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## Press Information

**The European Musculoskeletal Conditions Surveillance and Information Network (EUMUSC.Net) is a three year, €1.8 million project to raise and harmonise quality of care and enable equity of care of rheumatic diseases and other musculoskeletal conditions across the Member States. This will be achieved by developing and operationalizing a relevant health surveillance and information system, leading to improved musculoskeletal health for all. The project is supported by the European Community (EC Community Action in the Field of Health 2008-2013 and by the European League Against Rheumatism (EULAR)**

### **About Musculoskeletal Conditions**

Musculoskeletal Conditions are the most costly of all disease categories and with the world facing a sharp increase in the number of people over 50 by the year 2020, the financial burden which musculoskeletal conditions exerts upon healthcare systems globally will increase exponentially.

The musculoskeletal system provides form, support, stability, and movement to the body. It is made up of bones, muscles, cartilage, tendons, ligaments and other connective tissues. 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. Those problems and conditions not related to injuries or traumas are sometimes called rheumatic diseases and those predominantly affecting joints are collectively called arthritis.

### **The burden of Musculoskeletal Conditions**

Musculoskeletal (rheumatic) conditions (MSC) are common across Europe. 22% of adults in Europe have experienced long-term muscle, bone and joint problems; 32% had such symptoms limiting their activities in the previous week (Health in Europe Eurobarometer Report 2007). They are the 7<sup>th</sup> leading cause of mortality and morbidity from Non Communicable Diseases in the WHO Europe region and the second most common complaint underlying long-term treatment, accounting for a quarter of all Europeans who are under long-term treatment (Health in Europe Eurobarometer Report 2007). They therefore incur major health care costs (Woolf 2004).

**Musculoskeletal conditions are the biggest cause of physical disability; incur major social care costs and a major cause of lost productivity (Major and Chronic Diseases Report 2007). They have a major influence on the rates of**



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**sickness absence in all Member States (Indicators for Monitoring Musculoskeletal Problems and Conditions Report 2003). Musculoskeletal conditions are the most common medical causes long-term absence with major consequences for society in terms of costs.**

Their prevalence and associated disability increases with aging, obesity and lack of physical activity. All these determinants are increasing across Member States. Recommendations for the prevention and treatment of musculoskeletal conditions have been developed (European Action Towards Better Musculoskeletal Health Report 2004) but these are not being implemented equitably.

Studies have examined what is actually happening for the management of musculoskeletal conditions in different European countries and there is evidence of differences which will lead to different outcomes. For example, surveys across different European countries have shown different approaches by both people with musculoskeletal conditions and by physicians to the management of musculoskeletal pain (Woolf et al 2004). There are also differences in rates of joint replacement surgery across different European countries (Merx et al 2003).

There is therefore a large and growing burden across all Member States; evidence of differences in care between Member States; and failure to implement evidence-based interventions that have enormous potential to reduce this burden.

### **Musculoskeletal Conditions and World Health Organisation priorities**

In 1976, at the World Health Assembly, the then Director-General of the World Health Organisation Halfdan Mahler said:” Perhaps the most fundamental difficulty in regard to rheumatic diseases is that the problem is insufficiently appreciated and understood. Critical to this lack of appreciation is an information deficit.”

In 2000, a WHO Scientific Group on the Burden of Musculoskeletal Conditions at the Start of the New Millenium met in Geneva. The meeting was opened by Dr. G. Harlem Brundtland, Director-General of the World Health Organisation. At the meeting Dr Brundtland mentioned that although the diseases that kill attract much of the public’s attention, musculoskeletal or rheumatic diseases are the major cause of morbidity throughout the world, having a substantial influence on health and quality of life, and inflicting an enormous burden of cost on health systems.

**Most recently, in 2010, the WHO published its Global status report on non-communicable diseases 2010; the report confines itself to four NCD’s with high mortality: cancer, cardio-vascular, diabetes and chronic respiratory, there is scarcely a mention of musculoskeletal conditions, or any other non-communicable disease with low mortality and high morbidity rates.**



On 19<sup>th</sup> – 20<sup>th</sup> September 2011, the UN held a summit, officially called the 'High-level Meeting of the United Nations General Assembly on the prevention and control of non-communicable diseases' .

