

**Facilitating Projects Guide
Work Plan 2009-2012
WHO Global Network of Collaborating Centers
in Occupational Health**

GPA Objective 1: To devise and Implement Policy Instruments on Workers' Health

FACILITING PROJECT (administrative) Work plan project number	GPA1.1 National Action Plans and Profiles Global Facilitating Project
Facilitating Project Title	National action plans and profiles on workers' health: international evidence and policy options
GPA Objective	GPA Objective 1: To devise and implement policy instruments on workers' health
GPA Action 1.6,1.7,1.10	<p>Resolution WHA 60.26 urged Member States of WHO "(1) to devise, in collaboration with workers, employers and their organizations, national policies and plans for implementation of the global plan of action on workers' health as appropriate, and to establish appropriate mechanisms and legal frameworks for their implementation, monitoring and evaluation;"</p> <p>GPA "(6) National policy frameworks for workers' health should be formulated taking account of the relevant international labour conventions and should include: enactment of legislation; establishment of mechanisms for intersectoral coordination of activities; funding and resource mobilization for protection and promotion of workers' health; strengthening of the role and capacities of ministries of health; and integration of objectives and actions for workers' health into national health strategies.</p> <p>(7) National action plans on workers' health should be elaborated between relevant ministries, such as health and labour, and other major national stakeholders taking also into consideration the Promotional Framework for Occupational Safety and Health Convention, 2006. Such plans should include: national profiles; priorities for action; objectives and targets; actions; mechanisms for implementation; human and financial resources; monitoring, evaluation and updating; reporting and accountability...</p> <p>10. WHO will work with Member States to strengthen the capacities of the ministries of health to provide leadership for activities related to workers' health, to formulate and implement policies and action plans, and to stimulate intersectoral collaboration.</p> <p>The development of national action plans on workers' health is a priority indicator for measuring the success of WHO' work on workers' health under the WHO Mid-Term Strategic Plan 2008-2013. By 2013 national plans of action and policies in relation to GAP should be implemented in 15 countries with support from WHO.</p>
Priority Area	Priority 1.1: Develop / update national profiles on workers' health and provide evidence base for development, implementation and evaluation of national action plans on workers' health
Purpose of Facilitating Project	<p>The overall purpose of this project is to stimulate global and national action on workers' health based on solid evidence and good practices. The specific objectives of the project are to:</p> <ul style="list-style-type: none"> establish a baseline and set of international and national indicators of achievement from implementing GPA build evidence base for global action on workers' health develop, implement and evaluate national policy instruments for workers' health (national policies and strategies, national plans of action, and national profiles, national OHS legislation)
GPA Manager	Claudina Nogueira – NIOH, South Africa

CC Initiative Leader and contact information	Jovanka Bislimovska-Karadzinska bislimovska_j@yahoo.com Institute of Occupational Health of RM, WHO CC The Former Yugoslav Republic of Macedonia
WHO responsible person	Ivan Ivanov, WHO-HQ ivanovi@who.int
Collaborating Centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Projects currently collaborating in this area:</p> <p>GPA1.6b Introduction of a national strategy for providing safe and healthy conditions for workers in Ukraine - Institute for Occupational Health, Kiev, Ukraine (project leader Prof. Yuriy Kundiyeu, Yik@nanu.kiev.ua)</p> <p>GPA1.6d Strengthening of health system to address occupational health risks: development of a national strategy on occupational health and safety - Serbian Institute of Occupational Health "Dr. Dragomir Karajović", Belgrade, Serbia (project leader Prof. Dr. Petar Bulat, bulatp@eunet.rs)</p> <p>GPA1.6f Epidemiological surveillance for occupational diseases (Provimep) - Asociación Chilena de Seguridad, Chile (project leader Dr. Verónica Herrera, vherrera@achs.cl)</p> <p>GPA1.6.g The Australian National OHS Strategy 2002-2012, Safe Work Australia, (project leader Dr Peta Miller peta.miller@safeworkaustralia.gov.au)</p> <p>GPA1.6.h National Harmonisation of OHS legislation across Australia, Safe Work Australia, (project leader Wayne Creaser wayne.creaser@safeworkaustralia.gov.au)</p> <p>GPA1.7d National action plan on prevention of occupational diseases and intervention measures - National Institute of Occupational & Environmental Health (NIOEH), Vietnam; (project leader Dr. Tran Thi Ngoc Lan, Ministry of Health, ttlan@gmail.com)</p> <p>GPA1.7e Evaluation of the effectiveness of national action plans on prevention of occupational diseases in Vietnam - National Institute of Occupational & Environmental Health (NIOEH), Vietnam (project leader Dr. Tran Thi Ngoc Lan, Ministry of Health, ttlan@gmail.com)</p> <p>GPA1.9a The draft of the National Occupational Disease Prevention and Control Programme in China 2005-2010 - National Institute of Occupational Health and Poison Control, Chinese Centre for Disease Control and Prevention, Beijing, China (project leader Tao Li, niohplt@sina.com)</p> <p>GPA1.10tt Development of international and national indicators of achievement for GPA - WHO/HQ (project leader Ivan Ivanov, ivanovi@who.int)</p> <p>GPA1.10uu Global outlook on workers' health - WHO-HQ (project leader Ivan Ivanov, ivanovi@who.int)</p>
WHO Regional offices actively involved in this project (name and email)	AFRO: Thebe Pule AMRO: Maritza Tennessee EMRO Said Arnaut EURO: Rokho Kim SEARO: Salma Burton WPRO: Hisashi Ogawa ILO: Seiji Machida

Summary of the Facilitating Project (max 100 words)	<p>The project will include the following activities: review existing data on the current status and trends in workers' health worldwide, taking into account globalization, equity, employment and economic considerations; analysis of country data on workers' health, including surveys and national profiles; collection and review of experience and lessons learned from elaboration of national policy instruments; developing good practices and benchmarking tools for national policy setting; creating a repository of existing policy instruments and related information materials; providing direct technical assistance to Member States in developing national action plans on workers' health.</p> <p>A global Task Force will be established to facilitate work on developing national policy instruments for workers' health and to provide technical assistance to individual countries.</p>
Anticipated deliverables by 2012 from Contributing Projects	<p>Project GPA1.6b Introduction of a national strategy for providing safe and healthy conditions for workers in Ukraine - Institute for Occupational Health, Kiev, Ukraine. To introduce the Strategy at the national level in the framework of the section of the national Program "Health of the Nation" and to assess its efficiency. To develop an effective system of the state monitoring of workers of dangerous occupations and the system of the primary prevention of occupational morbidity among workers at enterprises with high occupational risk. To serve as a Demonstration Area for CIS Countries in implementation of the Strategy for improving working conditions</p> <p>Project GPA1.6d Strengthening of health system to address occupational health risks: development of a national strategy on occupational health and safety - Serbian Institute of Occupational Health "Dr. Dragomir Karajović", Belgrade, Serbia The preparation of the National strategy on occupational health and safety which will be adopted by Ministry of Health, Ministry of Labour, Occupational safety and Health Directorate and National government Developing/updating national legislation on occupational health and safety according to provisions set in national strategy on occupational health and safety International workshop with participation of SEE countries aimed at exchange of experience and discussing common problems and challenges regarding implementation of national strategies and the status of occupational health in the SEE region Making reports to WHO Regional Office for Europe on the current situation of occupational health and safety Technical assistance to national government in developing occupational health policies, systems and services Provision of information materials to national government and all other relevant levels of government Establishment of national mechanisms for social dialogue with regards to occupational health and safety Establishment of national programmes for training employers, workers</p>

representatives in enterprises and labour inspectors

Project GPA1.6f Epidemiological surveillance for occupational diseases (Provimep) - Asociación Chilena de Seguridad, Chile.

To update the Provimep for workers exposed to Silica

To update the Provimep for workers exposed to Pesticides

To formulate the Provimep for workers exposed to High Altitude

To formulate the Provimep for workers exposed to Diving conditions

To assess the economics involved in the Achs Provimep

To implement preventive actions in specific high-risk and disabled populations

To implementation preventive actions in noise exposed populations according to their willing to change attitude

To improve monitoring and measurement of specific Provimep processes.

To improve the integration of the Achs' information systems of prevention and curative areas.

To develop information systems to offer Provimep information to companies through the web site www.achs.cl

To implement health promotion strategies in the working population

Project GPA1.6g The Australian National OHS Strategy 2002-2012 - Safe Work Australia.

Safe Work Australia has completed the second triennial review of the Australian National OHS Strategy 2002-2012.

The Strategy remains an effective coordinating framework to improve OHS in Australia and will continue to be implemented until 2012.

Ongoing commitment is reflected in the substantial suite of coordinated Australia-wide and cross jurisdictional OHS programs and campaigns that have occurred since the establishment of the National Strategy targets and priority areas.

The [National OHS Strategy Progress against targets](#) is published on the Safe Work Australia website

During 2011 the priorities and targets will be reviewed and a new National OHS Strategy will be developed by January 2012.

The new strategy will be informed by evidence of the magnitude and severity of workplace death, injury and disease, emerging issues and the implementation of the harmonised model OHS legislation.

Project GPA1.6h National Harmonisation of OHS legislation across Australia – Safe Work Australia.

The [Council of Australian Governments](#) (COAG) signed an [Intergovernmental Agreement \(IGA\) for OHS Reform](#) in July 2008.

The IGA expresses the commitment of all governments to uniform OHS laws, complemented by nationally consistent approaches to compliance and enforcement. It also provided for the establishment of [Safe Work Australia](#) to drive the harmonisation process.

The Workplace Relations Ministers responded to the recommendations from the Panel conducting the [National Review into Model OHS Laws](#) on 18 May and tasked Safe Work Australia to commence developing the legislation.

The [Parliamentary Counsel's Committee](#) (PCC) has commenced developing the model OHS legislation based on Drafting Instructions prepared by Safe Work Australia.

Safe Work Australia Council members are progressively considering drafts of the model OHS legislation.

The Workplace Relations Ministers Council ([WRMC](#)) will consider an exposure draft of the model OHS legislation in September, 2009, before it is released for public comment

The Workplace Relations Ministers Council hopes to formulate model OHS legislation to replace existing state and territory OHS laws by September 2009.

The full suite of Regulations to support the Act are expected to be released by

December 2011

Safe Work Australia's 2 top initiatives are to develop and implement [National Model OHS Legislation](#) and to continue to implement the [National OHS Strategy 2002-2012](#).

Project GPA1.7d National action plan on prevention of occupational diseases and intervention measures - National Institute of Occupational & Environmental Health (NIOEH), Vietnam.

4 intervention models of prevention of specific occupational diseases have been already developed and applied in different provinces and industries (for occupational pneumoconiosis, skin diseases, noise induced deafness and hepatitis B)

3 occupational diseases have been on process added into the list of compensated occupational diseases in Vietnam

Training curriculum on OSH and occupational disease prevention have been developed for OH staffs at District levels

Some legislative documents have been developed and promulgated in order to strengthen OSH activities and occupational disease prevention in health care facilities

National technical regulations on occupational health have been developed
National action plan on prevention of occupational diseases and intervention measures will be accomplished

By 2012 to reduce by 10% the number of newly cases of occupational disease

By 2012 to ensure that more than 80% of workers in production units with a high risk of occupational diseases have their health checked for occupational diseases

100% of workers diagnosed with occupational accidents and occupational diseases are treated, provided with health care and rehabilitation services by 2012.

By 2012 to more than 80% of workers in sectors and jobs with strict occupational safety and health requirements and OSH officers are trained in OSH

By 2012 to some additional occupational diseases will be added into the list of compensated occupational diseases in Vietnam

Project GPA1.7e Evaluation of the effectiveness of national action plans on prevention of occupational diseases in Vietnam - National Institute of Occupational & Environmental Health (NIOEH), Vietnam.

Prevention model for some common occupational diseases will be developed and applied such as pneumoconiosis, noise-induced deafness, skin disease and infectious disease (hepatitis B)

The rate of some common occupational diseases will be reduced by 10%

Capacities of environment monitoring and occupational disease diagnosis and detection will be improved for OH practitioners

Training materials will be developed and disseminated

Legislative documents on occupational disease prevention will be reviewed, supplemented, and promulgated

Project GPA1.9a The draft of the National Occupational Disease Prevention and Control Programme in China 2005-2010 - National Institute of Occupational Health and Poison Control, Chinese Centre for Disease Control and Prevention, Beijing, China.

To investigate the status of occupational disease prevention and control-**completed**

To analyze the obtained information and draw up the draft of National Occupational Disease Prevention and Control Program in China 2007-2015-**completed**

To promulgate the National Occupational Disease Prevention and Control Program in China 2007- 2015

	<p>Project GPA1.10tt Development of international and national indicators of achievement for GPA - WHO/HQ. 2009 WHO country survey completed List of indicators of achievement GPA mid-term progress report</p> <p>Project GPA1.10uu Global outlook on workers' health - WHO-HQ Global outlook on workers' health Policy summary on workers' health</p>
Critical Gaps to be filled by 2012 in order to fulfil GPA priorities (these lead to deliverables desired by 2012)	<p>Global evidence for action on workers' health Systematic collection and analysis of national policies, action plans and profiles in workers' health Capacity for providing technical assistance to Member States in elaborating national policy instruments Capacities of the ministries of health to provide leadership for activities related to workers' health</p>
Examples of deliverables desired by 2012 to adequately assist countries to protect and promote health of health care workers internationally	<p>Global workers' health outlook Global repository of national policy instruments on workers' health Guidance on the development, updating and use of national profiles on workers' health Policy options for elaboration, implementation and evaluation of national policies, strategies and action plans on workers' health New models and mechanisms for international and national policy action on workers' health Advance on implementing regional frameworks for workers' health Global Task Force on policy instruments for workers' health</p>
Barriers to success that must be addressed	<p>Lack of methodologies for international comparative analysis of policy instruments in workers' health Insufficient expertise in political science among CCs Changes in national political contexts Lack of intersectoral collaboration and governmental stewardship</p>
Possible projects for discussion in October 2009	<p>European workplan for implementing GPA - WHO-EURO (project leader Rokho Kim, rki@ecehbonn.euro.who.int) WHO/ILO African Joint Effort on Occupational Health - WHO-AFRO (project leader Thebe Pule, pulet@afro.who.int) Eastern Mediterranean plan of action on workers' health - WHO-EMRO (project leader Said Arnaout, arnaouts@emro.who.int) Development of national profiles on occupational health and safety in South East Europe - WHO-EURO (project leader Rokho kim, rki@ecehbonn.euro.who.int) Asian Framework for action on occupational health and safety - WHO-WPRO/SEARO (project leader Hisashi Ogawa, ogawahi@wpro.who.int) Plan of action on workers' health in the Americas - AMRO-PAHO (project leader Maritza Tennessee, tennassm@paho.org)</p>

FACILITING PROJECT (administrative) Work plan project number	GPA1.2 Silica / Dust Global Facilitating Project (with projects organized by area of work)
Facilitating Project Title	Tools and best practices for prevention of silicosis and other pneumoconioses globally

GPA Objective	GPA Objective 1: To devise and implement policy instruments on workers' health
GPA Action 1.10	"WHO will work with Member States.... Its activities will include global campaigns... and other actions addressing priority work-related health outcomes" (ILO / WHO Global Programme to Eliminate Silicosis)
Priority Area	Priority 1.2: Develop and disseminate evidence-based prevention tools and raise awareness for the elimination of silica and other dust-related diseases
Purpose of Facilitating Project	<p>This Facilitating Project aims to coordinate the efforts in the Americas with those in other regions globally to substantially advance the ILO/WHO Global Campaign to Eliminate Silicosis (and other pneumoconioses) by 2012. All tools and materials will be organized in an electronic library for easy availability.</p> <p>The Americas Initiative is the first regional approach to advance the ILO/WHO Campaign. It aims at developing national and regional capacity in five areas needed to eliminate silicosis. Current projects with this aim have been grouped into these five areas:</p> <p>Area 1: Develop and augment partnerships with stakeholders including employers, employees, universities, insurance companies, ministries, and international organizations. Their goal is to increase awareness and to advance national and regional plans of action to eliminate pneumoconioses including silicosis.</p> <p>Area 2: Increase capacity of physicians and other medical personnel in the diagnosis, surveillance, and treatment of pneumoconioses including silicosis.</p> <p>Area 3: Enhance capability in laboratory analysis of crystalline silica and other mineral dusts.</p> <p>Area 4: Develop, implement, and evaluate control-focused strategies and user-friendly tools to prevent exposures to silica and other mineral dusts.</p> <p>Area 5: Increase technical knowledge and professional capacity in industrial hygiene and engineering to assess and manage exposures to silica and other mineral dusts.</p>
GPA Manager	Claudina Nogueira – NIOH, South Africa
CC Initiative Leader and contact information	Catherine Beaucham (NIOSH) htn9@cdc.gov Maria Lioce-Mata (NIOSH) cru6@cdc.gov Faye Rice (NIOSH) flr2@cdc.gov
WHO responsible person	Ivan Ivanov ivanovi@who.int Maritza Tennasee tennassm@paho.org
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Projects are organized by area:</p> <p>Area 1: Develop and augment partnerships with stakeholders including employers, employees, universities, insurance companies, ministries, and international organizations. Their goal is to increase awareness and to advance national plans of action to eliminate pneumoconioses including silicosis.</p> <p>GPA1.10u Global Silica Information Dissemination. Project Leader: Faye Rice frice@cdc.gov NIOSH, USA.</p> <p>GPA1.10j National programme on elimination of silicosis – Brazil (NPES-B) Project Leader: Eduardo Algranti eduardo@fundacentro.gov.br FUNDACENTRO, Brazil.</p> <p>GPA1.10z Identification of Global Pneumoconiosis Information Resources – Project</p>

