TASK FORCE 1: TECHNICAL GUIDANCE IN OCCUPATIONAL HEALTH

Co-Chairs: Andrew Curran (andrew.curran@hsl.gov.uk); Evelyn Kortum, WHO (kortummargote@who.int)

The aim of this element in the Work Plan of the Network of WHO Collaborating Centres in Occupational Health is to ensure at least the minimum levels of health and safety at work. Existing standards that define the safe levels of various exposures and other conditions of work need to be identified. The standards can also serve as references for assessment of the results of monitoring and provide guidance for planners and for safety experts in the countries. The Fifth Meeting of the Network recommended that an inventory of the existing publications and guidelines be made in order to facilitate the full utilization of the existing good-quality documents and to avoid duplication of work.

National Standards of Occupational Health and Hygiene in Vietnam

Nguyen Ngoc Nga, National Institute of Occupational and Environmental Health, Vietnam (n.n.nga@fpt.vn)

Keywords: occupational health, hygiene, standards, guidelines

Target group: academic institutions, decision-makers at Ministries, politicians

The National Standards were promulgated by the Decision of the Minister of Health No 3733/2002/Q§-BYT dated 10/10/2002. The Standards include 21 standards, 5 principles and 7 parameters of occupational health and hygiene.

The project is funded by WHO, Vietnam Government.

Guidelines for self-surveillance of agricultural workers

Somkiat Siriruttanapruk, Ministry of Public Health, Thailand (somkiatk@health.moph.go.th)

Keywords: agricultural workers, self-surveillance, health book

Target group: The project has been conducted in 20 provinces of the country. It will be expanded throughout the country next year.

The objective of this project is to develop guidelines (a health book) for self-surveillance in Thai farmers.

A book has been developed which provides guidelines to Thai farmers to assess their health, working conditions and working environment in agriculture. The book consists of 3 main parts: self-administered questionnaires, instruction and guidelines, and medical record. It covers an introduction of occupational health and safety in agriculture, health and working history of a farmer, checklists of working conditions and working environment, and checklists of symptoms related to occupational diseases. The book will be used as a tool in the development of occupational health service and occupational health surveillance system in agriculture in Thailand.

The first edition of health book (in Thai) has already finished and used in the field. The results of the study have been written up. The second edition of the book has been developed.

Dissemination of scientific information in Spanish

Fernando G. Benavides (fernando.benavides@cexs.upf.es), Occupational Health Research Unit, Research Unit on Respiratory and Environmental Health, Barcelona, Spain.

Keywords: information dissemination, peer-review, scientific information

Target group: Occupational health professionals and researchers in the developing countries of Latin America.

Project start date: January 1999

The purpose of the project is to contribute to the dissemination of peer-reviewed scientific information, including guidelines and standards, in Spanish to the developing countries of Latin America, and to contribute to reciprocal communication among Spanish-speaking occupational health professionals in the world.

There are exceedingly few peer-reviewed occupational health scientific journals in Spanish. Communication and dissemination of new findings, proven preventive measures, guidelines and standards among Spanish-speaking occupational health professionals is essential for effective information-sharing and networking. The proposed WHO Collaborating Centre in Barcelona houses the editorial staff of such a journal, Archivos de Prevencion de los Riesgos Laborales, which is published quarterly, and includes a section on occupational health issues in Latin America. The journal is being disseminated to key libraries, universities and occupational health programs in Latin America, an activity that is being conducted in collaboration with the WHO Collaborating Centre at the University of Texas in Houston since 2000.

Funding has been secured through the Fogarty Center training grant at The University of Texas WHO Collaborating Centre. The Southwest Center for Occupational and Environmental Health at The University of Texas School of Public Health in Houston, Texas, is collaborating on this project.

A Spanish language, peer-reviewed occupational health scientific journal, Archivos de Prevencion de los Riesgos Laborales has been issued.

Project end date: None

WHO Guidance for Health Care Workers
It is intended that in the year 2004, WHO would hold an international review meeting to renew a proposed set of guidelines for health care workers. The approach to preparing these international guidelines is to gather existing guidelines from national and international organizations. During 2002 draft guidelines on violence at work in health care settings produced by WHO and ILO have been distributed widely for testing. During 2003 a broad effort to collect national guidelines will be undertaken.

Funding is in place. The project is scheduled to be completed by 2004.

Organization of an international meeting on the prevention of new health risks of isocyanates
Xaver Baur, Ordinariat und Zentralinstitut für Arbeitsmedizin, Hamburg, Germany (xaver.baur@bwg.hamburg.de)

**Keywords:** Isocyanates, health risks, bronchial asthma, allergy, prevention

**Target group:** Governmental Public Health Care, Employers, employees, unions

The objective of this project is the promotion of primary and secondary prevention on the health risks of Isocyanates, which are one of the predominating causes of occupational asthma. Further diseases caused by isocyanates include COPD, non-obstructive bronchitis, rhinitis, conjunctivitis, dermatitis, extrinsic allergic alveolitis. This necessitates reinforcement of effective preventive measures. Present knowledge of the health risks will be summarized and corresponding preventive strategies will be developed on this basis. The project has begun. Networking is on to find collaborators.

Quantitative risk assessments for occupational cancer: international comparisons
Tom Sorahan, Institute of Occupational Health, United Kingdom (T.M.Sorahan@bham.ac.uk)

**Keywords:** occupational cancer, quantitative risk assessment

**Target group:** occupational health professionals, regulatory authorities, trades unions

The objective of this project is to enable predictions to be made in different countries on the likely impact of exposure to occupational carcinogens. It aims to make available a computer program which uses summary data from occupational cohort studies to estimate the effects of lifetime working at various exposure levels. The program incorporates national data on background mortality rates from all causes and for the cancer under investigation so that the predictions are specific to the country under consideration. The predictions are in the form of absolute risks so that the public health impact of large relative risks acting on rare cancers and small relative risks acting on common cancers can be assessed. A computer program has been written to perform these calculations. Examples of UK data have been processed.

Development of comprehensive systems for monitoring young people at risk of occupational hazard
Susan Gunn, ILO (gunn@ilo.org)

**Keywords:** working conditions, training, identification of occupational hazards

This global project is exploring effective ways of identifying young people working in situations of risk, verifying that either the child or the risk has been removed and ensuring that the young person has an acceptable alternative. Outputs of the project include:

- Guidelines and training for Safety and Labour Inspectors on occupational risks of young people
- Formation of multi-disciplinary monitoring teams to extend surveillance into formal, informal, and agricultural sectors
- Pilot projects to demonstrate credible, cost-effective systems

Two year project (2003-2005), with partial funding

Guidelines for indoor air in office and commercial buildings
Marco Maroni, ICPS, International Centre for Pesticide and Health Risk Prevention, Unit of Occupational Medicine, Hospital L. Sacco, University of Milano, Italy

**Keywords:** Indoor air quality, guidelines, offices

**Target group:** building owners and managers, office building occupants, occupational health physician, public health operators

The aim of the project is to provide guidelines for risk assessment of indoor air pollution. Air pollution is a major environmental health problem affecting developed and developing countries around the world. Increasing amounts of potentially harmful pollutants may result in damage to human health and the environment. Indoor sources of pollution are one of the most important determinants of air quality. Since most people spend a majority of their lives indoors, the quality of indoor air is a major area of concern. Sources of indoor air pollution include oil, gas, kerosene, coal, wood, and tobacco products, building materials and furnishings, carpets, household cleaning products, and lead-based paints. A particular area of concern is represented by occupational activities carried out in offices and commercial buildings. Therefore, guidelines to set out prevention strategies are needed, aimed at protecting human health from air pollution and based on national air quality standards.

The general layout should take into account the following areas:

- Indoor air as a risk factor – Health effects
Methods and systems for the assessment of ambient air quality
- Air quality standards and reference values
- Policy and strategy development, priority setting, prevention

Claude-Alain Bernhard, Institute of Occupational Health Sciences, Switzerland (Claude-Alain.Bernhard@inst.hospvd.ch) and Kerry Gardiner, University of Birmingham, UK (gardinerk@ioh.bham.ac.uk) are collaborating on the project.

**Occupational health and safety training documents in Spanish**

Angela Helmer, Labor Occupational Safety and Health, UCLA, Center for Occupational and Environmental Health (COEH), USA (ahelmer13@yahoo.com)

*Keywords:* worker safety, health, educational materials, Spanish

*Target group:* Spanish-speaking workers in the US and Latin America, labor unions, community-based organizations, academia, health professionals.

The purpose of the project is to provide Spanish-speaking workers in the US and Latin America with educational materials concerning workplace safety and health (e.g., agriculture, pesticides, noise, metals, construction, ergonomics, women workers, mining, biological hazards, hazardous waste, forestry, toxic substances, etc.).

This project focuses on updating an existing Spanish language bibliography, which was initially compiled through funding from PAHO and the COEH and published in 1990 and 1999 under the title “La Fuente Obrera – A Worker’s Sourcebook”. New educational materials (e.g., fact sheets) are being developed in Spanish for workers on the topic of safety and health.

The bibliography and educational materials will be posted on the Labor Occupational Safety and Health website (www.losh.ucla.edu), so that workers from throughout the Americas can have access to the information. These materials are being collected from different institutions in the US, Latin America and Europe.

Funding to update the bibliography has been secured through the National Institute of Environmental Health Sciences for this one-year project.

**Preparation and implementation of National Guideline on Occupational Health Management System**

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

*Target Group:* All industries in China

The purpose of this project is to prepare a National Guideline on Occupational Health Management System following the ILO Guidelines on Occupational Health Management System (ILO OSH-2001) for improving the occupational health in industries in China.

The first draft has been completed and is being circulated for comments. Funds are provided by the Ministry of Health.

**Preparation of a guideline for prevention of occupational asthma**

Ute Latza, Ordinariat und Zentralinstitut für Arbeitsmedizin, Hamburg, Germany (latza@uke.uni-hamburg.de)

*Keywords:* occupational asthma, obstructive airway diseases, prevention, guidelines, inventory of good medical practice

*Target group:* In the first step primarily European (and maybe Canadian and the US-American) stakeholders: Scientists in occupational health, State authorities for worker protection, with a focus on medical doctors in occupational health, existing working groups on the prevention of occupational asthma.

The objective is to prepare a guideline for the prevention of occupational asthma. The motivation for the guideline is the consistently large number of work-related asthma. It is suspected that 5 to 10% of all cases of adult-onset asthma are caused by work factors. Asthma currently represents the most frequent respiratory occupational disorder. The guideline will first cover a summary of the current medical and epidemiological knowledge on causes, prevalence/incidence, dose-response relations, and risk factors of work-related occupational asthma. Secondly, established pathogenic and salutogenic approaches of prevention will be reviewed involving prevention of disease and promotion of health, respectively. Thirdly, the relevant legal framework conditions, regulations of work and health protection in the different countries will be described. Fourth, a code of good medical practice will be proposed that may cover risk assessment in the workplace, elimination of health risks by technical and/or organizational measures, personal protective equipment, surveillance, health promotion and risk communication. Additionally, examples may illustrate the concrete corresponding steps to prevent occupational asthma.

A German draft version of a guideline was prepared together with scientists and medical doctors in occupational health within a working group of the German Association for Occupational and Environmental Health (Deutsche Gesellschaft für Arbeits- und Umweltmedizin e.V., DGAUM). The German draft is currently discussed within the DGAUM.

A proposal of a guideline in German and in English is already available.

Other German centres are collaborating on the project. Other interested centres or already existing workgroups are encouraged to contact the project team. National institutes of occupational medicine, working groups in relevant professional organizations, and known scientists will be approached when the final German version is available.

**Guidelines for categorization of work activities on basis of health risk assessment**
Jaroslav Baumruk, Centre of Industrial Hygiene and Occupational Diseases, National Institute of Public Health, Czech Republic (jbaum@szu.cz)

Keywords: risk assessment, categorization of work activity, exposition, rate hazard

Target group: All employees who are exposed in certain amount by factors of workplace conditions and belong to categories II, III and IV; other employees belong to category I.

The purpose of the project is to build a list of exposition of the entire working population working in a wide scale of risk factors. Guidelines will describe project solving categorization of work activities in group of category II–IV. It is based on application of risk assessment worked out by employer itself. The Public Health Authority will verify this application and constitute an authoritative statement about definitive categories of presented work activities, their scale and eventually periodicity of preventive check ups.

The project is being undertaken in close collaboration between the National Institute of Public Health and Ministry of Health as well as all Public Health Authorities nationwide (regional and district). The nation-wide project has already begun. In 2003 the registration of all work activities with exposure to risk factors above PEL (work categories 3 and 4) is scheduled to be completed. In the year 2003, the proportions of people working in categories 1-4 were 72.7 %, 21.9 %, 5.3 %, and 0.1 %, respectively.

Funding of the project is guaranteed and the main planned output of the project is a nationwide survey of working activities with regard to health risk factors.

Project start date: January 2002
Project end date: December 2005.

Guidance on prevention and control of occupational hazards in specific sectors
Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

Target Group: steel industry; adhesives industry; car production industry; coal industry.

The purpose of the project is to analyze the occupational hazards and critical control points of the specific industrial sector and to improve the control and prevention. The planning and preparatory work has been initiated.

Funds have been secured by the Ministry of Sciences and Technology for 2003-2005

Preparation of guidelines for non-manufacturing sectors
Hisashi Ogawa, WPRO (ogawah@wpro.who.int)
Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

Preparation of guidelines for occupational health and safety for non-manufacturing sectors has been initiated with the Ministry of Health in China, and plans are developed to initiate this activity for the medical-pharmaceutical community sector in China.

The project is funded by the Ministry of Science and Technology, China. It will be completed by 2005.

Guidelines for surveillance of workers in specific sectors (agriculture, chemicals)
Marco Maroni, International Centre for Pesticides and Health Risk Prevention, Unit of Occupational Medicine, Hospital L. Sacco, University of Milano, Italy (mail@icps.it)

Keywords: Agriculture, chemicals, health surveillance, biological monitoring

Target group: Occupational Health Physician, workers

The project is aimed at the development of guidelines for the health surveillance of pesticide workers in agriculture.

Pesticide use may represent a risk to human health. Therefore, pesticide workers need health surveillance at the workplace. Health surveillance is aimed at detecting early biological and functional adverse effects that may have been caused by a specific exposure to a risk factor, or any significant health change which may increase workers’ susceptibility to work-related exposure conditions. The contents of health surveillance are related to identified hazards and to the characteristics of exposure. Performing health surveillance activities in agriculture is a difficult task: uncertainty about early effects from low dose chronic exposures makes periodical examinations sometimes inconclusive; the number of available biomarkers is small, if compared to the number of active ingredients currently on the market; reference values are available only for few active ingredients; the complexity of analytical methods and the lack of standardisation among laboratories are major limits to the realisation of biomonitoring activities on a large scale. The contents of the programme need to be periodically updated according to marketing and scientific changes. University of Cape Town, South Africa is collaborating on the project.

Gender-based health standards for maquila and flower cultivation workers in Central America
Timo Partanen, IRET-UNA, Costa Rica (timopartanen@yahoo.com)

Keywords: Central America, Standards, Maquila, Flower cultivation, Gender

Target group: The target groups are all parties involved in the health of maquila and flower culture workers in Central America: governments; ministries; industries; workers; trade unions; communities; community NGOs; women's
organizations; and other NGOs. Data collection and analysis is being conducted in Nicaragua (maquilas) and Guatemala (flower cultivation).

The first phase (2002) identified the feasible methods and groups and individual key informants for the collection of existing and ad hoc data required for the identification of priorities. Five themes (organization of work; health; gender; infrastructure and environment; legislation), subdivided into over 40 subthemes, are involved. The second phase (2003-2004) will identify the priorities.

Phase I has been completed and reported, supported by Interamerican Development Bank, and coordinated by IRET and UCAM. A protocol for Phase II has been prepared.


*Other centres involved in the project:* Centre d’étude des interactions biologiques entre la santé et l’environnement (CINBIOS) of the University in Québec in Montréal (UQAM); National Autonomous University of Nicaragua at Léon (UNAN-LEON); University of San Carlos, Guatemala City, Guatemala, PAHO.

*Project start date:* 2002

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**Estándares de salud basados en género: trabajadores de la maquila y floricultura en América Central**

Timo Partanen, IRET-UNA, Costa Rica (timo_partanen@yahoo.com)

*Centros incluidos en el proyecto:* IRET-UNA; Centre d’étude des interactions biologiques entre la santé et l’environnement (CINBIOSE) de la Universidad en Québec en Montréal (UQAM); Universidad Nacional Autónoma de Nicaragua en León (UNAN-LEON); Universidad de San Carlos, Ciudad de Guatemala, Guatemala, PAHO.

*Palabras claves:* América Central, Estándares, Maquila, Floricultura, Género

*Grupos meta:* Los grupos meta incluyen todos los actores responsables de la fuerza laboral centroamericana en las maquilas y la floricultura: ministerios, industrias, trabajadores, sindicatos, comunidades y organizaciones no gubernamentales en comunidades y de mujeres.

*Objetivo del proyecto:* Identificación de las prioridades de los estándares basados en género de salud para los trabajadores de la maquila y floricultura en América Central

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**Guidelines for healthcare for employees (including farmers) in the agricultural sector in Vietnam**

Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

*Keywords:* health care, occupational health, agriculture, farmers, employees

*Target group:* decision-makers at Ministries, politicians, Farmer Union, employers’ organizations, academic institutions

Development of guidelines for health care of agriculture employees including farmers is being taken in close collaboration between the Ministry of Health and National Institute of Occupational and Environmental Health as well as Hanoi Medical College in Viet Nam. Funds have been secured by WHO, Vietnam Government.

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**National guidelines for healthcare for workers in various sectors in Vietnam**

Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

*Keywords:* health care, occupational health, workers, employees, health promotion, workplaces

*Target group:* decision-makers at Ministries, politicians, Farmer Union, employers’ organizations, academic institutions

Development of national guidelines for health care of workers in various sectors (including formal and informal sector, agriculture sector and industrial and export processing zones) in Viet Nam is being taken in close collaboration between the Ministry of Health and National Institute of Occupational and Environmental Health as well as Hanoi Medical College in Viet Nam. Funds have been secured by WHO, Vietnam Government.

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**Adapting methodologies and developing guidelines for rapid assessment of occupational problems and response capacity of cities/provinces.**

Nguyen Khac Hai, National Institute of Occupational and Environmental Health, Viet Nam (haink@hn.vnn.vn)

*Key words:* rapid assessment, occupational health, capacity, guidelines.

*Target group:* academic institutions, decision-makers at Ministries, medical university.

The purpose is to provide aspects of OSH in agriculture and informal sector. The workshop will be held in 2005. Funds have been secured by WHO, Vietnam Government.

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**Contribution to the guidelines for indoor air in office and commercial buildings**

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

This project is being funded by the Ministry of Science and Technology, China. A survey will be conducted in 2003 in collaboration with the Beijing Institute of Labour Protection. The project will be completed by 2005.
Gaining of Reference Values in Occupational and Environmental Medicine

Gustav Schaecke, Dipl. Ing. Cristian Scutaru, Dr Donina Popa, Dr-Ing Brigitte Scutaru (gustav.schaecke@gmx.de)

Keywords: reference values, standardized questionnaire and computer-based anamnesis

The purpose of this project is to create a standardized method for determining reference values. In order to accomplish this, a high standard in the acquisition of patient data is mandatory. For this purpose in the first stage of the project we developed a computer-based questionnaire system to perform the anamnesis.

The project started in 2002 with a small questionnaire and gathered data from more than 1000 persons, and determined reference values for lead, cadmium and aluminium. The next stage of this project consists in creating and managing a database where the data from the questionnaire system are saved and analysed.

The project is now in the test phase of the questionnaire system in the Institute of Occupational Medicine of the Freie Universität Berlin & Humboldt-Universität at Berlin, Germany. The next stage is scheduled to be started mid June 2004 and consists in establishing a second centre at the Institute of Occupational Health in Iasi, Romania for validating questionnaire language independence and data transmission between both research centres. The project is sustained by the Winkler Foundation Germany, and Sonnefeld Foundation, Germany.

Project end date: It is scheduled to be completed by 2006.
TASK FORCE 2: INTENSIVE PARTNERSHIP IN AFRICA

Co-chairs: David Rees, NIOH, South Africa (david.rees@nioh.nhls.ac.za); Gerry Eijkemans, WHO (eijkemansg@who.int); Jukka Takala, ILO (takala@ilo.org)

The taskforce was created to organize the work and activities of the WHO collaborating Centers in accordance to the WHO/ILO Joint Effort on Occupational Health and Safety in Africa (AJE). The objective of this task force is to improve conditions and environment of work in Africa, thus reducing the burden of occupational disease and injuries through intensified co-ordination of occupational health and safety activities.

Substantial progress has been made in extending partnerships, in information sharing and capacity building, which are two of the four cooperative areas of the Joint Effort. More than 100 institutions or individuals in more than 20 countries consider themselves partners in the African Joint Effort. Funding for this on-going project is in place. The activities of taskforce 2 have significantly contributed to the success of the AJE.

Training Course on Pesticide Risk Management – From Use and Exposure to Control Measures

National Centre on Occupational Health, South Africa

Jyrki Liesivuori, Finnish Institute of Occupational Health, Finland (jyrki.liesivuori@occuphealth.fi)

The project was completed in February 2002.

International Occupational Hygiene Association (IOHA) Conference

David Stanton (davidws@asosh.org) (zalk1@ll.nl.gov) IOHa

Keywords: industrial hygiene, occupational health, conference

IOHA is holding its major triennial conference in Johannesburg, South Africa, from 19-25 September, 2005. Many WHO Collaborating Centres and ILO are contributing training courses and will be sending part participants. Details can be found at www.saioh.org/ioha2005/index.html

University of Michigan/Fogarty International Centre programme to support training and research in occupational and environmental health in Southern Africa

Mohamed Jeebhay, Occupational and Environmental Health Research Unit, University of Cape Town, South Africa (mjeebhay@cormack.uct.ac.za); Tom Robins, University of Michigan trobins@umich.edu

Keywords: training, research, occupational health, Southern Africa

Target group: Southern African Countries (doctors, nurses, environmental health officers, industrial hygienists, toxicologists, inspectorate, academics, trade union organisers)

• The specific objectives of this five year programme (2001-2006) to promote occupational and environmental health in the Southern African region are to recruit, select, and enrol, with full funding, three citizens of Southern Africa Development Community (SADC) nations in University of Michigan PhD or Masters degree programs in EOH.

• To recruit, select, and fund nine citizens of SADC nations to complete one to six month programs of study or collaboration at University of Michigan in laboratory or research methodologies in EOH.

• To deliver a series of 13 one-week short courses taught by University of Michigan faculty and local experts to EOH professionals in Southern Africa.

• To recruit and select up to 54 citizens of SADC nations other than South Africa to receive full scholarships for the completion of diplomas or degrees in EOH fields being offered at South African academic institutions.

• To assist in the development and delivery of two advanced level occupational hygiene courses offered as part of a Masters degree program in occupational hygiene at the National Centre for Occupational Health in Johannesburg.

• To assist in the development and delivery of two to three web-based diploma or degree programs in EOH to be offered in the SADC region by South African academic institutions.

• To directly support the in-country EOH research of up to 38 junior to mid level researchers from SADC nations.

To sponsor three biennial conferences to review regional developments in EOH, assist in setting of regional research priorities, review the activities conducted under this grant, and develop consensus around planned future actions.

Project start date: September 1996
Project end date: April 2006

ISPESL international network for providing assistance and training in OSH for African countries

Carlo Grandi (carlograndi@libero.it) and Sergio Iavicoli (seriav@iol.it), ISPESL, Italy

Keywords: training, occupational health, African countries, expertise
Target group: Northern African Countries (people who, in each single African country, represent institutions and professions concerned with OSH (executives of national bodies, University professors and researchers, physicians, experts in occupational safety and health topics etc.).

ISPESL, together with French partners (INRS) is available on the basis of some specific request of North African countries, Headquarters and/or EMRO-AFRO to provide assistance in Africa with a special focus on child labour and rural health.

Training of occupational health specialists in French-speaking Africa
Mohammed Mokrane, Institute of Occupational Health Sciences, Switzerland (Mohammed.Mokrane@inst.hospvd.ch)
This is an on-going project. Funding for the project is partially in place.

Elaboration of a module for initiation to health and safety at work
Souissi Rachida (Rachidalaisst@yahoo.fr) and Smaoui Emna, Institute of Health and Safety at Work, Tunisia

Keywords: initiation to health and safety at work, organisation of prevention in Tunisia, general risks, communication, rescue work.

Target group: newly-appointed safety personnel in organisations, instructors in professional training centres, nurses.

The objective of this project is to provide participants with basic training in Health and Safety at Work. The initiation module comprises 6 sessions of a day each (6 hours per session) on the following topics:
(1) Organisation of the prevention of occupational risks in Tunisia.
(2) General risks in the occupational environment : physical environment
(3) Chemical environment
(4) The risks of accidents
(5) Communication on Health and Safety at Work
(6) Elementary first aid in the work place

Training sessions have been conducted in 2000, 2001 and 2002. The project is currently being programmed for 2003, 2004 and 2005. An average of 13 participants is trained every year.

Réalisation d'un module d'initiation à la Santé et la Sécurité au Travail (SST)
Souissi Rachida (Rachidalaisst@yahoo.fr) et Smaoui Emna, Institut de Santé et de Sécurité au Travail, Tunisie

Mots clés: initiation à la SST, organisation de la prévention en Tunisie, les risques généraux, la communication, le secourisme.

Cible: chargés de sécurité nouvellement nommés dans l’entreprise, enseignants des centres de formation professionnelle, infirmiers du travail.

L’objectif de ce projet est de fournir aux participants une formation de base en SST.

Le module de perfectionnement comprend 6 séances d’un jour chacune (6h par séance) sur les thèmes suivants :
(1) Organisation de la prévention des risques professionnels en Tunisie
(2) Les risques généraux en milieu professionnel : ambiances physiques
(3) Ambiances chimiques
(4) Les risques d’accidents
(5) La communication en SST
(6) Le secourisme élémentaire en milieu de travail


Elaboration of a module of improvement in health and safety at work
Souissi Rachida (Rachidalaisst@yahoo.fr) and Abdelfatteh Karoiai, Institute of Health and Safety at Work, Tunisia

Keywords: improvement of health and safety at work, preliminary analysis, ergonomic approach, management systems.

Target group: engineers and safety technicians at work in the private sector, public organisations and occupational safety working groups.

The objective of this project is to develop the capacities of safety personnel to analyze professional risks using appropriate methods and to follow a rational approach to risk management in the organisation.

The improvement module comprises 5 sessions of 2 days each (12h per session) on the following themes :
(1) Techniques in communication on health and safety at work
(2) Preliminary analysis of risks
(3) An ergonomic approach
(4) Mandatory technical control of unit
Training sessions were conducted in 2000, 2001 and 2002. The project is currently being programmed for 2003, 2004 and 2005. An average of 20 participants is trained every year.

Training in an ergonomics approach by safety experts in African countries
Pat Scott (p.a.scott@ru.ac.za), IEA IDC Committee, with IEA PSE Committee

Keywords: Training, occupational safety and health, ergonomics, African countries, expertise

Target group: occupational safety and health professionals in industrial organizations and educational institutions.

The objective of this project is to develop training capacities of leading occupational safety and health professionals in applying ergonomics to the prevention of work-related injuries and diseases in African countries. Pilot training seminars are organized in selected African countries in cooperation with safety experts and ergonomists in each country. The training module comprises the following themes: (a) roles of an ergonomics approach in occupational safety and health; (b) identifying ergonomics-related risks; (c) cost-effective methods of solving ergonomics problems; (d) useful ergonomics checkpoints; and (e) incorporating ergonomics in safety management systems and practical training sessions.

Training seminars have been conducted in 2000, 2001 and 2002. The project aims to test the training module in 2003-2006. Group work methods will be used in training of trainers for the selected professionals.

Training of occupational health and safety experts in Africa
David Rees, National Centre for Occupational Health, South Africa (david.rees@nioh.nhls.ac.za)
Jonny Myers, University of Cape Town, South Africa (jmyers@iafrica.com)
Tom Robins, University of Michigan, USA (trobins@umich.edu)

Training is ongoing at the National Institute for Occupational Health, the University of Cape Town and through the Fogarty Programs, sponsored by the University of Michigan.

African Joint Effort Newsletter on the web (www.sheafroica.info)

WHO HQ and AFRO (focal points: Gerry Eijkemans, WHO HQ (eijkemansg@who.int), K. Novikov, ILO, HQ (novikov@ilo.org), AFRO, EMRO and ILO Regional Office Africa

This is the official website for the World Health Organization (WHO) and International Labour Organization (ILO) Joint Effort on Occupational Health and Safety in Africa. The areas of collaboration include Human Resource development focused on capacity building, national policies, programmes and legislation, information, research and awareness raising, promotion of occupational health and safety in particularly hazardous occupations, vulnerable groups (including informal sector workers and children) and in newly transferred technologies.

This functioning website promotes the Joint Effort and develops the electronic information network for occupational health and safety in Africa.

African Newsletter on Occupational Health and Safety
Suvi Lehtinen, Finnish Institute of Occupational Health, Finland (suvi.lehtinen@occuphealth.fi), the ILO and WHO

Funding is in place for this on-going project. The website for the newsletter is: www.ttl.fi/Internet/English/Information/Electronic+journals/African+Newsletter/
Clearing house

Nelson Sesoko, National Institute for Occupational Health, South Africa (sesokn@health.gov.za)

Funding is in place for this on-going project on southern African countries. A physical space has been established and electronic and hard copy materials are being collected on (1) policy, legislation and regulations; (2) OSH professionals in the region; (3) training and professional qualifications in OSH in the region; (4) OSH research projects and (5) practical solutions to common problems.

Webpages

Shobna Chauhan, National Institute for Occupational Health, South Africa (sesokn@health.gov.za)

Funding is in place for this on-going project. A model country page has been designed and data on South Africa has been entered. This project is being done with David Stanton and Sheaficare.

E-journal in French

Michel P. Guillemin and Mohammed Mokrane (Mohammed.Mokrane@inst.hospvd.ch), Institute of Occupational Health Sciences, Switzerland

Keywords: journal, information, experiments, transfer of knowledge

Target group: African professionals of occupational health, competent authorities (Ministries of Health, Labour, Environment et others concerned), employers and workers representatives, social security, University, Institutes and others technical and professional organisations and schools.

The objective of this programme is to create a space open to all those for whom the promotion and practice of occupational safety and health is an essential dimension of sustained development. The website is a platform of dissemination of information, transfer of technical and scientific knowledge as well as new occupational health practices, in the respect of international health standards and of the general environment. The E-journal in French is on the web at http://www.iurst.ch/cooperation. The last bulletin (No.10) was released in November 2003.

Funding is in place for this on-going project. Some French speaking African countries, particularly Benin, Burkina Faso and Morocco, with which the Institute of Lausanne has initiated conventions of co-operation, are collaborating on the project.

Work and Health in Southern Africa (WAHSA)

Swedish Programme Director: Mr. Nils Petersson Swedish National Institute for Working Life SE-113 91 Stockholm, Sweden

Nils.Petersson@Arbetslivsinstitutet.se. A Regional Programme Director is being recruited (June 2005)

Keywords: Long-term collaboration program, SADC countries, prevention of occupational accidents and diseases

Target groups: Government departments of SADC member countries, the SADC Directorates involved in occupational health and OSH agencies in the region. Employers and employees, and their organisations, and OSH practitioners in the region.

Purpose of the Programme: The general long-term objective of the programme is to promote workers’ safety and health, and create sustainable systems for OSH and public health promotion. The objective for the first four years is to establish a solid and well operating basis for long-term actions in OSH and health promotion. The programme has components of research and training, but are mainly oriented towards elimination or reduction of occupational safety and health risks through direct actions at workplaces and institutional and professional capacity building.

Abstract:

The first four year phase of the programme contains the following ten projects:

1. Establishment of Resource Complexes, initially in cooperation between institutions in South Africa, Tanzania and Zambia
2. Profiling occupational safety and health; to provide systematic data on the extent of occupational exposures
3. Basis for planning future interventions; compilation of eight national inventories that will be the base for further project planning
4. Training of occupational health and safety professionals; to develop a regional plan for the training of occupational safety and health professionals, and to establish a regional coordinating mechanism for the development of new courses and programmes
6. Advocacy and awareness raising; development and implementation of methods to promote OSH information in key organisations in the region
7. Action on silica, silicosis and tuberculosis; to reduce silica dust exposure in key industries, and to improve prevention of tuberculosis in silica exposed workers
8. Action of health impact of pesticide; development of written information and implementation of actions at a number of major agricultural sites
9. Action on health and safety in small scale informal sector enterprises; estimation of occupational safety and health risks, improvement of factory inspection methods and development of regional OSH policy for small scale enterprises
10. Planning of Phase II of the Programme.

Some of the projects are intended to go on also after the first four-year phase of the programme, for instance the action oriented programmes no. 7, 8 and 9. Project no. 6, Advocacy and awareness raising, will run during all 12 years of the Programme.

The Swedish International Development Cooperation Agency (Sida) is providing a support of about 3 million US dollars for the first four year phase. WAHSA is governed by a Steering Committee, involving representatives of SADC, the National South African Institute for Occupational Health, the National Swedish Institute of Public Health, and the Swedish National Institute for Working Life.

The Programme started in October 2004. The first Programme year is dedicated to establishing organisational infrastructure and starting up of activities related to projects and collaborating institutions.

Names of Centres collaborating on the Programme: Southern African Development Community (SADC); South African National Institute for Occupational Health; Tropical Pesticide Research Unit in Arusha, Tanzania; School of Public Health, University of Cape Town, South Africa; School of Public Health, University of Witwatersrand, South Africa; Occupational Health Safety and Research Bureau, Kitwe, Zambia; School of Public Health, University of Natal, South Africa; Tanzanian Occupational Health Services; Swedish National Institute of Public Health; Swedish National Institute for Working Life.

Products: For each of the ten projects of the first four year phase of the Programme a number of objectives, indicators for objectives’ attainment and activities are defined, covering a variety of products.

Programme start date: October 2004

Programme end date: September 2016
The ILO Convention No. 182 on Elimination of the Worst Forms of Child Labour was unanimously approved in June 1999. The worst forms of child work are slavery, forced labour, use of children in illegal activities, and children working in hazardous activities. The countries ratifying the Convention No. 182 need to agree in tripartite discussion upon the hazardous work that they have in their countries. It is also possible to improve the working conditions as the first immediate action on the way to eliminating the worst forms of child labour. Networks should be utilized to disseminate information and to work together to achieve these objectives.

The process of this Taskforce is led by IPEC/ILO Geneva, in close coordination with the Occupational Health Office in WHO and SafeWork in ILO. That process will allow all WHO Collaborating Centres to play a less or more active role. The members that have expressed interest in the Taskforce in the Chiang Mai meeting in November 2001 will be kept up to date of all activities. The centres that have expressed interest in adolescent workers will be invited to participate in the taskforce.

Additionally, the individual members will be asked to produce papers, respond to questions etc., depending on their involvement and interest in the issue.

NIOSH safety checklist program for schools — OSH CD-ROM with a safety program and resources for schools (high schools to graduate schools)

John Palassis NIOSH, USA, (JPalassis@cdc.gov)

Keywords: safety, program, checklists, high schools, students, construction, curricula, young workers, CD-ROM

Target Group: High school administrators and principals, school supervisors, teachers, professors, safety committees, students, small business owners, young workers

The aim of this project is to contribute and disseminate occupational safety and health information in a CD-ROM format to high schools, technical schools, and community colleges, undergraduate and graduate schools, to inform the school administrators and principals, school supervisors and teachers, professors, safety committees, and ultimately the students during school and after school as they enter in workplaces as young workers. The CD-ROM provides information on how to establish a safety and health checklist program based on 82 safety checklists, to increase awareness of workplace hazards, and ways to control the hazards. Included in the CD-ROM are numerous safety and health and environmental resources and hundreds of links to helpful organizations and government agencies, safety curricula, including young workers' resources.

The information in the CD-ROM went through extensive internal and external review, focus-group testing, and beta-testing (public review) on the NIOSH Website. The CD-ROM was prepared in 2003 and is available at no cost by contacting John Palassis JPalassis@cdc.gov or throught the NIOSH website (www.cdc.gov/niosh).

Conferences have taken place at which many completed and ongoing activities were reported, and new action plans developed:

- National Institute of Occupational Health, India (H.N. Saiyed, saiyyedhn@yahoo.com) participated in the meeting on gem stones (on the topic of child labour) in Bangkok in Nov. 2001.
- A regional meeting was held in Zimbabwe, Jan 02, on Networking on HCL. Participants from 10 Anglophone African countries participated. Links were established with the WHO-ILO Joint Effort.
- A regional meeting on networking on HCL was organized in March 2002 in Costa Rica. PlagSalud participated, as well as the PAHO consultant for the “flower project” in Central America. OHS centres and experts from all Central American countries were present, and all countries are preparing research and action proposals, in the field of agriculture, garbage collection and fireworks.
- A regional meeting in South America was held on HCL in March 2002 in Lima. OHS specialists from 7 countries participated. A list server was established (RED-TIP), closely linked to the list server previously established by PAHO on OHS in Latin America. Projects on the identification of HCL and interventions are prepared in several countries.
- A tri-country meeting (Egypt, Jordan and Lebanon) on the role of OHS in the implementation of C.182 was held in July 2002. WHO EMRO has participated in the meeting and will be active in the follow-up.
- Meeting Baru on Rural Health (incl. Child and labour in rural areas) organized by ICPS, Italy in Nov. 2002 in coordination with ISPESL.
- An ICOH Conference was held in Brazil in 2003; a mini symposium was held, and ICOH has created a working group on child labour.

Validation of the pedagogic model for training and risk prevention in medial education — technical industrial schools in Colombia

Julietta Rodríguez Guzmán (jrodriguezg@fiso-web.org), FISO, Colombia
Keywords: Risk Prevention, technical industrial schools.

Target group: Teachers and students of technical secondary education (10th and 11th grade).

The purpose of the project is to raise awareness and induce a preventive culture among educators and students of technical secondary education schools in 10th and 11th grade, concerning the importance of ensuring the health of workers, and the necessity of recognition of OH promotion and prevention programs in the young population's education programs.

With the aim to strengthen the preventive culture of professional risks in Colombia, the Ministry of Labor and Social Security promoted the development of educational projects and models since early school, with sponsorship of the Professional Risk Fund. Thanks to this initiative, FISO designed an educational model that gives technical and educational tools for teachers and students, to be trained on prevention of school risks in 11th and 12th grades in the technical industrial schools.

The model was designed in three steps. First it is based on a bibliographic search, data collection and statistical analysis, the characterization of medial education and the target population. Secondly, a risk diagnosis was carried out to prioritize actions in the technical industrial schools, with international assessment and the design of the model. Thirdly, the model was validated and adjusted, to finally develop the educational instruments. For the diagnostic analysis and the risk characterization the Auxiliary Center for Teaching Services CASD, was the chosen center. Its student population rises to 6,800 students in universities and technical high schools, and 70 teachers of different specialties. A training and diagnostic workshop was done with them, to consider the most frequent occupational risks in school and the educational strategies that were consider most adequate to train the students in prevention. The study guidelines were used to facilitate the analysis and the proposals of the group of teachers. It was concluded that training for such schools must be done under the frame of each technical specialty given by the institutions, and with educational tools that orient both teachers and students.

The educational model starts with a central module of basic preventive fundamentals and principles, and 11 collateral modules that deal with occupational risks and technical specialties in the institutions. It is understood that each module must be developed by each teacher, following the teacher's guide and by means of study guides for student participation. The following is the content of each educational tool developed for teacher and student orientation: orientation for management of technical concepts; a methodological guide that orients the content development; a series of slides with a simple language to present the contents; and, work guidelines to help students to built and understand the concepts.

All 12 educational modules are available in Spanish, to be disseminated to all schools in the country.

Completion date: December 2003.

International Symposium on Youth and Work (http://www.ttl.fi/e/project/youthwork/index.htm)

Jorma Rantanen (jorma.rantanen@occuphealth.fi), Kirsti Tuominen (Kirsti.Tuominen@ttl.fi),
Finnish Institute of Occupational Health, Finland

20–22 November 2002, Helsinki, Finland (Participants: WHO/HQ, ILO, IPEC, ICOH)

The three-day Symposium was organized by the Finnish Institute of Occupational Health in close collaboration with the Finnish Ministry of Education, WHO and ILO. It was attended by almost 110 participants from 27 different countries from all over the world. The idea to organize the Symposium rose from several studies demonstrating that successful integration to work life is an important factor in overall management of life, health and well-being and that the integration has psychological, social and economic consequences. Ensuring decent work and safe and healthy working conditions for young people on the labour market is an important objective which will benefit not only the young people themselves, but also the enterprises and the society as a whole.

The Symposium analyzed the critical steps towards successful work life during three distinct periods in the life of young people: at school (vocational and secondary school), during the transition from school to work, and a few years after entering work life (as a young worker). Also, strategies, measures and actions for ensuring successful preparation for work life were discussed in the course of the Symposium days.

Identification of hazardous occupations

Susan Gunn, ILO/IPEC (gunn@ilo.org)

Keywords: child labour, occupational hazards of youth, working conditions of young workers

The objective of this project is to develop a tool, with enough flexibility and specificity for countries to use to identify and prioritize hazardous child labour (HCL), and produce a national action plan to effectively address the issue. Activities:

a. A desk review of hazardous child labour (Jan–Feb 2002),

b. An expert meeting on Hazardous child labour was held in October 2002 in ILO Geneva. Selected WHO Collaborating Centres, ICOH and IOHA participated in the discussion on the definition of hazardous child labour. The expert committee will keep functioning until the product (publication on the definition on Hazardous Child Labour) has been finished

c. Preparation of a draft of the publication. A consultant will be identified through the WHO Collaborating Centres Network. Document expected end of May 2003.

d. Review of the draft document by members of the expert committee

e. Publication and distribution: December 2003

f. Design and maintenance of a database on hazardous child labour: through the WHO Collaborating Centres, an institution that can take on this task will be identified
Additionally, IPEC is in the process of constructing national, (sub) regional and global networks of institutions willing to undertake short, focused studies on hazardous child labour that will contribute to policies and action in this area. WHO Collaborating Centres will be approached to participate and support the networks in their regions and areas of interest. Funding for the project is in place. Studies currently underway:

- High risk tasks and conditions in various agricultural sectors (Central America, Indonesia)
- Small-scale manufacturing (e.g. fireworks, shoe-making)

**Elimination of the worst forms of child labour**

Marta Petyx, ISPESL, Italy (martapetyx@tiscalinet.it or martapetyx@tiscali.it)

*Keywords*: child labour, workshop, Convention 182, child work

*Target group:* Bearing in mind the priorities identified by the ILO within the sphere of the IPEC programme, attention will be focused on the countries which, on the basis of their socio-economic characteristics, are more affected by the problem and to which the programme of interventions can make a useful contribution in applying the 182 Convention principles.

The objective of this project is to monitor and implement the ILO 182 Convention, in particular in developing countries, through the constitution of a work group to find possible solutions to the problems. This action is in line with the ILO international programme for the elimination of child labour (IPEC). The proposed activities include a Workshop to discuss the difficulties, limits and strategies for the correct application of Convention 182 in developing countries and to identify an effective contribution that advanced countries can make to the problem.

A Mini-symposium on "Child labour in rural areas" was organized by ICPS and ISPESL in the "International Conference on Rural Health in Mediterranean and Balkan countries" in Bari, Italy on November 13-16, 2002.

A paper has also been published: "Child labour: the Italian perspective and the contribution of ISPESL" by A. Pera, M. Petyx, C. Grandi, S. Iavicoli, S. Palmi in proceedings of "International conference on rural health in Mediterranean and Balkan countries", Bari, Italy, November 13-16, 2002.

Funding for the project is in place. It will be completed by 15 April 2005.

**Training the trainers involved in the elimination of the worst forms of child labour**

Irene Hawkins, Istituto dell’Approccio Centrato sulla Persona (IACP), Italy (ihawkins@iacp.it)

*Keywords*: person-centred, empowerment, train the trainer, child labour

*Target group:* trainers working in the field of elimination of child labour

The objective of this project is to develop a training curriculum for the trainers working in the field of elimination of child labour. A search on the existing literature and interviews with experts has been conducted. The curriculum is being designed.

**Training needs and a health and safety curriculum for young workers**

Carol Stephenson (CStephenson@cdc.gov) and John Palassis (JPalassis@cdc.gov), NIOSH, USA

The aim of this project is to develop and disseminate occupational safety and health curriculum materials for high school and post high school youth who are just entering the workplace. Using materials developed under prior NIOSH funded efforts, and information gathered under contract with the National Safety Council, NIOSH is partnering with OSHA, State Directors of Career and Technical Education, several academic institutions, and other interested entities to assess the occupational safety and health training needs of new/young workers and to develop a core health and safety curriculum for adolescent workers. A draft curriculum has been developed and will be tested in 16 school districts in ten US states during 2004 and 2005. The final curriculum should be ready for distribution and translation late in 2005.

*Project end date:* The project is scheduled to be completed by December 2005.

**Guidelines for occupational exposures and adolescent workers**

David Zalk, International Occupational Hygiene Association (IOHA), California, USA (zalk1@llnl.gov)

*Keywords*: prevention, IOHA, occupational hygiene, occupational exposure limit values, ACGIH

*Target group:* cooperation with ILO, IPEC, WHO and bodies deemed appropriate as described within IOHA articles of association.

The aim of this project is to utilise IOHA expertise and member organisation support to deliver guidelines for occupational exposures and occupational exposures as they may apply to adolescent worker issues.

Tore J Larsson (tore.larsson@general.monash.edu.au) and David Wegman (David_Wegman@uml.edu) of the University of Massachusetts Collaborating Centre and ICOH are also contributing to this project.

**SOLAR – Study on Occupational Asthma Risks in adolescent workers**

Dr. Katja.Radon, Institute and Outpatient Clinic for Occupational and Environmental Medicine, University of Munich, Germany (katja.radon@arbeits.med.uni-muenchen.de)

*Keywords*: occupational asthma, ISAAC follow up
The purpose of the project is to conduct a prospective cohort study on occupational asthma and allergies in adolescent workers.

About 10% of all asthmatic disease is attributed to occupational factors. Due to the cross-sectional character of most studies performed in this field, no prospective data have been collected. We have initiated a follow-up survey of the ISAAC (International Study on Asthma and Allergies in Childhood) II cohort in Munich and Dresden in order to conduct a prospective cohort study on occupational asthma and allergies that starts in early childhood until well beyond the age of working life. For further information please visit our website (www.solar-deutschland.de). We are planning to perform the investigation also in other countries where the ISAAC protocol has been followed.

The project has been funded by Bundesministerium für Arbeit und Wirtschaft, Berlin for the period of 2002-2004.

Names of other Centres collaborating on the project: University Children’s Hospital, Dresden. Other centres are currently joining the project.

Products: health-based recommendations to adolescents regarding choice of job

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**Child labour/adolescent workers – Occupational health problems, evaluation and control**

H.N. Saiyed, National Institute of Occupational Health, Ahmedabad, India (saiyedhn@yahoo.com)

*Keywords*: gem polishing industry, match industry, agate industry, occupational health problems, worst form of child labour.

*Target groups*: Policy makers, owners, child workers, parents, trade unions, .NGOs..

The purpose of the project is to produce scientific evidence of occupational health hazards in various industries with child labour as major problem. This evidence could be used by the policy makers to classify the said industry as worst form of child labour.

The environmental epidemiological studies have been initiated in following three hazardous industries with child labour problem. 1. Agate industry, at Khamibhat. 2. Match Industry, Sivakasi and 3 Gem polishing workers at Jaipur,

**Agate industry**: A survey of 227 children (below 18 years) working and/or living around the agate industry showed 29 (12.8%) children showed evidence of silicosis and 13 (6.7%) children showed evidence of tuberculosis. Ministry of Labour, Government of India has been requested to declare agate industry as worst form of child labour. Dust control device has been developed and installed to reduce dust levels in agate industry.

**Match Industry**: A total of 1191 study subjects (257 males and 934 Females) and 515 control subjects (139 males and 376 females) in the age groups of ≤14, 15-18, 19-30 and 31+ yrs were included for medical examination including occupational history, pulmonary function test (PFT), Hb%, urine examination, chest X-ray of respiratory symptoms. The results of the study show statistically higher prevalence of low body weight, anaemia and poor PFT in children working in match industry as compared to control children. The environmental study has shown ergonomic problems, high levels of siliceous dust, heat stress and noise problems. The high morbidity is attributed to the factors such as poor nutritional status and personal hygiene, unsuitable postures during work, non-use of personal protective equipment, lack of awareness about the possible impact of physical and chemical pollutants on health at work place and multiple and psycho social stresses.

**Gem Polishing Industry**: Industrial hygiene study showed high levels of noise, silica dust, chemicals and ergonomic problems. The most important occupational health problem is the potential exposure to free silica dust during cutting of chalcedony group of gemstone containing free silica during polishing gemstones using quartz powder as polishing material. The use of chemicals (e.g. chromium salts) for polishing is another potential risk. Work of medical examination including chest x-ray (for diagnosis of silicosis and tuberculosis) and PFT of 581 children has been completed recently.

Reports will be written on the projects which will provide scientific evidence for inclusion of the above industry as worst forms of child labour on the basis of serious occupational hazards.

Funding for this project is in place. It will be completed by 2005.

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**Children’s work in agriculture in Benin**

Professor Benjamin Fayomi, University Laboratory of Health at the Work and Environment (LUSTE) (bfayomi@intnet.bj)

*Keywords*: pesticides, child, agriculture, Africa

*Target*: Children implied in pre- and post- pulverization activities.

