



Social and Personal Costs of Arthritis and Rheumatic Diseases

An Exploratory Survey

Stefán Ólafsson



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Nordic Council of Ministers

Store Strandstræde 18
DK-1255 Copenhagen K
Phone (+45) 3396 0200
Fax (+45) 3396 0202

Nordic Council

Store Strandstræde 18
DK-1255 Copenhagen K
Phone (+45) 3396 0400
Fax (+45) 3311 1870

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Executive Summary

Social and Personal Costs of Arthritis and Rheumatic Diseases

The Nordic Rheuma Council (NRR) commissioned a preliminary survey of social and personal costs of arthritis and rheumatic diseases in the Nordic countries. The project was financed by a grant from the Nordic Council of Ministers. A report of the findings has been written by Professor Stefán Ólafsson of the University of Iceland, in collaboration with specialist from the Nordic Rheuma Associations. Some of the main findings are summarized below.

Musculoskeletal conditions are the most common cause of severe pain, physical disability and temporary absence from work amongst the advanced nations. They are estimated to consume up to 3% of gross domestic product in Western countries in an average year. Arthritis and rheumatic diseases are a large part of these conditions and they are thus a major burden on society's health and social care services. They are even more pronounced as sources of personal burdens and reduced participation in employment and society in general. Women are on the whole significantly more affected by rheumatic diseases than men.

The social and personal costs of these diseases are generally more indirect than direct. Rheumatic diseases are thus not prominent as causes of mortality and the great majority of rheumatic patients do not require prolonged and expensive hospital operations. For the largest number of people with these conditions the needs are more frequently directed towards medications, rehabilitation, support, therapies and the like. Reduced employment participation and participation in society are a major source of costs to the economy and to the patients themselves.

During the last years new medications and increased understanding of the usefulness of treatments and rehabilitation have emerged. An example of such innovations is the new biologic medications which are of great use for some patients. More understanding of the negative consequences of rheumatic diseases for participation and opportunities in employment is though needed.

There is some variation in the costs and consequences of these diseases amongst the Nordic countries. In most of the countries out-of-pocket costs have tended to increase during the last decade or two, often in the form of higher user charges. This applies equally to costs of medications and of visits to health care personnel. Patients with arthritis and rheumatic diseases are particularly affected by rising user charges, since

they tend to use such means to a large degree. The individual countries put varying efforts into limiting the personal cost burden.

I. Preface

Aim of the report

The Nordic Rheuma Council (Nordisk Reumaråd – NRR) aims to chart the life situation of rheumatic patients in the Nordic countries. The goal is to increase knowledge and understanding of these diseases and their consequences for the individuals concerned, for society and economy. The present decade has been declared the “Bone and joint decade” by the World Health Organization (WHO), in order to further understanding of the impact of musculoskeletal diseases or conditions on society and individuals and to assist progress on this front. Arthritis and rheumatic diseases are a very large part of the group of musculoskeletal conditions. The goal of Nordic Rheuma Council is therefore in good harmony with the work of WHO and other organizations in this area.

The Nordic Council of Ministers provided a grant to start a pilot survey of the social and personal cost of rheumatic diseases in the Nordic countries. The present report is the outcome of that work. It is exploratory, relying on available public data and information from the Nordic rheumatic associations, with the main aim of clarifying the issues and collecting some basic indicators for comparison between the countries. As such it is a probing beginning of a plan to chart the life conditions of people with arthritis and rheumatic diseases in the Nordic countries. Further work will follow hopefully culminating in a clear and comprehensive account of personal, social and economic costs and burdens of these diseases as well as the prospects for the future.

The author of the report wishes especially to thank Emil Thoroddsen and Svala Björgvinsdóttir of the Icelandic Rheumatic Association for good cooperation, as well as the other members of the NRR working group which also took part in the planning of the work and contributed information for the analysis. They are Merete Nielsen from the Norwegian Rheumatism Association, Lea Salminen of Finnish Rheumatism Association, Lars Nörkjær Nielsen from the Danish Rheumatism Association, Sten Boström of Swedish Rheumatism Association and Anna Petersen from the Faroese Rheumatism Association.

II. On Social and Personal Costs of Diseases

Some Methodological Issues

In the literature on socio-economic cost of illnesses generally, and arthritis-related illnesses specifically, it is customary to look at economic, societal and personal perspectives on costs or burdens of illnesses. This is important since it is obviously not solely the direct medical cost of the health services that matters, but also issues such as lost participation in employment and social affairs, as well as issues of individuals' quality of life. It is thus also common to separate direct costs, indirect costs and intangible costs or burdens. We will follow that course and specify some of the main aspects of costs that have featured prominently in the literature. This is important for our task, which relates to clarifying how to proceed with more detailed assessments of the societal and personal costs of arthritis-related illnesses. In table II.1 we outline first the main aspects of costs.

Table II.1 Costs of arthritis or rheumatic diseases General scheme of relevant issues

Direct Costs:	
	Health Care Costs:
	Outpatient costs
	Inpatient costs
	Personal costs
	Other direct disease-related costs
Indirect Costs:	
	Changes of living status
	Employment-related costs:
	To individuals
	To firms
	To society
	Out-of-pocket costs
Intangible Costs:	
	To individuals/families
	To society

Each category can then be further specified and clarified and then we can proceed and define the best and practical ways of measuring each category of costs. These require different methods.

As table II.1 shows, direct costs refer to health care costs, incurred by use of the health care system, equally for out- and inpatients. There are also direct costs for the persons involved, primarily the patient. Then there are indirect costs which refer primarily to the costs of lost employment participation, personal out-of-pocket costs and costs of changes in life status. Lastly there are intangible costs related to deteriorations in quality of life, restrictions and inhibitions, both for the patient and his or her family.

In table II.2 these items of costs are detailed further for easier identifications of best ways and means of obtaining data for the assessment.¹ There we see more specifically that the direct costs refer to health care costs, which are costs of health care services to outpatients, i.e. for visits to physicians, outpatient surgeries, emergency rooms and rehabilitation centers. The public provides for the largest part of these services but it may differ between countries to what degree patients pay user charges. Although these are generally low in the Nordic countries compared to many other advanced countries, such charges have in some places tended to increase in the last decade. Then there are costs of medication, prescribed or not, and research and tests related to diagnostics. These items are generally subsidized by government but again to varying degrees. It is thus important to be able to provide measures of overall health care costs, which are largely paid by tax payers, as well as of direct private health care expenditures and specifically out-of-pocket expenditures for the patients.

¹ See Woolf, A.D. (2004), "Economic Burden of Rheumatic Diseases", in Harris et.al. (Amsterdam: Elsevier). Also Anne-Christine Rat and Marie-Christophe Boissier (2004), "Rheumatoid Arthritis: Direct and Indirect Cost", in [Joint Bone Spine](#). 2004 Nov., 71(6):518-524. The categorization of direct and indirect costs may vary between studies.

Table II.2 Classification of detailed categories for identifying costs of arthritis or rheumatic diseases

Direct Costs	
Health Care Costs:	
Outpatient costs:	
	Visits to physicians (general and/or specialists)
	Outpatient surgery
	Emergency room visits
	Use of rehabilitation services (physiotherapists, occupational therapists, social workers etc.)
	Medications (prescribed or non-prescribed)
	Diagnostic and/or therapeutic procedures (imaging studies, laboratory tests)
	Medical devices and aids
Inpatient costs:	
	Admissions to acute-care non-surgical hospitals/clinics
	Admissions to acute-care surgical departments
	Admissions to extended-care facilities (rehabilitation units, nursing homes etc.)
	Admissions to non-acute hospital facilities
Personal costs:	
	Travel expenses
	Patient time
	Carer time
Other direct disease related costs:	
	Home health care services
	Environmental adaptations, home re-modeling
	Medical equipment, devices (non-prescriptions)
	Non-medical practitioners, alternative therapy
Indirect Costs	
Change of living status	
	Move to a nursing home or residential home
	Need for home care services
Employment-related costs	
	Loss of production (societal) and loss of productivity in employed persons or their carers.
	Cost of pensions/sickleaves (societal).
	Opportunity costs (lost chances for self or family, restrictions)
	Lost wages
Out-of-pocket	
	Out-of-pocket expenses for self or family
Intangible Costs	
	Deterioration in quality of life, of patient, family, carer, friends
	Changes in ways of life, restrictions, inhibitions

Inpatient costs are perhaps the most direct cost items and consist primarily of the cost of operations and care in hospitals and related institutions. All of the above items of costs can best be measured by records of visits to health care services as well as by records of operations of hospitals and costs of individual operations and services rendered. Material for assessments can be provided by detailed national health expenditure accounts and survey material of visits and other use of services, both by out- and

inpatients. Material on rehabilitation activity could be obtained from the relevant institutes if lacking in national expenditure accounts.

Direct costs are also personal costs, which relate primarily to the cost of the patient incurred by requirements for transportation related to use of health care services in relation to the illness, time use of the patient and also the time used by carers when needed. Such cost items need to be measured by surveys of patients and users of the various services. Surveys of time use are also needed if this is to be carefully covered. The same applies to the use by patients of special equipment, adaptations to the home and environment as well as the use of medications, prescribed or otherwise, conventional as well as alternative therapies.

Indirect costs are in many cases of rheumatic diseases the largest part of the total cost, variously estimated from about a half to about 90% of the total cost of the diseases in question. The largest parts of the indirect cost refer to loss of employment participation, sickness absence, disability or early retirement and lower productivity of patients fully engaged in employment participation. This obviously refers also to loss of wages and opportunities. Such cost items are best measured by surveys amongst the individuals, of work participation, work conditions, time use and loss of wages, as well as surveys of sickness specific out-of-pocket expenses. These also refer to modifications of homes and work places, use of support mechanisms and the like.

The intangible costs are the least specific and also the least systematically measured items of costs of diseases, even though there has been an increase in such assessments in the last two to three decades. Measures of effects of illnesses on the abilities of individuals affected to carry out the various tasks of everyday life and employment have been measured in level of living surveys, perhaps most notable in Sweden, and these have been systematically used in the national health accounting system there (see for example the Swedish Yearbook of Health and Medical Care 2002). Others have used the standard questionnaires of health conditions and quality of life to obtain such material, but there are often difficulties in translating results from such measures into the traditional economic cost accounting. From our perspective in this report it is however of great interest that one important measure of the quality of life of individuals in Netherlands with various diseases indicated that the musculoskeletal category was associated with the worst quality of life, along with renal diseases, cerebrovascular/neurological and gastrointestinal conditions (see *European Action Towards a Better Musculoskeletal Health*, 2000, p. 30). While musculoskeletal diseases are not common as causes of mortality they incur heavy burdens with the associated long-term or recurrent pain, loss of energy and loss of some physical abilities.

Such measures from surveys and subjective tests, for example by means of health assessment questionnaires (HAQ), are important for arousing the awareness of conditions of patients and of the general bur-

dens associated with the various categories of disease. But the problem of how to incorporate such material into the overall assessment of socio-economic costs of illnesses remains. That also raises the question of the validity of one universal system of cost accounting. It is difficult to put the currency measure on all aspects of the varying human conditions. We may therefore have to do with different assessment systems -economic, social and personal-, side by side.

In this report, which be design is only provisional, we try to clarify some issues of assessing the costs or burdens of arthritis-related diseases and put forth some indicators with an intra-Nordic comparison were possible. This is far from complete and can only be taken as indicative of issues of relevance to the subject. Firstly we provide some survey from the literature on the extent of arthritis-related or musculoskeletal diseases to put into context the Nordic material we bring forth.

III. Review of Issues:

Prevalence and Burdens of Rheumatic Diseases

Musculoskeletal conditions (MSC) are the most common cause of severe pain and physical disability in advanced societies. They are therefore a major burden on health and social care, as well as frequently inflicting a heavy personal burden. Musculoskeletal conditions are a diverse group of health conditions. The most important ones as regards frequency are arthritis-related diseases, such as osteoarthritis, rheumatoid arthritis, osteoporosis (including fragility fractures), low back pain and musculoskeletal injuries, often related to trying occupational conditions or participation in sports activities.²

According to a recent World Health Organization estimate (WHO 2003) musculoskeletal conditions are the most frequent cause of disability, severely affecting individual's abilities to carry out their daily living and take part in society and employment. While these diseases are not associated with particularly extensive and costly hospital operations they are still costly for society due to the long-term care and support they often require, as well as due to the loss of employment participation. Overall these diseases are estimated to consume about 3% of GDP in developed countries, and somewhat lower in developing countries due to lower life expectancy. With increased aging, body overweight and lack of mobility the financial and health care burdens of these diseases are set to escalate greatly in coming decades.

According to survey data, close to a quarter of Europeans suffer from some form of arthritis or musculoskeletal conditions (Eurobarometer 186, 2003). These are therefore the most common chronic illnesses in Europe. About 50% of the adult population report musculoskeletal pain for at least 1 week during the last month in a survey. MSC are the 8th leading cause of disease burden across Europe and osteoarthritis (OA) and rheumatoid arthritis (RA) account for 3.5% of disability adjusted life years lost (DALYs) (cf. *European Action Towards Better Musculoskeletal Health*, p. 24). Joint diseases account for about a half of all chronic con-

² This section is primarily based on the following reports and papers: World Health Organization, *The Burden of Musculoskeletal Conditions at the Start of the New Millennium* (WHO, Geneva, 2003); European Bone and Joint Health Strategies Project Report: *European Action Towards Better Musculoskeletal Health* (Lund University Hospital, 2000); Anne-Christine Rat and Marie-Christophe Boissier (2004), "Rheumatoid Arthritis: Direct and Indirect Cost", in *Joint Bone Spine*. 2004 Nov., 71(6):518-524; Australian Institute of Health and Welfare (2005), *Arthritis and Musculoskeletal Conditions in Australia 2005* (Australian Government report) and Jonsson D., Husberg M. (2000). "Socioeconomic costs of rheumatic diseases. Implications for technology assessment", in *International Journal of Technology Assessment of Health Care*, vol. 16, nr. 4, pp. 1193-1200.

ditions in persons aged 65 and over and back pain is the most common cause of sick leave amongst people at working age. Fractures related to osteoporosis (OP) have increased greatly during the last decade. It is estimated that about 40% of women over the age of 50 years will suffer from an osteoporosis fracture.

The prevalence of disabilities due to musculoskeletal conditions has repeatedly been estimated to be 4–5% of the adult population, which is between a quarter and a third of the overall disability level in Europe, according to public figures from recent surveys.³ A UK survey found for example that about 30% of disabled people had arthritis. Another UK survey from 1993 reported that of those adults who had rheumatic disorders 8.2% were disabled and of these the largest part, approximately 5%, reported arthritis, mainly osteoarthritis, as the main cause (*European Action*, p. 25).

In a recent careful survey from the Australian health authorities (*Arthritis and Musculoskeletal Conditions in Australia 2005*) it was found that about 32% of Australians have arthritis or a musculoskeletal condition. The most commonly reported conditions are lower back pain (20.8%) and various forms of arthritis (13.6%). Other arthropathies are mentioned by 1.9%, osteoporosis by 1.6% and rheumatism by 1.3% (the figures add up to more than 100 since some respondents have more than one condition). About 5.7% of the population have disability pension associated with arthritis and related disorders. About a third of those with disabilities have some form of arthritis and musculoskeletal conditions and 14% of the disabled report arthritis and related conditions. This is based on the 2001 National Health Survey, amongst the representative population. About a third of these people had chronic or recurrent pain due to these disorders.

In Iceland musculoskeletal diseases are the second most frequent cause of the yearly incidence of disability (new additions), after psychiatric and mental diseases. In Norway as well as in many other countries in Europe the musculoskeletal diseases are the most common cause of new disability cases.

Due to their considerable frequency, chronicity and effects on disability the musculoskeletal conditions have a major impact on the quality of life of individuals as well as on the cost of health services. They also lead to significant losses of activity in society and employment. They figure highly as causes of both short-term and long-term sickness absence from work. In Norway musculoskeletal disorders cause more than a half of all sickness absences that last longer than two weeks.⁴ Thus they have a

³ *European Action Towards Better Musculoskeletal Health*, p. 24 and Stefán Olafsson (2005), *Disability and Welfare in Iceland*, p.26. See also OECD, 2003, *Transforming Disability into Ability* (Paris: OECD).

⁴ Brage, S., Nygard J.F., and Tellnes G. (1998), "The gender gap in musculoskeletal-related longterm sickness absence in Norway", in *Scandinavian Journal of Social Medicine*, vol. 26, no. 1, pp. 34-43.

major effect on society and individuals in the modern world and are one of the large components of overall health care costs. Many of these conditions seem set to increase in extent with rapidly rising age of the populations of Western societies, increasing rates of obesity and some other negative life-style factors. This issue is thus of major concern of health authorities in most of the advanced countries and much can be done to counter their negative influence.

In a Swedish study of the costs of illness the musculoskeletal group was the most expensive category, with about 23% of the total cost of illness. About 90% of these were found to be indirect (mainly sick leave and early retirement) while 10% were direct costs of the health services (medical services and drugs).⁵ In Holland the cost were somewhat lower and in a number of other countries the proportion of indirect costs appears lower than in the Swedish study, often around 75%.

Both the World Health Organizations and the European Union have recently initiated major programs for raising awareness and understanding of the great socio-economic and personal costs of musculoskeletal diseases, many of which are arthritis-related.⁶ In the following we summarize some recent findings on the prevalence and burdens of the major individual disease groups which form the category of musculoskeletal conditions.

Osteoarthritis

Osteoarthritis is the most common form of joint disorders and causes more disability amongst the elderly than any other disease. It changes the structure of the joints and often progresses slowly and it can affect any joint. It is however most common in selected joints of the hand, the spine and the lower limb weight-bearing joints, i.e. the hip, knees and feet.

It is difficult to assess exactly the prevalence of osteoarthritis except with detailed radiographic surveys of the population. This method is though frequently only applied to those who have more serious conditions of the disease and this can thus only be provisional and is likely to underestimate the true extent of osteoarthritis in the population. It is though well established that osteoarthritis increases with age. The condition is not reversible with present knowledge. It is uncommon amongst people under the age of 40 but prevails to varying degrees in the great majority of people over the age of 70. Amongst people at ages 55–74 OA was found in the hands of 70%, 40% had it in the feet, 10% in knees and 3% in hips. It is more common amongst women in the older age categories (*European Action* op. cit., p. 34). In Iceland a survey from 1994–5

⁵ See Jakobson L. and Lindgren B. (1996), "Vad kostar sjukdommarna? (Stockholm: Socialstyrelsen), and Jonsson D., Husberg M. (2000). "Socioeconomic costs of rheumatic diseases. Implications for technology assessment", in *International Journal of Technology Assessment of Health Care*, vol. 16, nr. 4, pp. 1193-1200.