	<p>Leader: Faye Rice frice@cdc.gov NIOSH, USA</p> <p>Area 2: Increase capacity of physicians and other medical personnel in the diagnosis, surveillance, and treatment of pneumoconioses including silicosis.</p> <p>GPA1.10r Training programs and guidance materials for surveillance, diagnosis, and treatment of silica exposed workers globally. Project leader: Joe Burkhart, DRDS ; jeb7@CDC.GOV; Kristin Cummings Kcumplings@cdc.gov; Maria Lioce-Mata mliocemata@cdc.gov NIOSH, USA</p> <p>GPA1.10x Revision of 1996 WHO monograph: Screening and surveillance of workers exposed to mineral dusts. Project Leader: Gregory R. Wagner gwagner@cdc.gov NIOSH, USA</p> <p>GPA1.7i Eradication of Silicosis. Project Leader: Gustavo Contreras gcontreras@achs.cl ACHS, Chile</p> <p>GPA1.10s The use of autopsy data as a gold standard to develop a set of digital X-rays for silicosis which can be used as reference. Project Leader: Prof. Jill Murray jill.murray@nioh.nhls.ac.za NIOH South Africa</p> <p>GPA1.10t Silica, Silicosis, and tuberculosis. Project Leader: David Rees david.rees@nioh.nhls.ac.za NIOH South Africa</p> <p>GPA1.10n Identifying Risk Factors for Pulmonary Tuberculosis in Chinese Miners Affected by Silicosis: A Combined Effect of Pathogen, Occupation and Host Genetic Susceptibility. Project Leader: Zhaolin Xia zlxia@shmu.edu.cn University Fudan, Shanghai, China</p> <p>GPA1.10v Establishment and evaluation of surveillance programs for silicosis. Project Leader: Nguyen Duy Bao, baovsld@yahoo.com NIOEH Vietnam</p> <p>GPA1.10y Developing of diagnostic methods and prevention of CWP. Project Leader: Angela Basanets basanets@ioh-ams.kiev.ua IOH Ukraine.</p> <p>Area 3: Enhance capability in laboratory analysis of crystalline silica and other mineral dusts.</p> <p>GPA1.10e Best Laboratory practices globally for analysis of crystalline silica. Project Leader: Rosa Key-Schwartz. Rjk9@cdc.gov NIOSH, USA</p> <p>GPA1.10p Promoting a Regional Diagnosis of exposure to silica. Project Leader: Juan Alcaïno jalcaïno@ispch.cl; Juan Ferruz jferruz@ispch.cl ISP Chile</p> <p>Area 4: Develop, implement, and evaluate control-focused strategies and user-friendly tools to prevent exposures to silica and other mineral dusts.</p> <p>GPA1.10k Development and implementation of Silica Control Tool Kits for priority exposure situations in the Americas. Project Leader: Catherine Beaucham htn9@cdc.gov, T.J. Lentz tlentz@cdc.gov and Aaron Sussell asussell@cdc.gov NIOSH USA</p> <p>GPA1.10l Implementation of Control Banding Methodology for Silica Control. Project Leader: Juan Alcaïno jalcaïno@ispch.cl ISP Chile</p> <p>GPA1.10i Development of Risk Management Toolkit for Silicosis in Small Silica Flour Milling Units. Project Leader: LJ Bhagia ljbhagia@rediffmail.com SK Dave dr_skd@rediffmail.com, Habibullah N Saiyed, saiyedhn@yahoo.com NIOH India</p> <p>GPA1.10m SA Silica Pilot Project - Silica Exposure Reduction using Occupational Risk Management Modelling (control banding) in quarries. Project Leader: Rob Ferrie rob.ferrie@nioh.nhls.ac.za; Kevin Renton kevin.renton@nioh.nhls.ac.za NIOH South Africa</p> <p>Area 5: Increase technical knowledge and professional capacity in industrial hygiene and engineering to assess and manage exposures to silica and other mineral dusts.</p> <p>GPA1.10aa Respiratory Protection Program Development. Project Leader: Heinz Ahlers, hha2@cdc.gov. NIOSH, USA</p>
WHO Regional offices actively involved in this	PAHO; Maritza Tennasee tennassm@paho.org EURO: Rokho Kim; rki@ecehbonn.euro.who.int SEARO: Salma Burton, burtsons@searo.who.int

project (name and email)	WPRO: Hisashi Ogawa ogawah@wpro.who.int AFRO; Thebe Pule pulet@afro.who.int ILO; Igor Fedotov fedotov@ilo.org
Summary of the facilitating project (max 100 words)	This GPA 1.2 Silicosis / Pneumoconiosis Facilitating Project coordinates projects of the Americas Silica Initiative with projects from Africa, Asia, and Europe that will substantially advance the ILO/WHO Global Campaign to Eliminate Silicosis (and other Pneumoconioses). This is done by producing and disseminating useful accessible information and products. Projects include activities within regional and national plans, capacity building of professionals such as medical personnel, industrial hygienists, and engineers, enhancing laboratory analysis, and interventions for control of exposures.
Anticipated deliverables by 2012 from contributing projects	<p>Area 1: Develop and augment partnerships with stakeholders including employers, employees, universities, insurance companies, ministries, and international organizations. Their goal is to increase awareness and to advance national plans of action to eliminate pneumoconioses including silicosis</p> <p>Project GPA1.10u Global Silica Information Dissemination. NIOSH USA. NIOSH staff provided training and technical assistance to ISP Chile in 2006 and 2007. COMPLETED. Created Spanish website postings on the following topics: Silicosis, Mining, Elimination of Silicosis in the Americas, and the NIOSH Spirometry training guide. Ongoing maintenance of pages is required. COMPLETED. A five member team presented “Sampling and Analysis for Silica and Heavy Metals” in Lima, Peru in September 2008. COMPLETED. Organization of all relevant NIOSH materials, courses, and guides for ease of access by international partners in an electronic library. Provide training and technical assistance to additional countries Produce WHO Fact sheets on Silica and Pneumoconioses Produce WHO/ILO Policy Paper on Pneumoconioses Produce Industrial Hygiene Statistics Train the trainer course. Product a Silica Control Toolkit for the construction industry.</p> <p>Project GPA1.10j National programme on elimination of silicosis. FUNDACENTRO, Brazil. Memoranda of understanding of ministries and partners and program website COMPLETED Brazilian ban on sand as a blasting agent COMPLETED Brazilian ban of dry finishing processes of ornamental stones COMPLETED Brazilian ban of dry rock perforation in mining operations COMPLETED Publishing of a hazard control manual for ornamental stone works COMPLETED Creation of Sectoral Groups that address sectoral needs COMPLETED Guidance for control of silica in mineral processing (ornamental stones), ceramic and glass, and construction COMPLETED Trainings in radiographic reading COMPLETED Publishing of a hazard control manual for the ceramics industry Certification programme for Brazilian physicians doing X-Ray readings Trainings in radiographic reading at national and regional level Enforcement of compulsory notification for diagnosed silicosis cases in Brazil Enforcement of bans on sand as a blasting agent, dry perforation and dry finishing of ornamental stones Collaboration with other Portuguese speaking countries in the prevention of crystalline silica exposure</p> <p>Project GPA1.10z Identification of Global Pneumoconiosis Information Resources. NIOSH USA. A multi-year project with deadlines to be determined for these anticipated outcomes: Develop a draft list of resources for partner review by 2012</p>

Finalize resources list based on review by 2012
Adapt product list for Internet access from PAHO, NIOSH, WHO, ILO and other partner websites by 2012
Obtain partners' input and feedback at development and after dissemination to evaluate and/or improve the product list

Area 2: Increase capacity of physicians and other medical personnel in the diagnosis, surveillance, and treatment of pneumoconioses including silicosis

Project GPA1.10r Training programs and guidance materials for surveillance, diagnosis, and treatment of silica exposed workers globally. NIOSH, USA.

Radiologic reading training courses with partners in Chile for participants from Chile, Brazil, Peru, Zambia in 2006.
Spirometry training and train-the-trainer courses in Chile, South Africa, Zambia in 2006.
NIOSH Spirometry Training course and Training Guide (translated into Spanish) available at <http://www.cdc.gov/niosh/docs/2004-154c/>
NIOSH B Reader Self-Study Syllabus (translated into Spanish and Portuguese) available free for use by all <http://www.cdc.gov/niosh/docs/2005-103c/default.html>
Electronic availability of NIOSH radiographic reading and spirometry training courses and guidance
Continued collaboration with ILO to make digital reading accessible globally
Digital Film Repository Library of well characterized digital images accessible for submission and for use
Training Video for Teaching Spirometry, in English and Spanish
Guidance on use of longitudinal spirometry measures in surveillance and diagnostics, in English, Spanish, and Portuguese
Guidance for surveillance of silica and silicosis
Assessment of usage and success of radiographic reading and spirometry training courses

Project GPA1.10x Revision of 1996 WHO monograph: Screening and surveillance of workers exposed to mineral dusts. NIOSH, USA.

Preliminary review has been completed
New Project Leader has been appointed
By 2012 Revised monograph for publication by WHO

Project GPA1.7i Eradication of Silicosis. ACHS, Chile.

Radiographic reading training courses
By 2012 Guidance for improved surveillance and treatment programs

Project GPA1.10s The use of autopsy data as a gold standard to develop a set of digital X-rays for silicosis which can be used as reference standards. NIOH, South Africa.

By 2012 Set of reference digital x-rays for diagnosis of silicosis
This project has been DISCONTINUED (pending funding)

Project GPA1.10t Silica, Silicosis, and Tuberculosis. NIOH, South Africa

Curriculum and teaching materials for course for health and safety inspectors on Dust Control and Measurement - COMPLETED
Resource on silicosis for health practitioners - *Crystalline Silica: Health Hazards and Precautions* - COMPLETED
Guideline for isoniazid preventive therapy in workers with silicosis – *Guidelines on isoniazid preventive therapy (IPT)* - COMPLETED
Handbook for quarry managers – *Control of Dust in Resource Poor Quarries in Southern Africa* - COMPLETED
Guideline for the surveillance of silica exposed workers in resource poor settings with high tuberculosis rates;
Dependant on copyright issues, adaptation of materials for workers, managers and health and safety representatives to support silicosis elimination in mining: (1) Manual

Preventing Silicosis – a guide for H&S representatives; (2) Deskpad – A Silicosis Information Resource – aimed at managers and occupational health practitioners

Project GPA1.10n Identifying Risk Factors for Pulmonary Tuberculosis in Chinese Miners Affected by Silicosis: A Combined Effect of Pathogen, Occupation and Host Genetic Susceptibility. University of Fudan, China.

Publication of case control study to better understand risk factors for tuberculosis in iron miners

FUNDING NO LONGER AVAILABLE.

Project GPA1.10v Establishment and evaluation of surveillance programs for silicosis. NIOEH Vietnam.

By 2012 Implementation of national surveillance program for silicosis, a component of the Vietnam National Plan

Project GPA1.10y Developing of diagnostic methods and prevention of CWP.

Institute for Occupational Health, Ukraine.

Functional methods for early diagnostics of lung function impairment in patients with CWP including spirometry, bodioplethismography and DLCO are developed. Method of DLCO determination in physical challenge test is patented in Ukraine. COMPLETED
CTHR- signs of CWP are determined, the methodical recommendations “Application of CTHR for CWP diagnostics” are approved by Ministry of Health of Ukraine.

COMPLETED

Criteria for preliminary medical screening of persons who intend to work in underground coal mines are developed and included to the order of Ministry of Health of Ukraine
“Conducting of physical examinations of workers of definite categories” №246. The developed methodical approaches were taken into account in the national programme
“Developing and improving of diagnostic methods, prophylaxis and treatment occupational and occupation-related diseases, methodology of medical screening, medical rehabilitation of persons that work in dangerous conditions” (2006-2010).

COMPLETED

Investigation of genetic markers of CWP for evaluation of hereditary predisposition to pneumoconiosis will continue. The algorithm for hereditary predisposition evaluation will be developed.

Area 3: Enhance capability in laboratory analysis of crystalline silica and other mineral dusts.

Project GPA1.10e Best Laboratory practices globally for analysis of crystalline silica. NIOSH, USA.

ISO work: Project leader for the ISO work on guidance has been agreed and draft guidance is complete. COMPLETED.

ASTM work: Involvement with industry is proving successful in the development of guidance and definitions related to air quality and bulk materials. COMPLETED

Training and QC schemes relating to analytical methods for exposure monitoring and assessment have been implemented across South American countries using new equipment sourced for this purpose. Further agency cooperation is ongoing.

COMPLETED.

July 2007 NIOSH Analytical Methods for Silica, two-week hands-on training for ISP in Santiago, Chile. COMPLETED.

September 2008, Week long workshop in Lima, Peru with CENSOPAS on Sampling and Analysis of Silica. COMPLETED.

2008 Translation of the NIOSH Analytical Method (Crystalline, Silica by IR 7602) into Spanish, posted on the NIOSH website at <http://www.cdc.gov/spanish/niosh/docs/pdfs/7602-sp.pdf> COMPLETED.

By 2012 to establish an inventory of best laboratory practices for precise and accurate exposure assessment in collaboration with national and international partners (unsure what this is - A NIOSH product? A geo-library collection?)

By 2012 to publish ISO/ASTM Guidelines for Quality Assurance and Method Selection

for Crystalline Silica Analysis
 Continue to develop partnerships with other South American Countries (2009-2012).

Project GPA1.10p Promoting a Regional Diagnosis of exposure to silica ISP, Chile
 ISP established a regional silica analytic laboratory in 2007, trains experts from other countries in analytic methods, and provides assistance with laboratory inter-comparison program for respirable silica. COMPLETED.
 Collaboration with CENSOPAS has been continued; field training was provided; CENSOPAS is part of the actors proposing a National Plan for Elimination of Silicosis in Peru.
 Proposal of collaboration with Ecuadorian Institute of Social Security to provide training.

Area 4: Develop, implement, and evaluate control-focused strategies and user-friendly tools to prevent exposures to silica and other mineral dusts.

Project GPA1.10k Development and implementation of Silica Control Tool Kits for priority exposure situations in the Americas. NIOSH, USA
 Technical assistance on development of ISP Chile silica toolkits for training on control banding. COMPLETED
 Collection and analysis of 'control banding' systems globally
<http://www.cdc.gov/niosh/topics/ctrlbanding/>
 Translation into Spanish (with ISP, Chile) of UK Silica Control Sheets and posting on ILO website
http://bravo.ilo.org/public/spanish/protection/safework/coshh_essentials_silica/index.htm
 COMPLETED.
 Expand the Training courses to other South American Countries
 Evaluate the Control Banding Method (ECRES) developed by the Chilean ISP.

Project GPA1.10l Implementation of Control Banding Methodology for Silica Control. ISP Chile.
 A method for assessing exposure to silica risk was designed and validated; this method is called ECRES (Spanish acronym for Qualitative Assessment of Risk of Exposure to Silica) Available in Spanish at <http://www.ispch.cl/> COMPLETED
 ECRES guidelines were validated and delivered for 4 activities:
 Aggregates companies (stone crushing)
 Floor tiles factories
 Ceramics factories
 Dental labs
 Training of local health authority in the use of ECRES Guidelines COMPLETED
 ECRES guidelines for the most important activities with exposure to Silica, with focus on
 small and medium enterprises
 Evidence of use of these guidelines in at least two branches

Project GPA1.10i Development of Risk Management Toolkit for Silicosis in Small Silica Flour Milling Units. NIOH, India
 All of the mills at Godhra have installed control measures to reduce dust exposure. COMPLETED
 Continuous bagging is stopped in all of the units, thus exposure time for bagging is reduced from 6-8 hours to one hour per shift. COMPLETED
 Dr. Scott Clark from University of Cincinnati visited these plants in 2008. COMPLETED
 Dust control devices having hoods at feeding of raw material and manual bagging has been designed and installed at one of the ball mills.
 Reduction in total dust is 89.04% to 96.90% and for respirable dust 77.5% to 84.91%.

Project GPA1.10m SA Silica Pilot Project - Silica Exposure Reduction using Occupational Risk Management Modelling (control banding) in quarries, NIOH, South Africa.

	<p>Implementation and evaluation of usefulness of UK Silica Essentials methods for quarries in South Africa We need a project on Guidance for use of personal protective equipment for small enterprises (from Heinz Ahlers) Should a mining/Colombia project be added? Should add SENAC project Portuguese translation of PACE document This project has been DISCONTINUED</p> <p>Area 5: Increase technical knowledge and professional capacity in industrial hygiene and engineering to assess and manage exposures to silica and other mineral dusts.</p> <p>Project GPA1.10aa Respiratory Protection Program Development. NIOSH, USA. Respirator programs implemented to prevent toxic dust exposure in mining in at least two South American countries. Current targets are Chile and Columbia.</p>
Critical Gaps to be filled by 2012 in order to fulfil GPA priorities (these lead to deliverables desired by 2012)	<p>Coherent set of accomplishments in the Americas that could be modified and implemented in other regions Additional projects are needed in the area of pneumoconiosis and mineral dusts. Projects describing national programs as models for countries considering them</p>
Examples of deliverables desired by 2012 to adequately assist countries to substantially reduce silica and other dust-related diseases. It is these deliverables for which we will seek projects from CCs	<p>Promotion by ILO and WHO of model national programs (e.g. Brazil) Electronic library of tools and information for all four areas related to silica Electronic library of tools and information for pneumoconioses Practical surveillance system models Plan for expansion of successes to other regions and countries Train-the-Trainer Programs for Radiographic Readers in X countries in Latin America Model Spirometry Programs in place in X countries</p>
Barriers to success that must be addressed	<p>High rotation of personnel in the region Acquiring funding for global projects</p>

FACILITING PROJECT (administrative) Work plan project number	GPA1.3 Asbestos-Related Diseases Global Facilitating Project (with projects organized by area of work)
Facilitating Project title	Strategies and programmes for elimination of asbestos-related diseases (ARDs)
GPA Objective	GPA Objective 1: To devise and implement policy instruments on workers'

	health
GPA Action 1.10	WHO will work with Member States to strengthen the capacities of the ministries of health to provide leadership for activities related to workers' health, to formulate and implement policies and action plans, and to stimulate intersectoral collaboration. Its activities will include global campaigns for elimination of asbestos-related diseases - bearing in mind a differentiated approach to regulating its various forms - in line with relevant international legal instruments and the latest evidence for effective interventions, as well as immunization of health-care workers against hepatitis B, and other actions addressing priority work-related health outcomes.
Priority Area	Priority 1.3: Develop and disseminate evidence-based prevention tools and raise awareness for the elimination of asbestos-related diseases (ARDs)
Purpose of Facilitating Project	<p>This Facilitating Project aims to establish synergies between the on-going global, regional and country efforts on elimination of asbestos-related diseases, such as the Asian Asbestos Initiative [AAI] to substantially advance the ILO/WHO Global Campaign to Eliminate Asbestos-Related Diseases (ARDs) as set forth by: i) the 13th Session of the Joint ILO/WHO Committee on Occupational Health in 2003; ii) WHO Recommendations from 2006 on Elimination of Asbestos-Related Diseases and iii) the WHO/ILO Outline for the Development of National Programmes for Elimination of Asbestos-related Diseases from 2007.</p> <p>The Asian Asbestos Initiative (AAI) is an on-going regional approach to advance the ILO/WHO Campaign. It aims at the sharing and transferring of core preventive technologies among concerned parties, eg, academicians and administrators, for the elimination of ARDs. It strives to develop and augment partnerships with stakeholders including employers, workers, international organizations, ministries, universities, research institutes, and NGOs. All on-going regional projects with similar goals as AAI will be integrated and grouped into four areas, three of which correspond to the three levels of preventive activities, and the fourth of which is designated to monitor progress of the entire spectrum of preventive activities:</p> <p>Area 1: (Primary Prevention) Develop, promote, share and transfer technologies for abatement and substitution of asbestos as well as for reduction of exposure. Core technologies for exposure reduction include measurement of fibre concentration in work environment and asbestos-containing products, and industrial hygienic methods such as containment, local exhaust systems and use of protective masks.</p> <p>Area 2: (Secondary Prevention) Develop, promote, share and transfer technologies for early and effective detection of ARDs combined with an introduction and maintenance of a surveillance system for ARDs. Core technologies for detection of ARDs include: i) chest X-ray and CT techniques to detect asbestosis, pleural plaques and malignancies; ii) pathological diagnosis of mesothelioma; iii) identification and quantification of asbestos fibers and asbestos bodies in lung specimen and broncho-alveolar lavage fluid; iv) biomarkers for early detection of ARDs.</p> <p>Area 3: (Tertiary Prevention) Develop, promote, share and transfer technologies for effective treatment and just compensation of ARDs. Core technologies include new treatment and clinical management options for mesothelioma as well as design and implementation of just compensation schemes.</p> <p>Area 4: (Monitoring Progress) Compile and report NPEAD (ILO/WHO) with periodic review and report.</p>
GPA Manager	Claudina Nogueira – NIOH, South Africa

