



Reducing Temporary Work Absence Through Early  
Intervention: The case of MSDs in the EU

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## **Background - Musculoskeletal Disorders in the EU Workforce**

Up to a 100 million EU citizens have musculoskeletal pain, indeed there are over 200 musculoskeletal disorders (MSDs), including back, shoulder and neck pain; joint diseases such as osteoarthritis and rheumatoid arthritis; and injuries due to working conditions or physically demanding work. Over 40 million EU workers have MSDs caused by their work. They cause almost 50% of all absences from work lasting three days or longer in the EU and 60% of permanent work incapacity. The direct and indirect costs of MSDs have been estimated at €240bn each year – up to 2% of GDP across the EU. To compound the problem still further, up to 30% of people with MSDs also have depression, which makes it more difficult to stay in or return to work. By any standards these are big numbers. We should be concerned.

Since 2009, the Fit for Work Europe Coalition has been campaigning for policy and practice to wake up to the clinical, economic and social challenges that a health burden of this magnitude represents. It has been hard work, not least because MSDs are conditions which – in the jargon – are high on morbidity (they contribute enormously to the burden of ill health) but low on mortality (very few people die as a direct result of an MSD). Crudely, this makes it hard to get much serious or sustained attention from policymakers or practitioners, and so the problem persists. This is in spite of some of its solutions being simple and cost-effective to implement – especially those which focus on early intervention. By this we mean any kind of clinical, workplace or welfare-related support made available to a person with an MSD which helps them manage their condition and increases their chances of recovery, remission or returning to some or all activities of daily living.

To coincide with the 5th Annual Summit of the Fit for Work Europe Coalition in Brussels in October 2013, we have put together some examples of early interventions from across the EU which have proven to be both clinically successful and economically sound. We also present some new data based on some scenarios which focus on the potential impact on sickness absence and productivity which would result if some of the good practice we showcase here were emulated across all EU member states.

## **Why is early intervention for MSDs a good idea?**

There are several advantages to improving access to early interventions for people with a diagnosis of a musculoskeletal disorder:

1. **Better treatment.** In general, the quicker an individual receives a diagnosis, the more rapidly they can get access to appropriate treatment which can stabilise or control their symptoms;
2. **Reducing the risk of developing co-morbid conditions.** For many people with chronic conditions (up to 30% among people with MSDs), issues like pain, fatigue, depression or anxiety can become a significant issue which can increase healthcare costs and reduce functional capacity;
3. **Aiding a return to activities of daily living.** People with chronic conditions (like many MSDs) can become more self-reliant and rely less on health and social care services if they have access to early intervention, especially if they are playing an active part in the management of their condition.;
4. **Staying in or returning to work.** People whose health conditions are being well-managed are more likely to remain economically active, continue to pay taxes and be

less reliant on welfare payments. There is a lot of evidence that work can be a realistic clinical outcome for many people with MSDs, even progressive conditions such as inflammatory arthritis.

So far, so good. In theory then, early intervention sounds like a great idea. However, there are several barriers to giving everyone who needs it an early intervention which will benefit them, especially among people of working age:

1. **Primary Care.** Too often, GPs do not regard work as a clinical outcome to which they should attach priority. This means that treatments or therapies which may help an individual stay in or return to work may not be prescribed early enough.
2. **Secondary Care.** Again, work ability is most often a second-order priority in these clinical settings.
3. **Health Technology Appraisal (HTA).** In some countries, HTA (the mechanism which assesses whether the costs of medical treatments and devices are balanced by the benefits and therefore will be reimbursed) looks at the economic and societal benefits of giving patients access to treatment which will help them remain in work. In others only the direct clinical benefits and costs are examined, but not the labour market impact. This makes the funding of early clinical interventions less likely.
4. **Employer behaviour.** Among many employers, failure to refer employees early to an occupational health specialist can extend the time that they are away from work through sickness absence and can increase their risk of leaving work permanently.