The goal of the project is to detect the clinical and biological disorders in children who have been pulverizing for at least 5 years. In Benin, the children work in agriculture either at their parents’ sides or serving as agricultural hands. This study aims to determine the proportion of children subjected to plant health treatment, identify the pesticides to which the children are exposed, analyze their working conditions, and to evaluate their state of health. We will carry out a descriptive cross-sectional study in one of the sub-prefectures of the country. With this intention, we listed village groupings in which children take part in plant health treatment. We then will lead an investigation with a questionnaire with children chosen randomly. Among these, some will benefit from the proportioning of the rate of haemoglobin and acétylcholinestérase. We collaborate on this project with the National Institute of Research the agronomic project (INRA) in Benin.

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**Travail des enfants en agriculture au Bénin**

Professeur Benjamin Fayomi, Laboratoire Universitaire de Santé au Travail et Environnement (LUSTE) (bfayomi@intnet.bj)
Mots clés : Pesticide, enfant, agriculture, Afrique

**Cible** : Ce sont les enfants impliqués dans les activités pré et post pulvérisation.

Le but du projet est de dépester les troubles cliniques et biologiques chez les enfants qui pulvérisent depuis au moins 5 ans. Au Bénin, les enfants travaillent en agriculture soit aux côtés de leurs parents ou pour servir de main d'œuvre agricole. Cette étude vise à déterminer la proportion des enfants commis au traitement phytosanitaire, identifier les pesticides auxquels les enfants sont exposés, analyser leurs conditions de travail et évaluer leur état de santé.


Sur ce projet on collabore avec l’Institut National de Recherche agronomique (INRA) Bénin.

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**Work and working conditions of children/adolescent workers**

Nguyen Ngoc Nga, National Institute of Occupational and Environmental Health, WHO Collaborating Center on Occupational Health, Vietnam (n.n.nga@fpt.vn)

**Keywords:** risk group, information, adolescent, working condition, global program

**Target group:** Policy-makers, managers, Occupational Health staff, local authorities, employer, MOH, MOLISA

The objective of this project is to identify risks at work and determine the health status of working children, to raise awareness among employers, managers, policy-makers, MIOH, MOLISA to the existing risks for working children, the magnitude of the problem and the necessity of preventive measures. Funds have been secured by WHO.

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**Translation of the ILO Brochure on the elimination of the worst forms of child labour into Italian language**

Irene Hawkins, Istituto dell’Approccio Centrato sulla Persona (IACP), Italy (Ihawkins@iacp.it)

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**Contribution to the identification of hazardous occupations in Latin American countries**

Julietta Rodríguez Guzmán, FISO Colombia (jrodriguezg@fiso-web.org)

Funding for the project is in place. The completion date is yet to be agreed on.

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**Support for reducing occupational risks for children and future generations and elimination of hazardous child labour and in the WHO European region**

Sergio Iavicoli, seriav@iol.it, ISPESL, Rome, Italy; Marco Maroni, mail@icps.it, ICPS, Milan, Italy; Stanislaw Tarkowski, tarko@imp.lodz.pl, Nofer, Lodz, Poland; Jovanka Karadzinska Bislimovska, bislimovska_j@hotmail.com, IOM, Skopje, Macedonia; Jouni Jaakkola, j.jaakkola@bham.ac.uk, Institute of Occupational Health, Univ Birmingham, Birmingham, UK; Yuri Kundiev, Institute of Occupational Health, Kiev, Ukraine; Lyudmil Ivanov, nchmen@nchmen.government.bg, National Centre for Protection of Public Health, Sofia, Bulgaria; Ivan Ivanov, IIIV@euro.who.int, WHO Regional Office for Europe, Copenhagen, Denmark, Gerry Eijkemans, eijkemansg@who.int, WHO Headquarters, Geneva

**Keywords:** child labour, hazardous work, agriculture, guidelines

**Target group:** Ministers of health, ministers of labour, public health agencies, labour inspectorates, primary health care workers

**Purpose of project:** To provide Member States with evidence based guidelines and recommendations on how to address occupational health risks for children and future generations within the framework of the Children’s environment and health action plan for Europe and the corresponding national action plans.

At the Fourth Ministerial Conference on Environment and Health, Budapest, 2004, the Member States committed to action on improving children’s health and the environment. The ministers approved a Children’s Environment and Health Action Plan for Europe (CEHAPE) to guide national policies and action plans on environment and health. This plan defines regional priority goals (RPG) in addressing the largest burden of disease from risks in the children’s environment. A meeting was organized by WHO in Fiuggi, Italy in February 2004 to identify the directions of activity in the area of hazardous child labour. At the September 2004 meeting of the European Collaborating Centers, it was agreed to proceed with this project.

This intervention will include the following activities:

1. reviewing existing evidence on hazardous child labour, identifying the gaps in current knowledge and developing strategy for research;
2. developing practical tools to facilitate the implementation of ILO Convention 182 to provide support to the countries in defining hazardous child labour;
3. developing a state of the art Regional report on occupational health risks for children;
4. establishing a European database on country statistics regarding hazardous child labour and a clearing house with available interventions and good practices;
5. developing and disseminating good practices and guidelines for addressing hazardous child labour;
6. developing training materials for health care workers to recognize the effects of hazardous child labour;
7. developing a research programme on the short and long-term effects of occupational health risks on children;
8. developing international and intercountry projects on comparative assessments and interventions with the assistance of intergovernmental organizations and donor countries.

*Project start date:* January 2004
*Project end date:* December 2006

**High School Chemistry Laboratory Safety Guide.**
John Palassis NIOSH, USA, (JPalassis@cdc.gov)

*Keywords:* safety, chemistry, laboratory, checklists, high schools, teachers, students

*Target Group:* High school teachers and students (also administrators and principals, school supervisors)

NIOSH in collaboration with the U.S. Consumer Product Safety Commission (CPSC), Environmental Protection Agency (EPA), have been collaborating since 2003 for the development of a 25-30 page document entitled School Chemistry Laboratory Guide. The purpose of this safety guide is to highlight safeguards and safety measures regarding the ordering, storage, use, and disposal of chemicals for high school instructors as well as high school students. This safety guide is not intended to address all safety issues but rather to provide basic information on some important components of safety in the chemistry laboratory and to serve as a resource to locating further information. The safety guide provides general safety checklists highlighting important information for working in the high school laboratory, one for teachers and a second for students that teachers may reproduce to hand out. The next steps are individual agency review of the guide by CPSC, EPA, and NIOSH, and then field testing at several high schools. Funding for the project is in place.

*Project start date:* January 2003
*Project end date:* September 2005
TASK FORCE 4: ELIMINATION OF SILICOSIS

Co-Chairs: Igor Fedotov, ILO (fedotov@ilo.org) and Gerry Eijkemans, WHO (eijkemang@who.int)

The ILO/WHO Joint Committee on Occupational Health launched in 1995 a Global Programme on the Elimination of Silicosis from the world by 2030. The objective of this Task Force is to further develop and implement this programme, to encourage every country to develop its own national silicosis elimination programme, and to provide a knowledge base for countries that wish to launch a national programme. Prevention of pneumoconioses other than silicosis may be included as a part of the programmes at the regional and country levels, because occupational exposures to different kinds of dusts are widespread and the prevention and control activities for various pneumoconioses are to some extent related.

Documentation of methodologies and iconographical materials related to Phase contrast light microscopy and powder diffractometry

Vito Foà, Istituti Clinici di Perfezionamento, Dipartimento di Medicina del Lavoro e Sicurezza negli Ambienti di Lavoro e Consorzio ISPESL/ICP per il Centro di Collaborazione con l’OMS per la Medicina del lavoro e l’Igiene Industriale (omscons@unimi.it)

Keywords: asbestos, silica, X-ray diffraction (XRD), Phase Contrast Optical Microscopy (PCOM).

Target group: occupational Health Physicians, industrial hygiene professionals, researchers, laboratory technicians.

An atlas and a CD-Rom have been published in Italian with legends translated in English (La Medicina del Lavoro 2001; vol. 92 (suppl), Casa Editrice Mattioli, Fidenza).

The Atlas presents the evolution of research activity in the last 50 years on solid airborne contaminants originating mainly from the industrial treatment of silica, silicate and asbestos materials, and the methodologies adopted in the Toxicology and Industrial Hygiene Laboratory (Clinica del Lavoro “L. Devoto”) for the characterization of crystalline free silica, asbestos and substitutive fibres. It offers a wide documentation of technical schedules, diffractograms and microphotographs (using Phase Contrast Optical Microscopy with the Dispersion Staining Method). It mostly covers the results of scientific studies made in the last 60 years at the Institute of Occupational Health, now Department of Occupational Health, of the Clinica del Lavoro “Luigi Devoto” of the University of Milan, although ample space is also given to the results of studies performed by well known research workers in Italy and from all over the world.

The first chapter concerns sampling, measurement and analysis of various types of silica and silicate materials, either raw or in the form of airborne dusts in the working environment, with special attention to determination via chemical, diffractometric and microscopic techniques of free crystalline silica in its various allotropic forms, according to the methods used in the Laboratory of Industrial Hygiene and Toxicology of the Clinica del Lavoro of Milano.

Chapter 2 describes the evolution of sampling and counting methods of airborne fibres of various types of asbestos, and also the methods of identification and qualitative discrimination of fibres used as a substitute for asbestos which were developed in the mentioned Laboratory.

Chapter 3 consists of a photomicrographic and diffractometric atlas illustrating the results of analyses of materials and dusts containing silica, asbestos and asbestos substitute fibres.

Project start date: January 2000
Project completed: February 2003

Caratterizzazione di polveri e fibre aerodisperse con particolare riguardo alla silice ed agli amianti

Vito Foà, Istituti Clinici di Perfezionamento, Dipartimento di Medicina del Lavoro e Sicurezza negli Ambienti di Lavoro e Consorzio ISPESL/ICP per il Centro di Collaborazione con l’OMS per la Medicina del lavoro e l’Igiene Industriale (omscons@unimi.it)

Parole chiave: silice, amianti, diffrattometria per polveri, microscopia ottica a contrasto di fase, fotomicrografia

Utenza destinata: Medici del Lavoro, Igienisti Industriali, Ricercatòri e Tecnici di Laboratorio.

Pubblicato in italiano, con didascalie tradotte in lingua inglese su “la Medicina del Lavoro” 2001; vol. 92 (suppl), Casa Editrice Mattioli, Fidenza

La pubblicazione presenta in sintesi l’evoluzione dell’attività di ricerca sulle polveri minerali aerodisperse in quest’ultimo mezzo secolo di lavoro e illustra nel dettaglio le metodiche analitiche attualmente adottate nel Laboratorio della Sezione di Igiene e Tossicologia Industriale della Clinica del Lavoro “Luigi Devoto” di Milano per la caratterizzazione della silice libera cristallina, degli amianti e delle fibre sostitutive.

È presentata un’ampia documentazione di schede tecniche, spettri da diffrazione di polveri e fotomicrografie al microscopio ottico a contrasto di fase in dispersione cromatic.

Il lavoro riporta l’evoluzione dell’attività di ricerca svolta nell’ambito dello studio dei contaminanti solidi aerodispersi, originati principalmente dal trattamento industriale dei materiali silicei, silicatici ed amiantiferi.

Sono essenzialmente considerati i risultati dei lavori scientifici conseguiti negli ultimi 60 anni nell’Istituto di Medicina del Lavoro, ora Dipartimento di Medicina del Lavoro Clinica “L. Devoto”, dell’Università degli Studi di Milano, senza peraltro trascurare quelli raggiunti dai più noti studiosi italiani e stranieri nell’ambito specifico.
Il primo capitolo riguarda il prelievo, la misura e l'analisi di vari tipi di materiali silicei e silicatici, grezzi o in polveri aerodisperse negli ambienti di lavoro, con particolare riguardo alla determinazione per via chimica, diffrettometrica e microscopica della silice libera cristallina nelle sue varie forme allotropiche, secondo le metodiche adottate dal Laboratorio di Igiene e Tossicologia Industriale della Clinica del Lavoro di Milano.

Il secondo capitolo fa riferimento all'evoluzione dei metodi di prelievo e di conteggio delle fibre aerodisperse dei vari tipi di amianto, nonché ai metodi di individuazione e discriminazione qualitativa delle fibre sostitutive dell'amianto, messi a punto nel predetto Laboratorio.

Nel terzo capitolo è riportato un atlante fotomicrografico e diffrettometrico illustrativo dei risultati analitici su materiali e polveri contenenti silice, amianto e fibre alternative.

**Development of conventional technologies of dust measurement and control and training occupational hygienists in developing countries**

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**Keywords**: X-ray diffraction method (XRD), work environment, silica dust, occupational hygienists, developing countries

**Target group**: 1) National Institute for the Improvement of Working Conditions and Environment (NICE) that is an agency under the Department of Labour Protection and Welfare, Ministry of Labour and Social Welfare, Thailand. 2) National Institute of Occupational Safety and Health (NIOSH) in Malaysia.

The purpose of the project is the development of conventional methods of silica measurement that can be used for the control of work environment in developing countries. 2) Introducing the methods to occupational hygienists in developing countries.

Crystalline silica dust is a main causative material for silicosis of miners, tunnel and construction workers, etc. Measurement of silica dust in work place is the first step to control silicosis. XRD and IR methods are most effective for evaluation of silica dust, but the techniques are sometimes difficult and expensive for beginners. The first objective of this project is to develop some cheap and convenient techniques of XRD and Infrared (IR) method which are required in many countries, especially in developing countries.

The second objective of this project is to teach the developed methods to occupational hygienists and environmental measurement experts in developing countries.

The developed XRD method was tested for three forms of crystalline silica; quartz, cristobalite and tridymite, and confirmed for the availability. The types of crystalline silica formed from rice husk ash, a major residue of rice production in South Asian countries, were identified and quantified using the XRD and other methods. Final evaluation is in progress.

Under the joint project supported by IICA (Japan International Cooperation Agency), an instrument of XRD was introduced in NICE and NIOSH, 2000 and 2001, respectively, and we have conducted the training courses. Technical support has been continued via Internet communication with a trained hygienist in NIOSH since 2002. By sharing information obtained by XRD analysis, it becomes easy to advise the definite analytical method that can be used for the control of work environment.

**Project start date**: April 2000

**Project completed**: March 2004

**Prevention of asbestos-related disorders in Asia**

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**Keywords**: asbestos, Asia, global asbestos epidemic, descriptive statistics, country reports

**Target group**: Though formulated mostly by the scientific community the message needs to be directed to administration, politicians, employers and employees as well as society at large.

The objective of this project is to assess the overall situation of each country and region regarding asbestos issues using descriptive status on exposure and disease status. Macro-indicators considered allow comparison within the region as well as with Western countries. The goal is first to collect information, summarize in a comparable form, and then share it globally. The synopsis of the results foreseen will be presented in variable forms. There is a possibility that a follow-up meeting will be organized.

An "Asbestos Symposium for the Asian Countries" was organized with support from WHO-WPRO and ILO, which brought together over 25 delegates from 11 countries from the Asian region and 5 delegates from Europe. This was a joint effort by UOEH and FIOH, co-sponsored by ICOH-SC on Respiratory Disorders and supported by WHO and ILO. In this Symposium, in addition to the keynote lecturers from Finland, Sweden, and Japan, there were Country Reporters (at least two from each country) to discuss the relevant country situations of China, East Timor, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Thailand, and Viet Nam. An international delegate participated via an Internet video conference. Through the exchange of experiences in both developed and developing countries, an initiative was developed to "map" the overall situation in the region as well as to formulate possible solutions to cope with the health hazards of asbestos. Country reports were produced for 11 countries. Printing of Proceedings has now been completed. The conference was co-organized by the Finnish Institute of Occupational Health, and supported by WHO-WPRO, ILO, and ICOH-SC on Respiratory Disorders.
A speech was delivered by Takahashi at the Asian Conference of Occupational Health in Taiwan, Nov 1-4 2002.

Asbestos related disorders in Serbia and Montenegro
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Keywords: asbestos, exposure assessment, asbestosis, lung function, epidemiology

Target group: asbestos exposed workers

The purpose of the project is to study the effects of occupational exposure to asbestos in the factory manufacturing asbestos fibers. Two cross-sectional studies were performed with the lag of 14 years.

For exposure assessment the surrogate indices (duration of exposure in years, working places and cumulative exposure in fiber/m³ and mg/m³) were included in the originally designed model.

Questionnaires for respiratory symptoms, lung function tests, chest X-Ray and other clinical and laboratory tests were used to investigate the lung status. The symptoms, the parameters of lung function as well as the frequency of ventilation impairment and fibrosis of lung and pleura as health outcomes were analyzed.

In all exposed workers, significantly lower values of expiratory flows in small airways (p<0.001) were found, irrespective of gender and smoking habit. The decrement of all parameters of lung ventilation in 14-year period was significantly higher than expected. The incidence rate of the lung function decrements was 24.7/1000 person-years at risk in 14-year period (1984-1998) of follow-up. The estimated risk for development of lung function impairment was 34.5% for 14 years of exposure.

The incidence rate of small irregular opacities of 1/0 in exposed workers and more was 13.1 on 1000 person-years at risk for 14-year period of follow-up. The main factor that predicted the progression of SIO was cumulative exposure to asbestos expressed in fibres. The estimated risk for each exposed worker to develop lung asbestosis was 18.4% for 14 years of exposure.

The results explain some problems of the uncontrolled use of asbestos in our country and pointed out the health effects due to the high levels of occupational exposure to asbestos studying non-malignant lung outcomes. The results can be used in the risk assessment of the occupational asbestos exposure, particularly for fibrosis of lungs and pleura.

Products: Doctoral thesis – "Contribution to the epidemiological research of health in workers being occupationally exposed to asbestos" – defended at Belgrade University 2003; Proposal for asbestos ban in manufacturing industry in Serbia and Montenegro; Methodology for exposure assessment in retrospective epidemiological study

Progress: There is a plan for the project extension in next three years to cover ex-asbestos exposed workers in asbestos-textile and civil engineering industry in Serbia to emphasize malignant lung outcomes!

Project start date: May 2000
Project end date: May 2004

Facilitating interaction between Collaborating Centres and providing information on dust control technologies
Paul Schulte, NIOSH, USA (pschulte@cdc.gov)

The objective of this project is to facilitate interaction between Collaborating Centre, NIOSH divisions and the United States Silicosis Prevention Initiative partners (OSHA, MSHA, National Industrial Sand Association) to provide information on simple and effective dust control technologies, including best practices, and to contribute materials from the silicosis prevention initiative, such as educational materials and dust sampling strategies. Funding for this on-going project is in place. NIOSH maintains a "Silica Topic Page" on its website. See www.cdc.gov/niosh/topics/silica/default.html

Inquiry on silicosis in Tunisia
Habib Nouaigui and Leila Daly, Institute of Health and Security at Work, Tunisia

Keywords: silicosis, mines.

Target group: miners (of lead, zinc and iron mines)

The objective of this project is to determine the prevalence of silicosis in Tunisia. It is a comprehensive and exhaustive epidemiological study aiming to determine the prevalence of silicosis in iron, lead and zinc mines in the North West of Tunisia.

Tracking was done by first taking X-rays of the thorax (10 X 10). Standard X-rays were then asked for in cases of suspected silicosis, with spirometrics, questionnaire and clinical checkup for respiratory reasons. The inquiry was made in collaboration with the pneumonology services of the Ariana Hospital of Tunis, during the period 2001/2002. The X-ray tracking involved 79% of the 571 workers of the mining society.

In 99 cases, a standard X-ray of the thorax was requested. It identified 11 cases of silicosis (prevalence = 2,4%). The characteristics of the touched population are: average age = 56 yrs; average exposure time = 23 years in depth; 8/11 occupied a job in drilling. The X-ray image observed was very advanced in one case (3/3 pp UML), advanced in 7 cases (1/2, 2/1, 2/2 ppUML) and just beginning in 3 cases (1/1 pp). In two cases, effects of tuberculosis were present. The silicotics were banished from exposure.
This inquiry, which is registered in the framework of tracking silicosis undertaken regularly at national level since the 1970s, shows a definite regression of this pathology in the mines of the North West with a prevalence which decreased from 7% in 1984 to 2.4% in 2002.

Enquête sur la silicose en Tunisie
Habib Nouaigui et Leila Daly, Institut de Santé et de Sécurité au Travail, Tunisie

Mots clés: silicose, mine.

Cible: mineurs (mines de plomb, zinc et fer)

L’objectif de ce projet est de déterminer la prévalence de silicose en Tunisie. Il s’agit d’une enquête épidémiologique exhaustive et transversale visant à déterminer la prévalence de silicose dans les mines de fer, de plomb et de zinc au nord-ouest de la Tunisie. Un dépistage a été effectué par des radiographies du thorax 10 x 10, puis des radiographies standards ont été demandées pour les suspicions de silicose, avec spirométrie, questionnaire et examen clinique à visée respiratoire.

L’enquête a été effectuée en collaboration avec les services de pneumologie de l’hôpital Ariana de Tunis, durant la période 2001/2002. Le dépistage radiographique 10x10 a intéressé 79% des 571 travailleurs de la société minière. Dans 99 cas, une radiographie standard du thorax a été demandée. Elle a permis de retenir 11 cas de silicose (prévalence = 2,4%). Les caractéristiques de la population atteinte sont : âge moyen = 56 ans; durée moyenne d’exposition = 23 ans au fond; 8/11 ont occupé un poste de perforation. L’image radiologique observée est dans un cas très évoluée (3/3 ppm ul), dans 7 cas évoluée (1/2, 2/1, 2/2 ppm ul) et dans 3 cas débutante (1/1 pp). Dans deux cas, des séquelles de tuberculose étaient présentes. Les silicotiques ont été évincés de l’exposition.

Cette enquête, qui s’inscrit dans le cadre des dépistages de silicose entrepris régulièrement à l’échelle nationale depuis les années soixante-dix, a montré une nette régression de cette pathologie dans les mines du nord-ouest avec une prévalence qui est passée de 7% en 1984 a 2,4% en 2002.

Establishment of a national silicosis elimination programme in countries with silicosis exposure with the help of a model programme
Igor Fedotov, ILO and Gerry Eijkemans, WHO

A national action programme involves governmental agencies, industry and trade unions in collaborative action and establishes a sound infrastructure to combat silicosis. It provides a knowledge base and support to ensure systematic programme development for surveillance and preventive activities. A feasible prevention strategy requires a thorough knowledge of local conditions and the national situation, proven safety measures, and opportunities for innovations. The elements of a national programme include: laws and regulations, enforcement of occupational exposures and technical standards, governmental advisory services, an effective system of inspection, and a well-organized reporting system. Assistant to counties is provide by ILO and WHO upon request.

Spanish-language ILO radiology course
Gustavo Contreras, Asociación Chilena de Seguridad, (ACHS) Chile (fctgcd@gw.achs.cl)

The course is complete and ready to be used for teaching professionals in the region. All the training material is ready and has been used several times.

The host country or Institution is required to provide the funds to support local arrangements and provide the facilities for the teaching. The Occupational Society of Argentina had requested for the course to be conducted. However the current situation in Argentina led to a postponement of the course. It is planned to provide the course in Chile. This event could be financed by a copper company. Other countries and institutions are invited to contact the project team for new courses.

The WHO/ILO Joint Effort in Occupational Health in Africa and practical steps towards the elimination of silicosis
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Keywords: African Joint Effort, disease elimination, silicosis, airborne dust

Target group: Policy makers, occupational health and safety staff in different government departments, Trade Unions, training and research institutions, representatives from industries where there is a risk of exposure to silica dust.

South Africa is one of the countries that are fortunately well placed to embark on a realistic national programme to eliminate silicosis. Challenges include:

- high prevalence of dust related lung diseases among miners, ex-miners and workers in non-mining silica dust industries
- known link between silica dust exposure and tuberculosis (TB)
- high prevalence of TB in South Africa as well as the increasing risk of TB because of the HIV/AIDS pandemic
- link between silica dust exposure and cancer as confirmed by the International Agency for Research on Cancer (IARC)
- ongoing exposure to silica dust and efforts to control this
- the need for one standard with regards to silica exposure limits
• gender concerns in silicosis
• collaboration among role-players on preventive measures

Strengths include:
• an enabling constitution
• host to the October 2002 World Summit on Sustainable Development (WSSD)
• the existence, since 1994, of a strengthened occupational and environmental health and safety legislative framework
• rich experience of trade unions working towards better occupational and environmental health and safety
• participation of government in multi-stakeholder projects to reduce occupational and environment risks (e.g. Asbestos Summit 1998)
• capacity and willingness within industry to reduce dust levels and implement medical surveillance programmes
• academic institutions with sound experience in teaching as well as participatory and intervention research

The purpose of the project is to raise awareness among health service providers concerning the important relationship between silica dust exposure and the development of Tuberculosis; to assist with the co-ordination of multi-stakeholder workshops to share information and experience with regards to the elimination of silicosis; to assist with the co-ordination of the training of health service providers in the use of the ILO Standard X-rays for the diagnosis of pneumoconiosis.

The following progress has been made:
• The Advisory Council for Occupational Health (ACOHS) discussed the elimination South Africa in its 2002 meetings.
• A multi-stakeholder planning meeting to discuss the elimination of silicosis took place on 22 January 2003. Information was exchanged and plans made to take the process forward in a participatory way.
• At the International Union Against Tuberculosis and Lung Diseases (IUATLD) Africa Region conference in Durban in June 2002, a paper presented on the elimination of silicosis in the prevention of TB resulted in nurses in some TB clinics asking about silica dust exposure among their TB patients.
• Meetings with members of the National Institute of Working Life (NIWL) in Sweden concerning a pilot course they designed on airborne dust control resulted in the hosting of 2 pilot workshops on airborne dust for participants from Southern Africa.
• At the October 2002 meeting of the Global Health Research Forum of WHO, a paper was presented on the role of the WHO/ILO Joint Effort in OHS in Africa with a focus on silica dust elimination.
• In July 2004, a National Plan to Eliminate Silicosis was announced jointly by the Ministries of Labour, Health and Minerals. National efforts are ongoing.

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**Intervention study to reducing risk of respiratory diseases among foundry workers**

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**Keywords:** respirator, foundry, silicosis, respiratory, worker education, standard, intervention

**Target group:** academic institutions, Agency for standard and qualitative measurement, Occupational medicine center for industry

The main objective of this project is to reduce the risk of respiratory diseases among foundry workers. Funds have been secured by WHO.

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**Pneumoconiosis in Ukrainian coal miners**

Yuri I. Kundiev Institute of Occupational Health, Ukraine (basanets@ioh-ams.kiev.ua); Robert Cohen, Great Lakes Centres for Global Environmental and Occupational Health, University of Illinois in Chicago, USA (bocohen@uic.edu)

**Keywords:** coal mine, pneumoconiosis, respirable dust, silica, spirometry, bodyplethysmography.

**Target group:** miners and ex-miners of underground coal mines

The objectives of this project are to:

1. Evaluate concentrations of respirable coal dust and silica in Ukrainian mines.
2. To develop a surveillance program to determine the prevalence of pneumoconiosis in a random sample of 500 coal miners and 500 ex-miners of Donetsk region.
3. Gather occupational, smoking and clinical history, demographic and diagnostic information for miners.
4. Evaluate the prevalence and severity of pneumoconiosis in a random sample of coal miners.
5. Make recommendations to improve current surveillance programs for occupational lung diseases and assist the appropriate agencies/programs in implementing these recommendations.
6. Investigate the genetic predisposition to CWP using PCR.

Progress on the project includes the following accomplishments:
Work conditions were investigated at 3 underground coal mines in Ukraine including analysis of respirable dust and silica in personal sampling.

Occupational, smoking, and clinical history was gathered in the group of 500 active miners and 500 ex-miners.

Prevalence and severity of lung function impairment using standardized spirometry testing was determined.

Prevalence of respiratory symptoms using a standardized questionnaire was determined.

Determination of the prevalence of chest radiograph positive pneumoconiosis in the sample population

Investigation of lung volumes and DLCO in active coal is started in 2004.

Investigation of genetic markers of CWP by PCR method

The project has generated numerous products to date and is still ongoing:


Conferences:

- Conference of American Thoracic Society, 2002, 17-22 May, Atlanta, USA
- Training sources
- NIOSH Approved Pulmonary Function Testing Course was provided for the staff of the project by Great Lakes Center for Occupational & Environmental Safety & Health (University of Illinois, Chicago, USA) in September 2000.
- Fogarty International Training in Occupational Pulmonology for the staff of the project was provided by Great Lakes Center for Occupational & Environmental Safety & Health (University of Illinois, Chicago, USA) in May 2001.

Project start date: July 2000
Project end date: July 2005

Training of occupational health physicians and other experts working in industries with the risk of silicosis

H.N. Saiyed (saiyedhn@yahoo.com), National Institute of Occupational Health, Ahmedabad, India

Target groups: Medical officers working in mining and surface industries with risk of silicosis and other dust related occupational lung diseases. Medical officers practicing near the high risk industry.

The purpose of the project is to develop man power for the diagnosis of silicosis and dust related occupational diseases. This project is the part of National Silicosis Elimination Programme which has following components.

- Identification of industries with high risk of silicosis through literature survey, and field survey.
- Develop strategy for prevention and control of silicosis and other silica exposure related health problems which will consist of (a) Generation of awareness; (b) Development of dust control system (c). Development of trained man power.

So far a training programme has been organized for the medical officers at Ahmadabad (NIOH), Jodhpur (DMRC) and Dhanbad (for medical officers working in mines by Director general mines safety in collaboration with ILO and Indian Association of Occupational Health).

Other Centres collaborating on the project are the Director General Mines Safety, Government of India; Desert Medicine Research Centre (DMRC), Jodhpur, India; Chief Inspectors of Factories Gujarat and Rajasthan State.

A National action plan on silicosis prevention and elimination in Vietnam

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Keywords: Silicosis, prevention, elimination, workers, silica dust, medical surveillance, detection, training

Target group: decision-makers at Ministries, employers’ organizations, academic institutions

The objective is to reduce annual incidence of silicosis and eliminate silicosis in Viet Nam by the year 2020.

The programme was started in 1999 at ministry level. With the multi-sectoral implementation mechanism, the programme has achieved the response and active participation of employers, employees, as well as support from governmental and
international organizations (ILO, WHO, SIDA-Sweden, Washington University). In 2002, the programme was recognized as a National Programme of Silicosis Elimination.

A mechanism for the elimination of silicosis at the enterprise level will be institutionalized in the legislation. This will require that employers increase their investment in reducing dust in the work environment and take care of workers’ health.

Fund have been secured by ILO, Vietnam Government, but the programme on silicosis prevention needs further support from international organization and industries in order to reach the new goals of the programme in the coming years.

Preparation of a brochure to publicize the global programme on elimination of silicosis for mobilizing the international donor communities

Igor Fedotov, ILO (fedotov@ilo.org) and Gerry Eijkemans, WHO (eijkemansg@who.int)

**Keywords:** brochure, disease elimination, silicosis, global programme

**Target group:** decision-makers, planners and managers, and occupational health staff in Departments of Health, Departments of Labour, and Trade Unions in all countries with a known or suspected silicosis risk. Directors, managers, team leaders and occupational health staff of companies and enterprises associated with a risk of silicosis.

The objective of this project is to raise awareness among decision-makers in Departments of Health, Departments of Labour, Trade Unions, companies and enterprises associated with a risk of silicosis on the magnitude of the silicosis problem, and to demonstrate that the elimination of silicosis is a worthwhile and feasible objective, now being pursued by a global coalition, that they should support. A brochure will be prepared which will cover an introduction to silicosis, the global silicosis situation in developed and developing countries, a brief review of the established approaches to prevention, and a brief history of the global programme to eliminate silicosis with a list of programme elements.

A draft outline of the proposed brochure has already been prepared, with content and format defined, and is now under review. Suitable photographs to illustrate the text are being sought. Funding for the project is in place. It is scheduled to be completed by December 2003.

Development of simple dust control technologies widely applicable to various industries, in developing countries in particular

Berénice Goelzer, International Occupational Hygiene Association (IOHA), Brazil (berenice@goelzer.net), David Zalk, IOHA, USA (zalk1@llnl.gov), Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163.com)

**Keywords:** Preventative Technologies Toolbox pneumoconioses, occupational hygiene, work-related illness, Dust Control Toolkit, training, technologies.

**Target group:** All interested CCs over and beyond those who have currently expressed interest, managers, team leaders and miners, and occupational health and safety staff in two coal enterprises associated with a risk of silicosis and coal miners’ pneumoconiosis.

The objective of this project is to disseminate knowledge on the principles and prevention of dust generation and control, and to promote the application of this knowledge into practical control solutions, by trade and occupational sector, applicable in developing countries and countries in transition. The dissemination is to include managers, technical teams and miners in two coal mines aiming at elimination of silicosis and coal miners’ pneumoconiosis. The aim is to develop these technologies to be included as a Dust Control Toolkit in the Preventative Technologies Toolbox. This process will include control banding principles, substitution, clean technologies, and other practical solutions.

The progress so far has been the coordination of two-day symposia on silicosis to focus on practical solutions and dust control principles, to be presented in association with the ICOH Congress in February 2003. The culmination of the information associated with this symposium will be a starting point for ongoing collaboration between IOHA and WHO in the collecting of practical solutions and case studies. This process will enrich the WHO document through practical experience acquired through the IOHA and the expertise found within.

A pamphlet of practical control technologies, by trade and occupational sector, for use in developing countries and countries in transition, has been prepared. Training courses on the application of simple dust control technologies in two coal mines are planned. A project proposal has just been approved by the funding body.

The centres collaborating on this project are: Japan (NIIH), China (Dept OH + IOM), Viet Nam (NIOEH), Chile (ACHS), Thailand (NICE + Dept. of PH), Russia (SCIOH), Bulgaria (NCHM), Serbia and Montenegro (IOPH), South Africa (NCOH) and India (NIOH).

Contributing information on interventions to reduce silica exposure

Charles Levenstein, University of Massachusetts at Lowell (chucklev@aol.com)

Substantial progress has been reported in relation to 3 initiatives:

1. **Development of Measures of Silica Exposure in Construction**

Dr. Susan Woskie, Associate Professor of Industrial Hygiene in the Work Environment Department is undertaking a continued study of silica exposure of construction workers on the “Big Dig” in Boston, Massachusetts.

2. **Policy Approaches to Silicosis Prevention**
This initiative is led by Dr. Beth Rosenberg, Assistant Professor of Occupational Health at Tufts University School of Medicine (in collaboration with Prof. Charles Levenstein). Dr. Rosenberg’s petition to the Massachusetts Toxins Use Reduction Institute to list crystalline silica as a toxic substance has been successful. The effort has been aimed at reducing substantially, if not totally eliminating, the use of silica in abrasive blasting in private sector manufacturing in Massachusetts. In addition, all firms producing substantial amounts of hazardous waste in the state will be required to report data on use of crystalline silica. The Tufts-Lowell Silicosis Prevention Advisory Board, composed of public health officials, academic researchers and trade union representatives will be discussing next steps.

Dr Rosenberg is examining economic and ergonomic aspects of using alternatives to silica in abrasive blasting. This project, now in progress, focuses on case studies of economic aspects of replacement of silica with substitutes in abrasive blasting, as well as changes in ergonomic stressors in using alternative technologies. The target audience is abrasive blasters.

3. Cost Effectiveness of Silicosis Prevention Initiatives

Dr Supriya Lahiri, Professor of Economics at University of Massachusetts Lowell (in collaboration with Dr. Rosenberg and Professor Levenstein) conducted for WHO a review of available data on effectiveness of silicosis prevention interventions, including substitution, engineering and administrative controls, use of personal protective equipment, training, and policy approaches. The project also includes estimations of costs of various programmes, and extrapolation of available data to make national and global estimates of cost effectiveness. An article has been prepared for publication in 2005.

Project start date: January 2002

Updating WHO guidelines on health surveillance of silica-exposed workers

Gregory Wagner, NIOSH, USA (GWagner@cdc.gov)

Keywords: silicosis; screening; secondary prevention; surveillance; pneumoconiosis

Target group: physicians, public health workers, ministries of health, employers, employee organizations, trade associations

The objective of this project is to assist in updating the WHO guidelines on health surveillance of silica-exposed workers. It aims to continue to assist WHO and ILO in training occupational health physicians to recognize silicosis.

In 1996, the WHO published a monograph providing guidance on “Screening and Surveillance of Workers Exposed to Mineral Dusts.” The monograph was the result of an extensive, extended collaborative process reflecting a high level of cooperation between the WHO and the ILO and of involving experts from over a dozen countries. One of the primary goals of the current task is to update the guidelines laid out in the monograph to reflect experience using the guidelines and scientific developments since its production. In addition, there is a continuing effort to train physicians and other public health workers in approaches and techniques, reflecting current guidance, that will improve screening and surveillance of workers exposed to crystalline silica as part of the overall effort to develop and implement national programmes for silicosis elimination.

Scientific research likely to lead to improved recommendations is continuing. The revision of the ILO system for classification of radiographs for pneumoconiosis, a central part of the guidelines, has been completed and is publicly available. There is continuing participation in national Training Courses in silicosis prevention sponsored by the ILO and WHO, most recently in Viet Nam in April 2002.

Funding is in place. The project will be completed by December 2005.

A hazard review document on silica

Faye Rice, NIOSH, USA (FRice@cdc.gov)

Target Group: workers, occupational health and safety scientists, physicians, epidemiologists, regulators, policy makers, industrial hygienists, analytical chemists, and all who need knowledge of the adverse health effects of respirable crystalline silica.

The aim of this project is to contribute a hazard review document on silica and perform a number of quantitative risk assessments. The NIOSH Hazard Review examines the health risks and diseases associated with occupational exposure to respirable crystalline silica, discusses findings from recent epidemiological studies, and suggests areas for further research to help answer ongoing questions about the hazards of exposure. Quantitative risk assessments will examine excess lifetime risks of lung cancer and lung disease other than cancer in a cohort of U.S. diatomaceous earth workers.

The NIOSH Hazard Review was published May 2002, the Risk Assessment for lung diseases other than cancer in January 2002 and the Lung Cancer Risk assessment in January 2001. The two quantitative risk assessments were published in Occupational and Environmental Medicine Volumes 58 (lung cancer) & 59 (lung disease other than cancer). The risk assessment of radiographic silicosis in three pooled cohorts is in progress. The foreseen date for completion and publication of that risk assessment is December 2004. Funding for this project is in place.

Project start date: October 1997

Project end date: October 2006

The Evaluation of Silica Exposure in the Foundry

Youngman Roh, Catholic Industrial Medical Centre, Korea (ymroh@catholic.ac.kr)
The objective of this project is to evaluate the silica exposure level for foundry workers and to provide the appropriate control strategy. The project will cover the 30 foundries located in Incheon Area, Korea. The airborne silica levels are evaluated for the process of melting, coremaking, moulding, and finishing. The appropriate control strategy will be provided for the high-risk group.

The first survey was started jointly with the Korean Occupational Safety and Health Agency (KOSHA) and is now undertaking a first report.

**Research on silica dust, lung function and silicosis, and a model programme for integrated prevention of dust exposure and surveillance of respiratory health**

Jonny Myers, University of Cape Town, South Africa (jmyers@iafrica.com or Myers@cormack.uct.ac.za)

*Keywords*: lung function, silicosis, surveillance, longitudinal tracking

*Target group*: occupational health practitioners on the mines including medical, nursing, occupational hygiene and environmental engineering personnel. Also personnel in the public sector inspectorates and compensation authorities.

The purpose of this project to develop longitudinal lung function tracking software for surveillance programmes on mines that is more sensitive for prevention of silicosis and other lung diseases among mineworkers, and to evaluate current respiratory and dust surveillance programmes on the mines with a view to optimising their functioning in the service of prevention.

Surveillance systems will be studied for dust and respiratory disease. Cross-sectional data for lung function will be analysed with respect to exposures in the gold and platinum sectors. Longitudinal data for lung function will be analysed against dust exposures for same. Data sources will be routine surveillance and also special surveys set up to investigate exposure response relationships. Software tracking lung function changes over time in miners based on longitudinal data generated by unexposed workers will be used to develop adaptive reference ranges making best use of repeat longitudinal surveillance data to detect abnormal deterioration in lung function as early as possible.

Currently data available from routine and special survey sources is being analysed with a view to establishing exposure response relationships in the gold and platinum sectors. Information about surveillance systems for dust and respiratory health is being sought internationally in order to identify effective and efficient systems that integrate the two components in a meaningful manner.

**Provision of a model national programme with indicators addressing the size of the silicosis problem and progress of the national programme**

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

*Keywords*: dust monitoring, health surveillance, diagnosis of silicosis, control technologies, training

*Target group*: decision-makers, planners and managers, occupational health personnel

The objective of this project is to provide a model national programme which aims at the elimination of silicosis and coal miners’ pneumoconiosis. Based on the magnitude of the silicosis problem and given that the elimination of silicosis is a worthwhile and feasible objective, now being pursued by a global coalition, a model national programme aiming at elimination of silicosis is being developed. The important indicators of a model national programme will be selected to address the magnitude of the problem of silicosis and coal miners’ pneumoconiosis, and the progress of dust control. A project proposal has been approved by the funding bodies, the Chinese Ministry of Health and the Chinese Ministry of Science and Technology.

The ILO and the Chinese Ministries of Health and of Science and Technology are collaborating on the project. It is scheduled to be completed by 2005.

**Training in respiratory dust monitoring at workplace**

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

*Keywords*: dust, training, monitoring

*Target Group*: Occupational hygienists in mineral dust exposed industries

The purpose is to train in application of personal sampling technique for respiratory dust monitoring. This is an on-going project for the period 2002-2003. Two training courses have been held. The third training course is in the planning stage. Funding from WPRO/WHO is in place.

**Respiratory Disease in Active and Inactive Underground Ukrainian Coal Miners**

Robert Cohen, John H Stoger Jr. Hospital of Cook County, (bobcohen@uic.edu)

*Project start date*: July 2000

*Project end date*: July 2005

**Contribution to the organizing activities for hosting 'The Tenth International Conference on Occupational Respiratory Diseases' to be held in Beijing in 2005**
Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

**Target Group:** Occupational health professionals

The purpose is to help ILO and the Chinese Ministry of Health in organizing the Congress.

The ILO and the Chinese Ministry of Health are responsible for the organizing activities. This Centre is involved in some preparatory work for the scientific committee. Announcement: www.who.int/oeh/OCHweb/OCHweb/OSHpages/Welcome/Conference_China.pdf

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**Preparation of a guideline on health surveillance of dust exposed workers**

Dehong Li, National Institutes in Occupational Health and Poison Control, China (Dehong@263.net)

**Keywords:** health surveillance, dust exposure

**Target Group:** mineral dust exposed workers

The purpose of this project is to clarify the requirements and methods of health surveillance for workers with dust exposure. A survey on the health surveillance practice in workers exposed to various kinds of mineral dust is on-going.

Funds have been provided by the Ministry of Sciences and Technology for 2003-2005.

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**Publication in the peer reviewed scientific literature of detailed and accurate exposure-response information for risks of silicosis, on which workplace standards can be based**

Colin Soutar, Institute of Occupational Medicine, UK (Colin.Soutar@IOMHQ.org.uk)

**Keywords:** silica, risks, silicosis

The objective of this project is to disseminate exposure-response information. It includes the publication in the peer review scientific literature of detailed and accurate exposure-response information for risks of silicosis, on which workplace standards can be based.


**Project start date:** 2002

**Project end date:** 2006

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**Training for physicians in interpreting B reader X-rays**

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

Four training courses have been completed in 2002, with more than 200 participants. The project is funded by the Ministry of Health, China. It will be completed by 2005.

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**Monitoring of respiratory effects in workers occupationally exposed to asbestos**

Jindřiška Lebedová, National Institute of Public Health, Czech Republic (jindra.lebedova@lf1.cuni.cz)

**Keywords:** asbestos exposure, respiratory impairment, chest X-ray

**Target group:** Persons occupationally exposed to asbestos in refining plants in the Czech Republic 1950 – 2002. The group mainly comprises ex-employees who were mostly exposed to chryzotil and, to a lesser extent, krocidolit.

The purpose of the project is to establish a proposal for recommendations for indication of a detailed radiological examination of persons occupationally exposed to asbestos with minimal changes visible on a frontal chest X-ray. This includes monitoring of the relationship between exposure, latency, subjective complaints and pulmonary dysfunction in persons occupationally exposed to asbestos. Data analysed in relation to findings on a frontal chest X-ray or HRCT. Results are to be used for writing recommendations for indication of a detailed radiological examination of these persons, with a view to health and economic aspects.

So far, a group of 112 people with previous occupational exposure to asbestos and without any parenchymal changes on the chest X-ray was examined. The preliminary results show that people with pleural or parenchymal changes on the HRCT had a decrease in total lung capacity (TLC), slow vital capacity (VC) and forced vital capacity (FVC), forced expiratory flow from 25-75% of the FVC (FEF25-75%), forced expiratory flow from 75% of the FVC (FEF75%), and diffusing capacity of carbon monoxide (DLCO). This effect was observed also when chest X-ray was without any pathological changes. During the period between 2003 and 2004 we will continue with accumulating data, continuous analysis and evaluation.

The project is funded by the Ministry of Health of the Czech Republic. The Department of Occupational Medicine of the 1st Faculty of Medicine, Charles University and General Teaching Hospital, Prague, as well as the Department of Biostatistics and Informatics of the National Institute of Public Health, Prague, are collaborating on the project.

The planned outcome of the project is a publication of recommendations for the indication of a detailed radiological examination of persons occupationally exposed to asbestos, who have only minimal changes on a frontal chest X-ray.

**Project start date:** January 2002

**Project end date:** December 2005.
Health risk assessment and development of intervention programme in cottage industries with high risk of silicosis

H.N. Saiyed (saiyedhn@yahoo.com), National Institute of Occupational Health, Ahmedabad, India.

Keywords: Agate industry, quartz grinding industry, stone quarries, dust control system.

Target groups: Policy makers, owners, workers, medical officers working in the industry, trade unions, health personnel particularly those connected with tuberculosis programmes, general public with emphasis on people living in the surrounding of the high risk industry.

The purpose of the project is to generate data on silica exposure related morbidity and mortality in cottage industries with high risk of silicosis and to develop intervention programme. This project is the part of National Silicosis Elimination Programme which has following components.

- Identification of industries with high risk of silicosis through literature survey, and field surveys.
- Develop strategy for prevention and control of silicosis and other silica exposure related health problems which will consist of (a) Generation of awareness; (b) Development of dust control system (c). Development of trained manpower.

So far, data has been generated on environmental conditions and morbidity due to silica exposure in (a) agate industry (b) quartz grinding industry (c) stone quarries. Dust control systems have been developed and successfully installed for the agate industry. For two other industries namely stone crushing and stone mining it is on the way. Several awareness programmes have been completed for various target groups. Brochures and video films for various target groups have been prepared and distributed. Training programmes for medical personnel and other target group have also been organized.

Other Centres that collaborate on the project are the Director General Mines Safety, Government of India; Desert Medicine Research Centre, Jodhpur, India; Chief Inspectors of Factories Gujarat and Rajasthan State; Director General, Labour Institute, Mumbai.

Assessment of actual situation of silicosis diagnosis by X-ray film1980 in Vietnam

Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

Keywords: Silicosis, diagnosis, workers, silica dust, detection, X-ray film

Target group: decision-makers at Ministries, employers’ organizations, academic institutions

The objective of this project is to identify capacity of national and provincial occupational health workers in diagnosis of silicosis using X-ray film 1980. The project will start in 2004 and funds have been secured by WHO, Vietnam Government, ILO.

Training workshop on interpreting radiographs of pneumoconiosis using ILO classification 2000

Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

Keywords: silicosis, diagnosis, workers, silica dust, detection, X-ray film

Target group: decision-makers at ministries, academic institutions

The objective of this project is to provide and improve knowledge and capacity of national and provincial occupational health workers in diagnosis of silicosis using ILO international classification of radiographs of pneumoconiosis 2000.

The project will start in 2004 and funds have been secured by WHO, Vietnam government, ILO.

Occupational lung disease in Japan, Korea and China

Yasuo Morimoto, University of Occupational and Environmental Health, Japan (yasuom@med.ueh-u.ac.jp)

Completion date is December 2004

Funding has been secured and the project is proceeding as planned. The project will be scientifically supported by Korea-Japan-China joint conference on occupational health.

Evaluation of health effects due to occupational and environmental exposure to asbestos

Neonila Szeszenia-Dabrowska (neonila@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

Keywords: asbestos, cancer risk, environmental exposure, occupational exposure, epidemiology

The aim of the study is to assess the risk of asbestos-related malignancies among persons with diagnosed asbestosis. According to the Act of Parliament passed in 1997, manufacture and sale of asbestos-containing materials is prohibited in Poland since 1998. Thus, problems of asbestos dust level assessment and monitoring of health condition of people employed in the majority of asbestos-processing plants shall become irrelevant. However, the problems of delayed health effects attributable to the past occupational exposures shall continue. Environmental pollution from asbestos waste landfills in the vicinity of asbestos plants and asbestos-cement plants, where considerable concentrations of asbestos fibres in the ambient air are recorded will also continue to be a serious problem.

The project consists of the following tasks:
1. monitoring of incidence of asbestos-related occupational diseases using the National Registry of Occupational Diseases as the basis: the incidence of asbestos-related occupational diseases in Poland has been monitored since 1972. In 2002, 111 cases of asbestosis, 28 cases of lung cancer and 10 cases of pleural mesothelioma were recorded.

2. observation of the cohort composed of workers compensated for asbestosis: the study covered a cohort composed of 907 men and 490 women afflicted by asbestosis, diagnosed in 1970-1997. In all, 421 deaths were registered and causes of death were retrieved for 93.3% of the deceased. Taking into account a cumulative dose of fibers, it was found that a significantly increased mortality from lung cancer and pleural mesothelioma applied to persons exposed to a dose above 25 f-y/ml.