CC Initiative Leader and contact information	Ken Takahashi; ktaka@med.uoeh-u.ac.jp Department of Environmental Epidemiology, IIES, University of Occup & Environ Health, Iseigaoka 1-1, Yahatanishiku, Kitakyushu City JAPAN 807-8555 TEL: +81-93-601-7324 FAX:+81-93-601-7324
WHO responsible person	Ivan Ivanov ivanovi@who.int Hisashi Ogawa ogawahi@wpro.who.int
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Projects are organized by area:</p> <p>Area 1: (Primary Prevention) Develop, promote, share and transfer technologies for abatement and substitution of asbestos as well as for reduction of exposure. Core technologies for exposure reduction include measurement of fibre concentration in work environment and asbestos-containing products, and industrial hygienic methods such as containment, local exhaust systems and use of protective masks.</p> <ul style="list-style-type: none"> • GPA1.10g Establishment of infrastructure to evaluate risk of asbestos exposure. Project Leader: Hyunwook Kim hwkim@catholic.ac.kr Catholic Industrial Medical Centre (CIMC), Korea • GPA1.10o Training on asbestos and its identification. Project Leader: James Ian Phillips jim.phillips@nioh.nhls.ac.za National Institute for Occupational Health (NIOH), South Africa • GPA1.10q Support in the methodology to train workers involved in asbestos removal activities. Project Leader: Juan Alcaïno Lara jalcaïno@ispch.cl Instituto de Salud Publica de Chile • GPA1.10h Consistency in laboratory analysis of samples to determine airborne concentrations of asbestos and other fibres. Project Leader: Alan Jones alan.jones@iom-world.org Institute of Occupational Medicine, UK • GPA1.10w AFRICA [i.e., an international proficiency testing scheme for laboratories that measure airborne asbestos fibre concentrations using the phase contrast optical microscopy counting method] Fibre Counting Scheme. Project Leader: Alan Jones alan.jones@iom-world.org Institute of Occupational Medicine, UK <p>Area 2: (Secondary Prevention) Develop, promote, share and transfer technologies for early and effective detection of ARDs combined with an introduction and maintenance of a surveillance system for ARDs. Core technologies for detection of ARDs include: i) chest X-ray and CT techniques to detect asbestosis, pleural plaques and malignancies; ii) pathological diagnosis of mesothelioma; iii) identification and quantification of asbestos fibers and asbestos bodies in lung specimen and broncho-alveolar lavage fluid; iv) biomarkers for early detection of ARDs.</p> <ul style="list-style-type: none"> • GPA1.10a Establishment of malignant mesothelioma surveillance system. Project Leader: Hyoung Ryoul Kim cyclor@catholic.ac.kr Catholic Industrial Medical Centre (CIMC), Korea • GPA1.10d Detection of impaired lung function in early stages of asbestosis by means of gas diffusion parameters. Project Leader: Alexandra Preisser alexandra.preisser@bsg.hamburg.de Institute of Occupational Medicine and Maritime Medicine, Hamburg, Germany • GPA1.10f Lung function reduction associated with different levels of occupational exposure to asbestos particles. Project Leader: Lenka Rychla lrychla@szu.cz Center for Occupational Health at the National Institute of Public Health, Prague, Czech Republic <p>Area 3: (Tertiary Prevention) Develop, promote, share and transfer technologies for effective treatment and just compensation of ARDs. Core technologies include new treatment and clinical management options for mesothelioma as well as design</p>

	<p>and implementation of just compensation schemes.</p> <ul style="list-style-type: none"> • Currently not directly applicable but 1.10c has a component in this area <p>Area 4: (Monitoring Progress) Compile and report NPEAD (ILO/WHO) with periodic review and report.</p> <ul style="list-style-type: none"> • GPA1.10b The national strategic plan and action for prevention and control of asbestos related diseases in Thailand. Project Leader: Somkiat Siriruttanapruk somkiatk@health.moph.go.th Bureau of Occupational and Environmental Diseases, Ministry of Public Health, Thailand • GPA1.10c Asian Asbestos Initiative. Project Leader: Ken Takahashi ktaka@med.uoeh-u.ac.jp University of Occupational and Environmental Health, Japan • GPA1.10bb Sound management of priority industrial carcinogens, incl. asbestos in Thailand, Indonesia and Sri Lanka. Project Leader: Ivan Dimov Ivanov ivanovi@who.int World Health Organization
<p>WHO Regional offices actively involved in this project (name and email)</p>	<p>PAHO; Maritza Tennasee tennassm@paho.org EURO: Rokho Kim; rki@ecehbonn.euro.who.int SEARO: Salma Burton, burtont@searo.who.int WPRO: Hisashi Ogawa ogawah@wpro.who.int AFRO; Thebe Pule pulet@afro.who.int ILO; Igor Fedotov fedotov@ilo.org</p>
<p>Summary of the facilitating project (max 100 words)</p>	<p>This GPA 1.3 Asbestos-Related Diseases Global Facilitating Project coordinates ongoing efforts in Asia (eg, Asian Asbestos Initiative [AAI]) with projects from Africa, Europe and Americas that will substantially advance the ILO/WHO Global Campaign to Eliminate Asbestos-Related Diseases (ARDs). Academia and administrators will take the lead and collaborate with other concerned parties. Projects include activities within regional and national plans to share and transfer core preventive technologies for the elimination of ARDs at all three levels of prevention, improved estimation of the global burden of ARDs and the active formulation of NPEAD by countries.</p>
<p>Anticipated deliverables by 2012 from contributing projects</p>	<p>Area 1 (Primary Prevention) Develop, promote, share and transfer technologies for abatement and substitution of asbestos as well as for reduction of exposure. Core technologies for exposure reduction include measurement of fibre concentration in work environment and asbestos-containing products, and industrial hygienic methods such as containment, local exhaust systems and use of protective masks.</p> <p>Project GPA1.10g Establishment of infrastructure to evaluate risk of asbestos exposure. Catholic Industrial Medical Centre (CIMC), Korea</p> <ul style="list-style-type: none"> • Support Ministry to create provision, training, etc for asbestos demolition, clearance, etc. In progress. • Submit report to Ministry of Labor recommending expertise, guidance, training and ban on use/import of asbestos products. Use and import of all forms of asbestos is now banned in Korea, effective from Jan 2009. • Design microscopy course for analysts and establish quality control schemes. Courses have been designed and are being offered by KOSHA and NIER. Quality control schemes are being offered through KOSHA and will be offered by NIER also in the near future. • Establish educational institute for asbestos. Educational programs for workers, supervisors and contractors are being offered by two private institutes and KOSHA. • Establish training laboratories dealing with asbestos and making accreditation system. There are now over 50 labs participating QC schemes of KOSHA which will be accredited if they pass the QC rounds. • Develop substitute for asbestos • Collaborate with other WHO partners

	<p>Project GPA1.10o Training on asbestos and its identification. National Institute for Occupational Health (NIOH), South Africa</p> <ul style="list-style-type: none"> • Develop training materials and training course content (2006) • Implement training courses (2007) • Establish a regional reference and training centre in conjunction with the Occupational Hygiene Section of the NIOH (2008) • Disseminate information to SADC region and associations of occupational and environmental hygienists <p>Project GPA1.10q Support in the methodology to train workers involved in asbestos removal activities. Instituto de Salud Publica de Chile.</p> <ul style="list-style-type: none"> • Disseminate training manual in hard copy and CD and conduct phone conferences to support and train workers involved in asbestos removal activities • Coordinate efforts between other national and regional institutions responsible for workers health <p>Project GPA1.10h Consistency in laboratory analysis of samples to determine airborne concentrations of asbestos and other fibres. Institute of Occupational Medicine, UK.</p> <ul style="list-style-type: none"> • Standardization of fiber counting methods in Europe • Wider application of proficiency testing (PT) across individual analysts and labs • Adoption of the WHO all-fibre counting method • Improve and maintain consistency in the analysis of airborne concentration of fibers; assess the effect of change to a new method of fibre counting. • Coordination with WHO-CCs in Korea (Catholic University) and South Africa (NIOH) • Disseminate information on progress and findings to laboratories worldwide by reports and published paper(s). <p>Project GPA1.10w AFRICA Fibre Counting Scheme. Institute of Occupational Medicine, UK [“AFRICA” is an international proficiency testing scheme for laboratories that measure airborne asbestos fibre concentrations using the phase contrast optical microscopy counting method]</p> <ul style="list-style-type: none"> • Enable participating laboratories to compare their counting levels with those of other laboratories with reference counts, for quality control. • Regular operation of scheme’s core function of 2009 • Formulate reviews of general patterns of international comparability (2010-2012) • Increase membership to the scheme especially from developing countries • Publish peer review paper on outcome, methodological advances, etc. • Publicize proficiency status of participating labs on IOM website COMPLETED <p>Area 2: (Secondary Prevention) Develop, promote, share and transfer technologies for early and effective detection of ARDs combined with an introduction and maintenance of a surveillance system for ARDs. Core technologies for detection of ARDs include: i) chest X-ray and CT techniques to detect asbestosis, pleural plaques and malignancies; ii) pathological diagnosis of mesothelioma; iii) identification and quantification of asbestos fibers and asbestos bodies in lung specimen and broncho-alveolar lavage fluid; iv) biomarkers for early detection of ARDs.</p> <p>Project GPA1.10a Establishment of malignant mesothelioma surveillance system. Catholic Industrial Medical Centre (CIMC), Korea.</p> <ul style="list-style-type: none"> • Support screening system of ARDs in Indonesia [where factories moved to from Japan and Korea] (Dec 2009) • Designation of special acts for compensation for environmental ARDs (Dec 2010)
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	<ul style="list-style-type: none"> • Prediction of peak time of the mesothelioma epidemic in Korea (Dec 2012) • Development of homepage or blog to assist ARD patient and to communicate with other researchers <p>Project GPA1.10d Detection of impaired lung function in early stages of asbestosis by means of gas diffusion parameters. Institute of Occupational Medicine and Maritime Medicine, Hamburg, Germany.</p> <ul style="list-style-type: none"> • Development of sensitive diagnostic tool for asbestos-induced plaques and asbestosis at early stages as well as evidence-based recommendations for detecting early stages of benign ARDs. • Objectify functional impairment of pleural plaques and initial parenchymal fibrosis by means of DL, CO, the new analyzing method DL, NO, and the alveolar-arterial PO2 difference in the exercise test (spirometry) • Compare data with spirometry, compliance, CXR/CT and estimated cumulative dose of asbestos • Dissemination of findings as ISO guidelines, ASTM guidelines, IOHA presentations, NIOSH website, etc. <p>Project GPA1.10f Lung function reduction associated with different levels of occupational exposure to asbestos particles. Center for Occupational Health at the National Institute of Public Health, Prague, Czech Republic.</p> <ul style="list-style-type: none"> • Selection of study subjects from database of former workers occupationally exposed to asbestos (2006) • Data-entry and processing of follow-up data from lung function tests and chest films (2007-2009) • Statistical analysis of data and final assessment of reduction of selected lung function parameters in study groups. Integration of results to estimate post-exposure progression of lung function damage (2009-2010) • Dissemination of findings as meeting reports, publications and WHO documents <p>Area 3: (Tertiary Prevention) Develop, promote, share and transfer technologies for effective treatment and just compensation of ARDs. Core technologies include new treatment and clinical management options for mesothelioma as well as design and implementation of just compensation schemes.</p> <p>Area 4: (Monitoring Progress) Compile and report NPEAD (ILO/WHO) with periodic review and report.</p> <p>Project GPA1.10b The national strategic plan and action for prevention and control of asbestos related diseases in Thailand. Bureau of Occupational and Environmental Diseases, Ministry of Public Health, Thailand.</p> <ul style="list-style-type: none"> • Description of asbestos situation at national and local levels • Implementation of control methods, e.g. • Labeling of warning signs on asbestos-containing products (2009) • Development of ARD surveillance system (2010) • Cut use of asbestos by 25% (2012) <p>Project GPA1.10c Asian Asbestos Initiative. University of Occupational and Environmental Health, Japan</p> <ul style="list-style-type: none"> • Sharing and transferring of core technologies in preventing ARDs through development of training tools and organization of international seminars • Development of training tools for expert training on prevention of ARDs, e.g. video COMPLETED • Elaboration of national profiles on asbestos use and ARDs (2010) • Initiate surveillance system of asbestos exposure and ARDs (2011) • Organization of annual international seminars (2008 completed, 2009 scheduled in Thailand, 2010 scheduled in Japan)
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	<p>Project GPA1.10bb Sound management of priority industrial carcinogens, including asbestos in Thailand, Indonesia and Sri Lanka. WHO Global Occupational Health Programme, Bureau of Occupational and Environmental Diseases, Ministry of Public Health of Thailand, Directorate for Occupational Health, Ministry of Health of Indonesia, Department of Public Health Services, Ministry of Health of Sri Lanka.</p> <ul style="list-style-type: none"> • Draft national programme on elimination of ARDs prepared in Thailand COMPLETED • National programme on elimination of ARDs finalized in 3 countries by 2012 • Development of national profiles of industrial carcinogens (May 2010); Priority setting (September 2010); Development of national report on proposed preventive interventions (May 2011)
Critical Gaps to be filled by 2012 in order to fulfil GPA priorities (these lead to deliverables desired by 2012)	<ul style="list-style-type: none"> ○ Additional projects are needed in the area of tertiary prevention, ie, effective treatment and just compensation of ARDs ○ Formulate a regional model based on accomplishments in Asia (ie, priority region in terms of needs) to translate and implement in other regions ○ Develop practical tools for control of exposure to asbestos ○ Assess health and environmental impacts of continuing use of asbestos ○ Collect evidence on the effectiveness of asbestos substitution
Examples of deliverables desired by 2012 to adequately assist countries to substantially reduce silica and other dust-related diseases. It is these deliverables for which we will seek projects from CCs	<ul style="list-style-type: none"> ○ Complete and update NPEAD for representative countries ○ Construct and maintain specific website for NPEAD for other countries to follow ○ Improve estimation of global burden of ARDs ○ Compile good practices for substitution and exposure reduction ○ Review national status on health surveillance of exposed in combination with early detection of ARDs ○ Promotion by ILO and WHO of model national programs (e.g. Thailand, Vietnam) ○ Electronic library of tools and information for the elimination of ARDs ○ Involve international organizations in addition to WHO/ILO, e.g. UNU, UNEP ○ Increase number of countries adopting: i) ILO Asbestos Convention; ii) ban on asbestos use; iii) roadmap towards ban
Barriers to success that must be addressed	<ul style="list-style-type: none"> ○ Account for differences in national/regional phases on use of asbestos and status of ARDs ○ Give the issue a higher place on the global health agenda and acquire grants for global projects from a wider range of funding organizations, including those dealing with global health ○ Coordinate efforts with on-going activities by grass-roots and other organizations ○ Insufficient national capacities for sound management of hazardous chemicals and substances

FACILITATING PROJECT (administrative) Work plan project number	<p>GPA1.4 Protection of Health Workers Global Facilitating Project (with projects organized by area of work)</p> <p>Promotion of occupational safety and health among health workers globally</p>
Facilitating Project Title	Health worker occupational safety and health (HWOSH)
GPA Objective	GPA Objective 1: To devise and implement policy instruments on workers' health
GPA Action 1.9	...Specific programmes should be established for occupational health and safety

	of health care workers.
Priority Area	Priority 1.4: Conduct studies and develop evidence-based tools and information materials for the comprehensive protection and promotion of health and safety among health care workers, emphasizing HBV immunization
Purpose of facilitating project	<p>This Facilitating Project aims to support the development and implementation of national policies and programmes (including occupational health services) to protect health workers. The project will coordinate international efforts to assess risks, develop and implement practical tools for prevention, and evaluate their impact. Successful tools and lessons learned will be shared.</p> <p>Current projects with this aim have been grouped into these areas:</p> <p>Area 1: Needlestick / Sharps Injury Prevention Area 2: Musculoskeletal injuries / ergonomics Area 3: Stress / work organization Area 4: Pharmaceutical associated risks Area 5: Respiratory risks Area 6: General Risk Assessment/Risk Management Tools and Information Dissemination</p>
GPA Manager	Claudina Nogueira – NIOH, South Africa
CC Initiative Leader and contact information	Ahmed Gomaa, NIOSH, USA agomaa@cdc.gov Margaret Kitt, NIOSH, USA ajy8@cdc.gov
WHO responsible person	Susan Wilburn wilburns@who.int
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Projects are organized by area:</p> <p>Area 1: Needlestick / Sharps Injury Prevention GPA1.9i Risk Assessment for Health Care Workers. Project Leader: Tao Li niohplt@sina.com NIOH, China. GPA1.9n Protecting Health Care Workers in International Settings. Project Leader: Ahmed Gomaa agomaa@cdc.gov NIOSH, USA. GPA1.9q Prevention of Needlestick Injuries in Health Care Workers. Project Leader: Busisiwe Nyantumbu busisiwe.nyantumbu@nioh.nhls.ac.za NIOH, South Africa. GPA1.9x Establishing health and safety programs for health care workers in Vietnam. Project Officer: Nguyen Duy Bao baovsld@yahoo.com NIOEH, Vietnam. GPA1.9z Protecting health care workers from needlestick injuries in Afghanistan. Project Officer: Margaret Kitt ajy8@cdc.gov NIOSH, USA</p> <p>Area 2: Musculoskeletal Injuries / Ergonomics GPA1.9d Prevention management program of musculoskeletal diseases using the participatory action oriented training (PAOT) in the health care workers. Project Leader: Jung-Wan Koo jwkoo@catholic.ac.kr CIMC, Korea GPA1.9e An ergonomics audit in South African public hospitals. Project Leader: Busisiwe Nyantumbu (previously Ms S Dyosi) busisiwe.nyantumbu@nioh.nhls.ac.za NIOH, South Africa</p> <p>Area 3: Stress / Work Organization GPA1.9c Controlling Occupational Safety and Health Hazards among Health Care Workers. Project Leader: Masaya Takahashi takaham@h.jniosh.go.jp JNIOH, Japan</p>