⁶ See WHO (2001) and European Action (2000), op.cit.

found that 3.3% of males at ages 59–101 had osteoarthritis of the hand and 6.8% of women at ages 62–103. About 12% of males 35 years and older had osteoarthritis in the hip while the proportion for females was 10%.⁷

While many with osteoarthritis are out of the work force due to age the disease still causes considerable work absence and disability amongst people at working ages. It is responsible for about 3% of global years lost to disability (YLDs). Since osteoarthritis is quite common it incurs considerable economic, social and personal costs. Studies in the USA, Canada, UK, France and Australia find that the cost of osteoarthritis has increased in recent years and is now in the range of 1–2.5% of GDP.⁸ In Australia osteoarthritis is responsible for about 21% of the total health system cost of musculoskeletal disorders.

The burden on the individuals is also considerable. Close to 40% of those with osteoarthritis say they need help from relatives and friends with their daily tasks. About 32% report adverse effects on their family relationships, 27% needed changes in their living arrangements, 23% needed special transport and 26% said that osteoarthritis influenced their paid employment.⁹

Osteoarthritis can be expected to increase significantly with foreseen ageing of Western populations. Increasing obesity is also related to a higher incidence of osteoarthritis and thus the burden of these diseases can be expected to increase in coming years.

Rheumatoid Arthritis

This is the most common inflammatory disease in joints. The symptoms are pain, swelling, stiffness and it is associated with fatigue, weight loss and malaise. At higher degrees this disease causes disability, deformities, progressive radiological joint damage, often with a need for joint replacement surgery, premature death and quite extensive alterations in quality of life.¹⁰

Rheumatoid arthritis (RA) is frequently estimated to have a prevalence rate in the region of 0.3–1% of populations in Western nations, but in some nations the rate appears even lower, or down to 0.1%.¹¹ The prevalence of RA is persistently higher amongst females than males. The peak onset of the disease is at ages 35–45 and the prevalence peak is between 40 and 60 years of age. Loss of function increases linearly with disease duration. Within 10 years about 50% of patients have been repor-

⁷ European Action op. cit. p 35.

⁸ March, L.M. and Bachmeier, C.J. (1997), "Economics of Osteoarthritis: A Global Perspective", in *Baillieres Clin Rheumatol.*, vol. 11, no. 4, pp. 817-834.

⁹ *European Action*, op.cit., p. 36.

¹⁰ Anne-Christine Rat and Marie-Christophe Boissier (2004), "Rheumatoid Arthritis: Direct and Indirect Cost", in *Joint Bone Spine*, 2004 Nov., 71(6):518-524.

¹¹ See data on that in WHO (2003), *The Burden of Musculoskeletal Conditions*, annex.

ted to be unable to hold a full-time job. The earlier the onset of the disease (before age 45) the greater is the likelihood of severe disablement. RA sufferers may have difficulties with work, child care, travel and participation in society in general.

Employment is 20% lower amongst men with RA than in men not affected by RA, and amongst women the employment rate is 25% lower. Sickness absence is reported to be between 3 and 30 days per year. Work capacity becomes reduced amongst a third of patients within a year from onset and within 3 years about 40% may be registered with disability. In the USA patients with RA lose their job more easily, have difficulties getting a job after onset and frequently retire early.¹²

RA has considerable economic cost. In 1994 it was estimated to be about 0.3% of gross domestic product in the USA, with direct cost amounting variously from a fourth up to a half. Few cases of inpatients can carry a high proportion of the total cost while a large number of outpatients and people with lower degrees of the disease have more indirect costs, which often have to be carried by themselves and their families to significant extent.¹³

Patients with RA were found in a survey of visit to physicians to have 7 to 20 visits a year and visits to rheumatologists ranged from 2–6.5 a year. Visits to physical therapists or occupational therapists were about two per year, 2.3 to alternative therapists and 13 visits were registered for investigations. Individual surveys show considerable variation, reflecting lack of rigour and standardization in the means of measurement.

RA patients are in general more likely to have lost their jobs than people without the disease. They also retire earlier, work shorter hours or not at all, have lower income than reference groups without the disease. The proportion of individuals with paid job was for example 16% lower amongst RA patients than in a reference group matched on age, sex and ethnic background.¹⁴ In France the mean time from the onset of RA to work disability was found to be about 6 years. Women are much more affected than men.

Early and effective treatment may postpone and/or slow disease progression, thus improving quality of life and at the same time reducing cost due to lower productivity, surgical procedures and requirements for extended-care facility admissions and social services. New medications which make more effective treatments possible are however more costly than before, but clearly worth it for the great benefits when successful.

The incidence of RA fell between 1960s and 1980s so unlike osteoarthritis this disease does not appear to increase linearly in prevalence with age. Improved treatments may have a role in this development.

¹² *European Activity*, op. cit., p. 39.

¹³ Rar and Boissier (2004), op. cit., p. 2.

¹⁴ Rar and Boissier (2004), op. cit.

Back Pain

As previously mentioned low back pain is a major health and socio-economic problem in modern societies. It is estimated that 12–30% of adults have low back pain at any time and life time prevalence varies between 50% and 85% by countries. Most of lower back pain is due to non-specific causes, i.e. the underlying pathology is not known. The prevalence of back pain due to specific known causes is estimated to be between 2% and 8%, so the non-specific group is much larger.

Most cases of lower back pain are temporary but a part of those affected have chronic problems, which may increase with age. Back pain causes loss of health status in the form of symptoms and loss of function, limitation of activities and restricted participation in work and society. Loss of function is a direct cause of the pain experienced. Limitations of activities can be restrictions in daily living, leisure and various trying tasks. Back pain can frequently lead to temporary or permanent work disability, chronic pain behaviour and dependence/care needs from others.¹⁵

Economic burden related to lower back pain arises primarily from loss of work (sickness absence, lower productivity, early retirement and disability). Those most affected who incur the largest costs are though a small minority within the population of back pain sufferers. A study in the USA found that between 5% and 9% of cases of back pain lasted for more than one year and accounted for 64% to 85% of the total costs (European Action, op.cit.).

Prevalence and incidence of low back pain seems to be slowly increasing so this may be an increasing health concern. But the large part of the population affected during the life course means that the costs, to the largest degree indirect and non tangible (up to 90% of total costs), are considerable. Total costs of back pain in the UK, Sweden and Netherlands ranged from 120 US\$ per capita to 323 US\$ per capita.¹⁶

Osteoporosis

Osteoporosis is primarily a disease of the skeleton, in which the density and strength of bones are reduced, with concomitant risk of fracture and reduction of functional abilities. The spine, wrist, hip, pelvis and upper arm are typically most vulnerable. This disease is a frequent cause of mortality and morbidity. It increases exponentially with age and women are particularly vulnerable as sufferers.

The prevalence is often measures as incidences of fractures. Above the age of 50 there is a female to male incidence ratio of approximately 3:1. About 98% of hip fractures occur among people aged 35 years or

¹⁵ *European Action* (2000), op.cit., p. 41-42.

¹⁶ See Moffett et.al (1995). "Low Pain: Its Management and Costs to Society". Discussion Paper 129. York, Center for Health Economics, University of York.

older and 80% occur in women, partly because they have a greater longevity. The lifetime probabilities of being affected by fractures amongst people at age 50 are 53% for women and 21% for males.¹⁷

Osteoporosis is thus a major risk factor for mortality and morbidity amongst the elderly population. It can have a major negative impact on the quality of life. Hip fractures cause a 12% to 20% reduction in expected survival and close to a third of hip fracture patients become fully dependent for care. Many become fully disabled requiring institutionalization.

Economic costs are considerable, mainly due to hospitalization related to fractures and long-term care cost for the elderly. Hip fractures have increased significantly during the last decades. With increasingly aging population osteoporosis fractures are set to increase in future years.

Fibromyalgia

Fibromyalgia is often considered in relation to arthritis and rheumatic related diseases. It is a syndrome of unknown causes resulting in long-term muscle pain and fatigue. Fibromyalgia is somewhat controversial since it proves to be difficult to diagnose. Some experts therefore refrain from classifying it as a disease and prefer instead to consider it as a chronic pain condition brought on by several abnormal body responses to stress. Recent research has though found that areas in the brain that are responsible for the sensation of pain are different in fibromyalgia patients than in others (Harris and Clauw 2006).

About 3.7 million Americans are estimated to have fibromyalgia, amounting to some 2% of the American population. This is however considerably more prevalent amongst women (3.4%) than men (0.5%). So about nine out of every ten fibromyalgia patients are women and the condition is sometimes set off during menopause. The disorder usually occurs in people at ages 20 to 60 years, often increasing in prevalence with age, peaking at about 7% amongst people in their 60s and 70s (Mease 2005; Da Costa et.al. 2005). Stressful culture or environment is found to be associated to fibromyalgia, as is vulnerability to stress and difficult experiences in childhood. While fibromyalgia seems to run in families to some extent it is not clear if this is due to genetic or psychological factors, or both.

While diagnosis of this condition is difficult, as previously mentioned, the American College of Rheumatology set some criteria for classifying fibromyalgia in 1990, which are commonly used (see www.rheumatology.org). These require amongst other things that widespread pain must prevail for at least 3 months and that it must appear in all of the following locations of the body: both sides of the body, above and below the waist and along the length of the spine. Specific locations

¹⁷ *European Action* (2000), op.cit., p. 44-45.

are also adhered to, i.e. so called “tender points”. If pain appears when at least 11 of 18 such points are pressed then the diagnosis is assumed positive. Often fibromyalgia is arrived at by exclusion of all other relevant diseases. Long-term symptoms that may indicate fibromyalgia are chronic fatigue, headache, morning stiffness, numbness or tingling in hands and feet and sleep disturbances.

Fibromyalgia can be mild or disabling and the personal burden of this condition can be substantial. About a half of patients report having difficulty with routine daily activities and 30–40% have had to quit work or change jobs (Mease 2005; Harris and Clauw 2006).

Treatments for fibromyalgia have been of many kinds, medical as well as non-medical, with varying and often limited results. The US Food and Drugs Administration has however in 2007 approved pregabalin (*Lyrica*) as the first drug treatment for fibromyalgia, after a study indicated its positive effect on pain reduction by at least 50% amongst 63% of fibromyalgia patients.¹⁸

On the whole the above account gives some information on the context of burdens of musculoskeletal and arthritis-related diseases in the advanced societies. This will be important background for our task of reflecting on these issues in the Nordic countries, even if only provisionally and in a preliminary way. In the next chapter we look at some indicators of differing levels of participation in paid work, which to a considerable extent may reflect differing degrees of effects of musculoskeletal or arthritis-related diseases. Then we look at health expenditures, medical consumption related to these diseases and progress to a more detailed account of indicators of out-of-pocket expenditures that are specifically connected to arthritis-related conditions.

Studies of the costs of arthritis-related diseases have typically found that indirect costs are larger than direct costs. This is because arthritis-related diseases do not particularly frequently lead to hospitalization and operations and they do not figure prominently as causes of mortality. Instead the consequences of these diseases typically emerge as pain, fatigue, loss of function and loss of employability. Lower employment participation, loss of productivity, sickness absence, disability and early retirement are thus important consequences of these diseases, affecting the society, work places and the patients themselves, both as regards loss of capability for societal participation and loss of pay and opportunities. We assess some indicators of such indirect costs of arthritis-related diseases in chapter VI.

First we approach direct costs of health care and medications generally, before approaching more directly indicators of personal costs of musculoskeletal and arthritis-related diseases in later chapters. Towards the end of the report we show specifically indicators of patients’ out-of-

¹⁸ See “Drug Approved. Is Disease Real?” in New York Times, 14. January 2008.

pocket costs both for health care and medications which are of specific importance for this group of patients.

IV. Health Care Costs

Before progressing towards a closer analysis of user health care costs related to arthritis and rheumatic diseases, and musculoskeletal conditions in general, we start by putting the health care expenditures in the Nordic countries into context.

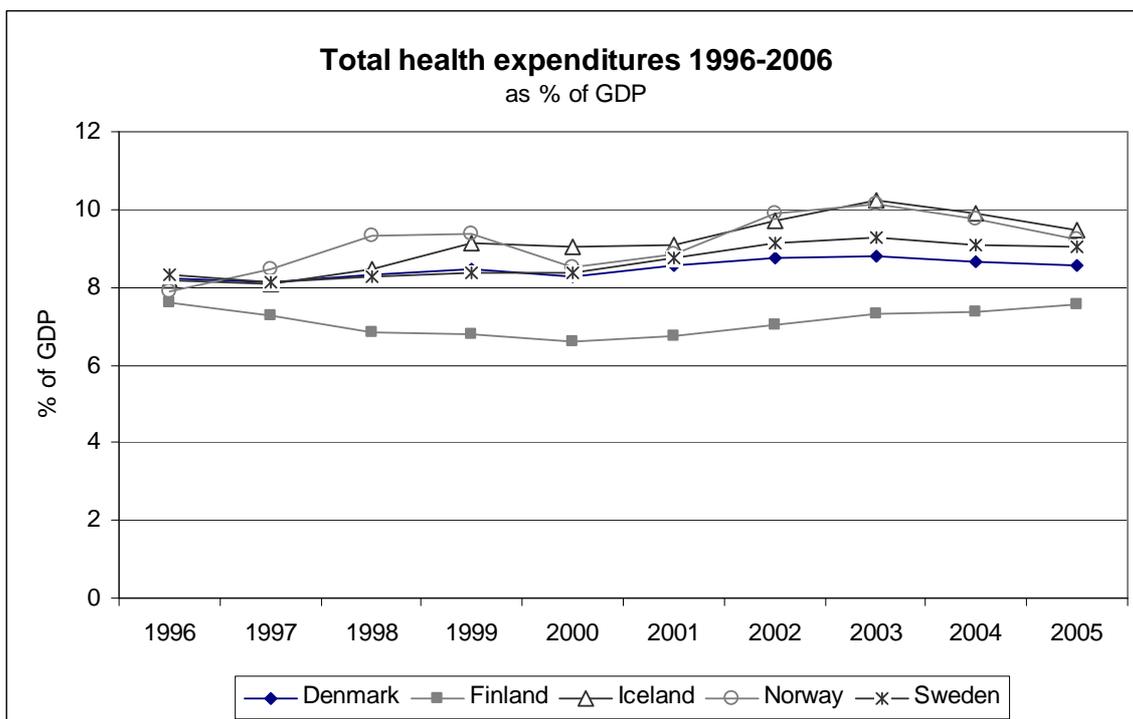


Figure IV.1: Overall health care expenditures in the Nordic countries, 1996 to 2006. Percentages of GDP.¹⁹

Iceland and Norway have the highest expenditure ratios in relation to GDP and Finland has consistently had the lowest (Figure IV.1). There is a slight tendency towards an increase in the period, especially after the year 2000. Iceland reached an earlier peak in 1998-9, came down in 2000-2001 and then went up again in 2002 and 2003. Finland had a significant cut in these expenditures from 1996 to 2000 but then increased again.

The Nordic countries do on the whole rank amongst the highest countries in the world as regards health care expenditures. This reflects extensive resources devoted to health care, high pay and price levels and great affluence of these countries. The USA is though significantly higher, mainly due to a much larger share of private health care expenditures and

¹⁹ Data comes from World Health Organization (www.WHO.org) and OECD.

this is primarily related to a different organization of the health care system in that country, which is well known.

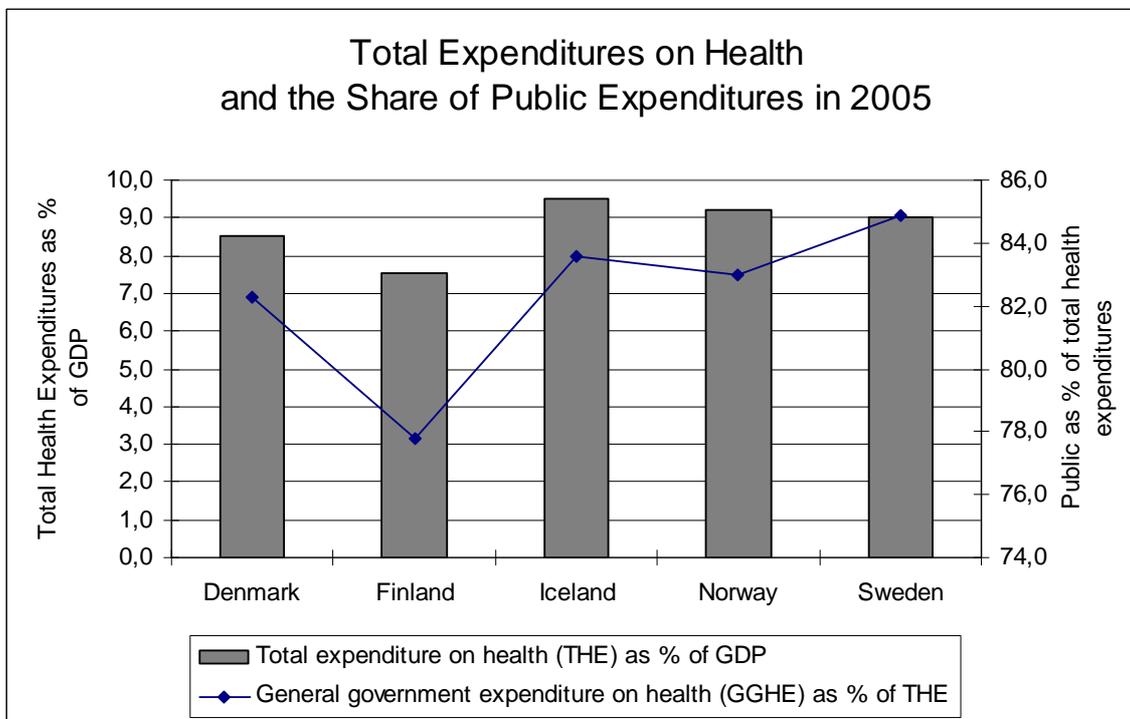


Figure IV.2: Share of public expenditures in total health care expenditures. Total expenditures as % of GDP (left axis) and public share as % of total (right axis), 2005.

