



**Finnish Institute of
Occupational Health**

Early workplace interventions in musculoskeletal disorders

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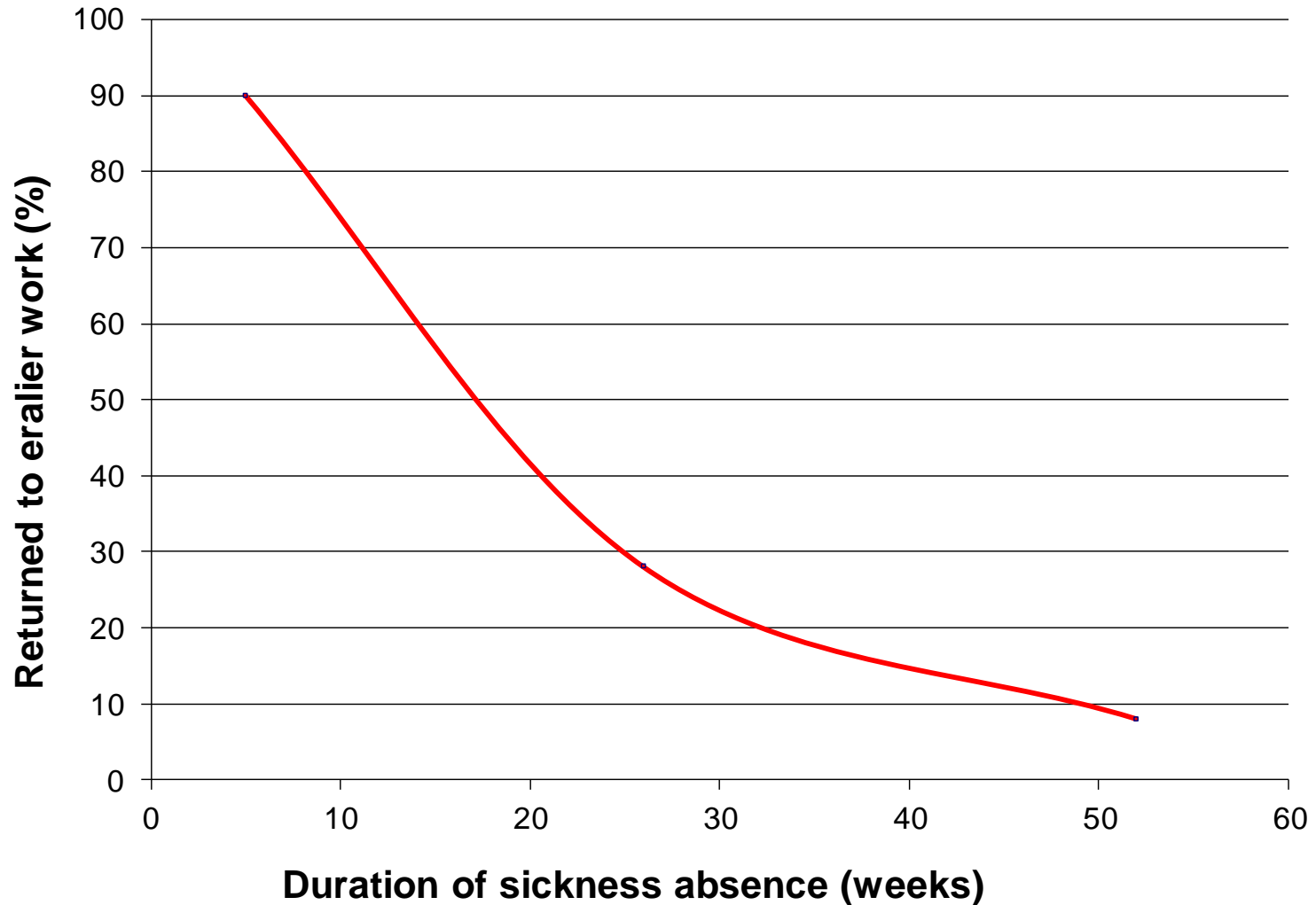
Content

- Musculoskeletal disorders and work participation
- Efficacy of work modifications at the early stage of disability: study examples
- Occupational physicians' reasonings about encouraging early RTW
- Summary of findings