Many of these barriers co-exist and can be exacerbated in the case of conditions which are not well-known. For example, some inflammatory conditions such as ankylosing spondylitis, MS or Crohn's disease can take several years to diagnose and – if they affect people young in life – can have a long-term effect on both educational attainment and employment prospects if not detected and treated early.

### **What does an early intervention look like?**

In Appendix 1 are three case studies showing the way early interventions for people with MSDs have been discussed and implemented in Ireland, Finland and in the UK. They each illustrate different approaches and, in the case of the UK, how even when a compelling economic argument to widen access to early intervention is constructed, sometimes politics can get in the way.

Some of the features of such interventions are:

- **Early diagnosis** – often GPs in primary care are the first place where people present with an MSD which is limiting their ability to work. Most diagnoses are straightforward (eg low back pain) but others – including the less common or ambiguous symptoms of inflammatory arthritis – can be more complicated;
- **Appropriate referral** – in many cases, quick referral to another healthcare professional can make a big difference to effective condition management and vocational rehabilitation. Often quick access to a physiotherapist can be all that is needed, especially for mainly 'mechanical' bone, joint and muscle problems. Sometimes support from a clinical psychologist can be helpful if an individual has developed depression or is anxious about putting their joints under strain or returning to work too early. In more serious cases, early access to a rheumatologist

or an orthopaedic surgeon may be necessary in order to access specialist treatments;

- **Workplace adjustments** – employers, occupational health professionals or HR professionals can all make a difference to workplace health risks by improving hazardous working conditions, referring an absent employee early on for support and rehabilitation, and making adjustments to the working environment or to working hours to help people recovering from an episode of absence to phase their return to work;
- **Self-management** – most often, the person who knows best how to manage an MSD in the workplace is the person living with it. Self-management is now a much more accepted idea in clinical practice. Early interventions which include an element of patient education, coaching and support can enable the individual to play an active part in the management of their condition. This can increase the confidence with which they feel they can negotiate a return to work.

Some MSDs, especially if they are caused by working conditions, can be prevented. Others, especially diseases of the bones and joints, are auto-immune conditions which cannot be prevented. Nonetheless, a well-timed and appropriate early intervention can be a powerful form of prevention. This can be decisive in ensuring that an individual's condition does not deteriorate and, in many cases, it can even get better.

### **How effective is early intervention?**

The evidence-base to support the use of early intervention among people with MSDs is growing. The Fit for Work Europe Coalition has highlighted the work carried out by Lydia Abásolo and colleagues at Hospital Clínico San Carlos in Madrid<sup>1</sup>. It was distinctive because it accepted patients referred after five days of absence from work and because, in addition to conventional clinical interventions for people with common and less common MSDs, it included patient education programmes. These programmes focused on improving knowledge and supporting patients to initiate and maintain exercise and behaviour which supported recovery and prevented re-occurrence. This two-year intervention with over 13,000 MSD patients resulted in a 50% reduction in permanent work disability (ie people leaving work completely) and a 39% reduction in temporary work disability (ie people having sick days from work as a result of their condition). In addition, patient satisfaction with this intervention was high. An analysis of the cost-effectiveness of the intervention in relation to the reduction in temporary work disability showed that for every \$1 of expenditure, \$15 was saved in productivity benefits.

### **Extending the benefits of early intervention across the EU?**

The Madrid study, together with other examples, demonstrates that the benefits of early intervention could have a significant clinical and economic impact if they were replicated more widely across the EU.

To illustrate the potential impact of reducing MSD-related sickness absence (temporary work disability) across the EU, the Fit for Work Europe Coalition has carried out some simple analysis. We used the latest available estimates (some up to five years old) of the number of sick days attributable to MSDs from 12 member states. Additionally, absence data in some countries (eg France) is only available for sick days taken after a statutory qualification

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<sup>1</sup> Abasolo, L et al, A Health System Program To Reduce Work Disability Related to Musculoskeletal Disorders, *Annals of Internal Medicine*, 143:404-414, 2005.

period before workers become eligible for sick pay. In these cases, our data may under-represent the levels of absence. So the scenarios presented below need to be interpreted with caution. However, as even a crude indicator of the scale of the impact which early intervention could make, we feel that our analysis makes a powerful point.