Sweden had the highest share of health expenditures in the form of public expenditures in 2005, followed by Iceland and then Norway, ranging from about 81–85% (Figure IV.2). Finland had by far the lowest, about 77%. So the greatest part of the Nordic health care expenditures is carried by government and this characteristic is high by international standards. Given the very high overall expenditures on health care in Iceland, Norway and Sweden the large public share means that the burden for the tax payers is on the whole great.

But how do the countries compare as regards the role of private payers of health care services? The following figures provide indicators of that (Figure IV.3).

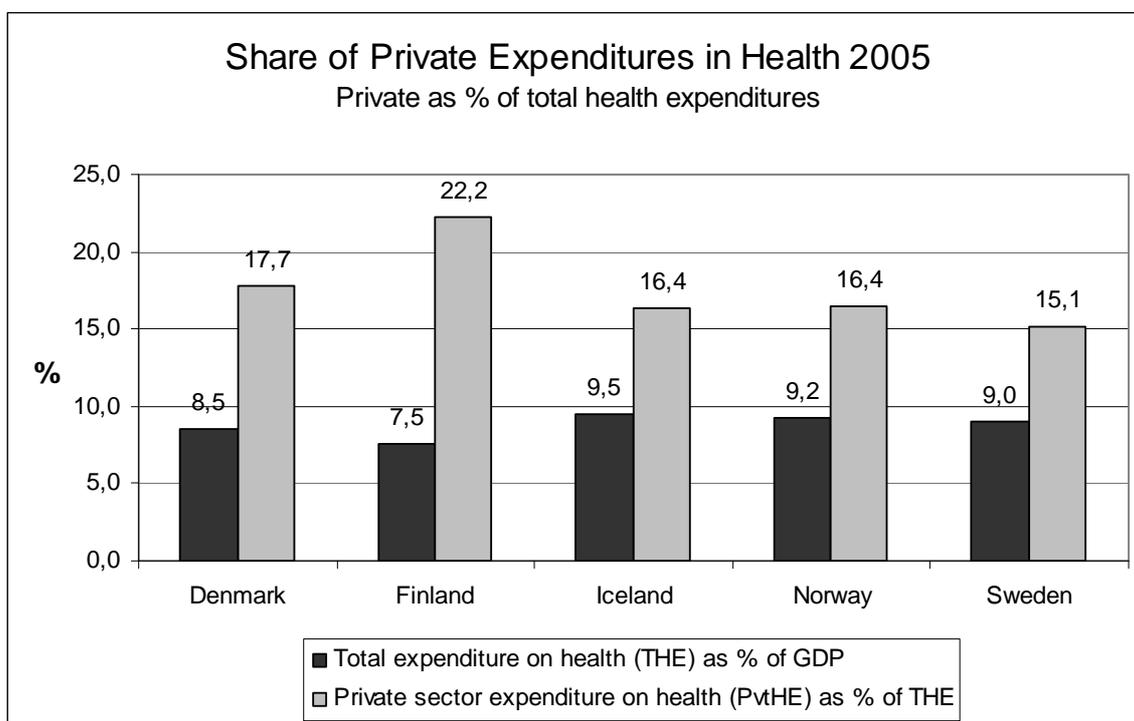


Figure IV.3: Share of private health care expenditures out of total health expenditures. Total expenditures (% of GDP) and private expenditures as % of total, in 2005.

Shares of private expenditures on the whole are similar in all the countries except Finland, ranging from 15.1% to 17.7%. In Finland the private share is on the other hand 22.2%. So Finland combines a lower overall expenditure on health care and a larger private share. The private share may affect users differently since this is dependent on the organizational characteristics of the health care systems in general. Thus in Iceland all private health expenditures are out-of-pocket expenditures for the households while in the other countries some part of the private expenditures is of other nature, for example undertaken by firms as a part of collectively bargained rights.

In figure IV.4 we show overall private expenditures on health care differently, i.e. as % of GDP and over time, from 1996 to 2005. There we see that there is a significant increase in the role of private expenditures in Sweden during the period, even though the private share is still lowest in that country at the end of the period. Finland had an even higher private share in 1996, then came down and went up again from 2002. Iceland also increased the private share significantly up to 2003 and then it came down again. Norway has also increased the private share overall, even though the development there has been considerably varying.

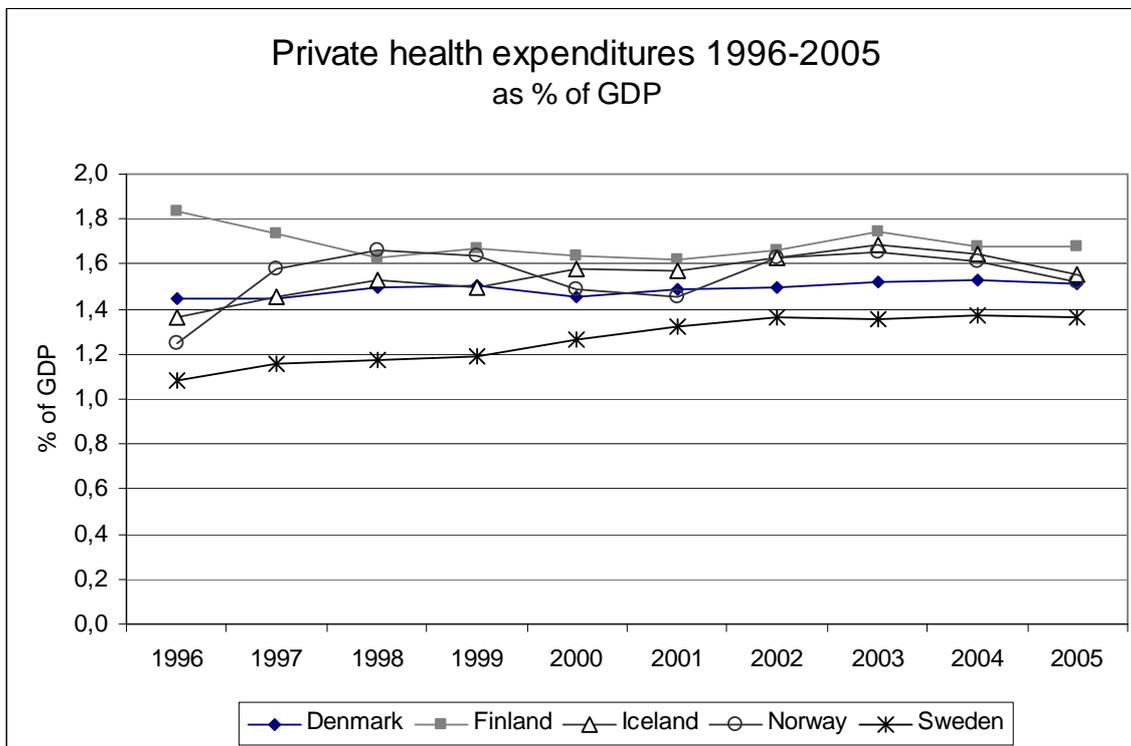


Figure IV.4: Private health care expenditures as % of GDP, 1996 to 2005

Lastly we measure the private out-of-pocket health care expenditures more directly and comparably as a % of GDP, in Figure IV.5.

This is perhaps the most relevant figure for our purposes of estimating the expenditures burden of patients, which we approach more directly in the latter parts of the report. There we see an indication of the real overall burden of households from private health care expenditures in the form of out-of-pocket expenditures, proportionally measured. This shows the combined effect of overall health care expenditures and the proportional share of households in the form of direct user charges. Households of course pay the largest share of all the public expenditures on health in the form of taxes, but the private share has implications for distributional effects which are examined further in the following chapters.

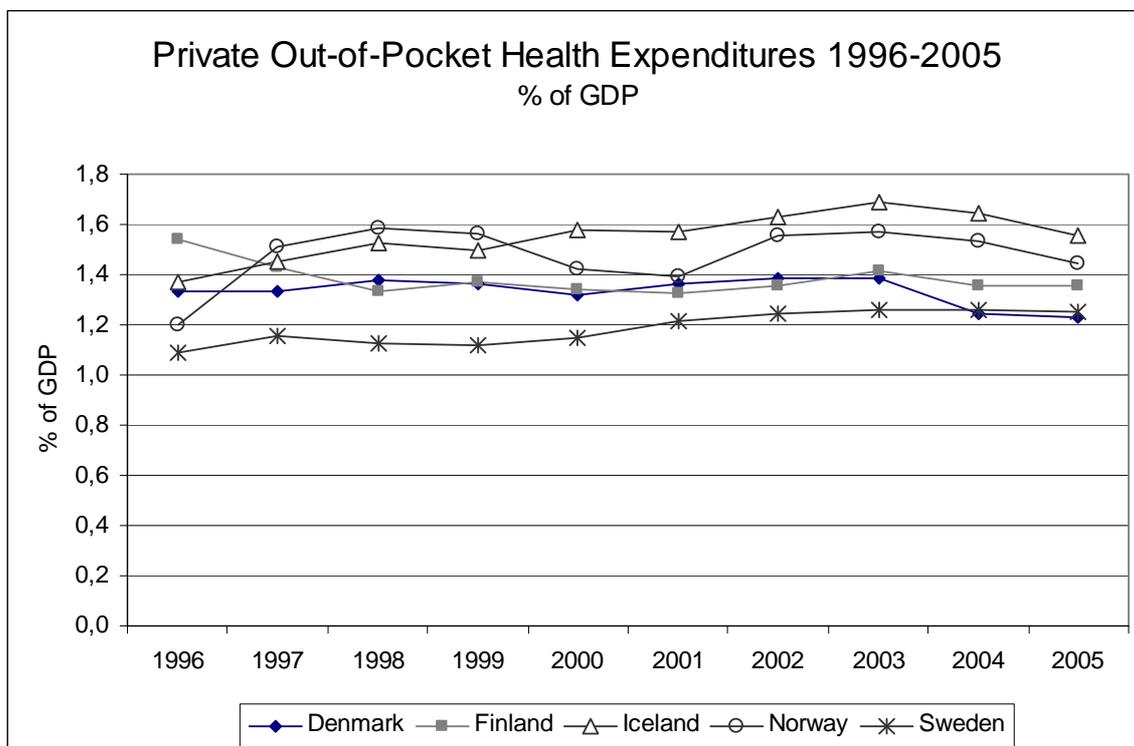


Figure IV.5: Private Out-of-Pocket Health Expenditures, % of GDP, 1996 to 2005.

Iceland has had the highest private out-of-pocket expenditures amongst the Nordic countries since the year 2000. These out-of-pocket expenditures for the homes have grown in Iceland from about 1% of GDP in 1990 to a little less than 1.4% of GDP in 1996 and onwards to just below 1.6% in 2005.²⁰ Norway has the second largest reliance on private expenditures. It topped the rank in 1997–1999 but lowered its rate in 2000–2001, only to increase again after that. Denmark has remained at a similar level until it lowered the private share in 2004–5. Finland has hovered around 1.4% of GDP for most of the period. Sweden has on the other hand increased its private share from around 1.1% of GDP to a little above 1.2%, still remaining at the lowest end with Denmark.

On the whole the Nordic countries expend great sums of their national products on health care and the largest part of that is financed by governments (state and counties). There is though a little difference between the countries in the degree to which they use private means and user charges on households in the health care services. Iceland and Norway seem to go furthest in the direction of private household out-of-pocket expenditures, along with very high overall expenditures, and Sweden and Denmark have trodden this path to a smaller extent, with Finland in the middle. Overall there has been a tendency for the private expenditure

²⁰ The data in the table are from WHO and data for the year 1990 in Iceland comes from Statistics Iceland.

burden to increase somewhat in the Nordic countries in the period from 1996 to 2005.

To end with we will show some indicators of direct cost of musculoskeletal conditions in the hospital services in the Nordic countries, in table IV.1.

Table IV.1 Patients treated in hospital by main diagnostic group, per 1000 inhabitants in 2004

	Denmark	Faroe Islands	Finland	Åland	Iceland	Norway	Sweden
Musculoskeletal conditions	8,9	13,2	15,0	14,1	9,1	11,0	7,1
All diseases	116,5	175,3	168,7	173,1	137,2	125	93,8

Source: NOMOSKO (2006), Health Statistics in the Nordic Countries, pp. 126-7

The figures in the tables are the number of patients treated in hospitals for musculoskeletal conditions during the year 2004 and for comparison the overall figures for hospital treatments are also shown. The higher the figures the higher is the direct cost of this group of diseases (musculoskeletal diseases) likely to be, given that cost levels of operations are similar. Similarly the overall figures give an indication of the cost of the hospital system in the respective countries.

The Faeroese and Ålanders, along with the Finns, have the highest rates of treatments for these diseases. Iceland is significantly lower, with about 9 per 1000 inhabitants with Denmark, as against 13–15 for the former countries. Norway comes in between with 11 and Sweden has the lowest rate at 7.1. The figures for all diseases show a similar pattern amongst the countries, so this may partly reflect differing uses of hospitals. In the case of the Icelanders this outcome is surprising in the light of the fact that Icelanders consume medicines for these same diseases on level with the Finns, as emerges in the next chapter.

If these figures in table IV.1 are reliable indicators of direct costs associated with the hospital system the hint is that such costs related to musculoskeletal conditions are highest in Finland, Faroe Islands and in Åland, and by far the lowest in Sweden. The other countries are in the medium range. This is however not a reliable overall indicator of health care costs as it may partly reflect differing organizations of health care for this group, within or outside the hospital sector.

V. Cost and Consumption of Medicines

Medical consumption is an important part of the arthritis and rheumatic patients' life and the cost of that is carried by society (in the form of subsidies of costs) and by the patients themselves in the form of user charges. In this chapter we assess the extent of consumption and costs of medicines for our target groups.

It is though difficult to get internationally comparable data on this for arthritis and rheumatic patients solely. We have therefore had to make approximations, on the one hand by using data on musculoskeletal medicines, which covers more than just the arthritis and rheumatic drugs. They are still a sizable part of that group so this is clearly of relevance.

On the other hand we look at data on anti-inflammatory and anti-rheumatic products non-steroids, which is mainly used by our target group but at the same time it is not the whole gallery of medicines used by that group. We thus have on the one hand a wide ranging indicator and on the other a narrow one.

Table V.1 Pharmaceutical consumption: Musculo-skeletal system
Defined daily dosage (DDD) per 1000 inhabitants per day

	2004	2005
Australia	63.6	54.2
Belgium	58.0	55.5
Czech Republic	73.9	80.7
Denmark	65.6	64.2
Finland	93.3	96.2
Germany	59.2	60.2
Greece	73.8	n/a
Hungary	70.2	72.9
Iceland	85.1	79.3
Italy	41.1	37.9
Luxembourg	74.6	78.2
Netherlands	42.0	40.0
Norway	65.3	58.8
Portugal	88.6	88.8
Slovak Republic	123.0	143.5
Sweden	64.2	63.7
United Kingdom	n/a	54.8 e

Source OECD Health Data 2007

Table V.1 shows the consumption of the wider group of musculoskeletal medicines in 2004 and 2005. The data comes from the health data bank of OECD. The figures indicate the number of defined daily dosages per thousand inhabitants.

Of the Nordic nations the Finns have the highest consumption of medicines for musculoskeletal conditions and the Icelanders come second. Norwegians have the lowest consumption and Danes and Swedes are on similar levels. Of other European nations the Slovaks have by far the highest consumption followed by Portugal, the Czech Republic and Luxembourg. The lowest European level is in Italy and Netherlands. Relatively little changes in consumption of these medicines occurred between 2004 and 2005.

Table V.2 Pharmaceutical consumption: Anti-inflammatory & anti-rheumatic products non-steroids. Defined daily dosage (DDD) per 1000 inhabitants per day

	1995	2000	2001	2002	2003	2004
Australia	32,7	41,1	47,8	44,5	44,3	42,5
Belgium		35,9	33,5	38,3	39,3	39,9
Czech Republic	36,5	56,4	60,4	62,5	66,0	63,3
Denmark	29,7	31,1	34,5	38,1	41,3	56,3
Finland		61,3	65,4	65,3	70,0	75,4
Germany	26,9	26,8	30,5	32,2	34,8	34,0
Greece	29,8	48,0	46,8	49,5	52,1	57,5
Hungary	27,6	34,6	34,3	39,0	41,6	..
Iceland	36,7	51,4	55,0	61,2	69,6	74,9
Luxembourg	..	52,4	56,6	59,2	63,8	59,4
Norway	..	34,5	43,6	51,8	48,3	51,6
Portugal	..	58,0	65,0	66,1	63,2	67,3
Slovak Republic	20,5	41,1	48,2	54,1	49,0	50,0
Sweden	33,7	39,9	42,4	45,6	51,1	53,1

Source: OECD Health Data 2007; Data last updated on May 18th, 2006.

In table V.2 we show the consumption of anti-inflammatory and anti-rheumatic products, which are more directly used by arthritis and rheumatic patients, even though they also use other types of medicines. Finland and Iceland have similar levels of consumption of these medicines in 2002–2004, but in earlier years Iceland was at a lower level than Finland. Norway has again the lowest consumption and Sweden and Denmark are only slightly higher. The significant deviation in the table amongst the Nordic countries is the high levels of Finland and Iceland. None of the European nations which are included in the table have higher rates than these two, as is the case with the musculoskeletal system medicines (see table VI.1).

Amongst all the nations included there is a significant trend towards an increased consumption of these anti-inflammatory and anti-rheumatic medicines from 1995 to 2004. In some cases this reflects an increasing

frequency of these diseases with increasing aging, availability of better medicines and perhaps better understanding of these diseases.