The General Assembly, taking its lead from the WHO, prioritized the same four types of non-communicable disease (NCD):

- cardiovascular diseases [heart or blood vessels (arteries and veins)]
- cancers
- chronic respiratory diseases
- diabetes

By focussing on the four types of NCD that make the largest contribution to mortality the United Nations is leading national governments into prioritising non-communicable diseases with high mortality rather than on non-communicable diseases with high morbidity but low mortality of which musculoskeletal conditions is a major contributor.

So, a generation on from the statement of Halfdan Mahler, little appears to have changed at the WHO; raising awareness for MSC's remains a priority.

### **Report on Musculoskeletal Health in Europe**

Despite the significant impact of musculoskeletal conditions have on the health and well being of populations and individuals across the EU there is a lack of awareness regarding these conditions. Together with a lack of routinely collected indicators that are specifically relevant to musculoskeletal conditions this means that musculoskeletal conditions do not receive the attention commensurate with their impact.

As part of the eumusc.net project a report, has been prepared , which aims to provide an up to date picture of the health, social, employment and economic impacts of musculoskeletal conditions across EU Member States. It doing so it draws on many sources of data and information including health and labour force surveys, national statistics, reports and peer reviewed literature. musculoskeletal conditions.

### **Musculoskeletal Health in Europe – some findings**

Some interesting facts can be found in the comprehensive report. For example, there is evidence to suggest that there is a north-south gradient in certain conditions; high levels of activity-limiting pain were reported in Finland (44%) with much lower levels in Portugal (21%); for chronic pain again Finland had high levels (33%) with low levels in Greece (13%); the lifetime probability of hip fracture at 50 years are highest



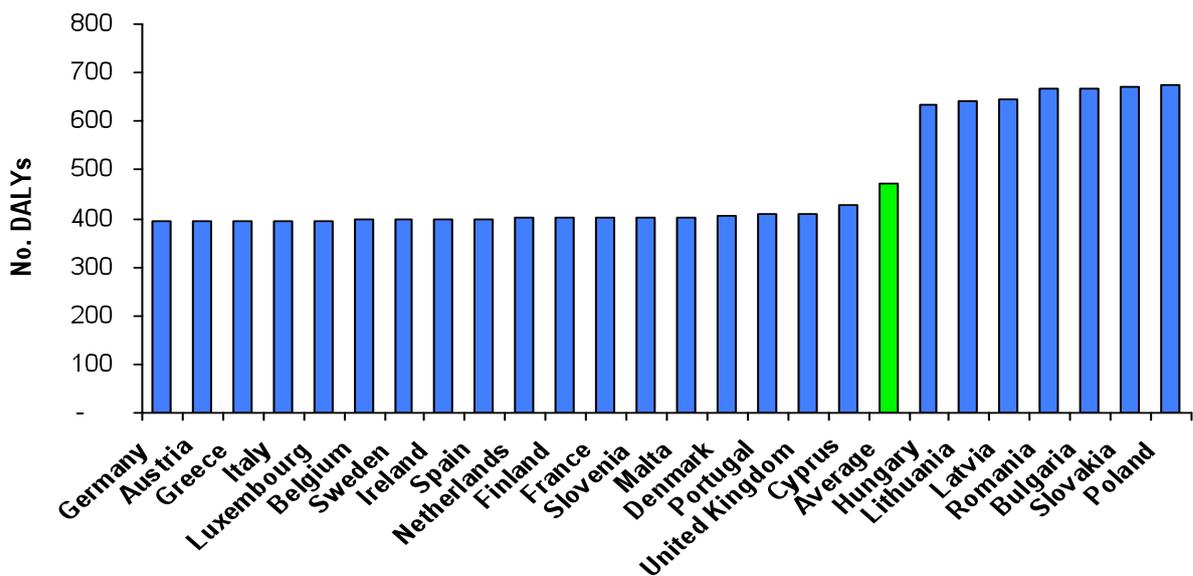
in Sweden and Norway and lowest in Hungary, Portugal and Greece; incidence of juvenile idiopathic arthritis are highest in Finland at 23 per 100,000 and lowest in Spain at 7 per 100,000. Reasons for these geographic differences are not well understood but may relate to generic and environmental issues.

