In order to allocate the scarce resources in a reasonable way, studies of cost-effectiveness of interventions in occupational health and safety are needed. This information can also be utilized in order to convince the decision-makers in investing in occupational health and safety.

**Economic estimation of “Net-Costs” for Prevention of Occupational Low Back Pain**

This is a joint project by three WHO Collaborating Centers in Occupational Health (University of Massachusetts at Lowell in the United States, TNO Work and Employment in The Netherlands, and the National Institute of Occupational Health in India) and by the Institution of Public Health Engineers, India.

Dr. Supriya Lahiri (Supriya_Lahiri@uml.edu), University of Massachusetts at Lowell, USA; Dr. Birgitte Blatter (b.blatter@arbeid.tno.nl), TNO Work and Employment, The Netherlands; Dr. Habib Saiyed (saiyedhn@yahoo.com), National Institute of Occupational Health (NIOH), India

*Keywords*: cost-effectiveness, musculoskeletal disorders, back pain, net-costs, economic analysis

*Target Group*: Employers, worker representatives, decision makers

The purpose of the project is to extend the current WHO cost effectiveness study of low back pain interventions (which focused on health benefits alone) more comprehensively, in order to address "net costs". The costs include costs of interventions, and cost savings due to changes in productivity and to prevention of illness.

A net-costs economic model will be developed based upon literature reviews of interventions for low back pain within the United States and Europe in select industries. A framework for data collection in select industries in India will be developed and piloted. A small international meeting in Delhi in July is planned to review the progress of the project, to learn about the situation in India, to firm up the data collection framework, and to plan for the use of the framework in case studies.

Completion in 2004. Funding is in place.

**Evaluation of the Cost-effectiveness of Interventions to Reduce Occupational Back Pain**

Supriya Lahiri (Supriya_Lahiri@uml.edu) in collaboration with Charles Levenstein (Charles_Levenstein@uml.edu), University of Massachusetts at Lowell, USA

*Keywords*: cost-effectiveness of interventions, occupational, generalized cost-effectiveness model, ergonomic stressors, occupational back pain

*Target group*: Occupational health staff, employers, employees, ministries in developing countries decision makers, trade unions

The purpose of this project is an Evaluation of the Cost-Effectiveness of Interventions to Reduce Occupational Back pain.

It will evaluate the cost-effectiveness of specific interventions for the prevention of occupationally induced back pain, a risk factor measured in the WHO Global Burden Comparative Risk Assessment Analysis

So far we have identified from the literature the best practices of relevant interventions in the prevention of occupational back pain, its incidence on injury reduction, and the cost of compliance. Used models developed by the WHO-CHOICE initiative to evaluate the effectiveness of interventions for all the 17 WHO subregions in terms of DALYs gained. Preliminary cost-effectiveness estimates were computed to evaluate the alternative interventions.

**Evaluation of the cost-effectiveness of interventions to reduce occupational exposure to Silica**

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*Keywords*: cost-effectiveness, interventions, occupational exposure to Silica

*Target Group*: Occupational health staff, employers, employees, ministries in developing countries, decision makers, trade unions

The goal of the final project is to evaluate the cost-effectiveness of specific interventions for the prevention of occupationally induced silicosis, a risk factor measured in the WHO Global Burden Comparative Risk Assessment Analysis.
A literature study was performed to identify different interventions to reduce silica exposure, its effect on incidence of reduction of silicosis and the cost of compliance. A simulation model developed by the WHO-CHOICE initiative was used for two subregions AMROA and WPROB1 to estimate DALY’s gained by using specific interventions. The cost-effectiveness estimates for specific interventions were evaluated.

**Understanding and performing economic assessments at the company level**

Jos C.M. Mossink, TNO Work and Employment, The Netherlands; edited by Deborah Nelson, WHO (now: (imel@ou.edu), OU in Norman, OK, USA)

*Keywords*: economic assessment

*Target group*: professionals in OSH, external specialists, managers and decision-makers

This document is the second in a series of occupational health documents entitled: Protecting Workers' Health. Improvement of safety and health of workers can bring appealing economic benefits for both companies and societies as a whole. It is difficult, however, to convince employers and decision-makers of the profitability of improving working conditions. An effective way is to make financial or economic estimations.

This publications describes a hands-on approach that can be used in making economic assessments. It was finalised and published in early 2002.

**Cost-effectiveness of treatment and guidance of work-related diseases and of chronic diseases interfering with work demands**

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*Keywords*: treatment, effectiveness, chronic diseases, RSI, work-relatedness

*Target group*: occupational health staff, employers, employees, decision-makers, trade unions.

The objective of this project is to explore the cost-effectiveness of multidisciplinary treatment in comparison with care-as-usual for (work-related) chronic diseases.

