Musculoskeletal Health in Europe
Summary Report
Introduction

Musculoskeletal conditions (MSC) are one of the most common causes of severe long term pain and disability in the EU and lead to significant healthcare and social support costs. As a major cause of work absence and incapacity they also have a major economic cost through lost productivity. They can seriously impact the quality of life of those with the conditions, their families, friends and carers and affect all aspects of their lives. Despite the significant impact of these conditions on the health and well being of populations and individuals across the EU there is a lack of awareness of MSC. This together with a lack of routinely collected indicators that are specifically relevant to MSC means that they do not receive the attention commensurate with their impact. This report, which has been prepared as part of the eumusc.net project, aims to provide an up to date picture of the health, social, employment and economic impacts of musculoskeletal conditions across EU Member States. In doing so it draws on many sources of data and information including health and labour force surveys, national statistics, reports and peer reviewed literature. A greater understanding and evidence of the impact of these common, disabling conditions will support the development of strategies and policies for their effective prevention and management.

Incidence and prevalence

Musculoskeletal conditions are a diverse group of conditions which affect the musculoskeletal system and are associated with pain and impaired physical function. They range from those that arise suddenly and are short lived to life long disorders. Musculoskeletal problems are very common, in one European survey 22% of the population currently had, or had experienced long-term muscle, bone and joint problems such as rheumatism and arthritis (Eurobarometer 2007).

Musculoskeletal pain

Pain is the most prominent symptom in most people with arthritis and is the most important determinant of disability in patients with osteoarthritis. When asking about current pain, countries reporting particularly high levels of activity-limiting pain were Croatia (46%) and Finland (44%). The lowest proportions reporting activity-limiting pain were Ireland (18%) and Portugal (21%). For chronic pain, again, Finland had high levels (33%) with low levels in Greece (13%), Ireland and Luxembourg (both 16%) (Eurobarometer 2007).

Osteoarthritis

Osteoarthritis (OA) is the most common joint disorder and accounts for more disability among the elderly than any other disease. It is estimated that 1 in 10 of the population who are 60 years or older have significant clinical problems that can be attributed to osteoarthritis. For both males and females the incidence of osteoarthritis rises steeply after the age of 50 peaking in the 70-79 age group. For similar age groups and using radiographic diagnosis the prevalence of osteoarthritis hip was 9.90 % in the Netherlands and 3.88% in Sweden (Global Burden of Disease unpublished). Age standardised self-reported, doctor diagnosed, osteoarthritis ranges from 2.8% in Romania to 18.3% in Hungary (EHIS unpublished).

Rheumatoid arthritis

Rheumatoid arthritis (RA) is the most common inflammatory disease of the joints. There is conflicting
evidence as to whether the incidence of RA is decreasing, however, there does appear to be a decline in its severity. Studies of the incidence and prevalence of RA suggest variations between different populations even within the same country. Possible explanations include regional variation in behavioural factors, climate, environmental exposures, RA diagnosis, and genetic factors. The annual incidence rate of RA for adults up to age 99 ranges from 22 cases per 100,000 in the UK to 35 per 100,000 in Finland. The standardised prevalence rates in studies for adults up to age 99 range from 0.32% in France to 0.83% in the UK (Global Burden of Disease unpublished). The prevalence rates for females tend to be considerably higher than the rate for males.

Low back pain

Low back pain is a major health and socioeconomic problem in Europe. It is estimated that 12-30% of adults have low back pain at any time and the lifetime prevalence varies between 60% and 85%. Data from the European Health surveys show a wide variation in the prevalence of self-reported low back pain. This ranges from less than 15% of respondents reporting ever having low back pain in Cyprus to over 40% in Hungary reporting ever having had this condition.

Osteoporosis

Osteoporosis is a disease in which the density and quality of bone are reduced, leading to weakness of the skeleton and increased risk of fracture, particularly of the spine, wrist, hip, pelvis and upper arm. Osteoporosis and associated fractures are an important cause of mortality and morbidity.

Incidence rates of fracture in women are higher in Scandinavia than in other European regions. The age-standardised prevalence of self-reported doctor diagnosed osteoporosis in selected countries varies from a high of 5.3% in Spain to a low of 1.9% in Estonia (EHIS unpublished). The lifetime probability of hip fracture at 50 years varies considerably being highest in Sweden and Norway and lowest in Hungary, Portugal and Greece (Kanis et al 2002). In all EU countries the probability is substantially higher in women than men.