Also of interest is a comparison of the burden of musculoskeletal disease in the EU Member States using Disability Adjusted Life Years (DALYs\*), as a summary measure of disease related morbidity and mortality.

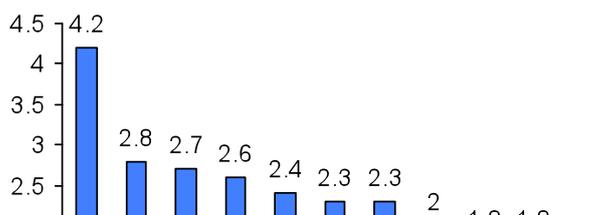
The graph below shows the age standardised DALYs for 25 of the EU27, only the Czech Republic and Estonia are missing; Poland, Slovakia, Bulgaria, Romania, Latvia, Lithuania and Hungary all show a relatively high burden of musculoskeletal disease including rheumatoid arthritis and osteoarthritis. These countries have the lowest GDP per capita in the EU27. This is compatible with the evidence that there is a correlation between osteoarthritis, rheumatoid arthritis and socioeconomic conditions (Sokka 2009; Young et al 2000)..

\* The DALY combines in one measure the time lived with disability and the time lost due to premature mortality. One DALY can be thought of as the loss of 1 year of “healthy” life. DALYs used in burden measurement are the gap between current health status and an ideal situation where everyone lives into old age free of disease and disability.

**DALYS Musculoskeletal disease, EU25, 2004**



**Practising rheumatology physicians per 100,000 inhabitants, 2006**





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## **How common are MSC and are there differences in their incidence and prevalence across EU Member States?**

Other important findings include the fact 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.

Perhaps, the most concerning finding of the work completed by Work Package 4 is the lack of comparable data relating to musculoskeletal conditions across Europe. The availability of data also varies significantly by region. Data availability is particularly poor for Central and Eastern Europe. For example, published studies of the incidence and prevalence of RA are available for only 13 European countries; studies of knee replacement was confined to 16 EU Member States; there is a very little comparative data between countries on quality of life relating to musculoskeletal conditions; a study of work disability again included only 16 EU Member States, which are members of the OECD. There are also concerns about differences in definitions and reporting of figures which requires caution to be exercised when attempting interpretation; this is particularly the case with data relating to injuries due to work related accidents.

It is clear that the case for raising awareness of musculoskeletal conditions will be improved by improving the completeness of data collection and comparability of measures in each of the EU Member States. A small first step towards this has been achieved by the EUMUSC.Net project being invited to formulate a question on musculoskeletal health for the European Health Interview Survey (EHIS). The survey is set to become a statutory requirement for all European Member States to complete every 5 years. Further, extensive work is required throughout Europe to improve data collection and it is hoped that the surveillance network that has been established through the efforts of EUMUSC.net will contribute to this work.



## **Annex 1**

### **About the EUMUSC.Net project**

The European Musculoskeletal Conditions Surveillance and Information Network (EUMUSC.Net) is a three year, €1.8 million project to raise and harmonise quality of care and enable equity of care of rheumatic diseases and other musculoskeletal conditions across the Member States. This will be achieved by developing and operationalizing a relevant health surveillance and information system, leading to improved musculoskeletal health for all. The project is supported by the European Community (EC Community Action in the Field of Health 2008-2013 and by the European League Against Rheumatism (EULAR)

The EUMUSC.Net project comprises 22 organisations across 17 countries who together aim to provide updated and harmonised information on the health, social, employment and economic impact of musculoskeletal conditions across all EU member states. The project will establish what standards of care patients can expect, the quality of healthcare provided, what barriers affect the local implementation, highlight examples of European good practice and make recommendations to improve healthcare across the EU.

Professor Anthony Woolf, who is leading the Project: “It is an exciting project which is bringing over 100 people from all over Europe together to achieve a common aim. At the moment, people with these conditions are not a priority in any country. There are no targets for these conditions despite the impact they have and this is probably largely because they are not fatal conditions. We will be developing standards of care which will be a check list for anyone with a condition such as arthritis on issues including what they should expect from their care and what drugs are available.”