(Work-related) chronic diseases are increasing. It is known that for return to work of chronic patients a monodisciplinary treatment is not effective. In this study the cost-effectiveness of multidisciplinary treatments will be explored by a randomised control design for (work-related) chronic diseases in comparison with care-as-usual.

Outcome-measures are return to work, costs, level of disability in daily life and in working situation.

A literature study is performed to the state of the art of effective elements in return to work programmes for patients with chronic (work-related) diseases. Next, the inclusion of RSI-patients in a multidisciplinary programme will be started. An article has been published in a Dutch journal.

The project is being run in collaboration with the Faculty of Economy, occupational health services and reintegration centres and WHO-institutes. Funds are in place. The date of completion is December 2005.

**Role of primary care physicians and nurses in addressing occupational health issues**

Andrew Curran, Health and Safety Laboratory, UK

*Keywords*: primary care, general practitioners, occupational health nurses, education

*Target group*: Occupational Health Professionals (including GPs), Planners, Central and regional government departments

This project aims to explore the reasons for the low profile of patients' occupational health in the primary care setting. The scope of this project is to collect both qualitative and quantitative data in the UK to answer the following questions:

- Why do GPs and practice nurses not take greater account of occupational issues in their day to day contact with patients of working age?
- Why have patients' occupational health issues failed to gain a higher priority amongst primary care managers and planners?
- What are the professional, social and economic pressures, which give occupational health a low priority?

A comprehensive range of information sources will be used to inform a literature review of the topic area. In order to collect qualitative information regarding primary care, we will hold a series of focus groups for stakeholders, consisting of GPs, practice nurses and primary care managers/planners. This qualitative
approach will be supplemented by the collection of quantitative data reported on self-administered
questionnaires mailed to the target groups in order to address the stated objectives. The questionnaire will
be developed from the outputs of the focus groups. This information will be used to verify the issues raised
in the focus groups and confirm that all the relevant issues have been drawn out by the study. A final report
will be produced, and we propose that a paper should be submitted for peer review, and a final report will
appear on HSEs website.

This is a collaborative project between HSL, the Sheffield Occupational Health Advisory Service and the
General Practice Research Unit at the North West Lung Centre.

Selection of interventions, study design, application
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Funds will be provided by the host country. The completion date is December 2003.

Translation of the brochure 'Understanding and Performing Economic Assessment at the
Company Level' into Italian
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This document was published in English in the Protecting Workers’ Health series (2).

Translation of the brochure 'Understanding and Performing Economic Assessment at the
Company Level' into Bulgarian
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This document was published in English in the Protecting Workers’ Health series (2). The translation has
been accomplished. Financial support is being sought for editing.

Development of economic appraisal of occupational health and safety in Polish enterprises
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Institute of Occupational Medicine, Poland
Keywords: economic appraisal, costs, benefits, effectiveness, investing in health, SMEs
Target group: SMEs, local authorities and other institutions investing in occupational health
The purpose of the project is the identification, analysis and assessment of data on costs and
effects/benefits of investing in occupational health.
The description of the economic appraisal determinants at the enterprise level in Poland will include the ways
of collecting data (direct and indirect costs, net benefits), methods of calculating and valuation costs and
benefits, selecting indicators of effectiveness, and limitations of interpretation of the results. The project
scope contains also conclusions as to how to relate economic appraisal results to financial and production
indicators in enterprises.
Progress achieved: identification of available data on costs, method of calculation and valuation costs,
selection the appropriate sources of information at the enterprise level.
Guidelines will be prepared as to how to proceed in making assessment taking into account existing
limitations.
The project funding is in place and the project is due to be completed in 2004.

Training materials for cost effectiveness analysis of occupational health and safety at
workplace as the component of occupational health management
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Institute of Occupational Medicine, Poland
Keywords: economic appraisal, enterprise finance, decision making, training
The purpose of the project is the preparation and publication materials for training the employers in order
to support them in decision making in the employees health area.
The training materials will present essential information on benefits of cost effectiveness analysis for Polish employers, the process of making assessment (major steps), selecting information, calculations variables, case study examples.

Progress achieved: Description of the role of cost effectiveness analysis in finance management and employers motivating in Poland has been prepared (introductory part of materials).

The project is being conducted in collaboration with the University of Economy, Katowice, Poland.

The products will include materials for training including theoretical and practical information on cost effectiveness analysis of occupational health programmes in enterprises.

For cross references see also:
TF 4 : Contributing information on interventions to reduce silica exposure
TF6 : Training and public communication in the application of ergonomics in industry
TF8 : Economic appraisal of occupational health and safety in small enterprises