TASK FORCE 14: ECONOMIC EVALUATION OF INTERVENTIONS

Co-Chairs: Frank Pot, TNO, The Netherlands (F.Pot@arbeid.tno.nl); Marilyn Fingerhut, NIOSH (mfingerhut@cdc.gov); Gerry Eijkemans, WHO (eijkemansg@who.int)

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.

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. http://www.who.int/occupational_health/en/
The document was finalised and published in early 2002. It is available in English, French and Spanish.

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 (saiyedhm@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 was 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 was developed based upon literature reviews of interventions for low back pain within the United States and Europe in select industries. An article describing this model has been submitted for publication in 2004. A framework for data collection in select industries in India was planned at a small international meeting in Delhi and was completed in 2004.

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

Supriya Lahiri (Supriya.Lahiri@uml.edu), Charles Levenstein (Charles_Levenstein@uml.edu), Work Environment Program, University of Massachusetts at Lowell, USA, and Beth J. Rosenberg, Tufts University School of Medicine

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 final project was 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 WPROB to estimate DALY's gained by using specific interventions. The cost-effectiveness estimates for specific interventions were evaluated. A report was prepared for WHO, and an article was submitted for publication in 2004.

Project start date: January 2002

International Conference on Models to evaluate Costs of OSH Interventions at Company Level

Marilyn Fingerhut; NIOSH, USA (mfingerhut@pdc.gov) and Gerry Eijkemans, WHO, (eijkemansg@who.int)

NIOSH and WHO co-sponsored the conference, held in Washington DC from 3-5 November 2004. Sixty invited participants learned about six models currently in use for evaluation of costs and economic benefits. Discussion groups led to commitments for follow up activities. The conference proceedings will be published in the Journal of Safety Research in 2005. Follow up activities can be found on the NIOSH website www.cdc.gov/niosh

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

MHW Frings-Dresen, Coronel Institute for Occupational and Environmental Health, The Netherlands (m.frings@amc.uva.nl)

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 centre 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.

**Translation of the brochure 'Understanding and Performing Economic Assessment at the Company Level' into Italian**

Alberto Zuzconi, IACP (azuconiciapc.it)

This document was published in English in the Protecting Workers’ Health series (2).

Translation completed, editing almost completed.

**Translation of the brochure 'Understanding and Performing Economic Assessment at the Company Level' into Bulgarian**

Emilia Ivanovich, National Centre of Hygiene, Medical Ecology and Nutrition, Sofia, Bulgaria (e.ivanovich@nchmen.govmen.bg)

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.

*Project start date:* January 2003

*Project end date:* December 2004

**Development of economic appraisal of occupational health and safety in Polish enterprises**

Izabela Rydlewsk–Liszkowska (iza_ez@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer 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
Izabela Rydlewska–Liszkowska (iza_ez@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer 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.