3. observation of the cohort composed of asbestos-processing plant workers: the study revealed elevated mortality from malignant neoplasms, including lung cancer (men: 102 deaths, SMR = 126, 95%CI: 103-153; women: 18 deaths, SMR = 259, 95%CI: 153-409) and pleural mesothelioma (men: 2 deaths, SMR = 510, 95%CI: 62-1842; women: 3 deaths, SMR = 2033, 95%CI: 419-5941).

4. medical examinations (screening) among former workers of asbestos-processing plants: the data obtained will serve as a basis for assessing the morbidity and incidence of asbestos-related diseases among persons occupationally exposed to asbestos dust in asbestos processing plants.

Preliminary results have been obtained. The final data will serve as a basis for assessing the morbidity and incidence of asbestos-related diseases among persons occupationally exposed to asbestos dust in asbestos processing plants.

Two publications were issued:


Ageing of the populations, rapid changes in the work life and economies, increased mobility of people as a consequence of globalization, and several adverse health phenomena in the world put additional pressures on improving the work and working conditions of health care workers world-wide. The work of this Task Force will contribute to the preparation of WHO Guidelines for Health Care Workers.

An International Conference 'Occupational Health for Health Care Workers'

The international meeting held in Tunis in September 2002 had a successful attendance rate with occupational health specialists. The Conference was co-sponsored by WHO and ILO and organized with the Tunisian Medical Society for Occupational Health.

Train-the-trainer course for workers: health and safety in hospitals

George L. Delclos (gdelclos@sph.uth.tmc.edu) and Sarah Felknor, (sfelknor@sph.uth.tmc.edu)
Southwest Centres for Occupational and Environmental Health, University of Texas School of Public Health, USA
Keywords: worker training, risk mapping, injury reporting, train-the-trainer
Target group: This workshop is aimed at any hospital worker with reasonable presentation skills and who has an interest in hospital health and safety.

The objective of this project is to develop a train-the-trainer workshop focused on basic worker training in various aspects of hospital health and safety as well as basic methods of teaching. The program was developed based on sound principles of adult learning theory. Once trained, course attendees would have the expectation of teaching basic concepts to workers that will allow them to recognize hazards in their workplace, participate in workplace safety committees and report workplace injuries.

The workshop has been developed. It is available in Spanish, but could conceivably be translated into other languages. Funding would be needed to cover costs related to travel and lodging for instructors to administer the course.

Assessment of safety climate in hospitals and among health care workers

Sarah Felknor, DrPH and George Delclos, MD, MPH, University of Texas School of Public Health (GDelclos@sph.uth.tmc.edu)
Keywords: healthcare workers, safety climate, work organization
Target group: Healthcare workers in hospitals at all levels: administrative, professional, technical, basic ancillary services. The instrument can also be adapted for use in healthcare settings other than hospitals and other industrial settings.

The objective of this project is to create a survey tool that allows assessment of safety climate in healthcare settings, its determinants and the relationship between safety climate, workplace injuries and compliance with safety practices. Safety climate has been described as the perceptions and expectations that workers have of safety in their workplace. It is an “integrated” variable that reflects the influence of both organization-centred factors as well as worker-centred factors. It has also been shown to influence workplace injuries and compliance with safety practices. Safety climate and its determinants can be assessed using sound survey methodology. This group has previously developed and validated this methodology in public hospitals in Costa Rica. Results from the analysis of this survey methodology have led to the identification of determining workplace factors that can then be intervened on in order to improve safety climate. This improvement, in turn, will hopefully lead to a decrease in workplace injuries and increased compliance with safety practices. The survey has been completed and results are available. However, it is important to note that there is a detailed methodology that accompanies use of this survey instrument. Training in that methodology is essential before using the instrument. Training sessions in methodology and in approach to its statistical analysis and interpretation of results are conducted. The instrument is available in English and Spanish.

Expertise on research methods in healthcare settings

George Delclos, University of Texas, USA (GDelclos@sph.uth.tmc.edu)
Keywords: research methods, healthcare workers
Target group: Researchers in academic institutions with research interests in health and safety aspects of healthcare workers.

The aim of this project is to provide consultation and assistance in the design, conduct and implementation of research projects in occupational health related to healthcare workers. Our emphasis is on applied research that can be of benefit to healthcare institutions in the short term. The faculty at the University of Texas has extensive experience in the conduct
of research related to health and safety in healthcare workers. These faculties are available to other centres to provide consultation and/or assistance in this area.

Research expertise of the faculty is also provided at the Southwest Centres for Occupational and Environmental Health. Funding would be needed to cover costs related to travel and lodging. Collaborative research relationships would be encouraged.

Project start date: January 2001
Project end date: None

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**Training materials for latex allergies and safe use of chemotherapy agents**

Cesary Palczynski (cpalczyn@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

**Keywords:** training materials, latex allergy, chemotherapy agents, health care workers

**Target group:** health care workers

The purpose of the project is to raise awareness among health care workers concerning the health risk of exposure to natural rubber latex and/or chemotherapy agents.

The training materials will cover an introduction to natural rubber latex allergy, signs and symptoms, review of prophylactic approach and dealing with an employee sensitized to latex. Procedures concerning latex sensitized patients will be also presented. In the second part of materials health risk of the exposure to antineoplastic agents, as well as obligatory procedures during preparation and administration of cytostatics, and attendance to a patient will be reviewed. Funding is in place. The project will be completed by 2004.

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**Training course - Occupational health and safety in hospitals**

Manuel Peña European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)

**Keywords:** program administration, surveillance, hospital ergonomics, worker training

**Target group:** hospital administrators, physicians, nurses, hygienists, hazardous waste specialists and epidemiologists, as well as workers with an interest in healthcare worker health and safety.

The aim of this project is to conduct a workshop that provides basic training in fundamental aspects of health and safety in hospitals, which may eventually be modified for use in other non-hospital healthcare settings. The aim of the project is to develop distance learning at a broad audience with an interest in occupational hazards of healthcare workers. Its structure combines something of interest to the whole group at 4 beginning and ending monographic seminars on Health and Safety Program Management in Hospitals, Surveillance, Hospital Ergonomics and Worker Training in Hospital Health and Safety.

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**Training course – Health management**

Manuel Peña European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)

**Keywords:** hospital management, quality assurance, human resources

**Target group:** hospital administrators, physicians, nurses, hazardous waste epidemiologists, as well as professionals with an interest in healthcare management.

The aim of this project is to conduct a workshop that provides continuous training in fundamental aspects of health management in hospitals and non-hospital healthcare centres, as well as to develop distance learning at a broad audience with an interest in Health Systems and Services Development, quality assurance, health economy and human resources management.

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**Preparation of a guideline for prevention of latex allergy in health care workers**

Xaver Baur, Ordinariat und Zentralinstitut für Arbeitsmedizin, Hamburg, Germany (baur@uke.uni-hamburg.de)

**Keywords:** latex allergy, occupational asthma, contact dermatitis, prevention, inventory of good medical practice

**Target group:** In the first step, primarily European stakeholders, scientists in occupational health, state authorities for worker protection, with a focus on medical doctors in occupational health.

The aim of this project is to organize a workshop and prepare a guideline for the prevention of latex allergy in health care workers.

There is the high prevalence (4-17%) of sensitization among health care workers, resulting in a large socio-economical problem for the society and affected individuals. Respiratory latex allergies result from the inhalation of powder released when gloves are put on or taken off. A main step to prevent latex sensitization is to reduce the exposure to powdered high-allergen latex gloves. The guideline will cover the current medical knowledge on causes, prevalence/incidence, dose-response relations, and risk factors of work-related latex allergy. A workshop is planned where effects of established interventions in the use of powdered high-allergen latex gloves will be presented and discussed. Regulations of work and health protection in the different countries have to be taken into consideration. A code of good medical practice involving risk assessment in the workplace, advice for reduction of health risks due to latex gloves, improved medical surveillance, health promotion, and examples illustrating concrete steps will be given.

A German campaign of a preventive approach to latex allergy among health care workers is currently evaluated.
Other German centres are collaborating on the project. Interested centres in other countries are encouraged to contact the project team for possible collaboration.

**Various guidelines for health care workers**

Raymond Sinclair (RSinclair@cdc.gov), NIOSH, USA

The objective of the first project is to contribute to the development of WHO Guidelines regarding prevention of musculoskeletal injuries among nursing home workers and also to the development of WHO Guidelines regarding prevention of needlestick injuries.

One objective of the second project is to contribute two documents on hazards to health care workers, one pertaining to workers in hospitals and one pertaining to home health care workers (in preparation).

Another objective of this project is to contribute to development of WHO Guidelines on emerging infectious diseases and bioterrorism risks to health care workers and also to contribute to information obtained from the National Exposure at Work (NEWS) survey of hazardous exposures to health care workers.

Funding is in place. The project will be completed by December 2005.

**Demonstrating and promoting best practices in reducing medical waste to avoid environmental releases of dioxins and mercury from health care practice**

Peter Orris, MD, MPH, Great Lakes Centres For Environmental and Occupational Safety and Health, University of Illinois at Chicago School of Public Health, USA (porris@uic.edu)

*Keywords*: Health Care, Waste, Worker, Safety, Environment, Pollution

The Proposed Project is a Global Project to demonstrate best practices in the management of health care wastes with the intent of minimizing and eliminating releases of dioxins and mercury to the environment, and also to demonstrate ways of overcoming barriers to their adoption.

The project under development will be implemented by the United Nations Development Programme (UNDP) and will be executed by WHO (Protection of the Human Environment). The international NGO Coalition, Health Care without Harm (HCWH), has been an active partner in project planning and will continue as a WHO partner in project execution. The governments of the seven participating countries have endorsed the project: Argentina, India, Lebanon, Philippines, Poland, Senegal and Viet Nam. In each participating country, the Project will demonstrate best practices in the management of health care wastes in a number of countries and regions to minimize dioxin and mercury releases; and it will establish national and/or regional programs in participating countries to train experts who can then replicate the program at other hospitals and facilities. Under this Project, best practices will include: Techniques for waste minimization; Segregation of infectious wastes from ordinary wastes; Selection and utilization of appropriate waste treatment approaches. It will as well address the health and safety issues of the health care and waste workers handling of waste including sharps, infectious materials, and toxins. The project is currently in the intergovernmental consultative planning phase.

**Support of a WHO guidance document for the protection of healthcare workers**

George Delclos, MD, MPH and Sarah Felknor, DrPH, University of Texas School of Public Health (GDelclos@sph.uth.tmc.edu) and Maritza Tenassee, M.D., PAHO (tenassm@paho.org).

This task is based on the outcome of discussions of Task Force 5 at the Network of WHO Collaborating Centres Meeting, held in Iguazu Falls, Brazil in February 2003, regarding a request from WHO for assistance in the development of guidelines for protecting health care workers. After much discussion on the role of WHO guidelines and the intended audience(s) of such a document, it was agreed that the following steps would be taken in the 2003-2004 time period and that the University of Texas would coordinate these activities in collaboration with PAHO:

- Development of an inventory and compilation of existing guidance documents globally, pertaining to occupational hazards of healthcare workers. This will include a survey of WHO Collaborating Centers and is expected to be completed by the end of 2003.

- White papers will be solicited and scientific referees will be identified to help organize the documents by topic, audience and intended use. This activity will be conducted in late 2003 and early 2004.

- A subgroup of Task Force 5 will reconvene to review the materials and make recommendations to further develop the documents. It is expected that this meeting will take place in early 2004.

- WHO will commission the final guidance documents based on the input and materials from Task Force 5.

*Project end date: January 2005  
Project start date: February 2003*

**Sustainable hospitals**

Margaret Quinn, Sc.D., Department of Work Environment, University of Massachusetts at Lowell (Margaret_Quinn@uml.edu)

*Keywords*: demonstration project, substitutes, occupational and environmental exposures

*Target group*: hospital managers, occupational health professionals, regulatory authorities
The objective of this demonstration project is to present a model for identifying alternative substances for hospital use to reduce occupational and environmental exposures generated by hospitals.

**Protecting hospital workers from chemical hazards**

Juan Alcaino Lara, Instituto de Salud Publica de Chile, Chile (jalcaino@ispch.cl)

*Keywords:* air sampling, prevention, chemical substances, sterilization, disinfecting

*Target group:* public hospital workers exposed to chemical substances (6000 people approximately).

The purpose of this project is to control chemical agents commonly used in public hospitals to prevent accidents and diseases due to them.

Even though, until 1995, public workers had workplace exposure accident and disease insurance, it didn’t include risk prevention activities. On March 1, 1995, these workers were included in the regulation Nº 16744, dictated in 1964 that established an obligatory social insurance against working accident and diseases, which included risk prevention activities. Until that time, there was almost no knowledge about working conditions of public workers, and especially those that face chemical substances.

The focus areas of the present project are:

1. Air Sampling of Ethylene Oxide (sterilization facilities), formaldehyde (mortuaries-pathology anatomy and hemodialysis units), glutaraldehyde (disinfecting units), anesthetic gases (operating rooms) and organic solvents (clinic laboratories) to check whether the concentrations are under the exposure limits. All the samples were analysed at Occupational Laboratory of the Institute of Public Health from Chile.
2. Establishment of allowable limits of Ethylene Oxide residues on medical devices and formaldehyde residues on sets for hemodialysis (dialyzer).
3. To define air sampling criteria and strategies to have representative samples considering the different limits and the process involved.
4. To develop checklists to verify the fulfilment of working conditions.
5. To develop and spread checklists related to personal protection devices necessary to wear.
6. To propose protection and prevention measures for workers exposed to chemical substances indicated above.

A sample of 46 hospitals in the country has been taken for the evaluation of ethylene oxide, formaldehyde, glutaraldehyde, anesthetic gases and organic solvents.

The evaluation not only took into account air samples, but also other workplace conditions such as ventilation systems, procedure manuals, protection and prevention measures for workers, wearing and caring of personal protection devices (i.e. gloves, masks), training and labelling and posting of hazards.

Significant achievements have been made:

- Improvements in Sterilization Facilities: Separated loading and unloading rooms, manuals and instructions writing, ventilation system improvements. A checklist was also used to verify some workplace conditions. Aeration times were modified to meet regulation. FDA residual levels were adopted as a reference.
- Procedures of dialyzer cleaning have improved, with which formaldehyde air concentrations were reduced.
- Ventilation systems are being implemented in Anatomy Pathology Units.
- Sampling strategies were implemented according to both work processes and permissible limits for each substance.
- The project has advanced from the detection stage to the evaluation stage. The prevention stage is being implemented.

**Assessment of exposure to antineoplastic agents in pharmacy and hospital personnel**

Dr. Rudi Schierl, Institute and Outpatient Clinic for Occupational and Environmental Medicine, University of Munich, Germany (rudi.schierl@arbeits.med.uni-muenchen.de)

*Keywords:* cytostatic drugs, biological monitoring, working conditions

*Target group:* Pharmacy technicians, pharmacists, people involved in the transport of antineoplastic agents

Description of safe working conditions related to internal exposure of substances handled in centralised cytostatic drug preparation units in hospitals.

There is a risk of adverse health effects for personnel with occupational exposure to antineoplastic agents. The study is aiming at identification, quantification and evaluation of potential health hazards of occupationally exposed workers in pharmaceutical and oncology departments with central processing units for drug preparation. Biomonitoring for the leading substances is performed in a large number of pharmacy technicians and pharmacists in hospital pharmacies and oncological departments. An environmental monitoring strategy is developed in order to detect contamination and attempt to improve hygiene during work.

Progress is being made continuously and according to the work plan.

Names of other Centres collaborating: 14 hospital pharmacies are currently partners in the collaborative study.

Product: Evidence-based recommendation to avoid / reduce internal exposure

**Research project in Cuba to control exposure to anaesthetic gases in operating rooms**
The objective of this project is to assess pollution and health risks from anaesthetic gases in subjects working in operating rooms in Cuba. The project aims at controlling anaesthetic pollution in Cuban operating rooms, with the following targets:

- Exchange of scientific and methodological documentation and supply of technical instrumentation and analytical methods for the Toxicology and Industrial Hygiene laboratory
- Environmental and biological monitoring in operating rooms (monitoring of anaesthetics such as Halothane and N₂O)
- Study of Neurobehavioral performance prior to and after work in operating rooms
- Specific training activities on the above topics.

The following has been accomplished thus far:

- Exchange of scientific and methodological documentation
- Supply of technical instrumentation and analytical methods for the Toxicology and Industrial Hygiene laboratory (i.e. donation by an Italian Company of instruments to control anaesthetic exposure, such as thermal desorption unit, head space autosampler and gas chromatographs equipped with flame ionization and electron capture detectors)
- Training course on the use of the apparatus, held in Milan
- Identification of suitable tools for the detection of possible changes in neurobehavioral performance (by means of BARS “Behavioural Assessment and Research System” in its Spanish version)

The project is preliminary to:

1. cleaning up the operating rooms performed at sustainable cost
2. healthiness of the work environment and workers.

Phases 1 and 2 should be implemented within the next work plan (2006-2010).

Project start date: January 2000
Project end date: December 2007

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**Progetto di Ricerca per il controllo dell’esposizione a gas anestetici nelle sale operatorie cubane**

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Alberto González Salso, Heliodora Díaz Padron, Maria Esther Linares Fernandez (linares@infomed.sld.cu), Instituto Nacional de Salud de Los Trabajadores, La Habana, Cuba

Parole chiave: gas anestetici, monitoraggio ambientale e biologico, sale operatorie, studi neurocomportamentali

Utenza destinatar: personale sanitario delle sale operatorie cubane

Scopo del progetto: Valutazione dell’inquinamento e del rischio per la salute in soggetti esposti a gas anestetici nelle sale operatorie cubane. Il progetto ha lo scopo di controllare l’inquinamento da gas anestetici nelle sale operatorie cubane ed è articolato nelle seguenti fasi:

- Scambio di documentazione scientifica e metodologica e donazione di strumentazione tecnica e metodi analitici per la Tossicologia e il Laboratorio di Igiene Industriale
- Monitoraggio ambientale e biologico nelle sale operatorie (monitoraggio di anestetici quali Alotano e N₂O)
- Studio delle performance neurocomportamentali del personale sanitario nelle sale operatorie
- Attività di formazione specifiche e mirate sull’argomento

Avanzamento:

- Scambio di documentazione scientifica e metodologica
- Donazione di strumentazione tecnica e metodi analitici per il Laboratorio di Tossicologia e Igiene Industriale (i.e. donazione da parte di una Società Italiana di strumenti per il controllo dell’esposizione a gas anestetici, come per esempio desorbitore termico autocampionatore per spazio di testa e gaschromatografia, forniti di rilevatore a ionizzazione di fiamma e a cattura di elettroni)
- Attività di formazione all’uso della strumentazione donata, organizzata a Milano
- Identificazione di strumenti per lo studio delle performance neurocomportamentali (per esempio BARS “Behavioral Assessment and Research System” nella versione in lingua spagnola)

Il progetto è propedeutico a:

1. bonifica delle sale operatorie a costi sostenibili
2. successiva verifica della salubrità degli ambienti e delle condizioni dei lavoratori.

Si prevede di completare le fasi 1 e 2 del progetto nel prossimo quinquennio (2006-2010).

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**The management of liquid wastes in district hospitals of Benin**

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Benjamin Fayomi, University Laboratory of Health at the Work and Environment (LUSTE) (bfayomi@intnet.bj)

Keywords: biological risk, liquid waste, hospital environment

Target: Health professionals, decision makers, NGOs

This study aims at analysing the mechanism of liquid waste management in the peripheral hospitals. The consequences for the environment due to solid waste such as also liquids constitute serious dangers in hospital environments. Medical groups constitute important producers of waste, in particular biomedical waste whose management constitutes a major health and environmental problem.

Bad management of liquid waste can be the source of several endemic and epidemic diseases. Our objective is to describe the management of liquid waste produced in two peripheral hospitals in Benin to spread the awareness by decision-makers and health professionals. Indeed, the chemicals used in various services, blood, the faeces and the urine of certain patients of contagious diseases must be considered as potentially dangerous for our health and the environment. This universal principle is not currently practiced in Benin. The Ministry of Public health and the Béninoise Agency for the Environment are our collaborators.

La gestion des déchets liquides dans les hôpitaux de district au Bénin

Benjamin Fayomi, Laboratoire Universitaire de Santé au Travail et Environnement (LUSTE) (bfayomi@intnet.bj)

Mots clés : Risque biologique, déchets liquides, milieu hospitalier

Cible ; Professionnel de santé, décideurs, ONG

Cette étude vise à analyser le mécanisme de gestion des déchets liquides dans les hôpitaux périphériques.

Les atteintes à l’environnement par les déchets solides comme liquides constituent des dangers graves en milieu hospitalier. Les formations sanitaires sont un groupe non négligeable de producteur de déchets, en particulier des déchets biomédicaux dont la gestion constitue un problème majeur de santé et d'environnement.

La mauvaise gestion des déchets liquides peut être source de plusieurs maladies à caractères endémiques et épidémiques. Notre objectif est de décrire la gestion des déchets liquides produits dans deux hôpitaux périphériques au Bénin. Ceci pour éveiller la conscience des décideurs et des professionnels de santé. En effet, les produits chimiques utilisés dans les différents services, le sang, les matières fécales et les urines de certains patients atteints de maladies contagieuses doivent être considérées comme potentiellement dangereux pour notre santé et notre environnement. Ce principe universel n'est pas en pratique courante au Bénin.

Le Ministère de la Santé Publique et l'Agence Béninoise pour l'Environnement sont nos collaborateurs.

Gaining support of the decision-makers for improving working conditions in the health care sector

Maritza Tennessee, PAHO (tennassm@paho.org)

A document on the Healthcare Workers Situation in Latin America and the Caribbean Region is near completion and is already available as a draft. This document aims to help PAHO's decision-making on interventions. As the shortage of local data aggravates the unawareness of healthcare workers suffering, the project plans to work in both technical and political approaches, by facilitating advocacy actions as well as by offering technical cooperation to the Members States' assessment and intervention on their situation.

The work plan is as follows:

2002: to publish a preliminary analysis on Healthcare Workers Situation in Latin America and the Caribbean Region, based on secondary sources of data.

2003: to prepare a pilot proposal to be conducted in some countries, to provide information about the needs and differences among the health care settings in LAC, as well as the development of assessment instruments, to prepare a document for the Planning Subcommittee.

2004: to begin the implementation of the proposal in the countries, to submit the document to the Planning Subcommittee and Executive Committee and to prepare the document and submit it to the Directing Council.

Funding is being mobilized in PAHO. This initiative uses the Healthy Workplace Approach and it is a responsibility of PAHO's Division of Health and Environment (HEP) in collaboration with HSP (Health Systems and Services Development), HPP (Health Promotion and Protection), HVP (Vaccines and Immunizations) and HCP (Disease Prevention and Control) Divisions.

Health care workers’ occupational risks

Prof. Dr Jovanka Karadzinska Bislimovska, Institute of Occupational Medicine, Republic of Macedonia (bislimovska_j@hotmail.com)

Keywords: occupational risk, health workers, infectious agents, stress at workplace, preventive measures

Target group: health care workers, state authorities for worker protection, scientists in occupational health, medical doctors in occupational health

The objective of this project is to assess specific occupational health risks from infective agents (HIV, Hepatitis) and stress at work and to prepare a proposal for guidelines on prevention.
Biological infectious hazards and psychogenic stress as specific occupational risks derive from the character, type of working process and conditions of work in health care and are closely connected. Data from studies on the Republic of Macedonia in the last 10 years in different profiles of health workers occupationally exposed to biological, infectious agents indicate high prevalence of Hepatitis B (26.6%) and present biological markers such as HBsAg (19.2%). Numerous stress factors of working environment are manifested as emotional and behavioural disorders and increase in the risk of psychosomatic diseases.

The aims of this project are:
- Establishing the criteria for assessment of specific occupational risk of infectious and psychosomatic character
- Definition of highly risky segments and profiles of workers in health care
- Preparation of a draft guidelines on prevention of infective diseases (HIV/Hepatitis) and stress at work

In the methodology an epidemiological cross sectional study will be conducted with an exposed and a control group examination of health care workers. A structural questionnaire has been designed on infective agents and Maslach Burnout Inventory (MBI) on stress factors at work, medical examinations and laboratory analysis for markers to infectious agents (hepatitis and HIV) as well as psychological tests with Cornel index, Life style test, PIE questionnaire will be used. The practical outcome of this project will be the preparation of a proposal-guideline on prevention (including concrete preventive activities and procedures) to specific occupation health hazards in health care workers.

The methodology for this project (questionnaire and procedures) has already been prepared. A pilot study of 50 health care workers with different profiles has been conducted. Preliminary results are available.

Guidance on prevention and control of occupational hazards for health care workers
Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

Target Group: Health care workers.

The purpose is to analyze the occupational hazards and critical control points of health sectors and to improve the control and prevention.

Planning and the preparatory work have been initiated.

Funds have been secured by the Ministry of Sciences and Technology for 2003-2005

Assessment of working conditions and health of health care workers in public and private healthcare facilities in Vietnam
Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

Keywords: working condition, health care, health care workers, facility, public, private

Target group: decision-makers at Ministries, academic institutions, health care facilities

The purpose is to analyze the occupational hazards, implementation of OSH policies in health care facilities and awareness of health care workers on OSH. The project will start in 2004 and funds have been secured by WHO, Vietnam Government.

Development of OSH guideline for health care workers in Vietnam
Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

Keywords: working condition, health care, health care workers, facility, public, private

Target group: decision-makers at Ministries, academic institutions, health care facilities

The purpose is to improve control and prevention of occupational hazards for health workers.

The project will start in 2004 and funds have been secured by WHO, Vietnam Government.

Preventing Needle Stick Injuries and Occupational Exposure to Bloodborne Pathogens
Susan Wilburn (wilburn@icn.ch), International Council of Nurses
Gerry Eijkemans (eijkemansg@who.int)

Keywords: Needlesticks, sharps injuries, healthcare workers, injection safety, HIV/AIDS

Target group: Nurses associations, ministries of health, occupational health professionals

In September 2003, the WHO and the International Council of Nurses (ICN) began a pilot project in three countries including South Africa, Tanzania and Vietnam to prevent HIV and hepatitis infection from occupational exposure to bloodborne pathogens. WHO and ICN joined together with the national nurses’ associations, occupational health professionals, and ministries of health in Tanzania, South Africa and Vietnam, and with WHO Collaborating Centres in South Africa and Vietnam. The goal of the project is to reduce needle stick injuries and transmission of hepatitis and HIV to health care workers. Secondary process measures are to increase reporting of needle stick injuries, improve adequate followup of injured workers including post exposure prophylaxis (PEP), and utilize the data regarding exposures for prevention. The WHO Injection Safety Tool Kit assembled by the Safe Injection Global Network (SIGN) (see www.injectionsafety.org) is being utilized for initial assessment and as a programmatic resource. After one year, an evaluation of the pilot project will determine effectiveness of and need for wider dissemination of the tools and strategies.
Project start date: September 2003
Project end date: September 2005
The attitudes of occupational medicine doctors towards workplace health promotion
Elzbieta Korzeniowska (whpp@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

The research has been carried out in order to analyse the attitudes of occupational medicine doctors and their knowledge about modern concept of workplace health promotion, as defined in Ottawa Charter (1986) and Luxembourg Declaration on Workplace Health Promotion in EU (1997). The results of the survey show that most of the occupational medicine doctors do not implement workplace health promotion activities according to the modern concept. They are active in health education and medical prophylactics. There is a need to prepare this group more comprehensively to be able to initiate and coordinate setting - oriented projects and in that manner to enhance their activity in that field.

Project start date: January 2002
Project end date: December 2002

Development of healthy workplace initiatives in selected countries: Methodology of workplace health promotion programmes for elderly employees
Elzbieta Korzeniowska (whpp@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

The first part of the project has been finished. A research concerning health determinants and health behaviours in the population of employees over 45 has been conducted this year. An interview questionnaire was used with 1134 employees of more than 250 Polish companies that employ more that 100 employees. The outcomes of the research will form a basis for developing methodology of workplace health promotion programmes for elderly employees.

Project start date: March 2001
Project end date: March 2003

Psychosocial factors of health behaviours as a basis for educational strategy
Krzysztof Puchalski (whpp@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

The project has been completed in 2003

Health Promotion Tool box electronic bulletin board
Alberto Zucconi, Istituto dell’Approccio Centrato sulla Persona (IACP), Italy (azucconi@iacp.it)

Keywords: health promotion tools, health promotion resources, health promotion, electronic bulletin

Target group: members of Task Forces 6 and 12 and group 3 C.C. WHO EURO (Integrated workplace health management and ageing) and other authorized stakeholders

The objective of this project is to make various resources available worldwide for the effectiveness of health promotion programmes. It aims to share information about some useful tools that will facilitate the creation of effective and efficient health promotion activities: articles, research, assessment tools, researchers network, cost/benefit studies, best practices, books, videos, training packages, links with organizations, data banks etc.

WHO International and WHO EURO are collaborating on the project. The technical structure is complete. The Bulletin Board is now operational.

Organization of an European Conference on “Integrated Policies on Occupational and Environmental Safety and Health. SALUS LABORIS fair.”
Manuel Peña, European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)

Keywords: Congress, discussion forums, exhibitors, occupational and environmental protection, safety equipment.
Target group: Human resources managers, interdisciplinary professionals, occupational and environmental health staff of enterprises.

The international meeting taking place in Madrid in October 2003 is proposed to create discussion forums, with the participation and cooperation of employers, employees and interdisciplinary professionals, pretending to become a multidisciplinary approach for policy makers, branch organizations and enterprises to promote health at the workplace and to minimize its harmful impacts on the environment.

The European Agency for Safety and Health at Work collaborates with this project.

Development of healthy workplace initiatives in selected countries
Hisaw Ogawa, WPRO (OGAWAH@wpro.who.int)
Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

A WHO regional initiative on healthy workplaces commenced in 1997 in Shanghai China, and now is underway in a number of other countries including Republic of Korea, Viet Nam, Malaysia, Singapore, Lao People's Democratic Republic, Mongolia Fiji, Tonga and Papua New Guinea. A regional guideline for the development of healthy workplaces was prepared in 1999. A meeting of the above countries was held in Kuala Lumpur in September 2002 to review the progress in implementation of the initiative. Considerable progress has been made in all countries in implementing this initiative in all countries, and a number of priority areas for action have been identified. Two training courses on health promotion at the workplaces were organized by the Beijing Centres in 2002.

The project is funded by WHO/WPRO. It is scheduled to be completed by 2005.

Health promotion programmes for selected groups in Central America
Timo Partanen (timopartan@yahoo.com) and Catharina Wesseling (cwesseli@una.ac.cr), IRET-UNA; Costa Rica

National Institute for Working Life (Sweden); National Institute of Public Health (Sweden); Central American Universities and Institutes for Social Security; Central American Integration System; PAHO

Keywords: Central America, health promotion, safety promotion, prevention, social context

Target groups: workers, their families and communities; target industries; community, district and national health and labour authorities; trade unions; health care providers.

The objective of this project is the promotion of worker and community health in priority populations in Central America.

Centres Involved in Project: IRET-UNA; National Institute for Working Life (Sweden); National Institute of Public Health (Sweden); Central American Universities and Institutes for Social Security; Central American Integration System

Health promotion programs are being designed to be undertaken in three phases: (i) assessment of feasibility; (ii) implementation of interventions; and (iii) evaluation. Phase (i) will be implemented in selected Central American target working/residential communities. Priority populations are construction workers (safety promotion only); sugarcane workers; hospital workers; workers in hotels and restaurants; migrant coffee workers; and urban informal-sector communities. Rapid feasibility assessment will be followed by intervention programs and short- and long-term outcome and process evaluation. Feasibility assessment identifies priority hazards and prospects of successful launching of interventions, based on motivation and needs of workers and community members, and on the social context and resources. Interventions take the form of workplace and community health promotion and will be defined with the workers, community members and the social context, within the constraints of available resources. Outcome and process are evaluated at predefined intervals.

Products: 2 scientific articles, a project protocol, a reviewed WHO draft.

Project start date: 2003
Project end date: Continuous

Promoción de la salud en grupos selectos en América Central

Timo Partanen (timopartan@yahoo.com) & Catharina Wesseling (cwesseli@una.ac.cr), IRET-UNA;

Instituto Nacional de la Vida Laboral (Suecia); Instituto Nacional de la Salud Pública (Suecia); Sistema Centroamericana de Integración (SCI); universidades y instituciones de seguridad social centroamericanas; PAHO

Palabras claves: América Central, promoción de la salud, promoción de la seguridad; prevención; contexto social

Grupos meta: Trabajadores, sus familias y comunidades, industrias, autoridades locales y nacionales de salud y de trabajo, sindicatos, y trabajadores de la salud.

Objetivo del proyecto: Promoción de la salud de los trabajadores y de las comunidades en poblaciones prioritarias en América Central.

Se están diseñando programas de promoción de la salud en 3 fases: (i) evaluación de la factibilidad; (ii) implementación de las intervenciones; y (iii) evaluación del proceso y del impacto. La fase (i) será implementada en grupos selectos de trabajadores centroamericanos y sus comunidades. Poblaciones prioritarias son trabajadores de la construcción (promoción de la seguridad); trabajadores en el cultivo de la caña; trabajadores de hospitales; trabajadores en hoteles y restaurantes; trabajadores migrantes en el sector cafetalero; y comunidades urbanas del sector informal. Métodos rápidos de evaluación de factibilidad serán seguidos por programas de intervención y por evaluaciones del proceso y del impacto. La evaluación de factibilidad identifica los factores importantes de riesgo y las intervenciones factibles, con base en la motivación y las necesidades de los trabajadores y de los miembros de las comunidades así como en el contexto y los
Healthy workplace programme in Vietnam
Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

**Keywords:** health promotion, SMEs, agriculture, village enterprises, joint-venture, foreign investment enterprises

**Target group:** decision-makers at ministries, academic institutions, medical university, trade union, Co-operative Union, Farmer Union

The project objective is to improve workers' health, help workers to keep control over their health, and reduce annual incidences with the help of WHO, the Ministry of Health, and in close collaboration with National Institute of Occupational and Environmental Health, Hanoi Medical University, who developed the project "Health promotion at workplaces" in small and medium sized enterprises following the regional guidelines for the development of healthy workplaces of WHO combining with the WISE method of ILO and enforcement of occupational health and safety laws.

Steps in developing the project and its detailed results were published by WHO as a case study document "evaluation of a 1- year implementation of the regional guidelines for healthy workplaces in small and medium-scale enterprises in Ngo Quyen district, haiphong city - Healthy settings - Case study Documents Series, No1".

In 2000-2001, the project was expanded to 30 new enterprises. It established a health promotion model for workers in village enterprises and for agricultural workers.

Since 2002, the project has been expended to SMEs over the country and health promotion activities have been initiated for workers in the agricultural sector, informal sector (village enterprises), large firms, join-ventures and foreign capital enterprises.

**Products:** Training materials on HPW for trainers, health workers, employers, employees; leaflets, handbooks and posters on HPW, Video tape recording achievements of the programme; CD-Rom on training materials on HPW.

Funds have been secured by WHO, Vietnam Government, Enterprises.

Quality Assurance for Occupational Health Services
David Escanilla, Instituto de Salud Publica de Chile, Chile (descanil@ispch.cl)

**Keywords:** quality assurance, interlaboratory comparison programme, occupational health services.

**Target group:** workers expose to noise, radiation and chemical risk.

The objective of this project is to promote and improve quality of services related to occupational health.

As the National Reference Laboratory, the Department of Occupational Health of Instituto de Salud Pública de Chile has been developing a quality assurance project for labour toxicology laboratories, audiometry centres and personal dose metric laboratories. The aim of these programmes is to collaborate on quality improvement of the results reported by such organisations in order to improve the health and safety of workers. Those laboratories include public and private organisations that provide services to a target population of one million workers from mining, industries, transportation, building and health care institutions.

The project is currently focusing on:

1. External evaluation programme for toxicology laboratories on metals as As, Hg, and Pb
2. External evaluation of laboratories that examine exposure to ionising radiation.

The project scope covers 20 labour toxicology laboratories, 136 audiometric laboratories and 5 personal dosimetric covering total facilities in fields all over the country.

The following progress has been realized so far:

1. The Department has been running an External Evaluation Programme since 1998 for labour toxicology laboratories dealing with metals as As, Hg, and Pb. This programme needs to be enlarged to cover other chemical risks as solvents, silica, and pesticides.
2. The Department also began the implementation of a programme to evaluate the quality of silent cabin, audiometer calibration, and operator competence of the audiometric centres in 1998. Until now, only a third of the centres has been evaluated. The programme needs to be enhanced to cover the entire country. In order to do so, a regional network of evaluation bodies needs to be trained and registered as local evaluators.
3. During the year 2001 a first round robin of control films, as a pilot project, was sent to the five laboratories authorized to conduct personal dose metric for exposed workers in X-rays labs, oncology centres, and other related facilities. The control films were prepared by the reference laboratory at the Chilean Commission for Atomic Energy (CCHEN) which is working in a collaborative project with the Department.
The National System of Health Services and Chilean Commission for Atomic Energy (CCHEN) are collaborating on the project. An overview of the “state of the art” methods of analysis and the performance of the organizations that gives these services on occupational health care in the country is available.

**Operationalizing the regional strategy with three country models. Regional strategy of healthy workplaces in the countries of the Andean region of Latin America**

Julietta Rodríguez Guzmán, PAHO–FISO, Colombia (jrodriguezg@fiso-web.org)

*Keywords*: Occupational Health promotion tool kit, Andean countries

*Target group*: Decision makers, planners and managers, and occupational health staff in Departments of Health, Departments of Labor, enterprises and Trade Unions

The purpose of the project is to raise awareness among decision makers in Departments of Health, Departments of Labor, Trade Unions of the importance of ensuring the health of workers and the necessity of recognition of OH promotion as a country priority.

The country public policies in health promotion should include the strategy of occupational health promotion at the workplace. To achieve this, a Health Promotion tool kit that has been designed and is being validated in Central America. It will be adapted and used in the Andean countries, prioritizing activities at the national level, providing early signals for problems emerging in the work life, and giving evidence of achievements of health promotion.

The OH Promotion Tool Kit is being prepared and soon validated to be disseminated to other Latin American countries, available in Spanish.

Fundación Iberoamericana de Seguridad y Salud Ocupacional FISO, Pan American Health Organization PAHO HQ, US, is involved in the project. The project will be completed in December 2003. Funding is to be placed in 2003.

**Analysis of examples of good practice of smoke-free enterprise policies**

Elzbieta Korzeniowska (whpp@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

This project has been developed in order to identify and describe the models of good practice of smoke-free workplaces policy. The data gathered will be a basis for preparation of guidelines for employers on tobacco policy at enterprise. Funding is in place.

*Project start date*: January 2004

*Project end date*: December 2004

**Development of healthy workplace initiatives in selected countries: Analysis of trends of workplace health promotion in Polish enterprises and supporting network strategies**

Krzysztof Puchalski (whpp@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

As a part of analysis of supporting network strategies a research in the occupational physicians in Poland has been conducted. The questionnaire concerned their knowledge, resources and opportunities for promoting workplace health in Polish enterprises. The outcomes will be analysed and used for developing training strategies for OSH professional and occupational physicians. Funding is in place. The project will be completed by 2005.

*Project end date*: 2005

**Guidance on Workplace Health Promotion: Principles and Practices**

Tom Cox, Institute of Work, Health and Organizations, UK (tom.cox@nottingham.ac.uk)

*Keywords*: brochure, guidelines, workplace health promotion

*Target group*: decision-makers, educators, health authorities, occupational health and safety professionals, health professionals.

*Keywords*: brochure, guidelines, workplace health promotion

The aim of the project is to put an emphasis on health promotion at the workplace through the production of guidelines emphasizing its main principles and how they can be implemented efficiently at the workplace through a number of different practices. A brochure will be produced that will cover an introduction to main workplace health promotion principles, their importance, and practices through which they can be implemented at the workplace. A first draft of the brochure has been prepared and is now under review.

*Project start date*: April 2003

*Project end date*: The project will be completed by December 2003.

**Health Promotion Programme for Prevention of Work-related Cardiovascular Disease**

Kang-Sook Lee, Catholic Industrial Medical Centre, Korea (leekangs@catholic.ac.kr)

*Keywords*: Health promotion programme, cardiovascular disease
Target group: Director, manager, team leader and occupational health staff of companies
The purpose of the project is to develop and implement a health promotion programme. The project will include smoking cessation, regular exercise, alcohol restriction and stress management. It has already been started among Subway workers in Seoul.

The Korean Occupational Safety and Health Agency (KOSHA) is collaborating on the project.

Health promotion program for prevention of work-related cardiovascular disease
Manuel Peña, European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)
Keywords: Health promotion program, cardiovascular disease
Target group: Director, manager, team leader and occupational health staff of companies
The purpose of the project is to develop and implement a health promotion programme. The project will include smoking cessation, regular exercise, alcohol restriction and stress management.

Development of an effective model for a public campaign on health promotion focused on teenagers and young adults
Alberto Zucconi, Istituto dell'Approccio Centrato sulla Persona (IACP), Italy (azucconi@iacp.it)
Keywords: public campaign, teenagers, effective model, health promotion
Target group: Teenagers and young adults
The objective of this project is to develop an effective model for public campaign on health promotion focused on teenagers and young adults. It aims to identify some of the common denominators of successful projects and the common denominators of failures to design the project and to run a pilot project. Literature search, interviews with experts, visits on some projects and selection of target groups have already been done.

The University of Mediterraneo Consortium is collaborating on the project. It is scheduled to be completed by June 2005.

Translation to Spanish language and dissemination of WHO documents: "Workplace health in the public health perspective. Good Practice in health, environment and social capital management in enterprises (GP HESME)."
Manuel Peña, European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)
Keywords: occupational health, environmental health, safety management, health promotion, workplace.
Target group: Director, human resources managers, interdisciplinary professionals, team leader and occupational health staff of enterprises.

The purpose of the project is the translation to Spanish language and dissemination of the WHO document GP HESME in enterprises, to make a decision on the possibility of the model use as an integrated approach to health promotion of the working population with the active participation of employees, employers, as well as different state, public and scientific structures associated with this problem.

Pilot introduction of the Programme "Good Practice in health, environment and social capital management in enterprises" (GP HESME) in the Republic of Bashkortostan
Akat B.Bakirov (bakirov@anrb.ru) and Nadezhda I. Simonova (airat@anrb.ru), Ufa Research Institute of Occupational Health and Human Ecology, Republic of Bashkortostan, Russia
Keywords: occupational health, workplace, health promotion and management

The purpose of the project is the adaptation of the European model of health, environment and social capital management in enterprises tested in an oil-gas extracting enterprise to make a decision on the possibility of the model use in enterprises of various economic branches.

The main distinguishing feature of the management model is an integrated approach to health promotion of the working population with the active participation of an employee, employer, as well as different state, public and scientific structures associated with this problem. The major condition of the model introduction is participation of the employer in promotion of health, lifestyle, favourable work conditions and healthy environment including policy that is being implemented by the top manager and his colleagues. The aim is to change traditional ideas about determinants of the working population health. The project consists of analysis and evaluation not only of factors of work environment and work process but socioeconomic, sociopsychologic and sociohygienic factors determining life quality and human health.

Pilot investigations into the introduction of the European model of health, environment and safety management in enterprises, applied in the “Yuzharlanneft” oil extracting enterprise affiliated to the “Bashneft” joint stock company, have been carried out. The results obtained have been discussed at the International working meeting with the participation of the WHO Regional Adviser in Occupational Health Mr.Baranski, Director of the Moscow Institute of Occupational Health academician N.Izmerov as well as representatives of the republic of Belarussia, Kazakhstan and various regions of Russia.
The Meeting has adopted the resolution approving results of the investigation and experience of the "Yuzharlanneft" enterprise introducing the European model.

The proceedings of the International working meeting dedicated to the problem of health, environment and social capital management in enterprises have been published. The Moscow Institute of Occupational Health affiliated to RAMS is collaborator on the project.

*Project start date: January 2003
Project completed: December 2006*

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**Training and public communication in the application of ergonomics in industry**

Kenneth R. Laughery (laugher@ruf.rice.edu), IEA STP Committee, with TC ODAM and TC Standards

**Keywords:** Training, health promotion, ergonomics, workplace improvement, management systems

**Target group:** managers, worker representatives, occupational safety and health practitioners in industrial organizations and instructors in educational institutions

The purpose of the project is to provide information useful for training in applying ergonomics within various health promotion programs. The outcome of the project will include sample information materials useful for direct application of ergonomics in industry by the target groups. A particular emphasis will be placed on the importance of applying basic ergonomics principles, cost-effectiveness of ergonomics measures, and reports on positive examples.

The results of applying the proposed training materials have shown the importance of referring to basic ergonomics principles. Concrete examples of applying these principles are being analyzed.

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**Hypertension in seamen: diagnosis, treatment, and prevention**

Zvyagyna Lilia, State Enterprise Scientific Research Institute of Maritime Medicine, Ukraine (ZVS@PACO.NET)
Keywords: hypertension, seamen, disease, global programme

Target Group: Planners, managers, occupational health staff in general and in the Institute of Maritime Medicine.

The objective is to raise awareness among decision-makers in Departments of Health, Departments of Labour, Department of Sea transport, Trade Unions and companies and enterprises associated with a labour risk of hypertension in seamen of (a) the magnitude of the hypertension problem and (b) that the prevention of hypertension is a worthwhile and feasible objective, now being pursued by a global coalition, that they should support.

According to statistical data population morbidity and mortality from blood circulation diseases occupies the first place among all diseases. The most difficult complications are cardiac and cerebral stroke, which can lead to invalidity. An increase in the level of diseases was noted among the young working population. Maritime workers, whose work activity takes place in a high-stress environment, suffered more than others. The marine transport and fishing industries developed dramatically. The numbers of maritime workers who work at sea is growing continuously. Health and well-being on the ship are priorities to be achieved to ensure the development of safe, productive and competitive working activities. Accidents, injuries and professional diseases, not to mention their consequences in terms of social costs and quality of life, constitute a serious public health problem, so this research work is an effort toward improving the welfare of those who work at sea.

Participants of the activity are seafarers, port workers, city population. The first stage of the project comprises a detailed analysis of the literature and a close on-the-spot investigation with the aim of identifying needs and priorities concerning occupational safety and health of seamen. The second stage includes studying of the ship’s environment and individual behaviour patterns to determine hypertension at an early stage through medical examination, psychological, functional and laboratory tests. The third stage includes dissemination of the results of research activities through publications in medical journals, monographs and guidelines.

We expect results to help decrease morbidity and mortality among seamen in particular as well as the whole population; safer navigation; longer working capacity; prevent complications of hypertension; decrease treatment costs for medical complications. Results will serve for diagnoses, treatment and prevention of hypertension and improve medical examinations.

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**Healthy workplace and health promotion activities - Symposium on occupational health promotion in 2003**

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

**Target Group:** Occupational health staff in local Centers for Disease Control and in industries

The purpose is to exchange experience and information in health promotion. The organizing activities for 80-100 participants have been planned.

Funds are provided by WPRO/WHO for 2003.

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**Environmental health assessment for selected areas**

Nguyen Ngoc Nga, National Institute of Occupational and Environmental Health, WHO Collaborating Center on Occupational Health, Vietnam (n.n.nga@fpt.vn)

**Keywords:** exposure, environmental health assessment, indicator, profile, surveillance, selected zone

**Target group:** regional, national and local authorities, employees, employers, NGOs, communities, Ministry of Environment and resources, MOH, MOLISA

The objective of this project is to put the guideline of WHO'STC into practice to build capacity for an occupational health network in Vietnam through a pilot research on environmental health assessment; to raise awareness among employers, managers, policy-makers, MIOH, MOLISA of the necessity of health assessment while considering one action plan; and to contribute to the set-up of the occupational health profile. Funds have been secured by WHO.

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**Health Promotion Programme design and evaluation**

Fernando Crovari (gsafct@gw.achs.cl) and Patricia Arias (fsafct@gw.achs.cl),
Asociación Chilena de Seguridad (ACHS), Chile

Funds will be provided by the host country. The project will be completed in December 2003.

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**Healthy workplace programme in Thailand**

Sasitorn Taptagaporn, Ministry of Public Health, Thailand (wilawan@anamai.moph.go.th)

Funds are in place (Thai Government budget). The project will be completed in the period 2002-2005.
In addition to the traditional risks and hazards, globalization, increasing competition and changing work organization bring along many new challenges; such as introduction of new technologies, new work organizations, haste at work, new work practices, and growing mobility. These are associated with new types of diseases and burdens, such as ergonomic problems, musculoskeletal disorders and injuries, increased psychological stress, and violence at work. The objective of this Task Force is to make workers aware of the problem and provide tools for increasing psychological and physiological well-being at work.

It is clear that the level of expertise, experiences and research in this area vary in different countries. Therefore, defining the target audience and countries for each product is a necessity.

Publication : Work organisation and stress
Stavroula Leka (Stavroula.Leka@nottingham.ac.uk), Amanda Griffiths (amanda.griffiths@nottingham.ac.uk), Tom Cox (thomas.cox@easynet.co.uk), Institute of Work, health & Organisations, University of Nottingham, UK
Keywords: work organisation, stress, prevention, organisation culture, risk assessment
Target group: employers, managers and trade union representatives
This document is the third in a series of occupational health documents entitled: Protecting Workers’ Health. The World Health Organization (WHO) within the Programme of Occupational Health publishes it. It is the result of the implementation effort of the Global Strategy on Occupational Health for all as agreed upon at the Fourth Network Meeting of the WHO Collaborating Centres in Occupational Health which was held in Espoo, Finland from 7-9 June 1999.
Work stress is thought to affect individuals’ psychological and physical health, as well as organisations’ effectiveness, in an adverse manner. This booklet provides practical advice on how to deal with work stress. Discussed are the nature of stress at work, the causes and effects of stress, as well as prevention strategies and risk assessment and management methods. Also discussed are the role of the organisational culture in this process and the resources to be drawn upon for managing work stress.