	<p>GPA1.9g Job stress surveillance in health care workers. Project Leader: Marisol Concha mconcha@achs.cl and Rodrigo Pezo rpezo@achs.cl ACHS, Chile</p> <p>GPA1.9t Countries in transition: how to promote health at work in health organizations. Project Leader: Jadranka Mustajbegovic jmustajb@snz.hr and Jovanka Karadzinska Bislimovsk mk,bislimovska_j@yahoo.com University of Zagreb, Croatia and IOH, Macedonia.</p> <p>GPA1.9u How to maintain health care workers workability and quality of life. Project Leader: Jadranka Mustajbegovic jmustajb@snz.hr University of Zagreb, Croatia.</p> <p>GPA1.9aa Changing world of work in nursing sector and migration: developing preventive strategies. Project Leaders: Sergio Iavicoli Sergio.iavicoli@ispesl.it and Antonio Valenti Antonio.valenti@ispesl.it ISPESL-Department of Occupational Medicine ITALY</p> <p>Area 4: Pharmaceutical Associated Risks</p> <p>GPA1.9h Occupational risks in Cuban health care workers: exposure assessment, prevention, training and guidelines. Project Leader: Silvia Fustinoni sivia.fustinoni@unimi.it, M.E. Linares, H.Diaz heliodora.diaz@infomed.sld.cu, and Patrizia Deitinger patrizia.deitinger@ispel.it Clinica del Lavoro, Italy and INSAT, Cuba.</p> <p>GPA1.9i Assessment of exposure to antineoplastic agents in pharmacy and hospital personnel. Project Leader: Rudi Schierl Rudolf.schierl@med.uni-muenchen.de University Munich, Germany.</p> <p>Area 5: Respiratory Risks</p> <p>GPA1.9r Latex Allergy and Asthma-Risk management programme for healthcare workers. Project Leader: Tanusha Singh tanusha.singh@nioh.nhls.ac.za NIOH, South Africa.</p> <p>GPA1.9s Enhanced diagnosis and management of pulmonary tuberculosis: flow sheet for healthcare workers. Project Leader: Jill Murray jill.murray@nioh.nhls.ac.za NIOH, South Africa.</p> <p>GPA1.9y Training of trainers on the usage of respiratory protection for health care workers in Cambodia who work with suspected avian influenza patients. Project Leader: Sin-Eng Chia sin_eng_chia@nuhs.edu.sg NUS, Cambodia.</p> <p>GPA1.9bb The evaluation of immunodiagnostic tests for TB infection and determinants of such infection in a population of South African health care workers. Project Leader: Shahieda Adams shahieda.adams@uct.ac.za UCT, South Africa.</p> <p>Area 6: General Risk Assessment / Risk Management Tools and Information Dissemination</p> <p>GPA1.9j Identification and prevention of occupational risks for health care workers. Project Leader: M. Ross mary.ross@debeersgroup.com NIOH, South Africa.</p> <p>GPA1.9m Assessment of Environmental and Health Risks in a Mega Hospital (Cairo University Hospitals). Project Leader: Hussein abd el hay Ibrahim Husseinabdelhay_ibrahim@yahoo.com NIOSH, Egypt.</p> <p>GPA1.9p Video-Conference Seminar on usage of personal protective equipment for health care workers. Project Leader: Chia Sin Eng cofcse@nus.edu.sg National University of Singapore.</p> <p>GPA1.9v Assessment of the present working conditions and specific features of promoting health, safety, and well-being in health sector in the Republic of Bashkortostan. Project Leader: Akhat B. Bakirov, Ufa Research Institute of Occupational Health and Human Ecology, Republic of Bashkortostan.</p> <p>GPA1.9w WHO/Trade Unions Network on Implementing Workers Health Initiatives. Project Leader: Peter Orris porris@uic.edu Great Lakes Centers, USA.</p>
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<p>WHO Regional offices actively involved in this project (name and email)</p>	<p>PAHO: EURO: Rokho Kim; rki@ecehbonn.euro.who.int SEARO: WPRO: Sharon Salmon salmons@wpro.who.int EMRO: ILO:</p>
	<p>This GPA 1.4 Protection and Promotion of Health Care Workers is intended to conduct studies and develop evidence-based tools and information materials for the comprehensive protection and promotion of health for health care workers, emphasizing HBV immunization. This is done by evaluating risks and producing and disseminating useful accessible information and products. Projects include best practices, tools and guidance that can be used in training, and information dissemination.</p>
<p>Anticipated deliverables by 2012 from contributing projects</p>	<p>Area 1: Needlestick / Sharps Injury Prevention</p> <p>Project GPA1.9i Risk Assessment for Health Care Workers. NIOH, China. Conduct investigations at various institutions to study the risk of bloodborne pathogen injuries - COMPLETED Provide an opinion on a Bloodborne Pathogen Standard - in draft</p> <p>Project GPA1.9n Protecting Health Care Workers in International Settings. NIOSH, USA. Work with multidisciplinary teams to conduct baseline assessments and expert opinion to create the WHO tool kit; piloted the tool kit and launched at SIGN 2005 - COMPLETED Build a network of support for country policy on HCW safety - ongoing Develop and disseminate <i>Aide Memoire</i> for HCW occupational health and safety Expand project in Vietnam to consider all hazards to HCWs; share experience in SE Asia and provide technical assistance to develop national HCW policy and programs Develop campaign to immunize HCWs against hepatitis B - ongoing Explore needlestick prevention project implementation with EMRO Consult on model health care waste management project between WHO and UNEP Publish two new booklets in the WHO Protecting Workers Health series</p> <p>Project GPA1.9q Prevention of Needlestick Injuries in Health Care Workers. NIOH, South Africa. Pilot toolkit Facilitate training of HCWs on toolkit Incorporate materials into medical school training Produce information materials</p> <p>Project GPA1.9x Establishing health and safety programs for health care workers in Vietnam. NIOEH, Vietnam. Conduct baseline studies on HCWs in Vietnam - COMPLETED Develop evidence-based tools and information materials for comprehensive protection, emphasizing HBV immunization</p> <p>Project GPA1.9z Protecting health care workers from needlestick injuries in Afghanistan. NIOSH, USA. Appointment of MOPH Programme Manager Begin project implementation in Bamyan Province for 700 healthcare workers - ONGOING</p> <p>Area 2: Musculoskeletal Injuries / Ergonomics</p>

	<p>Project GPA1.9d Prevention management program of musculoskeletal diseases using the participatory action oriented training (PAOT) in the health care workers. CIMC, Korea. 1st session of PAOT workshop - COMPLETED 2nd-6th session to be held within same hospital Possible expansion of PAOT to other hospitals</p> <p>Project GPA1.9e An ergonomics audit in South African public hospitals. NIOH, South Africa. Pilot project in one of the public hospitals - COMPLETED Prepare protocol for a full study to be conducted in public hospitals in all South African provinces Conduct full study Develop a database on prevalence of musculoskeletal pain among SA nurses Develop guidelines for prevention Disseminate information through workshops and seminars, publication of materials</p> <p>Area 3: Stress / Work Organization</p> <p>Project GPA1.9c Controlling Occupational Safety and Health Hazards among Health Care Workers. JNIOH, Japan Evidence based information on ways to improve working conditions for HCWs in terms of work schedules, musculoskeletal disorders, and needlestick / sharps injuries Peer-reviewed publications on findings - five publications completed thus far Production of guidance document</p> <p>Project GPA1.9g Job stress surveillance in health care workers. ACHS, Chile. Literature review - COMPLETED Proposal development based on a two-step survey Derive interventions based on data on stress levels Evaluate impact of interventions Disseminate findings</p> <p>Project GPA1.9t Countries in transition: how to promote health at work in health organizations. University of Zagreb, Croatia and IOH, Macedonia Conduct cross-sectional study in four hospitals in Zagreb and data analyzed - COMPLETED Develop stress guidance pack — a curriculum for training and education</p> <p>Project GPA1.9u How to maintain health care workers workability and quality of life. University of Zagreb, Croatia Develop toolkit, action plan and regional cooperation network Analyze data and publish results Outreach to hospital management organizations Develop final guidance document</p> <p>Project GPA1.9aa Changing world of work in nursing sector and migration: developing preventive strategies. ISPEL, Italy. Analysis of scientific literature on subject, census of sources and regulatory context Identify representative sample of population under study Survey and critical analysis of results Publication of results Dissemination of tools for information and prevention in nursing sector</p>
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	<p>Area 4: Pharmaceutical Associated Risks</p> <p>Project GPA1.9h Occupational risks in Cuban health care workers: exposure assessment, prevention, training and guidelines. Clinica del Lavoro, Italy and INSAT, Cuba. Published Italian Information on urinary levels of anaesthetic gases translated into Spanish and presented to Cuban colleagues - COMPLETED Develop assays for measuring airborne exposure to anaesthetic gases (ongoing) and thereby improving technical capacity of labs in Cuba Develop training programs Publish guidelines on risk management</p> <p>Project GPA1.9i Assessment of exposure to antineoplastic agents in pharmacy and hospital personnel. University of Munich, Germany. Wipe-kit for antineoplastic agents that can be used in hospitals and pharmacies was tested in 50 hospitals in Germany and a large hospital in Paris - COMPLETED Two publications in peer-reviewed journals on wipe-test sampling - COMPLETED Develop training courses for the wipe-test kit</p> <p>Area 5: Respiratory Risks</p> <p>Project GPA1.9r Latex Allergy and Asthma-Risk management programme for healthcare workers. NIOH, South Africa. Develop a screening questionnaire for latex allergy Develop a poster on the step-wise approach to diagnosing latex allergy Develop an information sheet on latex allergy in paper copy and electronic version Disseminate information on a comprehensive latex risk management programs through workshops</p> <p>Project GPA1.9s Enhanced diagnosis and management of pulmonary tuberculosis: flow sheet for healthcare workers. NIOH, South Africa. Update an existing flow sheet for diagnosing and managing pulmonary TB (especially in respect to anti-retroviral therapy) - COMPLETED Present updated tool at International Conference - COMPLETED Use as an assessment tool of TB services in South Africa and UK - ongoing</p> <p>Project GPA1.9y Training of trainers on the usage of respiratory protection for health care workers in Cambodia who work with suspected avian influenza patients. NUS, Cambodia. Conduct 4 one-week pilot training of training course on respiratory protection, particularly for avian influenza Expand training to other facilities in Cambodia Expand program to other countries in SE Asia and Africa Expand to other industries requiring respiratory protection in need of education</p> <p>Project GPA1.9bb The evaluation of immunodiagnostic tests for TB infection and determinants of such infection in a population of South African health care workers. UCT, South Africa. Completion of baseline data of the prevalence of LTBI as detected by TST and IGRA Follow-up phase 1 to evaluate interval change in LTBI status Documentation of associations between occupational and environmental risk factors of TB disease Evaluation of the predictive value of LTBI tests for development of active TB</p>
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	<p>Area 6: General Risk Assessment / Risk Management Tools and Information Dissemination</p> <p>Project GPA1.9j Identification and prevention of occupational risks for health care workers. NIOH, South Africa. Collection of data on TB incidence and HIV infection in HCWs and collated for review -ongoing Finalize protocol for prospective study on Quantiferon to assess screening guidelines -ongoing Develop chapter on walk through for risk assessment in health care facilities for Malaysian Medical Association text - COMPLETED Develop pandemic 'flu policy to assist business community; circulate to partners for comment-ongoing Pilot paper-based surveillance tool - COMPLETED Develop electronic tool for occupational health surveillance -ongoing</p> <p>Project GPA1.9m Assessment of Environmental and Health Risks in a Mega Hospital (Cairo University Hospitals). NIOSH, Egypt. Design and standardize the study tools - COMPLETED Execute the environmental survey - ongoing Execute health survey - ongoing Use above to develop "Environment and health risk model" for large hospitals Disseminate lessons learned through training workshops</p> <p>Project GPA1.9p Video-Conference Seminar on usage of personal protective equipment for health care workers. National University of Singapore. Develop lectures and record on a CD discussions on selection and use of PPE by HCWs dependent on the hazards present</p> <p>Project GPA1.9v Assessment of the present working conditions and specific features of promoting health, safety, and well-being in health sector in the Republic of Bashkortostan. Ufa Research Institute of Occupational Health and Human Ecology, Republic of Bashkortostan. Obtain better knowledge of working conditions influencing work ability and individual risk factors Develop a toolkit using this information on prevention of occupational diseases in HCWs Develop methodological materials for publication</p> <p>Project GPA1.9w WHO/Trade Unions Network on Implementing Workers Health Initiatives. Great Lakes Centers, USA. In order to provide technical assistance to support collaboration between international groups: Resources of global unions will be enlisted to disseminate products of this collaboration to workplaces throughout the world to include elimination of asbestos related disease, prevention of chemical risks, HIV/AIDS, ICFTU's national profiles, prevention of work related stress, and smoke and alcohol-free workplaces-ongoing meetings periodically conducted</p>
<p>Critical Gaps to be filled by 2012 in order to fulfil GPA priorities (these lead to deliverables desired by 2012)</p>	<p>Coherent set of accomplishments in protecting and promoting health of health care workers internationally Modification in WHO needlestick injury prevention toolkit based on experiences Development of a step-by-step web-based tool where contributing projects can integrate practical tools to replicate their projects Strategy for projects to develop a global framework for national programmes and occupational health services for health care workers Cross-link with patient safety, as appropriate</p>

<p>Examples of deliverables desired by 2012 to adequately assist countries to protect and promote health of health care workers internationally.</p>	<p>Promotion by ILO and WHO of model national programs Electronic library of tools and information Practical surveillance system models Plan for expansion of successes to other regions and countries Train-the-Trainer Programs</p>
<p>Barriers to success that must addressed</p>	<p>High rotation of personnel. Acquiring funding for global projects. Sufficient dedicated time on the parts of researchers. In health setting, patient safety comes first over worker safety and there is a perceived (incorrect) conflict between patient and worker safety instead of recognition (and evidence) that programmes that improve worker safety also improve patient safety</p>

GPA Objective 2: Protect and Promote Health at the Workplace

FACILITATING PROJECT (administrative)	Facilitating Project for GPA 2.1a
Facilitating Project Title	Toolkits and other resources to improve assessment and management of chemical risks at the workplace.
GPA Objective	Objective 2: to protect and promote health at the workplace.
GPA Action	<p>11. ...the assessment and management of health risks at the workplace should be improved by: defining essential interventions for prevention and control of mechanical, physical, chemical, biological and psychosocial risks in the working environment. Such measures include also integrated management of chemicals at the workplace, elimination of second-hand tobacco smoke from all indoor workplaces, improved occupational safety, and health-impact assessment of new technologies, work processes and products at the design stage.</p> <p>12. ...protecting health at the workplace also requires enacting regulations and adopting a basic set of occupational health standards to make certain that all workplaces comply with minimum requirements for health and safety protection, ensuring an appropriate level of enforcement, strengthening workplace health inspection, and building up collaboration between the competent regulatory agencies according to specific national circumstances.</p> <p>15. ...work on creating practical tools for assessment and management of occupational risks, recommending minimum requirements for health protection at the workplace, providing guidance on development of healthy workplaces, and on promoting health at the workplace. ...</p>
Priority Area	2.1a: Develop practical toolkits for the assessment and management of OH risks (focus: chemical risks)
Purposes of facilitating project	Six projects included here relate to the national implementation (including translation, adaptation) of the International Chemical Control Toolkit (ICCT) and control banding. The remaining five projects are aimed at the development of specific monitoring and risk assessment tools; this Facilitating Project will be particularly useful in coordinating these closely related activities. Projects are grouped into: (1) ICCT and control banding; and (2) Specific chemical risk monitoring and assessment tools
GPA Manager	Stavroula Leka; Aditya Jain
CC Initiative Leaders and contact information	Leslie Nickels: lnickels@uic.edu
WHO responsible person	Evelyn Kortum
Collaborating centre partners with separate contributing projects	<p>1: Projects related to ICCT and control banding</p> <p>GPA 2.15n Demonstration and evaluation of control banding applications nationally and globally. National Institute for Occupational Safety and Health (NIOSH), USA and IOHA. Project Leaders: T.J. Lentz TBL7@cdc.gov, Rick Niemeier RWN1@cdc.gov, Scott Earnest GSE0@cdc.gov, Chris Gjessing CCG0@cdc.gov, IOHA -Dave Zalk zalk1@lnl.gov</p> <p>GPA 2.11c Development of the Chemical Control Toolkit (Korean version of web-based chemical hazard information and control measures) by modifying the HSE control banding and ILO tool kit. Korea Occupational Safety & Health Agency (KOSHA). Project Leaders: Seong-Kyu Kang (skk@kosha.net), Byung-Gyu Kim (apollo@kosha.net)</p> <p>GPA 2.11d Implement International Chemical Control Toolkit (ICCT) In</p>

	<p>Portugal and in some African countries. Centre of Environmental and Occupational Health National Institute of Health – Porto, Portugal. Project Leader: Olga Mayan, olgamayana@mail.telepac.pt</p> <p>GPA 2.11e Application and expansion of Control Banding of chemicals and dust on small and middle-scale enterprises (SMEs) in China. National Institute of Occupational Health and Poison Control, Chinese Centre for Disease Control and Prevention, Beijing. Project Leader: Tao Li niohplt@sina.com</p> <p>GPA 2.13c Risk Management of Chemicals: Chemical Toolkit Pilot-Project Implementation. FUNDACENTRO. Project Leader: Marcela Gerardo Ribeiro, marcela.ribeiro@fundacentro.gov.br</p> <p>GPA 2.15q Demonstration and evaluation of control banding application in small scale enterprises (SSEs) Department of Occupational Health, Fudan University, Shanghai, China. Project Leader: Zhijun Zhou, zjzhou@shmu.edu.cn</p> <p>2: Specific chemical risk monitoring and assessment tools</p> <p>GPA 2.11a New challenges and new methods in bio-monitoring. INRS, France. Project leader : Marie-Thérèse Brondeau (Jean-Marie Mur), marie-therese.brondeau@inrs.fr</p> <p>GPA 2.11b Sound Chemicals Management for a Healthier Environment in South and Southeast Asia. Department of Environmental Health Engineering, Sri Ramachandra Medical College & Research Institute, Chennai, India. Project leaders: Mr. Sankar Sambandam srmcvels@yahoo.com, Kalpana Balakrishnan kalpanasmc@vsnl.com.</p> <p>GPA 2.11f Development of analytical diagnostic tools for occupational isocyanate asthma. Institute for Occupational and Maritime Medicine, Hamburg, Germany. Project leader: Lygia T. Budnik, Email: L.Budnik@uke.uni-hamburg.de</p> <p>GPA 2.15p Bakers allergy and asthma - Risk Management Toolkit. Occupational and Environmental Health Research Unit, University of Cape Town, South Africa. Project Leader: Mohamed F Jeebhay Mohamed.Jeebhay@uct.ac.za</p> <p>GPA 2.13a Development of an advanced model for regulatory exposure assessment (Advanced REACH Tool - ART). TNO, Zeist, The Netherlands. Project Leader: Dr Erik Tielemans, erik.tielemans@tno.nl</p>
WHO Regional offices actively involved in this project (name and email)	
Summary of the project (max100 words)	<p>The assessment and management of health risks at the workplace should be improved by defining essential interventions for prevention and control of chemical risks in the working environment. Such measures include also integrated management of chemicals at the workplace. Protecting health at the workplace also requires enacting and adopting a basic set of occupational health standards.</p> <p>Development of guidance on best practice OHS standards on chemical risks. The development of an evidence base on the impact and management of chemical risks including identification of new risk factors such as due to introduction of new technologies, processes of globalization, as well as changes in the work organization.</p>