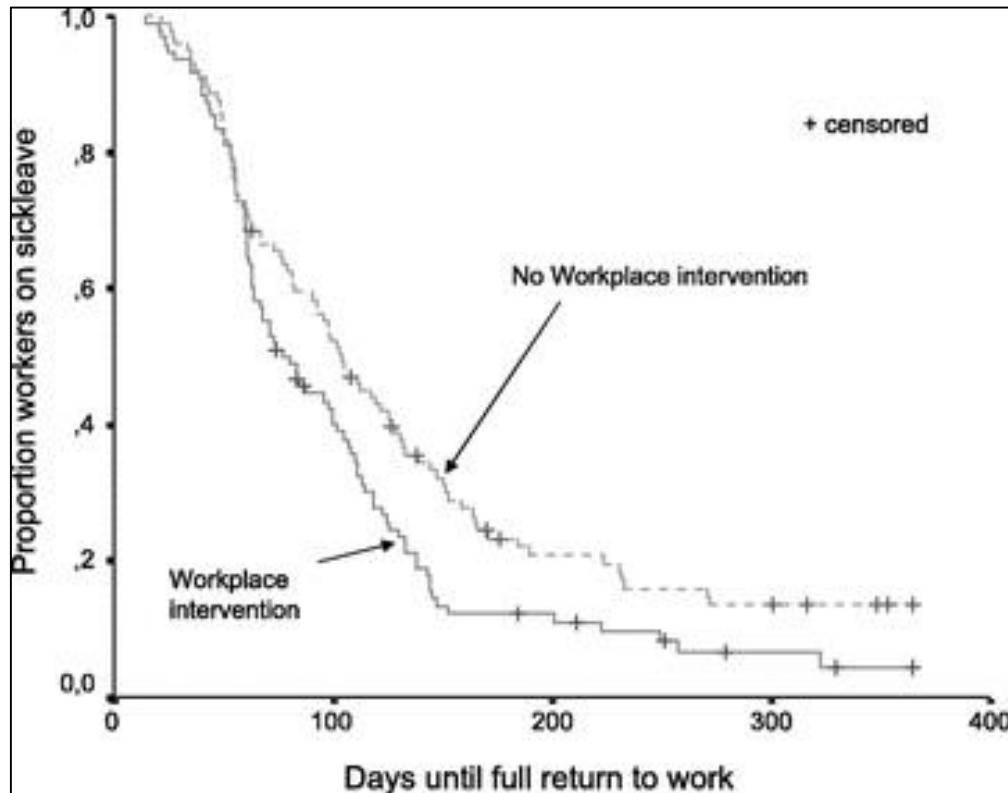
Introduction

- Many industrialized countries are facing a rapid increase in the average age of the population
- Musculoskeletal disorders are a major public health problem associated with pre-term exit from the labor market
- Decrease of work ability is typically partial (Martimo 2007)
- Workplace interventions can enhance return to work in musculoskeletal disorders (van Oostrom et al. 2009, 2013), however, several interventions have failed to produce a health effect

Likelihood of RTW according to duration of work disability



Multidisciplinary Rehabilitation for Subacute Low Back Pain: Graded Activity or Workplace Intervention or Both? (Anema et al. 2007)



Duration of absence 2-6 weeks

Workplace intervention:

- Workplace assessment
- Work modifications
- Case management involving all stakeholders

Graded activity (prolonged RTW)

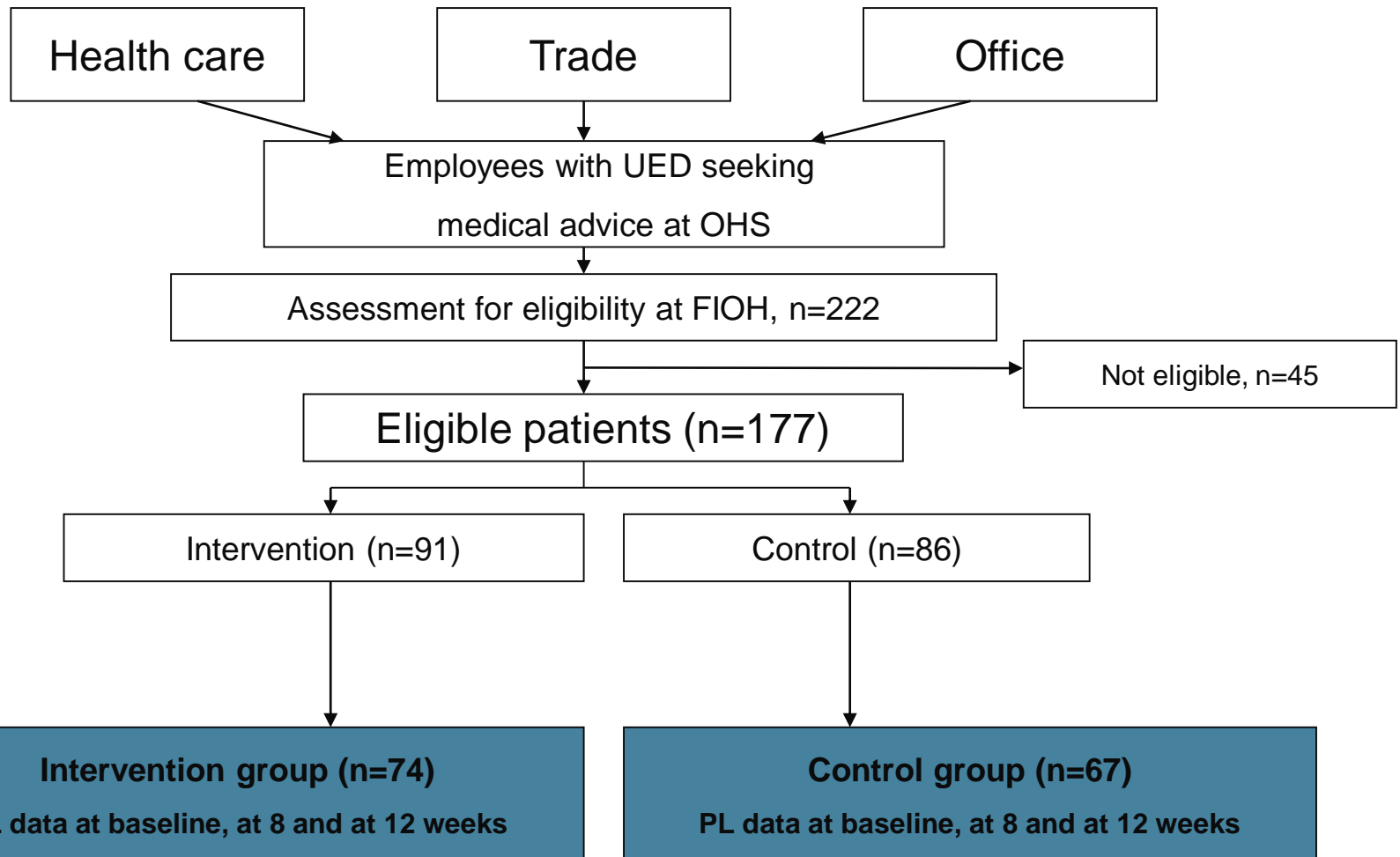
- Tailor-made, submaximal exercise programme (2x/week)