Juvenile idiopathic arthritis

Juvenile idiopathic arthritis (JIA) is arthritis of unknown aetiology that begins before the 16th birthday and persists for at least 6 weeks. There is a north-south gradient in incidence of JIA. The incidence has been estimated as 23 per 100,000 in Finland and 7 per 100,000 in Spain. Prevalence estimates range from 140 per 100,000 in the Czech Republic and 16 per 100,000 in France.

Work related musculoskeletal disorders and trauma

Musculoskeletal problems relating to occupational disease and accidents at work are commonly referred as Musculoskeletal Disorders (MSD). Most MSDs are chronic and only occur after exposure to work based risk factors over a period of time. MSDs form a high proportion of occupational diseases. In 2005 they constituted 38% of the total occupational diseases recorded by the European Occupational Disease Statistics in 12 Member States (EODS 2005). Across the EU27 the average proportion of persons reporting musculoskeletal disorders as their most serious work-related health problem was 54%, the lowest proportion was in Bulgaria (37%) and highest in Germany (75%). With the exception of Latvia, Portugal, Greece, Slovenia, Slovakia, Spain and Finland the proportion of those reporting MSDs in the past 12
months is higher in males than females (LFS 2007). There are significant differentials in the prevalence of MSDs age, gender, education and occupation.

In 2005 18.1% of non-fatal accidents reported to European work statistics were attributable to “physical stress on the musculoskeletal system.” Non-fatal accidents arising from “physical stress on the musculoskeletal system” occurred most frequently in the construction industry (18.2% of occurrences) and in health and social work (10%) (European Commission 2009).

**Impact on population health - disability and mortality**

Musculoskeletal conditions are a primary cause of disability in Europe. These conditions affect people of all ages. The principal measurement of the burden of disease, Disability Adjusted Life Years (DALYS), is a measure of disease related morbidity and mortality. Using DALYs as a measure osteoporosis is ranked 8th in the leading causes of disease burden in the EU25 Countries. Using age-standardised DALYS Poland, Slovakia, Bulgaria, Romania, Latvia, Lithuania and Hungary all show a relatively high burden of musculoskeletal disease including rheumatoid arthritis and osteoarthritis (WHO 2009).

Many falls, particularly in the elderly as caused by or lead to musculoskeletal conditions. Central and Eastern European countries have a higher than average number of DALYS due to falls, this is true also of Luxembourg and Finland. Countries with the lowest number of DALYS due to this cause include the UK, Netherlands and Cyprus (WHO 2009).

The burden of a disease due to morbidity can be expressed as Years Lived with Disability (YLDs). Across all regions of Europe musculoskeletal diseases rank in the top 4 largest causes of disability from non-communicable disease. With few exceptions the burden of disability as measured by YLDs is higher in females than males across all ages in all 3 regions. For both males and females the burden increases with age up to age 45-59 when it starts to decline (WHO 2004).

There is evidence of increased mortality associated with musculoskeletal conditions. Osteoarthritis and rheumatoid arthritis are associated with increased mortality due to an increased risk of co-morbidities and the adverse effects of medication. Mortality rates are up to 20-24% in the first year after a hip fracture and the greater risk of dying may persist for at least 5 years afterwards. The data shows that with the exception of the Slovak Republic the mortality rate from musculoskeletal conditions is higher in females than males. The lowest mortality rates for both men and women are in the Czech Republic. The highest rates for males are in Denmark and for females are in the UK (OECD 2009). The variation in mortality rates due to falls is high with Bulgaria, Spain and Greece having the lowest rates (less than 15) and Hungary, Czech Republic and Finland the highest (over 100).

**Determinants of Musculoskeletal Health**

The musculoskeletal health of an individual is determined by the occurrence of diseases and other health conditions, by lifestyle factors, by contextual factors (both environmental and personal), and by the interaction of these. Influencing the determinants of musculoskeletal health is central to strategies for the prevention and control of musculoskeletal conditions to ensure optimal musculoskeletal health. The main determinants of musculoskeletal health include age, physical activity, diet, alcohol, smoking and accidents/injuries. The report describes how these determinants vary across the EU27. To reduce the enormous impact on the quality of life of individuals and socio-economic impact on society related to...
musculoskeletal conditions, people at all ages should be encouraged to follow a healthy lifestyle and to avoid the specific risks related to musculoskeletal health. Lifestyles to optimise musculoskeletal health include:

- Physical activity to maintain physical fitness
- Maintaining an ideal weight
- A balanced diet that meets the recommended daily allowance for calcium and vitamin D
- The avoidance of smoking
- The balanced use of alcohol and avoidance of alcohol abuse

Management of Musculoskeletal Conditions

The aim of the management of musculoskeletal conditions is to ensure that people with these conditions can actively participate in their own care and manage their problems themselves whenever possible; to control symptoms; to manage the disease process; to achieve optimum function and to reduce the psychological and social consequences of the condition so that people can participate as fully as possible in normal activities. Important aspects of management include education, lifestyle, advice, pharmacological therapies and rehabilitation. This section discusses these management issues and strategies for the prevention of MSC aimed at the total population, those at risk and those with early and established disease.

Health Services Utilisation

Musculoskeletal conditions are managed both in the community by primary and other community-based healthcare services as well as in secondary care. In secondary care they are mainly managed as outpatients (ambulatory care). Inpatient care is required for complex musculoskeletal conditions such as complicated rheumatoid arthritis or complicated connective tissue diseases. Inpatient care is also required for intensive rehabilitation programmes, for orthopaedic surgery and most commonly for arthroplasty and fracture repair. There are various indicators that can be used to measure and monitor health care resource utilisation related to musculoskeletal conditions. In this section variations and trends in health service utilisation for MSC across the EU are described. The difficulties in obtaining comparative health service data across the EU are discussed.

Utilisation of hospital services

The utilisation of hospital services for musculoskeletal conditions varies considerably between countries. There has been an overall trend for the number of day cases to increase and the average length of stay to decrease over recent years. This is consistent with trends in hospital services utilisation as a whole. In Europe between 1195 and 2008 the average number of hospital beds per 1,000 population fell from 7.3 to 5.7. This was accompanied by a fall in the average length of stays (OECD 2010). Over the past 10 years in all European countries the average length of stay for all causes has fallen from 8.3 to 7.2 days. There is a wide variation in the average length of stay for musculoskeletal conditions across the EU. The longest average length of stay is in Germany (12.8 days) and the shortest in Denmark (5.6 days). Hospital discharges in the EU per 100,000 inhabitants are highest for circulatory, respiratory and musculoskeletal conditions. Discharges for musculoskeletal conditions as a percentage of all discharges range from 2% (Cyprus) to 12% (Austria). The number of in-patients and day cases for MSC also vary widely across EU Member States. The highest number of inpatients for musculoskeletal conditions
per 1,000 population is in Austria (32) and the lowest is in Cyprus (1.8). The highest number of day cases is in Belgium (16.5) and the lowest is in Germany (0.1). Scandinavia has the highest reported incidence of hip fracture worldwide (Cooper et al 2011) so it would be expected that they would have higher than average number of hip replacements. The incidence of hip fracture tends to be lower in Southern Europe so the lower than average hip replacement procedures in Spain and Portugal is to be expected. Over the period 1998-2008 the number of hip replacements has increased rapidly in most European countries. On average the number of hip replacements has increased by one third (OECD 2010). The number of knee replacement procedures is highest in Finland and lowest in Ireland. As in hip replacement there are a higher than average number of procedures in the Scandinavian countries, Germany and the UK and lower than average in Italy and Portugal.

Primary health & Community care

Musculoskeletal pain is a common reason for primary care consultation (Uhlig 2002). In the UK it is estimated that one in five adults will consult primary care for a musculoskeletal problem during a 12 month period (Jordon et al 2007). Statistics from the Netherlands health service for 2009 show that 13.3 % of patient attending a GP for one or more episodes of care do so for a musculoskeletal condition. In the UK the specialty trauma and orthopaedics makes up 11% of all out patients attendances, rheumatology 2.4% (2009 NHS stats).

Occupational therapists, physiotherapists and chiropractors provide care for those with MSC. It is very difficult to obtain comparable data across the EU on consultations for MSC with these professionals. In the Czech Republic nearly 14% of respondents had visited a physiotherapist in the past 12 months this contrasts with Latvia where the figure was less than 4%.

Human resources

The number of practising rheumatologists varies widely across the EU (EUROSTAT 2010). The highest number per 100,000 inhabitants is found in France (4.2). This compares to less than 1 per 100,000 in Cyprus, Latvia and Ireland. Data on the number of orthopaedic specialists was obtained from eumusc.net collaborators in 12 countries, the number ranges from 19 per 100,000 in Sweden to 4 per 100,000 in France. The number of practising Occupational Therapists and their role in relation to MSC also varies widely across the EU27. The highest number per 100,000 inhabitants is in Sweden and Denmark (100), there are less than 5 per 100,000 in Luxembourg and Italy. The number of Physiotherapists per 100,000 inhabitants ranges from a high of 234 in Finland to a low of 34 in Ireland.