The advice should be interpreted in the light of the particular problems faced by different groups of workers and what is reasonably practicable by way of solutions for each individual employer. Lists of common causes and effects of stress are included for illustrative purposes. References and suggestions for further reading are listed in Chapter 12.

The Brochure is available in English, French and Spanish on http://www.who.int/occupational_health/publications/stress
The brochure has now been published in English, French and Spanish. It has been translated into Japanese.

Raising awareness on psychological harassment at work through a brochure
Renato Gilioli, Maria Grazia Cassitto, Emanuela Fattorini and Chiara Rengo, Istituti Clinici di Perfezionamento, Dipartimento di Medicina del Lavoro e Sicurezza sul Lavoro e Consorzio ISPESL/ICP per il Centro di Collaborazione con l’OMS per la Medicina del Lavoro e l’Igiene Industriale, Clinica del Lavoro “Luigi Devoto”, Milano, Italy (omscons@unimi.it)
Viviane Gonik, Institute of Occupational Health Sciences, Switzerland (viviane.gonik@inst.hospvd.ch)
Keywords: harassment, mobbing, stress, work-related diseases, prevention
Target group: health professionals, decision-makers, managers, Human Resources Directors and staff, Trade Unions and workers.

The purpose of the project is to raise awareness among health professionals, decision-makers, managers, Human Resources Directors and staff, Trade Unions and workers on the importance of psychological harassment at work, its health and social consequences and preventive measures. Psychological Harassment, also termed mobbing and bullying, is a form of employee abuse, without sexual connotations, due to unethical behaviour of colleagues or superiors, leading to victimization of the worker, with possible health effects, mainly of the psychic conditions. Social consequences and ways to combat the phenomenon are dealt with.

The brochure covers general information on psychological harassment at work, health effects, management and preventive measures. This project has been completed. The publication was presented and 2000 copies were distributed at the VI Network Meeting of the WHO Collaborating Centres and at the International Conference Occupational Health (ICOH) held in Iguassu (Brasil), February 2003. The booklet has been translated into Spanish by Fundación Iberoamericana de Seguridad y Salud Ocupacional (FISO). Other WHO Collaborating Centres have shown interest in the translation into other languages.

English/ French/Spanish/ Italian versions are available on http://www.who.int/occupational_health/publications/harassment/en/.
The document has now been published in English and French. The Spanish version is in print. Japanese version is ongoing.
Project start date: November 2001
Project end date: October 2003
**Diffondere conoscenza e consapevolezza sulle molestie morali sul lavoro attraverso una guida**

Renato Gilioli, Maria Grazia Cassitto, Emanuela Fattorini and Chiara Rengo, Istituti Clinici di Perfezionamento, Department of Occupational Safety and Health and ISPESL/ICP Consortium for the WHO Collaborating Centre in Occupational Health, Clinica del Lavoro "Luigi Devoto", Milan, Italy (omscons@unimi.it)

Viviane Gonik, Institute of Occupational Health Sciences, Svizzera (viviane.gonik@inst.hospvd.ch)

Parole chiave: Molestie, mobbing, stress, patologie correlate al lavoro, prevenzione.

Utenza destinat: professionisti della salute, responsabili dei processi decisionali, managers, addetti al personale, Sindacati e lavoratori.

Scopo del progetto: Diffondere conoscenza e consapevolezza tra professionisti della salute, responsabili dei processi decisionali, managers, addetti al personale, Sindacati e lavoratori sull'importanza delle molestie morali sul lavoro, le loro conseguenze sulla salute e sociali, e le misure preventive.

Descrizione sintetica del progetto: La guida fornirà informazioni generali sulle molestie morali sul lavoro, gli effetti sulla salute, il loro trattamento e le misure preventive.

La brochure fornisce informazioni sulle molestie psicologiche nell'ambiente di lavoro, sui loro effetti sulla salute, come gestire gli effetti e mettere in atto misure preventive. Il progetto è stato completato e la pubblicazione è stata presentata e distribuita in 2000 copie al VI Meeting del Network dei Centri di Collaborazione con l'OMS e alla Conferenza Internazionale di Medicina del Lavoro (ICOH) che si sono svolti ad Iguassu (Brasile) nel Febbraio 2003. È in corso la traduzione in lingua spagnola, a cura della Fondazione Iberoamericana di Seguridad y Salud Ocupacional (FISO), Colombia. Altri Centri di Collaborazione hanno mostrato interesse alla eventuale traduzione in altre lingue.

Versioni inglesi, francesi, spagnole e italiani sono accessibili a http://www.who.int/occupational_health/publications/harassment/en/.

Il documento è stato pubblicato in inglese, spagnolo e francese.

La versione giapponese è in preparazione.

**Data iniziale del progetto:** novembre 2001

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**Prise de conscience de la problématique du harcèlement psychologique au travail au travers d'une brochure**

Renato Gilioli, Maria Grazia Cassitto, Emanuela Fattorini and Chiara Rengo, Istituti Clinici di Perfezionamento, Département de sécurité et santé au travail et Consortium ISPESL/ICP en tant que centre collaborateur de l’OMS en santé au travail, Clinica del Lavoro "Luigi Devoto", Milan

Viviane Gonik, Institut universitaire romand de santé au travail, Suisse (viviane.gonik@inst.hospvd.ch)

Mots-clés: harcèlement, mobbing, stress, maladies en relation avec le travail, prévention.

**Cible:** professionnels de la santé, décideurs, managers, directions des ressources humaines, syndicats et travailleurs.

L’objectif de ce projet est de faire prendre conscience aux professionnels de la santé, aux décideurs, managers, personnes des ressources humaines, personnel d’encadrement, syndicats et travailleurs de l’importance du harcèlement psychologique au travail et de ses conséquences sociales et médicales afin de mettre sur pied des mesures préventives. Le harcèlement psychologique, également appelé mobbing, est une forme d’abus sur l’employé, sans connotation sexuelle, provoqué par des comportements non-étiques de la part de collègues ou de supérieur provoquant une victimisation du collaborateur–rice avec des effets, principalement psychiques, sur la santé des personnes victimes.

La brochure donnera des informations générales sur le harcèlement psychologique au travail, les effets sur la santé et les mesures à prendre en terme de management et de prévention. Les conséquences sociales et les moyens de combattre ce phénomène sont décrites. Les travaux sont relativement bien avancés. Les travaux sont maintenant terminés. La publication a été présentée et 2000 copies distribuées, lors de la 6ème rencontre du réseau de centres collaborateurs de l’OMS, en parallèle avec la Conférence Internationale de santé au travail (ICOH) qui s’est tenue à Iguassu (Brésil) en février 2003. La brochure est en cours de traduction en espagnol par la Fondation Iberoamericana de Seguridad y Salud Ocupacional (FISO), Colombia. D’autres centres collaborateurs ont manifesté leur intérêt pour des traductions dans d’autres langues.


**Date du début du projet:** novembre 2001

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**Publication on mental health and stress at work in Chile**

Marcelo Trucco, Asociación Chilena de Seguridad, Santiago, Chile (mtrucco@achs.cl)

**Keywords:** mental health, stress, work, promotion.

**Target group:** managers, personnel managers, prevention experts, union officials, occupational health professionals and other personnel involved in health and safety activities in private and public organizations.
The purpose of the project is to introduce and promote basic knowledge regarding the prevalence and effects of stress and mental ill health in the workplace, and to provide recommendations and methodological elements to include mental health promotion activities in workplaces. The project involves the development of a manual, which will include sections on the scope of mental ill health in the general population and in the workplace; definitions of the stress process; basic information about mental health promotion; risk factors for stress and mental ill health at work; criteria for healthy workplaces; strategies for the introduction of mental health promotion in the workplace.

A first version of a "Guide to Mental Health Promotion in the Workplace" is available in Spanish. This publication will serve as back-up material for the development of workshops or short seminars on this topic.

Centres collaborating on the project: Nina Horwitz, Department of Psychiatry and Mental Health, Faculty of Medicine, University of Chile (nhorwitz@machi.med.uchile.cl)

Training programme for prevention of workplace social violence in several economical sectors for the Colombian case
Julietta Rodríguez Guzmán (jrodriguezg@fiso-web.org), Ignacio Hernández García (info@fiso-web.org) FISO, Colombia

Keywords: Prevention of terrorism, Kidnapping, extortion, interfamilial violence, work violence, self-protection, self-care, self-management.

Target group: Decision makers, planners and managers, and occupational health staff in companies and enterprises exposed to violence in Colombia, and perhaps other countries exposed to the violent phenomena mentioned.

The purpose of the project is to provide methodologies and skills to prevent different types of violence at the workplace, through different techniques of self-protection based in self-care and self-management.

An innovative initiative to prevent violence was designed and called "Self-protection program based on self-care and self-management". It consists of five (5) modules which include a theoretical framework, a student guide, a guideline for planning the training, and a set of slides for training. The modules were built to cover the most frequent different types of violence present at the workplace in Colombia, which are: terrorism, kidnapping, extortion, interfamilial violence, work violence and a guide to implement these programs within the enterprises. The modules were implemented and validated through 7 workshops done with employers and employees during 2002 and their results are being followed during the present year. They are now completed and available in Spanish.

The modules are finished and written in Spanish. The product is a "Self-protection program based on self-care and self-management" consisting of a set of (5) modules to prevent the most frequent types of violence at work, in Spanish, focused for the Colombian case.

A guide for the promotion of mental health in the workplace
University of Nottingham (Stavroula Leka, stavroula.leka@nottingham.ac.uk)

Project start date: October 2002
Project end date: May 2003

Mental health and stress at work: Programme design, evaluation, Chilean experience
Marcelo Trucco (mtrucco@achs.cl) and Alejandro Sallato (asallato@achs.cl), Asociación Chilena de Seguridad (ACHS)

Keywords: mental health, stress, work, promotion

Target group: This publication will serve as back up material for the development of workshops or short seminars on this topic. It will be addressed to managers, personnel managers, prevention experts, union officials, occupational health professionals and other personnel involved in health and safety activities in private and public organizations.

The purpose of this project is to introduce and promote basic knowledge regarding the prevalence and effects of stress and mental ill health in the work place, and to provide recommendations and methodological elements in order to include mental health promotion activities in workplaces. The project involves the development of a manual type of publication which will include sections on the scope of mental ill health in the general population and in the workplace; definitions of the stress process; basic information about mental health promotion; risk factors for stress and mental ill health at work; criteria for healthy work places; strategies for the introduction of mental health promotion in the work place.

A draft outline and preliminary texts that are to be included in the definitive document have already been prepared. The Department of Psychiatry and Mental Health, Faculty of Medicine, University of Chile is collaborating on the project. Funds will be provided by the host country. The project will be completed in 2003.

SOLVE - Addressing psychosocial issues at work through training
David Gold (solve@ilo.org), ILO/HQ, Geneva, Switzerland

Keywords: HIV/AIDS, Tobacco, Violence, Stress, Drugs and Alcohol, psychosocial issues at work

Target Group: Policy makers, managers, workers

SOLVE is an interactive educational programme designed to assist in the development of policy and action to address psychosocial issues in the workplace. Stress, alcohol and drug use, violence (both physical and psychological), HIV/AIDS and tobacco use can lead to health-related problems for the worker and loss of productivity for the enterprise or
organisation. Taken together, they represent a major cause of accidents, fatal injuries, disease and absenteeism in
developed and developing countries. SOLVE focuses on prevention.

The methodology of the SOLVE training courses is designed to enable an enterprise or an organisation to integrate
psychosocial issues into their policy and establish a framework for preventative action. SOLVE recognises that each of the
five psychosocial issues treated can cause the other, leading potentially to a downward spiral that can effectively be
countered by an integrated policy approach. In order to meet the needs of various audiences, SOLVE includes five training
packages:

- SOLVE for Managing Directors (2.5 hours),
- The Policy-level SOLVE Course (40 hours),
- SOLVE for Workers (1.5 hours of orientation),
- MicroSolve (2 hours focussed on shopfloor action),
- Course Directors’ Course (24 hours).

The design of the SOLVE training package is based on the manufacturing industry. It is also adapted to the health care
industry, the fire service and the maritime sector through modifications of handouts, activities and the simulation exercise.

A modern hazard in a traditional working environment: Raising awareness of stress in developing countries

Irene Houtman (h@arbeid.tno.nl) TNO Work and Employment, NL,

With WHO/HQ (Evelyn Kortum, kortummargote@who.int), University of Nottingham (Stavroula Leka,
stavroula.leka@nottingham.ac.uk), University of Dortmund, IfADo, Federal Institute of Occupational Safety and Health,
Berlin.

Keywords: brochure, stress, work, education

Target group: developing countries, employers & workers’ representatives

The objective of this project is to raise awareness on the issue of work stress in countries which for obvious reasons do not
yet recognise stress as a priority issue, but could learn from the mistakes and successes of combating work stress in the
developed countries to be prepared for the near future in which it can be expected that the issue of work stress will
become important. The brochure will cover an introduction to stress by discussing its causes and effects on health and
productivity. It will then proceed to discuss how it can be best managed at work.

A draft outline of the proposed brochure is ready. Collaboration with other Centres is under way.

Raising awareness in small businesses on workplace stress (English and Spanish versions)

Carol Stephenson (CStephenson@cdc.gov) and Paul Schulte (PSchulte@cdc.gov), NIOSH, USA

The objective of this project is to contribute informational and educational materials being developed for small businesses
on a variety of occupational safety and health issues, including workplace stress. A video describing workplace stress and
recommendations for abating and dealing with it has been produced. Currently, it is available in English on DVD and VHS.
Accompanying print materials are in draft form and are scheduled for evaluation by owners of small businesses during
2004 and 2005 as part of a larger intervention study. English and Spanish versions are planned. Funds are in place.

Project start date: 2002
Project end date: The project will be completed in 2005.

Preparation of guidelines for occupational health services on prevention of stress at work

Amanda Griffiths (amanda.griffiths@nottingham.ac.uk), Stavroula Leka (stavroula.leka@nottingham.ac.uk), Institute of
Work, Health & Organisations (I-WHO), UK , Finnish Institute of Occupational Health and TNO

Keywords: brochure, guidelines, stress, occupational health, prevention

Target group: decision-makers, educators, health authorities, occupational health services, occupational health and safety
professionals, companies operating in the health services sector, trade unions.

Project start date: January 2004

The project aims at putting an emphasis on preventative actions for stress at work, and to provide guidelines for its
management in the sector of occupational health services. A brochure will be developed that will focus on the incident of
work stress in the occupational health services and will provide guidelines for its prevention and management.

A draft outline of the proposed brochure is being prepared. Collaboration with other centres is under way.

Project start date: January 2004
Project end date: June 2005.

Towards the Development of a Psychosocial Risk Management Toolkit (PRIMAT)
Over the years, a need has been identified through the work of the WHO’s Network of Collaborating Centres (CCs) in Occupational Health for practical procedures and tools for the management of occupational health and safety at work. It is clear that such procedures and tools should be suitable for use in developing countries and also in countries in transition as well as in small and medium-sized enterprises (SMEs). In addition, emphasis has been placed on the changing nature of work and new forms of risk that could negatively affect employee health and safety. Issues such as work-related stress, bullying and harassment are now receiving attention on a global basis and efforts have been made to address them at the workplace level. However, the complexity of the aetiology of such issues and their context-specificity have made it difficult until now for practical, prevention-oriented tools to be developed that could be adaptable and usable to a wide range of enterprises, sectors and countries. This project explores the development of a framework for action to address this challenge; it proposes the development of a Psychosocial Risk Management Toolkit (PRIMAT). This toolkit could form part of a wider Occupational Risk Management Toolbox that would address health and safety issues at work in a comprehensive manner. The project has been funded by SALTSA that is a joint undertaking by three Swedish confederations of employees and the Swedish National Institute for Working Life. It is led by I-WHO within the context of the WHO Workplan on Occupational Health and involves the WHO and partners from Sweden (National Institute for Working Life), Finland (FIOH), Italy (ISPESL), the Netherlands (TNO) and Germany (BAuA). Work on the toolkit commenced in January 2005 and has focused on a review of practical approaches and tools for psychosocial risk management developed across Europe for the development of a European inventory of best practice, evidence-based, examples in different countries and organisations. Best practice principles will be developed on the basis of this review that will be fed into PRIMAT.

Names of other Centres collaborating on the project: FIOH, ISPESL, TNO, BAuA, Swedish National Institute of Working Life (Arbetslivsinstitutet)

Product: Report to SALTSA

Project start date: January 2005

Project end date: December 2005

Preparation of guidelines on the prevention of stress at work for small and medium-sized enterprises

Stavroula Leka, (stavroula.leka@nottingham.ac.uk), Institute of Work, Health & Organisations (I-WHO), UK

Keywords: brochure, guidelines, risk management for work stress, small and medium-sized enterprises

Target group: small and medium-sized enterprises, managers, occupational health and safety professionals.

The aim of this project is to educate small and medium-sized enterprises on the causes and prevention of work stress, addressing issues of work organisation and risk management. The outcome of this project will be a brochure that will address the issue of work stress in small and medium-sized enterprises. It will aim to educate on the causes of work stress, its symptoms and its prevention through the implementation of a risk management approach.

A draft outline of the proposed brochure is being prepared.

Project start date: January 2004

Project end date: December 2005

Preparation of guidelines for training the trainers on prevention of stress at work

Alberto Zucconi, Istituto dell’Approccio Centrato sulla Persona (IACP), Italy (health.promotion@iacp.it)

The aim of the project is to develop a “Training the trainers package” on stress prevention and management. The project began in May 2002. It will be completed by June 2003. Funding is in place.

Study of the mental and physical burden, in collaboration with the Habib Thameur Hospital, Medicine at Work Service of the company Light Subway Tunis

Samira Miled and Habib Nouaigui, Institute of Health and Security at Work, Tunisia (dg.isst@email.ati.tn)

Keywords: mental burden, physical burden, cardio-frequencymetrics

Target group: health personnel in the 3 services of a hospital-university centre of Grand Tunis (Habib Thameur Hospital) and drivers of the Light Subway.

The purpose of the project is to evaluate the mental burden and identify its causes (questionnaire), to evaluate the physical burden by an objective method (cardio-frequencymetrics) and to propose, according to the results obtained, recommendations in order to improve the work conditions. The project will start in 2003 and will last a year.

Etude de la charge mentale et physique, en collaboration avec l’Hôpital Habib Thameur, Service Médecine du Travail de la Société Métro Léger Tunis
Samira Miled et Habib Nouaigui, Institut de Santé et de Sécurité au Travail, Tunisie (dg.isst@email.ati.tn)

Mots-clés: charge mentale, charge physique, cardio-fréquencemétrie.

Cible: Personnel de santé dans trois services d’un centre hospitalo-universitaire du Grand Tunis (Hôpital Habib Thameur) et les conducteurs du Métro léger.

L’objectif de ce projet est d’évaluer la charge mentale et en identifier les causes (questionnaire), évaluer la charge physique par une méthode objective (la cardio-fréquencemétrie) et de proposer, en fonction des résultats obtenus, des recommandations afin d’améliorer les conditions de travail. Le projet débute en 2003 et durera une année.

Preparation of guidelines for shiftwork
Barbara Griefahn, IfADO, Germany (griefahn@ifado.de)

Keywords : shiftwork

Target group : Professional Associations, Physicians specialised in Occupational Health and Preventive Medicine, employers, employees

The purpose of the project is to establish a guideline for the prevention of adverse effects related to shiftwork

Shiftwork is regarded as an unspecific stress that causes partial sleep deprivation thus causing impaired mood and performance as well as gastrointestinal disturbances. Eventually, shiftwork was identified as a risk factor for cardiovascular diseases. Shiftwork is, however, unavoidable due to economic, technical and social reasons. Based on extensive experimental studies and field observations the brochure tries to inform employers and employees how to avoid deleterious effects of shiftwork by design and behaviour.

Product: Brochure  Completion date: 2006  Funding: in place

Other collaborating centers: Potential participants did not yet decide on collaboration

Violence at work - characterization of violence in the workplace, the Colombian case
Julietta Rodríguez Guzmán, FISO, Colombia (jrodriguezg@fiso-web.org)

Keywords : Descriptive study, violence at work, characterization.

Target group : Decision makers, planners and managers, and occupational health staff in the ministry of Social Protection (Health and Labor), employers and Trade Unions, Directors, managers, team leaders and occupational health staff of companies and enterprises exposed to violence.

The purpose of the project is to describe and identify factors associated to violent facts occurred in the workplace environment, and that will contact the forensic Colombian system, with the purpose of defining preventive actions and early interventions.

Considering violence is the first cause of death and the worst public health problem in Colombia, the project’s final report will include the description of the different types of violence that converge at the workplace, the national workplace violence situation identified as well as its most frequent associated factors in Colombia, a brief review of the established approaches to prevention, and a brief history of the national programs designed to eliminate violence at the workplace, as a complementation of the general violence prevention programs that are being conducted now days.

We are collaborating with The National Reference Violence Centre of Colombia on this project.

The protocol of the project has been prepared, with content and format defined. Products will include a proposal for a new classification of violence at work, based on the Colombian experience.

Funding is not yet in place. The project will be completion by July 2004.

Protection of policemen against effects of occupational stress
Dorota Merecz (merecz@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

Keywords: Chronic occupational stress, prevention, police

Target group: Polish police forces

The purpose of the projects is to develop primary and secondary prevention of occupational stress for police officers. The project is focused on development of occupational stress preventive measures. These include both stress management and organizational intervention. The experimental version of stress prevention programme has been implemented and evaluated. A preliminary report is available in Polish.

Protection of workers’ health against psychosocial factors
Bogdan Dudek (dudek@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

Keywords: psychosocial factors related to work, life style, risk factors, prospective study

Target group: Police officers, fire fighters, prison personnel

The purpose of this project is to assess stress in specific group of workers and looking for predictors of health disorders to organise better prophylactic activities by occupational service. The project is planned as a prospective study.
A group of 500 subjects in the professions mentioned below will be examined twice or more often. The first stage is ongoing. The following variables are measured: stress caused by psychosocial problems, a sense of coherence, emotional reactions to work, IHD risk factors (blood pressure, cholesterol, smoking, alcohol consumption, physical activity) health status (psychosomatic disorders and symptoms, mental health).

The subjects are being followed during two years. Up to now (30.06.03) 350 subjects have been examined. The project is funded and will completed in 2005.

**Occupational stress in healthcare workers in Vietnam**

Nguyen Khac Hai, National Institute of Occupational and Environmental Health, WHO Collaborating Center on Occupational Health, Vietnam (haink@hn.vnn.vn)

*Keywords*: occupational stress, health-care workers, psycho-physiology of work, guideline, prevention

*Target group*: academic institutions, decision-makers at Ministries, health care facilities

Objectives of this project are the evaluation of occupational stress of healthcare workers in Vietnam, the preparation of guidelines on the prevention of stress at work for healthcare workers, and recommendations on the establishment of policies for healthcare workers. Funds have been secured by WHO.
TASK FORCE 8: PROMOTION OF OSH IN SMALL ENTERPRISES AND THE INFORMAL SECTOR

Co-Chairs: Yuxin Zheng, National Institute of Occupational Health and Poison Control, Beijing, People’s Republic of China (yxzheng@163bj.com), Taiyi Jin, Fudan University, School of Public Health, Shanghai, People’s Republic of China (Tyjin@shmu.edu.cn), Gerry Eijkemans, WHO (eijkemansg@who.int)

At present, many of the national level companies are fragmented into smaller independent units that often work in networks, outsourcing activities to smaller units, subcontracting smaller enterprises, and developing flexible work organizations. The fragmentation of the work life is likely to grow in the future, and therefore the most important provider of new job opportunities will be the small enterprises and self-employment. The number of workers in the informal sector, often not within the reach of occupational health and safety services, is considerable, particularly in developing nations. The organizing of occupational health and safety for small enterprises and for the self-employed deserves more attention in the whole world.

Support for a local and a regional network of stakeholders in occupational health
Andrew Curran, Health and Safety Laboratory, UK (andrew.curran@hsl.gov.uk)

Keywords: stakeholders, network, local initiatives, targets, education

Target group: occupational health professionals, small to medium sized enterprises, employers and employees, trade unions

The objective is to raise awareness of occupational health issues amongst target groups through the coordinated activities of a local occupational health development group, comprising representatives of appropriate stakeholders; in particular, to provide training, support and information to small to medium sized enterprises. Activities will include training, production of relevant materials, standard setting and support for networking

The Sheffield Occupational Health Development Group has developed an ongoing plan of work in many areas of occupational health including standards, primary care issues, secondary care provision, education and training, information provision and research and development.

Education and training: The Group holds an annual conference, which has proved very successful; each year it targets a particular stakeholder group. Other activities have included training days on Hand Arm Vibration syndrome. Members of the Group are also involved in discussions with Sheffield universities and other agencies to raise the profile of occupational health in the curriculum and the local business community.

Information Provision: The Group produces a free quarterly newsletter and holds regular network meetings. These meetings discuss a single occupational health topic (e.g. workplace stress) and provide an opportunity for anyone to discuss occupational health issues informally over lunch. We have also developed a website, where we will be placing case studies, examples of best practice and copies of the newsletter.

Research and Development: Initial research by the Group has shown that there is still work to be done to convince employers of the benefits provided by good occupational health provision. We are currently planning work to estimate the nature and extent of occupational ill health in Sheffield, and assess the impact of targeted intervention (using workplace training and risk assessment) in improving workers’ understanding of occupational ill health concerns specific for their workplace.

The following products are available: website (http://www.healthyworksheffield.org.uk), quarterly newsletters, quarterly network meetings and an annual conference.

Matti S. Huuskonen, Finnish Institute of Occupational Health (FIOH), Finland (huuskonen@occuphealth.fi)

Keywords: small workplaces, occupational health and safety, working capacity

Target group: The programme included 16 projects with 20,000 people from 600 workplaces and collaborated with 900 occupational health experts from 200 occupational health units. Experts from the institutes, unions, authorities and mass media supported the programme which functioned on workplace, sectoral and general levels.

The aim of the programme aimed is to promote working capacity and prevention of disability at work places.

In Finland 94% (1998) enterprises had less than ten employees. The law stipulates that workplaces of all sizes must provide occupational health services. An essential element of good occupational health care practices is the maintaining of the working ability. The results showed that the target of working capacities should always be the enterprise with its entire staff and that various types of action should be taken simultaneously at the level of individual, the work organizations and the working environment. The need to improve professional skills is particularly relevant for ageing employees and people with reduced working capacities. All working capacity subsectors must be addressed in order to achieve real improvement.

The project showed that small workplaces have less capacity than medium-sized and big companies to prevent and control hazards. In addition their awareness of occupational health and safety problems is not always well developed and they need external support. There are several problems in organizing such support. In Finland, the occupational health care units can reach small workplaces, start with them and support expert interventions for the development of well being of workers and workplaces.
The FIOH small workplaces action programme was carried out from 1995-2000. However, reporting of many projects is still in progress.

**Economic appraisal of occupational health and safety in small enterprises**

Monica Bergström, Finnish Institute of Occupational Health (FIOH), Finland (monica.bergstrom@ttl.fi)

*Keywords:* small enterprises, cost-effectiveness, work ability

*Target group:* 39 small-scale enterprises from three different sectors

The main aim of the study is to define the Maintenance of Work Ability (MWA) factors that have an effect on productivity of small enterprises. The study is part of the Small Workplace Action Programme (1995-2000) of Finnish Institute of Occupational Health.

There were 39 small and medium-sized enterprises from three different sectors involved in this study during 1998-2000. There were 92 enterprise-specific development projects with approximately 1-6 projects per firm. Data was gathered by using survey questionnaires and interviews for employers, employees and Occupational Health Service Units. In terms of economic impact on work ability, the rate of absenteeism and associated costs were analyzed. This was done by comparing absenteeism rates in each enterprise to the average and best enterprise of each sector. The business economic benefit for reducing the average sickness absenteeism rate to that of sectors best varies between € 950 - 2392 per employee per year. There is a positive correlation between personal working capacity and enterprise's productivity and profitableness. Analysis done, and success factors are being identified.

**Activities to improve small business access to OHS information**

Sharon Burnell, National Occupational Health and Safety Commission, Australia (Sharon.burnell@nohsc.gov.au)

*Keywords:* small business, franchising

*Target group:* business advisors

The objective of this project is to improve internal processes in addressing small business issues across a range of products and activities and to improve small business access to information. The activity is undertaken in support of National Priority 2, which seeks to develop the capacity of business operators and workers to manage OHS effectively, which forms a part of the National OHS Strategy. Activities in relation to small business include producing a guide on OHS responsibilities, duties and obligations of businesses in the franchising sector, conducting a stock-taking and evaluation of OHS initiatives for small business in Australian jurisdictions and reviewing and updating OHS information for small business on the NOHSC website.

Current activities have focused on a national project to produce plain-English information on the OHS responsibilities, duties and obligations of business in the franchising sector. This work has been undertaken in conjunction with the National Research Centre for Occupational Health and Safety Regulation at the Australian National University and the Office of Small Business.

The plain-English Guide is now complete and can be viewed on the NOHSC Internet site at www.nohsc.gov.au/smallbusiness.

**Establishment of gender-based standards in the floriculture and maquila industries**

Donna Mergler, CINBIOSE University of Quebec, Canada (mergler.donna@uqam.ca)

*Keywords:* women, gender-based analysis, floriculture, maquila, pesticides

*Target group:* floriculture and maquila workers

The purpose of this project is the establishment of gender-adapted standards in the floriculture and maquila industries in Latin America using two pilot projects: one in Nicaragua (maquila) and one in Guatemala (floriculture). The project also aims eventually to develop labour standards adapted to the realities of both genders, in Latin America. The immediate goal is to make suggestions for standards in the two industries. IRET (Costa Rica) is also collaborating on the project.

**A Cooperative Project between Italy and Brazil for prevention of occupational risks in small and medium-sized shoe factories**

Emilio Volturo, Vito Foà and Chiara Rengo, Istituti Clinici di Perfezionamento, Department of Occupational Safety and Health and ISPESL/ICP Consortium for the WHO Collaborating Centre in Occupational Health, Clinica del Lavoro “Luigi Devoto”, Milan, Italy (omscons@unimi.it)

Sonia Maria José Bombardi (bombardismj@fundacentro.gov.br) and Zuher Handar (handar@onda.com.br), FUNDACENTRO, São Paulo, Brazil

*Keywords:* shoe manufacturing, Occupational Health and Safety, International Cooperation.

*Target group:* Workers of shoe manufacturing from Italy and Brazil, experts and professionals in occupational health and safety of the two countries

The purpose of this project is to obtain prevention plans in the shoe-manufacturing sector with the participation of the scientific community, social partners, enterprises and public services of occupational health and safety. It strengthens the project Cooperation Italy-Brazil.
The objective will be reached through the establishment of a documentary repertoire (legislation, technical regulations, bibliography), the reconstruction of production cycles and work phases of the shoe manufacturing in the two countries, a survey of risks, training of workers, implementation of intervention plans.

At the Iguassu Meeting, February 2003, an Italian-Brazilian seminar was held during which has been shown that the choice of the shoe sector is correct as a field of application of the project. During the mission the relevant interest of other possible partners was verified. During the next few months the Brazilian Institutional partners will be identified. A shared version of the scientific project has been defined and in the next few months the project will be integrated in a cooperation plan to submit to the competent authorities for funding. An internet discussion group has been set up for the permanent exchange of information, updating, experiences and data.

Considering that the planning phase has been completed, we are initiating to identify the necessary funding. Should no human and financial resources be identified within the next 12 months, the possibility of reconsidering the feasibility of the project will be evaluated.

Project start date: July 2002
Project end date: July 2005

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**Un progetto di Cooperazione tra Italia e Brasile per la prevenzione dei rischi occupazionali nelle piccole e medie imprese del settore calzaturiero**

Emilio Volturo, Vito Foà and Chiara Rengo, Istituti Clinici di Perfezionamento, Dipartimento di Medicina del Lavoro e Sicurezza sul Lavoro e Consorzio ISPESL/ICP per il Centro di Collaborazione con l’OMS per la Medicina del Lavoro e l’Igiene Industriale, Clinica del Lavoro “Luigi Devoto”, Milano, Italia (omscons@unimi.it)

Sonia Maria José Bombardi (bombardis mj@fundacentro.gov.br) e Zuher Handar (handar@onda.com.br), FUNDACENTRO, Brasile

**Parole chiave:** settore calzaturiero, Medicina del lavoro e Sicurezza, Cooperazione Internazionale

**Utenza destinatana:** Lavoratori del settore calzaturiero Italiani e Brasiliani, esperti e professionisti del settore. Scopo del progetto: Realizzare, sulla base della Cooperazione Internazionale fra alcune Regioni di Italia e Brasile, piani di prevenzione integrati e coordinati nel settore calzaturiero, con la partecipazione della Comunità Scientifica, delle parti sociali, del sistema delle imprese, dei servizi pubblici di Medicina del Lavoro e Sicurezza e dei lavoratori. L’obiettivo sarà raggiunto attraverso: realizzazione di un repertorio documentale (legislazione, norme tecniche, bibliografia), ricostruzione comparativa dei cicli produttivi e fasi lavorative presenti nel settore calzaturiero dei due paesi, censimento dei rischi, formazione degli operatori, attuazione dei piani di intervento.

Al Congresso di Iguassu, febbraio 2003, si è tenuto un seminario Italo-Brasileano nel quale è stata evidenziata la correttezza della scelta del comparto calzaturiero, quale ambito di applicazione del progetto. Nel corso della missione si è verificato l’interesse notevole e fattivo di altri possibili partner. Nei prossimi mesi andranno definiti gli interlocutori istituzionali brasiliani. È stata definita una versione condivisa del progetto scientifico, che nei prossimi mesi sarà integrato in un piano di cooperazione da sottoporre alle autorità competenti per il finanziamento. È in preparazione un gruppo di discussione Internet per lo scambio permanente di informazioni, aggiornamenti, esperienze, dati.

Considerando che la fase di progettazione è stata completata, ci si attiverà per la ricerca dei fondi necessari. Se entro 12 mesi non si saranno recuperate le necessarie risorse umane e finanziarie, si valuterà la possibilità di riconsiderare la fattibilità del progetto.

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**Projeto de Cooperação entre Itália e Brasil para a Prevenção de Riscos Ocupacionais nas Pequenas e Médias Empresas do Setor Calçadista**

Emilio Volturo, Vito Foà and Chiara Rengo, Instituto Clínico de Aperfeiçoamento – Departamento de Segurança e Saúde Ocupacional e Consórcio ISPESL/ICP para o Centro Colaborador da OMS em Saúde Ocupacional – Clinica Del Lavoro “Luigi Devoto”, Milão, Italy (omscons@unimi.it)

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**Keywords:** Setor Calçadista, Segurança e Saúde no Trabalho, Cooperação Internacional

**Grupo de alvo:** Trabalhadores do setor calçadista italianos e brasileiros, especialistas e profissionais do setor e da área de Segurança e Saúde no Trabalho

Finalidade do projeto: Realizar, com base na Cooperação Internacional entre algumas regiões da Itália e Brasil, planos de prevenção integrados e coordenados no setor calçadista, com a participação da comunidade científica, dos parceiros sociais, dos empresários, dos serviços públicos da área de Segurança e Saúde no Trabalho e dos trabalhadores. Os objetivos serão alcançados por meio de: produção de repertório documental (legislação, normas técnicas e bibliografia), reconstrução comparativa dos ciclos produtivos e fases de trabalho presentes no setor calçadista dos dois países, levantamento de riscos, formação de trabalhadores, implementação dos planos de intervenção.

Nas ações pré-Congresso de Foz do Iguaçu, fevereiro de 2003, foi realizado um Seminário Italo-Brasileiro no qual foi evidenciada a escolha acertada do setor calçadista como alvo do projeto. No curso da atividade foi verificado o notável e factível interesse de outros possíveis parceiros. Nos próximos meses serão definidos os interlocutores institucionais brasileiros. Foi definida uma versão consensuada do projeto que nos próximos meses será integrada a um plano de cooperação, a ser submetido às autoridades responsáveis pelo financiamento. Está em preparação um grupo de discussões.
via Internet para o intercâmbio permanente de informações, atualizações, experiências e dados. Considerando que a fase de planejamento está completa, estamos voltando nossa atenção à busca dos recursos necessários. Se em 12 meses não conseguirmos os recursos humanos e financeiros necessários, iremos avaliar a possibilidade de reconsiderar a viabilidade do projeto.

**IEA/ILO checkpoints on ergonomics in agriculture**
Kazutaka Kogi (k.kogi@isl.or.jp), IEA IDC Committee, with TC agriculture and ILO SafeWork

*Keywords:* training, agriculture, ergonomics checkpoints, low-cost improvement, quality of working life, action checklist

*Target group:* agricultural workers, managers and farmers in small agricultural undertakings, occupational safety and health practitioners in rural areas and instructors in educational institutions

The purpose of the project is to develop ergonomics checkpoints for improving conditions of work and life in agriculture particularly in industrially developing countries.

The project is undertaken as joint work of the IEA and the ILO in cooperation with field experts in selected countries. The outcome of the project will be a compilation of ergonomics checkpoints in agriculture with illustrations. These checkpoints cover materials storage and handling, workstations, agricultural machines and equipment, physical environment, welfare facilities, work organization and community-level cooperation. Each checkpoint comprises a discussion of benefits by ergonomics measures, low-cost ideas for immediate improvements and suggestions for applying priority measures in the local context. Examples of low-cost improvements applicable in the current situations in industrially developing countries will be presented.

The project is under development involving a team of ergonomics experts who compile typical examples of relevant ergonomics measures in cooperation with research centers and field institutions. Collected positive experiences in applying action checklists for improving agricultural work will be incorporated in the final joint publication.

ILO SafeWork is collaborating on the project.

**Ergonomics guidelines for occupational health practice in industrially developing countries**
Pat Scott, Chair, IEA IDC Committee (p.a.scott@ru.ac.za)

*Keywords:* Training, ergonomics, occupational health professionals, small and medium-size enterprises, low-cost improvement, checklists

*Target group:* occupational health professionals and practitioners active in industrially developing countries and trainers and instructors in training institutions

The purpose of the project is to develop basic ergonomics guidelines for occupational health professionals in industrially developing countries.

The project is undertaken as a joint work of the IEA and the ICOH in cooperation with selected research and training institutions active in these countries. The guidelines are compiled in the form of guidance materials for identifying problems in the working environment and applying practical intervention strategies based on basic ergonomics principles as part of occupational health practice in small and medium-size enterprises. The proposed outline of the guidelines comprises the following sections: (a) roles of ergonomics; (b) typical ergonomics-related risks; (c) risk identification and controls; (d) examples of ergonomics problems identified and solved; (e) sample checklists for use by occupational health practitioners; and (f) useful references.

The project work is done by a group of ergonomics experts experienced in occupational health in small and medium-sized enterprises. The draft guidelines have been prepared and are being tested in occupational health programs in industrially developing countries in cooperation with research centers and educational institutions in occupational health and ergonomics in these countries.

ICOH is collaborating on the project.

**Level of risk and state of health of the workers of the informal sector at Cotonou**
Benjamin Fayomi, University Laboratory of Health at the Work and Environment (LUSTE) (bfayomi@intnet.bj)

*Keywords:* Health, Work, informal sector, Africa

*Target:* workers, NGOs, decision makers

This study aims at highlighting the level of the risk and the state of health of the workers of various trades in Cotonou, we will carry out an exploratory study in 5 drawn communes of the city chosen randomly. This study is based on a questionnaire distributed to workers of the designated communes. These workers will be also examined clinically. We also will carry out measurements of some risk factors, in particular the level of solvents in paint workshops. We are working with the ILO on this project.

**Niveau de risque et état de santé des travailleurs du secteur informel à Cotonou**
Benjamin Fayomi, Laboratoire Universitaire de Santé au Travail et Environnement (LUSTE) (bfayomi@intnet.bj)

*Mots clés:* santé, travail, secteur informel, Afrique
Cette étude vise à mettre en évidence le niveau de risque et l’état de santé des travailleurs de différents métiers à Cotonou, nous allons réaliser une étude prospective dans 5 communes de la ville tirées au sort. Cette étude est basée sur un questionnaire à administrer aux travailleurs des communes retenues. Ces travailleurs seront également examinés cliniquement. Nous allons aussi procéder aux mesures de quelques facteurs de risques en particulier le niveau des solvants dans les ateliers de peinture. On travaille avec L’OIT sur ce projet.

Promotion of OS&H in small enterprises and the informal sectors

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

Target Group: Small industries with adhesives, dusts or metals exposure in Zhejiang, Shandong and Fujian Provinces.

The purpose of this project is to analyze the occupational hazards and critical control points of small industries with adhesives, dusts or metals exposure and to improve the control and prevention. The planning and preparatory work has been started.

Funds are provided by the Ministry of Sciences and Technology for 2003-2005.

Project start date: January 2004
Project end date: June 2005

Development of a support system for occupational safety and health management in small enterprises in Japan

Ippei Mori, National Institute of Industrial Health, Japan (mouri@nih.go.jp)

Keywords: small enterprises, occupational safety and health management system (OSHMS)

Target group: occupational safety and health staff in public sectors and companies, occupational safety and health service providers

The purpose of this project is to establish a support system for occupational safety and health management at small enterprises. The project will develop tools for occupational safety and health management (checklists, manuals and evaluation sheets), which are optimized for small enterprises, through case studies of risk management system developments at small or medium size enterprises and through a panel survey to improve work condition.

One day training activity for establishing self-sustaining OSHMS based on participatory work improvement training was conducted in a medium-scale battery manufacturing factory in September 2003. Documents and checklist used in the training was newly developed by the project staff in Japanese. After several months of implementation, an investigation for evaluation of the effect of the training, i.e. evaluation of work improvements which have done after the training, has been planned. The documents developed and the results of evaluation are expected to be put together and published in both Japanese and English in 2004.

The results of a panel survey for 84 factories was published in Japanese. A follow-up survey of the panel is planed in January 2004.

Products: Training materials for lead battery manufacturing (in Japanese); checklist for work improvement in lead battery manufacturing (in Japanese); the results of the baseline survey on OSH management in 84 small- and medium-scale enterprises in Japan (in Japanese).

Reproductive health of female workers in rural areas: Risk evaluation and management

Leonard Dobrovolsky, Kiev Institute for Occupational Health, Ukraine (yik@nanu.kiev.ua)

Keywords: agriculture, female workers, work conditions, reproductive health.

Target group: decision markers, planners and managers, occupational and public health staff, trade unions in mostly agricultural countries, managers of agricultural production.

The purpose of this project is to raise awareness among decision-makers in Departments of Health, Labour, Agriculture of work conditions and reproductive health of female agricultural workers, and to provide preventive measures. A report will cover description of working conditions of rural female workers, their reproductive health and complex of preventive measures. Main directions of research are psychological status workload, level of mechanization, chemical and biological factors at working places of female workers, indices of reproductive functions. The outline plan of the report and the introduction have already been prepared.

Occupational health and safety practices in small- and medium-sized enterprises: research of practices and identification of training needs

Stavroula Leka, (stavroula.leka@nottingham.ac.uk), Institute of Work, Health & Organisations (I-WHO), UK

Keywords: occupational health and safety, small- and medium-sized enterprises, training

Target group: small and medium-sized enterprises, managers, employees, trade unions, occupational health and safety professionals.

Project start date: January 2004

The purpose of the project is to research occupational health and safety practices in small- and medium-sized enterprises (SMEs) and determine their training needs as well as needs for future research. The outcome of the project will be a report
that will present the main findings of research on the occupational health and safety practices of small and medium-sized enterprises, will identify their training needs and will suggest paths for future interventions.

A research programme in Greece and the UK has been completed. New collaborative countries are looked for. Funds are partly in place. The project is scheduled to be completed by June 2005.

NIOSH safety checklist program for small business - OSH CD-ROM with a safety program and resources for small enterprises

John Palassis NIOSH, USA, (JPalassis@cdc.gov)

Keywords: safety, program, checklists, small business, supervisors, workers, construction, young workers, CD-ROM

Target Group: Small enterprise owners

The aim of this project is to contribute and disseminate occupational safety and health information in a CD-ROM format to small enterprises to assist the owners with regulatory requirements, information how to establish a safety checklist program in their workplace. Resources will include ready fill-in-the-blanks occupational safety programs, how to increase safety and health awareness in small enterprises, and also information for young workers in the workplace. The CD-ROM will provide information on how to establish a safety and health checklist program based on 82 safety checklists to increase awareness of workplace hazards and ways to control the hazards. The CD-ROM will include numerous safety and health and environmental resources and programs, and hundreds of links to helpful organizations and government agencies.

The information in the CD-ROM will need to be reviewed internally, externally, and by focus-group. Funding for the project is in place. It is estimated that this CD-ROM project will be completed sometime in 2004.

Occupational health and safety management model for small and medium-sized enterprises in Colombia, Chile and Argentina

Julietta Rodríguez Guzmán, (jrodriguezg@fiso-web.org), Lelys Archila (larchila@007mundo.com), Carolina Cuartas (info@fiso-web.org), Fundación Iberoamericana de Seguridad y Salud Ocupacional FISO, Instituto de Medicina Legal y Ciencias Forensges/ Centro Nacional de Referencia de la Violencia, Colombia.

Keywords: Management for MSSE, micro and small scales enterprises.

Target group: Decision makers, planners and managers, and occupational health staff in the worker’s compensation insurance companies; employers and employees of micro and MSSE of Colombia, Chile and Argentina.

The purpose of the project is to design a comprehensive model to manage OHS programs and reinforce productivity, OSH programs and accomplishment of the laws for the MSSE and micro enterprises affiliated to worker’s compensation insurance companies of Colombia, Chile and Argentina.

Taken into account that more than 85% of the enterprises of Colombia, Chile and Argentina are micro, small and medium size enterprises, there is an increasing need to cover them with the benefits that social security (worker’s compensation) programs provide by the national laws. At the same time, it is needed to develop effective communication channels that will allow a permanent assessment of the micro and the MSSE. The comprehensive model develops a virtual channel, a massive channel and a prensencial channel, that communicates de insurance companies with the enterprises, allowing to deliver basic law information, news, OHS and productivity virtual and real training for the enterprises, as well as assessment for developing managerial enterprise skills. The model has established a basic structure that is being adapted to the needs, habits and the language jargon of each of the three countries. The final product will include all three channels described, as well as law, OSH, productivity and other prior topic assessment for nine (9) different prior economical activities.

The comprehensive model, its content and format, has been designed and is being validated with local task groups in each country. It is expected to be finished by June 2003.

Asociación Chilena de Seguridad, is collaborating on this project.

A new comprehensive model for micro and MSSE management, OSH and law assessment will be available on the web and the media. Funds are in place.

Training workshop on implementation of OSH policies in agriculture and informal sector

Nguyen Thi Hong Tu, Ministry of Health, Vietnam (hongtu@netnam.vn)

Keywords: OSH, agriculture, village enterprises, policies.

Target group: decision-makers at ministries, academic institutions, medical university, trade union, Co-operative Union, Farmer Union

The purpose is to provide aspects of OSH in agriculture and informal sector. The workshop will be held in 2005.

Funds have been secured by WHO, Vietnam Goverment.

Indicators of chemical exposure in villages with traditional occupations

Nguyen Ngoc Nga, National Institute of Occupational and Environmental Health, WHO Collaborating Center on Occupational Health, Vietnam (n.n.nga@fpt.vn)

Keywords: exposure, chemical, indicator, profile, surveillance, traditional career village.
Target group: regional, national and local authorities, employees, employers, NGOs, communities
The objective of this project is to survey exposures to selected chemicals and its influence on workers and the environment for sectoral, national and regional control in Vietnam; to draw out a scientific base for policy making; and to contribute to setting up an occupational health profile. Funds have been secured by WHO.

To evaluate Quality of Life of female workers who suffer from reproductive tract infection (RTI)
Nguyen Ngoc Nga, National Institute of Occupational and Environmental Health, WHO Collaborating Center on Occupational Health, Vietnam (n.n nga@fpt.vn)
Keywords: RTI, Quality of Life
Target groups: policy-makers, managers, occupational health staff, female workers, employer, MOH, MOLISA, Women union
The objective of this project is to apply WHO-QOL-100 to evaluate Quality of Life of female workers who suffer from RTI; and to raise awareness among employees, employers, managers, policy-makers, MIOH, MOLISA of the existing risks for RTI, the magnitude of the problem and the necessity of preventive measures. Funds have been secured by WHO.

Development of a health book and guideline on health promotion to small enterprises (agriculture, ceramic workers, mental workers and mechanists)
Somkiat Siriruthanapruk, Ministry of Public Health, Thailand (somkiatk@health.moph.go.th, wilawan@anamai.moph.go.th)
Funds are in place (Thai Government budget). The project will be completed by December 2003.

Occupational and environmental development of the community enterprises, the Thai government policy
Taweewan Leerapun, Ministry of Public Health, Thailand (wilawan@anamai.moph.go.th)
Funds are in place (Thai government budget). The project will be completed by December 2003.