Workplace intervention:

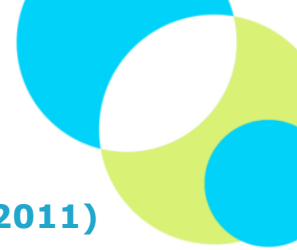
HR for RTW 1.7 (CI 1.2-2.3)

Median time until RTW 77 vs. 104 days

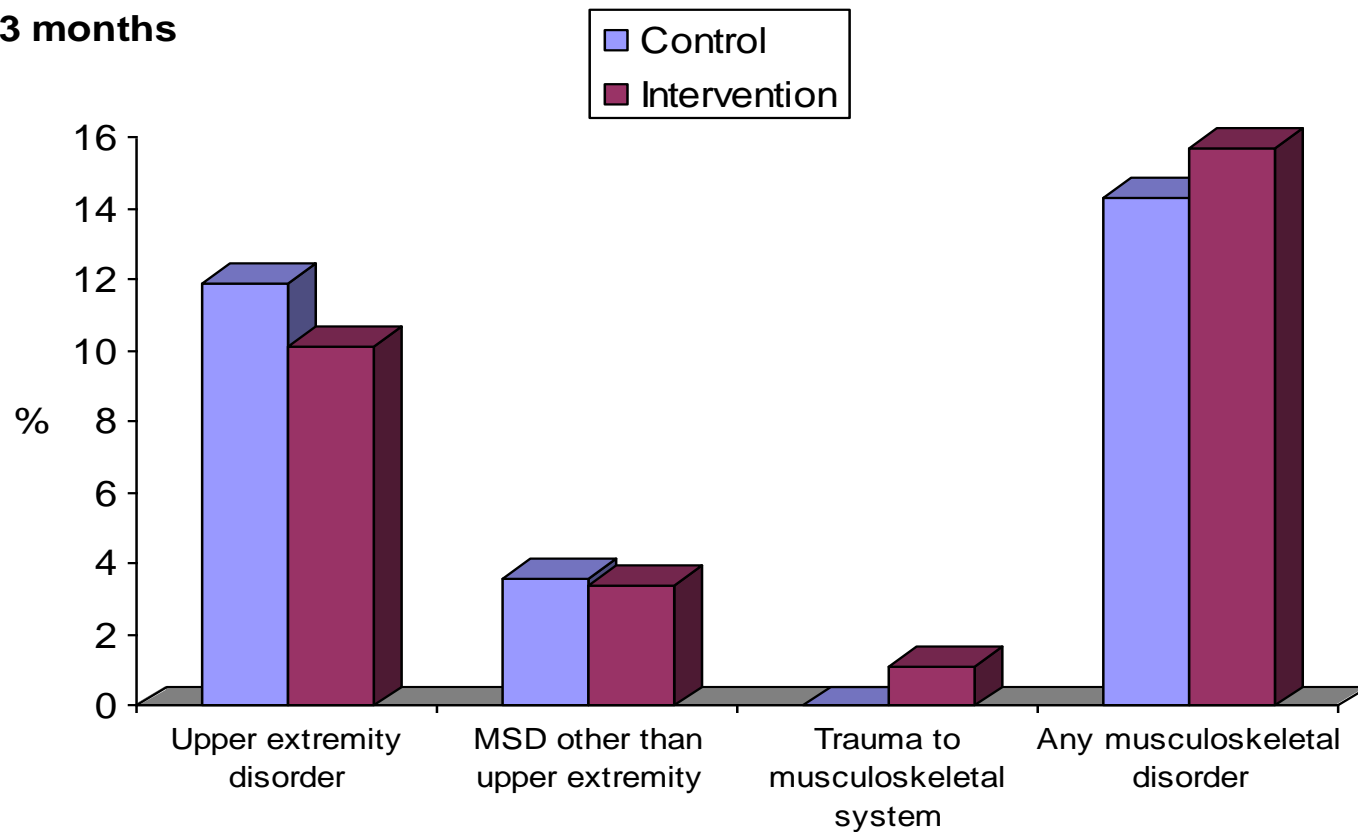
Ergonomic intervention in upper extremity pain: Design (Martimo 2010, Shiri 2011)