Diagnostic equipment

There is a lack of data on equipment for diagnosing musculoskeletal conditions. It is estimated that nearly 40% of EU member states fall below the recommended number of DXA scanners per million population of 10.6.

Drug use

In a large scale pan European survey when asked about their reasons for long-term medical treatment 24% stated that it was for long standing problems with muscles, bones and joints and 8% for osteoporosis (Eurobarometer 2007). OECD data (OECD 2010) shows that consumption of drugs for the musculoskeletal
system is highest in Slovakia and lowest in the Netherlands. There has, in most countries, been an increase in consumption of pharmaceutical drugs for the musculoskeletal system over the period 1999-2007. In the Netherlands consumption has been relatively static over this period with a slight decline. The picture is similar for the consumption of anti-inflammatory, antirheumatic non-steroidal drugs but for this group of drugs the highest level of consumption is in Finland. Sales of anti-inflammatory, antirheumatic non-steroidal drugs are highest in Portugal and Czech Republic and lowest in Sweden and Slovak Republic. The sales of pharmaceuticals for the musculoskeletal system as a percentage of total pharmaceutical sales appear to have been relatively static between 1999 and 2007 with most countries showing a slight fall.

Jonsson et al (2008) examined international variation in the use of TNF inhibitors and of conventional DMARDs for the treatment of rheumatoid arthritis for the period 2000-2006. High uptake was observed for Sweden, the Netherlands and Finland; France Spain and the UK were around the EU 13 average. Germany Italy and countries of central and Eastern Europe were below this average.

Impact on the individual

Musculoskeletal conditions can profoundly affect many aspects of the life of the individual, including physical and mental well-being, economic well-being and physical and emotional relationships. They impact on the life not only of the individual but also of carers, family and friends. Musculoskeletal conditions are often long term remitting and relapsing conditions meaning that patients and the doctors treating them need to be able to adapt to and manage the changing disease state. People with chronic musculoskeletal conditions experience pain, reduced mobility, physical disability, fatigue and depression (Simpson et al 2005). The psycho-social needs of people with long term physical conditions such as these are often overlooked (Lempp et al 2011).

Chronic pain and physical disability impair social functioning and emotional well-being which seriously impact on quality of life. In a recent UK survey of people with arthritis (Arthritis Care 2010) the majority of respondents experience severe levels of pain on a regular basis. The survey indicates that people have to endure significant limitations on everyday life due to unmanaged pain. (Arthritis Care 2010). A study by Blake et al (1987) found that compared to those without arthritis those with arthritis had a greater loss of sexual satisfaction over time with fatigue and joint symptoms being major factors. In a more recent study 56% of patients with RA reported that fatigue and pain placed limitations on sexual intercourse (Hill et al 2002).

Impact of MSC on Quality of Life

A study carried out in Norway shows that RA affects all aspects of health as measured by the SF-36 in both sexes and across all age groups. The effect of RA on physical functioning was shown to be high with the loss of function increasing with age. The effect of RA on mental health was shown to be low to moderate. Coping on a daily basis with RA can have a negative impact on mental health. Depression has been found to be more common in people with RA than in controls (Dickens et al 2003). A study published in 2011 (Lempp et al 2011) compared the quality of life in patients with depression and those with early or established rheumatoid arthritis and the general population. For each of the domains the means of SF-36 scores were significantly lower in patients with early and established RA and depression.
The International Quality of Life Assessment project examined the impact of multiple chronic conditions on populations in Denmark, France, Germany, Italy, Japan, the Netherlands, Norway and the US using the SF-36. This showed that arthritis, chronic lung disease and congestive heart failure were the conditions with the highest impact on SF-36 physical summary score. A Spanish study (Loza et al 2008) found that Rheumatic diseases are among the diseases that produce the largest impairment in Health Related Quality of Life (HRQoL) and daily functioning. When the definition of the burden of disease includes a measure of function and of HRQoL that is weighted by the prevalence of disease, rheumatic diseases, as a group, may be considered a major disease such as neurological, cardiac, or pulmonary diseases.