The analysis shows that, if the Madrid results were repeated across Spain, where 26m working days are lost to MSDs each year, the equivalent of over 46,000 additional Spanish workers would be available for work each day instead of on sick leave. The numbers for 11 other EU Member States are equally striking and are presented in Table 1.

**Table: Additional workers available to work in 12 EU states** (70% of the EU workforce)

As the way patients are referred to early intervention services varies considerably between countries, this data is based on a more cautious estimate scenario of 25% instead of the 39% improvement rate achieved in the Madrid clinic. Nonetheless, the number of lost working days avoided even in this conservative estimate would still be substantial and show the significant impact that wider access to early intervention could have across the EU.

| Country      | Days lost to MSDs each year | Number available to work if Madrid results replicated | Number available to work with just a 25% reduction |
|--------------|-----------------------------|---|--|
| Germany      | 217m                        | 479,973   | 307,675  |
| UK           | 35m                         | 62,045  | 39,773   |
| Spain        | 26m                         | 46,091  | 29,545   |
| Poland       | 21.7m                       | 38,538  | 24,704   |
| France       | 13.4m                       | 23,724  | 15,208   |
| Austria      | 7.7m                        | 13,650  | 8,750  |
| Ireland      | 7m                          | 12,409  | 7,955  |
| Finland      | 5.15m                       | 9,142   | 5,860  |
| Romania      | 3.15m                       | 5,594   | 3,586  |
| Slovenia     | 2.47m                       | 4,379   | 2,807  |
| Greece       | 1.2m                        | 2,472   | 1,584  |
| Estonia      | 1.02m                       | 1,815   | 1,164  |
|              |                             |   |  |
| <b>TOTAL</b> | <b>102m</b>                 | <b>699,832</b>  | <b>448,610</b>                                     |

*Sources: Fit for Work Europe estimates based on country-specific data*

The data from 12 member states represents only 70% of the EU workforce. Extrapolating this data for all 28 member states, the total number of additional EU workers who would be available for work each day with a 39% reduction in temporary work disability would be **one million**. As the way patients are referred to early intervention services varies considerably between countries, we have also constructed a scenario based on a more cautious estimate of a 25% reduction in temporary work disability, instead of the 39% improvement rate achieved in the Madrid clinic. Nonetheless, the number of lost working days avoided even in this conservative estimate would still be substantial – an additional 640,000 workers available for work. This shows the significant impact that wider access to early intervention could have across the EU.

**Conclusion**

As economies across the EU emerge tentatively from the depths of recession, they will need a skilled, motivated and healthy workforce to help them regain previous levels of productivity and competitiveness. As we hope this paper demonstrates, improving access to early interventions for those people of working-age with long-term or chronic health conditions could play a significant part in keeping the EU workforce healthy and active.

## Appendix 1 Case studies of early intervention for people with MSDs

### **The Renaissance Project, Ireland**

In the Republic of Ireland, this government-supported project aimed to target to address the impact of chronic disability from low back pain through early interventions.

#### **The approach**

In 2003, between January and June, 3,300 new claimants for Disability Benefit and Injury Benefit with GP-certified low back pain (LBP) were selected for participation in the project. All subjects were between 20 and 50 years of age. A matched control group of claimants was also selected as a comparator. Of the initial 3,300 claimants, the following outcomes were reported:

- 1,700 (51%) returned to work within four weeks;
- 1,600 were selected for early referral and asked to attend a medical assessment 4-6 weeks after claiming (much earlier than normal);
- 1,000 decided to return to work and were not medically assessed;
- The remaining 600 were assessed using a diagnostic triage approach.

The medical assessments placed claimants into one of three categories. Those with simple back pain (95%), those with nerve root pain (3-5%) and those with a potentially serious spinal pathology (1-2%). Claimants in the 'simple back pain' category were assessed for their work capability, taking into account symptom severity, occupation, potential for work restriction and potential to change the demands of the job.