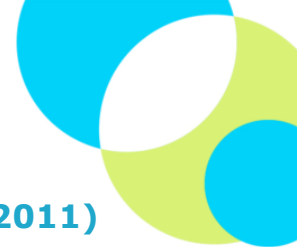
The effect of workplace intervention in upper extremity MSDs. Proportion of subjects on sick leave (Shiri 2011)



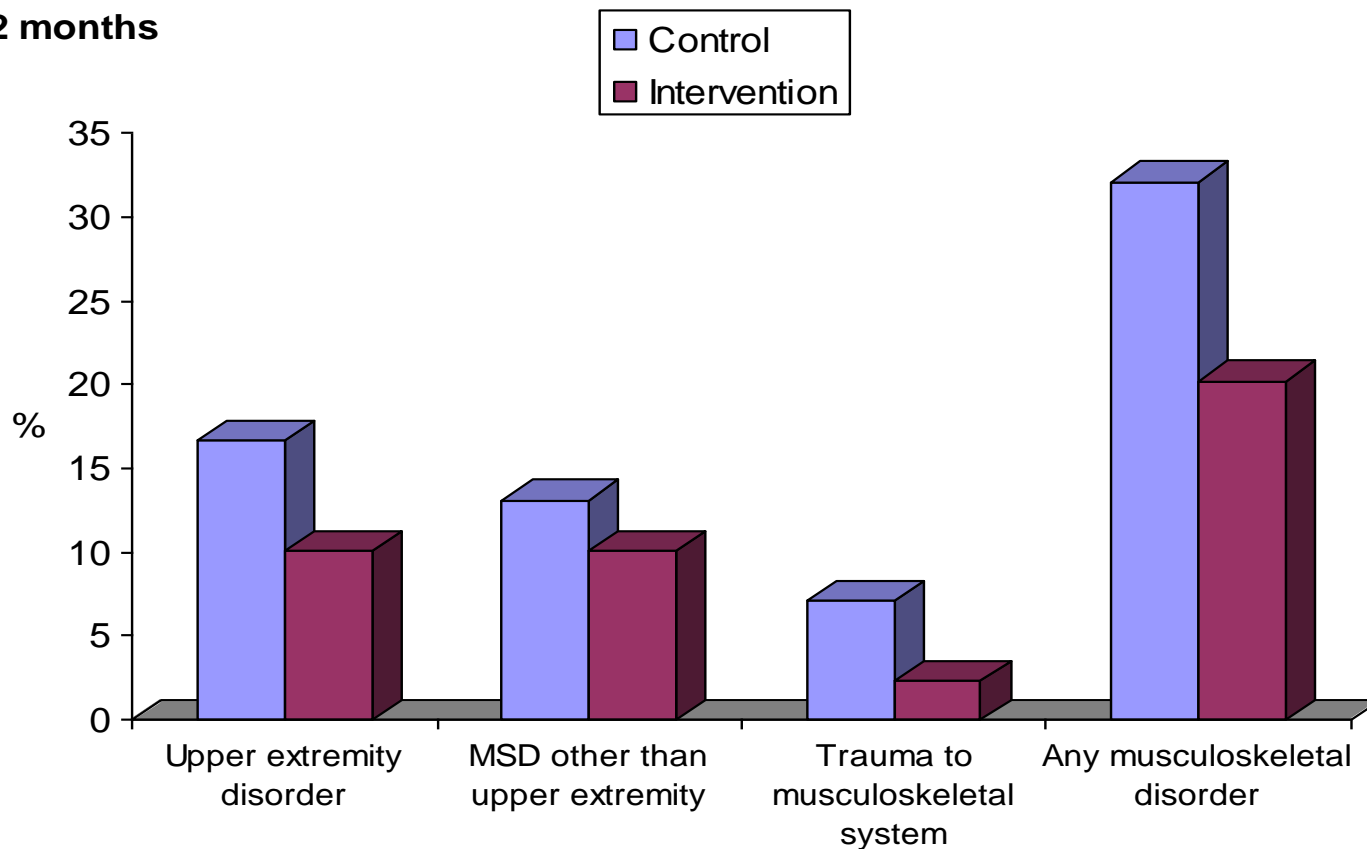