This is one of the biggest funded public health projects across the EU. The project has been presented to the European Parliament in a bid to get political support for improving the management of these conditions, and cited by John Dalli, EU Commissioner for Health and Consumer Policy as a key initiative of the EU Health Strategy: together for Health (2008 – 2013). Professor Woolf said: “This is a great opportunity for us to play a central role in influencing health policy in Europe for the management of Musculoskeletal conditions.”

The project is working with patient groups and healthcare providers across Europe to find out how the system works in their countries and what problems there are in providing treatments. Professor Woolf : “We are hoping to get a consensus on what people with musculoskeletal conditions need and then we can harmonise, not standardise, ways of working and quality and equity of care.”



Although medical providers in the UK for example are used to health care targets this is not something that is generally used in other EU countries. While in the UK these targets and indicators give direction on what should be achieved, in other countries standards and achievements are measured in different ways. Professor Woolf :“In every country the problems faced by people with musculoskeletal conditions are very similar. This project is a big opportunity to get all the EU countries measuring standards in the same way.”

It is hoped the project will eventually lead to improved musculoskeletal health through evidence based policy recommendations for the implementation of a community strategy and by highlighting good practice so that it can be copied across the EU.

Professor Woolf : “We need to highlight to policy makers the enormous impact that rheumatic and other musculoskeletal conditions have on individuals and on society. There is an urgent need to ensure that anyone in Europe with arthritis has the opportunity of the same outcome by developing and implementing these standards of care.”

A key objective of the EUMUSC.Net project is to provide supporting evidence at a country level that highlight the impact of Musculoskeletal Conditions in terms of health, social, employment and economic measures.

It is hoped that national assessments completed by EUMUSC.Net will highlight those countries where the provision of care for musculoskeletal conditions is disproportionate to its prevalence and incidence.

Overall, the aims of the EUMUSC.Net project is to establish a standard of information that is accessible to patients, healthcare professionals and policy informers alike and which addresses:

- The impact that Musculoskeletal conditions (MSC's) have on individuals and society
- The standards of care that patients diagnosed with OA and RA should be receiving
- Health Care Quality Indicators to show whether these standards are being achieved
- The identified barriers and facilitators that affect the local implementation of standards of care
- Good practice that can be highlighted and relayed throughout Europe
- Recommendations to improve the delivery of standards of care across the EU member states.

## **Website**



The EUMUSC.Net project website can be found at [www.eumusc.net](http://www.eumusc.net). Further information about the project and uploads of all project reports and deliverables can be found on the website.

The website has recently undergone development to align with the latest project branding, and extended to facilitate access to the new country specific data that has been developed.

From 2013, the project will hand over the website, including online data collection and monitoring tools to EULAR to create a live, long-term and relevant surveillance network for musculoskeletal health across Europe.

### **Surveillance Network**

EUMUSC.Net, has established a network across the Member States, with individuals in each country agreeing to take responsibility for entering data to the web based health information system. This is key to delivering a sustainable and comprehensive scientific and surveillance network that can continue after completion of the EUMUSC.net project.

### **EUMUSC.Net Project – Associated Partners**

The 22 Associated Partners of the EUMUSC.net project are:

Royal Cornwall Hospital Trust (UK)

Medizinische Universität Wien (AT)

Lund University (SE)

Diako - hjemmet sykehus AS (NO)

Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek (NL)

Mentor training SA – Vocational Training Centre (EL)

The Swedish Rheumatism Association (SE)

Universitatea de Medicina si Farmacie Carol Davila Bucuresti (RO)

Università degli Studi di Genova (IT)

Fundacion Española de Reumatología (ES)

University Medical Center (SI)

University of Leeds (UK)

Leids Universitair Medisch Centrum (NL)

Maastricht University (NL)

University of Crete Research (EL)



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Revmatologický ústav and Clinic of Rheumatology 1st Medical Faculty Charles  
University (CZ)

Hopital Cochin (FR)

Reumapatiëntenbond (NL)

Instytut Reumatologii (PL)

Medcare Oy (FI)

Dr I Cantacuzino Clinical Hospital (RO)

Université Henri Poincaré, Nancy 1 (FR)