	<p>Development of training materials and programmes on the assessment and management of chemical risks.</p> <p>CCs define common criteria of toolkits, develop inventories, framework documents, mapping of use and types of tools, to assess and manage the identified new as well as existing risks. Advanced toolkits will be implemented and evaluated.</p>
<p>Actual and anticipated deliverables by 2012 from contributing projects</p>	<p>1: Toolkits to improve management of work-related MSD risk GPA 2.15n Development of a construction sector control banding toolkit to address hazards in the construction industry, a collaborative effort involving government agencies from the US (NIOSH, Lawrence Livermore National Laboratory), the Netherlands (TNO) and the UK (HSE) Continued provision of training and technical assistance through workshops and control-focused solutions for hazardous exposures (primarily silica) in South America Release and dissemination of a training DVD and hazard guidance sheets with control banding solutions for occupational exposures to glutaraldehyde in healthcare settings Control banding principles and solutions applied to the nanotechnology manufacturing industry Control banding approaches and control-focused solutions and guidance to address exposures to electromagnetic fields.</p> <p>GPA 2.11c Web-based chemical hazard information and control measures Developing hazard information and control measures on 30 chemicals</p> <p>GPA 2.11d Prepare a brochure about chemical hazards, chemical risk management & ICCT Prepare specific instructions for ICCT application to be used on training courses</p> <p>GPA 2.11e extending training about Control Banding of chemicals translating the Control Banding of chemicals into Chinese</p> <p>GPA 2.13c Training employers, employees and OSH professionals, concerning the reasons to use the ICCT based guidelines and how to use it</p> <p>GPA 2.15q The experiences on control banding to be demonstrated and spread among small scale industrials in China.</p> <p>2: Specific chemical risk monitoring and assessment tools GPA 2.11a Database on bio-monitoring methods and available laboratories</p> <p>GPA 2.11b The biomarker training component to be replicated to provide environmental management tools Establishment of a network for environmental monitoring activities.</p> <p>GPA 2.11f Implement the immunological assay for the diagnosis of patient samples. Recommendations for the prevention of occupational asthma based on</p>

	biomonitoring screening GPA 2.15p Recommendations for dust control in low income settings. Training manual, Prototype lid for bakery mixer GPA 2.13a Fully validated and operational ART for inhalation and dermal exposure. Made freely available on the web. Beta version for the ingestion exposure model.
Critical gaps to be filled by 2012	
Examples of deliverables desired by 2012	
Barriers to success that must be addressed	

FACILITATING PROJECT (administrative)	Facilitating Project for GPA 2.1b
Facilitating Project Title	Toolkits and other resources to improve assessment and management of physical risks at the workplace.
GPA Objective	Objective 2: to protect and promote health at the workplace.
GPA Action	<p>11. ...the assessment and management of health risks at the workplace should be improved by: defining essential interventions for prevention and control of mechanical, physical, chemical, biological and psychosocial risks in the working environment. Such measures include also integrated management of chemicals at the workplace, elimination of second-hand tobacco smoke from all indoor workplaces, improved occupational safety, and health-impact assessment of new technologies, work processes and products at the design stage.</p> <p>12. ...protecting health at the workplace also requires enacting regulations and adopting a basic set of occupational health standards to make certain that all workplaces comply with minimum requirements for health and safety protection, ensuring an appropriate level of enforcement, strengthening workplace health inspection, and building up collaboration between the competent regulatory agencies according to specific national circumstances.</p> <p>15. ...work on creating practical tools for assessment and management of occupational risks, recommending minimum requirements for health protection at the workplace, providing guidance on development of healthy workplaces, and on promoting health at the workplace. ...</p>
Priority Area	2.1a: Develop practical toolkits for the assessment and management of OH risks (focus: physical risks)
Purposes of facilitating project	Three projects included here relate to the development of tools for the management of occupational risks related to noise and vibration exposures including the development of codes of conduct. One project focuses on the development on the assessment and monitoring of UV exposure; this Facilitating Project will be particularly useful in coordinating these distinct physical risks. Projects are grouped into: (1) Noise and Vibration; and (2) Other physical risks
GPA Manager	Stavroula Leka; Aditya Jain
CC Initiative Leaders	Leslie Nickels: lnickels@uic.edu

and contact information	
WHO responsible person	Evelyn Kortum
Collaborating centre partners with separate contributing projects	<p>1: Projects related to Noise and Vibration</p> <p>GPA 2.11g Develop a system for identification, estimation and management of occupational risks of noise and vibration exposures. Institute for Occupational Health, Kiev, Ukraine. Project Leader: Yuriy Kundiyev, Yik@nanu.kiev.ua</p> <p>GPA 2.15e Code of conduct for noise control in the music- and entertainment sector. Federal Institute for Occupational Safety and Health (BAuA), Germany. Project Leader: Georg Brockt, Brockt.georg@baua.bund.de</p> <p>GPA 2.12c Compendium on hearing conservation for professionals in music- and entertainment sector. Federal Institute for Occupational Safety and Health (BAuA), Germany. Project Leader: Georg Brockt, Brockt.georg@baua.bund.de</p> <p>2: Projects related to other physical risks</p> <p>GPA 2.15u Assessing UV exposure: measurements and prediction of individual exposure. Institut universitaire romand de Santé au Travail (IST), Switzerland. Project Leader : Antoine Milon, antoine.milon@hospvd.ch</p>
WHO Regional offices actively involved in this project (name and email)	
Summary of the project (max100 words)	<p>The assessment and management of health risks at the workplace should be improved by defining essential interventions for prevention and control of physical risks in the working environment. Such measures include improved occupational safety, and health-impact assessment of new technologies, work processes and products at the design stage</p> <p>Development of guidance on best practice OHS standards on physical risks. The development of an evidence base on the impact and management of physical risks including identification of new risk factors such as due to introduction of new technologies, processes of globalization, as well as changes in the work organization.</p> <p>Development of training materials and programmes on the assessment and management of physical risks.</p> <p>CCs define common criteria of toolkits, develop inventories, framework documents, mapping of use and types of tools, to assess and manage the identified new as well as existing risks. Advanced toolkits will be implemented and evaluated.</p>
Actual and anticipated deliverables by 2012 from contributing projects	<p>1: Projects related to Noise and Vibration</p> <p>GPA 2.11g Update existing legislation in regulations of occupational exposures to noise and vibration in accordance with modern international and national requirements of risk assessments. Develop a part of the National Plan of Ukraine methodology on the assessment of economic and social consequences caused by noise and vibration exposures in industrial conditions. Recommendations on economic expenses for implementations of the developed preventive measures.</p>

	<p>GPA 2.15e Code of conduct for noise control in the music- and entertainment sector</p> <p>GPA 2.12c Compendium on hearing conservation for professionals in music- and entertainment sector.</p> <p>2: Projects related to other physical risks</p> <p>GPA 2.15u A web based user-friendly tool assessing the exposure of any body part according to the posture, the activity, the time spend outdoor</p>
Critical gaps to be filled by 2012	More projects that relate to the development of tools for the management of occupational risks related to other physical risks, in addition to those already included.
Examples of deliverables desired by 2012	
Barriers to success that must be addressed	

FACILITATING PROJECT (administrative)	Facilitating Project for GPA 2.1d
Facilitating Project Title	Toolkits and other resources to improve assessment and management of psychosocial risks at the workplace.
GPA Objective	Objective 2: to protect and promote health at the workplace.
GPA Action	<p>11. ...the assessment and management of health risks at the workplace should be improved by: defining essential interventions for prevention and control of mechanical, physical, chemical, biological and psychosocial risks in the working environment. Such measures include also integrated management of chemicals at the workplace, elimination of second-hand tobacco smoke from all indoor workplaces, improved occupational safety, and health-impact assessment of new technologies, work processes and products at the design stage.</p> <p>12. ...protecting health at the workplace also requires enacting regulations and adopting a basic set of occupational health standards to make certain that all workplaces comply with minimum requirements for health and safety protection, ensuring an appropriate level of enforcement, strengthening workplace health inspection, and building up collaboration between the competent regulatory agencies according to specific national circumstances.</p> <p>15. ...work on creating practical tools for assessment and management of occupational risks, recommending minimum requirements for health protection at the workplace, providing guidance on development of healthy workplaces, and on promoting health at the workplace. ...</p>
Priority Area	2.1a: Develop practical toolkits for the assessment and management of OH risks (focus: psychosocial risks)
Purposes of facilitating project	All the seven projects included here relate to the development of practical tools for assessment and management of psychosocial risks; this Facilitating Project will be particularly useful in coordinating these closely related activities.
GPA Manager	Stavroula Leka; Aditya Jain
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WHO responsible person	Evelyn Kortum
Collaborating centre partners with separate contributing projects	<p>GPA 2.15t Psychosocial Risk Management Toolkit. Institute of Work, Health & Organisations, University of Nottingham, UK. Project leader: Stavroula Leka Stavroula.Leka@nottingham.ac.uk</p> <p>GPA 2.15z Collaboration in the development of practical psychosocial risk management toolkit. Occupational Health Centre of the Municipal Institute of Health of Barcelona, Spain. Project Leader: Lucía Artazcoz, lartazco@aspb.es</p> <p>GPA 2.11i Adaptation, validation and training in the use of a diagnostic tool to detect prevalence of psychosocial risk factors in the workplace. Centro de Estudios de la mujer, Chile. Project Leader: Katherine Lippel klippel@uottawa.ca</p> <p>GPA 2.13h Study of psychosocial risks in Malaysian context. University of South Australia Australia. Project Leader: Mr. Mohd Awang Idris Idrma001@postgrad.unisa.edu.au</p> <p>GPA 2.11p Psychosocial stress in the workplace with regard to burnout and gender. Institute of Occupational and Maritime Medicine, Hamburg, Germany. Project Leader: Ralf Wegner ralf.wegner@bsg.hamburg.de</p> <p>GPA 2.14b Threat to life and physical integrity at the workplace: consequences on mental health and prevention. Clinica del Lavoro “Luigi Devoto”, Milan, Italy. Project Leader: Giuseppe Paolo Fichera, giuseppapaolo.fichera@unimi.it</p> <p>GPA2.15j Guidelines for bullying at work - Specific toolkits for the prevention of workplace bullying. Clinica del Lavoro “Luigi Devoto”, Milan, Italy. Project Leader: Silvia Punzi, silvia.punzi@unimi.it</p>
WHO Regional offices actively involved in this project (name and email)	
Summary of the project (max100 words)	<p>The assessment and management of health risks at the workplace should be improved by defining essential interventions for prevention and control of psychosocial risks in the working environment. Such measures include improved occupational safety, and health-impact assessment of new technologies, work processes and products at the design stage. Protecting health at the workplace also requires enacting and adopting a basic set of occupational health standards.</p> <p>Development of guidance on best practice OHS standards on psychosocial risks.</p> <p>Development of training materials and programmes on the assessment and management of psychosocial risk.</p> <p>The development of an evidence base on the impact and management of psychosocial risks including identification of new risk factors such as due to introduction of new technologies, processes of globalization, as well as changes in the work organization.</p> <p>CCs define common criteria of toolkits, develop inventories, framework documents, mapping of use and types of tools, to assess and manage the identified new as well as existing risks. Advanced toolkits will be implemented</p>

	and evaluated.
Actual and anticipated deliverables by 2012 from contributing projects	<p>GPA 2.15t To develop a psychosocial risk management toolkit that will be readily usable and user-friendly Develop international standards (Publicly Available Specification – PAS) on stress at work in order to promote harmonisation in the area of psychosocial risk management Develop training packages for the toolkit deliverable through e-learning and face-to-face Integrate the toolkit in the provision of basic occupational health services</p> <p>GPA 2.15z Translation into Spanish of 10 guidance sheets and the PRIMA-EF guide Spanish toolkit for psychosocial risk management at the enterprise level</p> <p>GPA 2.11I Translation and adaptation of instruments to evaluate psychosocial risk factors in the workplace Training workshops for OH inspectors</p> <p>GPA 2.13h To develop a tool for the assessment of psychosocial risk in an emerging economy context To develop materials to create work-life balance awareness training for managers and supporting staff</p> <p>GPA 2.11p Development of a WHO questionnaire to evaluate the psychosocial stress and strain including burnout phenomena by occupational and familial factors Worldwide survey in 2011</p> <p>GPA 2.14b Training programmes for workers in order to prevent workplace violence To assess the efficacy of early psychological support program, and to extend the intervention among different workers victims of different workplace trauma</p> <p>GPA2.15j Training packages for prevention and intervention for health professionals, employers, employees</p>
Critical gaps to be filled by 2012	
Examples of deliverables desired by 2012	
Barriers to success that must be addressed	

FACILITATING PROJECT (administrative)	Facilitating Project for GPA 2.1e
Facilitating Project Title	Toolkits and other resources to improve management of work-related musculoskeletal disorder (MSD) and other OSH risks
GPA Objective	Objective 2: to protect and promote health at the workplace.
GPA Action	11. ...the assessment and management of health risks at the workplace

	<p>should be improved by: defining essential interventions for prevention and control of mechanical, physical, chemical, biological and psychosocial risks in the working environment. Such measures include also integrated management of chemicals at the workplace, elimination of second-hand tobacco smoke from all indoor workplaces, improved occupational safety, and health-impact assessment of new technologies, work processes and products at the design stage.</p> <p>15. ... work on creating practical tools for assessment and management of occupational risks, recommending minimum requirements for health protection at the workplace, providing guidance on development of healthy workplaces, and on promoting health at the workplace. ...</p>
Priority Area	2.1e: Develop practical toolkits for the assessment and management of OH risks (focus: ergonomics)
Purposes of facilitating project	Four of the six projects included here relate to the development of toolkits to reduce the risk of work-related musculoskeletal disorders (MSDs); this Facilitating Project will be particularly useful in coordinating these closely related activities. Projects are grouped into: (1) MSDs risk management; and (2) Other.
GPA Manager	Stavroula Leka; Aditya Jain
CC Initiative Leaders and contact information	Wendy Macdonald: w.macdonald@latrobe.edu.au
WHO responsible person	Evelyn Kortum
Collaborating centre partners with separate contributing projects	<p>1: Toolkits to improve management of work-related MSD risk GPA 2.11h Hazard surveillance to manage musculoskeletal disorder (MSD) risk. Centre for Research & Teaching in Occupational Ergonomics, Health & Safety, La Trobe University, Australia. Wendy Macdonald: w.macdonald@latrobe.edu.au GPA 2.11k Toolkits for managing the risk of musculoskeletal injuries and disorders (MSDs). International Ergonomics Association. Wendy Macdonald: w.macdonald@latrobe.edu.au; Enrico Occhipinti: epmenrico@tiscali.it; enrico.occhipinti@unimi.it; David Caple: david@caple.com.au GPA 2.11n Prevention of WMSDs: observational tools for the assessment and management of occupational physical risks for the musculoskeletal system, focusing on difficult working sectors. CC-OMS Clinica del Lavoro L. Devoto, University of Milan. Enrico Occhipinti: epmenrico@tiscali.it; enrico.occhipinti@unimi.it GPA 2.15r Ergonomics and musculoskeletal disorders. National Institute for Occupational Health (NIOH), South Africa. Ms Busisiwe Nyantumbu, busisiwe.nyantumbu@nioh.nhls.ac.za; Ms Nthabiseng Monareng, nthabiseng.monareng@nioh.nhls.ac.za</p> <p>2: Toolkits addressing other OSH hazards GPA2.15o Initiation, Development & Implementation of an Injury Prevention Management Toolkit . Industrial Accident Prevention Association (IAPA) Canada, International Occupational Hygiene Association (IOHA). Leonard Sassano lsassano@iapa.ca , David Zalk zalk1@llnl.gov 2.11m Development of a Compendium for the application of ergonomic design criteria and testing the usability of products. Federal Institute for Occupational Safety and Health (BAuA), Germany. Dr. Armin Windel, Dipl.-Ing. Tobias Bleyer Bleyer.tobias@baua.bund.de</p>
WHO Regional offices actively involved in this project (name and email)	
Summary of the project (max100 words)	Most of these projects focus on the development of toolkits to assist in managing the risk of work-related musculoskeletal injuries and disorders –

	<p>particularly in environments where both the risk and the need for OSH support is greatest. The other two projects focus on development of toolkits addressing a wide variety of OSH risks.</p>
<p>Actual and anticipated deliverables by 2012 from contributing projects</p>	<p>1: Toolkits to improve management of work-related MSD risk GPA 2.11h Report reviewing evidence-based conceptual frameworks to support MSD risk management, and current risk assessment / control procedures a physical and psychosocial hazard surveillance and MSD risk assessment procedure trialled and validated in four Australian workplaces representing two high-risk industry sectors (manufacturing, warehousing) a half-day seminar for staff of the Sri Ramachandra University, Dept of Environmental Health Engineering in Chennai, India application of parts of the psychosocial hazard surveillance procedure as part of the industry-based PhD research of a student at Sri Ramachandra University, Chennai, India various presentations to national and international conferences, including one at the 2009 Beijing Congress of the International Ergonomics Association a physical and psychosocial hazard surveillance and MSD risk assessment procedure for use in controlling MSD risk in Malaysia's agriculture sector (developed and validated in either tea plantations or palm oil plantations) – including related guidance documentation intended for subsequent use by OHS professionals in Malaysia one or more published journal articles reporting the procedure and results validating it GPA 2.11k A report presenting: (a) a conceptual model of hazards affecting the risk of work-related musculoskeletal injuries and disorders (MSDs); and (b) general requirements for effective MSD risk management One or more 'toolkits' for use in managing MSD risk, designed for initial implementation (with further development as needed) and evaluation within one or more high risk industry sectors, including that of an industrially developing country (such as Thailand). GPA 2.11n Updates and improvements in tools like NIOSH Lifting Index and OCRA index with reference to multitask analysis. Procedures for application in some difficult sectors (ie. agriculture, building) Updates and improvements reported in a ISO TR (under development as ISO CD 12259): Application document for ISO 11228 series. Presentations to international conferences Reports to ISO CD Training courses in developing countries GPA 2.15r presentations as part of the Continued Education Unit program at the National Health Laboratory Service (NHLS). a toolkit to be used in education and training of office and laboratory workers Train the trainer courses in application of the toolkit for H&S reps Information materials (posters, brochures, etc)</p> <p>2: Toolkits addressing other OSH hazards GPA2.15o Control Banding Safety Workshop at the international Working on Safety Conference in the Netherlands 2006. Meeting to investigate the topic in The Netherlands with IOHA, ArboUnie, TNO, TU Delft, and Arbow represented. International discussions seeking to establish partnerships to pilot test Manuscript on Barrier Banding submitted to the American Journal of Industrial Medicine by Swuste and Zalk.</p>

	<p>Workshop at the international Working on Safety Conference</p> <p>2.11m Development of a Compendium for the application of ergonomic design criteria and testing the usability of products.</p> <p>development and testing of a protocol for assessing usability of different kinds of products</p> <p>fulfill international requirements for a documented product test method – in form of a documented working instruction for test personnel with practical experience, including practical examples for generally used technical equipment.</p> <p>Basis for development of new ISO and CEN activities</p>
Critical gaps to be filled by 2012	
Examples of deliverables desired by 2012	
Barriers to success that must be addressed	

FACILITING PROJECT (administrative) Work plan project number	GPA 2.2 Healthy Workplace programmes to develop country frameworks and guidance Facilitating Project (with projects organized by areas of work).
Facilitating Project title	Development of a country frameworks and guidance on healthy workplaces.
GPA Objective	Objective 2: to protect and promote health at the workplace.
GPA Action	<p>2.13 :”Capacities should be built for primary prevention of occupational hazards, diseases and injuries, including strengthening of human, methodological and technological resources, training of workers and employers, introduction of healthy work practices and work organization, and of a health-promoting culture at the workplace. Mechanisms need to be established to stimulate the development of healthy workplaces, including consultation with, and participation of, workers and employers.”</p> <p>2.15: “WHO will work on creating practical tools for ... providing guidance on development of healthy workplaces, and on promoting health at the workplace”.</p>
Priority Area	Priority Area 2.2: Healthy Workplace programmes to develop country frameworks and guidance
Purpose of facilitating project	This Facilitating Project aims to coordinate global efforts to develop and pilot a healthy workplace model for voluntary countries, including a country framework and guidance based on the global framework. Current projects that relate to aspects of comprehensive healthy workplace programmes have been grouped into five areas:
	Area 1: Projects that relate to piloting, implementation, and/or evaluation of programmes dealing primarily with occupational health and safety hazards in the physical work environment, as a component of a comprehensive healthy workplace programme.
	Area 2: Projects that relate to piloting, implementation, and/or evaluation of programmes dealing primarily with organization of work and organizational culture issues in the psychosocial work environment, as a component of a comprehensive healthy workplace programme.