First 3 months



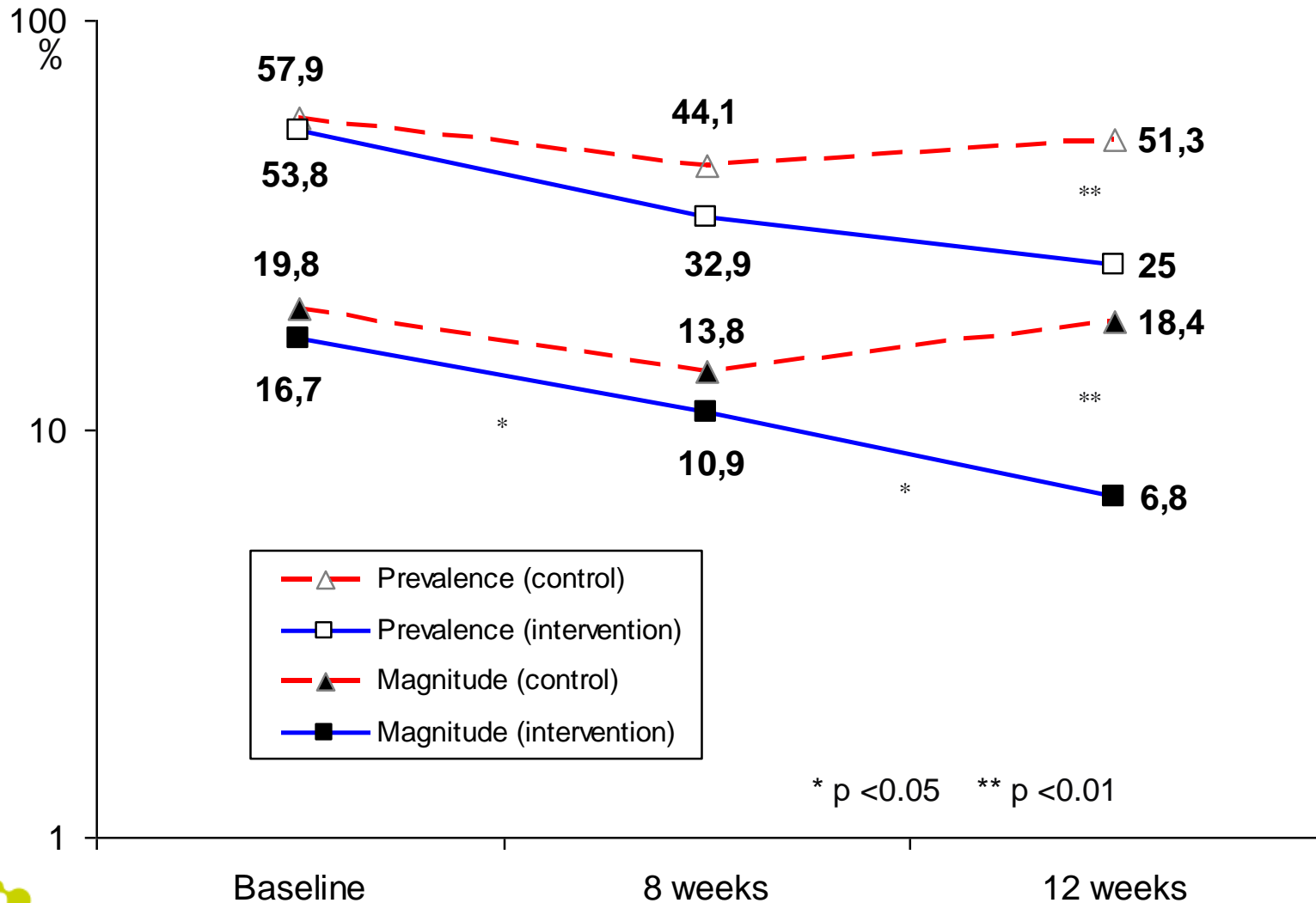
The effect of workplace intervention in upper extremity MSDs. Proportion of subjects on sick leave (Shiri 2011)