There is very little comparative data between countries on quality of life relating to musculoskeletal conditions. One study compared Lithuania and Norway (Dadoniene et al 2003). The study shows differences in employment, disease activity, physical function, and self reported health status in patients with RA in the two countries. Disease activity (DAS28) as well as functional impact (employment and HAQ) and perceived general health (SF-36) were worse in patients from Lithuania. Likely explanations presented were socioeconomic inequalities, differences in disease management and access to specialised health care.

**Musculoskeletal conditions and work disability**

Work disability is a common consequence of rheumatoid arthritis (RA). The rate of work disability is higher than in the general population (adjusting for age and gender). Disease related factors, demographic characteristics and level of education all influence the work status of people with RA. (Uhlig 2010).

The QUEST-RA study examined work disability in 8,039 patients with RA across 32 countries including 16 EU Member States (Sokka et al 2010). At the time of first symptoms 86% of men and 64% of women under 65 were working. 37% of these patients reported subsequent work disability due to RA. For those patients that had their first symptoms in the 2000s the probability of continuing work at 5 years was 68%; this was similar between those from high GDP and low GDP countries. An important finding was that patients who stopped working in high GDP countries had better clinical status than patients who continued working in low GDP countries - this highlights the importance of cultural and economic factors in influencing levels of work disability.

**Impact on carers**

Many patients with RA live at home, spouses, family and friends often play a significant role as providers of informal care (Jacobi et al 2001). Families and partners of patients with RA can be affected psychologically by the disease (Matheson et al 2009). The burden of care may be substantial in terms of time especially when caring for those with advanced disease (Werner et al 2004).

A study by Brouwer et al (2004) examined the nature and burden of care for informal givers to care to patients with RA in The Netherlands. The study found that caregivers had been caring for the RA patients for, on average, more than 11 years. They provided a substantial amount of care (over 27 hours per week) and this was chiefly made up of household activities and assistance with activities of daily living.
43.5% said they had incurred additional costs related to informal care and 18.9% said they had reduced leisure time due to informal care.

Impact on Society
As a major cause of sick leave and work disability musculoskeletal conditions have a significant impact on society. MSCs are a major cause of work loss in Europe and their affect on worker participation gives rise to substantial work productivity costs. Musculoskeletal conditions also give rise to significant health resource utilisation with associated health and non-healthcare costs for society.

Health costs of MSC
Musculoskeletal conditions are in the top 5 diagnostic groups in Europe in terms of health care costs. In Germany the estimated cost of diseases of the musculoskeletal system and connective tissue was 28,545 Euro; 11.2% of total illness costs. In the same year in Ireland expenditure on drugs for musculoskeletal conditions was 3048 million euros (6.01% of total drug expenditure). In the UK, 2003, the estimated cost of GP consultations for diseases of the musculoskeletal system was £1,340 million; only costs of diseases of the respiratory system (£1790 mill.) and diseases of the circulatory system (£1350 mill.) were higher.

A study by Lundkvist et al (2008) produced estimates for the cost of RA in Europe in 2006 based on the available prevalence and economic literature. These estimates, derived using modelling, give some sense of the economic burden of RA:
- The estimated total cost of RA was 45 million euros.
- The estimated average annual cost per patient was approximately 13,000 euros.
- The medical cost excluding drugs was nearly 9.5 million euros.
- The indirect cost totalled 16,584 euros.

Medical costs were substantially higher in France, UK and Germany compared to the rest of Europe. Malta and Cyprus and countries in Central and Eastern Europe had much lower medical and drug costs.

Work loss and productivity
Musculoskeletal conditions are a major cause of productivity loss. Studies indicate that the majority of productivity losses result from reduced performance at work and reduced working hours rather than sickness absence. In a study in the Netherlands individuals with neck or shoulder pain, arm pain or both reported productivity losses while at work of up to 36% (van den Heuvel et al. 2007).

The Labour Force Survey 2007 examined sick leave in employed people for different types of work related health problems (EUROSTAT 2009). Sick leave of one day or more but less than one month was more likely among those with breathing or lung problems (51%) and bone, joint or muscle problems which mainly affects back (42%). Prolonged sickness absence was most likely among employed persons with a heart disease or attack, or other problems in the circulatory system (29%), stress, depression or anxiety (25%) and bone, joint or muscle problems of the hips, legs or feet (25%).