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## **Annex 2**

### **About Musculoskeletal conditions**

Musculoskeletal conditions are a diverse group of conditions that 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. They include:

- Joint conditions—for example, rheumatoid arthritis (RA), osteoarthritis (OA)
- Bone conditions—for example, osteoporosis and associated fragility fractures
- Spinal disorders—for example, low back pain
- Regional and widespread pain disorders
- Musculoskeletal injuries—for example, high-energy limb fractures, strains and sprains often related to occupation or sports
- Genetic, congenital and developmental childhood disorders
- Multisystem inflammatory diseases which commonly have musculoskeletal manifestations such as connective tissue diseases and vasculitis

While there are many types of musculoskeletal disability, the following five conditions are the most notorious and insidious causes of severe long-term pain and disability. These conditions affect the ability of people to work and to lead productive and enjoyable lives, and increases dependency on healthcare and social support.

1. Joint Diseases – osteoarthritis and rheumatoid arthritis
2. Osteoporosis
3. Back Pain and Spine Conditions
4. Childhood Musculoskeletal Conditions and Trauma
5. Road Traffic Trauma

#### 1) Joint Diseases

Osteoarthritis is a joint disease that mostly affects cartilage. Cartilage is the slippery tissue that covers the ends of bones in a joint. Healthy cartilage allows bones to glide over each other. It also helps absorb the shock of movement. In osteoarthritis, the top layer of cartilage breaks down and wears away. This allows bones under the cartilage to rub together. The rubbing causes pain, swelling, and loss of motion of the joint. Over time, the joint may lose its normal shape. Also, bone spurs may grow on the edges of the joint. Bits of bone or cartilage can break off and float inside the joint space, which causes more pain and damage.

People with osteoarthritis often have joint pain and reduced motion. Unlike some other forms of arthritis, osteoarthritis affects only joints and not internal



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organs. Rheumatoid arthritis-----the second most common form of arthritis-----affects other parts of the body besides the joints. Osteoarthritis is the most common type of arthritis.

Rheumatoid arthritis is an autoimmune disease. This is when the immune system, which usually fights infection, attacks the cells that line the joints, making them swollen, stiff and painful. Over time, this can damage the joint itself, the cartilage and nearby bone. The condition causes pain and swelling in the joints. Hands, feet and wrists are commonly affected, but it can also damage other parts of the body. It can make the joints feel stiff and can leave patients feeling unwell and tired.

## 2) Osteoporosis

Osteoporosis, or porous bone, is a disease of progressive bone loss and skeletal deterioration in which bones become fragile and more likely to break, or fracture. The disease often develops unnoticed over many years, with no symptoms or discomfort, until a fracture occurs. Fractures at the hip, spine, and wrist are most common, although any bone can be affected. Many of these fractures are due a fall, however, even simple household tasks can produce a fracture of the spine if the bones have been weakened by the disease. These fractures often lead to chronic pain, disability and a reduced quality of life.

## 3) Back pain and Spine Conditions

Back pain is one of the most common reasons for workplace sick-leave, and back pain is the second most frequent reason for visits to the doctor's office, outnumbered only by the 'common cold'.

## 4) Childhood Musculoskeletal Conditions and Trauma

Juvenile idiopathic arthritis is a chronic condition inflicting children under 16 with joints that are swollen, painful and stiff (inflamed). There are three main types of Juvenile idiopathic arthritis:

- Oligoarticular (or pauciarticular) JIA - the most common type, affecting only a few joints, usually the knees, ankles, elbows or wrists.
- Polyarticular JIA - the second most common type, affecting many joints including fingers and toes.
- Systemic JIA (Stills disease) - the rarest type where joint pain is part of a more general illness.

Joint or bone injuries will affect between 30% and 40% of children before the age of 16; a single knee injury early in life can increase the risk for osteoarthritis in adulthood five-fold and a hip injury could more than triple the risk.

## 5) Road Traffic Trauma



Every year, 23 to 34 million people worldwide are injured in road traffic accidents. In the majority of cases it is the musculoskeletal system that is injured. Treatment and rehabilitation following road traffic injury has an enormous impact on healthcare costs – in developing countries it is estimated to consume 25% of the healthcare budget.