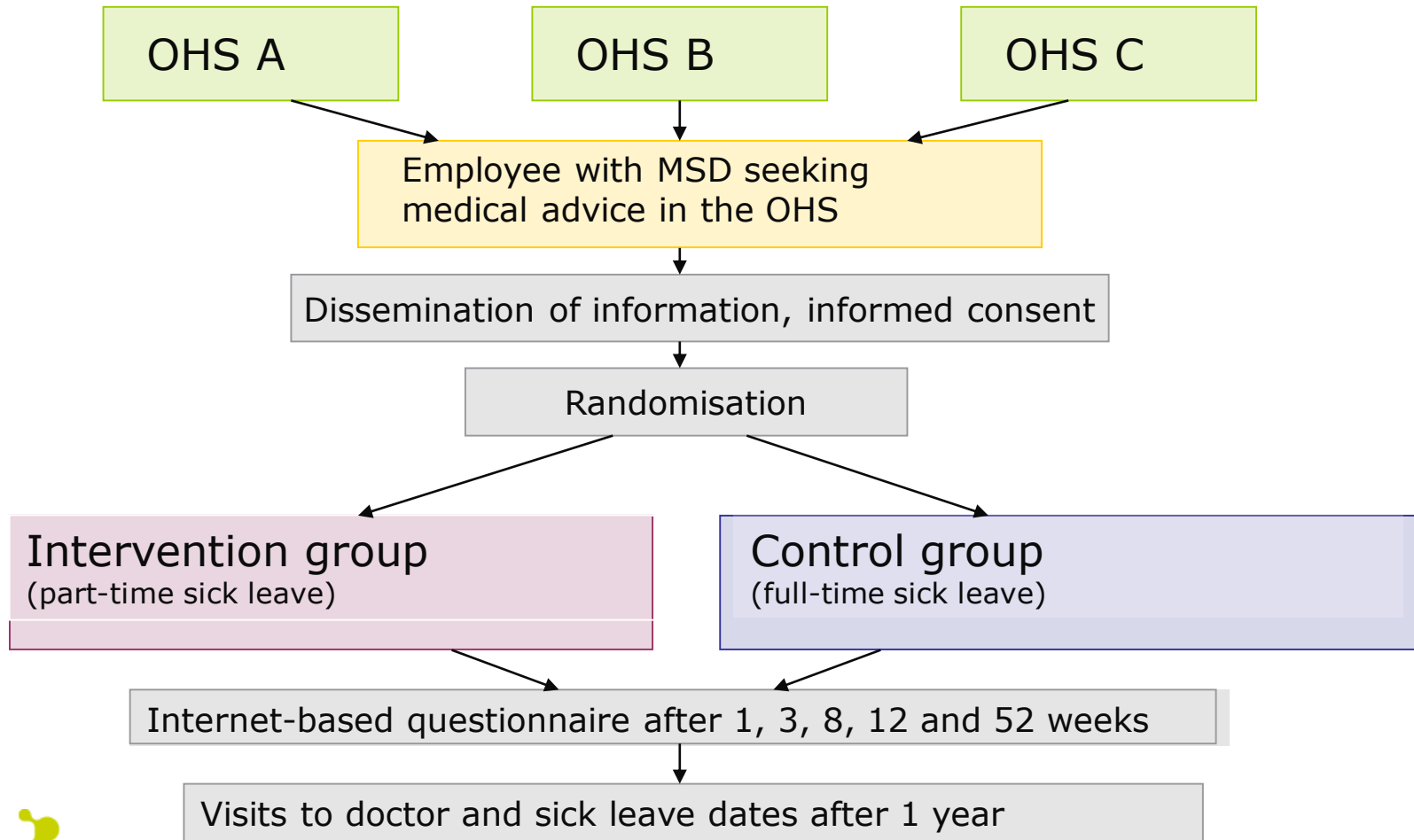
4-12 months



Results/Intervention: Prevalence and magnitude of productivity loss (Martimo 2010)



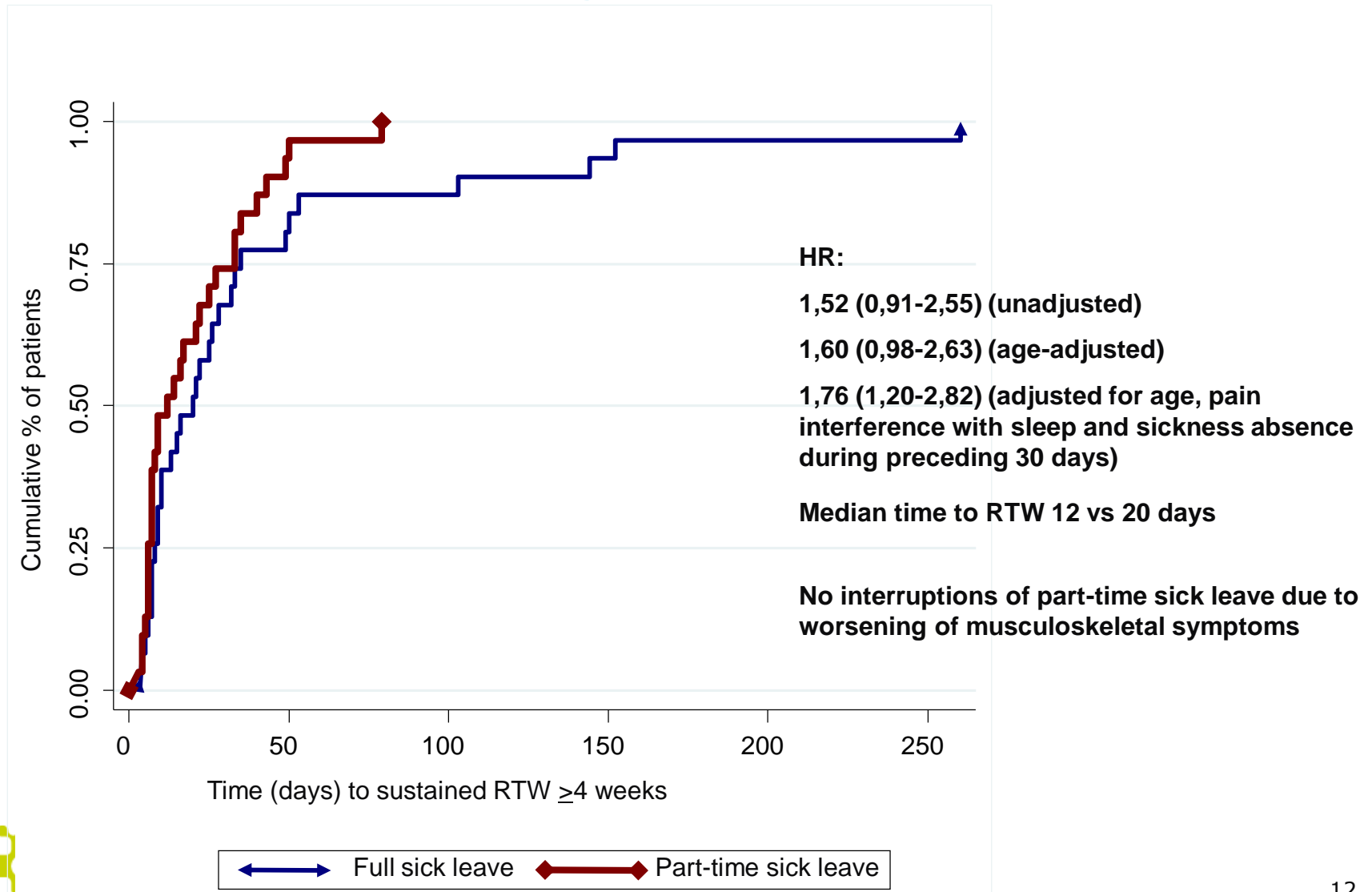
Part-time sick leave at the early stage of MSD: Design (Viikari-Juntura 2012)