Occupational health and safety programme implementation in newly organized small enterprises
Bogoljub Perunicic (perunb@Eunet.yu), Dr Srmena Krstev, Institute of Occupational and Radiological Health, Serbia and Montenegro
Keywords: Small-medium enterprise, management of occupational health and safety, workers health promotion
Target group: entrepreneurs, employees, trade unions; ministry of work and employment, national agency for SME
The purpose of the project is to create occupational health programs suitable for small and medium enterprises for appropriate implementation and reduction of hazards and risks, and voluntary guidelines.
Products: Questionnaire for occupational health and safety issues in the small and medium enterprises, and guidelines for health promotion in the small and medium enterprises
Project start date: October 2001
Project end date: October 2004

National occupational health policies and services in transition economies
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Keywords: occupational health services, occupational health policies, national programmes
Target group: Ministers of health and labour, social partners, providers of occupational health services
Purpose of project: This module aims at:
Providing examples of good practice, know-how and experience in setting up modern occupational health and safety policy, systems and services to the countries in South East Europe and the Commonwealth of Independent States;
• Providing advice on a country-by-country basis on developing national programmes for occupational health services;
• Piloting different models of occupational health services
The countries from South East Europe and the Commonwealth of Independent States face an increasing need to adapt their policies, systems and services to the new political and socio-economic conditions. The establishment of democracy and market economy in these countries requires fundamental changes in the principles of managing occupational health and safety, development of new health and safety legislation, and establishment of modern occupational health services. Such services would provide the necessary professional support to the employers and employees in assessing and mitigating occupational risks, facilitate public health interventions at the workplace, and thus reduce the occupational
burden of disease. While large enterprises have capacities to establish their own occupational health services, this is not possible for the small and medium size enterprises, the service and the agricultural sector.

This project, therefore, deals with providing support to the countries from South-East Europe and the Commonwealth of Independent States to strengthen and upgrade their national occupational health policies, systems and services. In particular this module focuses on the transfer of knowledge, know-how and experience in occupational health policy and services from the established market democracies to the above mentioned countries in socio-economic transition and establishment of long-term East-West partnership between the relevant national institutions.

**Progress:** National workshop on occupational health legislation and services has been organized in Armenia in October 2004. WHO/ILO/ICOH meeting "Challenges to Occupational Health Services in the regions: the national and international response", 24 January 2005, Helsinki, reviewed the provision of occupational health services and the plans for the future in the Former Yugoslav Republic of Macedonia, Armenia and the Russian Federation. National workshops in the other countries are planned for 2005.

*Project start date:* September 2004

*Project end date:* December 2006

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### Enhancement of Occupational Health and Safety in Brazilian Industry (EOHSBI)

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EOHSBI Project website: www.ohsbrazil.ca

**Target Group:** EOHSBI is a project developed by a Brazilian – Canadian partnership, co-funded by the Canadian International Development Agency (CIDA) and ABC Transfer of Technology Fund for Brazil. The goal of the project is to contribute to the achievement of greater equity for Brazilian industrial workers, employed in selected sectors in six Brazilian states in the Northeast, Centre-West and South Brazil.

**Purpose of Project:** The purpose of the project is to strengthen the capacity of small and medium sized enterprises (SME’s) within selected sectors in the participating states for integrating workplace health and safety into their organizational culture, performance goals and management systems, and to reduce illnesses, injuries and fatalities for all workers. Furthermore, the project aims to enhance the capacity of participating industries and their SESI Occupational Health and Safety Departments to effectively address challenges in the development, implementation, management and evaluation of OHS services and programs for all workplace participants.

The project has been jointly designed by Serviço Social Da Indústria, (SESI) Brazil and the Canadian Occupational Health & Safety Consortium (COHSC), a consortium of public and private sector organizations led by Ryerson University, in consultation with key stakeholders.

**Project Results will include:**

- The achievement of healthier and safer work environments for Brazilian workers.
- An increase in the number of industries, especially SME’s, implementing effective and efficient OHS programs that comply with Brazilian OHS legislation and international standards.
- The establishment of an effective SESI managed OHS Information System to identify needs, set priorities, and evaluate industry programs, as well as inform SESI service delivery to address identified OHS issues including workplace related injuries, illnesses and deaths.
- Strengthening of the ability of men and women to exercise equally, their recognized fundamental right of the workers right to know.
- Improved attention to gender specific health and safety issues.
- The empowerment of workers, and improved communications and co-operation between management and workers, through increased OHS awareness and education, and the formation of joint OHS committees within participating industries.
- The development of new, improved and sustainable SESI OHS programs.

**Key Project Area Outcomes (Products):**

1. To support SESI in the design and development of an Epidemiological Information System.
2. Development of a OHS Web Portal to enhance SESI’s capacity to use OHS Technical Knowledge and Information as a Strategy to improve OHS within work environment of SME’s.
3. Development and Implementation of OHS Management Systems within SME’s. To develop and deliver enhanced SESI managed OHS technical and management services to SME’s.

**Progress** Needs Assessments & Stakeholder Engagement Completed April 2005.

**Partners Involved:**
Ryerson University, IAPA, CCOHS, Occupational Health & Safety Research Institute Robert-Sauvé (IRSST), Ontario Service Safety Alliance (OSSA), Ontario Forestry Safe Workplace Association (OFSWA), BRI International, SESI, Fundacentro, PAHO, ILO

Project Start Date: January, 2005.

Project End Date: December, 2007.
TASK FORCE 9: PREVENTION OF MUSCULOSKELETAL DISORDERS

Co-Chairs: Barbara Griefahn, IfADo, Germany (griefahn@ifado.de), Evelyn Kortum, WHO (kortum@who.int)

The musculoskeletal disorders are one of the main occupational health problems in both the old and new economies. Development of ergonomics, adoption of good and safe work practices and health promotion are in a key role when finding solutions to prevention of musculoskeletal disorders.

Course on ergonomics and the prevention of musculoskeletal disorders at the workplace
Chia Sin Eng, WHO Collaborating Centres in Occupational Health, Singapore (cofcse@nus.edu.sg)
Nguyen Viet Dong, Centre for Occupational Health and Environment, Ministry of Industry, Viet Nam (ttytelaodongcn@hn.vnn.vn)

Keywords: ergonomics, work process, musculoskeletal problems, practical recommendations.

The course was conducted on 17-19 November 2003 at Ho Chi Minh City, Vietnam with the following objectives for the participants:
1. Identify ergonomic risk factors at the workplace
2. Learn the use of ergonomic evaluation tools e.g. NIOSH lifting equation
3. Understand the principles and practice of design and control of risk factors

A total of 28 participants consisting of doctors, health professionals and nurses from different industries in Vietnam attended the course.

The course objectives were achieved. We are working with excellent counterparts from the Centre for Occupational Health and Environment in Vietnam. Our Vietnamese counterparts are involving their partners from the different provinces in the project, which extends the impact of the project to the wider community. We are working with the same senior level of staff from the agency, as well as their trainers. These people have participated in the training, and are already involved in some training roles.

Publication: Prevention of MSDs
Matthias Jäger (mjaeger@ifado.de), Barbara Griefahn (griefahn@arb-phys.uni-dortmund.de), Institute for Occupational Physiology at the University of Dortmund, Germany
Gustav Caffier (caffier.gustav@baua.bund.de), Falk Liebers (liebers.falk@baua.bund.de), Alwin Luttmann, Ulf Steinberg, Federal Institute for Occupational, Berlin, Germany

Keywords: Musculoskeletal diseases, prevention and control, workplace, risk factors

Target group: employers, supervisors and occupational health trainers

Disorders of the musculoskeletal system represent a main cause for absence from occupational work. Musculoskeletal disorders lead to considerable costs for the public health system. Specific disorders of the musculoskeletal system may relate to different body regions and occupational work. For example, disorders in the lower back are often correlated to lifting and carrying of loads or to the application of vibration. Upper-limb disorders (at fingers, hands, wrists, arms, elbows, shoulders, neck) may result from repetitive or long-lasting static force exertion or may be intensified by such activities. The severity of these disorders may vary between occasional aches or pain to exactly diagnosed specific diseases. Occurrence of pain may be interpreted as the result of a reversible acute overloading or may be a pre-symptom for the beginning of a serious disease.

The purpose of this document for the prevention of musculoskeletal disorders is to inform about risk factors and to influence actions of employers and the behaviour of workers in such a way that risks of physical loadings, dangerous to health or unnecessarily fatiguing, are avoided or diminished.

It is intended that this booklet be used by employers, supervisors and occupational health trainers to help them recognise risks that may lead to musculoskeletal disorders, as well to design work itself and the work environment in a way which is safe for the employee. The brochure has now been published in English French and Spanish.

Project end date: January 2004

Annual ergonomics workshop for occupational health professionals
Center for Occupational and Environmental Health, School of Public Health, University of California at Los Angeles (UCLA), USA - Victor Liu, California State University at Northridge, USA (vlui@ucla.edu) with the Center for Scientific Research and Postgraduate Education at Ensenada, Mexico.

Keywords: ergonomics, workshop, training, Spanish

Target group: occupational health professionals, industrial hygiene specialists, human resource personnel, operations managers

The purpose of the project is to promote occupational safety and ergonomics in the maquiladora industry in Baja California, Mexico
This annual, one-day workshop serves to disseminate occupational safety and ergonomics information within the maquiladora industry in Mexico by training health professionals and other responsible personnel. The instruction includes tools to identify, solve and systematically prevent the occurrence of work related musculoskeletal disorders (WRMD) due to ergonomic factors. Participants are trained in evaluating and monitoring WRMD in order to increase productivity and reduce absenteeism. The workshop is supported by the Fogarty Center training grant at UCLA. The third workshop has just been conducted; the next one is anticipated in 2004.

Products are slide presentations from the workshop compiled on CD.

**Musculoskeletal disorders in Motor Company Workers**

Jung-Wan Koo, Catholic Industrial Medical Centres, Korea (jwkoo@catholic.ac.kr)

*Keywords*: musculoskeletal disorder, motor company

*Target group*: workers in the manufacturing industry

The aim is to evaluate musculoskeletal disorders in motor company workers. The project will be held in a motor company located in Bupyeong, South Korea. The musculoskeletal disorders will be evaluated by questionnaires and work survey and diagnostic tools. Criteria of the musculo-skeletal disorders are being prepared and the paper is being reviewed.

**Joint efforts to produce publications on prevention of MSDs to end users in the developing countries**

Gábor Galgóczy, National Institute of Occupational Health, Hungary (galgoczy@fjokk.hu)

*Keywords*: information about causes, diagnostic guidelines, reporting of occupational MSD, statistics of occupational diseases, prevention

*Target group*: occupational health physicians and nurses, rheumatologists, orthopaedists, health statisticians, health decision-makers

*Project start date*: January 2002

A publication has been compiled on the musculo-skeletal diseases caused by hand-arm vibration syndrome. We intend to expand this into a comprehensive methodological guide on occupation MSDs.

The modification of the first draft has been in preparation since 2002; deadline: 31 October 2003.

The draft methodological guide is to be submitted to the relevant professional colleges; deadline: 31 December 2003.

Incorporation of the recommendations of the professional colleagues; deadline: 30 June 2004.

Translation of the methodological guide into English; deadline: 31 October 2004.


*Project start date*: January 2002

*Project end date*: December 2004

**Musculo-skeletal Disorders among seafarers and port workers**

Phd. Lobenko A., Phd. Ignatiev A, State Enterprise Scientific Research, Institute of Maritime Medicine, Odessa, Ukraine (zvs@paco.net)

*Keywords*: musculo-skeletal disorders, osteoporosis, maritime and port workers, vibration; calcium deficit

*Target group*: occupational health physician, orthopaedists, and health statisticians.

The purpose of this project is to identify factors that cause osteoporosis at work and develop protection measures. Objectives of the project are epidemiological studies of musculo-skeletal disorders related to professional hazards of seafarers and port workers.

Morbidity caused by musculo-skeletal disorders increased twice during the last three years and takes the second place in the structure of invalidity after circulatory diseases. Invalidity of the working population caused by osteoarthritis increased by 20%. Fractures as a result of trauma increased by 25%. The percent of morbidity of musculo-skeletal diseases was more frequent where the level of vibration and noise was higher. Medical examination of workers showed that bone fractures were caused by osteoporosis and osteopenia. The laboratory data testified a correlation with calcium deficit.

We propose to continue medical examination of workers whose activity connects with high level of vibration.

We plan to study morbidity and invalidity of maritime and port workers (500 people), the condition of bone tissue by ultrasound densitometry, laboratory tests, and to develop prophylactic measures and recommendations. The first stage comprises monitoring of bone effects in workers exposed to vibration and the establishment of criteria for assessment of specific occupational risks of musculo-skeletal disorders. The second stage involves early determination of musculo-skeletal disorders, the proposition of prophylactic measures for workers exposed to vibration; the determination of standards with regard to vibration exposure limits. The third stage will produce the results of research activities which will be delivered through publications in medical journals, monographs and guidelines. Training programmes for medical personnel have been organised.

*Duration of the activity*: 2003-2006.
Publication on MSDs
Bernd Cugier, Federal Institute of Occupational Safety and Health (FIOSH), Germany (cugier.bernd@baua.bund.de)
As an activity of the FIOSH, a combined programme was developed in May 2002 aimed at the assessment of stress and strain in manual material handling and their relations to musculoskeletal disorders. The programme consists of two parts: Risk Assessment and Health Assessment. In the part Risk Assessment a method is described to calculate the risk of manual handling tasks by means of "key indicators" such as frequency or duration of lifting, load weight, body posture, and restricted working conditions. The "Key Indicator Method" is recommended for application according to the Load Handling Ordinance in Germany. In the part Health Assessment a multi-step inventory for diagnostics of musculoskeletal disorders in the occupational medical practice is given. It was developed by orthopaedic physicians in cooperation with the FIOSH. The combined programme is published on the web-site of FIOSH (www.baua.de/prax/index.htm) available in German only. There is also a simple PC programme for calculating the risk score.
Funding is in place. The project will be completed by December 2005.

Completing guidelines for the prevention of MSD as a basis for questionnaires to interested CCs to assess the load of the musculoskeletal system and to prevent MSD
Barbara Griefahn, Institute for Occupational Physiology at the University of Dortmund (IfADo), Germany (griefahn@ifado.de)
Keywords: MSD, Guideline, Questionnaire, Computer-based assessment of musculoskeletal load
Target groups: decision-makers at various levels (employers, Departments of Health and Labour, Trade Unions)
The purpose of the project is to determine the situation of MSD in various countries (where Collaborating Centres exist) and to provide a computer-based tool for the assessment and prevention of MSD.
Guidelines have been prepared in close cooperation of IfADo and the Federal Institute of Occupational Safety and Health (FIOSH) Berlin, Germany. They outline the significance of MSD as a main cause for absence from work and for high costs for public health. Health problems occur, in particular, if the mechanical workload is higher than the load-bearing capacity of the musculoskeletal system, irrespective of its components (bones, tendons, ligaments, muscles, etc.). Apart from mechanically induced strain effecting the locomotor organs directly, psychosocial factors such as time pressure, low job decision latitude or insufficient social support can augment the risk by elevated muscle tension and by effecting motoric coordination. Reducing the mechanical load on the musculoskeletal system during the performance of occupational work is an adequate preventive measure. Major risk factors are high force resulting from lifting, pushing, or pulling heavy objects, high repetition frequency or long-term force execution, unfavourable posture, static muscle forces or working on or with vibrating machinery. Effective measures for the reduction of forces acting within or on the skeletal and muscular structures consider occupying a favourable posture next to a reduction of load weight.
FIOSH Berlin, Germany is collaborating on the project.

Questionnaires on musculoskeletal disorders related with accidents at work
Kenneth R. Laughery (laugher@ruf.rice.edu), (Chair, IEA STP Committee) IEA STP-TC MSD, with STP and IDC Committees
Keywords: musculoskeletal disorders, ergonomics, accidents at work, occupational safety and health management systems
Target group: occupational safety and health personnel concerned with the prevention of musculoskeletal disorders and related accidents and instructors in relevant educational and training institutions
The objective of this project is to develop action-oriented questionnaires on musculoskeletal disorders related with accidents at work for their use by occupational safety and health personnel. The project is undertaken as an international activity of the IEA STP-TC Musculoskeletal Disorders. The project aims to examine current conditions of work and the working environment in different industrial settings and develop practical questionnaires on existing musculoskeletal disorders and necessary preventive measures. The questionnaire items are compiled on the basis of field experiences in various countries. The outcome of the project are tested by members of TC MSD and presented for use as guidance materials in occupational safety and health management systems. The project also aims at publishing positive experiences in the prevention of musculoskeletal disorders and related accidents.

Survey on musculoskeletal disorders in Vietnam
Le Van Trung, National Institute of Occupational and Environmental Health, WHO Collaborating Center on Occupational Health, Vietnam (letrung@hn.vnn.vn)
Keywords: musculoskeletal disorders, ergonomics
The objectives of this project are the investigation on the occurrence of musculoskeletal disorders (MDs) in selected occupations in Vietnam, analysis in terms of causal factors, and suggestions of ergonomic interventions. Funds have been secured by WHO.

Inventory of other materials related to prevention of MSDs
Barbara Griefahn, Institute for Occupational Physiology at the University of Dortmund (IfADo), Germany (griefahn@ifado.de)
The project is funded in-house.
The goal is to develop predictive models for the MSD related to manual material handling and due to whole-body-vibrations as well as hand-arm-vibrations. The project will be completed by November 2004.

**Evaluation of exposure and detection of health effects**

Jana Hlávková, Centre of Industrial Hygiene and Occupational diseases, National Institute of Public Health, Czech Republic (jhlav@szu.cz)

*Keywords:* Musculoskeletal disorders, long-term overloading, small muscles, occupational diseases, and surface electromyography

*Target group:* Selected employees working under conditions that cause local-muscular overload. The selection of monitored persons will be made on the basis of an analysis of reported occupational diseases.

This project is aimed at evaluating the causal connection between working conditions and the onset of musculo-skeletal diseases, particularly those caused by long-term excessive load. It is known that various factors are responsible for the development of MSD. For the purpose of prevention it is essential to be acquainted with the significance and ratio of individual factors related to these diseases. We have therefore concentrated on assessing the influence and relative significance of individual occupational factors related to local muscular load. The aim is to reveal their significance in the onset of individual types of occupational diseases caused by excessive unilateral load, confirm the viability of currently used values and create criteria for assessment of individual occupational diseases.

Currently, data are being accumulated, analyzed and evaluated. The project is progressing according to schedule and currently data are being accumulated, analyzed and evaluated.

The project is scheduled to be completed by 2005 and funding is in place. The planned outcomes include establishing physiological criteria for the acknowledgement of MSD as an occupational disease, and elaborating the principles of prevention and intervention in MSD due to heavy physical work. The calendar is as follows: 2002 – 2004 for accumulating dates, continuous analysis and evaluation; and 2005 for final analysis and evaluation. The project is being run in close collaboration with all Authorities of Public Health nation-wide (regional and district).

*Project end date:* January 1991

**Preparation of teacher’s guide and fact sheet within the area of occupational exposure to vibration**

Lage Burström, National Institute for Working Life, Sweden (lage.burstrom@arbetslivsinstitutet.se)

*Keywords:* vibration, whole-body, hand-arm, occupational, guide

*Target group:* The Teacher’s Guide is targeted towards persons involved in the education of individuals who are either exposed to occupational vibration, need to manage environments where workers come into contact with vibration, or need to deal with various health effects of vibration. The target group is people located in developing and industrializing nations.

The purpose is to produce two documents, one teacher’s guide (40-80 pages) and one fact sheet (4-5 pages) within the area of occupational exposure to vibration. A draft outline of the teacher’s guide for the area of hand-arm vibration is under preparation and will be reviewed during the beginning of next year. The guide covering whole body vibration will be ready for review during 2003 as well as the fact sheet. Feedback on draft of the manuscripts is provided from WHO Collaborating Centres in Bulgaria, Ukraine, Chile, Czech Republic, Hungary and Thailand.

*Project start date:* February 2002

*Project end date:* June 2005

**Application and validation of a biomechanical model for manual material handling**

Matthias Jäger, Institute for Occupational Physiology at Dortmund University (IfADo), Germany (mjaeger@ifado.de)

*Keywords:* model, spine, manual material handling

*Target group:* Professional Associations, Physicians specialised in Occupational Health and Preventive Medicine

*The purpose of the project:* Prognosis of long-term low-back effects based on actual workload at the workplace.

The biomechanical model ‘The Dortmunder’ allows the estimation of the load on the lumbar spine caused by the common types of manual material handling. This model will be applied in the field, in cooperation with several partners (multi-disciplinary and multi-center study), in order to quantify cumulative lumbar load for the occupational life of persons with diverse degenerative lumbar diseases. The aim is to validate a dose model, which is in use for workers compensation in Germany (‘The Mainz-Dortmund Dose Model’), that enables the prediction of the long-term effects on the spine.

*Product:* prediction model. Funding: in place

*Project start date:* October 2002

*Completion date:* March 2006

**Prediction of vibration induced forces by means of a biomechanical model**

Martin Fritz, e-mail: fritz@ifado.de, Institute for Occupational Physiology at Dortmund University (IfADo), Dortmund, Federal Republic of Germany
Keywords: Model, spine, whole-body vibrations
Target group: Professional Associations, Physicians specialised in Occupational Health and Preventive Medicine

The purpose of the project is to establish a prognosis of long-term effects based on actual stress at the workplace. Vibration-induced disorders of the spine are acknowledged as occupational diseases and under defined conditions accordingly compensated. This project aims at the development of a mathematical biomechanical model that estimates the forces in the spine and the long-term outcome caused by whole-body vibrations.

Product: Prediction model  Completion date: 2006  Funding: in place
Project end date: 2006

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**Ergonomic guidance for the prevention of MSDs**

David Caple, davidcaple@pacific.net.au Chair, International Ergonomics Association (IEA), International Development (ID) Committee, Melbourne, Australia

Keywords: ergonomics, guidelines, MSD, prevention

Target Group: workers, union representatives, employers, students, OHS practitioners

Purpose of project: The IEA to assist the ILO in drafting a Guidance Note on ergonomics with specific focus on the prevention of MSD.

The ILO has identified the high incidence of sprain and strain injuries amongst workers. In 2003, the ILO funded the IEA to conduct an extensive review on MSD injury prevention approaches taken by Governments and other agencies. It also included an overview of the MSD ergonomics research to identify the key risk factors to be addressed in the Guidance Note. This was completed in early 2004.

In 2005, it is proposed that the IEA Technical Committee on MSD will work cooperatively with the ILO in developing the Guidance Note.

Names of other Centres collaborating on the Project: International Labor Organistaion Safe Work program, Geneva

Product: An ILO Guidance Note on ergonomics.

Project start date: December 2003

Project end date: (month/year): December 2005
Effective occupational health practice requires not only the front-line OHS at the enterprise and local levels, but also several expert services that individual companies or workplaces may not be afforded to sustain. Expert advisory and analytical services of occupational hygienists, ergonomists, and safety engineers, among others will be needed. In all steps of occupational health practice the principles of total quality management and continuous quality improvement should be followed.

**COMPLETED PROJECTS: PREVENTIVE TECHNOLOGY (TF10)**

1. **Dust control course (PACE-initiated)**
   - Gunnar Rosén (gunnar.rosen@arbetslivsinstitutet.se) and Ing-Marie Andersson (ing-marie.andersson@arbetslivsinstitutet.se), National Institute for Working Life (NIWL), Sweden
   - **Keywords:** prevention, control, dust
   - **Target Group:** industry based health and safety officers, industry based ventilation officers, occupational health inspectors, environmental health officers, industry based occupational nurses and doctors, lecturers involved in teaching dust control methods
   - The objective of this project was to prepare training material and to arrange courses based on the WHO/PACE dust control document. This includes the document Hazard Prevention and Control in the Work Environment – airborne dust, a CD-ROM-based training material including the text document as well as a number of video files illustrating different phenomena’s, practical solutions etc. The videos use different visualisation methods as PIMEX, dust lamp and the use of smoke. Material were also be prepared for lecturers preparing the courses.
   - The CD-ROMs were used in two pilot courses in Cape Town and Johannesburg in March 2003. The CD-ROMs are available from the Project Officers and NIWL and from WHO (kortummargote@who.int) free of charge.
   - The Finnish Institute of Occupational Health, Finland and the University of Cape Town, South Africa collaborated on the project.
   - **Project start date:** January 2003
   - **Project end date:** September 2004

2. **GTZ Convention Project Chemical Safety**
   - Susanne Scholaen (susanne.scholaen@gtz.de), Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), Germany, Martin Tischer (tischer.martin@baua.bund.de), Bundesanstalt fuer Arbeitsschutz und Arbeitsmedizin (BAuA), Germany
   - **Keywords:** chemical management; control banding; developing countries; prevention
   - **Target group:** small and medium-sized enterprises with chemical hazards
   - The project aims to support developing countries in the implementation of the Rotterdam and Stockholm Conventions, create human resources and institutional capacities and to demonstrate via pilot measures how chemical safety in the partner countries can be improved and sustainably implemented in line with international standards. With this objective the development of a Chemical Management Guide (CM Guide) for small and medium-sized enterprises in developing countries has been initiated. The guide describes a step-by-step approach which is based on identifying ‘hot-spots’ and develop an action plan for the implementation of improvement. In a second step the companies are trained to make an inventory of all chemicals within their company with the aim to provide the information needed to calculate losses, consider substitutes, and determine and evaluate adequate controls on the basis of the ILO Toolkit. Thus, the CM Guide is a management tool for cost management, environmental and occupational hygiene management, and organisational change.
   - Based on the ideas outlined above, a draft version of the CM Guide was developed and tested in practice. Experiences from workshops held in Indonesia and from a test implementation of this approach in five Indonesian SMEs are available. These experiences provide insight into the obstacles that companies typically face in undertaking chemical management. Currently a “handbook for trainers” is being developed that aims to provide local trainers with teaching materials on control banding and occupational safety. Workshops were held in Chile in March 2004 and in Vietnam in April 2004.
   - **Products:** Chemical Management Guide in English and Bahasa Indonesia, Handbook for Trainers in English. Both are translated into Spanish, French and Vietnamese.

3. **Application of preventive technologies to focus especially on small enterprises**
   - Tom Sorahan, University of Birmingham, UK (t.m.sorahan@bham.ac.uk); Heather Jackson, IOHA, USA (Heather.Jackson@lyondell.com)
   - **Keywords:** prevention, control banding, participatory occupational hygiene, work-related illness, ILO Toolkit
   - **Target group:** All interested Collaborating Centres over and beyond those who have currently expressed interest.
   - The objective of the project is to make the control banding techniques, as illustrated by the ILO Toolkit, usable by all participating Collaborating Centres and allow them to translate the Toolkit to ensure a culturally appropriate version for
them to distribute, evaluate, and eventually implement. Translation of the Toolkit for local applications will best assist individual countries to begin application of the Toolkit and to focus on the needs of small enterprises. The project also aims at creating a mechanism to share successes and practical applications with similar trades and small enterprises based in part on the concepts of participatory occupational hygiene.

A two-day workshop on Control Banding was hosted in London, UK on the 4th and 5th of November, 2002.

The centres collaborating on the project are Japan (NIIH), China (Dept OH + IOM), Viet Nam (NIOEH), Chile (ACS), Thailand (NICE + Dept. of PH), Russia (SCIOH), Bulgaria (NCHM), Serbia and Montenegro (IOPH), South Africa (NCOH) and India (NIOH), UK (HSE); USA (NIOSH).

**Further development of PACE (India)**

H.N. Saiyed (saiyedhn@yahoo.com), National Institute of Occupational Health, Ahmedabad, India

**Keywords:** National silicosis elimination programme, agate industry, quartz crushing industry, stone quarries, dust control device.

**Target groups:** Employers, workers, occupational health and safety regulation enforcing agencies, policy makers, trade unions, general public with emphasis on people living in the surrounding of the high risk industry.

The purpose of the project is to develop simple and affordable dust control devices for the industries with high risk of silicosis. This activity is one of the Component of National Silicosis Elimination Programme and the progress is as follows:

- Dust control system developed and successfully installed for the agate industry. The evaluation work is completed. Ten factories are already using the dust control devices.
- Dust control device developed and installed in quartz grinding factories. The evaluation work is on the way.
- Development of dust control device is on the way in stone quarries.

Other Centres collaborating on the project are: Director General Mines Safety, Government of India. Dr. P.K.Sisodiya. Desert Medicine Research Centre, Jodhpur, India. Dr. M.L.Mathur; Chief Inspectors of Factories Gujarat and Rajasthan State. Mr. B.N.Mehta. Chief Inspector of Factories; Directorate General, Labour Institute, Mumbai. Mr. S.K.Saxena, Director General.

**Strengthening of occupational and environmental health research in Central America and the Caribbean**

Catharina Wesseling (cwesseli@una.ac.cr), Luisa Castillo (lcastill@una.ac.cr), IRET-UNA, Universidad Nacional, Costa Rica

Centres Involved in Project: IRET-UNA; Central American and Caribbean research institutions. Support from Karolinska Institute, National Institute of Working Life (Sweden), Stockholm University, University of Washington, University of Texas.

Start year: 1987

**Keywords:** Central America, Caribbean, Research, Occupation, Environment

**Target group:** Scientists and science administrators in Central America

The purpose of the project is to generate and strengthen qualified human resources and scientific-technical knowledge for occupational and environmental health in Central America.

**Summary description of project scope:** multicentric and bilateral research projects in Central America; Central American research training programs: Establishment of a Central American scientific-professional network

**Progress:** Collaborative research and research training underway. Professional network designed, to be established.

**Products:** 22 collaborative scientific publications and abstracts; 1 international conference; 1 regional workshop; 14 regional courses; course materials; 2 manuals; over 30 seminars with national and international speakers

**Project start date:** 1987

**Alternatives for pesticide use in Costa Rica**

Fabio Chaverri, IRET-UNA, Universidad Nacional, Costa Rica (fchaverr@una.ac.cr)

with Ministry of Environment (MINAE), University of Costa Rica (UCR, Faculty of Agro-Nutritional Sciences); Technological University of Costa Rica (ITCR, School of Agronomic Sciences); National Association of Organic Agriculture (ANAO); Biomass Users Network (BUN); Eco-Lógica (an organic certification organization); Latin American Pesticide Action Network (RAPAL)

**Keywords:** Integrated Pest Management, Organic agriculture, Sustainable agriculture, Technology transfer, Environmental management certification.

**Target group:** Pesticide users (large agro-industries, small and medium farmers, agricultural workers), policy makers, general public.

The objective of the project is the reduction of pesticide use in Costa Rica. It began in 1993. The most problematic crops and pesticides are prioritized for preventive action. Elimination and substitution of the most dangerous pesticides are targeted. The project includes, among other activities, elimination of methyl bromide and sustainable crop management in melon, elimination of methyl bromide in flower production, production of organic banana and coffee including support to Eco-Lógico in organic certification, and certification of enterprises in environmental management. Public and governmental awareness is raised through campaigns directed to policy makers, pesticide users and consumers.
The most problematic crops and pesticides are prioritized for preventive action. Elimination and substitution of the most dangerous pesticides are targeted. The project includes, among other activities, elimination of methyl bromide and sustainable crop management in melon, elimination of methyl bromide in flower production, production of organic banana and coffee including support to Eco-Lógica in organic certification, and certification of enterprises in environmental management. Public and governmental awareness is raised through campaigns directed to policy makers, pesticide users and consumers.

Successful show cases of elimination of methyl bromide in melon and flowers. Reversion since 2000 of the increasing trend of methyl bromide use. Support in the creation of an organic certification organization (Eco-Lógica). Participation in the drafting of legal regulations. There is an increase in area of organic farming, particularly in coffee and banana. Collaboration with other Centres: The methyl bromide project is embedded in an international treaty, the Montreal Protocol on substances that deplete the ozone layer. The project is implemented by the United Nations Environmental Program (UNEP) and United Nations Development program (UNDP). Many activities are coordinated with PAHO / project PLAGSALUD. The project has also cooperated frequently with the Agronomic School of the Humid Tropical Region (EARTH), International Labour Organisation (ILO), Ministry of Agriculture (MAG), and many nongovernmental organizations.

Products: 1 book, 2 booklets, 4 technical articles, 2 conference presentations, 1 video, 2 consultation tasks, including chemical pesticide residue analyses in control of organic management.

Project end date: Continuous

Alternativas al uso de plaguicidas en Costa Rica

Fabio Chaverri, IRET-UNA, Universidad Nacional, Costa Rica (fchaverr@una.ac.cr)

Centros incluidos en el proyecto: Ministerio de Ambiente y Energía (MINAE); Universidad de Costa Rica (UCR, Facultad de Ciencias Agroalimentarias); Instituto Tecnológico de Costa Rica (ITCR, Escuela de Agronomía); Asociación Nacional de Agricultura Orgánica (ANAO); Red de Usuarios de Biomasa (BUN); Eco-Lógica (una organización de certificación de producción orgánica); la Red de Acción en Plaguicidas en América Latina (RAPAL).

Palabras clave: Agricultura orgánica, transferencia de tecnologías, certificación en manejo ambiental

Grupos meta: usuarios de plaguicidas (agroindustrias grandes, agricultores pequeños y medianos), tomadores de decisiones y el público en general.

Objetivo del proyecto: Reducción de uso de plaguicidas en Costa Rica

Colaboración con otros centros: El proyecto de bromuro de metilo es parte de un programa internacional dirigido por el Programa Ambiente de las Naciones Unidas (PNUMA) y el Programa de las Naciones Unidas para el Desarrollo (PNUD). Muchas actividades son coordinadas con el programa PLAGSALUD de la Organización Panamericana de la Salud (OPS), la Escuela Agrícola de la Región Tropical Húmeda (EARTH), la Organización Internacional del Trabajo (OIT), y organizaciones no gubernamentales en general, especialmente la Corporación Educativa para el Desarrollo Costarricense (CEDECO).

Productos: 1 libro, 2 folletos, 4 artículos técnicos, 2 presentaciones en congresos internacionales, 1 video, y 2 tareas de consultorías (incluyendo análisis químicos de residuos de plaguicidas en control de manejo orgánico).


Development and maintenance of consistency in asbestos fibre counting by Proficiency Testing schemes

Institute of Occupational Medicine, Alan Jones, Edinburgh (Alan.Jones@IOMHQ.org.uk)

Project start date: April 2003
Project end date: March 2006

Courses in the use of the PIMEX method

Gunnar Rosén (gunnar.rosen@arbetslivsinstitutet.se) and Ing-Marie Andersson (ing-marie.andersson@arbetslivsinstitutet.se), National Institute for Working Life, Sweden

Keywords: prevention, control, visualisation, PIMEX.

Target group: industry based health and safety officers, industry based ventilation officers, occupational health inspectors, environmental health officers

The objective is to train a group of occupational hygiene specialists in the use of the PIMEX method and to provide them with necessary software and know how. The course that will be arranged will give the participants an overview of different visualisation tools that can be used for a more effective search for measures aimed at control of occupational hazards.

PIMEX is one such method. The participants will be given deep knowledge about the method and a strategy for its use and also full access to know how and software to implement the method.

Courses were given in Johannesburg and Cape Town, South Africa, in 2003. All course documentation including special software was put on one CD-ROM and handed out to the course participants. Another course is planned for the IOHA Conference in South Africa in September 2005.

The Finnish Institute of Occupational Health, Finland, the University of Cape Town, the National Center for Occupational Health, Johannesburg, and WHO are collaborating on the project.
**Assessing the Utility of Control Banding in the United States**

T.J. Lentz (TBL7@cdc.gov), Rick Niemeier (RWN1@cdc.gov), Marilyn Fingerhut (MAF2@cdc.gov), National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, USA

Keywords: control banding, engineering controls, occupational hygiene, small businesses, work practices

Target group: International occupational health community, U.S. occupational health professionals and small business community

This project will investigate multiple issues relating to the utilization of control banding, an approach to controlling risk from chemical exposures designed specifically to meet the needs of small businesses. Primary objectives of this project will be to determine the utility and barriers to implementing control banding for addressing hazards in U.S. workplaces. Through meetings and discussions with international partners, national agencies, and labor groups in the United States, and an interdivisional NIOSH panel of experts (control banding committee), this project will generate strategies and products for guiding the implementation of control banding, evaluating the effectiveness of these techniques, and determining obstacles to overcome for effective implementation. By adopting and modifying existing approaches and tools first tested by international partners, the project will also consider development of additional control banding applications for NIOSH priority areas of ergonomics, dermal exposures, and traumatic injuries.

A summary of activities planned for Fiscal Year 2004 (10/03 – 10/04) is provided below.

- Co-sponsorship of the Second International Control Banding Workshop, March 2004, Cincinnati, Ohio, USA;
- Co-sponsorship of the AIHCE Forum on Control Banding, May 2004 Atlanta, Georgia, USA;
- Developing and establishing a Web Page on control banding, either internally or by assisting the WHO/IPCS or ILO through funding of a cooperative agreement to develop such a page;
- Developing and evaluating the utility of a control banding “toolkit” for approximately six chemical substances used in small business environments, utilizing technical and research capabilities either within the Institute or through joint agreements with the HSE, ILO, or WHO.

Convening periodic interdivisional meetings of the Institute control banding committee and external national and international stakeholders via teleconferences, ENVISION, and in conjunction with other programmed travel or meeting opportunities.

**Assessing the Utility of the ILO Toolkit in Singapore**

Magdalene Chan, Occupational Health Department, Ministry of Manpower, Singapore (magdalene_chan@mom.gov.sg)

**Keywords:** ILO Toolkit, control banding, risk assessment, chemical hazard analysis and control, small and medium enterprise

**Target group:** international occupational health community, occupational health professionals and small business community

The objective of the project is to investigate the issues involved in applying the ILO Toolkit that uses the control banding approach and to evaluate its usefulness in small and medium enterprises (SMEs) in the Singapore context.

The project will be carried out in two phases. In the first phase, the ILO Toolkit will be tested out in parallel with a semi-quantitative risk assessment method developed by Singapore’s Ministry of Manpower, based on exposure data and other parameters. The field tests will be conducted by industrial hygiene professionals on selected processes from various industries. Risk levels derived from the risk assessment method will be compared to the control approaches obtained from the Toolkit assessment to evaluate the consistency of both methods. In the second phase, different SMEs will be selected to try out the Toolkit method using their own resources. The applicability of the Toolkit will be assessed based on the results of the field tests and feedback from the SMEs.

The project is in its first phase and field testing has been conducted on processes from the metalworking and paint manufacturing industries.

Names of other centres collaborating on the project: Heather Jackson (Heather.Jackson@lyondell.com), International Occupational Hygiene Association (IOHA).


**Project start date:** July 2003

**Project end date:** October 2005

**Translation of toolkit package and preparation of Chemical Management Guide**

Martin Tischer, Federal Institute of Occupational Health, Germany (tischer.martin@baua.bund.de)

Emilia Ivanovich, National Centres of Hygiene, Medical Ecology and Nutrition, Bulgaria (e.ivanovich@nchmen.government.bg) with Svetla Zolova and Theodor Panev
Keywords: brochure, chemicals, adverse effects, prevention

Target group: occupational hygienists, physicians, safety engineers, decision-makers, planners and managers, occupational health services staff

Project start date: January 2004

The objective of the project is to raise awareness among industrial hygiene and occupational health professionals and decision-makers of good practice in identification, evaluation and management of the risk, due to exposure to hazardous chemicals. It involves the development of methodology and tools for effective identification, evaluation and management of risk due to exposure to hazardous chemicals to contribute to effective occupational health practice, strengthening expert services of occupational hygienists, occupational physicians, safety engineers, and employers for implementation of good occupational health practice and principles of total quality management and continuous quality improvement.

The project is in the organizational phase. A review of the Control Banding concept, its applicability for the countries in transition and possible piloting in Bulgaria is being undertaken. WHO, IOHA and the Institute of Occupational Health and Poison Control, Chinese Centres for Disease Prevention and Control, Beijing, China are collaborating on the project.

Project end date: December 2006

Translation of ILO-OSH Management System

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

The ILO-OSH Management system has been translated into Chinese. Following this, a National Occupational Health Management System was recently developed incorporated with the Chinese National Law on Prevention and Control of Occupational Diseases. The tailored OSH Management system will be adapted for coal mining, adhesives industries etc. The project will be completed by 2005.

Developing criteria for ergonomics quality in design accreditation procedures

Waldemar Karwowski (karwowski@louisville.edu), EQUID Committee, with IEA STP Committee

Keywords: ergonomics quality, products design, work systems, services, certification, human-system compatibility

Target group: managers and designers concerned with ergonomics quality in design and institutions and bodies for promoting ergonomics and occupational safety and health and for developing relevant assessment and certification procedures

The objective of this project is to elaborate and develop criteria for ergonomics quality in design and assist institutions and bodies interested in relevant assessment and certification procedures. The project is managed by the IEA EQUID Committee in collaboration with IEA Federated Societies and research and educational institutions in the ergonomics field. The project aims to contribute to the enhancement of human well-being and overall system performance including safety and health aspects. Human-system interaction design considerations for the project include physical, cognitive, social, organizational and environmental factors. The outcome of the project will be incorporated in the process of ergonomics quality in design accreditation that should contribute to the sound development of products and work systems.

The project has initiated the development of the policy and procedures for training of assessment and certification personnel related to ergonomics quality in design. The outcome of the project will be incorporated in the process of ergonomics quality in design accreditation that should contribute to the sound development of products and work systems.

Dust Control in Small Silica Flour Milling Units

H.N. Saiyed (saiyedhn@yahoo.com), National Institute of Occupational Health, Ahmedabad, India

Project start date: January 2004

Project end date: December 2006

Development and maintenance of consistency in asbestos fibre counting by Proficiency Testing schemes

Alan Jones, Institute of Occupational Medicine, UK (Alan.Jones@IOMHQ.org.uk)

Keywords: asbestos, fibre counting, proficiency testing (PT), international comparability

Target group: Laboratories that measure asbestos fibre concentrations, and hence people liable to be exposed to asbestos.

The objective of this project is to provide a comprehensive network linking national fibre counting schemes and to provide a sound proficiency testing service for laboratories in countries without a national system. The measurement of concentration of airborne asbestos fibres is very dependent on the proficiency of the analysts who count the fibres by phase contrast optical microscopy. National PT schemes help achieve consistency within countries. This project aims to help establish consistency between various national PT schemes, to maintain this consistency by establishing international links.

Meetings between European national PT schemes for fibres counting have led to a comparison exercise, which is being organised by the IOM. Initial data has been discussed at a meeting in November. Funding is partly in place, partly awaiting authorisation of application.

Project start date: April 2003

Project end date: March 2006
Development and maintenance of consistency in asbestos fibre counting by Proficiency Testing schemes

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (hefs@public.bta.net.cn)

Project start date: April 2003

The objective of this project is to provide a comprehensive network linking national fibre counting schemes and to provide a sound proficiency testing service for laboratories in countries without a national system.

Project end date: March 2006

Workplace monitoring guidelines and industrial hygiene practice

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)
Claude-Alain Bernhard, Institute of Occupational Health Sciences, Switzerland (Claude-Alain.Bernhard@inst.hospvd.ch)
Tom Sorahan, University of Birmingham, UK (T.M.Sorahan@bham.ac.uk)
Nikolai Izmerov, RAMS Institute of Occupational Health, Russia (izmerov@rinet.ru)

The occupational health standards of 200 more chemicals in TWA or STEL were investigated and issued in May 2001. The biological exposure limits of about 10 chemicals or their metabolites were approved to be the indicators of biological monitoring in 2002.

Funding from the Ministry of Health, China is in place. The project will be completed by 2003.

Reduction of cow allergen in farmers’ households

Rudi Schierl, Institute and Outpatient Clinic for Occupational and Environmental Medicine, University of Munich, Germany (rudi.schierl@arbeits.med.uni-muenchen.de)

Keywords: cow dander allergy, allergen reduction, working conditions

Target group: Farmers, farm workers

The purpose of the project is the evaluation of simple measures to reduce cow allergen in farmers’ homes.

Allergies to cow dander is a major problem in farming environments. Occupational asthma due to animal allergy forces many farmers to give up work. Despite the avoidance of animal contact, the disease often persists. One mechanism is the transfer of allergens from the stables into the living room, kitchen, and bed. Our project aims at behavioural and technical measures to reduce exposure to farm animal allergens.

Local agricultural professional associations co-operate on this project.

At the end of our study, we will be able to develop simple recommendations to reduce allergen exposure in farmers’ homes. The study was started in 2002 and will be finished in 2004.

Design of a quality assurance system for professional risks

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Keywords: Quality Guarantee System, Professional risk system.

Target group: professional risk institutions that belong to the General Health System

The purpose of the project is to design and implement a Quality Assurance System for the professional risk system to educate leaders in quality assurance, to collect information regarding quality assurance in other countries, to develop requirements to be applied in quality assurance, to validate the requirements through a pilot project, to publish the legal requirements, and to implement them in the professional risk system.

The first step to design the quality assurance system is to sign agreements with qualified entities for the formation of project leaders. The next step is to recollect information about quality guarantee systems and to define the requirements for the development of the system, followed by the validation of the system through a certified organism made by a competent organism. A pilot project will be developed to test the requirements, which will then be implemented into the legal regulation.

Assessing the utility of control banding toolkits in Southern India

Dr H.N. Saiyed, National Institute of Occupational Health, Ahmedabad, India (saiyedhn@yahoo.com)

Keywords: occupational risk management, control banding, prevention, SME, industrial hygiene and health

Target group: Management and staff of enterprises involved in chemical handling, sectoral facilitators (consultants), academic professionals

The primary objective of this project is to assess the various application aspects of the GTZ chemical management guide as a control-banding (chemical risk management) tool in small and medium enterprises (SMEs) as well as selected large-scale enterprises in Southern India. The center has been involved with exposure profiling SMEs as a part of on-going research projects and larger enterprises as a part of on-going consultancy activities. Consequently it has available a large data set of quantitative industrial hygiene measurements across a multitude of exposure situations. This presents a perfect opportunity for
the center to engage in pilot projects that would assess and evaluate the applicability of control banding projects within Southern India.

Building on the extensive co-operation of individual managements and professional associations within Tamil Nadu (the state where the center is located), the center will apply the toolkit in parallel with traditional industrial hygiene measurements in selected large-scale enterprises. The risk levels and effectiveness of controls will be compared to the results arrived through the control banding approach.

In order to assess the usability and usefulness of the control-banding tool for SMEs, volunteer enterprises from selected industrial cluster will be invited and guided to implement the control-banding tool. The experiences and results of the application will be compiled in a report to be shared with interested parties.

To facilitate the process, training programmes on use of the tool for facilitators and small enterprise representatives will be arranged in collaboration with German partners. Technical support is currently available through the GTZ-CIM programme and additional support for train the trainer activities is being organized. In course of the project the translation of the tool into Indian languages such as Tamil and Hindi is also envisaged.

Finally, project results will be integrated with other pilot projects in control banding being developed by other WHO CCs (in Benin, South Africa and Brazil) to allow the generation of a common framework for implementing interventions in developing country settings.

*Project start date:* 2004

*Project end date:* 2005
The objective is to ensure the harmonized contents of various curricula in occupational health and safety, the full utilization of programmes and materials already available and the sufficient numbers of trained experts in the field.

Sharing information on training programmes and materials
Magdalene Chan, Occupational Health Department, Ministry of Manpower, Singapore (magdalene_chan@mom.gov.sg)

**Keywords:** occupational safety & health training courses, materials, case studies, web-based information

**Target group:** Persons and institutions interested in OSH training information and materials.

The objective of the project is to make available, through the internet, information on OSH training programmes and materials, such as case studies and guidelines.

The project scope involves to promote the utilization of OSH programmes and materials already available, information on such training and materials should be made accessible and the internet is a good vehicle for this. Currently, information on OSH training and materials in Singapore is available on the Ministry of Manpower’s website at the web pages of the Occupational Safety and Health Division. The project scope involves promoting the utilization of OSH programmes and materials already available through the internet. In Singapore, the Ministry of Manpower’s website provides such information at the web pages of the Occupational Safety and Health Division. Visitors to the website can also subscribe free of charge to an OSH Alert service at www.mom.gov.sg/MOM/CDA that informs them of events, training programmes and case studies.

A computer based network is being developed for members of the Association of Southeast Asian Nations (ASEAN) to facilitate the exchange of relevant OSH information and sharing of expertise. The additional link from Singapore to the ASEAN OSHNET web page will provide useful information on the member countries, including training aspects.

The Manpower Ministry’s website has been enhanced and made more user-friendly. Information on OSH training and promotion is available at: http://www.mom.gov.sg/MOM/CDA.

The ASEAN OSHNET website has been established: http://www.asean-oshnet.or.id/

**Products:** information on occupational safety & health training courses and materials.

**Project start date:** December 2001

**Project completion date:** August 2003.

Course on diagnosis and management of Asbestosis
Chia Sin Eng, WHO Collaboration Centres in Occupational Health, Singapore (cofcsenlus.edu.sg)

Nguyen Thi Hong Tu, Department of Preventive Medicine, Ministry of Health, Viet Nam (hongtu@netnam.org.vn)

**Keywords:** chest x-rays, lung function test, asbestosis, workplace assessment

**Target group:** occupational physicians for the Ministry of Health, Viet Nam both at the capital and provincial levels will be selected to attend this Course.

The aim of this project is to train a group of occupational physicians in the diagnosis of asbestosis. These trainers will then train others in the discipline.

The project consisted of a 3-day intensive stay-in course where participants were taught by occupational physicians. The sessions include lectures, case studies, tutorials and workplace visit with on site risk assessment, group presentations and report writings. In addition, the participants were taught how to read the ILO Pneumoconiosis set of standard chest x-rays. They were also shown the different types of lung function test used in diagnosis of asbestosis.

The Course took place in May-November in Ho Chi Minh City, Viet Nam. The Singapore International Foundation collaborated on the project.

Forty doctors, 20 from Ho Chi Minh City and 20 from provinces throughout Vietnam, attended and they are now training partners from their provinces.