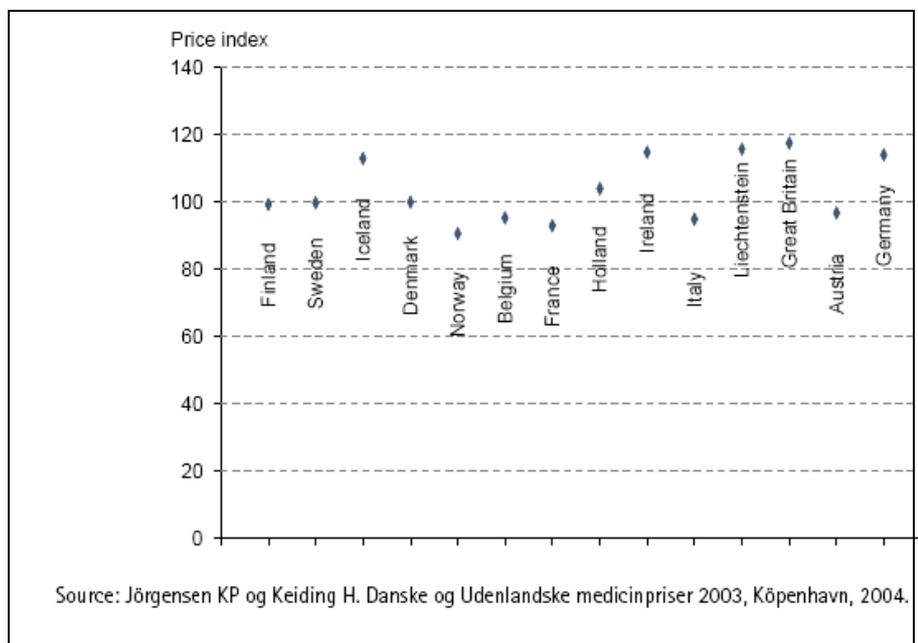


Figure V.1: Cost indices for medicines in 2003. Denmark=100.

In Figure V.1 we show indicators of price levels for a comparable basket of medicines in some European countries. The price level for the medicines in question is set at 100 for Denmark and the price levels of the other countries is shown in relation to that. Those above 100 have a higher price level than Denmark and those below are cheaper.

It is interesting in this figure that Iceland stands out in the Nordic community with a significantly higher price level than the others which are around 100 except Norway which is lower at close to 90. Iceland shares the higher price level with the anglo-saxon countries, Britain and Ireland, along with Lichtenstein and Germany. France, Italy, Belgium and Austria are lower than the Danish level.

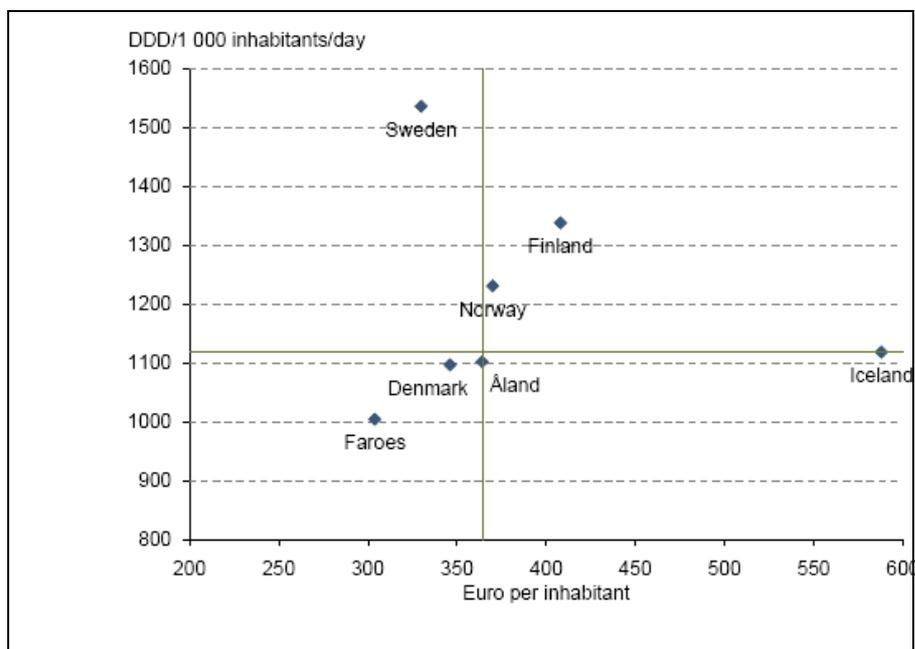


Figure V.2: Cost and Consumption of medicines in 2003²¹. Consumption in DDD per 1000 inhabitants per day and costs in Euros per inhabitant.

This is followed further up in figure V.2 which shows the relationship between cost and consumption. There we see that the overall consumption level of Iceland (counting all medicine groups) is well below that of Sweden, Finland and Norway (indicating that the high level of consumption in Iceland of musculoskeletal medicines, along with nervous system drugs, is not repeated in all groups of medicines). The high level of cost of medicines per inhabitant in Iceland is thus not primarily due to higher overall consumption levels there but apparently has more to do with a higher price level. That is reckoned by the NOMOSKO group to be due to a smaller market and a greater willingness in Iceland to use new and expensive drugs. It may also have something to do with lesser regulation of the pharmacy retail sector in the country. So the clear indication is that the price level per DDD of medicines in general is higher in Iceland than in the other Nordic countries.

In table V.3 is shown a more recent direct price comparison of specified medicines in four of the Nordic countries (Finland missing). These are registered retail prices at the 28th of November 2007. This is a reasonably good indicator of price levels for these medicines at that time.

²¹ Figures V.1 and V.2 are from NOMOSKO (2004): *Medicines Consumption in the Nordic Countries 1999-2003*, pp. 18-19.

Table V.3 Cost of Prescribed Medicines in Four Nordic Countries. Retail prices of comparable types and dosages, November 2007. Icelandic Kronur.

Medicine:	Iceland	Denmark	Norway	Sweden	Ranking	Average price
Seretide Diskus	6.467	5.601	5.428	4.615	Ice, Den, Nor, Swe	5.528
Nexium	13.897	13.233	8.179	9.800	Ice, Den, Swe, Nor	11.277
Nexium	18.000	17.790	12.331	12.067	Ice, Den, Nor, Swe	15.047
Cozaar Comp	9.591	9.270	8.171	6.221	Ice, Den, Nor, Swe	8.313
Seretide Diskus	8.410	7.507	6.963	6.261	Ice, Den, Nor, Swe	7.285
Zarator	12.926	17.083	14.593	11.327	Den, Nor, Ice, Swe	13.982
Casodex	48.514	54.770	46.707	34.158	Den, Ice, Nor, Swe	46.037
Xalatan	3.039	2.484	2.211	1.852	Ice, Den, Nor, Swe	2.396
Efexor Depot	11.965	13.048	10.543	9.542	Den, Ice, Nor, Swe	11.274
Lomex-T	11.625	Not available	9.387	2.660	Ice, Nor, Swe	7.891
Concerta	8.159	Not available	7.054	5.516	Ice, Nor, Swe	6.910
Zarator	15.970	17.083	17.705	14.933	Nor, Den, Ice, Swe	16.423
Seroquel	8.474	7.606	6.266	5.793	Ice, Den, Nor, Swe	7.035
Fosamax vikutafla 70 mg	12.149	12.945	9.045	8.194	Den, Ice, Nor, Swe	10.583
Sivacor	4.239	989	1.929	562	Ice, Nor, Den, Swe	1.930
Keppra	15.961	15.628	13.866	11.394	Ice, Den, Nor, Swe	14.212
Efexor Depot	21.443	23.584	19.609	18.302	Den, Ice, Nor, Swe	20.735
Spiriva	6.302	5.856	5.155	3.976	Ice, Den, Nor, Swe	5.322
Gonal-f	44.170	48.100	44.869	32.128	Den, Nor, Ice, Swe	42.317
Number of outcomes:						
Highest price	12	6	1	0	...	..
Second highest price	4	10	5	0	...	...
Lowest price	0	0	1	18	...	...

Sources: Icelandic Commission on Prices of Medicines (*Lyfjagreiðslunefnd*)

As summarized at the bottom of the table Iceland has most frequently the highest retail price, followed by Denmark. Sweden on the other hand has by far the lowest price level, mainly accounted for by the absence there of VAT tax on prescribed medicines. The other countries typically have 24–25% VAT level so the difference on that account is considerable. A more recent comparison from beginning of year 2008, which includes a larger number of medicines, indicates a more even outcome between Iceland and Denmark, i.e. as regards the number of cases with the highest price for an individual medicine (www.lyfjagreiðslunefnd.is).

The Ministry of Health in Iceland is currently engaged in a major attempt to cut prices of medicines in the country. The outcomes from that project should emerge in 2008 – 2009.

In table V.4 we lastly show some further aspects of consumption and costs of medicines in the year 2003, this time more directly concerning people with arthritis and rheumatic related diseases. Sales of musculoskeletal medicines per inhabitant (calculated in pharmacy prices) are highest in Iceland, followed by Finland and Åland. Swedes and Danes have the lowest sales figures in this case. This is then compared to overall sales figures for all medicines and then Iceland tops the rank, as also emerged in figure VI.2. The other countries are well below Iceland in this respect.

**Table V.4 Aspects of consumption and costs of medicines for rheumatism patients
Sales in Euros per inhabitant in 2003, calculated in pharmacy prices**

	Denmark	Faroese	Greenland	Finland	Åland	Iceland	Norway	Sweden
Musculo-skeletal medicines sold	15	11	2	29	24	35	23	16
Total medicines sold	350	304	85	403	358	588	370	330
Musculo-skeletal, as % of total	4,3	3,6	2,4	7,2	6,7	6,0	6,2	4,8
User charges, as % of total cost	32	16	..	42	41	36	..	20
Anti inflammatory/anti-rheumatic (non steroids) consumption, DDD/1000 inhabitants/day	41,1	..	..	70	..	69,6	48,3	36,6

Source: NOMOSKO (2004), Medicines Consumption in the Nordic Countries 1999-2003.

The musculoskeletal sales are highest as a percentage of total medical sales in Finland and Åland, followed by Iceland and Norway. User charges calculated from these figures are at 41–2% in Finland and Åland and 36% in Iceland. Denmark comes next with 32% but the user charges are by far the lowest in Sweden, in this calculation.

Thus the indication so far is that the price levels are considerably higher in Iceland than in the other countries and that overall user charges for health care are also relatively high there. Finland approaches Iceland in some respects but the consumption and cost of medicines, also for arthritis and rheumatic and musculoskeletal medicines, is generally lower in Sweden, Norway and Denmark, in that order. User charges seem to be somewhat lower in these countries, i.e. proportionally. In the last section of the report we look further into that subject, namely the characteristics and extent of user charges for rheumatic patients in the Nordic countries.

Use of New Biologic Medicines – Inhibitors

In recent years there has been a great progress in the development of new medications which are capable of halting progression of rheumatic diseases and the associated damages to joints. There are often referred to as biologic medicines or biologic treatments, alternatively “inhibitors”. This new class of drugs has been in use since 1998 and thus studied for almost 10 years.

A biologic drug copies the effects of substances naturally made by the body’s immune system. It is genetically engineered. Such drugs are given to lessen inflammation by interfering with biologic substances that cause or worsen inflammation. These new biologic agents can specifically affect some of the abnormalities of the immune system that lead to joint inflammation and other abnormalities seen in rheumatoid arthritis (RA).

These drugs are very expensive and have some side effects, for example an increased risk of infections. They can be used alone or in

combination with more traditional disease modifying antirheumatic drugs (DMARDs). They are often most effectively used at an early stage of the disease.²²

The most common drugs are etanercept (brand name Enbrel), adalimumab (brand name Humira), anakinra (brand name Kineret) and infliximab (brand name Remicade).

In the Nordic countries these drugs have made a significant inroad into treatment options in recent years.

Next we give an overview of some approximate indicators of indirect costs of diseases, by analyzing inactivity rates in employment and sickness absence rates in the Nordic countries.

²² See descriptions at www.rheumatology.org and at Nordic rheumatic associations' websites.

VI. Inactivity and work disability rates

We have seen that arthritis-related and musculoskeletal diseases in general are amongst the most common causes of inactivity in the labour market. We have also seen that these diseases have an increased prevalence with higher age. This connects them significantly, though not at all solely, to increased propensity for part-time work, early retirement and they are frequently one of the more common causes of full disability.

Figures of the extent of inactivity are approximations for the extent to which these and related diseases have had consequences for the labour market as well as for the individuals affected. While these are obviously not the sole causes of higher inactivity and disability levels, such figures can be taken as indicators of the differing extent to which arthritis-related diseases lead to loss of productive power and loss of income.

In table VI.1 we show such indicators of inactivity by age groups.

Table VI.1 Inactivity rates 2005 by age groups
% of each age group not active in the labour market

Age groups:	Denmark	Finland	Iceland	Norway	Sweden	EU 25
15–24	31,8	54,7	26,7	40,1	53,4	54,9
25–49	10,6	12,1	11,5	13,1	10,4	14,7
50–64	29,9	32,5	11,1	26,5	22	42,2
65+	94,6	96,9	67,4	87,5	95,1	96
Average inactivity rates (all at ages 15 and over)	34,2	40	19,1	27,9	37,3	42,7

Source: Eurostat, Labour Force Survey 2005 (Q4).

Here we see that inactivity rates differ considerably between the Nordic countries and Iceland stands out as the country with the lowest inactivity rates. Assuming that arthritis-related diseases are for the most part genetically determined and thus to a large extent with broadly similar prevalence rates by age groups we can read these figures as broad indications of differing employment consequences of these diseases. With due reservations it thus appears that arthritis and rheumatic conditions are less likely to lead to exits from the labour market in Iceland than in the other countries. The indirect cost of these diseases is therefore likely to be significantly lower in Iceland.

The inactivity rates are lower for Iceland in all age groups except for the 25–49 group. In the age group 50–64, where the consequences of arthritis-related diseases for employment should be the greatest, there the difference between Iceland and the rest are the greatest, along with the youngest age group (which reflects a higher propensity amongst Icelandic

students in secondary schools and universities to work part-time alongside their studies). The main reason for the lower inactivity rates amongst the 50–64 age group is probably the fact that Iceland has not had an early retirement provision in its social security system. Those exiting the labour market because of arthritis/rheumatic conditions have to pass through the significant barriers involved in the disability test, as well as the associated stigma. This is no doubt a great inhibitor of exit of many people with arthritis/rheuma from the labour market. Thus we may have proportionally more working people in Iceland suffering pain and inhibitions from arthritis-related conditions than is typical in the other countries. Extensive consumption of medicines for musculoskeletal diseases, anti-inflammatory drugs, pain killers and drugs for the nervous system in Iceland may be related to this fact, i.e. that there are most likely more people affected by arthritis-related diseases who are active in the labour market and persist there with the help of rather extensive medical consumption of the above types of medicines.

Norway has the second lowest inactivity rates after Iceland. Then come Denmark and Sweden, with Finland lagging behind. Inactivity levels in the European Union are though on average higher than in all the Nordic countries, again reflecting amongst other things easier paths to early retirement.

It is also interesting to examine the inactivity rates in separate age groups more closely. Thus it emerges that Finland has the highest inactivity rate (about a third) amongst people 50–64 years of age, Denmark follows the lead with nearly 30%, then Norway has 26%, Sweden 22% and Iceland only 11%. The average for this age group in the EU is however higher, about 42%.

Another important cause of indirect costs of musculoskeletal and arthritis-related diseases is when the diseases lead to disability. Arthritis-related diseases may in many cases account for about a third or more of all new disability cases in contemporary Western societies. We thus examine the extent of formal disability by age groups in the Nordic countries in 2004 (table VI.2). This is an important indicator of indirect costs, even though not an isolated reflection of the concerned diseases here. Here we also have separate figures for males and females which is important since the prevalence of some of the more consequential arthritis-related diseases is higher amongst females than amongst males.

Table VI.2 Pension receivers by age groups (%)Males and Females in the Nordic Countries in 2004

	Denmark		Finland		Iceland		Noregur		Sweden	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
16–39	1,8	1,5	2,0	1,5	3,1	4,7	2,3	2,6	2,3	3,2
40–49	5,6	6,3	5,9	4,8	6,2	9,4	6,9	10,0	6,5	11,2
50–54	8,9	11,2	12,5	10,1	7,5	12,0	11,7	18,1	11,0	19,3
55–59	11,7	16,8	21,7	19,0	9,3	15,4	18,2	27,5	15,9	28,1
60–64	50,2	66,6	64,1	67,7	13,6	23,4	38,9	46,5	33,8	48,9
65–66	79,3	86,5	104,6	105,1	45,3	55,7	66,2	66,1	98,8	97,9
Average % of pensioners (ages 16+)	23,6	29,9	26,1	32,0	17,7	23,3	23,8	31,2	27,3	36,0
Difference in overall level between the sexes (F-M)	--	6,3	--	5,9	--	5,6	--	7,4	--	8,7

Source: Nososko, *Social tryghed i de nordiske lande* 2006, p. 124. Pension receivers residing abroad put Finnish figure for the 65-66 age group above 100.

The prevalence of disability is between 5.6 to 8.7 %-points greater amongst females than amongst males. This is interesting since it corresponds to the greater prevalence of arthritis-related diseases amongst females. Females contribute thus more towards the indirect cost of these diseases than males, as seen from this perspective. The disease is though not likely to be the sole cause of this difference, since it may also tie up with other social and health factors affecting the opportunities and positions of females in modern societies.

Table VI.2 shows that Iceland has the lowest rates of disability amongst the higher age groups, followed by Norway, Sweden and Denmark. Finland again has the highest rates, reflecting at the same time long-term higher unemployment problems than in the other countries as well as probably higher rates of various musculoskeletal conditions (which also may reflect a high degree of manual industrial and primary sector jobs prevailing for a long time in Finland's economy).