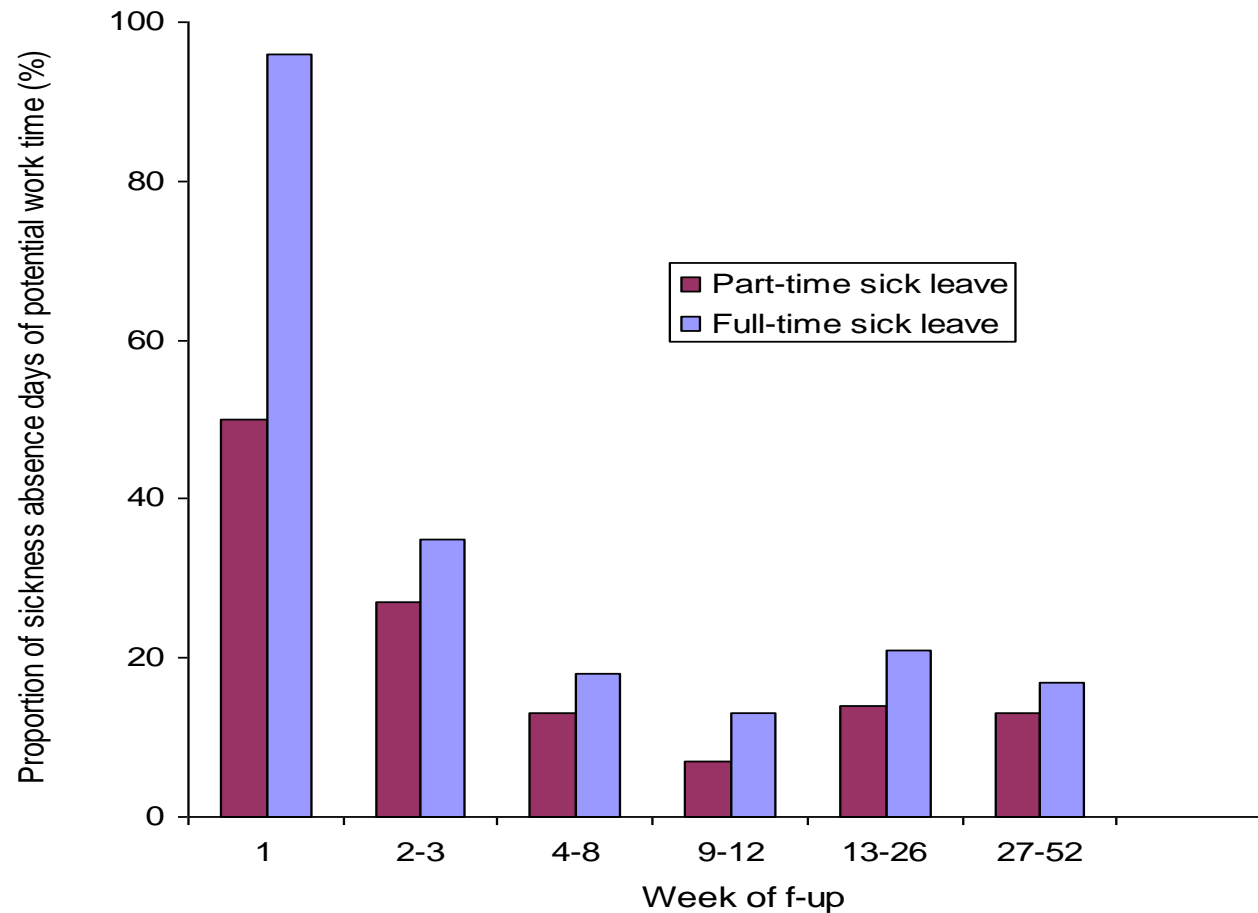
Elements of intervention

- Length of sick leave determined before randomisation
- Work time reduced by about a half, mostly on a daily basis
 - Call to supervisor / collective agreement that part-time working will be arranged
- Additional work modifications when deemed necessary by the physician
- Fit note from physician, indicating permitted tasks and tasks requiring modifications
 - Fit note given to supervisor the day following visit to physician
- If RTW not possible after initial part-time sick leave, either part-time or full-time sick leave could be prescribed based on medical assessment
 - Part-time sick leave could be continued up to 60 days