	<p>Area 3: Projects that relate to piloting, implementation, and/or evaluation of programmes dealing primarily with health promotion in the workplace, as a component of a comprehensive healthy workplace programme.</p> <p>Area 4: Projects that relate to piloting, implementation, and/or evaluation of programmes dealing primarily with private sector involvement in community health and safety issues as a component of a healthy workplace.</p> <p>Area 5: Projects that relate to piloting, implementation, and/or evaluation of a comprehensive approach to a healthy workplace (e.g., OHS management systems) that includes all the above components, and which is implemented using a continual improvement and evaluation management system.</p>
GPA Manager	Stavroula Leka (stavroula.leka@nottingham.ac.uk); Adi Jain (Aditya.Jain@nottingham.ac.uk)
CC Initiative Leader and contact information	Abeytunga, CCOHS, Canada: abey@ccohs.ca Fernando Coelho, SESI, Brazil: fcoelho@sesi.org.br
WHO responsible person and contact information	Evelyn Kortum: kortume@who.int Marie-Claude Lavoie: lavoie@paho.org
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Area 1 None officially listed at present. CCOHS and SESI</p> <p>Area 2</p> <p>2.11j Development of an OSH Performance Rating System. Occupational Safety and Health Division, Ministry of Manpower, Singapore. Project Leader Dr. Ho Sweet Far Ho_Sweet_Far@mom.gov.sg</p> <p>2.11o National model enterprises for occupational disease prevention and control. National Institute of Occupational Health and Poison Control, Chinese Centre for Disease Control and Prevention, Beijing. Project Leader: Tao Li niohplt@sina.com</p> <p>2.13I Occupational safety and health services in small scale industries in Japan. National Institute of Occupational Safety and Health, Japan. Project Leader: Shigeki KODA koda@h.jniosh.go.jp</p> <p>2.14f Promoting and Protecting Mental Health - Supporting Policy through Integration of Research, Current Approaches and Practices. Federal Institute for Occupational Safety and Health (BAuA), Germany. Project Leader: Katrin Zardo Zardo.katrin@baua.bund.de, Dr. Karl Kuhn Kuhn.karl@baua.bund.de</p>
	<p>Area 3</p> <p>2.15I Flexible working hours as a tool for increasing workers' health and well-being. Clinica del Lavoro "Luigi Devoto", Milan, Italy. Project Leader: Prof. Giovanni Costa giovanni.costa@unimi.it</p> <p>2.13j SWING: Stress prevention project. Institute of Management, School of Business, Switzerland. Project Leader: Dr. Volker Schulte volker.schulte@fhnw.ch</p>
	<p>Area 4</p> <p>2.14a Prevention of Non-Communicable Diseases Among Industry Workers. SESI – Industrial Social Service National Department, Brasilia. Project Leader: Vito Gomes Pinto vito.gomes@sesi.or.br</p>

	<p>2.15c SESI Active Leisure. SESI – Industrial Social Service National Department, Brasilia. Project Leader: Vito Gomes Pinto vito.gomes@sesi.or.br</p> <p>2.15d Increasing physical activity: designing and testing a workplace intervention. Health and Safety Laboratory, UK, in collaboration with Leeds University. Project Leader: Jennifer Lunt Jennifer.lunt@hsl.gov.uk</p> <p>2.15h Drug Abuse Prevention in the Workplace and Family. SESI – Industrial Social Service National Department, Brasilia. Project Leader: Vito Gomes Pinto vito.gomes@sesi.or.br</p> <p>2.13i Inventory of national guidance documents on job stress management and health promotion. Korea Occupational Safety & Health Agency (KOSHA). Project Leaders: Jungsun Park jsunpark@chol.com and Jung-Keun Park jpark@kosha.net</p> <p>2.14c Workplace health promotion demonstraton program in different types of enterprises in Shanghai. Fudan University School of Public Health, Shanghai, China. Project Leader: Feng Li fli@shmu.edu.cn</p>
	<p>Area 5</p> <p>2.13n Global framework and global guidance on healthy workplaces WHO Global Occupational Health Programme Project Leader Evelyn Kortum</p>
	<p>Area 6</p> <p>2.15a Occupational safety and health system management: the challenge of global diversity. Centre for Research and Teaching in Occupational Ergonomics, Health & Safety, La Trobe University, Australia. Project Leader: Dr. Wendy Macdonald w.macdonald@latrobe.edu.au</p> <p>2.11i Effectiveness evaluation system in occupational health management (EES). European Institute of Health and Social Welfare, Madrid. Project Leader: Dr. Manuel Peña direccion@institutoeuropeo.es</p> <p>2.13d Pilot project on WHP for SME with a focus on small enterprises. Institute of Management IFU, School of Business, Switzerland. Dr. Volker Schulte volker.schulte@fhnw.ch</p> <p>2.13e Enhancement of Occupational Health and Safety in Mexican Industry. Industrial Accident Prevention Association, (IAPA), Canada. Project Leader: Leonard Sassano, lsassano@iapa.ca</p> <p>2.13f Enhancement of Occupational Health and Safety in Brazilian Industry. Industrial Accident Prevention Association, (IAPA), Canada. Project Leader: Leonard Sassano, lsassano@iapa.ca</p> <p>2.13g Guidelines for shiftwork. IfADo – Leibniz Research Centre for Working Environment and Human Factors at TU Dortmund University. Project Leader: Prof. Barbara Griefahn griefahn@ifado.de</p> <p>2.12b Health promotion programs for selected groups in Central America. Central American Institute for Studies on Toxic Substances (IRET), Costa Rica. Project Leader: Dr. Catharina Wesseling ineke_wesseling@yahoo.com</p> <p>2.13k Aged persons and their occupational skills: development of methods for the prevention of impairments. IfADo - Leibniz Research Centre for Working Environment and Human Factors at TU Dortmund University. Project Leader: Prof. Barbara Griefahn griefahn@ifado.de</p> <p>2.13m Implementation of a comprehensive health, safety and well-being workplace program within PAHO. University of Maryland, School of Medicine, Occupational Health Program. Project Leader: Melissa McDiarmid mmcdiam@medicine.umaryland.edu and Joanna Gaitens jgaitens@medicine.umaryland.edu</p>
<p>WHO Regional offices actively involved in this project (name and email)</p>	
<p>Other partners for this</p>	

Facilitating Project (employers, trade unions, other)	
Summary of the facilitating project (max 100 words)	<p>The implementation of the Global Plan of Action requires interventions at international, national and workplace levels. Countries will have their national frameworks of healthy workplaces in accordance with their governance systems and OHS legislation. Workplace interventions should be planned and delivered in an integrated way bringing together health protection and health promotion</p> <p>Add to an inventory of case studies of good practice in the development of healthy workplaces</p> <p>Add to the inventory of tools for creating healthy workplaces including the physical and psychosocial working environment, health promotion and enterprise interventions in the community.</p> <p>Identify which models and programmes exist and how they are implemented. Identify indicators for the evaluation of the programmes and evaluation based on the defined indicators.</p> <p>Develop regional and country guidance for implementing health workplaces based on the global guidance (prepared through WHO project).</p> <p>Development of training programs to assist enterprises with implementation of the healthy workplace framework.</p>
Anticipated deliverables by 2012 from contributing projects	<p>Additions to the inventory of good practice and experiences in the development of healthy workplaces</p> <p>Inventory of healthy workplace implementation and evaluation tools that are readily accessible to enterprises</p> <p>Country draft Guidance booklets for developing healthy workplaces (countries to be identified at the CC meeting)</p> <p>Pilot in at least three countries</p> <p>Training packages to assist enterprises in implementing the healthy workplace framework</p>
Critical Gaps to be filled in order to fulfil deliverables	<p>Except for the last project mentioned above (2.13m) none of the projects fully conform to the healthy workplace framework being developed by WHO. We will present the framework at the CC meeting in the healthy workplaces working group and it is hoped that more comprehensive projects will emerge to develop country guidance.</p> <p>Pilot sites are needed to implement and evaluate the framework.</p> <p>An evaluation method must be developed to evaluate the pilot projects</p> <p>CCs must agree to take on the projects of writing the national guidance documents for healthy workplace programmes</p> <p>CC must agree to take on the development and piloting of the training packages in their respective countries (target : 3).</p> <p>There are currently no projects that deal with implementing or evaluating the “communities” Avenue of Influence (Area 5 above). However, this is not critical; what is really needed are comprehensive projects that include this Avenue, rather than solely focussing on this one Avenue.</p> <p>As CCs become more familiar with the WHO model and framework, it would be appropriate to drop the “one focus” projects such as those described above in Areas 2, 3, 4 and 5, and only include those that fit into Areas 1 and 6, unless CCs can partner on incomplete projects and combine approaches satisfactorily.</p> <p>Projects are needed that implement and/or evaluate the country frameworks in various sizes of enterprise, various sectors, and various countries (both developed and developing).</p>
Barriers to success that must addressed	Lack of understanding by the CCs about the comprehensive nature of a healthy workplace as defined by the WHO framework.

	<p>Lack of appreciation by the CCs for the importance of the continual improvement process used in the model</p> <p>Possible lack of willingness on the part of the CCs and enterprises to take on something as broad as the framework may appear to be, rather than just dealing with one small factor at a time (e.g., physical activity, flexible work).</p>
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GPA Objective 3: To Improve the Performance of and Access to Occupational Health Services

FACILITATING PROJECT (administrative) Work plan project number	GPA 3.1 Organization and delivery of occupational health services in primary health Facilitating Project
Facilitating Project title	Organization and delivery of occupational health services in primary health
GPA Objective	Objective 3: to improve the performance of and access to occupational health services
GPA Action 16	Improve coverage and quality of occupational health services including: linkage to national health strategies and health sector reforms standards for organization and coverage mechanisms for pooling resources and financing of the delivery sufficient and competent human resources quality assurance systems Provide access for all workers to basic occupational health services
Priority Area	Priority 3.1: Develop working methods, provide technical assistance to countries for organization, delivery and evaluation of basic OH services in the context of primary health care, with particular focus on underserved populations and settings with constrained resources
Purpose of facilitating project	<p>This Facilitating Project aims to coordinate international efforts on setting up and improving occupational health services. It is closely connected to the GPA 3.2 activities aiming at building institutional and professional capacity.</p> <p>Current projects with this aim are divided into four areas:</p> <p>Area 1: Linkage to national health strategies and health sector reforms Area 2: Standards for organization and coverage Area 3: BOHS pilots Area 4: Quality assurance</p> <p>This division is based on the main focus of the project. Many of the projects have aspects belonging to more than one areas and most of them have also a strong training component.</p>
GPA Manager	Timo Leino, Leslie Nickels
CC Initiative Leader and contact information	Timo Leino; timo.leino@ttl.fi
WHO responsible person	Ivan Ivanov; ivan.ivanov@who.int
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Projects are organized by area:</p> <p>Area 1: Linkage to national health strategies and health sector reforms</p> <p>3.17d; Occupational Health Latin-American Forum; Project leader: Manuel Peña, direccion@institutoeuropeo.es, European Institute of Health and Social Welfare, Spain</p> <p>3.17f; Policy advice, training of trainers, support pilot projects and provide practical guidelines for BOHS; Project leader: Project leader Jorma Rantanen, jorma.rantanen@ttl.fi, ICOH</p> <p>New project; Occupational health and primary health care; Project leader:</p>

	<p>Ivan D. Ivanov, ivanovi@who.int, WHO Global Occupational Health Programme</p> <p>3.19f; Blind spot in health care for work-relatedness – Revitalizing Ramazzini’s legacy; Project leader: Peter Buijs, peter.buijs@tno.nl, TNO Quality of Life / Work & Employment, The Netherlands</p> <p>Area 2: Standards for organization and coverage</p> <p>3.16i; East Asian Network for Development of Occupational Health Research and Services Model; Project leader Toshiaki Higashi, thigashi@med.uoeh-u.ac.jp, Institute of Industrial Ecological Sciences (IIES), UOEH, Japan</p> <p>Transferred project; Ways of strengthening occupational health services for prevention of occupational cancer in Ukraine</p> <p>Area 3: BOHS pilots</p> <p>3.16j; SHERQ programme for the Public Health Service in South Africa; Project leaders: Spo Kgalamono, David Rees and Barry Kistnasamy, spo.kgalamono@nioh.nhls.ac.za, david.rees@nioh.nhls.ac.za, barry.kistnasamy@nioh.nhls.ac.za, National Institute for Occupational Health (NIOH), SA</p> <p>New project: SHERQ programme for the National Health Laboratory Service (NHLS) in South Africa; Project leaders: Spo Kgalamono, David Rees and Barry Kistnasamy, spo.kgalamono@nioh.nhls.ac.za, david.rees@nioh.nhls.ac.za, barry.kistnasamy@nioh.nhls.ac.za, National Institute for Occupational Health (NIOH), SA</p> <p>3.16k; Development an expansion of a pilot project for occupational health services in China; Project leader: Li Tao, niohplt@sina.com, National Institute of Occupational Health and Poison Control, Chinese Centre for Disease Control and Prevention, China</p> <p>3.16l; Development of innovative models for organization and provision of occupational health services in South East Europe; Project leader: Jovanka Karadzinska Bislimovska, occhemed@on.net.mk, bislimovska_j@yahoo.com, Institute of Occupational Health, FYR of Macedonia</p> <p>3.18o; Development and integration of Basic Occupational Health Services into Primary Health Care in Southern India; Project leaders: Jayachandran Paulsamy; dr_pjaya@yahoo.com and Kalpana Balakrishnan, kalpanasrmc@vsnl.com, Department of Environmental Health Engineering, Sri Ramachandra University, Chennai, India</p> <p>3.18q; The Development of Basic Occupational Health Service (BOHS) model for underserved working population in Thai Primary Care Units; Project leader: Somkiat Siriruttanpreuk, somkiatk@health.moph.go.th, Bureau of Occupational and Environmental Diseases, Thailand</p> <p>3.18t; Organization and delivery of BOHS for underserved populations in Vietnam; Project leader: Nguyen Duy Bao, baovsld@yahoo.com, National Institute of Occupational & Environmental Health (NIOEH), Vietnam</p>
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	<p>3.16q; Workers health project; Project leader: Tran Thi Ngoc Lan, ttnlan@gmail.com, General Department of Preventive Medicine and Environmental Health (GDPMEH)- Ministry of Health of Vietnam</p> <p>3.16n; Development and Implementation of a Basic Occupational Health Service Intervention Program in Indonesia; Project leader: Norbert Wagner, nlwagner@uic.edu, University of Illinois at Chicago (UIC), School of Public Health, U.S.A</p> <p>Area 4: Quality assurance</p> <p>3.16a; Good practice in occupational health services; Project leader: Arve Lie, arve.lie@stami.no, The National Institute of Occupational Health, Dept of Medicine and Epidemiology; Norway</p> <p>3.18p; Occupational Health and Safety Quality Assurance for Primary Health Care Unit; Project leader: Somkiat Siriruttanpreuk, somkiatk@health.moph.go.th, Bureau of Occupational and Environmental Diseases, Thailand</p>
<p>WHO Regional offices actively involved in this project (name and email) and other international organisations</p>	<p>PAHO: Maritza Tennasee; tennasm@paho.org EURO: Rokho Kim; rki@ecehbonn.euro.who.int SEARO: Salma Burton; burtions@searo.who.int WPRO: Hisashi Ogawa; ogawah@wpro.who.int AFRO: Thebe Pule; pulet@afro.who.int ILO: Igor Fedotov; igor.fedotov@ilo.org ICOH: Jorma Rantanen; jorma.rantanen@ttl.fi ICFTU: Lucien Royer; royer@tuac.org ? WHO/Trade Unions Network on Implementing Workers Health Initiatives; Peter Orris; porris@uic.edu ?</p>
<p>Summary of the facilitating project (max 100 words)</p>	<p>By networking and pooling resources this project aims at comprehensive protection and promotion of health for workers, emphasizing vulnerable groups. This is done by evaluating and improving national OH delivery systems, building capacities of OH services, providing technical support, and producing and disseminating useful accessible information and products. Projects include national profiles, pilots on BOHS, best practices, tools and guidance that can be used in training, and information dissemination.</p>