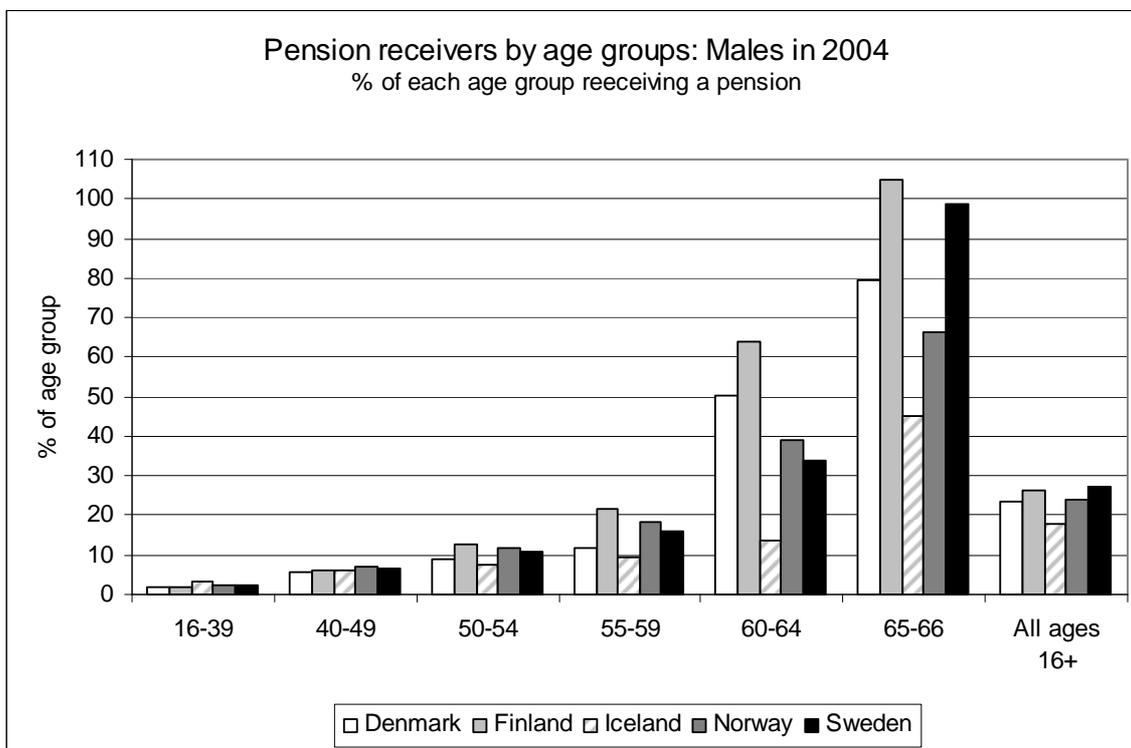


Figure VI.1: Pension receivers by age groups. Nordic countries, males in 2004.

Figure VI.1 shows better the difference in age-related disability rates between the countries, for males. We see firstly how the degree of disability (as measured by pension reception amongst people at working ages) increases with rising age. It surpasses 100 in the age group 65–66 in Finland, since a part of the pension receivers are residing abroad (and thus do not count in the total number of people in that age group even though the pension receivers are fully counted). The special position of Icelanders as regards low proportion of disability/pension reception in the age groups above 50 is very clear here. This is perhaps most marked in the age group 60–64. Earlier retirement in the other Nordic countries explains this deviation of Iceland.

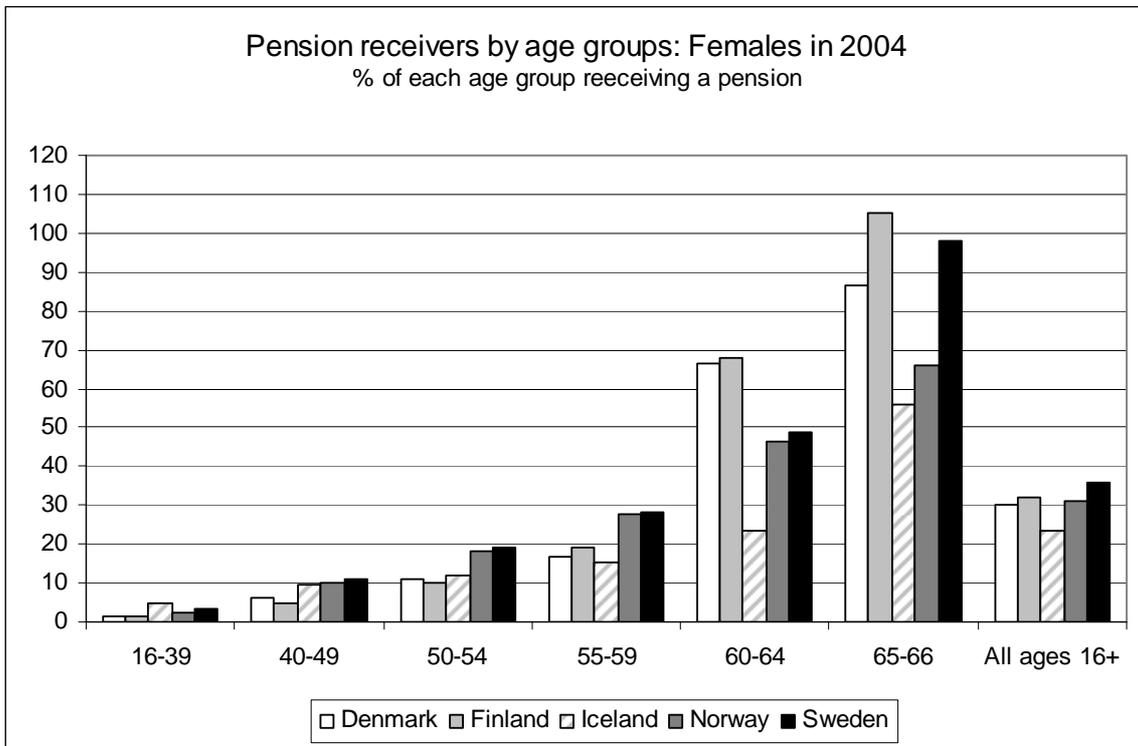


Figure VI.2: Pension receivers by age groups. Nordic countries, females in 2004.

The situation amongst females shows a similar pattern although the degree is higher overall. The figures for “Total 16+” include all old-age pension receivers as well as the working-age pension receivers.

So the indications we get thus far from employment participation (or its downside, i.e. inactivity rates) and disability prevalence by age and sex groups is that the indirect cost of arthritis-related diseases, and more generally musculoskeletal diseases, is likely to be lower in Iceland than in the other countries. Next in line are Norway and Denmark, and then Sweden and Finland are likely to have higher such indirect costs, both for the society and the individuals affected.

Next we look at another relevant indicator of indirect costs of these diseases, namely sickness absence from paid work (table VI.3).

Table VI.3 Sickness absence in the Nordic Countries 1995–2004 Employees absent due to sickness for at least one week. % of all employed

	Denmark	Finland	Iceland	Norway	Sweden
1995					
Males	1,4	2	1,3	2,2	2,2
Females	2,2	2,3	2,1	3,1	3,4
Total	1,7	2,1	1,7	2,6	2,7
2000					
Males	1,4	2,2	1,1	3,4	2,6
Females	2	2,5	1,5	4,7	4,9
Total	1,7	2,4	1,3	4	3,7
2001					
Males	1,4	2,1	2,0	4,5	2,7
Females	1,9	2,4	0,7	3,2	5,1
Total	1,7	2,2	1,3	4,0	4,0
2002					
Males	1,4	2,1	1,0	3,3	3,0
Females	2,2	2,6	1,4	4,8	5,1
Total	1,7	2,4	1,2	4,0	4,1
2003					
Males	1,3	2,2	..	3,1	3
Females	2,1	2,7	..	4,7	5,3
Total	1,7	2,4	..	3,9	4,1
2004					
Males	1,2	2,2	..	2,9	2,8
Females	2,2	2,8	..	4,3	4,7
Total	1,7	2,4	..	3,6	3,7

Source: Nososko 2006, supplementary tables, and Nordic Statistical Yearbook 2006.

For the year 2000 Iceland has the lowest absence rates, followed by Denmark which is only a little higher, and then come Finland, Sweden and Norway in that order. Women have higher absence rates in all cases, reflecting probably both higher rates of arthritis-related burdens, higher care burdens at home (for young children and elderly family members) as well as more restricted opportunities in the labour market. In 1995 there was no significant difference in the absence rates in Denmark and Iceland but Norway and Sweden in particular have got increased sickness absence rates, which seem from this data to have culminated in 2003 and then lower somewhat in 2004. Unfortunately there are no comparable data for Iceland available after the year 2000, but it is not likely that there has been any significant change in the Icelandic absence rates.

So it is not only in employment participation rates that Iceland has a special position in an intra-Nordic comparison, it is also in the field of sickness absence.

Lastly it is of interest in the light of the indications from the tables above of higher employment participation rates amongst Icelanders with arthritis and rheumatism to see the actual employment participation rates

of this group in comparison with the general population. This is done in table VI.4.

Table VI.4 Employment participation of Icelandic arthritis patients compared to the general population, in 2003 % of each age group in paid employment

Age groups:	22–40	41–50	51–60	61–70	71+
Arthritis/Rheuma-affected individuals (A)	57,4	66,7	61,9	37,1	1,9
General population (P)	82,6	90,8	88,5	56,9	9,6
Difference (P-A)	25,2	24,1	26,6	19,8	7,7

Source: Social Science Research Institute, University of Iceland, Survey amongst members of Icelandic Rheumatism Association 2003.

The figures in the table come from a survey done by the Social Science Research Institute at the University of Iceland in 2003. As is well known internationally, people with arthritis and rheumatism have lower employment participation rates and lower earnings than the general population.²³ This is also so in Iceland even though Icelandic patients seem to work more than those of the neighboring countries.

As we see in the table there is still a significant difference in this matter in Iceland. We could expect from the above discussion that the difference in the other Nordic countries is more marked than in the Icelandic case. The difference is greater in the lower age groups, which is probably due to the fact that those who get these diseases early in life more often develop a more severe condition with more severe consequences for participation in society and employment. A weaker support and rehabilitation system in Iceland may also be an important factor in this.

In Norway about 33% of individuals on disability pension in 2004 had musculoskeletal diagnosis as their primary cause for disability. Of these about a half had arthritis or rheumatic diseases. In the same year about 36% of newly registered disability pensioners had musculoskeletal diagnosis as prime cause and arthritis and rheumatic diseases were about a third.²⁴

In 2006 about a third of sickness absence cases in Norway was due to musculoskeletal conditions and this amounted to 41% of days lost due to sickness absence. These figures have however lowered a little since 2001.²⁵

In Sweden in 2001 about 18% of the population 16–85 years of age reported musculoskeletal diseases in the national health survey. In the period 1995–1998 36% of newly registered disability pensioners had musculoskeletal diagnosis as the main cause amongst males and amongst females the proportion was 48%.²⁶ So there are variations in the individual estimates of prevalence for individual disease categories but the mus-

²³ See for example Walter F. Stewart et. al. (2003), "Lost Productive Time and Cost Due to Common Pain Conditions in the US Workforce", in *JAMA*, vol. 290, nr. 18, pp. 2443-2454.

²⁴ Trygdestatistisk arbok 2005, chapter 3 (Oslo, Trygdeetaten).

²⁵ See data on www.nav.no (Arbeids- og velferdsdirektoratet).

²⁶ Swedish Yearbook of Health and Medical Care 2002 (Stockholm: Socialstyrelsen).

culoskeletal category is clearly one of the largest and arthritis and rheumatic diseases are a large part of that.

All taken together it seems that there are significant indirect costs of arthritis and rheumatism for people in the Nordic countries. These seem however to be less extensive than in the EU countries on the European continent. That may be due to more effects of activation and welfare support measures in the Nordic countries and more affordable health care services. Iceland may have the lowest degree of indirect cost of these diseases since it has significantly lower inactivity rates, sickness absence rates and also lower disability rates. It does not seem likely that this situation in Iceland is due to significantly lower prevalence rates of these diseases.²⁷ Absence of an early retirement program in Iceland may have much to do with this outcome, since it means that there are higher barriers for exit from the labour market and entry into the welfare state for people with arthritis and rheumatic diseases and musculoskeletal conditions in general. Rights to sickness pay in Iceland are to a large extent differently organized in comparison to the other Nordic countries, since they are parts of collective bargains in the labour market and generally involve retention of pay during sickness. The use of sickness pay is thus supervised by employers which may provide a closer discipline on its prevalence than prevails where such provisions are to a larger extent administered by impersonal public institutes of the social security system.

²⁷ See Silman, A.J. and Pearson, J.E. (2002), "Epidemiology and genetics of rheumatoid arthritis", in *Arthritis Res.* 2002, vol. 4 (supplement 3), pp. 265-272.

VII. Direct Cost of Patients – Some Nordic Comparisons

In this chapter we present some indicators and explanations of user charges for medical services and for medicines. First we look at costs for consulting with a physician, in table VII.1. All the cost figures in the table are in EUROS (EUR), to ease the comparison. The figures refer to the charges prevailing on January 1st 2006 and rates of exchange around mid August 2007.

Table VII. 1. User charges for a consultation with a physician

	Same rules apply for all regions?	Size of user charge	Deviations in user payments	Limits on total payments
Denmark:	Yes	No charge	No	Not applicable
Faroe Islands:	Yes	No charge	No	Not applicable
Greenland:	Yes	No charge	No	Not applicable
Finland:	Yes	Public service: 0-11 EUR and EUR 15 if visit is between 2000 and 0800 or on weekends or public holidays. The charge applies only for 3 visits. Private services: User pays usually around 40% of cost.	No charge for children under 18 years of age.	
Åland:	Yes	Regular visit EUR 18 and EUR 27 outside opening hours.		Free treatment after paying EUR 450, and for children under 18 the limit is EUR 200 and EUR 225 for low income people.
Iceland:	Yes	EUR 8–28 for primary care, Other rules apply for specialized care. Basic charge for a visit to a specialist is EUR 28–9.	EUR 4–11 for children under age 18, pensioners, the disabled and long-term unemployed. For children chronically ill or handicapped EUR 2.5–7.5.	Limit on user expenditure for health care is EUR 193. After that users pay 1/3-1/2 of cost.
Norway:	Yes	Consultation with a primary Physician: EUR 13 (day, EUR 21 (evening). For a specialist users pay EUR 15 (day) and EUR 24 (evening).	In case of pregnancy, childbirth, industrial injury, war injuries, prison inmates, children under age 7, for psychotherapy for people under 18 and for treatment of dangerous diseases, special conditions apply.	Users pay approx. 35% of cost. Limit is at EUR 167.
Sweden:	No	EUR 9–26	Yes.	Limit on total user cost is at EUR 93. After that they get a free-card for the 12 months from 1st visit

Source: Health Statistics in the Nordic Countries 2004 (2006) and data from NRA.

There it emerges that there are no user charges for a visit to a physician or a specialist in the Danish health care system. The same applies to the outposts of the Danish empire, i.e. Greenland and the Faroe Islands. These are the only cases of free service of this kind in the Nordic countries. It is interesting in this context that the recent Danish welfare commission, appointed by the government with the mandate to reform and rationalize the welfare system, recommended in its report in 2005 to apply modest user charges for this service in Denmark, with the argument that such charges prevail in all the other countries. Time will tell if that will materialize.²⁸

In Finland a visitor to a physician in public service is charged for three visits only. After that visits to a doctor are free for the rest of the calendar year. Children under 18 do not pay for consultations. Maximum charge for a visit to public health care center was 11 Euros, as of 1st January 2006. On evenings and at night the charge was 15 Euros. Visits to private physicians are more expensive but reimbursed by the National Social Insurance Institution, usually 40–60% of the real charge.

In Åland the charge for a regular visit is 18 EUR and 27 EUR outside opening hours. There is a roof on user charges for such consultations with a physician, to the order of EUR 450 for one calendar year and for children under 18 the limit is EUR 200. For low income people there is also a limit to yearly user charges, EUR 225.

In Iceland there are user charges with a yearly limit on total cost of physicians' services and there are lower charges for children under 18, old-age pensioners, disability pensioners and the long-term unemployed as well as for long-term ill or handicapped children. After the yearly limit, EUR 193 (ISK 18.000), is reached the user pay a third to a half of the original price. The prices for individual visits are from EUR 7.5 (700 ISK - day time) to EUR 28 for night time visits (ISK 2.600) in the home. Specialists with contract to the State Social Security Institution charge EUR 29 (2.700 ISK) minimally plus 40% of remaining cost, but that is lower for pensioners and children below the age of 18. Preventive health care for pregnant women and mothers with infants are free of charge in Iceland, as well as school health care. The same patient charges apply for out-patient treatments in hospitals but charges for laboratory tests and X-ray examinations are different. Special "care cards" (*Umönnunarkort*) can be obtained by parents of disabled or long-term ill children. These provide for an extra discount of medications and some health care services.

In Norway there are user charges up to a yearly limit of EUR 167. When this limit is reached patients get free cards for the rest of the calendar year. These apply for visits to physicians, psychologists, test laboratories, X-ray clinics and other such services, as well as for blue prescriptions for medicines. There is another higher limit for yearly user charges

²⁸ Seet he Welfare Commission : Fremtidens velfærd – Vores valg (December 2005). Available at: www.velfaerd.dk.

(EUR 274 in early 2007) which applies also to visits to physiotherapists, dentists and for treatments in rehabilitation institutes and for travel costs associated with treatments abroad. A day visit to a physician costs EUR 13 at the beginning of 2006 and EUR 21 for an evening visit. For a specialist the cost was EUR 15 (day) and EUR 24 (evening).

On the whole users pay about 35% of the cost in Norway up to the yearly limit. There are considerable exceptions to the general rules for user charges in Norway, i.e. for children under 7, for children aged 8-18, for pregnancy, childbirth, industrial injury, psychotherapy and for treatment of dangerous diseases.

Sweden is the only Nordic country which does not have fully unitary rules for charges throughout the country, so there may be some variations between local communes. There are user charges for visits to physicians up to a yearly limit of EUR 93 (applies for 12 months from the first visit counted), which is the lowest of such limits in the Nordic countries (outside Denmark which has no direct user charges for such services). The charges for a visit to a physician and for out-patients vary between EUR 9 and 26. For specialists the charges vary from EUR 17 and EUR 26. Young people under age 20 may attend out-patient clinics free of charge in some counties and in others they have lower rates than adults.

On the whole the Danes enjoy by far the cheapest services of physicians and specialists, with no direct user charges. Sweden seems to come next, especially due to its low limit for yearly expenditures on such visits. Finland only charges fully for the first 3 visits. Iceland and Norway seem to be charging higher rates for patient visits to medical doctors, both with higher charges and higher total limits on yearly expenditures on the services. Both countries offer however lower rates to special categories of patients or conditions and Norway offers free services in some cases.

Then we turn to the user charges for medicines. Table VII.2 provides an overview of the complicated issues involved in that. As before the reference period for the inter-country comparison is January 1st of 2006. There are differing forms of reimbursements and subsidies of the cost of medications in the Nordic countries. The table gives an overview of sizes of user charges and extent of reimbursements, deviation in charges for special groups or conditions and an indicator of general user charges in relation to the total cost of medicines in pharmacies.