The percentage of sick leave days attributed to MSDs is high - 40% in Belgium. In Germany the estimated productivity loss due to musculoskeletal conditions in 2006 was 95 million days lost (23.7% of total days lost) at a cost of 23.9 billion euros or 1.1% of the GNP (SUGA 2006). In Finland for 2004 it was estimated
that the direct costs of work-related MSDs (for absences from work lasting more than nine days) were in excess of 222m euros (SSI, 2004). In France figures from 2007 show that nearly 7.5 million working days were lost due to temporary incapacity caused by work-related MSDs causing a cost to society of more than 736 million euros (CNMATS 2008).

Musculoskeletal conditions and disability costs

Musculoskeletal conditions are a major cause of disability and as such they lead to significant costs in terms of disability pensions and benefits, similar to those spent on mental health disability. In Austria in 2001 35% of all new disability pensions were due to MSCs (Lang et al 2003). In Belgium in 2009 diseases of the ‘locomotor’ system were the primary cause of invalidity among male workers (28 per cent) and second most important, after mental disorders, in female workers (27 per cent) (Belgian National Institute for Sickness and Invalidity Insurance 2009). In Finland in 2009 diseases of the musculoskeletal system was second only to mental disorders as the principal diagnostic reason for receipt of a disability pension.

Health inequalities and musculoskeletal conditions

Studies show significant health inequalities relating to musculoskeletal conditions. Individuals with lower socioeconomic status have a higher prevalence of chronic musculoskeletal complaints (Hagen, 2005) severe disease and worse disease (ERAS Study Group 2000, Harrison 2005), have less access to hip arthroplasty (Rahman et al 2011) and have higher in-hospital hip fracture mortality in 2008 (Wu et al 2011).

Studies show that there is an association between level of education and the likelihood of having a musculoskeletal condition (Dalstra et al 2005). Age, gender and ethnicity have also shown to be associated with musculoskeletal health inequalities. Disease activity levels for RA have been shown (Sokka et al 2009) to differ substantially between high and low GDP countries at much greater levels than according to whether patients were currently taking or not taking methotrexate, prednisone and/or biological agents. The burden of arthritis appears substantially greater in low than in high GDP countries.

Equity of access to MSC treatments across the EU

Studies (Sokka et al 2009; Kobelt & Kasteng 2009) have shown a large variation in the percentage of patients who had ever taken biologicals. In the Sokka study there was a high of 54% in Greece to a low of 1% in Estonia. Disease modifying antirheumatic drugs (DMARD) were taken by 92–100% of all patients in the 16 EU countries included in the study, with no differences between high and low GDP countries; the mean number of DMARD was 2.7. DMARD were taken for less than 50% of disease duration in the UK, Ireland, Hungary, Latvia, Lithuania and for more than 100% in Finland and Greece (percentages greater than 100 indicate the simultaneous use of two or more DMARD).

Regional inequalities in access to MSC health care

Data from the UK and Sweden show regional inequalities in access to MSC health care. A UK study (Judges et al 2010) showed substantial regional differences in access to total hip replacement and total knee replacement in England. Statistics from Sweden show that despite an even distribution of the occurrence of RA over the country, before the launch of national guidelines in 2011, there were
significant health inequalities between different regions in the access to biologic therapy for RA.

Conclusion

Musculoskeletal conditions are a leading cause of burden of disease across the EU Member States. Europe’s ageing population and changes in lifestyle suggest that without action the burden of these conditions will increase. In compiling this report the lack of up to date comprehensive data which is comparable across all Member States is apparent. This is particularly the case for incidence and prevalence data from Central, Eastern European and Mediterranean countries. This highlights the need for improved sources of routine data on these common but high impact conditions.

Musculoskeletal conditions can profoundly affect many aspects of the life of the individual, including physical and mental well-being, economic well being and physical and emotional relationships. Across the EU there are significant differentials in the burden of disease by age, gender, education and occupation. National and regional inequalities in access to health care services and resources have also been identified. Of particular concern is the evidence which suggests that disease activity levels differ substantially according to whether countries are classified as having a high or low GDP.

MSC are a major cause of productivity loss. There are very few comparative studies of sickness absence in Europe and there is an urgent need for indicators which can be used across the EU27 to capture the occurrence, duration and cause of sickness absence.

To reduce the enormous impact on the quality of life of individuals and their socio-economic burden on the EU Member States, the profile of MSC must be raised. People of all ages, across Europe, must be made aware of and encouraged to follow, a bone and joint healthy lifestyle. Only then can we avert the current growing risk to European musculoskeletal health.

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