<p>Anticipated deliverables by 2012 from contributing projects</p>	<p>Targeted OH programmes and standards for the coverage of OH services</p> <p>Area 1: Linkage to national health strategies and health sector reforms</p> <p>3.17f: 1) Production of BOHS Guidelines and a Manual. 2) Introduction of a BOHS field measurement kit for priority exposures. 3) 10 Countries have introduced BOHS, training of trainers has been organized, Pilot projects implemented and evaluated, readiness for moving to next step (up-scaling) is there. 4) 31.12.2009 National surveys completed in 10 countries. 5) 31.12.2010 Training of trainers courses implemented in 10 countries 31.12.2011. 6) Pilot projects implemented in 10 countries. 7) 31.12.2012 Countries decided on next steps in BOHS implementation. 8) 31.12.2012 The role of BOHS in Primary Health care system has been clarified and well established. 9) 31.12.2012 Countries have included BOHS into their national health strategies.</p> <p>New project: 1) Global report "Occupational Health in Primary Health Care". 2) National programmes for development of occupational health services established with WHO technical assistance in ten countries.</p> <p>3.19f: Blind spot in health care for work-relatedness -booklet ready and distributed as agreed.</p> <p>Area 2: Standards for organization and coverage</p> <p>3.16i: 1) Publications of guideline: End of 2011. 2) Membership scheme of involved institutions: 2012. 3) The effective and evidence based occupational health service Model in East Asian countries which has similar situation in cultural background and rapid aging society. 4) The data base, guide which are available for evidence based occupational health services and prevent international threat for human health. 5) MSDs, Health Promotion and Improvement of Work environment will be edited up to 2012 on the basis of Japan /China/ Korea joint conference network.</p> <p>Transferred project: 1) The Integrative System of Occupational Cancer Prevention at the National Level is supposed for introduction in Ukraine – before 2012. 2) In the framework of the National plan for occupational prevention the conduction of epidemiological monitoring over occupational Lung Cancer is supposed to be implemented at the federal level – before 2012. 3) On the basis of the developed instruments and Programs approved by the Ministry of Health of Ukraine on registration of carcinogenically dangerous chemicals and enterprises the monitoring of carcinogenic hazard at industrial enterprises will be conducted before 2012.</p> <p>Area 3: BOHS pilots</p> <p>3.16j: 1) Referral system and OHS in place for public health care sector. 2) Surveillance system in place in the public health care sector. 3) 300 trained SHERQ personnel.</p> <p>New project: 1) Referral system and OHS in place for NHLS in 75% of laboratories and all national institutes. 2) Surveillance system using SLIDE or similar tool across NHLS. 3) 100 trained SHERQ personnel within the NHLS.</p> <p>3.16k: 1) Continuing Training of Trainers (ToT) Courses. 2) Extension of new Pilot Projects to additional Provinces and Counties. 3) Providing direct-reading field measurement BOHS kits for most hazardous exposures.</p>
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	<p>3.16l: 1) Recommendations on national policy and capacity building in new models of OHS, through BOHS approach focused on vulnerable workers, underserved population and high risk sectors. 2) Development of the health surveillance and information system following EU regulations. 3) Participation in the i-BOHS community network and sharing online learning and educational materials on evidence-based knowledge for OHS. 4) Establishment of the training center for OH and PHC doctors on BOHS (training of trainers, i- library) through SEE Network on Workers Health</p> <p>3.18o: 1) Based on continued interactions with the State Public Health Departments, we anticipate being able to train personnel in at least 5 districts. 2) Once recommendations of the current pilot are accepted, we anticipate the WHO India office to facilitate policy level follow-ups including the requirements to create BOHS centers in all district level hospitals. 3) Inputs from hazard identification at health care facilities are expected to be translated into implementation of controls through interactions with relevant departments that are expected to be facilitated by the WHO country office. 4) Training of PHC physicians to be BOHS providers for local industry will likely be achieved in districts with large industry clusters. 5) Creation of a occupational disease surveillance mechanism through integration with on-going integrated disease surveillance efforts will likely be in place.</p> <p>3.18q: 1) 2010: Best practices in the primary care units and delivery of BOHS for workers in informal economy and underserved populations such as children workers, women workers, migrant workers. 2) 2012: Best practices in the primary care units and delivery of BOHS for target working populations</p> <p>3.18t: 1) BOSH delivering models at district level for underserved populations will be developed and implemented. 2) Trainings on BOSH organisation and delivery will be conducted for OSH practitioners. 3) Training materials will be developed and disseminated</p> <p>New project; 1) Report on real situation implementation of basic occupational health services in Vietnam. 2) Report on ratification of ILO Convention 161 on occupational health services in Vietnam. 3) Developing standard materials on basic occupational health services for provincial level. 4) Assess implementation on basic occupational health services in four provinces: Thanh Hoa, Bac Ninh, Thua Thien Hue, Dong Nai. 5) Share experiences on project implementation results in international conferences.</p> <p>New project; 1) Evaluation of past BOSH initiatives in Indonesia finished by end 2010. 2) Qualitative and quantitative analysis of current problems and success factors with key stakeholder finished by spring 2011. 3) Training modules for village health workers and other public health officials finished by summer 2011. 4) Training of primary health care workers and other PHC levels started by fall 2011.</p> <p>Area 4: Quality assurance</p> <p>3.16a: 1) 10 new models of good practice cases per year. 2) Continued training of OHS. 3) Assessment of impact on OHS. 4) New Good OHS 2012 to fit the new certification of OHS in Norway.</p> <p>3.18p: Standard guideline for occupational health service activities in primary care units.</p>
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Critical Gaps to be filled by 2012 in order to fulfil GPA priorities (these lead to deliverables desired by 2012)	<p>Strategy to develop a global framework for national programmes on occupational health services</p> <p>Adequate policy and technical consultations</p> <p>Development of a step-by-step web-based tools to integrate BOHS in PHC</p> <p>Cross-links with PHC and labour safety</p>
Examples of deliverables desired by 2012 to adequately assist countries to protect and promote health of workers internationally.	<p>National, regional and sectoral OSH profiles and programmes for establishing and strengthening occupational health services</p> <p>Practical BOHS delivery models ongoing</p> <p>Programs of grass-root level training of occupational health and safety</p> <p>Programs of post-graduate training</p> <p>Train-the-Trainer Programs</p> <p>Electronic library of tools and information</p>
Barriers to success that must addressed	<p>Political commitment</p> <p>Funding for global projects</p> <p>Time allocation of experts</p>

FACILITATING PROJECT (administrative) Work plan project number	GPA 3.2a Capacity building through a learning repository on training and education Facilitating Project
Facilitating Project title	Education and Training Repository Facilitating Project: Capacity building through a learning repository on training and education
GPA Objective	Objective 3: to improve the performance of and access to occupational health services
GPA Action	
Priority Area	Priority 3.2: Adapt and disseminate curricula, training materials and training for international capacity building in OH
Purpose of facilitating project	<p>The purpose of this facilitating project is to create a learning repository for electronic OHS education and training materials to build professional capacity and strengthen occupational health services for workers. This would be particularly valuable for use in resource constrained (low and medium) countries. The learning repository will include as a social networking aspect, a global network of educators using and producing the materials.</p> <p>Current projects which could contribute to the creation of the learning repository have been grouped as follows:</p> <p>Level 1: Discrete learning resources; Level 2: Self contained learning units comprising discrete learning resources;</p>

	<p>Level 3: Whole systematic programmes which combine courses for professional learning; and Level 4: Meta-learning materials.</p>
GPA Manager	<p>Timo Leino timo.leino@ttl.fi Leslie Nickels lnickels@uic.edu</p>
CC Initiative Leader and contact information	<p>Jonny Myers myers.jonny@gmail.com University of Cape Town Linda Granger grainger@telkomsa.net ICOH/University of Cape Town</p>
WHO responsible person and contact information	<p>Ivan Ivanov ivanovi@who.int</p>
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>A subset of WHO CCs involved in E&T activities plus those strong institutes capable of housing a repository. Includes contributors and potential users of materials. Projects are organised by level.</p> <p>Level 1: Discrete learning resources</p> <p>3.16e Development of core curriculum in occupational health. Project leaders: Brigitta Danuser, Brigitta.Danuser@hospvd.ch and Petar Bulat, bulatp@eunet.yu Institute for Work and Health, Lausanne, Switzerland and Institute of Radiological Health, Belgrade, Serbia</p> <p>3.16h Utility of competencies acquired during specialization training in occupational medicine - evaluation an self-evaluation tool. Project leader: Andrzej Boczkowski, abocz@imp.lodz.pl Nofer Institute of Occupational Medicine, Lodz, Poland</p> <p>3.19a NetWoRM – Netbased training of work-related medicine. Project leaders: Katja Radon, katja.radon@med.lmu.de , Stefanie Kolb, Stefanie.Kolb@med.uni-muenchen.de and Laura Wengenroth, Laura.Wengenroth@med.uni-muenchen.de Institute and Outpatient Clinic for Occupational and Environmental Medicine, University of Munich, Germany</p> <p>3.19b Electronic lesson on evidence-based medicine for occupational health professionals. Project leader: Frank van Dijk, f.j.vandijk@amc.nl Coronel Institute of Occupational Health AMC, University of Amsterdam, The Netherlands</p> <p>3.19q Edition of occupational health and occupational medicine in Chinese for preventive medicine students. Project leader: Taiyi Jin, tyjin@shmu.edu.cn Fudan University School of Public Health, Shanghai, China</p> <p>Level 2: Self contained learning units comprising discrete learning resources</p> <p>3.18c Developing capacity in biological monitoring in occupational and environmental health. Project leader: Inakshi Naik, ina.naik@nioh.nhls.ac.za National Institute for Occupational Health (NIOH), South Africa</p>

	<p>3.18d E-training in occupational risk prevention for prevention organisers in Africa. Project leaders: Martine Plawner, INRS Training Division, martine.plawner@inrs.fr, Paul Guenoun, and Annie Leprince, annie.leprince@inrs.fr INRS, France</p> <p>3.18e METRONet: joint training programme. Project leaders: Sergio Iavicoli, sergio.iavicoli@ispesl.it, and Fabio Boccuni, fabio.boccuni@ispesl.it ISPESL, Dept. of Occupational Medicine, Italy</p> <p>3.18i Short/intensive course curriculum in occupational health (various topics). Project leaders: Sarah A. Felkner, Sarah.A.Felkner@uth.tmc.edu, and George L. Delclos, George.Delclos@uth.tmc.edu Southwest Center for Occupational and Environmental Health, The University of Texas School of Public Health, USA</p> <p>3.18j Workplace first aid educators and instructors training. Project leaders: Annie Leprince, annie.leprince@inrs.fr, Eric Durand, eric.durand@inrs.fr, and Paul Guenoun. INRS, France</p> <p>3.18m Development of training packages for the Psychosocial Risk Management toolkit, deliverable through e-learning and face-to-face. Project leader: Stavroula Leka, Stavroula.Leka@nottingham.ac.uk Institute of Work, Health & Organisations, University of Nottingham, UK</p> <p>3.18n GeoLibrary: Database of teaching materials and practice tools. Project leader: Leslie Nickels, lnickels@uic.edu Great Lakes Center for Occupational and Environmental Safety and Health, University of Illinois at Chicago School of Public Health, USA</p> <p>3.18r Technical assistance & training program for developing countries in Asia. Project leaders: Jungsun Park, jsunpark@chol.com, and Wook Kim, who@kosha.net, wokus@kosha.net Korea Occupational Safety & Health Agency (KOSHA), Korea</p> <p>3.18v Interdisciplinary courses for occupational and environmental health professionals. Project Leaders: Donna Mergler, mergler.donna@uqam.ca and Catharina Wesseling, ineke_wesseling@yahoo.com Center for Interdisciplinary Studies in Biology, Health, Environment and Society (CINBIOSE) University of Quebec at Montreal, Canada</p> <p>3.18w Two phases approach to update formal professional training of occupational health & safety in Egypt and the Arab world. Project leaders: Adel Zakaria, zakaria1959@yahoo.com, and Faten Nofal, fatennofal12@yahoo.com Occupational Health Department, High Institute of Public Health. Alexandria University, Egypt.</p> <p>3.19c Integral management in environment, quality and occupational health. Project leader: Manuel Peña, direccion@institutoeuropeo.es European Institute of Health and Social Welfare, Madrid, Spain</p> <p>Level 3: Whole systematic programmes which combine courses for professional learning</p> <p>3.16d Education and training in risk assessment and risk analysis at a master level. Project leader: Angelo Moretto,</p>
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Angelo.moretto@icps.it International Centre for Pesticide Safety and Health Risk Prevention, Italy

3.16g Supplementary modular development of postgraduate study in occupational and environmental health. Project leader: Jonny Myers, jmyers@iafrica.com Centre for Occupational and Environmental Health Research, University of Cape Town, South Africa

3.17b Human resource development in occupational health and safety project: training of nurses specialized in occupational health and safety in Benin Republic and African francophone countries. Project leader: Benjamin Fayomi, bfayomi@intnet.bj CC URESTE/LUSTE University of Abomey-Calavi. Benin

3.17e International training of occupational and environmental health experts. Project leader: Ken Takahashi, ktaka@med.uoeh-u.ac.jp Institute of Industrial Ecological Sciences (IIES), UOEH, Japan

3.18f Post-graduate training in occupational medicine in Nicaragua. Project leader: Linda Forst, forst-l@uic.edu Great Lakes Center for Occupational and Environmental Health and Safety, University of Illinois at Chicago School of Public Health, USA

3.18g Professional capacity building in occupational health and safety. Project leaders: Vitor Gomes Pinto, vitor.gomes@sesi.org.br, Fernando Coelho Neto, fcoelho@sesi.org.br, Vilma Oliveira, voliveira@sesi.org.br, and Antonino Germano, agermano@sesirs.org.br SESI- Industrial Social Service National Department, Brasilia

3.18h Fundamentals of occupational health and safety. Project leaders: Leslie Nickels, lnickels@uic.edu, Lorraine Conroy, lconroy@uic.edu, and Steve Lacey, slacey@uic.edu Great Lakes Centers for Occupational and Environmental Health, University of Illinois at Chicago, USA

3.18s Organizing and conducting courses for health workers, technicians and public health workers on assessment and management of occupational risks in Vietnam. Project leader: Nguyen Duy Bao, baovsld@yahoo.com WHO Collaborating Centre for Occupational Health in Vietnam, National Institute of Occupational & Environmental Health (NIOEH)

3.18x Distance learning in ergonomics for Portuguese speaking countries in Africa. Project leader: Anabela Simoes, anabela.simoese@isec.universitas.pt National Institute of Health, Porto High Institute for Education and Science / Instituto Superior de Educação e Ciências (in Portuguese) – ISEC

3.19n International Occupational Health Practice Certificate Program: On-line short courses. Project leader: Norbert Wagner, nwagner@uic.edu / nwagner@health.usf.edu University of Illinois at Chicago School of Public Health, USA

3.19r Translate portable digital course modules in OEH from English into both Spanish and Portuguese and secure mechanisms for delivery of modules to resource limited academic institutions in Latin America. Project leader: Thomas Robins, trobins@umich.edu

	<p>University of Michigan, USA</p> <p>New project – number to be assigned Basic occupational health services in Afghanistan. Project leaders: Margaret Kitt, ajy8@cdc.gov, and Maria Lioce-Mata, cru6@cdc.gov NIOSH, USA</p> <p>Level 4: Meta-learning materials</p> <p>3.18b Curriculum development and enhancement for academic training in occupational health in Low-Resource Countries. Project leaders: Linda Forst, forst-l@uic.edu, David Rees, david.rees@nioh.nhls.ac.za, Kalpana Balakrishnan, kalpanasrmc@vsnl.com, and Norber Wagner, nwagner@health.usf.edu Great Lakes Centres for Occupational & Environmental Safety and Health, University of Illinois School of Public Health, Chicago, USA</p> <p>3.18l Distance education in occupational health. Project leader: Linda Forst, forst-l@uic.edu Great Lakes Centers for Occupational and Environmental Health and Safety, University of Illinois at Chicago School of Public Health, USA</p> <p>3.19j Access to occupational safety & health information in the SADC Region and in Portuguese-speaking countries (Portugal, Brazil, Mozambique). Project leader: Claudina Nogueira, claudina.nogueira@nioh.nhls.ac.za National Institute for Occupational Health (NIOH), South Africa</p>
<p>WHO Regional offices actively involved in this project (name and email)</p>	
<p>Other partners for this Facilitating Project (employers, trade unions, other)</p>	<p>The SADC initiative for elearning including a list of major partners in the Southern African countries as well as non WHO CC SA partners like UKZN?</p>
<p>Summary of the facilitating project (max 100 words)</p>	<p>To develop an open educational resource learning repository including a community of educators for increasing access to occupational health education and training. Commence the network by including those WHO CCs and the strong occupational health institutes who are working on educational and training materials that could be placed in the repository. The repository may be housed in an institute or the WHO itself. The social networking aspect of the repository will comprise a global educators' network where members will benefit from assistance in the use, production and adaptation of open educational and training resources.</p> <p>Structure, functions and timeline will be developed during a special workshop held in Geneva in October 2009 linked to the WHO CC meeting.</p>
<p>Anticipated deliverables by 2012 from contributing projects</p>	<p>Creation of repository space, population of this space with existing E&T materials, and the development of an (educators) community of practice.</p> <p>Materials to include content in IH, OM, OHN, and Safety in at least 2 languages with participation of at least 15 educators in the community/network</p> <p>Level 1: Discrete learning resources</p> <p>Project 3.16e Development of core curriculum in occupational health</p>