In Denmark nearly two thirds of all prescribed medicines are reimbursed. Reimbursements are dependent on the patients annual expenditures on medicines. The higher the expenditures the higher the refund proportion. The categories of reimbursements are 0%, 50%, 75% and 85%. If expenditures during a year exceed EUR 419 the patient can apply for 100% reimbursement for the rest of the year. On the whole users pay about 32% of the total cost of medicines in Denmark. Given the individualized approach to reimbursements in Denmark it is not surprising that there are little deviations for special groups from the general rules.

In the Faroe Islands users pay in general between 25% and 50% of cost and pensioners are entitled to reimbursements when charges exceed a certain amount. In Greenland all prescriptions are free.

The general form of user payments for medicines in Finland is that the user pays a fixed charge for a prescription (1.5 EUR to a max of 3EUR) and 50% of the remaining cost. More refund is allowed for certain severe chronic diseases and the fixed charge is then only half. There is a limit on total yearly cost of medicines for patients at EUR 627 in 2007 and all cost above that is reimbursed to the full for the rest of the year. On the whole Finnish patients pay about 44% of the total cost of medicines in user charges. Åland has the same system in user charges for medicines as Finland.

In Iceland drugs for certain diseases, such as cancer, diabetes, epilepsy, glaucoma and Parkinson are fully paid by social security. For other important prescriptions there is generally a fixed user charge of EUR 18 (ISK 1.700) of the calculated public price and 65% of the remaining cost from the pharmacy. This applies up to a maximum of EUR 37 (ISK 3400) per prescription. Another category of medicines involves a higher fixed charge of EUR 37 (ISK 3.400) and 80% of the remaining cost, but up to a limit of EUR 53 (ISK 4.950) per prescription. Social security covers the rest. Pensioners pay a lower fixed charge (about a third) and 50% of the remaining cost up to a limit of EUR 11 (ISK 1.050) per prescription in the first category but the limit is EUR 15 (ISK 1.375) for the second category of drugs. On the whole Icelandic patients pay approximately 64% of the total cost of medicines. Given that the price level of Icelandic medicines is higher than in the other countries, the proportionally higher user charge in Iceland seems to indicate that the burden for Icelandic patients may in many cases be greater than in the other countries. Those with excessive costs of medicine and services can though apply for a special reimbursement which is granted on the basis of family income, hence income-tested, but the qualifying income is quite low so this applies to relatively few low income families.

In Norway reimbursements of medicine costs are diagnosis dependent, i.e. applicable to certain diseases. Generally medicines for chronic diseases are reimbursed. New medicines need to be qualified into the reimbursement system. The patients in Norway generally pay about 36% of the cost of reimbursed medicines, up to a limit of EUR 50 per prescription. Children under 7 and pensioners on minimal pension get free prescriptions. Patients with some chronic diseases get further special terms. There is a general limit to the total user cost of prescribed medicines in Norway of EUR 167.

Table VII.2 User Charges for Pharmaceutical Products Numbers refer to January 1st 2006, and are all in EUROS (EUR)

	Consistent rules for the whole country?	Size of user charge and reimbursements	Deviations in user payments	User charge in relation to total cost of medicines
Denmark:	Yes	Reimbursement in relation to the level of the patient's annual consumption of drugs in the primary sector. Degrees of reimbursements are 0%, 50%, 75% and 85%. Above EUR 419 patients can apply for 100% reimbursement for rest of the year.	No	32%
Faroe Islands:	Yes	Direct user charges of 25%-50% of the cost are payable.	Pensioners are reimbursed charges exceeding certain amounts.	--
Greenland:	Yes	All prescription medicines are free.	No	--
Finland:	Yes	On average 58% of the cost. Patients pay a fixed price (EUR 8) and 50% of remaining cost. More refund for chronic diseases, up to 100%. All cost above EUR 494 is reimbursed fully for the rest of that year.	For certain diseases patients pay flat rate EUR 3 or 24% of the cost (disease specific).	44%
Åland:	Yes	As in Finland	As in Finland	--
Iceland:	Yes	EUR 18 + 65/80% of the remaining cost of each, but to a maximum of EUR 37/53. Social security covers the rest. Patients with long-term diseases who have extensive costs can apply for discount card. Granted mainly to lower income earners.	Pensioners and disabled: EUR 6 + 50% of rest, but to a max. of EUR 11/15. Drugs for cancer, diabetes, epilepsy, glaucoma and Parkinson are fully refunded.	Approx. 64%
Norway:	Yes	36% up to a maximum of EUR 50 per prescription. Reimbursement calculated as fixed % of certain medicine price.	For children under 7 and persons on minimum pension there is no user charge. Also special terms for some chronic diseases.	Limit for total cost is at EUR 167.
Sweden:	Yes	User charge is EUR 0-154. Reimbursement is in proportion to patient's annual expenses. Up to EUR 77 user pays full cost; From 77 to 145 they pay 50%, from 145 to 282 25% and 10% for 282 to 367. After that drugs are free for the next 12 months from first counted purchase.	Insulin is free of charge.	Limit for total cost at EUR 192.

Source: Health Statistics in the Nordic Countries 2004 (2006), NOSOSKO (2004) and data from NRA.

Almost all medicines on prescription in Sweden are reimbursed, under the supervision of a special Pharmaceutical Benefits Board. Reimbursements are in a similar form as in Denmark, i.e. reimbursement is dependent on the patients' total annual medical expenses. The higher the expenditures, the higher will be the reimbursement.

Users in Sweden pay fully for annual expenses of up to EUR 77 (SEK 900). For expenses between that and EUR 145 they pay 50% of cost. Then they pay 25% of expenditures from EUR 145 up to 282, and between EUR 282 and 367 they pay 10%. The yearly maximum user charge is thus EUR 192 (SEK 1800). Insulin is provided free of charge.

There are thus different forms of user charges and reimbursement systems. Iceland seems on the whole to have in many cases higher user charges than the other countries and Sweden seems to have the most modest form of user charges, along with Denmark. But the outcome for patients is though often dependent on how the consumption of medicines is administered, such as in the cases of Norway and Iceland where there are direct limits on individual prescription costs. Norway has though an overall limit on total yearly cost whereas Iceland does not but those with extensive costs for medicines and services can apply for a special reimbursement if family incomes are very low and costs high. There are no fully free cards for use of health care services in Iceland, such as visits to physicians and health centers as well as to research laboratories, only discount. All the Nordic countries, except Iceland, have defined limits on total yearly expenditures on medicines. Iceland on the other hand provides special favorable terms for patients with certain diseases and for old-age and disability pensioners.

The indicators we present in table VII.3 come from material provided by the Nordic Rheumatic Associations (see further in the Appendix). While this material is not fully comparable in all cases, it can be taken as further indicators of some characteristics of the user cost environments which is of particular relevance for rheumatic patients.

Table VII.3 User costs of various services of importance for rheumatic patients Approximations in EUROS per visit/case

	Denmark	Finland	Iceland	Norge	Sweden
Visit to a physician	0	11	8	16	15
Visit to a specialist	0	11	29	26	28
Physiotherapist	19	6	22	17	7
>Some specifications	Free for highly disabled.	Max 45 visits. Limit on total cost applies.	Lower rate for pensioners. Discount after 25 visits.	Free for some diagnostic cases.	Limit on total cost applies.
Occupational therapist	0	0	22	0	7
>Some specifications	Applies to hospitals/community centers.	...	Lower for pensioners. Discount after 25 visits.	Applies to state hospitals/institutions.	Limit on total cost applies.
Nurse	0	0	21	0	7
>Some specifications	Visit by a home-nurse (in patient's home) as well as in a clinic is free of charge.	22 Euro for a visit to a polyclinic. Limit on total cost applies.	Applies to services in hospitals only.	Applies to state hospitals/institutions.	Limit on total cost applies.
Social administrator/socionom	NA	..	21	0	7
>Some specifications	...	...	Applies to services in hospitals only.	Applies to state hospitals/institutions.	...
Psychologist	65	0	21	35	7
>Some specifications	Special cases: rebate for up to 12 visits.	Neurological service ward: 6 Euro/visit.	Applies to services in hospitals only.	For 1 hour or less.	...
Dietist	87	6	21	..	7
>Some specifications		Max 45 visits. Limit on total cost applies.	Applies to services in hospitals only.		...
Röntgen service/visit	0	0	16	25	11
Physiological laboratory (f.ex. blood testing)	NA	0	11	6	11
Dentist	60% of cost	7-11 per visit	Full market price, except for pensioners and children.	Full price	Limit on total cost applies.
Rehabilitation at a public hospital/rehabilitation center (per 24 hours, for 18 years and older)	0	26	0	15	9
Climatic treatment (Treatment in warmer and sunnier countries)	Not available	Not available	Not available	Subsidized	Subsidized

Source: Direct information from Nordic Rheumatic Associations, Summer-Autumn 2007.

The main outcome from table VII.3 is that the user charges in various health care services, which arthritis and rheumatic patients are likely to use to a considerable extent, seem on the whole to be most expensive in Iceland, followed by Norway and Denmark. This is particularly marked in the cases of visits to physiotherapists, occupational therapists, social councilors, dentists and to X-ray clinics.

In Iceland visits to general practitioners are however relatively cheap, as regards the basic rate, while visits to specialists have the highest rate,

closely followed by Sweden and Norway. Denmark has the special position of free visits to both general physicians and specialists.

Visits to physiotherapists are most expensive in Iceland, followed by Denmark and Norway. In Iceland a discount is offered after 25 visits and pensioners have lower rates, while in Denmark highly disabled individuals are offered free services in this category. Some diagnostic cases are also free in Norway. In Sweden and Finland the costs of such visits are applicable to the total limit on health care service costs and can thus be quite favourable to those who use the service to a great extent.

The outcome for visits to occupational therapist is most expensive in Iceland, with a greater difference than in cases of physiotherapists. The costs of visits to a nurse and social councilors (social administrator/socionom in table) appear to be similar as the costs for visits to occupational therapists.

Visits to psychologists have the highest rate in Denmark (where a rebate is however available in special cases for up to 12 visits), followed by Iceland and Norway. In Iceland the services of psychologists are mainly in the private sector but some subsidized psychological services are also available in the largest hospitals. Dietists and röntgen services are also most expensive in Denmark, the former followed by Iceland and the latter by Norway. Visits to physiology laboratories (for example for blood tests) are most expensive in Sweden and Iceland but free in Finland.

Rehabilitation in public hospitals or special centers are free of charge in Denmark and Iceland, while the Finns pay considerable sums for each visit to a rehabilitation institute, followed by the charges for Norwegians.

The table and the appendix also indicate that it is only in Norway and Sweden that direct subsidies are offered for treatments in sunny and warmer countries (for example Spain).

Lastly in table VII.4 we show an analysis of an Icelandic case study, i.e. of a 63 year old woman with arthritis who uses a similar packet of health care services in four years: 1990, 1996, 2001 and 2005. The services used in each year are:

- 4 day visits to a physician
- 6 visits to a rheuma specialist
- 20 visits to a physiotherapist
- 4 blood and other tests
- 1 X-ray visit

The cost for these services is tallied in each year and account taken of all discounts available within the rules of the system at the time.

Table VII.4 Development of user cost in Iceland: A Case Study

Case study: Woman with arthritis/rheumatic disease, age 63.					
Price of various important health care services, from 1990 to 2005. Fixed prices.					
		Patient pays, ISK			
Visits to physicians	Amount of service used	1990	1996	2001	2005
a. General practice	4 visits during day opening hours	0	2.800	2.800	2.800
b. Specialist:					
Rheuma specialist	6 visits	5.400	11.544	14.904	19.734
c. Physiotherapist	20 visits (cf. 1.12 each year)	10.920	14.540	22.560	35.760
Research/tests					
Blood tests	4 times	1.200	4.000	4.000	4.000
Röntgen	One visit (1 X-ray of hands; 1 scan of joints)	300	1.000	6.000	13.237
Total costs		17.820	33.884	50.264	75.531
Medical services total:		6.900	19.344	27.704	39.771
Discounts:					
1990 patient pays kr. 0,00 after kr. 8.000 per individual					
1996 discount kr. 12.000 (2/3 over kr. 12.000 reimbursed)			-4.8%		
2001 discount after kr. 18.000 after 1. July (2/3 above kr. 18.000 reimbursed)				-6.469	
2005 discount after kr. 18.000 (2/3 above kr. 18.000 reimbursed)					-14.514
Patient cost after discount has been subtracted		6.900	14.448	21.235	25.257
Physiotherapy cost		10.920	14.540	22.560	35.760
Discount 2001 discount after 24 visits (limit not reached)		0	0	0	0
Patient cost for physiotherapy		10.920	14.540	22.560	35.760
Patient cost of total medical services, after discounts		17.820	28.988	43.795	61.017
At fixed price, January 2005		29.036	38.955	48.747	61.017
Percentage increase of user cost from 1990, in fixed prices			34,2%	67,9%	110,1%
		Prices: August 1st each year; 2005 January prices			

Calculations come from BSRB (the Icelandic Association of Public Employees) and 2005 from the Icelandic League against Rheumatism (Gigtarfélag Íslands). Prices in Icelandic kronur.

Finally the increases of net user charges for this case are shown in real (fixed 2005 prices) at the bottom of the table. They indicate that for this example the increase in user cost has been quite extensive.

Between 1990 and 2005 the real user cost, in 2005 prices, increased by 110%, or more than doubled. While these figures only refer to use of the specified services we can add that indications are that the user cost of medications has also increased significantly in the same period. A typical rheuma patient has further needs for health care and rehabilitation than are included in the example. This is thus only a partial examination of a particular cost package which many rheuma patients are likely to use.

This is also only one age specific case and as such it may not be representative of the whole group of arthritis patients. Other cases may show more or less increase in cost, but this case still seems to give a realistic account of changes in the user charge environment. It does not however

take account of use of medications, needs for operations or longer term treatment, nor loss of employment and wages, and it certainly does not take account of changes in the quality of life for such a person during aging with a chronic disease over a 15 year period.²⁹

To give a comprehensive account of such a person's cost of the disease we would need to take account of both direct and indirect costs of all relevant aspects, and the intangible costs as well. When we want to add the societal cost to the equation we also need to add the cost from the side of the health care and hospital side and the loss of productivity from the side of employers, to name only the major categories of cost factors specified at the beginning of this report.

Ours is thus only a preliminary survey of some indicators which are of importance. The picture needs to be painted to the full by accumulating data on all the relevant aspects. That task awaits the next stage in the project.

²⁹ In Iceland user charges for various health care services were raised considerably from the 1st of January 2008. The cost of a visit to a general practitioner increased thus by about 33% for general patients, but were at the same time offered for free for young children. Most of the services that rheumatic patients use were raised at the same time.

VIII. Summary and conclusions

Musculoskeletal conditions are the most common cause of severe pain, physical disability and temporary absence from work amongst the advanced nations. They are estimated to consume up to 3% of gross domestic product in Western countries in an average year. Arthritis and rheumatic diseases are a large part of these conditions and they are thus a major burden on health and social care services. They are even more pronounced as sources of personal burdens and reduced participation in employment and society in general. Women are on the whole significantly more affected by rheumatic diseases than men.

The social and personal costs of these diseases are generally more indirect than direct. Rheumatic diseases are thus not prominent as causes of mortality and the great majority of rheumatic patients do not require prolonged and expensive hospital operations. For the largest number of people with these conditions the needs are more frequently directed towards medications, rehabilitation, support, therapies and the like. Reduced employment participation and participation in society are a major source of costs to the economy and to the patients themselves.

According to survey data, close to a quarter of Europeans suffer from some form of arthritis or other musculoskeletal conditions. They are typically the second most frequent cause of the yearly incidence (new additions) of disability in Europe nowadays, after psychiatric and mental diseases. Due to their frequency, chronicity and effects on disability these conditions do thus have a major impact on the quality of life of individuals as well as on the cost of the health services.

This report surveys the main issues of prevalence, characteristics and consequences of rheumatic diseases, focusing specifically on Osteoarthritis, Rheumatoid Arthritis, Back pain, Osteoporosis and Fibromyalgia. Direct and indirect costs are specified. The main aim is to give an account of the effects of the indirect costs to society and the individuals concerned. We thus focus strongly on private out-of-pocket expenditures for health care services and provide various indicators of these, ranging from cost for visits to physicians and specialists to medical costs and various other cost-related issues. The data is thus of a varied nature and comes both from published material and from official as well as survey statistics.

On the whole all the Nordic nations have quite extensive health care expenditures, the most of which are public. Finland has a somewhat larger share of private health expenditures than the other countries. This does though not mean that the Finnish users of health care services pay generally higher user fees. It is Iceland and Norway that have the highest

rates of private out-of-pocket expenditures for health care, measured as a proportion of gross domestic product, while Sweden has the lowest. The share of such private expenditures for the homes has risen most significantly in Iceland, Norway and Sweden since the early 1990s.

Finland, Åland and the Faeroese Islands have the highest rates of treatment of people with musculoskeletal conditions in hospitals, followed by Norway. Sweden has the lowest rate of such hospital treatments.

The use of medicines for musculoskeletal conditions, defined as daily dosage per 1000 inhabitants per day (DDDs), is highest in Finland in 2005. Iceland comes second, while Norway has the lowest rate. The use of anti-inflammatory and anti-rheumatic products non-steroids is also highest in Finland (DDDs). The use of these medicines has however increased greatly in Iceland since 1995 and by 2004 Iceland was on level with Finland. Denmark, Norway and Sweden are on a similar but significantly lower level of this consumption.

The retail prices of medicines are of great importance for rheumatic patients, as well as the overall consumption levels. Data from Nordic health care reports indicate that the overall price level of medicines was highest in Iceland amongst the Nordic nations in 2003–4. Iceland also spends by far the most Euros per inhabitant on medicines without having the highest overall consumption level of medicines (even though it has the record consumption level in some categories, such as psychiatric medicines and anti-depressants). This indicates that more expensive types of medicines may be used in Iceland to a greater extent than in the other countries. A more recent comparison done in Iceland suggests that the retail price level for specified medicines with high turnover in pharmacies is highest in Iceland and Denmark, but lowest in Sweden, which does not tax prescribed medicines with value added tax. User charges for musculoskeletal medicines, as a proportion of the total cost of such medicines, is highest in Finland and Iceland, followed by Denmark.