**Project end date:** November 2003

Planning, Management and Controlling
Wieland Wettberg (Wettberg.Wieland@baua.bund.de), BauA, Germany; Klaus Pickert (klaus.pickert@institut-input.de), Input Institut, Germany; Laurent Théveny (laurent.theveny@inrs.fr), Jean Bataille (jean.bataille@inrs.fr), INRS, France

**Keywords:** training, machinery design,

**Target group:** machinery designers

PMC Lernwelt is a transnational remote training platform project designed to foster the integration of occupational health and safety requirements as of the design phase of machinery and derived products.
The development of the platform is being managed by BAuA, while several health and safety institutions are involved in the project (AUVA-Austria, SUVA-Switzerland, INRS-France) along with some German companies and experts in training and new technologies.

INRS is contributing to the project by providing the "LOGINORME safe machinery design" software produced in France as part of the activities undertaken by the ISSA Education and Training Section. This product is designed for initial and ongoing training of machinery designers.

LOGINORME is a decision-making support tool. It takes up the general principles of ISO 12100 and 14121, providing traceability of decisions to eliminate or reduce risk during machine design. The software is available in 5 languages: English, French, German, Portuguese and Spanish.

Further information about PMC Lernwelt is available at: http://www.pmc-center.de/
For further information about Loginorme please contact: jean.bataille@inrs.fr

Bundesanstalt für Arbeits­schutz und Arbeits­medizin (BAuA); Allgemeine Unfall­versich­erungs­anstalt (AUVA), Schweizerische Unfallversicherungs­anstalt (suva), Institut National de Recherche et de Sécurité (INRS); International Social Security Association (ISSA)

Further development of curricula and materials for occupational health and safety experts - The WHO modules in occupational safety and health

Linda Forst, Great Lakes Center, USA (Forst-L@uic.edu), Leslie Nickels, Lorraine Conroy

The WHO modules in occupational health are designed for professionals who are charged with the responsibility of protecting the health of workers. These may include public health officers, physicians, nurses, policy makers, plant managers, and union health and safety representatives.

The modules are organized into four economic sectors: Manufacturing, Service, Agriculture, and Mining. Each module (sector) contains all the course materials to present a 16 hour course. For each sector, there is an Instructor Manual and a Student Manual; both have a "Resources" section to be utilized during didactic sessions.

These materials are available in paper format. They are also available on CDs (compact discs) as pdf files (to preserve formatting) and Microsoft Word/Power Point documents (to allow instructors to alter them). The modules were packaged for use with a multidisciplinary audience—representatives of Hygiene, Medicine, Nursing, Epidemiology, and designers of programs and policies in Occupational Health. Individual exercises may be removed, altered, and re-packaged for other target audiences (e.g., groups of one discipline).

CD-ROMs are available free of charge from Linda Forst (Forst-L@uic.edu) and WHO (kortummargote@who.int)

On-line training in Occupational and Environmental Health

Linda Forst, Great Lakes Center, USA (Forst-L@uic.edu)

Keywords: environmental health, occupational health, distance learning, on-line learning, international occupational health

Target group: WHO put out a message soliciting international students for this pilot. Ten people responded and all 10 were enrolled.

The purpose of this project was to determine whether an on-line, 15-week, interactive format is a viable delivery method for international training. A 3-credit university course was adapted and offered to 10 international students as a pilot. Students are required to read the text, Principles of Environmental Health by Yassi et al, to read additional, posted materials, and to engage in on-line "discussions regarding course material. They took several quizzes, and composed a debate stance with fellow students.

Five the 10 students engaged in the "debate" along with US students, composing two lengthy documents as a group. The whole course is a potential product, though the University of Illinois at Chicago holds intellectual property rights for the moment.

Postgraduate training courses in maritime occupational health

Stanislaw Tomaszunas, Institute of Maritime and Tropical Medicine in Gdynia, Poland (tomasz@immt.gdynia.pl)

Keywords: training of trainers, maritime occupational health

Target group: Medical practitioners from coastal areas of maritime countries, who take care for the health of maritime workers, or who plan to do that. Doctors employed in Departments of Health, Departments of Labor, Trade Unions. Health staff of clinics in port cities.

The objective of this project is to train medical officers, mainly from developing countries and countries of Eastern and Central Europe, in maritime occupational health and prepare them for training other doctors in their home countries in the same subject (postgraduate training of trainers).

In most of the developing countries, where hundreds of thousands of seafarers have been employed on "flag of convenience" merchant ships, maritime workers including seafarers and fishermen have not yet been covered by occupational health services. Following the economic and political changes in countries of Central and Eastern Europe during the 1990s, such services provided by governments have been discontinued, and most of the national seafarers there look for employment on foreign flag ships. Re-building of the occupational health services there is necessary. The health and safety of seafarers should be better protected.
In summer 2002, funding was obtained from the ITF Seafarers' Trust. Training materials were obtained from WHO, ILO, ITF, and from other sources. The WHO Intercountry Training Course on Maritime Occupational Health was conducted in Gdynia, Poland, on 6-20 October 2002. 26 participants from Bulgaria, Croatia, Cyprus, Georgia, Germany, India, Indonesia, Latvia, Norway, Philippines, Poland, Russia, Thailand, and Viet Nam were trained by the staff of the Institute in Gdynia, and 10 guest lecturers from abroad.

Lecturers from the WHO CCs in Denmark and Germany were the lecturers in this course. Publications from sister CCs on maritime medicine were distributed among the participants. 26 doctors (trainers) completed the WHO course and received diplomas. The next WHO intercountry training course will be conducted in 2003, subject to the availability of funds.

Epidemiology of pesticides poisoning.
Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

**Keywords**: Epidemiology, pesticides, poisoning

**Target Group**: Physicians in emergency department of county hospitals

The purpose of this project is to collect the case information of acute pesticide poisoning

A training course on data collection for participants from 11 county hospitals was held.

Funds are provided by IPCS.

Programme for one-month course for OHS personnel
Emilia Ivanovich, National Centres of Hygiene, Medical Ecology and Nutrition, Bulgaria (e.ivanovich@nchmen.govarment.bg)

**Keywords**: occupational health, postgraduate training, one month

**Target group**: physicians, safety engineers and other staff for Occupational Health Services and all interested in Occupational Health.

There is a lack of occupational health professionals in Bulgaria. Building capacity is of great importance for the country in the process of transition and implementation of new approaches for ensuring health and safety at work. The drastic economical changes in the transitional period and the reorientation of the system from curative towards preventive make new approaches in the building capacity necessary. A newly designed programme for postgraduate education has been developed to cover the basics of occupational health, risk assessments and comprehensive preventive approaches.

The programme has been successfully implemented for the purposes of one-month training courses (6 modules). A questionnaire for evaluation of the programme has been developed.

Training and continuous education in occupational and environmental health in Central America
Elba de la Cruz, Catharina Wesseling (cwesseli@una.ac.cr), Luisa Castillo (lcastill@una.ac.cr), Patricia Monge (pmonge@una.ac.cr) and Clemens Ruepert (cruepert@una.ac.cr), IRET-UNA, Costa Rica with University of Washington; University of Texas; Karolinska Institute; Stockholm University; Utrecht University; University of Quebec in Montreal; National Autonomous University of Nicaragua at Leon (UNAN-Leon); Technological University of Costa Rica.

**Keywords**: Central America, Graduate programmes, Continuous education, Courses, Training materials

**Target group**: (i) nurses, physicians, hygienists, engineers, social scientists, toxicologists, environmental scientists; and (ii) professionals in occupational and environmental health and related disciplines.

The purpose of the project is to (i) provide graduate training in occupational and environmental health in Central America; and (ii) develop continuous education (CE) programmes for occupational and environmental health professionals in Central America, focusing on toxic substances and working environment.

(i) A two-year Master Programme in Occupational Health is underway since 1999, organized by IRET and the Technological University of Costa Rica, with emphasis on environmental hygiene. To be expanded to cover Central America. Master Programme in tropical ecotoxicology starts 2003.

(ii) IRET has provided short courses and seminars since 1995. Training materials are produced. International, regional and national conferences and workshops are organized. A network of professionals in occupational and environmental health with interregional training support is being designed.

The following progress has been achieved so far:

(i) Forty Costa Rican students are attending the Master in Occupational Health Programme.

(ii) National and regional CE courses have been organized in occupational and environmental epidemiology; environmental health; occupational hygiene; risk assessment and management; clean technologies; aquatic tropical ecotoxicology; pesticides in the tropical marine environment; watershed-based ecological risk assessment; pesticide toxicology and environmental chemistry; low-tech methods for analyzing pesticide residues; neurotoxicology; and neurobehavioral research and surveillance. Courses and training materials include a Central American Pesticide Manual and a Manual of Neurobehavioral Tests, both produced in collaboration with PAHO. PAHO has co-funded several courses. *International Conference on Pesticide Use in Developing Countries: Impact on Health and Environment* was organized by IRET in 1998, attended by 500 participants from over 30 countries.
PAHO is also collaborating on the project. The programme is in progress: courses, theses, and student supervision are in place. Other accomplishments include one international conference; one regional workshop; 14 regional courses; course materials; 2 manuals; over 30 seminars with national and international speakers.

Products: (i) Program in progress: courses, theses, and student supervision. Two courses were completed in 2003: a one-week Central American Course in Epidemiology with 20 participants from 7 countries, and a 2-week Central American Course in Wildlife Toxicology (15 participants from 5 countries); (ii) 1 international conference; 1 regional workshop; 16 regional courses; course materials; 3 manuals; over 32 seminars with national and international speakers; (iii) Scientific-ethical evaluation of projects of other Institutes.

Project start year: 1995

Carcapitación y educación continua de salud y seguridad ocupacional y salud ambiental en América Central

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Centros incluidos en el proyecto: University of Washington; University of Texas; Karolinska Institute; Stockholm University; Utrecht University; University of Quebec in Montreal; National Autonomous University of Nicaragua at León (UNAN-León); Technological University of Costa Rica.

Palabras claves: América Central, Programas de maestría, Educación continua, Cursos, Materiales educativos

Grupos meta: (i) Enfermeros, médicos, higienistas, ingenieros, profesionales en disciplinas sociales, toxicólogos, profesionales en ciencias ambientales; (ii) profesionales en salud ocupacional y ambiental y disciplinas relacionadas.

Objetivo del proyecto: (i) programa de maestría en salud ocupacional y en salud ambiental en América Central; (ii) desarrollo de programas de educación continua para profesionales en salud ocupacional y ambiental en América Central.


(i) Un programa de Maestría en Salud Ocupacional de dos años de duración se está implementado desde 1999, organizado por IRET y ITCR, con énfasis en higiene ambiental. Un programa de Maestría en Ecotoxicología Tropical empezará en 2003.

(ii) IRET organiza cursos y seminarios cortos desde hace 1995. Se produce materiales de enseñanza. Se organizan conferencias y talleres internacionales, regionales y nacionales. Se diseñará un red de profesionales en salud ocupacional y ambiental.

Avance:

(i) 40 estudiantes costarricenses están participando en el Programa de Maestría en Salud Ocupacional.

(ii) IRET ha organizado cursos de educación continua nacionales y regionales en epidemiología, salud ambiental, higiene ocupacional, evaluación y maneja de riesgos; tecnología limpia, ecotoxicología acuática tropical, plaguicidas en el ambiente marítimo tropical, evaluación de riesgos ecológicos en base en cuencos, toxicología de plaguicidas, química ambiental métodos de tecnología de bajo costo para el análisis de residuos de plaguicidas, neurotoxicología, e Investigación ciencia y vigilancia neuroconductual. Materiales de educación incluyen el Manual Centroamericano de Plaguicidas y el Manual de Pruebas Neuroconductuales, ambos producidos en colaboración con OPS. La OPS ha co-financiado cursos. IRET organizó la International Conference on Pesticide Use in Developing Countries: Impact on Health and Environment en 1998, con 500 participantes de más de 30 países.

Colaboración con otros centros: Ver arriba (Centros incluidos en el proyecto). OPS.

Productos: (i) El programa se está llevando a cabo: cursos, tesis, y supervisión de estudiantes; (ii) 1 conferencia internacional; 1 taller regional; 14 cursos regionales; materiales para cursos; 2 manuales; mas de 30 seminarios con presentantes nacionales y internacionales.

WHO/WPRO Training Programmes

Hisashi Ogawa, WPRO (Ogawah@wpro.who.org)

The following are the activities funded by WHO regular country programme budgets for training in occupational health:

China - Workshops and study tours on occupational health promotion at medium and small-scale workplaces. Funding is secured. The activity has been initiated.

Philippines - Fellowship training of staff on environmental/occupational health risk management and on ergonomics. Funding is secured. The activity has been initiated.

Viet Nam - Training courses on health promotion at workplaces; workshop on assessment of health and economic losses; Fellowship training on epidemiology in occupational health and on occupational health in technology transfer. Funding is secured. The activity has been initiated.

Other contributors: Kaj Elgstrand, ICOH SC on Development and Occupational Health (kaj.elgstrand@arbetslivsinstitutet.se); Bonnie Rogers, ICOH SC on Education and Training (rogersb@email.unc.edu); David Zalk, IOHA (zalk1@llnl.gov)

Assistance to occupational hygiene graduate programmes in developing countries and countries in transition

David Zalk (zalk1@llnl.gov) and Berenice Goelzer (berenice@goeelzer.net), IOHA, USA

Keywords: prevention, IOHA, occupational hygiene, training, ACGIH International Committee
Target group: bodies deemed appropriate as described within IOHA articles of association.

The aim of this project is to utilize IOHA expertise and member organisation support in delivering content criteria for occupational hygiene graduate programmes, occupational hygiene mentorships, training, publications, and related materials to participating university programmes. It aims to offer professional delivering content criteria for occupational hygiene graduate programmes, occupational hygiene contacts as direct student mentors and deliver these materials to universities in developing countries and countries in transition, and any other bodies deemed appropriate recipients by IOHA.

ACGIH and the ACGIH International Committee are supplying mentorships to requesting students in Masters of Public Health programme at the University Witwatersrand in South Africa. IOHA, through ACGIH, are also establishing a fund of a minimum of $2000 annually for at least five years for the purchase and distribution of educational publications to university libraries and other entities as deemed appropriate through the IOHA. Two BOD members of IOHA have delivered their commitment to the UW to teach modules associated with the MPH programme. Content criteria for occupational hygiene graduate programmes are currently in active development. Content criteria for graduate programmes in occupational hygiene. The Mentorship programme is being actively disseminated and ACGIH publications and other technical documents are available.

IOHA, University of Birmingham, UK and NGO, IOHA are collaborating on the project.

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Graduate training in occupational health

Fernando G. Benavides (fernando.benavides@ceixs.upf.es), Occupational Health Research Unit, Research Unit on Respiratory and Environmental Health, Barcelona, Spain.

Keywords: graduate training, occupational health

Target group: Graduate and postgraduate students in occupational and environmental health from any country, on a competitive basis. Applications from students from Spanish-speaking developing countries are especially encouraged.

The purpose of the project is to provide masters and doctoral level training in occupational health. Funded opportunities for students from Spanish-speaking developing countries are being identified.

Public funds from Catalunya support the academic infrastructure for this activity, and students are required to pay tuition in this program. However, scholarship opportunities are also available, on a competitive basis, for qualified students. In particular, the proposed Barcelona WHO Collaborating Centre will work with the WHO Collaborating Centre at The University of Texas to offer scholarships, on a competitive basis, to students from developing countries in Latin America. The WHO website and the Network of Collaborating Centres in Occupational Health will disseminate announcements of scholarship opportunities. These academic programs are open to citizens of other countries as well. The languages of instruction are Catalan, Spanish and English.

The graduate programs are already in place. Scholarships for students from Spanish-speaking developing countries are expected to be in place for the 2003-2004 academic term.

Centres collaborating on this project are the Southwest Center for Occupational and Environmental Health at The University of Texas School of Public Health in Houston, Texas.

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Short-term training and continuing education workshops and short courses in Spanish for occupational health professionals

Fernando G. Benavides (fernando.benavides@ceixs.upf.es), Occupational Health Research Unit, Research Unit on Respiratory and Environmental Health, Barcelona, Spain; George L. Delclos (gdelclos@sph.uth.tmc.edu), Houston, University of Texas

Keywords: short-term training, continuing education

Target group: Occupational health researchers, graduate students and professionals from Spanish-speaking developing countries.

The purpose of the project is to provide short-term training, in Barcelona, in specific areas of occupational health for researchers from Latin America, on a case-by-case basis, and to support the continuing education activities in Latin America currently being conducted by the Southwest Center for Occupational and Environmental Health at The University of Texas School of Public Health.

This project will add to existing short-term training and continuing education offerings for Latin American occupational health professionals. Many of these activities, especially the short courses, will be conducted in collaboration with the University of Texas WHO Collaborating Centre. This latter Centre is already established in this area in several Latin American countries. Financial support for these activities is secured largely through a U.S. Fogarty International Center training grant at the University of Texas. Technical consultation may be requested from PAHO, largely for assessing short-term and continuing education needs in Latin America. For the short-term training and teaching activities in Barcelona, trainees from Latin America have access to the full complement of facilities and faculty of the Unit during their stay.

Coordination, implementation and evaluation of continuing education courses and workshops in Latin America will be provided by The University of Texas Collaborating Centre. The proposed WHO Collaborating Centre in Barcelona will provide faculty and course materials for selected short courses in Latin America. Partial financial support, in the form of short-term traineeships and scholarships, for these courses will be provided by separate sources, including the Fogarty Center training grant held by the University of Texas. The proposed new Collaborating Centre in Barcelona will make
important contributions by providing course faculty and instructors in those areas of expertise where the University of Texas is lacking.

Short-term training and continuing education courses are already being offered by the University of Texas Collaborating Centre. The support provided by the proposed WHO Collaborating Centre in Barcelona will broaden the spectrum of Spanish-language expertise in occupational health, allowing a greater diversity of offerings for Latin American occupational health professionals. In preparation for this activity, a postdoctoral fellow from the proposed Barcelona collaborating centre will be spending one year at The University of Texas, in part to assist in preparation of training materials and delivery.

New “packaged” Spanish-language continuing education courses and training modules will be added to the existing inventory of training materials already produced by The University of Texas.

### Sharing of training programs and materials in occupational health and safety

**Kenneth R. Laughery (laugher@ruf.rice.edu), Chair IEA STP Committee**

**Keywords:** training programs, training materials, management systems, ergonomics, occupational health and safety personnel

**Target group:** occupational safety and health personnel active in industry and in educational and training institutions, instructors and trainers in applying ergonomics to occupational health and safety practices

The objective of this project is to promote the sharing of training programs and materials in applying ergonomics within occupational health and safety practices. The relevant training programs and materials are collected through the various activities of the IEA STP Committee and its affiliated Technical Committees. The results will be distributed through these committees and the federated societies. The network of field experts associated with the IEA IDC Committee will also be utilized in the collection and dissemination of such programs and materials.

The collection of training programs and materials is under way through the IEA activities and through IEA-endorsed conferences. The efficacy of disseminating these materials through the IDC Committee is being examined.

The IEA IDC Committee is collaborating on this project.

### Sharing training materials on the web

**S. Len Hong, Canadian Centre for Occupational Health and Safety, Canada (hongl@ccohs.ca)**

**Keywords:** education materials, training materials, educators, trainers, OHS curriculum

**Target groups:** curriculum developers, teachers, OHS trainers, skill development

This Project will focus on content that can be used to develop training materials for teaching occupational health and safety at the primary and secondary school level. The content will be based on occupational health and safety principles. The organization of the content will enable teachers to integrate OHS information into their daily teaching activities. Additionally the content will be arranged to meet the needs of proper curriculum design and to enable the use of student achievement grids and learning objectives.

Phases of this project will be implemented over the next three years. It will be completed by 2004. Funds are in place.

### Training for occupational physicians and hygienists

**Marianne Sereda, Institut universitaire de santé au travail, Switzerland (Marianne.Sereda@inst.hospvd.ch)**

**Keywords:** occupational health, legislation, training centres, quality of the training in OH

**Target group:** OH physicians, hygienists, ergonomists, OH nurses

The aim of the project is to follow the training in OH, and also develop distance learning in the future. Several publications in OH and ergonomics are already available.

Institut für Hygiene und Arbeitsphysiologie, ETH Zürich, Switzerland is collaborating on the project.

### Utilizing existing training materials of the Lausanne Institute on the web

**M. Guillemin (Michel.Guillemin@inst.hospvd.ch) and Marianne Sereda (Marianne.Sereda@inst.hospvd.ch), Institut universitaire de santé au travail, Switzerland; Prof Krueger, Institut für Hygiene und Arbeitsphysiologie in Zürich (ETH), Switzerland**

**Keywords:** Basic Support for Cooperative Work

**Target group:** occupational physicians, hygienists, ergonomists, safety ingeneers, occupational health nurses

The objective of this project is to share documents, input for discussions, information on OHS problems and OHS news, and to create a Distance Learning Project in the future. All the students will utilize this tool as often as possible.

### Web-based training for occupational medicine

**Dr. Joerg Reichert, Institute and Outpatient Clinic for Occupational and Environmental Medicine, University of Munich, Germany (joerg.reichert@arbeits.med.uni-muenchen.de)**

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Keywords: web based learning

Target group: Health care professionals learning occupational medicine, medical students

The purpose of the project is the dissemination of web based learning modules in occupational medicine.

Occupational medicine has a wide range of aspects, and prevention is a major topic. In order for doctors to obtain knowledge about occupational and environmental influences, occupational medicine is a compulsory subject in the medical curriculum at German universities. About 650 5th year medical students are taught at our department every year. Within this course for occupational medicine each student visits six small-group-sessions held by different tutors. In order to enhance the learning experience by a more patient-oriented format of this course, we integrated a case-oriented, e-learning-tool. The aim of this project is to improve learning and memorizing of occupational medicine topics and increase the students’ motivation for the subject. The web based training programme in occupational medicine which was primarily developed for students has been altered in order to be used by various health care professionals.

Up to now, 12 cases have been developed, two of them have been translated into English and Spanish (www.promediweb.de; Login: gastarb; Password: gastarb). An international co-operation is currently planned.

Other Centres collaborating on the project: 5 other national and international universities

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Packaged training course for health care workers (available in English and in Spanish)

George Delclos, University of Texas, USA (GDelclos@sph.uth.tmc.edu)

Training materials have already been developed. The course is available. Funding would be needed to support travel and course delivery.

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Publishing the Journal International Maritime Health

Stanislaw Tomasznas, Institute of Maritime and Tropical Medicine in Gdynia, Poland (tomasz@immt.gdynia.pl)

Keywords: publishing, exchange of experiences, occupational health

Target group: Scientists in research institutes, health staff in ports and on ships, shipowners, seafarers' unions, international organizations and non government organizations, Departments of Health, Departments of Labour, port health authorities.

The objective of this project is to continue publishing the journal as a forum for the exchange of experiences and dissemination of information on the results of research on the health problems of maritime workers: seafarers, fishermen, divers, dockers, shipyard workers; and to inform health staff in maritime countries on practical activities aimed at the protection and promotion of health of workers at sea and in ports.

52 volumes of this journal (previously published under a different title) were published up to 2001. Similar journals are published in Japan, China, Spain and Ukraine, in their national languages. The IMH is the only specialized journal published in English. It is indexed in Medline. Materials for volume 53/2002 have been collected (19 original and review articles received from authors from Austria, Germany, UK, Denmark, Poland, Canada, Sweden, Norway, Estonia, Netherlands, and Georgia), and texts for the Chronicle section. Texts for volume 53 were received from authors from the Centres in Germany and Denmark. Volume 53/2002 of the IMH journal will be published before the end of the year.

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Training of occupational health and safety personnel

Jean-Marie Mur, INRS, France (jean-marie.mur@inrs.fr)

Keywords: Training, Occupational Health and Safety, Programme, French

Target group: French speaking people involved in Occupational Health

The aim of this project is to gather training programmes on OHS in French, and to put the references of French training programmes in OHS on the Internet site of the WHO CCs in OHS.

The project is on going.

Two kinds of sites have been identified:

- "open" sites : access is free and does not need any registration;
- Sites with registration: in this case, the access may be free or not.

Progress: Several internet links have been put on the site. After a few months of interruption due to technical problems, the site is now open again, and several additional links will be added.

Project start date: January 2002
Project end date: Permanent

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Training of Occupational Health and Safety Personnel

Prof. Dr Jovanka Karadzinska Bislimovska, Institute of Occupational Medicine, Republic of Macedonia (bislimovska_j@hotmail.com)

Keywords: occupational health, education, development of curricula, training

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Target group: university teachers, physicians, nurses, safety engineers, professionals in occupational and environmental health and related disciplines

Project start date: June 2002

The objective of this project is to develop content and forms of education programmes and training of undergraduate and postgraduate studies in the field of occupational health.

The Institute is a base of the Chair of Occupational Medicine, Medical Faculty, Skopje and provides lecturing activities in the field of occupational medicine for undergraduate students (Medical Faculty, Dentistry Faculty, Radiological technicians, Interdisciplinary studies for safety at work-safety engineers) and students at the postgraduate level (specialization-3 years, subspecialisation-2 years, masters degree-2 years, PhD degree-3 years). It is an institution appointed by the Ministry of Health for practical education of medical doctors who specialize in occupational medicine, hygiene, and social medicine and those who subspecialize in pulmonology and allergology as well as clinical toxicology. The Institute organizes educative seminars, short courses for the purpose of training of occupational health experts. The Institute organized the First meeting of Occupational Medicine Chairs of 9 Universities of South-east Europe (March, 2002). Common conclusions, recommendations and suggestions for actual and future activities in the educative field (training curricula) of occupational medicine in this region of Europe were achieved. Development of training curricula on different levels in area of occupational health for new competencies of occupational health physician, occupational hygienist and nurses is now underway in the Republic of Macedonia. Introducing four years of Occupational Health specialization and harmonization with EU schools and establishing a specialization programme based on WHO and EASOM guidelines should be achieved. Development is expected for the course of occupational health as a part of a new postgraduate teaching programme, Masters programme of Public Health Medical faculty Skopje. Activities also comprise the participation of an expert level for the curriculum development of the postgraduate masters course on "Environmental and Occupational Health" for the joint WHO/Council of Europe initiative "Health Development Action in South East Europe "South East Europe Health Network, in the framework of the Social Cohesion Initiative of the Stability pact for SEE. In the framework of this project short courses or educative seminars aimed at OHS professionals and practitioners will be organized on occupational allergy, stress at work, health promotion at workplace. Specific educational materials for occupational health personnel (booklet on stress at work, videotape on workplace health promotion in Macedonian language) will be prepared.

The accomplishments so far include:
- Educative seminar-one day training concerning stress at work -new approach for occupational health physicians from 25 Occupational Health Services at the municipality level.
- Developing, printing and distributing of the educational booklet (12 pages in 2000 Copies) titled "Stress at work".
- Description of training curricula and required competence for occupational health physician.

Ergonomics professional training program

Victor Liu, California State University at Northridge (CSUN), School of Public Health, University of California at Los Angeles (UCLA), USA (vliu@ucla.edu)

with the Center for Scientific Research and Postgraduate Education at Ensenada, Mexico.

Keywords: training, ergonomics, health professionals

Target group: occupational health professionals working with maquiladoras

The purpose of this project is to provide in depth training to occupational health or related professionals working in the maquiladora industry in Baja California, Mexico.

Thousands of maquiladora factories, involving labor intensive assembly operations, have been established over the years on Mexico's side of the border with the United States. Nearly one-third of them are located in Baja California. Some studies have indicated that musculoskeletal problems due to ergonomic hazards might be one of the major health issues in maquiladoras. This project was developed to provide occupational safety and ergonomics training to health professionals from Baja California who are working in maquiladoras. The curriculum includes 12 monthly weekend training sessions at CSUN incorporating theoretical concepts and practical tools for conducting worksite assessments. A field practicum involving applied research is required for completing the training.

Two new physicians have just begun the 12-month training program, with support from the UCLA-Fogarty international training program. The next opening for trainees will be in spring 2004.

Training for occupational physicians

Manuel Peña, European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)

Keywords: occupational health, training center, quality of the training in Occupational Health

Target group: Occupational health physicians, Occupational health nurses.

The aim of the project is to follow the continuous training in Occupational Health, developing distance learning. Several publications in OH are already available.

Project start date: 1995

Occupational health and safety training documents in Spanish
Angela Helmer, Labor Occupational Safety and Health, UCLA, Center for Occupational and Environmental Health (COEH), USA (ahelmer13@yahoo.com)

Keywords: worker safety, health, educational materials, Spanish

Target group: Spanish-speaking workers in the US and Latin America, labor unions, community-based organizations, academia, health professionals.

The purpose of the project is to provide Spanish-speaking workers in the US and Latin America with educational materials concerning workplace safety and health (e.g., agriculture, pesticides, noise, metals, construction, ergonomics, women workers, mining, biological hazards, hazardous waste, forestry, toxic substances, etc.).

This project focuses on updating an existing Spanish language bibliography, which was initially compiled through funding from PAHO and the COEH and published in 1990 and 1999 under the title “La Fuente Obrera – A Worker’s Sourcebook”. New educational materials (e.g., fact sheets) are being developed in Spanish for workers on the topic of safety and health.

The bibliography and educational materials will be posted on the Labor Occupational Safety and Health website (www.losh.ucla.edu), so that workers from throughout the Americas can have access to the information. These materials are being collected from different institutions in the US, Latin America and Europe.

Funding to update the bibliography has been secured through the National Institute of Environmental Health Sciences for this one-year project.

Postgraduate training courses in occupational safety and health

Manuel Peña, European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)

Keywords: Postgraduate, occupational health, distance learning, on-line learning, CD-Rom.

Target group: interdisciplinary professionals, graduate students.

The purpose of this project is to provide postgraduate training in occupational safety and health. This includes the development of training materials for postgraduate training in occupational and environmental health for interdisciplinary professionals. Courses will be made available through webCT on the Internet or downloadable from CD-Rom or from webpages. All aspects of occupational health including epidemiology, occupational hygiene, occupational health services management, occupational medicine, legislation, health promotion, social and behavioural impact factors and relevant environmental health will be covered.

This is a postgraduate master course, and the Institute is officially authorized by the Spanish Public Administration. This training is regulated by the Ministry of Labour and Social Affairs.

Postgraduate training courses in public health

Manuel Peña, European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)

Keywords: Postgraduate, public health, health promotion, on-line learning,

Target group: physicians, nurses, other relevant graduates in health and related sciences.

This project is proposed to provide postgraduate training in public health. This includes the development of training materials for postgraduate training in public health for health professionals. Courses will be made available through Internet. All aspects of public health including epidemiology, occupational health management, health promotion, life styles, and socio-economic, socio-psychological factors determining life quality and human health will be covered.

Gathering and sharing of training programmes and materials in occupational health and safety

Daniel Hryhorczuk, Great Lakes Centres, University of Illinois in Chicago, USA (dhrhorc@uic.edu)

Keywords: occupational, safety, health, training

Target group: Collaborating Centres and their trainees

The purpose of this project is to develop a web-based system to track training programmes offered by the network of WHO Collaborating Centres in Occupational Health.

The individual Collaborating Centres that comprise the global network of WHO Collaborating Centres in Occupational Health are each offering a variety of occupational safety and health training courses in their own regions as well as around the globe. There is currently no central, WHO-endorsed site that offers prospective trainees a complete and up-to-date list of these training opportunities. This project reviews the training notification systems that are currently available on the web, assesses their usefulness and limitations, and seeks to propose a shared system for registering training opportunities which can be used by members of the network and their prospective trainees. This project will propose the key fields that need to be entered into, will assist in the development of a pilot site, and evaluate the usefulness of this system from the standpoint of course providers and users.

A survey instrument to capture data has been developed that would be useful for prospective trainees. The websites of 22 of the Collaborating Centres have been surveyed to determine the extent to which individual Centre web sites provide information which can help prospective trainees learn about training opportunities and register for future courses. The Canadian Centre website has initiated a prototype system for registering courses. The survey instrument is currently being piloted at three Collaborating Centres. Once the key data elements have been identified, the web page will be developed and the system pilots in collaboration with the Canadian Centre for Occupational Safety and Health.
**Agricultural workers and use of pesticide (teaching materials and instructions for the course delivery)**

Marco Maroni, ICPS, International Centre for Pesticide and Health Risk Prevention, Unit of Occupational Medicine, Hospital L. Sacco, University of Milano, Italy

*Keywords:* Agriculture, chemicals, pesticides, training, education

*Target group:* Workers, Occupational Health Physicians

The purpose of the project is the development of teaching materials to be used for courses addressed to workers for the safe use of pesticides in agriculture.

Agriculture is one of the most dangerous working activities in the world (accidents and occupational diseases). Risk may arise during several activities: pesticide application may pose health risks to the farmers and pesticide workers, often as a consequence of improper or careless handling, even if it may be necessary to prevent losses of the agricultural production. The preparation of teaching material for training activities among pesticide workers is aimed at giving advice on how these health risks can be reduced. The material is thought to be used by agricultural workers all over the world, also as a tool to help health professionals and pest managers in promoting safe working procedures.

Institute of Occupational Health and Poison Control, Chinese Centres for Disease Prevention and Control, China is collaborating on the project.

**Assistance in adaptation of various materials to local conditions**

Tom Sorahan (T.M.Sorahan@bham.ac.uk), The Institute of Occupational Health, University of Birmingham, UK; Heather Jackson (Heather.Jackson@lyondell.com), International Occupational Hygiene Association (IOHA), USA

*Keywords:* prevention, control banding, occupational hygiene, work-related illness, ILO Toolkit

*Target group:* bodies deemed appropriate as described within IOHA articles of association.

The aim is to utilise IOHA expertise in delivering Occupational Hygiene training and related materials locally to countries, CC’s, Universities, and any other bodies deemed appropriate recipients by IOHA.

ACGIH and ACGIH International Committee are supplying mentorships to requesting students in Masters of Public Health programme at the University Witwatersrand in South Africa. IOHA, through ACGIH, is also establishing a fund of a minimum of $2000 annually for at least five years for the purchase and distribution of educational publications to university libraries and other entities as deemed appropriate through the IOHA. Two BOD members of IOHA have delivered their commitment to the UW to teach modules associated with the MPH programme. The Mentorship programme is being disseminated and ACGIH publications and other technical documents are available.

Other Centres collaborating on the project are IOH, University of Birmingham, UK and NGO, IOHA.

**Gathering and sharing of training programmes and materials: Evaluation of effectiveness of training in occupational health - methodology and application**

Andrzej Boczkowski, Nofer Institute of Occupational Medicine, Poland (abocz@imp.lodz.pl)

*Keywords:* training in occupational health, quality of training, evaluation of training effectiveness, assessment methodology, evaluation procedures

*Target group:* all persons and institutions having something in common with the training in occupational health

The aim of the project is to develop procedures and instruments of evaluation of training effectiveness in the field of occupational health and, after verifying in the course of special pilot studies, to implement them to the OH training practice. The quality of training in occupational health is of key importance from the point of view of the future OH practice. In this connection the activities aiming to monitor and assess the quality of teaching and learning in this field are particularly important. The training quality is understood as a training effectiveness, i.e. (1) real achievement of educational objectives during the courses and (2) real achievement of defined standards of professional competencies.

Two assessment questionnaires were developed, each including several parts aimed to measure the effectiveness of training process in its different aspects. The evaluation procedures with the use of these questionnaires are also elaborated and applied after many courses and postgraduate studies in the Nofer Institute of Occupational Medicine. As a methodological result of these applications the changes in both questionnaires and procedures are introduced and their new improved version are prepared.

Two books and several papers were published and presented on national and international scientific meetings

The project funding is in place and the project is due to be completed in 2004.
Training programme for seafarers: Updating the text of the International Medical Guide for Ships

WHO/ILO/IMO; Stanislaw Tomaszunas, Institute of Maritime and Tropical Medicine, Gdynia, Poland (tomasz@immt.gdynia.pl)

Funding is in place. Gdynia will update several chapters for the IMGS-3.

Training of occupational health and safety personnel

J Myers, Occupational and Environmental Health Research Unit, South Africa (Myers@cormack.uct.ac.za)

Keywords: Internet, e-learning, CD rom, self-directed learning, postgraduate

Target group: doctors, nurses, occupational hygienists, environmental engineers, other relevant graduates in health and related sciences

The purpose of this project is to provide postgraduate training in occupational health. This includes the development of electronic materials for postgraduate training in occupational and environmental health for occupational health professionals including doctors, nurses, occupational hygienists and environmental engineers. Courses will be made available through webCT on the Internet or downloadable from CD Rom or from webpages. All aspects of occupational health including epidemiology, occupational hygiene, occupational health services management, occupational medicine, toxicology, legislation, health promotion, social and behavioural impact factors and relevant environmental health will be covered.

The project is currently in progress with some materials for the first of 8 block courses in epidemiology, biostatistics and research methods under construction. It is planned to have this block ready for delivery on an experimental basis to residential students doing their first block of the Postgraduate Diploma in Occupational Health in March 2003. The course will be taken in a computer laboratory to simulate distance conditions.

National Centre for Occupational Health, University of Natal, Peninsula Technicon and University of Witwatersrand are collaborating on the project. Coursework materials are under construction.

Project start date: October 2002
Project end date: December 2004

Organization of an international consultation on capacity building in OH&S to address access to training programmes and intellectual property issues

Gerry Eijkemans, WHO/HQ (eijkemansg@who.int)

There was agreement by CCs and WHO at the Changmai Network meeting in 2001 to carry out preliminary activities before proceeding to hold this consultation. In 2002, the gathering of information on existing training courses was begun by several Collaborating Centres. Additionally, an international meeting was sponsored in Baltimore, US, in October 2002 by WHO, NIOSH, ICOH, and the Johns Hopkins Collaborating Centres to assess the status of internet-based education for developing countries. Further, the University of Illinois Collaborating Centres piloted an effort to include 10 developing nation students in the Basic Principles in Occupational Health Internet course. In 2003, there will be an assessment of the information and consideration of the next steps to be followed.

Funding is in place. The project will be completed by 2005.

Development of evidence-based occupational health (medicine) training course and material

Frank van Dijk, Coronel Institute, The Netherlands (f.j.vandijk@amc.uva.nl)

Funding is partly in place, and partly needed especially for material development. The project is scheduled to be completed by December 2004. Invitation for collaboration has been presented to other Centres e.g. in Thailand, South Africa, Finland (Timo Leino, e-mail: timo.leino@occuphealth.fi) and the UK to contribute to this project. Coronel Institute is co-operating on this topic, as well as in two ICOH SCs and the European Association of Schools of Occupational Medicine (EASOM).
International two-year training course: occupational safety and health & development for participants from Northern Africa, Middle East and Iran
Kaj Elgstrand, National Institute for Working Life, Sweden (kaj.elgstrand@arbetslivsinstitutet.se)
Funding is in place. The project started in September 2001, and is to be completed before the end of 2003.

International two-year training course: occupational safety and health & development for participants from Asia
Nils Petersson, National Institute for Working Life, Sweden (nils.petersson@arbetslivsinstitutet.se)
Funding is in place. The project started in October 2002, and is to be completed before the end of 2004.

Establishment of an international working group for utilisation of telemedicine to reduce health risks of seafarers
Xaver Baur, Central Institute of Occupational Medicine, Hamburg, Germany (xaver.baur@bug.hamburg.de)
Keywords: Telemedicine, merchant ships, accidents, emergencies, seafarers
Target group: occupational health staff in departments of health/labour, ship owners, insurance agencies, trade unions of seafarers.
The aim of this project is to promote the introduction of suitable telemedicine equipment on board of ships without a doctor in order to improve medical care of ill/injured seafarers. Telemedicine is an extremely useful new technology that should be immediately used to improve medical assistance of seafarers. The major objective of the project is to reinforce international standardisation, harmonisation and co-operation that are urgent to introduce effective and compatible telemedical devices.
A pilot study involving the following steps has been started: further development of medical devices; tests for suitability and applicability of the devices in co-operation with nautical officers and testing the medical suitability of the equipment in special, simulated emergencies and diseases, among others, cardiac diseases, inhalation traumata, injuries, skin diseases. A further step will be an appropriate, intensive education and training of captains and first officers.
A preliminary concept has been prepared. CIRM, Rome and the Norwegian Centre of Telemedicine are collaborating on the project.
Project start date: May 2004
Project end date: December 2005

Development of a comprehensive medical training package for captains and first officers on ships
Anthony Low, Port Health Centres, Hamburg, Germany (anthony.low@bug.hamburg.de)
Keywords: Medical training package, international, ship officers.
Target group: occupational health staff in seafaring, educational centress for ship officers, maritime transportation departments and trade unions, shipping agencies, seamen.
By developing this medical training package, this training programme for seafarers - which at present can be very different in quality and duration from country to country - should be a guide for decision-makers in agencies dealing with seafaring, especially in developing countries, as to raising their appropriate teaching standards.
The training package will encompass detailed basic theoretical and practical medical training specifically for ship officers, taking into account medicines and medical equipment carried on board. Besides a short history of treatment on ships without doctors, it will emphasize prophylaxis and therapy to improve health conditions at sea. Knowledge gained from several decades of standardized medical maritime education in Germany will be integrated in the package.
The theoretical part of the training package is nearing completion. Collaboration is on between HPHC and the WHO Collaborating Centres, Gdynia, Poland.
Project start date: July 2003
Project end date: December 2004

Ausarbeitung eines umfassenden (ausführlichen) medizinischen Ausbildungsprogramms (Paketes) für Schiffskapitäne und Erste Offiziere
Anthony Low, Hamburg Port Health Centres (HPHC) des ZfA, (anthony.low @bug.hamburg.de)
Schlüsselwörter: Medizinische Ausbildung, international, Schiffsoffiziere.
Durch die Ausarbeitung dieses medizinischen Trainingspakets wird dieses Ausbildungsprogramm für Seeleute - welches sich zur Zeit von Land zu Land erheblich hinsichtlich Qualität und Ausbildungsdauer unter-scheiden kann - eine Richtlinie bzw. Hilfe sein für jene, die Entscheidungen in Behörden und Schiffssagenturen treffen, insbesondere in den sich entwickelnden Ländern, bezüglich der Anhebung der entsprechenden Ausbildungsstandards.


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**Train the trainers’ curricula on health promotion at work**

Alberto Zucconi, Istituto dell’Approccio Centrato sulla Persona IACP, Italy (azucconi@iacp.it)

Funding is in place.

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**Development of a core syllabus and eLearning course in occupational health psychology**

Amanda Griffiths (amanda.griffiths@nottingham.ac.uk) and Stavrulaire Leka, (stavrulaire.leka@nottingham.ac.uk), Institute of Work, Health & Organisations (I-WHO), UK

*Keywords:* syllabus, occupational health psychology, eLearning, training, personnel

*Target group:* educators, trainers, occupational health and safety professionals, occupational health and safety personnel.

The purpose of the project is to produce a core syllabus in occupational health psychology that will form the basis for training initiatives for occupational health and safety personnel. To also develop an eLearning course in occupational health psychology that will facilitate flexible distance learning on an international basis. The scope of this project is the development of a core syllabus in occupational health psychology. This syllabus will then serve as a basis for the development of appropriate training initiatives, based on eLearning for occupational health psychology internationally.

A draft outline of the syllabus has been prepared and is now under review. The eLearning course has started to be developed. The project will be completed by March 2005.

*Project start date:* March 2003

*Project end date:* March 2005

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**Developing resources for end users, including practical solutions and training materials**

Sergio Tavassi, ISPESL, Italy (tavassi.doc@ispesl.it)

*Keywords:* risk profiles, solutions, safety checks, sectors, sub-sectors

*Target group:* employers, workers’ safety representatives, workers, responsible people of prevention and protection services, decision-makers, stakeholders

The aim of this project is to support SMEs for risk assessment. The Information System will be redesigned, according to the target group needs, focusing on reduction of risk exposure for each subsector. Designing the new information system addressed to SMEs and updating of the databases is underway. The National network of the European Agency for safety and health at work is collaborating on the project.

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**Psychosocial factors surveillance workshop in Mexico**

Peter Schnall, UCLA and University of California at Irvine, School of Public Health, University of California at Los Angeles (UCLA), USA (pschnall@ucla.edu)

with the University of Sonora, the National Autonomous University of Mexico, Professional Association of Occupational Safety and Health, and other institutions in Mexico

*Keywords:* training, work stress, surveillance

*Target group:* occupational health professionals and academics, government agency representatives responsible for worker health

The purpose of the project is to train health professionals and researchers on how to conduct workplace surveillance.

A growing network of psychosocial stress researchers in Mexico has recently identified the need to hold a workshop that would provide training in workplace surveillance. Increasing evidence correlates psychosocial stressors in the work environment with the etiology of hypertension and cardiovascular disease. The training would focus on methodological and practical issues in the measurement of workplace psychosocial factors, such as job strain and effort-reward imbalance, and blood pressure as a health outcome indicator. Blood pressure measurements are non-invasive and, with the development of ambulatory monitors, simple to use at an employee’s worksite. The workshop is expected to promote workplace surveillance by health professionals responsible for labor health and safety and to facilitate research studying the relationship between work stress and hypertension.

This project is in the planning phase and is expected to be completed in 2004 with partial support from the UCLA-Fogarty international training program.

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**Training on blood pressure surveillance in the workplace**
Training and continuous education in occupational and environmental health
Manuel Peña, European Institute of Health and Social Welfare, Madrid, Spain (admon@ie-es.com)

Keywords: Graduate programs, Continuous education, Courses, Training materials

Target group: nurses, physicians, hygienists, engineers, social scientists, toxicologists environmental scientists; and professionals in occupational and environmental health and related disciplines.

The purpose of the project is to provide graduate training in occupational and environmental health; and develop continuous education programs for occupational and environmental health professionals, rising awareness of managers and professionals on the development of integrated policies of Health, Environment and Safety Management in enterprises.

Evaluation of effectiveness of training in occupational health – methodology and application
Andrzej Boczkowski (abocz@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl), Nofer Institute of Occupational Medicine, Poland

Funding is in place. The project will be completed by 2004.

Training courses on prevention of childhood lead poisoning
Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

Keywords: lead, poisoning

Target group: Professionals in occupational health and maternal and child health

The purpose of this project is to promote the knowledge in prevention of childhood lead poisoning.

Two training courses have been held. Two more training courses are being planned.

Funds are provided by WPRO/WHO

Training course - occupational health and safety in hospitals.
Manuel Peña, European Institute of Health and Social Welfare (admon@ie-es.com)

Keywords: program administration, surveillance, hospital ergonomics, worker training

Target group: hospital administrators, physicians, nurses, hygienists, hazardous waste specialists and epidemiologists, as well as workers with an interest in healthcare worker health and safety.
The aim of this project is to conduct a workshop that provides basic training in fundamental aspects of health and safety in hospitals, which may eventually be modified for use in other non-hospital healthcare settings. The aim of the project is to develop distance learning at a broad audience with an interest in occupational hazards of healthcare workers. Its structure combines something of interest to the whole group at 4 beginning and ending monographic seminars on Health and Safety Program Management in Hospitals, Surveillance, Hospital Ergonomics and Worker Training in Hospital Health and Safety.

Training course – health management
Manuel Peña, European Institute of Health and Social Welfare (admon@ie-es.com)
Keywords: hospital management, quality assurance, human resources
Target group: hospital administrators, physicians, nurses, hazardous waste epidemiologists, as well as professionals with an interest in healthcare management.
The aim of this project is to conduct a workshop that provides continuous training in fundamental aspects of health management in hospitals and non-hospital healthcare centres. The aim of the project is to develop distance learning at a broad audience with an interest in Health Systems and Services Development, quality assurance, health economy and human resources management.

National conference on research needs and lessons learnt for coordination and policy formulation on occupational health among key stakeholders
Nguyen Khac Hai, National Institute of Occupational and Environmental Health, Vietnam (haink@hn.vnn.vn)
Keywords: research need, coordination, policy formulation, occupational health.
Target group: academic institutions, decision-makers at ministries, medical university
The purpose is to recommend measures for strengthening coordination in policy formulation on OH and translating research results into policies on OH. The conference will be held in 2005 and funds have been secured by WHO, Vietnam Government.

Distance learning in ergonomics for Portuguese speaking countries in Africa.
David Caple, davidcaple@pacific.net.au;Chair, International Ergonomics Association (IEA), International Development (ID) Committee, Melbourne, Australia.
Keywords: ergonomics, education, MSD, distance learning.
Target Group: students in ergonomics in Africa.
Purpose of project: This IEA initiative is to translate an existing distance learning program in ergonomics from English to Portuguese and then offer it to Portuguese speaking students in Africa.
The IEA consists of 42 Federated Societies across the world who work cooperatively to advance the science of ergonomics. The society in Portugal is proposing to develop an agreement with a university in the UK who currently offer a distance learning program in ergonomics. The course materials will be translated from English to Portuguese and then offered as part of Portugal’s distance learning programs in Africa.
Meetings of the involved parties have occurred in Madeira and Brazil in 2004. A draft agreement has been developed by the IEA for consideration by the respective universities.
Names of other Centres collaborating on the project: University of Lisbon, Portugal; University of Nottingham, UK
Product: A distance learning program in Portuguese.
Project start date: July 2004
Project end date: July 2006

Enhancement of Occupational Health and Safety in Mexican Industry
Leonard Sassano, lsassano@iapa.ca, Director Strategic Alliances, Industrial Accident Prevention Association (IAPA), Toronto
Keywords: Mexico, voluntary compliance programme
Target Group: IAPA is engaged in a project in collaboration with the Mexican Ministry of Labour, Direccicon General De Seguridad Y Salud En El Trabajo (DGSST) and (STPS) in the promotion and application of the Mexican voluntary compliance programme known as SASST.
Purpose of Project: The Mexican government is committed to promoting the integration of HS&E into Mexican industries through its SASST programme. The objective is to apply SASST within workplaces to improve the health and safety of workplaces and working conditions for all workers. It is realized that Mexican workplaces require to engage a managed approach and adopt a management system to successfully apply SASST. The project will focus on the development and engagement of a managed system to successfully integrate the SASST compliance programme.
Project Results will include:
- The achievement of healthier and safer workplaces for Mexican workers.
The development and implementation of an OHS Management System to successfully apply the SASST voluntary compliance programme. This will lead to improvement of working conditions and reduction of injuries and illnesses within the workplace.

