties, joint replacements and their revisions. In total MSP paid for 7,016 of these procedures in 2000/01 at a total surgical fee cost of \$4,782,633.



## Pharmacare Expenditures

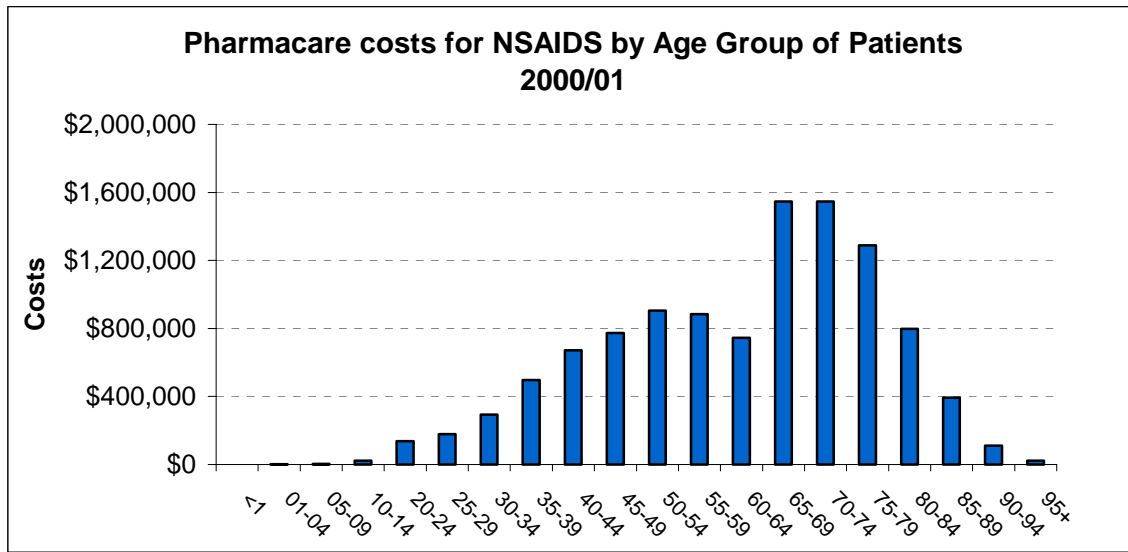
Pharmacare provides some coverage for prescription drugs. In 2000/01 coverage was provided for seniors, some disadvantaged groups, and everyone who exceeded a threshold cost of \$800.

The common drugs used in arthritis – non-steroidal anti-inflammatories – are also used in a number of other conditions, and can be obtained without a prescription. These facts reduce the value of Pharmacare data. However, Pharmacare expenditures for NSAIDs have been extracted from the 2000/01 figures.

This pattern of expenditure mirrors almost exactly the pattern for total Pharmacare expenditures during the year.

### Pharmacare NSAID Costs Fiscal 2000/2001

Patients	165,277
Prescriptions	416,306
Total cost	\$ 9,206,698
Days supplied	13,810,573



## Standards of care and performance measures

No standards of care that could be used to inform performance measures have been identified.

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