#### **The results**

The proportion of claimants progressing from simple back pain to chronic disability fell, with 64% assessed to be capable of work, compared with 20% of claimants assessed during the previous year. There was also a reduction in the number of claimants appealing against their assessment (44% versus 61%). Compared with the control group there was a 40% reduction in claims which progressed to a long duration and a saving of over 560,000 euros compared with the previous year.

#### **What happened next?**

The study was regarded as a success, especially as it demonstrated that targeted early intervention with low back pain could reduce progression to chronic disability; improve the health of claimants; reduce healthcare costs; reduce absence from work; improve productivity and yield savings for long-term benefits schemes. The project was extended beyond its original scope and has produced further positive results.

Further details of the project can be downloaded here: <http://www.welfare.ie/EN/Policy/>

## Targeted Occupational Health Intervention, Finland

The aim of this intervention was to provide high risk employees in the construction, service and maintenance industry a targeted occupational health intervention to aid job retention.

### The approach

All employees completed a health questionnaire to identify their risk for sickness absence. The employees were divided into low risk, intermediate risk and high risk groups. The high risk group included people who responded that they had pain, impairment due to musculoskeletal problems, sleep problems, high levels of stress/fatigue or a high depression score. Once identified as high risk, the employees received a targeted occupational health intervention, which was provided by the company's own occupational nurses and physicians. The employees received personal feedback from their health questionnaire. They also were invited to attend a consultation at their local occupational health service (OHS). The aim of the consultation was to construct an action plan, and if appropriate, refer the employee to a specialist or psychologist. The visits to the local occupational health service were predefined and included procedures on how to further diagnose diseases and rules for further actions according to detailed descriptions. After the consultation, the occupational nurse compiled a personal file for each employee. This included information about the treatments and health advice received at the OHS; the referrals to further evaluation or interventions; the considerations of OHS professionals that no further actions were needed and the refusals of some employees to take further action.

### The results

Employees who participated in the intervention had fewer days absent and used less healthcare resources. However, health outcomes for the employees participating in the programme did not significantly improve. The use of the health survey allowed for the identification of workers at risk for specific diseases. For these employees, 45% were referred to a specialist or specific intervention to address a newly identified health problem. Compared with usual care, the intervention was eventually cost-saving due to decreased sickness absence days and less use of healthcare resources. The health survey identified employees who were at high risk of sickness absence and work disability. By focusing on the high risk employees, OHS can provide targeted interventions that address their health needs.

### Source:

Taimela, S Justén, S Aronen, P Sintonen, H Läärä, E Malmivaara, A Tiekso, J and Aro T, (2008) An occupational health intervention programme for workers at high risk for sickness absence. Cost effectiveness analysis based on a randomised controlled trial, *Occupational and Environmental Medicine*, 65; pp242-248.

## Economics vs Politics, United Kingdom

In the UK, calculations from the National Audit Office (NAO) have shown that clinical and work outcomes for people with rheumatoid arthritis could be improved if access to clinical interventions (within the first three months after symptom onset) changed from 10% to 20%. However, to achieve these gains, expenditure in the health care system (NHS) would need to be increased by **£11 million** over five years. A productivity 'payoff' – estimated to be **£31 million** from reduced sick leave, lower unemployment and reduced 'transfer' payments (ie welfare) – would accrue over this period to individuals, employers and to the Department of Work and Pensions (DWP). In addition, such an investment would increase quality of life by 4% over the first five years, as measured by quality adjusted life years (QALY). If the DWP and the NHS agreed to find ways of sharing some of these benefits, then it would be possible for the NHS to receive a financial as well as a healthcare return on its original investment.

This elegant and apparently persuasive economic argument was put to, and accepted by the Public Accounts Committee – an influential group of MPs in the House of Commons. However, despite wide support, the political argument has yet to be won and no action based on this NAO example has yet been taken.

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