RTW >4 weeks (regular duties) in the part-time and full-time sick leave group (Viikari-Juntura 2012)

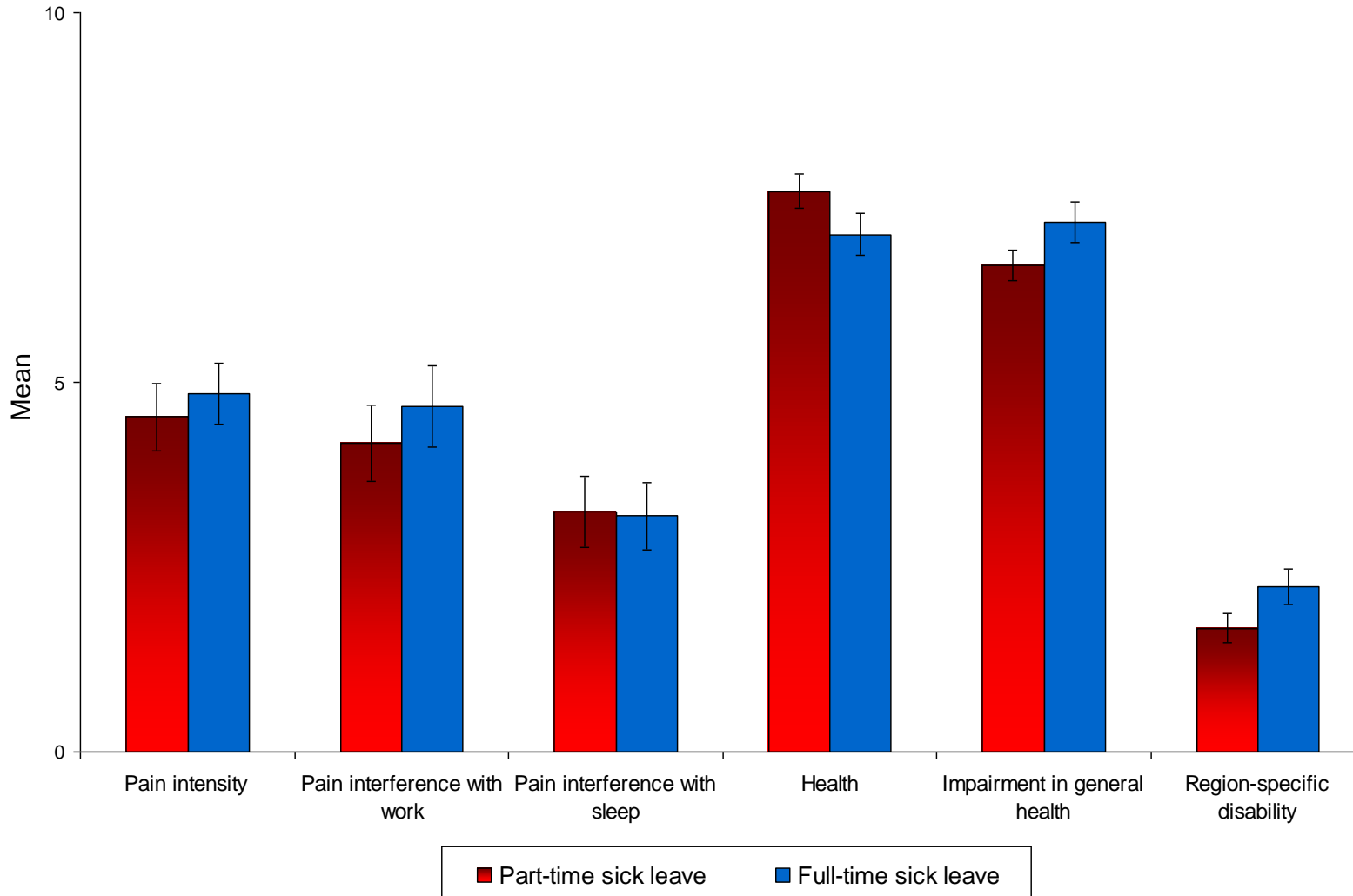


Proportion of sickness absence days of potential work time during 1-year follow-up (Viikari-Juntura 2012)



Pain, pain interference, health, disability

(Shiri 2013)





Occupational physicians' reasonings about encouraging early RTW



Why would occupational physicians initiate work modifications and encourage early RTW?

(Horppu et al. 2014, unpublished)



5 points of view emerged in focus group interviews:

Individual employee perspective

- Early RTW as a means of managing a medical condition
- Early RTW as a means of enhancing well-being of employees

Company perspective

- Early RTW as a means of reducing company costs and improving well-being of work communities

Societal perspective

- Early RTW as a means of reducing societal costs

Occupational physician perspective

- Early RTW as a means of meaningful and satisfying duties for the occupational physicians

Concluding remarks and opportunities for future research



- Appropriate work modifications at an early stage of a MSD can enhance productivity and work participation without compromising health of employees
- Workplaces would benefit from agreed practices on how work modifications are agreed upon and organized
- In societies with aging workforce, musculoskeletal health will remain a critical issue in efforts to increase work participation and prolong work careers



Thank you!