In all the Nordic countries the use of new biologic medicines, or inhibitors, has increased greatly in the last years. These medicines are expensive for the social security systems but give good results in many cases. In Iceland where the price level of medicines is amongst the highest, these medicines are however provided free of charge to the users.

The effects of arthritis and rheumatic diseases, and musculoskeletal conditions in general, are most important in the field of participation in employment and society in general. This affects the economy and involves loss of activity and earnings amongst patients. This is most marked amongst people at ages 50 and over. Amongst people at ages 50–64 Iceland has by far the highest rate of activity in employment (or the lowest rate of inactivity) amongst the Nordic nations and even amongst European nations in general. Sweden comes next in line, but still with double the rate of inactivity that Iceland has. Finland has the highest rate of inactivity amongst this age group in the Nordic countries, which interestingly

is though lower than the average inactivity rate for the EU nations in 2005.

The rate of disability pension receivers is also lowest in Iceland amongst people at ages 55–64. The disability rates of these age groups are highest in Finland in the Nordic group, followed by Denmark. Musculoskeletal conditions are major causes of disability in most European countries. This is more prominent amongst females than males, due amongst other things to higher prevalence rates of rheumatic diseases amongst females.

Sickness absence from work is also lowest in Iceland, followed by Denmark. The sickness absence rates are highest in Sweden and Norway.

The report surveys lastly the costs of various health care services and medications which are of particularly great importance for arthritis and rheumatic patients, not least on the basis of material collected by the rheumatic associations of the individual Nordic countries.

The Danes enjoy by far the cheapest services of physicians and specialists, with no direct user charges in that area. Sweden seems to come next, especially due to its low limit for yearly expenditures on such visits. After the limit (Euro 93) is reached visits are free of charge for the rest of a 12 month period counted from the first visit. Finland only charges fully for the first 3 visits. Iceland and Norway seem to be charging higher rates for patient visits to medical doctors, both with higher charges and higher total limits on yearly expenditures on the services. Both countries offer however lower rates to special categories of patients or conditions and Norway offers free services in some cases.

There are different forms of user charges and reimbursement systems in relation to cost of medicines. Iceland seems on the whole to have in many cases higher user charges than the other countries and Sweden seems to have the most modest form of user charges, along with Denmark. But the outcome for patients is though often dependent on how the consumption of medicines is administered, such as in the cases of Norway and Iceland where there are direct limits on individual prescription costs. Norway has though an overall limit on total yearly cost whereas Iceland does not, but those with extensive costs for medicines and services can apply for a special reimbursement if family incomes are very low and costs high. There are no fully free cards for use of health care services in Iceland, such as visits to physicians and health centers as well as to research laboratories, only discount. All the Nordic countries, except Iceland, have defined limits on total yearly expenditures on medicines. Iceland on the other hand provides special favorable terms for patients with certain diseases and for old-age and disability pensioners.

User charges in various health care services which arthritis and rheumatic patients are likely to use to a considerable extent, seem on the whole to be most expensive in Iceland, followed by Norway and Denmark. This is particularly marked in the cases of visits to physiotherapists, oc-

cupational therapists, social councillors, dentists and to X-ray clinics. In Iceland visits to general practitioners are however relatively cheap, as regards the basic rate, while visits to specialists have the highest rate, closely followed by Sweden and Norway. Denmark has the special position of free visits to both general practitioners and specialist, but this does not apply to visits to these other services that rheumatic patients use to a great degree.

The outcome varies for individual countries depending on which aspects of health services and special costs are being surveyed. The user cost environment seems on the whole to be the highest in Iceland and Norway and lowest in Sweden.

Costs of rheumatic diseases vary also depending on whether one is considering direct cost (cost of health care services) or indirect costs (mainly employment-related and out-of-pocket costs to patients). Direct costs for hospital services for people with musculoskeletal conditions seem to be highest in Finland and lowest in Sweden, Denmark and Iceland. Cost of medications are however highest in Iceland and Finland. Iceland combines a high price level for prescribed medicines and more pronounced use of the more expensive medicines than the other countries.

When it comes to indirect costs Iceland appears to have by far the lowest indirect societal cost of rheumatic diseases, due to higher employment participation amongst people at ages 50–64, where rheumatic patients are prominent. Icelandic rheumatic patients thus seem to engage more in paid work than is common in the other countries. Norway, Sweden and Denmark follow, albeit with significantly lower employment participation rates for this age group and more extensive early retirement. Rheumatic diseases are prominent as causes of disability and early retirement. The indirect cost of rheumatic diseases which fall on the patients themselves (user charges) appear however to be higher in Iceland than in the other countries, as indicated above.

Thus type of health care services and types of costs (social or individual) dictate to a considerable extent the outcome of comparisons between the Nordic countries. To obtain a decisive and comprehensive conclusion on varying social and personal costs of rheumatic diseases requires a consideration of a great variety of indicators, greater than presently available. We have however clarified the issues involved and offered some indicators of systematic variations between the countries.

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Appendix

User charges for various health care services which are of relevance for rheumatic patients in the Nordic countries.

Material is mainly provided by the Nordic Rheuma Council (NRR) working group.
Information applies generally to the summer of 2007.

Danmark

Utgiftsposter	Patientens kostandsandel	
	Egenbetaling	Uddybende bemærkninger
Behandlande sjukvård: Vård- central/specialist	Betalingsfrit.	
Sjukgymnast	Tilskud til fysioterapeutisk behandling udgør ca. 40% af honoraret. Hur mycket är honoraret varje gång? Se vedlagte tabel. Personer, som er svært fysisk handicappede kan efter nærmere fastlagte regler få fysioterapeutisk behandling gratis. Det kan f. eks. være leddegigt, Morbus Bechterew eller Sjögrens Syndrom.	Efter henvisning er det muligt at få tilskud til behandling hos en autoriseret fysioterapeut. Behandlingen kan omfatte fysioterapeutisk undersøgelse, information og vejledning, biomekanisk bevægelsesterapi, neurofysioterapi, psykomotorisk bevægelsesterapi, ADL-funktionstræning, kompenserende behandling, lungefysioterapi, ødembehandling, manuel behandling og apparaturbehandling.
Arbets terapeut	Ergoterapeutisk vejledning tilbydes gratis i diverse regier (eks. sygehus, kommune)	
Fodterapeuter		En lovændring er på vej, som giver patienter med leddegigt i både fødder og hænder adgang til sygesikringstilskud til fodbehandling – den nærmere udformning af reglerne kendes endnu ikke.
Kiropraktor	Tilskuddet udgør ca. 25 % af behandlingsudgiften. Hur mycket är behandlingsudgiften varje gång? Se vedhæftede honorar tabel for kronikere.	Der ydes tilskud jf. sundhedsloven til kiropraktisk behandling efter særlige regler afhængig af behandlingsform. Der er ingen begrænsninger på antal behandlinger, der kan ydes til skud til. Tilskudsordningen for personer med kroniske lidelser i bevægeapparatet omfatter patienter, der: <ul style="list-style-type: none">• har recidiverende kroniske lidelser i bevægeapparatet, som kræver en ekstraordinær tidskrævende og længerevarende behandlende og forebyggende indsats,• er indstillet på et væsentligt personligt engagement i relation til varig styrkelse af bevægeapparatet.
Psykolog	Tilskuddet udgør 60% af psykologens honorar. Hur mycket är honoraret varje gång? Individuel konsultation, 60 minutter koster ca.800 kr.	Der kan efter lægehenvi sning ydes tilskud til psykologhjælp i en række situationer, herunder til personer og pårørende til personer, som har fået en alvorligt invaliderende sygdom. Der kan højst ydes tilskud til 12 konsultationer. Henvi sningen skal normalt udstedes senest 6 måneder, efter den begivenhed, der er årsag til henvi sningen, indtrådte.
Dietist	Generelt fuld betaling. Hur mycket varje gång? Enkelt konsultation: 1 time ca. 650 kr.	
Tandläkare	Der ydes et tilskud på 40 pct. af tandlægens honorar. Dog får unge under 26 år et tilskud på 65 pct. til	Tandlægehjælpen omfatter almindelige forekommende behandlinger som regelmæssig og diagnostisk

regelmæssig diagnostisk undersøgelse. Der gives 30 pct. i tilskud til bitewings (røntgen), der optages i forbindelse med regelmæssig diagnostisk undersøgelse. Ved operative indgreb, fyldninger og rodbehandlinger ydes tilskuddet med et fast beløb. Hur mycket är tandlägens honorar för varje gång?’

Her er et eksempel på en tandlæge prisoversigt:

Tandlæge ydelse	Vejl. pris, sikr.-gruppe 1 og 2 (patientandel, fratrukket off. sygesikringstilskud):
Diagnostisk undersøgelse:	--
Konsultation uden behandling	207,00
Regelmæssig diagn. undersøgelse fra 26 år	131,00
Regelmæssig diagn. undersøgelse 18-25 år	76,00
Bitewings i forbindelse med RDU/DFG	167,00
Kontrol efter regelm. diagn. unders. fra 26 år	107,00
Kontrol efter regelm. diagn. unders. 18-25 år	63,00
Diagnostisk og forebygg. Grundydelse	271,00
Røntgenoptagelse	119,00
Tandrensning, parodontal behandl.:	--
Tandrensning A (mindst 15 tænder)	164,00
Tandrensning B (højest 14 tænder)	118,00
Alm. parodontalbehandling	395,00
Udvidet tandrensning	224,00
Udvidet parodontalbehandling	682,00
Tandrodsrensning	85,00
Kontrol efter parodontalbehandling	107,00
	--
a. Sølvamalgam (ikke kombineret)	156,00
b. (kombineret)	203,00
c. (dobbel kombineret)	311,00

undersøgelse, tandrensning, diagnostisk og forebyggende grundydelse, individuel forebyggende behandling, kontrol efter forebyggelse, tandfyldning, rodbehandling, tandudtrækning, visse operative indgreb samt undersøgelse og behandling af tandkødsbetændelse (parodontose).

Den kommunale børnetandpleje for børn under 18 år er gratis. Unge på 16 og 17 år har mulighed for at vælge mellem behandling hos den kommunale tandpleje eller hos en privatpraktiserende tandlæge, som indgår i det kommunale tandplejetilbud. Nærmere oplysning kan fås ved henvendelse til kommunen.

e. plast enkeltfladet	305,00
f. plast flerfladet	485,00 – 1.500
d. glasionomer	305,00
Plastfyldning præmolar 1 flade	500,00 - 680,00
præmolar 2 flader	800,00 - 1.010
præmolar 3 flader	1.000,00 - 1.230,00
præmolar 4 flader	1.100,00 - 1.400,00
molar 1 flade	600,00 - 790,00
molar 2 flader	900,00 - 1.230,00
molar 3 flader	1.100,00 - 1.400,00
molar 4 flader	1.300,00 - 1.500,00
Rodbehandling:	--
(pulpaoverkapning)	159,00
(koronal amputation)	185,00
(akut oplukning)	185,00
1 kanal	1300,00
2 kanaler	1.980,00
3 kanaler	2.640,00

Patienter med Sjøgrens Syndrom, som har betydelige dokumenterede tandproblemer pga Sjøgrens Syndrom er berettiget til et særligt tilskud efter Sundhedslovens § 166, stk. 2. Der er en egenbetaling på 1.450,- kr. årligt.

Medicin

Hvis du har årlige udgifter til tilskudsberettiget medicin på over 480 kr., gives der tilskud på følgende måde:

Der gives 50% tilskud til den del af udgiften, der ligger mellem 480 kr. og 1.165 kr.

Der gives 75% tilskud til den del af udgiften, der ligger mellem 1.165 kr. og 2.730 kr.

Der gives 85% tilskud til den del af udgiften, der overstiger 2.730 kr.

Sjukhus/ rehabiliteringsanl.

Betalingsfri.

Tekniske hjælpemiddel: Ortoser för handled

Hjælpemidler ydes hovedsageligt gratis efter specifikke retningslinier.

Inlägg för sko

Der gives ikke hjælp til forbrugsgoder, der normalt

Hvis du er under 18 år, får du dog 50% tilskud også til den del af udgiften, der ligger under 480 kr.

Kronisk syge med et varigt og veldokumenteret forbrug af tilskudsberettiget medicin har ret til 100% tilskud til den del af egenudgifterne, der overstiger 3.520 kr. i løbet af en periode på et år.

Kommunen sørger for hjælpemidler og forbrugsgoder (serviceloven §§ 112 og 113).

For at få hjælp skal der være tale om en varig nedsat fysisk eller psykisk funktionsevne. Hjælpemidlet skal i

Specialgjorda skor	indgår i sædvanligt indbo. Der kan kun gives hjælp til forbrugsgoder, der koster mere end 500 kr., og der gives tilskud på 50% af prisen på et almindeligt standardprodukt.	væsentlig grad: Afhjælpe de varige følger af den nedsatte funktionsevne lette den daglige tilværelse i hjemmet eller være nødvendigt for udøvelsen af et erhverv. Eksempler på hjælpemidler: Kørestol, stok, støttekorset og ortopædisk fodtøj. Eksempler på forbrugsgoder: Husholdningsredskaber og køkkenmaskiner.
Færtjånst – kommunen	Der eksisterer en række muligheder for tilskud til befording – og dermed en række forskellige regelsæt: <ul style="list-style-type: none"> • Kørselsfradrag for kronisk syge • Støtte til køb af bil • Parkeringskort (invalideskilt) • DSB's ledsagerkort • Individuel kørsel • Befording til læge • Befording til sygehus • Befording til anden behandling 	
Hemhjålp – kommunen	Hvis du som kronisk syg eller handicappet har behov for hjælp i dit hjem, skal din kommune tilbyde det gratis.	Det er kommunens pligt at sørge for tilbud om følgende: personlig hjælp og pleje støtte til nødvendige praktiske opgaver i hjemmet hjælp til at vedligeholde fysiske eller psykiske færdigheder. Servicelovens kap. 16. En familie eller en person, der i deres hjem passer et barn eller en voksen med en nedsat fysisk eller psykisk funktionsevne, kan derfor få tilbud om aflastning og afløsning (serviceloven § 84)
Kompensation for merudgifter	Efter servicelovens § 100 skal kommunerne yde dækning af nødvendige merudgifter til den daglige livsførelse til personer mellem 18 og 65 år, såfremt der er tale om et betydeligt nedsat funktionsniveau. § 100-ydelsen dækker sandsynliggjorte, nødvendige merudgifter som følge af funktionsevnenedsættelsen.	For at blive en del af ordningen skal der foreligge sandsynliggjorte merudgifter på gennemsnitlig 500 kr. om måneden - eller mindst 6.000 kr. årligt. Hvis nedsættelsen af funktionsevnen giver sandsynliggjorte merudgifter ud over 500 kr. månedligt, eller mindst 6.000 kr. årligt, udløser det et basisbeløb på 1.500 kr. om måneden. Har du på grund af nedsættelsen af funktionsevnen merudgifter ud over basisbeløbet på 1.500 kr., kan yderligere beløb udbetales i trin på 500 kr. om måneden. Skema for udløsning af (basisbeløb) merudgiftsydelse:

Skønnede merudgifter månedligt	Skønnede merudgifter årligt	Merudgiftsydelse
500 kr. – 1.750 kr.	6.000 kr. – 21.000 kr.	1.500 kr. pr. måned (basisbeløb)
1.750 kr. – 2.250 kr.	21.000 kr. – 27.000 kr.	2.000 kr. pr. måned
2.250 kr. – 2.750 kr.	27.000 kr. – 33.000 kr.	2.500 kr. pr. måned
Osv.	Osv.	Osv.

Finland

Utgiftsposter	Patientens (över 18 år) kostandsandel	
Sjukvårdande behandling		
Behandlande sjukvård: Vårdcentral/specialist	Självriskgräns 590 €/kalenderår. 11 €/gång – 3 gånger per året. Journmottagning 15 €/ gång. Poliklinikmottagning 22 €/gång.	Kommunal vård läkare: 11 € x 3 = 33 € (max) Eller enligt kommunens beslut max 22 €/ per året , ingår.
Sjukgymnast	6 €/gång seriebehandling / max 45 gånger per året. Enskild behandling 22 €/gång.	Ingår
Arbetsterapeut	0 €	Ingår
Sjuksköterska	0 €	Ingår (utan poliklinikbesök 22 €/gång, max).
Kurator		Finns inte.
Psykolog	0 €	Neurologisk öppen vård 6 €/ gång max 45 gånger per året, 22 € enskild, ingår.
Dietist	Seriebehandling 6 €/ gång max 45 gånger Enskild behandling 22 €/gång.	Ingår i självriskgräns.
Besök på röntgen, samt neurofysio- och fysiologi-laboratorium	Vårdcentral besök 0 €, Poliklinikmottagning 0 €, Tandvårdsröntgen 5 -11 €/ rtg.	Ingår
Tandläkare	Grundavgift 7 €/besök. Specialtandvård 11€/besök. Tilläggsavgift t.ex. röntgen 5 €/besök. Tandvård (t.ex tandrotfyllning) 5-45 €	Kommunal tandvård (ingår inte). (FPA ersätter en del av kostnaderna för undersökningar och behandlingar som föreskrivits av privatläkare. Ersättningen är 75 % av den tax som fastställts för undersökningar i sjukförsäkringen, självrisksandelen 13,46 €).
Medicin	Självriskgräns 627,47 € (år 2007) och tilläggskostnad om 1,50 € per läkemedel.	För läkemedelsinköp betalas ersättningar (FPA) i fyra olika ersättningsgrupper: Grundersättningen är 42 % av priset; I lägre specialersättningen är 72 % och den högre specialersätt. är 100 %. Varje specifikt läkemedel har en självriskandel på 3 € Vissa läkemedel har fallit i 0 % ersättningsgruppen (t ex Prednison 5 mg).
Sjukhus/rehabiliteringsanl.	Max 22 €/poliklinik besök 26 €/dygn Dag- eller natt vård i sjukhus 12 €/dag Långvarig sjukvård 80 % av inkomster, (min.dispositionsmedel).	Kortvarig ingår.
Klimatvård		Finns inte.
Tekniska hjälpmedel:		När man behöver hjälpmedel (tex kryckor) på grund

Ortoser för handled		av en sjukdom, ett handikapp eller en funktionsstörning får man dessa från hälsocentralen (gratis).
Inlägg för sko		
Specialgjorda skor		
Längre resor till behandling	157,25 € årligen.	För resor i samband med sjukdom eller FPA:s rehabilitering.
Färdtjänst – kommunen		
Hemhjälp – kommunen	Ensamboendes inkomstgräns 445 €/månad, avgifts % 35,6 personer, inkomst 2.210 €/månad avgifts % 11.	Avgifts % varierar på grund av familjens storlek och inkomster 11-35 %. Engångsavgift 9 € Kortvarig ingår.

