

## TASK FORCE 1: TECHNICAL GUIDANCE IN OCCUPATIONAL HEALTH

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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.

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### 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/QĐ-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.

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### 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.

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### 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

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### **WHO Guidance for Health Care Workers**

Gerry Eijkemans, WHO (eijkemansg@who.int); George Delclos, University of Texas, USA (gdeltclos@sph.uth.tmc.edu); Gustav Wickström, Finnish Institute of Occupational Health (gustav.wickstrom@occuphealth.fi)

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.

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### **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.

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### **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.

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### **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

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### **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.

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### **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](http://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.

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### **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.

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### **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.

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### **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.

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### **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

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### **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.

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### **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.

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### **Gender-based health standards for *maquila* and flower cultivation workers in Central America**

Timo Partanen, IRET-UNA, Costa Rica (timo\_partanen@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 1 has been completed and reported, supported by Interamerican Development Bank, and coordinated by IRET and UCAM. A protocol for Phase II has been prepared.

*Products:* Phase I protocol. Phase I report. Phase II protocol.

*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 León (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 de 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.

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### **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 Universitat Berlin & Humboldt-Universitat 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.