The empowerment of workers, and improved communication and cooperation between management and workers through the successful engagement of SASST and a managed approach towards HS&E.

To contribute towards sustainability and building capacities among STSP, DGSST, and independent assessors to lead the successful integration of SASST together with a managed system's approach into Mexican workplaces.

Key Project Area Outcomes (Products):
1. Completed May 2003: developed and delivered a four day training program on SASST programme implementation to 40 STPS assessors and DGSST inspectors from across Mexico.
2. Completed October 2003: presentations on SASST and OHS Management Systems completed at two major OHS conferences in Mexico and at regional workshops across Mexico involving government, employers and worker groups.
3. Completed November 2003 – December 2004: a Consultant Certification process was developed to enable Mexican assessors to provide services to enterprises enrolled in the SASST programme.
5. December 2007: pilot applications and evaluate results of interventions; make necessary modifications and refinements based of results; apply nation wide.

Project Start Date: January 2003
Project End Date: December 2007

Work and Health in Central America (SALTRA) www.saltra.net
Regional Program Director: Dr. Catharina Wesseling, Instituto Regional de Estudios en Sustancias Tóxicas Universidad Nacional, Apdo 86 - 3000 Heredia, Costa Rica cwessli@una.ac.cr
Swedish Program Director: Mr. Kaj Elgstrand, Swedish National Institute for Working Life, SE-113 91 Stockholm, Sweden Kaj.Elgstrand@Arbetslivsinstitutet.se

Keywords: Long-term collaboration program, Central America, prevention of occupational accidents and diseases
Target group: All stakeholders are targeted in participating countries: Belice, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. Workers are the primary beneficiaries. Equity considerations are an overriding principle throughout the Program (gender, the underprivileged, indigenous populations, children and youth, worker empowerment, informal sector).

Purpose of the Program: The general long-term objective of the program is to promote workers’ safety and health, and create sustainable systems for OSH and public health promotion. The objective for the first four years is to establish a solid and well operating basis for long-term actions in OSH and health promotion.

Abstract: The first four year phase comprise the following 13 projects:

Four projects involve actions for risk reduction and health promotion:
- Accident prevention and safety promotion in the construction trade
- Safety and health in sugarcane production
- Workplace health promotion and risk prevention for hospital, hotel and restaurant personne
- Community empowerment, the informal sector: work, health, and social and economic intervention.

Three projects aim at capacity building for monitoring occupational hazards and health risks:
- Occupational safety and health profiling and development of occupational safety and health indicators of sustainable development
- Exposure and endpoint information systems (health hazard and risk surveillance
- Safety and health training and risk monitoring for workers’ organisations.

Three projects deal with professional capacity building:
- Regional interdisciplinary network of professionals in occupational safety and health; support to pre-existing training programs
- Twinning
- Hazard identification and outbreak studies.

Finally, there are three projects dealing with programme preparations and communication:
- Communication of occupational safety and health information
- Preparation proposal Phase II
- Establishment of organizational infrastructure in the Region.

The Swedish International Development Cooperation Agency (Sida) is providing a support of about 3 million US dollars for the first four year phase. SALTRA is governed by a Board of Directors, involving representatives of the main participating organisations.

The Program started in November 2003. The first Program year was dedicated to establishing organisational infrastructure and starting up of activities in some of the participating countries. The second Program year is dominated by starting up of...
activities in the remaining participating countries, further development of the project plans and competence development among the Program collaborators.

Names of Centres collaborating on the Program: The main collaborating partners are the National University at Heredia, Costa Rica; the National University at León, Nicaragua; Universidad de San Carlos, Guatemala; SICA (the Central American Integration System); the National Swedish Institute of Public Health, and the National Swedish Institute for Working Life

International training programs for OSH specialists: The Swedish National Institute for Working Life (NIWL) has organised ten international training programmes since 1993. The programmes have been financed by the Swedish International Development Cooperation Agency (Sida). During 2004 Sida contracted an external consultant to evaluate the training programmes. Here the training programs are described, the evaluation is summarised and information given about the likely continuation.

Program start date: November 2003
Program end date: October 2015

OSH training courses

Mr. Kaj Elgstrand, Swedish National Institute for Working Life, SE-113 91 Stockholm, Sweden, Kaj.Elgstrand@Arbetslivsinstitutet.se ; Mr. Nils Petersson, Swedish National Institute for Working Life, SE-113 91 Stockholm, Sweden, Nils.Petersson@Arbetslivsinstitutet.se

Keywords: Action-oriented training, Africa, Asia, Latin America

Target groups: The programme is primarily designed for engineers and production managers, decision-makers, university teachers, trade unionists and specialists in the field of occupational safety and health. Each training programme is oriented towards a specific region: Asia, Middle East and Northern Africa, Southern Africa, Eastern Europe, or Latin America. The trainees may be employed by governmental ministries, public or private enterprises or universities.

Purpose: The training programmes are based on the belief that efficient occupational safety and health work also benefits production and productivity. That requires cooperation between OSH researchers, experts and professionals as well as production staff. Cooperation is also required between employers, employees and government authorities. For this reason, the course participants are selected to represent a mix of expertise to facilitate an exchange of information and experiences between Sweden and cooperating countries and within the group of participants. All courses are designed to present and expose theories and practices to the participants, including the implementation of an action for change in the participants’ own working environment.

The short-term objectives, to be achieved by the participants at the end of the training, are to:

• plan, carry out, follow-up, report and evaluate an action for change;
• cope with problems and possibilities related to improvement of occupational safety and health;
• support and manage development of work organisation and working conditions, making use of workers’ involvement.”

The primary objective directly relates to the change project implemented by each of the participants in their home country while the other objectives complement the implementation of the project.

Abstract: The ten training programmes organised in 1993-2004 were evaluated during 2004. The ten programmes are described in the following, and the evaluation is summarised. Negotiations are ongoing (in June 2005) between the sponsor (Sida, the Swedish International Development Cooperation Agency) and the organiser (NIWL, the Swedish National Institute for Working Life), aiming at the organisation of three additional training programmes: for Latin America 2006-2008, for Southern Africa 2007-2009, and for Asia 2008-2010.

The training programmes: The training programmes included six, one-year programs, "Occupational Safety and Health in Practice", for participants from Africa, Latin America, Asia and Eastern and Central Europe. In addition, four, two-year programs, "Occupational Safety, Health & Development", for participants from Latin America, Middle East, Southern and Northern Africa and Asia were also evaluated.

Since 1998, each course has run over two years and included three main study periods with a follow-up activity between the first two periods. There have been approximately 24 participants in each course with a group of 6 Swedish tutors involved in all periods of the course. The group of tutors constitutes the "Course Faculty" and includes the course leader.

First study period: The first period of five weeks in Sweden combines lectures, seminars, group work and discussions on specific topics such as policy and organisation of occupational safety and health in Sweden, action for change at enterprise level, accident prevention, ventilation, prevention of noise, pesticide intoxication, musculo-skeletal disorders and psychosocial work risks.

The first period also includes 6-8 visits to a variety of industries and workplaces in Sweden. The participants are divided into groups of 4-5, with each group visiting different factories/workplaces. The participants prepare questions in advance of the visits and report their observations in plenary follow-up meetings.

A priority during the first period is the preparation of the individual project to be implemented during the course. Participants select and prepare an idea for their individual project prior to the course. Lectures and workshops are conducted on project planning techniques including analysis of problems, formulation of objectives, result indicators and questionnaires. There is also group and individual tutoring to help participants prepare a work plan for the implementation of their projects.

Mid-term seminar: Six months after the end of first study period, mid-term seminars are arranged in the participants’ countries. In the majority of cases, 3 or more participants come from the same country so they are able to meet with two of the Swedish tutors involved in the course, (the same tutors are involved from the first to third period). The seminars are

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normally for one day and focus on the commencement and progress of the individual projects. The Swedish tutors also visit the participants' workplaces, including the places where the individual projects are being implemented.

Second study period: About one year after the end of the first period of the course all participants meet together, in a participating country, with the Swedish tutors for 1.5 weeks. The main activities are presentations and discussions of the individual projects (both in plenary sessions and individually), exchanges of information about occupational safety and health and factory visits in the host country. At all stages of the course there is communication by email, fax, etc, between the participants and their respective course tutors regarding the implementation and final reporting of the individual projects.

Third study period: The third period takes place about one year after the second period in a different participating country. It is also 1.5 weeks and includes the same main activities as the second period as well as final reporting and evaluation of the individual projects.

Summary of courses implemented 1998 – 2004:

<table>
<thead>
<tr>
<th>Period</th>
<th>Time and place</th>
<th>Main activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Period</td>
<td>5 weeks in Sweden</td>
<td>Lectures and workshops on specific topics. Factory visits. Planning of individual projects.</td>
</tr>
<tr>
<td>Mid-term seminars</td>
<td>3 days in each participant country six months after 1st period</td>
<td>Follow-up of individual projects. Visits to participants' workplace.</td>
</tr>
<tr>
<td>2nd Period</td>
<td>1.5 weeks in a participating country one year after 1st period</td>
<td>Presentation of progress of individual projects. Information on OSH in the country. Workplace visits.</td>
</tr>
<tr>
<td>3rd Period</td>
<td>1.5 weeks in another participating country, two years after 1st period</td>
<td>Final report and evaluation of individual projects. Information on OSH in the country. Workplace visits.</td>
</tr>
</tbody>
</table>

Course requirements: Before participants receive a course diploma they must have satisfied the following criteria: they must have attended all three periods of the course and implemented and reported a change project, approved by all of the course faculty. Projects not approved during the third period can be approved later, (within 1-2 years), if the project or the report had been improved in agreement with the Course Faculty. The ten training programmes evaluated had a total of 240 participants, 188 of whom had been approved for a course diploma at the time of the evaluation. By May 2005, 207 participants have been approved for the course diploma. The course organiser (NIWL), gives participants possibilities to rate and comment on the performance of each period of the course (including each activity, lecturer, etc). The participants also complete a questionnaire at the end of the course. These comments are included in all NIWL reports to Sida.

The evaluation: The aim of the evaluation was to assess to what extent the programme reflects Sida priorities both in the area of health and working environment and the general focus of Swedish development cooperation, i.e. poverty alleviation. The evaluation should also include recommendations on how to meet future needs in cooperating countries. The main questions covered by the evaluation were:

1. The relevance of the present programme in relation to Sida priorities?
2. To what extent has the programme been relevant with regard to objectives, target group for participation, contents, teaching methods and structure?
3. What have been the effects of courses at the workplace or in working environment of the participants? Have changes been possible?
4. Is the course programme relevant for meeting the needs in the area of health and working environment in the cooperating countries?

To collect the necessary information, the evaluator revised written documents concerning the training programmes, made a brief analysis of needs in cooperating countries and Swedish competence in the area, interviewed staff at Sida, course managers, course tutors and lecturers, and through an email questionnaire to former participants.

The relevance of the training programmes:

In relation to Sida priorities, the following summary was made by the evaluator:

"The programme is line with the overall objectives for Sida's work towards reduction of poverty and with the overall of objectives through an integrated and multi-sectoral approach, with focus on strengthening of capacities to improve safety and health within different working environments. The programme is also well in line with Sida's policy for support of health and development and a good example of an outcome-oriented system of continuous monitoring and evaluation of programmes.

However, comparing the specific subject or problem areas, covered in the courses and the individual projects, with the poverty focus and the analysis of needs in cooperating countries, there seems to be room for more focus on specific subjects such as child labour, migrant workers in agriculture, transfer of hazards from industrialised to developing countries, HIV/AIDS and women workers."

The evaluator made the following comments on the achievement of course objectives:"...it is clear that the short term objectives of the training courses have been fulfilled to a high degree, both as valued by the participants themselves and following the result indicator defined for the courses – the approval of the individual projects."
With respect to the relevance, efficiency and costs of course implementation, the following conclusions were made: "...it could be concluded that the course structure and the selection of participants have been relevant in relation to the objective of the course. The course structure has been carefully designed and gradually developed based on the experiences made, including extensive course evaluations by the participants. The main focus of the course design is on developing participants’ skills through the implementation of an individual action-oriented project." "Regarding the relation between costs and results it could be concluded that a more substantial reduction of course costs (eliminating completely some of the present parts of the course) would not make it possible to have the same ambition regarding individual project implementation, nor to achieve the same results of the course.........the conclusion is that the costs for courses seem to be justified in relation to the results achieved."

The effects of the courses: With reference to the effects of the training programme, the evaluator summarises:"...it could be concluded that the courses seem to have had clear short and medium term effects contributing towards better occupational safety and health both directly at different workplaces and indirectly through increased awareness, training and improved regulations."

In addition, about 80 % of the participants say that attending the course had effects for themselves. About half (40 %) mention direct promotion in their work position, whereas the other half (40 %) refers to that the course has given them increased confidence, respect, credibility, recognition, etc.

Meeting the needs in participating countries: On behalf of the evaluator, a review of the course programme has been made in relation to selected international research on the topic. The review was made at the Department of Public Health and Clinical Medicine at Umeå University. The following highlights are taken from the review:

"The content of this type of programs should fill important knowledge gaps, address key issues in the field, stimulate networking and have an impact OSH policy making. It is however difficult for a short term training program to deal with all the OSH issues particularly in the complex and diverse situation of low- and middle-income countries. The training program (implemented by NIWL) has nevertheless been able to select relevant common topics and problems related to the situation in the participant countries. Furthermore, the program exposes the participants to factory and workplace visits, both in Sweden and in countries in the their own region. This promotes fruitful discussions comparing the situation and the possibilities in different countries.

The mixed backgrounds of the participants also contribute to the exchange of different opinions, ideas and open the mind to the perspectives of other professionals. At the same time, the different backgrounds of the participants could make it difficult to satisfy the expectations of everybody. The result of the course evaluations, however, seems to indicate that this has seldom been the case.

The planning, development and fulfillment of the project in the participant’s working environment is fundamental, not only for the approval of the course, but also for the educational training process as such, and most important, for the adaptation of knowledge and skills learnt to the realities in the participant’s country. The approved projects seem to be of good quality and related to relevant problems in the participant’s country. The strong criteria related to the objectives of the course when evaluating the different projects, strengthens the quality of both the projects and of the training program itself. For the course projects to be meaningful, the close supervision that seems to be applied by the course organiser is necessary. This supervision is most probably a key factor of the course success.

The program emphasizes the combination of theory and practice in a pedagogic way of learning. Throughout the course, active participation of the trainees through oral, visual and written presentations is applied. In addition, the focus on prevention during the lectures and the importance given to the action for change in their own working place, makes the whole training process practical and useful. The tools and skills acquired when implementing the course projects can later be applied by the participants in future projects in their working environment. The outcomes of the projects in terms of reduced accidents, etc, could also be used as examples convincing individual employers and authorities of the advantages of good OSH. The continuous and thorough internal evaluation of the training program is a sign of the course organisers’ interest to improve the course and its adaptation to the needs of the participants.

The division of the courses by continents also seems to be a positive aspect. The participants share similar socio-political contexts, and this facilitates learning of feasible strategies to improve the local occupational health situation. The shared background is also important for the creation of links among the participants."

The evaluator concludes:"...the review leads to the conclusion that the training courses have been and continues to be relevant in relation to the needs in the area of occupational safety and health in low- and middle-income countries."

Project start date: 1993
Project end date: 2010
Enable access to national internet-based database that identifies practical solutions to OHS issues

Thomas Stoddart, National Occupational Health and Safety Commission, Australia (Thomas.stoddart@nohsc.gov.au)

Keywords: practical guidance

Target group: users requiring hazard specific or industry specific guidance material on OHS issues.

The objective of this project is to facilitate the dissemination and sharing of practical guidance material on OHS issues, to assist employers and employees in implementing safe systems of work.

A web based database has been developed that indexes material published by all Australian jurisdictions and links directly to the full documents. It includes guidance material, safety alerts, and codes of practice.

The Australian OHS Index is available at: http://natindex.nohsc.gov.au

Website for the Cooperation Italy-Brazil in Occupational Health and Industrial Hygiene

Emilio Volturo, Silvia Fustinoni and Chiara Rengo, Istituti Clinici di Perfezionamento, Department of Occupational Safety and Health and ISPESL/ICP Consortium for the WHO Collaborating Centre in Occupational Health, Clinica del Lavoro “Luigi Devoto”, Milan, Italy (omscons@unimi.it)

Sonia Maria José Bombardi (bombardismj@fundacentro.gov.br) and Maria Inês Franco Motti (motti@fundacentro.gov.br), FUNDACENTRO, Brazil

Keywords: information, Internet, Occupational Safety and Health, International Cooperation

Target group: experts and professionals in Occupational Health and Safety of the two countries.

The purpose of this project is to create a web site to activate, through the Cooperation between Italy and Brazil, actions to improve safety and health at the Workplaces of both countries.

At the Iguassu Meeting, February 2003, an Italian-Brazilian seminar was held during which the relevant interest of other possible scientific, technical and institutional partners was verified.

As a first step, while waiting for resources, an internet discussion group has been set up for the permanent exchange of information, updating, experiences and data.

A shared version of the scientific project has been defined and in the next few months the project will be integrated in a cooperation plan to submit to the competent authorities for funding.

Considering that the planning phase has been completed, we are initiating to identify the necessary funding. In case human and financial resources will not be identified within 12 months, the possibility of reconsidering the feasibility of the project will be evaluated.

Project start date: July 2002

Project end date: July 2005

Web Site per la Cooperazione Italia-Brasile in Medicina del Lavoro e Igiene Industriale

Emilio Volturo, Silvia Fustinoni and Chiara Rengo, Istituti Clinici di Perfezionamento, Dipartimento di Medicina del Lavoro e Sicurezza sul Lavoro e Consorzio ISPESL/ICP per il Centro di Collaborazione con l’OMS per la Medicina del Lavoro e l’Igiene Industriale, Clinica del Lavoro “Luigi Devoto”, Milano, Italia (omscons@unimi.it)

Sonia Maria José Bombardi (bombardismj@fundacentro.gov.br) e Maria Inês Franco Motti (motti@fundacentro.gov.br), FUNDACENTRO, Brasile

Parole chiave: Informazione, Internet, Medicina del Lavoro e Sicurezza, Cooperazione Internazionale

Utenza destinatar: Esperti e professionisti di Medicina del Lavoro e Sicurezza dei due Paesi.

Scopo del progetto: Realizzazione di un sito web destinato ad attivare, favorire e sostenere, attraverso la Cooperazione tra Italia e Brasile, azioni positive per il miglioramento della sicurezza e della salute dei lavoratori nei luoghi di lavoro dei due Paesi.

Al Congresso di Iguassu, febbraio 2003, si è tenuto un seminario Italo-Brasiliano nel quale si è verificato l’interesse notevole e fattivo di altri possibili partner scientifici, tecnici, istituzionali.
Come prima base, in attesa di maggiori risorse, si è deciso di attivare un gruppo di discussione in Internet per lo scambio permanente di informazioni, aggiornamenti, esperienze, dati.
È stata definita una versione condivisa del progetto scientifico, che nei prossimi mesi sarà integrato in un piano di cooperazione da sottoporre alle autorità competenti per il finanziamento.
Considerando che la fase di progettazione è stata completata, ci si attiverà per la ricerca dei fondi necessari. Se entro 12 mesi non si saranno recuperate le necessarie risorse umane e finanziarie, si valuterà la possibilità di riconsiderare la fattibilità del progetto.

**Web Site sobre a Cooperação Itália-Brasil em Segurança e Saúde no Trabalho**

Emilio Volturo, Silvia Fustinoni e Chiara Rengo, Instituto Clinico di Aperfeiçoamento – Departamento de Segurança e Saúde Ocupacional e Consórcio ISPESL/ICP para o Centro Colaborador da OMS em Saúde Ocupacional – Clínica Del Lavoro "Luigi Devoto", Milão, Itália (omscons@unimi.it)

Sonia Maria José Bombardi (bombardismj@fundacentro.gov.br) e Maria Inês Franco Motti (motti@fundacentro.gov.br), FUNDACENTRO, Brasil

**Keywords:** Informação, Internet, Segurança e Saúde no Trabalho, Cooperação Internacional.

**Grupo de alvo:** specialistas e profissionais da área de Segurança e Saúde no Trabalho dos dois países

Finalidade do projeto: Criação de website destinado a ativar, auxiliar e manter na Cooperação entre Itália e Brasil, ações para a melhoria da Segurança e Saúde dos Trabalhadores nos locais de trabalho dos dois países.

No Congresso de Foz do Iguaçu, fevereiro de 2003, foi realizado um Seminário Ítalo-Brasileiro no qual foi notável e factível interesse de outros possíveis parceiros científicos, técnicos e institucionais. Como primeiro momento, no aguardo de maiores recursos, foi decidido pela criação de um grupo de discussão via Internet para o intercâmbio permanente de informações, atualizações, experiências e dados. Foi definida uma versão consensuada do projeto que nos próximos meses será integrada a um plano de cooperação, a ser submetido às autoridades responsáveis pelo financiamento. Considerando que a fase de planejamento está completa, estamos voltando nossa atenção à busca dos recursos necessários. Se em 12 meses não conseguirmos os recursos humanos e financeiros necessários, iremos avaliar a possibilidade de reconsiderar a viabilidade do projeto.

**Development of OCH website for employers and employees of European SMEs**

WHO EURO, HQ (bba@who.dk). Others are invited to join.

To see the current state of this task development, consult http://www.epaw.co.uk/HESME/ (click on HESME web guide at the end of home page).

Project end date: 2003pjects continuing without end (4): INTERNET RESOURCES AND NETWKS (tf12)

**Developing internet resources for end-users, including practical solutions and training materials**

S. Len Hong, Canadian Centre for Occupational Health and Safety, (CCOHS), Canada (hongl@ccohs.ca)

**Keywords:** Internet, best practices framework, best practice documentation, solutions, voluntary sharing

**Target groups:** OSH specialists, employers, workers, associations, agencies, governments, researchers, policy analysts

A database framework is being developed and provided for self-reporting of best practices. This Internet-based framework will provide for a consistent, organized, and indexed description of best practices in occupational health and safety. It will be available as one of the platforms that could be a repository of global self-reported OSH successes and best practices. The framework contains a broad range of elements consistent with OSH management system criteria to permit the documentation of comprehensive analyses and reports of the many facets of OSH systems that were involved in the creation of a best practice.

**Project start date:** October 2002

**Project end date:** Continuing

**Preparation of a framework plan for the development of the WHO Occupational Health website**

P.K. Abeytunga, Canadian Centre for Occupational Health and Safety, (CCOHS), Canada (abey@ccohs.ca)

**Keywords:** WHO, Collaborating Centres, Web Portal, OSH, Network

**Target group:** primarily WHO Collaborating Centres, OH&S experts, decision-makers, governments, managers, employers and anyone worldwide involved in OH&S.

The objective of this project is to design a network web portal framework complementing the WHO website on the Collaborating Centres Programme with the objective of expanding the utilization of the Internet by the network of WHO Collaborating Centres to facilitate its global programme of work and to fulfil the OH&S information needs of the global population. The network web portal will have the following features:

- The content of the portal structure to be multi-lingual (English, French, Spanish at the start), with the facility for the content of OH&S information on the portal to be presented in any language.

- A search engine with sophisticated search and retrieval capabilities.
- Discussions groups (Forums) for exchanging messages, documents and other communications to facilitate the work of working groups and task forces of the network. Facilities will include the archival of communications maintained on the Web, to be searchable and accessible by the relevant members through passwords.

- A powerful web server with large storage space, high-speed network connections and near 24-hour/day, 7-day/week availability.

A prototype of the design of the structure, functionality, presentation details, and navigation capabilities, together with the search and retrieval facilities, has been created for review.

**Project start date:** October 2002

**Project end date:** Ongoing

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**Contributing to the inventory of training materials**

Vern P. Anderson (vanderson@cdc.gov) and Nancy Muturi (nmuturi@cdc.gov), National Institute for Occupational Safety and Health, USA; University of Illinois in Chicago; University of Cape Town, South Africa; University of Texas, USA

**Keywords:** training, inventory, safety, health, Internet

**Target group:** occupational health staff in departments of health, departments of labour, and Trade Unions in all countries, safety and health practitioners.

The aim of the project is to provide sources and criteria for excellence in e-training web sites that would be accessible from the Global Occupational Health Web Site Compile an annotated database of e-training web sites that provide occupational and health training and/or materials for the Global Occupational Health Web Site. The project will establish criteria for selecting and classifying occupational e-training materials and develop a standardized evaluation form for recipients of web-based training.

E-training web sites have the potential to offer current, credible, international access to current health and safety information and training throughout the world. Presently, there are more than 100 web sites offering various forms of occupational safety and training through the Internet (see the site: http://dmoz.org/Health/Occupational_Health_and_Safety/Training).

The quality and credibility have yet to be defined. The goal of this project is to develop a database of web training opportunities providing safety and health information. NIOSH in collaboration with the COHS and ILO (CIS) have taken a first step in providing a standardized form for accessing electronic information on occupational safety and health training at http://www.ciscentres.org/en/training/usa/

A draft inventory of e-training web sites has been compiled. Criteria are being developed for sorting and rating the e-training web databases. Occupational safety and health information related to training resources available in the U.S. is available.

There is close collaboration between WHO and ILO; University of Illinois in Chicago; University of Cape Town, South Africa; University of Texas, USA; Canadian Center for Occupational Health and Safety, Hamilton

**Project start date:** February 2003

**Project end date:** Ongoing

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**Contributing to the development and use of ergonomics-related training materials on the web**

John Wilson (john.wilson@nottingham.ac.uk), Chair IEA PSE Committee

**Keywords:** training materials, website, ergonomics, occupational safety and health, resource development, internet links

**Target group:** occupational safety and health personnel engaged in training of managers, workers and personnel in industry, instructors and trainers in applying ergonomics to occupational safety and health programs, resource development staff for training on the web

The purpose of the project is to facilitate the sharing of training materials on the web for applying ergonomics within occupational health and safety clearinghouse activities.

The links to existing web-based training materials related to ergonomics are promoted so as to facilitate the finding of appropriate materials that can be downloaded at no cost by occupational safety and health trainers and practitioners. The networks of IEA Technical Committees and federated societies as well as the IEA directory of training institutions will be used.

The project is in progress through voluntary contributions of ergonomics professionals and institutions with the aim of developing a database of web-based ergonomics training materials that are available for basic ergonomics training in selected topics.

The IEA IDC Committee is collaborating on the project.

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**Facilitating the exchange of information and communication among the WHO Collaborating Centres through website development**

Jean-Marie Mur, INSERM, France (jean-marie.mur@nancy.inserm.fr); S Len Hong, Canadian Centre for Occupational Health and Safety, Canada (lhong@ccohs.ca); Teresa Whitford, National Centre for Occupational Health, South Africa (WhitT@health.gov.za)
Inventory of available training materials on the web

Daniel Hryhorczuk and Leslie Nickels, Great Lakes Centres, University of Illinois in Chicago, USA (dhryhorc@uic.edu)

Keywords: occupational, safety, health, training, Internet

Target group: Teachers, students, and practitioners of occupational safety and health around the world.

The aim of this project is to create a web-based library of occupational safety and health training materials that are in the public domain and which can be downloaded at no cost by occupational safety and health teachers, students, and practitioners around the world.

Many governmental agencies, academic institutions, and non-governmental organizations have developed occupational safety and health training materials and made them available for downloads at no cost on the World Wide Web. Finding appropriate materials can be difficult and time consuming. This project will pilot the development of an internet-based library of these materials. It will begin by focusing on a few specific topic areas and attempt to assemble, review, and catalogue all available training materials for these topics.

A collection of web-based training materials has been initiated. A prototype of this virtual library will be presented at the next meeting of the network.

The University of Cape Town, South Africa and the University of Texas, USA are collaborating on the project.

Project start date: February 2003
Project end date: December 2005

Sharing case studies of successful health hazards control on the internet

Magdalene Chan, Occupational Health Department, Ministry of Manpower, Singapore (magdalene_chan@mom.gov.sg)

Keywords: occupational health hazards, control solutions, case studies

Target group: OH&S professionals, employers and employees

The objective of this project is to make available, through the internet, and specifically through the WHO Global Web Portal, case studies of successful health hazards control.

The project will establish a repository of successful cases of health hazards control and make available these case studies on the internet through Singapore’s recently established link to the Global Web Portal aimed at complementing the Programme of the WHO Collaborating Centres Network.

The case studies will include examples from winners of national awards, such as the Noise Control Award, and the new Occupational Health Best Practices Award which has been launched in October 2003.

The indexed database will have a search function enabling cases to be retrieved by industry, hazard or keywords. It will have the following data items:

- Problems identified in the work process
- Solutions and Control measures proposed to reduce the hazard
- Implementation cost
- Cost benefits

The prototype of the database structure has been created. The case studies will be updated when the web-based database has been developed.

Product(s): Web-based information on successful health hazards control. The project is expected to be completed by July 2004.

Project start date: October 2003
Project end date: July 2004

Distance E-Learning Trial on Occupational Health Among Asian Countries

Toshiaki Higashi, University of Occupational and Environmental Health, Japan (thigashi@med.ueh-u.ac.jp)

Funds are partially in place. The project will be completed by June 2005 (including the establishment of a distance learning system).

Project start date: May 2003
Project end date: January 2006

Development of a web information collection system for active surveillance of work-related diseases and occupational exposure, and of a web publication system for information dissemination to occupational safety and health practitioners

Ippei Mori, National Institute of Industrial Health, Japan (mouri@nih.go.jp)
Keywords: Internet, web based data collection and publication, active surveillance, work-related diseases, occupational exposure

Target group: occupational safety and health staff in companies, occupational physicians, and industrial hygienists.

The objective of this project is to establish a web based data collection system for active surveillance for work-related diseases and occupational exposure, and a web based information publication system for supporting occupational safety and health practitioners working at enterprises. The website is provided for occupational physicians to inform about work-related diseases they experienced and for companies or providers of work environment measurement to provide occupational exposure levels they assessed.

Development of the web-based data collection system, the core technology of this project will finish in several months and trial data collection of work-related diseases will be expected to start before March 2004. Development of the web page for data collection for work-related diseases has almost been finished. Minor changes and bug-fixings are on-going.

Support system for diagnosis of pneumoconiosis using digitization system of image information by relatively reasonable computer system (incl. asbestos-related diseases)

Toshiaki Higashi, University of Occupational and Environmental Health, Japan (thigashi@med.uoeh-u.ac.jp)

Funding is in place.

Project start date: May 2003
Project end date: June 2005

Identification of significant occupational health and safety issues, development of the consensus view on the issues and dissemination via the web.

Julie Hill. National Occupational Health & Safety Commission (Julie.hill@nohsc.gov.au)

Keywords: evidence; reviews; research

Target group: OHS policy makers; regulators; researchers; decision makers.

The aim of the project is to establish international collaboration to facilitate the completion of systematic reviews on occupational health and safety (OH&S) issues and interventions. It is hoped that this will provide a better evidence base for policy and practice and promote greater international dialogue and exchange of OH&S data and experiences with the results being available freely on the web

Initially the project will be a feasibility study to investigate options for the establishment of an international evidence based policy and practice (EBPP) collaborative network. The first phase will be complete by mid-2004.
Indicators are pointers that simplify phenomena and help to understand and monitor complex realities. Profiles are concise subject descriptions that usually also include quantitative indicators. A profile is more than a set of indicators because it provides an understanding and context that cannot be communicated by numbers only. Profiles and indicators of occupational health and safety (OH&S) are used to describe states of affairs, provide early signals for problems in the work life, monitor trends, assess the effectiveness of programmes, and present a baseline against which progress is measured. Data on OH&S indicators, such as work injuries and occupational diseases, are collected in some form in nearly every country, but comparisons across countries are difficult because of differences in legislation, criteria, and reporting systems. Sub-national profiles (province, district, etc.) enable comparisons between different geographical areas or population segments. Strength of a sub-national approach is that contextual parameters (culture, language, legislation, administrative procedures) usually are similar, unlike when comparing different countries. Profiles increase transparency and visibility of OH&S and provide insights into the complexity of OH&S affairs, priorities, and needs of countries.

In 2001, a WHO CC meeting in Chiang Mai, Thailand, established a Task Force to encourage development of OH&S profiles and indicators. In 2003, a WHO CC meeting in Iguassu, Brazil, updated the strategy of the Task Force. At present, some 35 institutions in Africa, Asia, Europe, and the Americas are involved in building OH&S profiles.

Publishing of data on country profiles on OH&S collected by the pilot countries

Kari Kurppa, Finnish Institute of Occupational Health, Helsinki, Finland (Kari.Kurppa@ttl.fi); Gerry Eijkemans, WHO (eijkemansg@who.int)

Twenty-two European countries (Austria, Bulgaria, The Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Norway, Portugal, The Russian Federation, Spain, Sweden, Switzerland, The United Kingdom, and Serbia and Montenegro) have provided country profiles based on a WHO/EURO model. The indicators were divided into three main categories: a) Indicators of prerequisites of OH&S, b) indicators of working conditions, and c) indicators of OH&S outcomes. The results of the project showed: the availability of data greatly varies between countries; the inter-country comparability of the data is low; quantitative data needs to be complemented with qualitative information; a multi-parameter profile is more informative than the aggregation of several parameters to one single indicator score.

The European country profiles have been published as a document, and will also be made available through Internet from the TF13 Web site. Countries in other continents can consider the findings and experiences gained by the European project.


WHO, ILO, and the Finnish Institute (FIOH) have provided funding for selected African (Kenya, South Africa, Tanzania) and Asian (Nepal, Philippines, Sri Lanka, Thailand, Viet Nam) countries to prepare country summaries on OH&S. The results were presented at an international seminar in Helsinki in October 2001, and have been printed in a publication.


Sectoral and subject-oriented profiles and indicators

Kari Kurppa, Finnish Institute of Occupational Health, Finland (Kari.Kurppa@ttl.fi); Magdalene Chan, Ministry of Manpower, Singapore (magdalene-chan@mom.gov.sg)

Keywords: indicator, profile, national

Target group: decision makers, planners, managers, occupational health and safety professionals.

The objective of this project is to develop a model profile that gives an overview of the OH&S situation in the chemical sector and use this as a tool for benchmarking with other economic sectors within a country and, perhaps, between similar sectors in other countries.

The profiling of the chemical industry in Singapore covers the following activities: Manufacturing of Refined Petroleum Products, Manufacturing of Chemicals and Chemical Products, and Manufacturing of Rubber and Plastic Products. In the selection of the items and indicators for the profile, reference has been made to the approach taken in the compilation of country profiles published in the FIOH People and Work Research Reports 52 (Work and Health Country Profiles of 22 European Countries) and 55 (Proceedings of the Workshop on National and Local OH&S Profiles and Indicators), as well as the Survey on ILO Standards-Related Activities in the Area of OSH in 2002.
Data is collated from the various databases maintained by national authorities, including the Manpower Ministry, economic and statistical agencies and professional bodies, as well as published or available local research material.

The profile will comprise the following:

- Economic and manpower statistics
- OHS legislation and standards
- Human resources in OHS
- Worker exposure and biological monitoring data
- Occupational disease and accident statistics

A CD-ROM sectoral profile is available on the internet.

**Contribution for generating and publishing of country profiles - Italy**

Alessandra Pera, ISPESL, Italy (alessandrapera@tiscalinet.it)

**Keywords:** occupational health, prevention, epidemiological surveillance

**Target group:** The definition of the Italian Country profile will lead to a better definition of the “standards” in occupational health. This will develop into a body of useful information for decision-makers in the area of safety and prevention.

The study is aimed at defining the Country Profile of our Country as regards the topics of occupational safety and health. The objectives of the activity will be achieved through the study of WHO models for the definition of Country Profiles and national and international criteria and guidelines; comparison with the various European Countries as well as with WHO Collaborating Centres; The setting up of inter-sectorial collaboration at a national and international level; the setting of key indicators of the status of the country in terms of occupational health and safety and the development of studies in the country. A country profile of Italy has been prepared.


**Comparison of occupational illness and injury reporting systems across countries**

Fernando G. Benavides (fernando.benavides@cexs.upf.es), Occupational Health Research Unit, Research Unit on Respiratory and Environmental Health, Barcelona, Spain.

**Keywords:** reporting systems, international comparability

**Target group:** Developed and developing countries.

The purpose of the project is to review and compare existing reporting systems for work-related injury and illness across countries, and to provide recommendations for enhancing the degree of comparability of such systems, as a step towards a more global analysis of work-related injury and illness.

This work is being done in collaboration with another WHO Collaborating Centre in Occupational Health (Southwest Centre for Occupational and Environmental Health at The University of Texas School of Public Health). Initially, the comparability of workplace fatality reporting systems between the U.S. (CFOI) and European Union (ESAW) has been studied. Although comparisons are initially being made between existing reporting systems in developed countries, the outcomes of this research should be useful and applicable to developing countries as well. Funds from various grants support this activity on an ongoing basis. For its commitment, WHO is being asked to share relevant information on similar work-related injury and illness reporting systems from national-level Collaborating Centres, and to provide reviews of the work done by the Occupational Health Research Unit on this topic.

The manuscript on work-related deaths between the U.S. and European Union has been submitted for publication.


**Contribution for generating and publishing of country profile - Singapore**

Magdalene Chan, Occupational Health Department, Ministry of Manpower, Singapore, (magdalene_chan@mom.gov.sg)

**Keywords:** indicator, profile, national

**Target group:** decision makers, planners, managers, occupational health and safety professionals

The objective of this project is to compile a country profile of Singapore with regard to occupational health and safety to facilitate information sharing, comparisons between countries and surveillance across time.

The occupational health and safety profiles and indicators being compiled are broadly classified into three main categories, viz., prerequisites of OH&S, working conditions and OH&S outcomes. In the selection of the items and indicators for the profile, reference has been made to the approach taken in the compilation of country profiles published in the FIOH People and Work Research Reports 52 (Work and Health Country Profiles of 22 European Countries) and 55 (Proceedings of the Workshop on National and Local OH&S Profiles and Indicators).

Data is collated from various databases maintained by national authorities, including Manpower and Health Ministries, economic and statistical agencies and professional bodies, as well as published or available local research material.
The profile will include the following items:

- Economic, health and manpower statistics
- OHS infrastructure and system
- OHS Legislation
- Human resources in OHS
- Worker exposure and biological monitoring data
- Occupational disease and accident statistics
- Work related health problems, such as stress and musculoskeletal problems

A CD-ROM country profile is available on the internet. The project is expected to be completed in December 2003.


Project end date: March 2004 (Completed)
Project start date: March 2003

Contribution for generating and publishing of country profiles - Viet Nam

Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

Key words: country profile, indicators, occupational health, prevention

Target group: decision-makers at Ministries, politicians, workers’ organizations, employers’ organizations, academic institutions

The objective is to describe the national structures and functions of the Vietnamese system for the management of OH&S. The Vietnamese Network on Occupational Health and Safety will contribute to the accomplishment of the task.


Generation and publishing of regional and local profiles - Bulgaria

Emilia Ivanovich, National Centres of Hygiene, Medical Ecology and Nutrition, Bulgaria (e.ivanovich@nchmen.government.bg)

Keywords: work, working condition, outcomes, profile

Target group: decision-makers, planners and managers, and occupational health staff in Departments of Health, Departments of Labour, and Trade Unions, company management, local authorities.

The aim is to raise awareness of OH among decision-makers in Departments of Health, Departments of Labour, Trade Unions local authorities, companies and enterprises. Profiles and indicators on occupational health and safety can be used for describing the activities, prioritising activities at the regional level, providing early signals for problems emerging in the work life, and giving evidence of achievements. The methodology has been adopted. Funds are needed. FIOH is collaborating on the project. Active period: 2004-2005.


Organizing small seed funding for countries to collect the survey information

Gerry Eijkemans, WHO (eijkemansg@who.int)

WHO and Finnish Institute (FIOH) have provided funding to assist selected African (Kenya, Tanzania) and Asian (Nepal, Philippines, Sri Lanka, Thailand, Viet Nam) countries to carry out subnational profiles. The results were presented at an international meeting sponsored by FIOH and WHO in November 2002, and will be published by the end of 2003.

Extension of the profiles to subnational levels (province, region, municipality) - Estonia
The European country profiles have been published as a document, and are also available through the Internet from the TF13 Web site. Countries in other continents can consider the findings and experiences gained by the European project.

The indicators were divided into three main categories: a) Indicators of prerequisites of OH&S, b) indicators of working conditions, and c) indicators of OH&S outcomes. The results of the project showed: the availability of data greatly varies between countries; the inter-country comparability of the data is low; quantitative data needs to be complemented with qualitative information; a multi-parameter profile is more informative than the aggregation of several parameters to one single indicator score.

The European country profiles have been published as a document, and are also available through the Internet from the TF13 Web site. Countries in other continents can consider the findings and experiences gained by the European project.

**Target group:** local decision-makers, local politicians, local stakeholders

**Anticipated product:** Occupational Health and Safety Profile of County of Tartu

**Project start date:** 2003

**Project end date:** June 2004

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**Publishing of data on country profiles on OH&S collected by the pilot countries**

Kari Kurppa, Finnish Institute of Occupational Health, Helsinki, Finland (Kari.Kurppa@ttl.fi); Gregory Goldstein, WHO (eijkemansg@who.int)

Twenty-two European countries (Austria, Bulgaria, The Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Norway, Portugal, The Russian Federation, Spain, Sweden, Switzerland, The United Kingdom, and Serbia and Montenegro) have provided country profiles based on a WHO/EURO model.

The indicators were divided into three main categories: a) Indicators of prerequisites of OH&S, b) indicators of working conditions, and c) indicators of OH&S outcomes. The results of the project showed: the availability of data greatly varies between countries; the inter-country comparability of the data is low; quantitative data needs to be complemented with qualitative information; a multi-parameter profile is more informative than the aggregation of several parameters to one single indicator score.

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**Contribution for generating and publishing of country profiles - Estonia**

Ester Rünkla, Ministry of Social Affairs, Estonia (Ester.Runkla@sm.ee), Eva Tammaru, Occupational Health Center, Ministry of Social Affairs (Eva.Tammaru@ttk.ee)

**Keywords:** profile, indicators, occupational health, Estonia

**Target groups:** politicians, decision-makers, occupational health professionals, universities, employers' organizations, trade unions

The objective of this project was to compile a country profile of Estonia with regard to occupational health and safety to facilitate information sharing, and raise awareness about OH&S in general. A country profile of Estonia has been accomplished.


National Indicators of Occupational Health - Viet Nam
Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

Key words: country profile, indicators, occupational health, Vietnam

Target group: national authorities and decision makers, planners and administrators responsible for OH&S form relevant ministries and agencies, occupational health professionals, employers' organizations, trade unions

The objective was to compile a country profile of Viet Nam with an indicator framework to facilitate policy making, operational management, information sharing, and awareness raising about occupational health. A country profile of Viet Nam describes indicators of labour force and employment, risk factors in working environment, work-related diseases: musculo-skeletal disorders-backpain, occupational health and safety outcomes, occupational health personnel, and occupational health services. The appendices include General information, Health resources, Occupational health services, Working environment, and Recommended core indicators.

Sectoral profile of the chemical industry in Singapore
Magdalene Chan, Ministry of Manpower, Singapore (magdalene_chan@mom.gov.sg)

Key words: chemical industry, indicator, profile, sectoral

Target group: administrators, decision makers, labour inspectors, employers' organizations, trade unions, OH&S professionals

The profiling of the chemical industry in Singapore covers the following activities: Manufacturing of Refined Petroleum Products, Manufacturing of Chemicals and Chemical Products, and Manufacturing of Rubber and Plastic Products. In the selection of the items and indicators for the profile, reference has been made to the approach taken in the compilation of country profiles published in the FIOH People and Work Research Reports 52 (Work and Health Country Profiles of 22 European Countries) and 55 (Proceedings of the Workshop on National and Local OH&S Profiles and Indicators), as well as the Survey on ILO Standards-Related Activities in the Area of OSH in 2002.

Data was collated from the various databases maintained by national authorities, including the Manpower Ministry, economic and statistical agencies and professional bodies, as well as published or available local research material.

The profile comprises the following:

- Economic and manpower statistics
- OHS legislation and standards
- Human resources in OHS
- Worker exposure and biological monitoring data
- Occupational disease and accident statistics

A CD-ROM sectoral profile is available on the internet.

Extension of the profiles to community level in the countries - Estonia
Matti Tuppurainen, Finnish Institute of Occupational Health, Finland (Matti.Tuppurainen@ttl.fi), Heiki Annuk, Health Examination and Occupational Health Centre, Tartu University, Estonia (heikiannuk@hot.ee)

Key words: local, profile, municipality, indicator, occupational health

Target group: local administrators, local stakeholders

The municipality of Ülenurme, population 4,500, is bordering the town of Tartu in Southern Estonia. There are 247 small enterprises and 400 workplaces. Types of industries include food-processing, metal shops, furniture manufacturing. Other work consists of construction, transport, commerce, communal services, small farms and entrepreneurs. A municipality OH&S profile was collated by using rapid assessment techniques: desk review of administrative documents, discussions with municipality officials, local labour inspectorate, and OH specialist of an occupational health centre, and walk-through observations.

Product: Community OH&S Profile of Ülenurme Municipality
ILO/SRO Country Profiles on Working Conditions and Environment  June 2004 Update
Shengli Niu, ILO (niu@ilo.org)
The national programmes and activities in member States in 2004 have been mainly focused on the implementation of the ILC Resolution on OSH of 2003 through a number of strategic considerations. The promotion of the key ILO Conventions on OSH has taken centre stage given its importance to influence positive adoption of the principles and practices of Occupational Safety and Health regarding the application of recognised standards to improve working conditions. The promotion of the proactive approach has been the top priority to ensure that national and enterprise level OSH operational programmes are designed to adopt the preventive orientation. The country profiles covered therefore reflect on these key foregoing issues and concerns of programming.

Botswana
Only C 176 Safety and Health in Mines has been ratified by the state. Conventions 155 Safety and Health as well as C161 Occupational Health Services still need to be promoted to motivate for the formulation of a comprehensive national policy and legal reform on OSH.
The establishment of a national tripartite advisory council on OSH is essential to motivate and enhance social dialogue in the implementation of operational programmes based on national consensus on agreed agenda and priorities.
Training of a national tripartite advisory council in OSH will enhance the implementation of the ILC Resolution on OSH Global Strategy through national consensus on issues of concern.

Lesotho
Only C155 Safety and Health has been ratified by Lesotho. Even though the national laws on OSH exist they are hosted within the Labour Code hence diluting the prominence of the issues of concern. There is a need for legal reform to ensure that the national laws properly take into account the concerns of the Conventions 155 and 161 Occupational Health Services. The last mission motivated for the ratification of C161 and formulation of a comprehensive national policy on OSH to provide comprehensive guidelines and direction for the implementation of national programmes and activities.
The Global Strategy on OSH from the ILC Resolution of 2003 was introduced to the national advisory council on OSH. The required follow up is to provide technical cooperation in the development and implementation of specific national programmes based on the global strategy.
Lesotho requested for assistance to embark on national profiling of hazards in workplaces to enhance the national registration system of workplaces. Progress has yet to be realised in this regard.

Malawi
Malawi has not ratified any Conventions in OSH. The state has requested for technical cooperation and assistance from ILO to establish a comprehensive national OSH system through the active collaboration of the social partners.
The current legal provisions have posed serious challenges to the enforcing government department because the OSH inspectorate needs to be trained on the implementation of national laws in workplaces through a comprehensive system.
The national tripartite body needs to be trained on the ILO Conventions on OSH and implementation of proactive programmes.
The promotion of the ILC Resolution on of 2003 Global Strategy on OSH needs to consider the prior training and orientation of the national tripartite body on the pertinent International Labour Standards.

Mozambique
Mozambique has not ratified any ILO Conventions on OSH due to a number of important factors pertaining to their historical background. In SADC Mozambique currently is the fastest growing economy and inherently the challenges for OSH are equally growing. There is a need to match the demands of the growing economy through comprehensive national programmes.
A national tripartite advisory body on OSH needs to be established to spearhead the formulation of a national policy that will provide guidance on the implementation of comprehensive programmes in workplaces.
Capacity building is a very key issue to ensure that the country has professional ability among the tripartite constituents to articulate the implementation of effective proactive OSH programmes. All branches of the economy pose challenges that need to be addressed systematically with ILO providing the essential technical cooperation in the collaborative activities.
Currently there are initiatives to motivate for the establishment of a national CIS to access information in Portuguese on OSH through collaboration with speaking countries and ILO/SRO Harare is spearheading this initiative.
Namibia
Namibia has not ratified any OSH ILO Conventions. The ILO/SRO Harare has provided technical cooperation in the training and promotion of the ILO Conventions on Safety and Health in Agriculture C184, C170 Chemicals and C174 Prevention of Major Industrial Disasters. During the training C155 Safety and Health as well as C161 Occupational Health Services were also covered since they were highlighted as fundamental in the establishment of any OSH programme and system.

The country need to develop a national policy on OSH complemented by legal reform that will lead to the development of comprehensive national strategies and programmes.

OSH inspectors need training on the enforcement of OSH legislation to improve compliance and a request to that effect was made during the training of the Labour Advisory Council.

It was acknowledged that a mission was necessary to initiate the implementation of the ILC Resolution on OSH Global Strategy.

South Africa
South Africa has ratified C 42 Workmen’s Compensation Occupational Diseases, C155 Safety and Health, C176 Safety and Health in Mines. Convention 161 Occupational Health Services needs to be promoted given the national programmes and activities currently undertaken by the member State.

The national policy on OSH is still to be finalised and consultations are still in progress.

The Global Programme on Elimination of Silicosis will be launched in the near future as a national Chapter as an initiative to promote the implementation of the ILC 2003 Resolution on OSH.