Island

Utgiftsposter	Island Fullt betalande individer		Island Ålders- och förtidspensionärer betalar:	
Sjukvårdande behandling Besök till:	Kostnad för en behandling	Kostnadstak	Kostnad för en behandling	Kostnadstak
Läkare + sjuksk. vårdcentral	70 SEK (700ISK*)	Rabatkort efter 1800 (18000) SEK. Betalar sedan 1/3 del upp till 1/2 av ursprungsbeloppet. Gäller ut kalenderåret.	35 (350) SEK	Rabatkort efter 450 SEK (4500). Betalar sedan 1/3 del upp till 1/2 av ursprungsbeloppet. Gäller ut kalenderåret.
Specialist	270 (2700) SEK + 40% av resterande kostnad		90 SEK (900)+ 13,33% av resterande kostnad	
Röntgenundersökning	150 (1500) SEK + 40% av resterande kostnad.		50 SEK(500) + 13,33% av resterande kostnad.	
Fysiologi-laboratorium (t.ex. blodprov)	100 (1000) SEK		30 (300) SEK	
Sjuksköterska	188 SEK (1887)		94 SEK (944)	
Kurator	188 SEK (1887)		94 SEK (944)	
Psykolog	188 SEK (1887)		94 SEK (944)	
Dietist	188 SEK (1887)	94 SEK (944)		
Sjukgymnast Arbetssterapeut	201 SEK (2015) / 84 SEK (840)	Rabatkort efter 25 Behandlingar hos sjukgymnast och arbetsterapeut gemensamt, eller 5037 SEK (50.375) sedan 84 SEK (840). Gäller tolv månader från första besök.	67 SEK (672)	Betalar 67 SEK (672) för varje behandling. Inget rabatkort. De som har endast pension med inkomstgaranti (tekjutryggingu) från TR betalar 67 SEK för varje behandling de första 20 gångerna, sedan frikort. Gäller tolv månader från första besök.
Tandläkare	Fullt pris för personer över 18 år. Speciella regler gäller angående Sjögrens patienter.		Får återbetalt 50% av den prislista som Hälsoministeriet utgår ifrån som dock är betydligt lägre än tandläkarnas privata prislista.	De med endast pension och inkomstgaranti från TR får återbetalt 75% av det pris som uppsätts av Hälsoministeriet som dock är betydligt lägre än tandläkarnas prislista.
Fotvårdsterapeuter	520 SEK-fullt pris		520 SEK-fullt pris.	
Sjukhus/rehabiliteringsanl.	0 SEK	Betalningsfritt	0 SEK	Betalningsfritt

Klimatvård	Finns inte		Finns inte	
Kostnad för medicin	Kostnad för medicin delas i fyra grupper utifrån individens resp. TR kostnadsandel – se närmare regler här nedanför 1).	435 SEK (4350) högsta pris för en månads medicinering av en medicin. Undantag: Läkemedelskort utifrån speciella regler för 100 dagars dosering för samma pris. Se lista över medicin och kostnad.	150 SEK (1050) högsta pris för en månads medicinering av en medicin. Undantag: Läkemedelskort utifrån speciella regler för 100 dagars dosering för samma pris.	
Tekniska hjälpmedel	RA - TR betalar 70%-100% av kostnad för handledsortoser om problemen beror på sjukdomen. Artros - om omfattande ledförändringar betalar TR 70%-100%.			
Ortoser för handled				
Inlägg för skor	RA- TR betalar 600 SEK (6000) av kostnad för ett par av inlägg i skor om omfattande ledförändringar.			
Återbetalning p.g.a. stora kostnader för läkarvård, medicin, sjukgymnastik och arbetsterapi		Om den samlade familjens årslön är mindre än 375.000 SEK (3.750.000 ISK) betalas tillbaka utifrån vissa regler.		
Längre resor till behandling	Om nödvändig läkarbehandling behöver ges utanför närområde (minst 20 km). Tvo resor/år. Egendel är 150 SEK (1500) med egen bil, 1/3 om annat färd sätt används.		Om nödvändig läkarbehandling behöver ges utanför närområde (minst 20 km). Tvo resor/år. Egendel är 150 SEK (1500) med egen bil, 1/3 om annat färd sätt används.	
Färdtjänst – kommunen	12,50 SEK (125) varje resa		12,50 SEK (125) varje resa	
Hemhjälp – kommunen	52 SEK (516) per timme (gäller i Reykjavik)	Kostnadstak för hemhjälp är olika mellan kommuner.	De personer som har endast pension och inkomstgaranti från TR up till högst 10.900 SEK (108.623 ISK) per månad betalar inget för hemhjälp i Reykjavik.	Kostnadstak för hemhjälp är olika mellan kommuner.
Ansökan om lägre skatt p.g.a. hög kostnad av sjukdom				

* Siffror inom parentes är ISK. TR är Tryggingastofnun ríkisins (Socialförsäkringsadministrationen) 1) Reimbursements for pharmaceutical products. Some medicines are fully paid for by social security while the patient pays fully for others. On the whole, pharmaceutical products are classified into 4 groups (O; E; B; and * - marked). Patients pay fully for medicines in group O, partly for medicines in groups E and B, but medicines classified as * - marked are fully paid by social security. Pensioners have lower user share. Those who need medications (that are not subsidized) for longer periods, can apply for larger rebates and the medicines in questions may then be upgraded to higher rebate class, for example from E to B. It is also possible to get prescriptions for longer periods which may reduce cost by better activating the cost limit. When many medicines that are not subsidized are required the physician can apply for a "medical card" for the patient, which provides some subsidies (i.e. by an upgrade to a higher rebate class).

Norge

Utgiftsposter	Pasientens kostandsandel	
Sjukvårdande behandling		
Behandlande sjukvår/primærlege/fastlege:	Dag kr. 130,- kveld kr. 220,-	Egenandelstak 1 kr. 1.660,- Når du har nådd dette beløp får du frikort. Egenandeltak 1 gjelder de vanligste tjenestene som lege, psykolog, laboratorieprøver, poliklinikk, røntgeninstitutt, reise ved undersøkelse/behandling og legemidler/utstyr på blå resept.
Hvis legen er spesialist i allmenmedisin	Dag kr. 160,- kveld kr. 250,-	
Sykebesøk fra lege/legevakt	Dag kr. 180,- kveld kr. 295,-	
Sykebesøk hvis legen er spesialist i allmenmedisin	Dag kr. 210,- kveld kr. 325,-	
Vårdcentral/specialist	Kr. 280,-	Egenandelstak 2 kr. 2.500,- Når du har nådd dette beløp får du frikort. Her inngår fysioterapi, noen former for tannlegehjelp utenom vanlig tannbehandling, opptreningsinstitusjoner og behandlingsreiser til utlandet
Forespørsel, rådgivning ved fremmøte eller bud	Kr. 35,-	
Pasientgebyr for manglende oppmøte/avbestilling	Kr. 100,-	Bidrag til helsetjenester har en grense på 1.600,- kr. Dette kan ytes til utgifter til helsetjenester som ikke er dekket av folketrygdloven eller andre lover.
Utskrift av pasientjournal/kopi av røntgenbilder	Kr. 70,-	
Utgifter til bandasjemateriell/bedøvelsesmiddel, maksimalt	Kr. 75,-	
Sjukgymnast/fysioterapeut/manuellterapeut	Kr. 140,-	
Vanlig undersøkelse 40 minutter øvelsesbehandling	Kr. 140,-	Egenandel avhenger av behandlingsform Mange diagnoser har gratis fysioterapi. Rheumatoid artritt, Bekhterevs, Reuters, Psoriasisartritt, Artrose i større vektbærende ledd (hofte, kne, ankel), Artrose i skulderledd, SLE, Sklerodermi Egenandelen kommer innunder egenandelstak 2
Arbetssterapeut/ergoterapeut		Tilbud som ofte finnes på sykehus og opptreningsinstitusjoner. Inngår ofte i tverrfaglige team
Sjukskoterska		Er en del av sykehus og ved de aller fleste opptreningsinstitusjoner Inngår som del av tverrfaglige team
Kurator/sosionom		Tilbud som ofte finnes på sykehus og opptreningsinstitusjoner. Inngår ofte i tverrfaglige team
Psykolog	Kr. 280,- for inntil 1 time Kr. 420,- for 1 ½ time Kr. 560,- for 2 timer Kr. 700,- for 2 ½ time Kr. 840,- for 3 timer Kr. 280,- Gruppeterapi minst 2 timer Kr. 420,- Gruppeterapi minst 3 timer	Kan også inngå i tverrfaglige team
Dietist		
Besøk på røntgen, samt neurofysiologiske og fysiologiske laboratorieprøver	Kr. 200,- Kr. 47,-	
Tandlækare	Spesielt Sjøgren syndrom ser ut til å ha høye kostnader i forbindelse med tannlege. Det kan også gjelde pasienter med stort medisinforsbruk som kan tære på tennene. I undersøkelse fra 2003 (se nedenunder) hadde 21 % kr. 1660,- eller mer i året for tannbehandling som følge av revmatisk sykdom. Hele 63 % hadde ingen utgifter til tannbehandling som følge av revmatisk sykdom	I noen få tilfeller er det mulig å få støtte til tannbehandling fra folketrygden. Det gjelder for eksempel om du har spesielle tannhelseproblemer, en sykdom - eller behandlingen - har ført til redusert tannhelse. Det er tannlegen som må fylle ut søknadsskjema på dine vegne. Støtte fra folketrygden gis etter faste takster. Hvis utgiftene er høyere enn taksten må du betale resten selv. Enkelte former for tannbehandling inngår i frikortordningen egenandelstak 2. En oversikt over hvilke former for tannbehandling som inngår i ordningen er beskrevet i Forskriften til folketrygdloven § 5-6 Enkelte tannbehandlinger inngår i egenandelstak 2
Medisin	Fra en undersøkelse (se nederst) gjort i 2003 viste det seg at kun et fåtall ikke har utgifter	Medisiner på blå resept skrives ut for pasienter med kronisk sykdom hvor det er behov for langvarig

	til legemidler i løpet av ett år. 24 % av de spurte brukte mer enn kr. 1660,- til medisin på hvit resept i løpet av ett år. Hele 66 % hadde utgifter til reseptfrie legemidler i løpet av ett år. Hele 64 % hadde ikke legebehandling utover frikort pr. år. Hele 23 % hadde utgifter til smertebehandling i løpet av ett år. 19% av de spurte kjøper naturpreparater for mer enn kr. 1660,- pr. år	behandling. Har du en kronisk sykdom som du trenger behandling for i minst tre måneder i løpet av året, kan du ha krav på medisiner på blå resept. Behandlingen trenger ikke å være sammenhengende. Legemidler på blåresept har en maksimal sats pr. utlevering (tre mnd. forbruk) kr. 510,- splittes i § 9 som er forhåndsgodkjent refusjon og § 10 a hvor legen må søke om forhåndsgodkjent refusjon. Nåværende regjerings mål er at mest mulig skal innunder § 9.
Støtte til behandling hos ortopist		Innunder egenandelstak 1
Sjukhus/rehabiliteringsanl.	Kr. 120,- pr døgn	Noe kommer også innunder bidragsordninger
Egenandel opptreningsinstitusjon		Medisiner på hvit resept kommer ikke innunder egenandelstak 1
Klimatvård – statlige behandlingsreiser til utlandet	kr. 100 per døgn. Dvs. kr. 2800 for fire ukers behandlingsopphold, og kr. 2100 for tre uker.	Voksne og barn over 12 år kr. 160,- pr behandling
	Barn og ungdom betaler ingen egenandel.	Kommer innunder egenandelstak 2
Selvfinansierte helsereiser til utlandet	Ifølge undersøkelsen fra 2003 har 1 av 4 brukt mer enn kr. 1660,- på selvfinansiert helsereise til utlandet i løpet av ett år.	Kommer innunder egenandelstak 1
Tekniske hjelpemiddel:		
Ortoser for handled		
Inlägg för sko		
Specialgjorda skor		
Ekstraoppvarming av hus	Hele 24 % (fra undersøkelsen 2003) har utgifter på kr. 1660,- eller mer til ekstraoppvarming av hus i løpet av ett år	I skatteloven finnes en fradragmulighet under paragraf 10.6 Særfradrag for usedvanlig store kostnader ved sykdom. Denne gis til skatteytene som har hatt usedvanlig store utgifter på grunn av varig sykdom. Det må dreis seg om utgifter vedkommende ikke ville hatt dersom hun eller han ikke hadde sykdommen. Utgiftene må ha oversteget kr. 9180,- (gjelder inntektsåret 2006). Ekstrautgifter til oppvarming av hus kan komme innunder her.
Längre resor till behandling		
I forbindelse med undersøkelse og behandling en vei og tur/retur	Kr. 120,- og kr. 240,-	
Bruk av eget transportmiddel	Kr. 1,75 pr. km	
Reise i forbindelse med fritt sykehusvalg (hver vei)	Kr. 400,-	
Kostgodtgjørelse	Kr. 165,- pr. døgn	
Overnattingsgodtgjørelse inntil	Kr. 285,- pr. døgn	
Dekning av tapt arbeidsinntekt for ledsager	Inntil kr. 80,- pr time	Kan ikke føres på egenandelskortet
Färdtjänst – kommunen		
Hemhjälp – kommunen		Ifølge undersøkelse fra 2003 har kun et fåtall utgifter til egenandel på kommunale hjemmehjelpstjenester i forbindelse med sykdommen
		Hele 10 % betaler kr. 1660,- eller mer for ekstrasjelp med renhold i hjemmet i løpet av ett år
Grunnstønad	Grunnstønad	Grunnstønad kan gis til å dekke - helt eller delvis - ekstrautgifter som er oppstått på grunn av en lidelse. Du kan få stønad til: drift av tekniske hjelpemidler transport, bruk av proteser, støttebandasjer o.l., slitasje på klær og sengetøy
	Sats Beløp pr år Beløp pr måned	
	1 kr 6 864 kr 572	
	2 kr 10 488 kr 874	
	3 kr 13 788 kr 1 149	

	4	kr 20 292	kr 1 691	behov for pleie og tilsyn på grunn av sykdom, skade eller en medfødt funksjonshemming
	5	kr 27 516	kr 2 293	
Hjelpestønad	6	kr 34 380	kr 2 865	
	Sats	Beløp pr år	Beløp pr måned	Kommentar
	0	kr 11.448	kr 954	Til hjelp i huset
	1	kr 12.312	Kr 1 026	Tilsyn og pleie
Undersøkelse fra 2003				I denne undersøkelsen ble 802 revmatikere intervjuet (82 % kvinner og 18% menn). Hele 15 % av de spurte opplevde å ikke kunne følge legens anbefalte behandling grunnet egen økonomi. Det var medisin kjøp og behandlingsopphold de i første rekke ikke hadde økonomi til å følge. Utgifter som er størst for den enkelte pr. mnd. var legemidler. Deretter kom utgifter til hus og hjem, alternativ medisin, behandling og behandlingsopphold
				Denne undersøkelsen er tidligere sendt i sin helhet.

SWEDEN

Utgiftsposter Sjukvårdande behandling	Patientens kostandsandel	
Behandlande sjukvård: Vårdcentral/specialist	140/260 SEK	The patient fee for a single visit varies between different counties. Högekostnadsbelopp: Sjukvård, sjukvårdande behandling och viss tandvård 900 SEK totalt. När uppnått 900 SEK i patientavgifter får patienten frikort som gäller 12 månader från första besök
Sjukgymnast	70 SEK	
Arbetssterapeut	70 SEK	
Sjuksköterska	70 SEK	
Kurator	70 SEK	
Psykolog	70 SEK	
Dietist	70 SEK	
Besök på röntgen, samt neurofysio- och fysiologi-laboratorium	100 SEK	
Tandläkare		
Medicin	- 900 kr : 100% dvs upp till 900 kr 900-1700 kr : 50% dvs 900-1300 kr 1700-3300 kr: 25%, dvs 1300-1700 kr 3300-4300 kr : 10%, dvs 1700-1800 kr 4300- kr : 0%, dvs 0 kr	Högekostnadsskydd där kostnaden minskar stegvis. Överstiger patientens kostnader 1800 SEK får den frikort. Patienten betalar högst 1800 under 12 månaders period.
Sjukhus/rehabiliteringsanl.	80 SEK/dygn för personer över 18 år	Personer under 40 år med förtidspension eller helt sjukbidrag betalar 40 SEK/dygn de första 30 dagarna sedan 80 SEK/dygn.
Klimatvård	Klimatvård. Varje landsting i Sverige sätter sina egna kostnader för patienten. Patientavgiften varierar mellan 80:- och 100:-/dag. Då ingår allt i den avgiften. Det finns något	

Tekniska hjälpmedel:	landsting där allt är kostnadsfritt.
Ortoser för handled	Ortoser: Även här är det respektive landsting som sätter belopp. I flertalet av lst är det gratis. Något landsting tar ut avgift på 100:- för första besöket, inget för själva ortosen. Ett lst tar 250:- styck.
Inlägg för sko	Lst sätter avgifterna själva. Här varierar det mellan 0:- till 400:-/par. Genomsnitt skulle hamna på ca 250 – 300:-/par. Finns restriktioner på hur många par/år man får ta ut.
Specialgjorda skor	
Färdtjänst – kommunen	Flertalet lst följer den lokala busstaxan för färdtjänst. Det ligger runt 30:- för de första 3 milen, något undantag finns. Sedan byggs det på med ca 10:-/mil med maxgräns. Den varierar kraftigt, så det är svårt att sätta upp något medelvärde. Generellt finns inga begränsningar i antalet resor.
Riksfärdtjänst -riksresor	Riksfärdtjänst: Här varierar också beloppen. Många lst följer reskostnaden för 2 klass tåg i möjligaste mån.
Hemhjälp – kommunen	