The country would like to commemorate the World Safety and Health Day.

Swaziland
Swaziland has requested for technical assistance to launch their National SAFEWORK programme as part of the national initiative to implement the ILC 2003 Resolution on OSH Global Strategy.

The country needs to establish a national tripartite body to coordinate and promote social dialogue in the implementation of comprehensive programmes in the world of work.

OSH inspectors need training on the enforcement of the national legislation to improve compliance.

ILO/SRO Harare has been requested to provide technical cooperation in the development of regulations to support the principal Act on OSH.

Zambia
Zambia has ratified Convention 176 Safety and Health in Mines. ILO/SRO Harare has prioritized the promotion of the key OSH Conventions 155 Safety and Health, C161 Occupational Health Services.

The country needs to formulate a national policy on OSH and a request to that effect is outstanding.

The newly established department of Occupational Safety and Health will need technical cooperation in the design and implementation of national and enterprise level programmes through training of OSH personnel.

The country has a long standing request to develop national training curricula on OSH with the technical assistance from ILO/SRO Harare.

Zimbabwe
Zimbabwe has ratified the highest number of the ILO Conventions on OSH that includes C155 Safety and Health, C161 Occupational Health Services, C162 Asbestos, C170 Chemicals, C174 Prevention of Major Industrial Accidents and C176 Safety and Health in the Mines.

Even the country is implementing a number of national programmes it has already indicated to ILO/SRO Harare that technical cooperation is expected in the implementation of the obligations of the Conventions.

Zimbabwe will be launching the National SAFEWORK programme in October 2004 following a national conference and a series of provincial seminars and workshops on OSH. ILO/SRO Harare is collaborating in the preparatory arrangements.

The World Safety and Health Day was successfully celebrated as a national tripartite event on April 28, 2004.

Contribution for generating and publishing of country profile - Hungary
György Ungváry, National Institute of Occupational Health, Hungary (ungvary@fjokk.hu)

Keywords: indicators, data, occupational health, Hungary

Target group: decision-makers in Departments of Health, Department of Labour and Trade Unions, occupational health staff and directors, managers associated with occupational health.

The objective of this project is to present the most important results of Hungarian occupational health in a form comparable to those of other countries as far as possible. The project contains the key information on the organisation,
The purpose of the Task Force 13 (TF13) is to increase the awareness about occupational health and safety (OH&S) situation of national and local decision makers by promoting the compilation of profiles and indicators at national and subnational levels. The Finnish Collaborating Centre is participating in this project.


Further development of a strategy for collecting national and local profile data in OH&S
Kari Kurppa, Finnish Institute of Occupational Health, Helsinki, Finland (Kari.Kurppa@ttl.fi)

The purpose of the Task Force 13 (TF13) is to increase the awareness about occupational health and safety (OH&S) situation of national and local decision makers by promoting the compilation of profiles and indicators at national and subnational levels.

In 2002, at request of WHO/EURO, the Finnish Institute of Occupational Health (FIOH) surveyed the availability and analysed the inter-country comparability of candidate indicators in twenty-two European countries. There were many problems in the availability of the proposed indicators in the required form. Furthermore, the comparability of indicators between European countries was generally poor. On a global scale comparisons of indicators are even more problematic because of larger heterogeneity of cultural, legislative, administrative, socio-economic and other factors.

The comparability of data within a country between different regions and over time is generally much better than the comparability across countries. Data collected within a country enable subnational comparisons and surveillance of temporal changes.

The standardization of data collection methods and harmonization of definitions and criteria of indicators in different countries would be a formidable task due to inherent differences between countries. Therefore, it is difficult to suggest one fixed standard for a set of national indicators. However, the WHO/EURO approach has provided an example for a thematic structure for national profiles. Certain themes, items, and issues are universally relevant to all countries.

A rational strategy for the TF13 is to make the existing and forthcoming profiles as widely available as possible through the Internet. Therefore the TF13 establishes a Web site that organizes the profiles and indicators developed by CCs. The Web site also provides access to contact information, background documents, and useful sources in general. An Internet-based profiling instrument will be developed in order to expedite, and to harmonize to a reasonable extent, the building of OH&S profiles. The twenty-two country profiles from the WHO/EURO project will be made available through the Web site. The Web site will also offer access to national profiles of other countries, and to the subnational, sectoral, and subject-specific profiles, when such products become obtainable.

Many developing countries may have difficulties in writing a comprehensive national profile. In such a case a stepwise strategy could be employed by first writing a ‘mini-profile’ using information that is readily at hand, and gradually expanding the factual content when more information becomes available.

Indicators of chemical exposures in Central America and the Caribbean
Luisa Castillo (lcastill@una.ac.cr), Fabio Chaverri (fchaverr@una.ac.cr), Timo Partanen (timopa@yahoo.com), Catharina Wesseling (cwesseli@una.ac.cr), IRET-UNA, Costa Rica

With UNEP; Central American Integration System; Central American and Caribbean Universities, other scientific institutions, ministries; National Institute of Public Health (Sweden); National Institute of Public Health (Sweden); University of Montréal; Finnish Institute of Occupational Health; Laboratory of Teledetection and Geographical Information Systems – Universidad Nacional (TELESIG-UNA); U.S. Geological Survey.

Keywords: Central America, profiles, indicators, exposures, surveillance

Target group: Regional, national, and local authorities; international agencies; employers; workers; trade unions; NGOs; mass media; and general public.

The objective of this project is the prioritisation and surveillance of exposures to toxic, endocrine disrupting, and carcinogenic substances for sectoral, national and regional control in Central America and the Caribbean. The project started in 1982.

Indicator systems have been and are being developed for occupational and environmental exposures and their determinants in Central America and the Caribbean. These include (i) the UNEP Global Environmental Facility project Regionally Based Assessment of Persistent Toxic Substances (PTS) for 27 PTSs in 23 countries with 136 million inhabitants; (ii) a Central American data bank of amounts, imports, and human and environmental toxicity of pesticides; (iii) a national estimation system of the extent of occupational carcinogenic and pesticide exposures; and (iv) a Costa Rican database of aquatic system exposure to pesticides.

The following progress has been made thus far:
(i) A Regional Report of the UNEP Regionally Based Assessment of Toxic Substances (2002). This has been published as both English and Spanish versions, and the main results included in the Global Report, published by UNEP in English.
(ii) Data banks are operational and updated; 3 scientific articles have been published.
(iii) The European CAREX system was modified for feasibility in Central America, with 2 final scientific reports for Costa Rica, one published in English, one submitted in Spanish. The results have also been presented in 2 international scientific conferences both held in Brazil.
(iv) Inventory of pesticide use, wells, geohydrological and climate data; mapping of the distribution of aquifers in Costa Rica and of susceptibility indicators for groundwater contamination; watershed modeling.

Products: Operational data banks; 3 UNEP PTS reports; 3 scientific articles; 15 technical reports; CAREX modification for Central America, 3 conference presentations, workshop on groundwater vulnerability. Workshop on persistent toxic substances in the Central America.

Project start date: 1982
Project end date: Continuous
Productos: Bancos operativos de datos; el informe PNUMA; 3 artículos científicos; 15 informes técnicos; la modificación y los resultados del sistema CAREX para América Central; taller de vulnerabilidad de aguas subterráneas.

**Extension of the preparation of country profiles to all other Collaborating Centres**

Kari Kurppa, Finnish Institute of Occupational Health, Finland (Kari.Kurppa@ttl.fi); WHO Collaborating Centres in Occupational Health

The models for OH&S profiles developed by pilot countries will be made available to all WHO Collaborating Centres and other interested bodies. The access to such information will be offered through a TF13 Web site. http://www.occupationalhealth.fi/Internet/partner/tf13

**Further development of a strategy for collecting national profile data in OH&S: Indicator study and design for worker's compensation and occupational health systems in Colombia, Chile and Argentina**

Julietta Rodríguez Guzmán, Fundación Iberoamericana de seguridad y salud ocupacional (FISO), Colombia (jrodriguezz@fiso-web.org)

*Keywords*: occupational health, worker's compensation systems, profile

*Target group*: decision-makers, managers, occupational health professionals, governments, employers, trade unions

The purpose of this project is to build a diagnosis or profile about worker’s health in Colombia, Chile and Argentina, their OHS service and healthcare capacity, as well as prevention services, after they have undergone through several policy and system reforms; to raise awareness among decision makers in these three countries.

The country profiles and indicators that were built on OHS and worker’s compensation systems are to be used to present proposals for prioritising activities at the national level, to provide early signals of the emerging problems in the work life, specially to the growing informal sector and giving evidence of achievements in the formal sector.

National OH Profiles have been finished and a publication is to be done. A written report will be published, and a magnetic report will be placed online on the web through FISO’s homepage.

Asociación Chilena de Seguridad is collaborating on the project.

*Project start date*: 2002

*Project end date*: 2005

**National and Local Profiles and Indicators - The Republic of Macedonia**

Prof. Dr Jovanka Karadžinska Bilsimovska, Institute of Occupational Medicine, Republic of Macedonia, (bislimovska_j@hotmail.com)

*Keywords*: country profile, indicators, occupational health, Macedonia

*Target group*: National, local authorities and decision makers, planners and administrators responsible for OH&S form relevant Ministries and agencies, occupational health staff, employers and employees, trade union, NGOs.

The aim of this project is the development of country, local and company profile- models with specific national, local and enterprise indicators on health and safety at work. Establishing an information system in this field will facilitate integrated workplace health policy development, its implementation and evaluation.

The starting point of this project is the adoption of cross-sectoral policy requirements and key principles to facilitate good practice in workplace health, environment and social capital management in enterprises. This is a basis to prepare an action plan on enterprise, local and national level with concrete tasks and activities for all workplace health stakeholders.

The project includes further development of a set of quantitative and qualitative indicators to be used for making integrated workplace health profiles at the national, regional/local and company level.

The indicator set covers occupational, environmental, life style and social health determinants. This data should be used by companies, local authorities jointly with other provincial stakeholders and by national authorities for making annual reports, analysis of current situation and as well as for justifying plans for next period.

Preparing tools (questionnaire and methodology) for the national survey to detect high professional risks, specific occupational hazards and health promotion needs of working population are next steps in the project. They will be used by the National Co-ordination centres- Institute of Occupational Medicine - to collect information necessary to assess impact of the occupational health hazards and life style, environmental and social health determinants on health and well being of working age population. Pilot implementation of good practice in integrated workplace health management in selected enterprises will present a testing model for the project. Organization of national registry of work-related diseases in integrated workplace health monitoring will contribute to define the country status in terms of occupational health and safety.

The development of our activities in this project gave us a chance to cooperate with neighbouring WHO CC for initiating regional approach in South-east Europe in the future.

The accomplishments so far include:

- The Ministry of Health appointed the Institute of Occupational Medicine, Skopje as the National coordination centres for “Health, environment and social management in enterprises” programme in the Republic of Macedonia
The final document on National "Health, environment and social management in enterprises" Action Plan, with basic principles, criteria and concrete activities for each stakeholder was adopted by Health Council of Ministry of Health.

A draft document of national survey methodology (questionnaire and procedures) to detect high professional risks, specific occupational hazards and health promotion needs of working population was adopted at a National Intersectoral Workshop.

A draft document on a set of quantitative and qualitative indicators to be used for making national, provincial and company integrated workplace health profile was adopted on National Intersectoral Workshop.

**Project start date:** May 2002

**Project end date:** May 2007

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**Australian OHS data accounts and country profile**

Helen Burbidge (Helen.burbidge@nohsc.gov.au), Julie Hill (Julie.hill@nohsc.gov.au), National Occupational Health & Safety Commission, Australia

*Keywords:* Indicators; data; profile

*Target group:* decision makers, government, OHS professionals and researchers.

The purpose of the project is to develop a coherent framework for combining and relating various data sources on OHS in Australia that incorporates the magnitude of effect, the severity and the economic costs. An Australian country profile will then be developed using this data and information on the OHS infrastructure in Australia.

The project team will initially identify and assess data sources relating to OHS issues in Australia. Data sources assessed as being of sufficient quality and covering an aspect of the field not better covered by another source will be combined to form the best estimate of Australia’s OHS performance. Indicators are being developed for occupational injuries, fatalities and disease.

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**Collection of country profiles and national reporting system of occupational diseases**

Yuxin Zheng, National Institutes in Occupational Health and Poison Control, China (yxzheng@163bj.com)

*Keywords:* indicator, profile, country, national

*Target Group:* Centres for Disease Control and Prevention at provincial, municipal, prefectural and country levels

The purpose of this project is to collect and analyze the country profiles and occupational diseases reporting data.

This is an ongoing project. The data collection was not satisfactory and needs to be improved.

Fund have been provided by the Ministry of Health.

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**Establishment of a website for the development of OH&S indicators and profiles**

Kari Kurppa, Finnish Institute of Occupational Health, Finland (Kari.Kurppa@ttl.fi)

*Keywords:* Internet, Web, homepage, information dissemination

*Target group:* WHO CCS, politicians, administrators, others

The main operational strategy of the TF13 is to make the existing profiles, indicators, and related information as widely accessible as possible by using the Internet. The Finnish Institute of Occupational Health has assisted the TF13 to establish a TF13 Web-site. The Web site organizes the profiles and indicators that are developed by CCs so that they will be freely accessible to all. The Web site also provides access to contact information, background documents, and useful sources in general. The twenty-two country profiles from the WHO/EURO pilot project have been made available through a TF13 Web site. The Web site also offers access to national profiles that are developed in other countries, and to subnational and sectoral OH&S profiles, when such products become obtainable.

An Internet-based profiling instrument will be developed in order to expedite, and to harmonize, to a reasonable extent, the building of OH&S profiles.

*Product:* Web site http://www.occuphealth.fi/Internet/partner/tf13/

*Project start date:* 2003

*Project end date:* December 2005

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**Development of an OHS Performance Measurement Tool**

Magdalene Chan, Occupational Health Department, Ministry of Manpower, Singapore, (magdalene_chan@mom.gov.sg)

*Keywords:* occupational health and safety performance measurement tool, Universal Assessment Instrument (UAI), standardised sectorial profile

*Target group:* employers, employees, government agencies and OHS professionals

The objective of this project is to develop an OHS Performance Measurement Tool that is able to give a profile of the OHS situation with regards to a specific economic sector.

The tool is made up of a checklist and a questionnaire. It is designed to be a self-assessment tool. It has to be simple yet comprehensive, robust, verifiable and meaningful. The checklist is developed based on the Universal Assessment
Instrument (UAI) which has been tested in selected companies in the USA. The basis of UAI has been published in peer-reviewed journals. It has to be compatible with the current audits of OSHAS 18001 and MOM SMS. The questionnaire is to be used as a verification tool for the results obtained from the checklist.

An OHS profile of the specific sector in terms of OHS performance can be obtained by aggregating the results from companies in the sector. This will be a useful item in the sectoral profile that will provide a means for comparison with other economic sectors within a country, and, perhaps, between similar sectors in other countries.

The OHS Performance Measurement Tool has been developed. The checklist comprises 21 measurement criteria, grouped under five driving factors. The five driving factors are management commitment, employee participation and training, OHS systems and practices, OHS expertise and line ownership of OHS. The questionnaire has 20 items.

A pilot study has begun in the chemical industry. Five companies participated in it. The results obtained from the study are being collated. The testing of this tool may be extended to other industries.

Other centres collaborating on the project: Steven P. Levine, (silh@umich.edu), Ph.D., CIH, Emeritus Professor of Industrial Health, University of Michigan-Ann Arbor, USA; Kim Ng (kim.kl.ng@exxonmobil.com), ExxonMobil Asia Pacific Pte. Ltd., Singapore

Product: OHS Performance Measurement Tool. The deadline of this project is December 2005.

Indicator study and design for worker's compensation and occupational health systems in Colombia, Chile and Argentina

Julietta Rodríguez Guzmán, FISO, Colombia (jrodriguezg@fiso-web.org)

Keywords: occupational health, worker's compensation systems, profile

Target group: Decision makers, planners and managers, and occupational health staff the administrative institutions and insurance companies, governments, employers and trade unions in the three countries.

The purpose of the project is to build a diagnosis or profile about worker's health in Colombia, Chile and Argentina, their OH&S service and healthcare capacity, as well as prevention services, after they have undergone through several policy and system reforms; to raise awareness among decision makers in these three countries.

The country profiles and indicators that were built on OHS and worker's compensation systems are to be used to present proposals for prioritising activities at the national level, to provide early signals of the emerging problems in the work life, especially to the growing informal sector and giving evidence of achievements in the formal sector.

The National OH Profiles have been finished and a written report is to be published, which will also be on-line on the web through FISO's homepage.

The Asociación Chilena de Seguridad is collaborating with us on this project.

National occupational health plan - Chile

Juan Carlos LLano (jllano@minproteccionsocial.gov.co), Mónica Maria Corchuelo, (mcorchuelo@minproteccionsocial.gov.co), Ministry for Social Protection, Santaté de Bogotá, Colombia

Keywords: occupational health plan

Target group: Government and workers.

The purpose of this project is to elaborate a national occupational health plan based on the diagnosis of the Professional Risk System.

The aim is to elaborate a National Occupational Health Plan and establish a diagnosis of the occupational health situation (occupational health data, Occupational Health Institutions (ARP), Ministry of Social Proteccion, National Net of Occupational Health Committees). At local level, a work plan will be defined, which will periodically evaluated on the basis of indicators and results.

A national network of occupational health committees has been established.

Extension of the profiles to subnational levels (province, district) in the countries

Kari Kurppa, Finnish Institute of Occupational Health, Finland (Kari.Kurppa@ttl.fi)

Gerry Eijkemans, WHO (eijkemansg@who.int)

Keywords: district, local, profile, province, subnational

National statistics homogenise information to the country level. Yet, subnational divisions may differ in important ways with regard to labour force demography, structure of economy, OH&S services, hazards, outcomes, etc. Health For All by the year 2000 programme has noted that information has been given mainly a central connotation, and the collection of information at the peripheral level is usually done with the needs of the central level in mind. "One has to get away from such thinking." Strengthening the local role in the management of OH&S requires a closer attention to be paid to local information. Subnational profiles enable comparisons between different geographical areas or population segments, thus identifying disadvantaged population groups or regions.

Local administrators can compare separate subdivisions within their administrative territory for monitoring purposes, identifying deviancies, and recognizing needs for action. Strength of a subnational approach is that important parameters
(culture, language, climate, legislation, administrative procedures) usually are similar, unlike when comparing different countries.

Thailand is developing OH&S profiles in three provinces. China (Shanghai), Bulgaria, and the Republic of Bashkortostan (Russian Federation) are committed to 'Generation and publishing of regional and local profiles', pending on funding.

Some subnational OH&S profiles have been devised and others are in the pipeline. The conception still is feeling for a right form of presentation. Thailand has developed a useful community OH&S profile for a village of Sri Choom, Lumphun province, using rapid assessment methods. Thailand has also developed OH&S profiles in three provinces (Lumphun, Khon Kaen, Pitsanuloke) in Thai language. Viet Nam has prepared draft profiles for two provinces, including light outlines also at district and commune level. Estonia is presently developing a profile for the County of Tartu and for a municipality of Ülenurme. In Finland, the development of local OH&S profiles of several municipalities and regions are in an early stage and planned to be accomplished by mid-2005.

The overall object of these several activities is to develop a collection of content prototypes and compilation strategies that could be utilized as flexible examples.

Anticipated products: Examples of subnational OH&S profiles

| Project start date: 2002 |
| Project end date: December 2005 |

**Extension of the profiles to subnational levels (province, district, commune) - Viet Nam**

Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)

**Key words:** local, profile, province, district, indicator, occupational health

**Target group:** local decision-makers, local politicians, local stakeholders, academic institutions

The objective is to develop practicable compilation strategies and useful models that describe the structures and functions at provincial, district and commune levels in order to strengthen local management of OH&S. The compilation of light draft profiles in Northern provinces of Viet Nam is already being experimented. The Ministry of Health has devised a draft profile for the province of Nam Dinh, and the National Institute of Labour Protection for the province of Thai Nguyen, including light outlines also at district and commune levels at these provinces. The approach will first be tested in selected provinces and extended to cover other provinces if the approach is found feasible and of practical value.

**Interim products:**


| Project start date: 2003 |
| Project end date: December 2005 |

**Generation and publishing of regional and local profiles - The Republic of Bashkortostan, Russia**

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**Keywords:** local profile, occupational health, medicine, Bashkortostan

**Target group:** Ufa Research Institute of Occupational Health and Human Ecology, Republic of Bashkortostan, Russia

The purpose of this project is to presentation database on the system of health protection of the population and its indicators in the republic of Bashkortostan on the basis of statistic analysis. The project aim is presentation of the information on real health status of the population, major factors of health promotion and the most effective ways of reforming the health care system to the RB Government and regional administration organs (decision-makers, managers).

The local profile of the Republic of Bashkortostan is related to the national profile of the Russian Federation. It is a monographic issue of the results of the integrated analysis of real indicators of the population health and health care system. In the project a great deal of attention will be focused on the problems of health protection of the RB working population of the current and following generations.

The aim and tasks of the project has been defined. The programme and plan of its implementation has been developed. At present, the collection and analysis of necessary information is being done. The Moscow Research Institute of Occupational Health affiliated to RAMS is collaborating on the project. Primary results are supposed to be obtained in 2003.

| Project start date: January 2003 |
| Project end date: December 2006 |

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**Report form for basic information on occupational health**
Ministry of Public Health, Director of the Division of Occupational Health, Thailand
The Thai government funds the project.

Publishing of data on profiles on OH&S in three pilot provinces of Thailand
Director of the Division of Occupational Health, Ministry of Public Health, Thailand
The Thai government funds the project.

Development of an OHS Performance Measurement Tool
Magdalene Chan, Occupational Health Department, Ministry of Manpower, Singapore, (magdalene_chan@mom.gov.sg)
Keywords: occupational health and safety performance measurement tool, Universal Assessment Instrument (UAI), standardised sectorial profile
Target group: employers, employees, government agencies and OHS professionals
The objective of this project is to develop an OHS Performance Measurement Tool that is able to give a profile of the OHS situation with regards to a specific economic sector.

The tool is made up of a checklist and a questionnaire. It is designed to be a self-assessment tool. It has to be simple yet comprehensive, robust, verifiable and meaningful. The checklist is developed based on the Universal Assessment Instrument (UAI) which has been tested in selected companies in the USA. The basis of UAI has been published in peer-reviewed journals. It has to be compatible with the current audits of OSHAS 18001 and MOM SMS. The questionnaire is to be used as a verification tool for the results obtained from the checklist.

An OHS profile of the specific sector in terms of OHS performance can be obtained by aggregating the results from companies in the sector. This will be a useful item in the sectoral profile that will provide a means for comparison with other economic sectors within a country, and, perhaps, between similar sectors in other countries.

The OHS Performance Measurement Tool has been developed. The checklist comprises 21 measurement criteria, grouped under five driving factors. The five driving factors are management commitment, employee participation and training, OHS systems and practices, OHS expertise and line ownership of OHS. The questionnaire has 20 items.

A pilot study has begun in the chemical industry. Five companies participated in it. The results obtained from the study are being collated. The testing of this tool may be extended to other industries.

Other centres collaborating on the project: Steven P. Levine, (slih@umich.edu), Ph.D., CIH, Emeritus Professor of Industrial Health, University of Michigan-Ann Arbor, USA; Kim Ng (kim.kl.ng@exxonmobil.com), ExxonMobil Asia Pacific Pte. Ltd., Singapore
Anticipated product: OHS Performance Measurement Tool.
Project start date: July 2003
Project end date: December 2005

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Indicator study and design for worker’s compensation and occupational health systems in Colombia, Chile and Argentina
Julietta Rodríguez Guzmán, FISO, Colombia (jrodriguezg@fiso-web.org)
Keywords: occupational health, worker’s compensation systems, profile
Target group: Decision makers, planners and managers, and occupational health staff the administrative institutions and insurance companies, governments, employers and trade unions in the three countries.

The purpose of the project is to build a diagnosis or profile about worker’s health in Colombia, Chile and Argentina, their OHS service and healthcare capacity, as well as prevention services, after they have undergone through several policy and system reforms; to raise awareness among decision makers in these three countries.

The country profiles and indicators that were built on OHS and worker’s compensation systems are to be used to present proposals for prioritising activities at the national level, to provide early signals of the emerging problems in the work life, especially to the growing informal sector and giving evidence of achievements in the formal sector.

The National OH Profiles have been finished and a written report is to be published, which will also be on-line on the web through FISO’s homepage.

The Asociación Chilena de Seguridad is collaborating with us on this project.

Sectoral profiles and indicators
Kari Kurppa, Finnish Institute of Occupational Health, Finland (Kari.Kurppa@ttl.fi)
Keywords: indicator, profile, sectoral, branch of economy
Target group: administrators, decision makers, labour inspectors, employers’ organizations, trade unions, OHS professionals

OH&S hazards, untoward outcomes, and coverage of services can be quite different in different branches of economy. The content and need of OH&S services may also vary substantially reflecting the differences in working conditions and patterns of exposure.
The objective of this set of activities is to develop example profiles that give overviews of the OH&S situation by branch of economy. A sectoral profile is valuable in its own right, being a contextual summary of issues of importance with specific focus. Sectoral profiles can also be used, within reason, for making comparisons with other economic sectors within a country and, with due caution, between similar sectors in other countries.

Mini-profiles, 3-8 pages each in Finnish language, of branches of economy are being compiled in Finland every three years. These profiles briefly summarize the trends in labour force demography and production, working conditions, workplace injuries and occupational diseases, and provide prospects for future.

A Sectoral profile on OH&S in Estonian agriculture is presently being compiled. A similar undertaking is about to start in Finland, to be accomplished by 2005. The Baltic Sea Network on OH&S (WHO/EURO) will discuss in October 2004 a possibility of compiling similar profiles from other Baltic Sea countries.

A profile of the chemical industry in Singapore has been completed (see Completed projects).

Development of an OHS Performance Measurement Tool
Magdalene Chan, Occupational Health Department, Ministry of Manpower, Singapore, (magdalene_chan@mom.gov.sg)

Keywords: occupational health and safety performance measurement tool, Universal Assessment Instrument (UAI), standardised sectorial profile

Target group: employers, employees, government agencies and OHS professionals

The objective of this project is to develop an OHS Performance Measurement Tool that is able to give a profile of the OHS situation with regards to a specific economic sector.

The tool is made up of a checklist and a questionnaire. It is designed to be a self-assessment tool. It has to be simple yet comprehensive, robust, verifiable and meaningful. The checklist is developed based on the Universal Assessment Instrument (UAI) which has been tested in selected companies in the USA. The basis of UAI has been published in peer-reviewed journals. It has to be compatible with the current audits of OSHAS 18001 and MOM SMS. The questionnaire is to be used as a verification tool for the results obtained from the checklist.

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The OHS Performance Measurement Tool has been developed. The checklist comprises 21 measurement criteria, grouped under five driving factors. The five driving factors are management commitment, employee participation and training, OHS systems and practices, OHS expertise and line ownership of OHS. The questionnaire has 20 items.

A pilot study has begun in the chemical industry. Five companies participated in it. The results obtained from the study are being collated. The testing of this tool may be extended to other industries.

Other centres collaborating on the project: Steven P. Levine, (slih@umich.edu), Ph.D., CIH, Emeritus Professor of Industrial Health, University of Michigan-Ann Arbor, USA; Kim Ng (kim.kl.ng@exxonmobil.com), ExxonMobil Asia Pacific Pte. Ltd., Singapore

Anticipated product: OHS Performance Measurement Tool.

Project start date: July 2003
Project end date: December 2005

Extension of the profiles to community level in the countries
Traditional health indicators such as morbidity or disability may reveal little about actual community concerns. Such concerns may include poverty, work injuries, pesticide poisonings, ergonomic or other work-related problems. Community activation is a strategy to improve OH&S in rural villages. Locally acceptable light methods are needed. Writing a community OH&S profile is an activation process that uses flexible rapid assessment procedures (RAP). These are mixed qualitative techniques such as desk-reviews of documents, conversations, group discussions, observations, walk-throughs.

Obvious hazards, such as pesticides containers lying on ground unguarded, metal chips on floor where people walk barefoot, ergonomic faults, may be corrected immediately often by simple means. The aim is to train communities to manage OH&S on their own, as much as they can.

A pilot project in Sri Choom village, population 800, in Northern Thailand has been accomplished. As part of the process, several actions for improving OH&S at village work sites have been successfully undertaken, and farmers and entrepreneurs educated on controlling local hazards in agriculture and small furniture workshops.

Several community profiles are about to be compiled in Finland during the next couple of years. Viet Nam is considering the implementation of similar activities.

The Task Force 2 'Intensive Partnership in Africa includes a task for Preparation of community profiles on OH&S in Africa, pending on funding.


Project start date: 2002
Project end date: 2006

Extension of the profiles to community level in the countries - Finland

Kari Kurppa, Finnish Institute of Occupational Health, Finland (Kari.Kurppa@ttl.fi)

Key words: local, profile, municipality, indicator, occupational health, work well-being

Target group: local decision-makers, local politicians, local stakeholders

The community of Mäntsälä, population 15,000, in Southern Finland is a rapidly growing municipality, and a home to 1,400 businesses. A community OH&S profile is about to be written as part of a project that mainstreams work well-being, incl. OH&S, into municipal development plans, and develops strategies for promoting well-being in micro-enterprises and for entrepreneurs. The profile will include suitable indicators, mostly qualitative, and narrative descriptions about issues of importance, describe the OH&S capacities and interests of members of a local network, record development goals and priorities, and link OH&S to other socioeconomic issues in local context. The project is realized by the Finnish Institute of Occupational Health in collaboration with the Mäntsälä business development centre that takes the implementation responsibility.

Writing of similar local profiles, as part of action programmes, are being planned for several other municipalities or regions in Finland, to be started in 2004.

Anticipated product: Community OH&S Profile of Mäntsälä Municipality

Project start date: June 2004
Project end date: December 2005

Extension of the preparation of country profiles to all other Collaborating Centres

Kari Kurppa, Finnish Institute of Occupational Health, Finland (Kari.Kurppa@ttl.fi); WHO Collaborating Centres in Occupational Health

The examples for OH&S profiles developed by pilot countries will be made available to all WHO Collaborating Centres and other interested bodies. The access to such information will be offered through a TF13 Web site. http://www.occuphealth.fi/Internet/partner/tf13/

Organizing small seed funding for countries to collect the survey information

Gerry Eijkemans, WHO (eijkemansg@who.int)

WHO and Finnish Institute (FIOH) have provided funding to assist selected African (Kenya, Tanzania) and Asian (Nepal, Philippines, Sri Lanka, Thailand, Viet Nam) countries to carry out subnational profiles. The results were presented at an international meeting sponsored by FIOH and WHO in November 2002, and will be published by the end of 2004.
Collection of country profiles and national reporting system of occupational diseases
Fengsheng He, National Institutes in Occupational Health and Poison Control, China (hefs@public.bta.net.cn)
Keywords: indicator, profile, country, national
Target Group: Centres for Disease Control and Prevention at provincial, municipal, prefectural and country levels
The purpose of this project is to collect and analyze the country profiles and occupational diseases reporting data.
This is an ongoing project. The data collection was not satisfactory and needs to be improved.
Fund have been provided by the Ministry of Health.

National occupational health plan - Chile
Juan Carlos LLano (jllano@minproteccionsocial.gov.co), Mónica Maria Corchuelo, (mcorchuelo@minproteccionsocial.gov.co), Ministry for Social Protection, Société de Bogotá, Colombia
Keywords: occupational health plan
Target group: Government and workers.
The purpose of this project is to elaborate a national occupational health plan based on the diagnosis of the Professional Risk System.
The aim is to elaborate a National Occupational Health Plan and establish a diagnosis of the occupational health situation (occupational data, Occupational Health Institutions (ARP), Ministry of Social Protection, National Net of Occupational Health Committees). At local level, a work plan will be defined, which will periodically evaluated on the basis of indicators and results.
A national network of occupational health committees has been established.

Contribution for generating and publishing of country profile - Poland
Jacek Michalak (jmzooz@imp.lodz.pl) and Stanislaw Tarkowski (tarko@imp.lodz.pl)
Nofer Institute of Occupational Medicine, Poland
Keyword: training materials
A draft outline of the country profile has been prepared, presented at BSN meeting in Riga 2002, and provided to co-ordinators. The profile is being continuously supplemented according to changes in Polis legislation, new information and other important data.
At present, there is no identified source of financing this task yet. NIOM covers only a part-time job, which caused remarkable slow-down of the work.
Funding is needed. The completion date is yet to be determined.

Extension of the profiles to community level - Viet Nam
Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)
Key words: local profile, province, district, indicators, occupational health
Target group: villages, communities, public health system, local decision-makers, local stakeholders
The project describes the OH&S situation, problems and awareness at the local level in Viet Nam as a baseline for starting improvements by local resources. The goal is to empower primary health care and grass-root actors to manage OH&S problems by using the means that are at disposal of a community.

Report form for basic information on occupational health
Ministry of Public Health, Director of the Division of Occupational Health, Thailand
The Thai government funds the project.

Publishing of data on profiles on OH&S in three pilot provinces of Thailand
Director of the Division of Occupational Health, Ministry of Public Health, Thailand
The Thai government funds the project.

Generation and publishing of regional and local profiles - Bulgaria
Emilia Ivanovich, National Centres of Hygiene, Medical Ecology and Nutrition, Bulgaria (e.ivanovich@nchmen.government.bg)
Keywords: work, working condition, outcomes, profile
Target group: decision-makers, planners and managers, and occupational health staff in Departments of Health, Departments of Labour, and Trade Unions, company management, local authorities.

The aim is to raise awareness of OH among decision-makers in Departments of Health, Departments of Labour, Trade Unions local authorities, companies and enterprises. Profiles and indicators on occupational health and safety can be used for describing the activities, prioritising activities at the regional level, providing early signals for problems emerging in the work life, and giving evidence of achievements. The methodology has been adopted. Funds are needed. FIOH is collaborating on the project. Active period: 2003-2005.

Generation and publishing of regional and local profiles - The Republic of Bashkortostan, Russia
Akhat B. Bakirov (bakirov@anrb.ru) and Nadezhda I. Simonova (airat@anrb.ru),
Ufa Research Institute of Occupational Health and Human Ecology, Republic of Bashkortostan, Russia

Keywords: local profile, occupational health, medicine, Bashkortostan
Target group: Ufa Research Institute of Occupational Health and Human Ecology, Republic of Bashkortostan

The purpose of this project is to presentation database on the system of health protection of the population and its indicators in the republic of Bashkortostan on the basis of statistic analysis. The project aim is presentation of the information on real health status of the population, major factors of health promotion and the most effective ways of reforming the health care system to the RB Government and regional administration organs (decision-makers, managers).

The local profile of the Republic of Bashkortostan is related to the national profile of the Russian Federation.

The aim and tasks of the project has been defined. The programme and plan of its implementation has been developed. At present, the collection and analysis of necessary information is being done. The Moscow Research Institute of Occupational Health affiliated to RAMS is collaborating on the project. Funds are needed. Primary results are supposed to be obtained in 2003.

Australian OHS data accounts and country profile
Helen Burbidge (Helen.burbidge@nohsc.gov.au), Julie Hill (Julie.hill@nohsc.gov.au), National Occupational Health & Safety Commission, Australia

Keywords: Indicators; data; profile
Target group: decision makers, government, OHS professionals and researchers.

The purpose of the project is to develop a coherent framework for combining and relating various data sources on OHS in Australia that incorporates the magnitude of effect, the severity and the economic costs. An Australian country profile will then be developed using this data and information on the OHS infrastructure in Australia.

The project team will initially identify and assess data sources relating to OHS issues in Australia. Data sources assessed as being of sufficient quality and covering an aspect of the field not better covered by another source will be combined to form the best estimate of Australia’s OHS performance. Indicators are being developed for occupational injuries, fatalities and disease.
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)

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

This document is 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 (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 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-CHOCIE initiative to evaluate the effectiveness of interventions for all the 17 WHO subregions terms of DALYs gained. Preliminary cost-effectiveness estimates were computed to evaluate the alternative interventions.

A report was prepared for WHO in 2003, and a summary was included in the WHO 2002 World Health Report. A detailed report was submitted for publication in 2004.

Project start date: January 2002

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 AMRO and WPROB1 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 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.

Translation of the brochure 'Understanding and Performing Economic Assessment at the Company Level' into Italian
Alberto Zucconi, IACP (azuccconi@iacp.it)
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.government.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 Rydlewska–Liszkowska (iza_ez@imp.lodz.pl) and Stanisław 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 Stanisław 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.
WHO has initiated the development of the methods for defining global burden of disease. The objective is to find gaps in information and knowledge and to develop further the methodology and improve the data collection so that it will better meet the information requirements for preventive actions. The method includes the assessment of exposures, evaluation of exposure-outcome association and calculation of the population attributable fraction (PAF). The effort recognizes the uncertainties in exposure assessment and wide variation in the outcome definitions and registration practices between the countries. The development work aims at better possibilities to prioritize activities and target selected measures in a cost-effective way.

WHO comparative risk analysis of the contribution of occupational risk factors to the global burden of disease

Marilyn Fingerhut, WHO (fingerhutm@who.int); Marisol Concha, ACHS, Chile (gsamcb@gw.achs.cl); Laura Purnett, University of Massachusetts at Lowell, USA; Kyle Steenland, NIOSH, USA; Tim Driscoll, formerly NOHSC, Australia

Keywords: global burden of disease, risk assessment, DALYs, attributable fraction

The objective of this project was to estimate the contribution of selected occupational risk factors to the overall global burden of disease, using standard WHO methodology. The project has been completed. Comments were received from many CCs on the six comparative risk assessment analyses of occupational health risk factors. The Finnish Institute of Occupational Health, NIOSH, and the ILO were particularly helpful.

This effort by researchers at WHO/HQ and Collaborating Centres was published in summary in October 2002 in the WHO World Health Report. The full scientific papers will be contained in a WHO book published in 2004 and have been submitted for publication in a peer-reviewed occupational health journal.

The global attributable fractions for mortality and morbidity due to selected occupational exposures are listed below:

<table>
<thead>
<tr>
<th>Occupational Risk Factor</th>
<th>Attributable Fraction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low back pain</td>
<td>37</td>
</tr>
<tr>
<td>Hearing Loss</td>
<td>16</td>
</tr>
<tr>
<td>COPD</td>
<td>13</td>
</tr>
<tr>
<td>Asthma</td>
<td>11</td>
</tr>
<tr>
<td>Unintentional injuries</td>
<td>8</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>9</td>
</tr>
<tr>
<td>Leukemia</td>
<td>2</td>
</tr>
</tbody>
</table>

Many important outcomes could not be included in the WHO study due to the absence of adequate global data, for example, infectious disease, coronary heart disease, reproductive disorders, intentional injuries, musculo-skeletal disorders of the upper extremities, and most cancers.

The WHO book was published in December 2004 and articles were submitted to the American Journal of Industrial Medicine for publication in 2005.

Project start date: January 2000
Project end date: December 2004

Preparation of guidelines for calculating the burden of occupational disease at the national level

WHO/HQ

Documents are in preparation to illustrate how countries can calculate the national burden due to occupational lung diseases, carcinogens, injuries and hearing loss. These can be found on the WHO/OEH website http://www.who.int/quantifying_ehimpacts/national/en/

The titles are:

- Sharps injuries: Global burden of disease from sharps injuries to health-care workers
- Occupational carcinogens: Assessing the environmental burden of disease at national and local levels
- Occupational airborne particulates: Assessing the environmental burden of disease at national and local levels
- Occupational noise: Assessing the burden of disease from work-related hearing impairment at national and local levels

Project start date: January 2002
Project end date: March 2004
International Surveillance of Seafarers’ Health and Working Environment

Olaf Jensen, Research Unit of Maritime Medicine, University of Southern Denmark (ocj@fmm.sdu.dk)

Keywords: seafarers, injury, exposures, survey, self-report

Target groups: seafarers, ship owners, their organisations, seamen's doctors, national maritime authorities, international organisations as IMO, ILO and ITF.

The purpose of the project was: 1) to describe the working, living and health conditions of seafarers and the injury incidences and related determinants in an international context 2) to raise awareness among seafarers, ship owners and their organisations about possible deficiencies in standards of occupational conditions. 3) To achieve equal international standards for safety, work and living conditions for all seafarers.

The project has been developed since 1998. It is a surveillance system by use of self-completed questionnaires filled out by the seafarers before or after the health examination (health examinations are mandatory for all seafarers) The anonymous questionnaires contain the same questions for all, translated to the seafarers’ languages.

Pilot studies (1999-2000) in 5 countries showed that the method can work in practice. A questionnaire study was carried out in 2001 among 11 countries with 6,593 questionnaires in total. The theme part of this questionnaire round was safety on board: self-perceived safety, knowledge of safety representative, exposure to chemical substances, the use of safety equipment against chemical exposures and self-perceived health was examined. As permanent part of the questionnaire, injuries during the latest tour of duty were examined. The results have been analysed and published. The main part of the project was financed through support from The ITF Seafarers' Trust.

Other centres collaborating on the project are the Institute of Maritime and Tropical Medicine, Poland; Instituto Social de la Marine, Sociedad Española de Medicina Maritima Spain; Seafarers International Research Centre, Cardiff University; Ukrainian Research Institute of Maritime Medicine; Croatian Institute of Occupational Health, University of Rijeka; Semashko Seamen's Hospital, Arkhangelsk; Department of Occupational Health, Fudan University, Shanghai; Klinik Rajawali Lestari Kondominium, Jakarta, Indonesia; Arguelles Medical Clinic Inc., Manila, Philippines, Drs. Stoner, Morton, Greeff & Rosendorff, Cape Town, South Africa.

The following products have been realized:

Other contributors are Harry Caussy, SEARO (CAUSSYD@who.sea.org); ILO and PAHO.

Project start date: January 1998
Project end date: October 2004

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

Emilia Ivanovich, National Centres of Hygiene, Medical Ecology and Nutrition, Bulgaria (e.ivanovich@nchmen.gov.bg)

Project start date: January 2003
Project end date: December 2004

National surveillance of the incidence of occupational diseases in the Czech Republic

Pavel Urban, Center of Industrial Hygiene and Occupational Diseases, National Institute of Public Health, Prague, Czech Republic (pavel.urban@szu.cz)

Keywords: occupational diseases, incidence, burden of disease

Target group: experts, planners, managers, and decision-makers in occupational health, trade unions

The objective of the project is to gather in a standardized manner the information on the incidence of occupational diseases in the Czech Republic and to share the data with WHO/HQ and ILO for the purpose of the global burden of disease assessment.

The Czech National Registry of Occupational Diseases has been operating since 1991 as a comprehensive nationwide information system covering all cases of acknowledged occupational diseases. About 20 pieces of information are collected on each case, such as identification data of the patient, his or her age, gender, address, occupation, duration of exposure, diagnosis, item in the List of occupational diseases, information on the workplace where the exposure to an occupational hazard occurred, and others. The quality and completeness of the data stored in the Registry are continually checked by trained personnel.

As an output of the project, yearly reports are produced on the incidence and structure of occupational diseases and these are passed on to WHO/HQ and ILO. This project involves a long-term commitment.

Project start date: January 1991
Project end date: long term commitment

Surveillance of incidence of occupational and work-related diseases in Serbia and Montenegro by samples
The purpose of the project is to study the rates and trends of occupational diseases and basic characteristics of work-related diseases in Serbia and Montenegro and to establish the registry of occupational and work-related diseases and injuries at national level.

Occupational and work-related diseases own enormous importance for economy in Serbia and Montenegro, and their prevention represents the great challenges for occupational health and safety services.

The national procedure of notification of occupational disease has been established by law, but diagnostic criteria are under strong influence of the individual practice. In the same time in Serbia and Montenegro there is no official list of work-related diseases, but there is list of obligatory reporting diseases of major socioeconomic importance, among them several work-related according WHO recommendation are included.

In Serbia and Montenegro there is no register for occupational diseases at national level. Due to important lacks in the official reporting their frequency, it is possible analyze only on the basis of registers from the Institute and three regional centers, or from specialized studies. As sources of work-related diseases data it is possible to use reports from obligatory periodical health examinations, several cross-sectional studies preformed by occupational health services (maining, forestry, textile industry, agriculture), and social insurance organizations of disability.

The prevalence rates of main individual work-related diseases (arterial hypertension, ischemic heart disease, low-back pain, non-specific lung disease, and neurobehavioral disorders) according periodical health examinations were much lower then from cross-sectional studies (probably because of health work effects). There are great differences between prevalence in different branches of the economy, as well as between the male and female working force, and interregional issues play a role too. For example, in the five coal underground coal mines the prevalence rates of non-specific lung diseases were in the range 10.7% and 28.4%; the prevalence of hypertension from 8.7% to 19.6%; and of low-back pain from 9.25 to 20.6%. According to data from insurance organizations, work related-disease are on the first place as a cause of disability and early retirement. in the last five years they generate between 85 and 91% early retired people.

Expected products: National register of occupational diseases; national register of occupational injuries; the proposal for the national list of work-related diseases

Progress: Additional fund is needed! The project is scheduled to be completed by December 2004.

Project start date: May 1996

Project end date: continuing

Evidence base for Regional occupational health action

Jouni Jaakkola, j.jaakkola@bham.ac.uk, Institute of Occupational health, Univ Birmingham, Birmingham, UK; Harri Vainio, harri.vainio@occuphealth.fi, FIOH, Helsinki, Finland; Ivan Ivanov, IIV@euro.who.int, WHO, Copenhagen, Denmark

Keywords: global burden, occupational burden, national profiles

Target group: Ministers of health, senior governmental officials

Purpose of project: The objective of this project is to develop Region-wide evidence base for occupational health action in Europe, and in particular:

- Estimate the occupational burden of disease for the European Region, and
- Stimulate countries to develop and update their national occupational health and safety profiles

Policy decisions and action are increasingly based on reliable evidence. The Global Burden of Disease (GBoD) Study carried out recently by WHO provides estimates about the effects of some of the most widespread occupational risk factors on the health of the population in the different regions of WHO. It is decided, therefore, to carry out a European study of the occupational burden of disease based on the wealth of information in the European region about occupational risks and their health effects. Such study would also analyse the detailed estimates of the GBoD. The European network of WHO collaborating centres on occupational health has developed national occupational health and safety profile in 22 countries, which also provide estimates about the magnitude of many occupational health risks.

The project activities include:

Analysis of the detailed estimates from the GBoD Study about the occupational burden of disease in the European Region;

1. Establishment of a consortium of collaborating centres and protocol for carrying out a European occupational burden of disease study;
2. Study of the European occupational burden of disease;
3. Publication of European report on the occupational burden of disease;
4. Providing assistance to the Member States for developing and updating their occupational health and safety profiles;
5. Publishing national occupational health and safety profiles

Project start date: February 2005
National surveillance of incidence of occupational and work-related diseases by samples
Dick Spreeuwers, Coronel Institute/Netherlands Centres of Occupational Diseases, The Netherlands (d.spreeuwers@amc.uva.nl)
Funding is in place, except for a study socio-economic consequences of occupational and work-related diseases. The scheduled completion date is beginning of 2004.

Piloting the guideline for calculating the burden of disease in Bulgaria
Emilia Ivanovich, National Centres of Hygiene, Medical Ecology and Nutrition, Bulgaria (e.ivanovich@nchmen.government.bg)
Keywords: global burden, diseases, occupational diseases
Target group: decision-makers, planners and managers, occupational health staff in Departments of Health, Departments of Labour, and Trade Unions
The objective of this project is to raise awareness among decision-makers in Departments of Health, Departments of Labour, Trade Unions of the necessity of strengthening of Occupational health policy at all levels and investing in preventive measures and improving the working conditions. The aim is to find gaps in information and existing knowledge, to develop further the methodology and improve the data collection so that it will better meet the information requirements for preventive actions. The methodology has been adopted. The guidelines will be piloted by 2005.
Project start date: January 2005
Project end date: December 2006

Pilot to evaluate the burden of occupational disease in some enterprises
Nguyen Ngoc Nga, National Institute of Occupational and Environmental Health, WHO Collaborating Center on Occupational Health, Vietnam (n.n.nga@fpt.vn)
Keywords: burden of disease, costs, cost benefit
Target groups: policy-makers, managers, occupational health staff, local authorities, employers, MOH, MOLISA
The objective of this project is to put the guideline of WHO'STC into practice to build the capacity for an occupational health network in Vietnam through a pilot research on the burden of occupational diseases; and to raise awareness among employers, managers, policy-makers, MIOH, MOLISA of the existing risks for workers, the magnitude of the problem and necessity of preventive measures. Fund has been secured by WHO.

Assessing the burden of diseases and injuries and economic losses due to occupational factors in Vietnam
Nguyen Thi Hong Tu, Ministry of Health, Viet Nam (hongtu@netnam.vn)
Keywords: burden of disease, injury, economic loss, occupational disease
Target group: decision-makers at Ministries, academic institutions, medical university, trade union, employers’ organization, and employees’ organization
The purpose is to develop simple analysis and calculation models of burden of diseases and injuries and economic losses due to occupational factors that can be used in workplaces. The project is in place and funds have been secured by WHO, Vietnam Government.

Global burden of disease, Design and Chilean profile
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Funds will be provided by the host country.
Project start date: July 2003
Project end date: December 2004

Piloting the guideline
Kirsti Tuominen (Kirsti.Tuominen@ttl.fi), Finnish Institute of Occupational Health, Finland
Funding is in place.

Piloting the guideline for calculating the burden of disease in Bulgaria
Emilia Ivanovich, National Centres of Hygiene, Medical Ecology and Nutrition, Bulgaria (e.ivanovich@nchmen.government.bg)
Project start date: January 2005
Project end date: December 2006