	<p>Complete manual concerning workplace risk analyses by end 2009 Present first outlines at the meeting in October 2009 in Geneva</p> <p>Project 3.16h Utility of competencies acquired during specialization training in occupational medicine - evaluation an self-evaluation tool Develop readily usable and user-friendly evaluation and self-evaluation tools Develop evaluation packages for the above tools deliverable through e-learning and face-to-face Integrate the evaluation tools into the provision of basic occupational health services</p> <p>Project 3.19a NetWoRM – Netbased training of work-related medicine Broadening the network of NetWoRM partners Implementation of tools to sustain the NetWoRM project in the long run</p> <p>Project 3.19b Electronic lesson on evidence-based medicine for occupational health professionals Further dissemination to a wider group of users in postgraduate schools for occupational health and to individual professionals Dissemination to medical and other students When funded: support of use and updating of the lesson Analysis how to spread relevant evidence to basic occupational health services (BOHS)</p> <p>Project 3.19q Edition of occupational health and occupational medicine in Chinese for preventive medicine students Completion of a textbook of occupational health and occupational medicine Publication of a textbook of occupational health and occupational medicine</p> <p>Level 2: Self contained learning units comprising discrete learning resources</p> <p>Project 3.18c Developing capacity in biological monitoring in occupational and environmental health A full range of POP and organochlorine metabolites assays to be established by 2010. Possible establishment of biological monitoring laboratories in India Introduction of a 5-day certificate course on “Biological monitoring of chemical exposures in occupational and environmental health” in South Africa and India E learning on biological monitoring</p> <p>Project 3.18d E-training in occupational risk prevention for prevention organisers in Africa Causes for student drop-out to be considered Increase the number of persons trained year initially Identify the most susceptible to become coach, in order to multiply the number of trainees</p> <p>Project 3.18e METROnet: joint training programme “Advanced training course Keeping Employees At Work: the Contribution Of Workplace Health Promotion”, 27-30 October, 2009.</p>
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	<p>INSHT – CNCT Barcelona, Spain. “State of the Art on repro-toxicity”, edited by METROnet, 2010. “Advanced training course on Movement Analysis Techniques in Occupational Health”, 2010. ISPESL – Research Centre, Italy.</p> <p>Project 3.18i Short/intensive course curriculum in occupational health (various topics) Continue to deliver short courses (topics, number of offerings and dates are determined jointly with our collaborators and vary from year to year)</p> <p>Project 3.18j Workplace first aid educators and instructors training Continue to train instructors and educators in order to develop and disseminate first aid at the workplace in Africa and to set up resource centres.</p> <p>Project 3.18m Development of training packages for the Psychosocial Risk Management toolkit, deliverable through e-learning and face-to-face Develop training packages for the toolkit deliverable through e-learning and face-to-face (by 2011)</p> <p>Project 3.18n GeoLibrary: Database of teaching materials and practice tools List for focus on most relevant curricula through the iBOSH and Learning Repository facilitating projects (2012) Evaluation of use, relevancy and reach of GeoLibrary for capacity building (2012)</p> <p>Project 3.18r Technical assistance & training program for developing countries in Asia Provide occupational health training programs for occupational health practitioners from developing Asian countries every year until 2012.</p> <p>Project 3.18v Interdisciplinary courses for occupational and environmental health professionals Produce educational material Provide new courses in 14 universities</p> <p>Project 3.18w Two phases approach to update formal professional training of occupational health& safety in Egypt and the Arab world. Complete preparation of Arabic material essential to update training of factory inspectors and OHS specialists in Egypt Distribute material in the Arab world.</p> <p>Project 3.19c Integral management in environment, quality and occupational health Complete the design of the training material Disseminate the training material for developing countries professionals</p> <p>Level 3: Whole systematic programmes which combine courses for professional learning</p> <p>Project 3.16d Education and training in risk assessment and risk analysis at a master level Share and provide e-learning and distant-learning materials Integration into the European system of training of risk assessors Offer the masters degree every year from 2009</p>
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	<p>Project 3.16g Supplementary modular development of postgraduate study in occupational and environmental health Identify and to contribute to the collection of southern African learning and training materials in an electronic open learning repository by 2012 Contribute to a global network of educators integrated with the learning repository by 2012</p> <p>Project 3.17b Human resource development in occupational health and safety project: training of nurses specialized in occupational health and safety in Benin Republic and African francophone countries Offer occupational health and safety training for nurses in Benin, Ivory Coast and Togo</p> <p>Project 3.17e International training of occupational and environmental health experts Within the ODA project framework, 6-7 participants from developing countries will be trained every year</p> <p>Project 3.18f Post-graduate training in occupational medicine in Nicaragua None, funding for project cancelled.</p> <p>Project 3.18g Professional capacity building in occupational health and safety Continue and enhance the existing work lines Deliver new courses to professionals from Brazil, Portuguese-speaking African countries and Latin American countries Develop new courses and seminars or short- and medium-term modular knowledge Establish new agreements with the Federal University of Bahia, OISS and the WHO Collaborating center (in designation) of Senac Sao Paulo</p> <p>Project 3.18h Fundamentals of occupational health and safety Course offered in Johannesburg, South Africa September 2009, Hyderabad, India February 2010 Train the trainer course for 20 participants (2010) Impact evaluation of 2 India courses and 1 South Africa course (2011) Adapted courses available through GeoLibrary Translated components of curricula through the Learning Repository Process (2011)</p> <p>Project 3.18s Organizing and conducting courses for health workers, technicians and public health workers on assessment and management of occupational risks in Vietnam Complete and disseminate training materials and curriculum for OH staffs at different levels and health workers at enterprises on assessment and management of occupational risks in Vietnam Complete and disseminate some specific training materials and curriculum, such as on BOSH, OSH management in health care facilities and for asbestos exposure Conduct different TOT training courses</p> <p>Project 3.18x Distance Learning in ergonomics for Portuguese speaking countries in Africa</p>
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	<p>Edit the manual and corresponding learning materials - 2010 Dissemination of the course The target population will be reached so that the distance learning course will start no later than 2011.</p> <p>3.19n International Occupational Health Practice Certificate Program: On-line short courses 2 fundamental courses for a total 40 participants 2 management courses for a total of 30 participants 2 occupational disease courses for a total of 30 participants Evaluation report on successes and barriers to implementation</p> <p>Project 3.19r Translate portable digital course modules in OEH from English into both Spanish and Portuguese and secure mechanisms for delivery of modules to resource limited academic institutions in Latin America Before being put into final format, modules will be tested to ensure that they are culturally appropriate, use language familiar to the target audiences and address the key Occupational Health issues relevant to the region. At the point translations are completed, it is expected that the University of Texas will take the lead responsibilities for dissemination of the materials to appropriate audiences and venues. Delivery of modules within existing or newly established degree program in resource-limited academic institutions in selected Latin American countries will assist in establishing the infrastructure necessary for successful full degree programs or specialist stream MPH programs in OEH.</p> <p>New project: Basic occupational health services in Afghanistan Development of in-country expertise by training Occupational Health Officers within APHI that will work with Kabul Medical University, Institute of Health Sciences, and the veterinary community to build occupational safety and health capacity in Afghanistan</p> <p>Level 4: Meta-learning materials</p> <p>Project 3.18l Distance Education in Occupational Health We plan to advertise and teach this course in Chicago in 2010 at the ICOH Education Committee Meeting. Depending on how it is evaluated, we will plan to teach it at other international venues</p> <p>Project 3.19j Access to Occupational Safety & Health Information in the SADC Region and in Portuguese-speaking countries (Portugal, Brazil, Mozambique) Efficient coordination of outputs from OSH programmes and initiatives in the SADC region for better dissemination and use, through established information repositories and dissemination avenues, and possibly new networks (e.g. the NIOH website / Clearing House) as a regional resource for information materials. Link with OSH training and capacity-building initiatives for target audiences such as factory inspectors, provincial coordinators and health care workers Further development of the Portuguese-speaking network of occupational health practitioners through continued collaborative training activities</p>
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<p>Critical gaps to be filled in order to fulfill deliverables</p>	<p>Identifying a platform for sharing, disseminating and interacting around materials needs to be done. In addition identifying materials that can be placed in the repository and establishing mechanisms for regular communication among the educators needs to be addressed. It is intended to fill critical gaps that relate to the educational needs for key competencies for the various OH disciplines. A list of priorities will be developed for 2012</p>
<p>Barriers to success that must be addressed</p>	<p>Development of a community of practice that will result in contribution to and growth of the repository and most importantly the use of the repository. Includes interaction between contributors and users; capacity building in use, adaptation and development of eLearning materials.</p> <p>Technological aspects related to the repository – platform, standards, formats, metadata, tools.</p> <p>Access to E&T materials (identification, obtaining faculty / support for lodging them in the repository, IPR aspects (e.g. licencing).</p> <p>Materials must be :</p> <p>4.1. suitable for use in the qualifications desired by professionals especially but not exclusively in LDCs ranging from community based agents through generalist practitioners to specialists i.e. level and discipline/ competency;</p> <p>4.2. of local and regional relevance and based on existing materials and expertise.</p> <p>Mechanism for monitoring and sustaining the quality of materials. (Determination of criteria for what constitutes 'quality', establishment of a peer review/editorial system, versioning).</p> <p>Financial resources to house, maintain and develop learning materials and learning activities, and to make these sustainable, eg. The operation of an open OER) learning repository integrated with a global online platform for associated educators.</p>

<p>FACILITING PROJECT (administrative) Work plan project number</p>	<p>GPA 3.2b Capacity building through IBOSH Facilitating Project</p>
<p>Facilitating Project title</p>	<p>iBOSH</p>
<p>GPA Objective</p>	<p>3</p>
<p>GPA Action</p>	<p>17</p>
<p>Priority Area</p>	<p>3.1</p>
<p>Purpose of facilitating project</p>	<p>Training of various professionals e.g. in primary of public health care in delivering basic occupational health services (BOHS) where there is no, or very little, occupational health provision. iBOHS will build a community network and provide concrete support for existing and new initiatives on capacity building for BOHS. BOHS initiatives are usually in parts of the world or for working populations with no or limited prevention of accidents,</p>

	occupational and work-related diseases, and work disability. In addition iBOHS will support access to reliable knowledge on OHS.
GPA Manager	Timo Leino Leslie Nickels
CC Initiative Leader and contact information	Frank van Dijk, Coronel Institute AMC, Amsterdam, the Netherlands John Harrison, Imperial College Healthcare NHS Trust, London, UK
WHO responsible person and contact information	
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>3.16c On-line Training courses; Great Lakes Center for Occupational and Environmental Health and Safety, UIC-SPH, USA</p> <p>3.16o Occupational Health Service Support for small enterprises (SSE) to promote their ability to enhance health status of workers; Department of Occupational Health, Korea Occupational Safety and Health Agency (KOSHA), Republic of Korea</p> <p>3.17g An online platform for capacity building for the BOHS; Center for Occupational Diseases/ Coronel Institute of Occupational Health AMC, Amsterdam, The Netherlands</p> <p>3.18k OHS capacity development , Research, training, and service, University of Cape Town</p> <p>3.19i Module of continuous training for occupational health physicians; Institute of Occupational Health and Safety, ISST, Tunisia</p> <p>3.19m Support of peer-reviewed, Spanish-language Scientific Occupational Health Journals University of Texas, USA</p> <p>3.19o Training trainers to provide better occupational health services to blue-collar working populations in the province of Riau, Indonesia; NUS, Singapore</p> <p>3.19p International education and training in occupational health psychology, Univesrity of Nottingham</p> <p><i>During the WHO meeting in Geneva we will decide on the usefulness of dividing the projects in subgroups e.g.:</i> <i>iBOHS 1 on materials: providing information and materials such as courses, curricula, modules, BOHS core curriculum, e-lessons, etc.</i> <i>iBOSH 2 on technical aspects; (inks to) technical support, innovations, etc</i> <i>IBOSH 3 on strategic topics: consultancy on iBOH models, services, policies, implementation, maintenance, etc</i> <i>iBOHS 4: on access to reliable knowledge such as : materials and training in evidence-based practice in OHS; repository of or links to evidence-based knowledge.</i></p>
WHO Regional offices actively involved in this project (name and email)	WHO/RO Europe, Rokho Kim
Other partners for this Facilitating Project (employers, trade unions, other)	ICOH Board and many ICOH scientific committees especially on Education and Training; on Development; on OHS Research and Evaluation; on Communication.
Summary of the facilitating project (max 100 words)	In a growing number of countries Basic Occupational Health Services projects are being carried out to meet the huge need for capacity building and availability of expertise and materials. An international coordinating effort might have a great potential to

	<p>foster existing and to support new initiatives. The iBOHS facilitating project will have the form of community network building and sharing online learning materials (lessons, iBOHS modules, iBOHS core curriculum) , organizing mutual concrete support mainly using the internet. iBOHS will also offer advices and learning materials on how to find reliable information on occupational health and safety, especially evidence-based materials in collaboration with the Cochrane Field Occupational Health.</p>
<p>Anticipated deliverables by 2012 from contributing projects</p>	<p>Platform for internet based technical assistance on capacity building for primary / public health care and for occupational health services which includes availability of educational materials (learning objects) e.g. core BOHS curriculum and modules, a network of experts for assistance, advices how to do, mutual support between iBOHS community network participants, advices and materials on evidence-based knowledge for OHS.</p>
<p>Critical Gaps to be filled in order to fulfil deliverables</p>	<p>Networking just started and has to be building up using ICOH and WHO networks and e.g. EASOM (European Association of Schools of Occupational Medicine). Collaboration/integration with WHO facilitating project Education and Training Repository has to be determined. We might choose to develop a core group of iBOHS participants who take a share in developing facilities, and a more wide stakeholders group.</p>
<p>Barriers to success that must addressed</p>	<p>Funding is needed for manpower, for development and maintenance of web based digital facilities, and for face to face meetings.</p>

GPA Objective 4: To Provide and Communicate Evidence for Action and Practice

FACILITING PROJECT (administrative) Work plan project number	Facilitating Project for GPA 4.1 Encourage practical research on emerging issues, including nanomaterials and climate change. Nanotechnology projects are included in this Facilitating Project
Facilitating Project title	Coordination of CC Nanotechnology Projects
GPA Objective	Objective 4: To provide and communicate evidence for action and practice
GPA Action	<p>4.20 Systems for surveillance of workers' health should be designed with the objective of accurately identifying and controlling occupational hazards. This endeavor includes establishing national information systems, building capability to estimate the occupational burden of diseases and injuries, creating registries of exposure to major risks, occupational accidents and occupational diseases, and improving reporting and early detection of such accidents and diseases.</p> <p>4.21 Research on workers' health needs to be further strengthened, in particular by framing special research agendas, giving it priority in national research programmes and grant schemes, and fostering practical and participatory research.</p> <p>4.22 Strategies and tools need to be elaborated, with the involvement of all stakeholders, for improving communication and raising awareness about workers' health. They should target workers, employers and their organizations, policy-makers, the general public, and the media. Knowledge of health practitioners about the link between health and work and the opportunities to solve health problems through workplace interventions should be improved.</p>
Priority Area	Priority 4.1a: Encourage practical research on emerging issues, including nanomaterials
Purpose of facilitating project	Emerging issues brought about by nanotechnology represent global challenges with implications for public health. The aim of this facilitating project is to summarize and coordinate projects related to these issues, focusing particularly on their deliverables in the form of global reports and communication strategies with low- and medium income countries on interventions to ensure workers' health
GPA Managers	Jo Harris-Roberts, Ed Robinson
CC Initiative Leaders and contact information	Rosemary Gibson; Rosemary.Gibson@hsl.gov.uk Vladimir Murashov; Vladimir.Murashov@cdc.hhs.gov
WHO responsible person	Ivan Ivanov
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Emerging Area 1: Nanotechnology (Initiative Leaders: Rosemary Gibson; Vladimir Murashov)</p> <p>GPA4.21l. How to assess the adequacy of safety measures for manufactured nanoparticles. Project Leader: Michael Riediker; Michael.Riediker@hospvd.ch Institute for Work and Health, Lausanne, Switzerland</p> <p>GPA4.21m. Best practices globally for working with nanomaterials. Project Leaders: Charles Geraci CGeraci@cdc.gov; Vladimir Murashov Vladimir.Murashov@cdc.hhs.gov. National Institute for Occupational Safety and Health (NIOSH), USA.</p> <p>GPA4.21n. Nano-Comms: A Technical Observatory for the dissemination of</p>

	<p>information regarding nanoparticle health and safety issues. Project Leader: Rosemary Gibson; Rosemary.Gibson@hsl.gov.uk. Health and Safety Laboratory, UK</p> <p>GPA4.21o. Assessing the Hazard of Nanomaterials. Project Leader: Lang Tran; lang.tran@iom-world.org. Institute of Occupational Medicine, Edinburgh, UK</p> <p>GPA4.21p. NanOSH Italy. Project Leaders: Sergio Iavicoli (sergio.iavicoli@ispesl.it); Fabio Boccuni (fabio.boccuni@ispesl.it). ISPESL – Dept. of Occupational Medicine ITALY.</p> <p>GPA4.21q. Development of database for individuals working with engineered nanomaterials. Project Leader: Judy Sng, ephjsgk@nus.edu.sg NUS, Singapore.</p> <p>GPA4.21v. Assessing the Hazard of Nanoparticles and Communicating the Risks: SAFENANO. Project Leader: Rob Aitken, rob.aitken@iom-world.org. Institute of Occupational Medicine (IOM), UK</p> <p>GPA4.21ao. Application of practical research to help ensure that the OHS Regulatory Framework and OHS management effectively covers issues associated with nanotechnology. Dr Howard Morris howard.morris@safeworkaustralia.gov.au Safe Work Australia</p>
<p>WHO Regional offices actively involved in this project (name and email)</p>	
<p>Summary of the facilitating project (max 100 words)</p>	<p>The contributing projects summarized here are aiming to improve OSH in nanotechnology by conducting research and developing global reports and communication strategies with low- and medium income countries on interventions to ensure workers' health.</p>
<p>Anticipated deliverables by 2012 from contributing projects</p>	<p>Emerging Area 1: Nanotechnology: (Initiative Leaders: Rosemary Gibson; Vladimir Murashov)</p> <p>4.21l. How to assess the adequacy of safety measures for manufactured nanoparticles. Project Leader: Michael Riediker; Michael.Riediker@hospvd.ch. Institute for Work and Health, Lausanne, Switzerland</p> <p>guidelines for the assessment of safety measures used in production, 24/45 application, use and disposal of nanoparticles and nanoparticle-containing products.</p> <p>4.21m. Best practices globally for working with nanomaterials. Project Leaders: Charles Geraci CGeraci@cdc.gov; Vladimir Murashov Vladimir.Murashov@cdc.hhs.gov. National Institute for Occupational Safety and Health (NIOSH), USA.</p> <p>NIOSH "Current Intelligence Bulletin" on Working with Engineered Nanomaterials containing recommendations on health effects, exposure limits, exposure monitoring, personal protective equipment (PPE), respiratory protection, and engineering controls.</p> <p>ISO standards on nanotechnology occupational safety and health.</p> <p>OECD guidance documents on risk assessment and risk management for nanotechnology workplace</p> <p>4.21n. Nano-Comms: A Technical Observatory for the dissemination of information regarding nanoparticle health and safety issues. Project Leader: Rosemary Gibson; Rosemary.Gibson@hsl.gov.uk. Health and Safety Laboratory, UK</p> <p>network of international experts in the field of health and safety issues of nanoparticles.</p> <p>portal for the collection, production and dissemination of information</p>

	<p>regarding health and safety issues of nanoparticles.</p> <p>4.21o. Assessing the Hazard of Nanomaterials. Project Leader: Lang Tran; lang.tran@iom-world.org. Institute of Occupational Medicine, Edinburgh, UK.</p> <p>Recommendation of in vitro toxicology tests for nanoparticles and nanotubes.</p> <p>4.21p. NanOSH Italy. Project Leaders: Sergio Iavicoli (sergio.iavicoli@ispesl.it); Fabio Boccuni (fabio.boccuni@ispesl.it). ISPESL – Dept. of Occupational Medicine ITALY.</p> <p>Toxicological analysis Exposure assessment and analysis of at risk processes Qualitative evaluation with control banding methodology Model of workplace monitoring Validation of methodology.</p> <p>4.21q. Development of database for individuals working with engineered nanomaterials. Project Leader: Judy Sng, ephjsgk@nus.edu.sg. NUS, Singapore.</p> <p>registry of persons working with Nanomaterials, documenting the type and nature of exposure, development of job exposure matrix and health surveillance protocol</p> <p>4.21v. Assessing the Hazard of Nanoparticles and Communicating the Risks: SAFENANO. Project Leader: Rob Aitken, rob.aitken@iom-world.org. Institute of Occupational Medicine (IOM), UK. maintained and developed website.</p> <p>4.21ao. Application of practical research to help ensure that the OHS Regulatory Framework and OHS management effectively covers issues associated with nanotechnology. Dr Howard Morris howard.morris@safeworkaustralia.gov.au Safe Work Australia: The development of a nationally coordinated approach to promoting workplace safety in the use of nanotechnology by 2012.</p>
Critical Gaps to be filled by 2012 in order to fulfil GPA priorities (these lead to deliverables desired by 2012)	Emerging risks in nanotechnology workplace pose a global challenge to safety and health community. Approaches to identify, mitigate and communicate these risks to low- and medium income countries are needed.
Examples of deliverables desired by 2012 to adequately assist developing countries. It is these deliverables for which we will seek projects from CCs	Global reports and communication strategies with low- and medium income countries on interventions for nanotechnology to ensure workers' health.
Barriers to success that must be addressed	

FACILITING PROJECT (administrative) Work plan project number	Facilitating Project for GPA 4.1: Encourage practical research on emerging issues, including nanomaterials and climate change. Climate change projects are included in this Facilitating Project
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Facilitating Project title	Climate change and Workers Health
GPA Objective	Objective 4: To provide and communicate evidence for action and practice
GPA Action	4.21 Research on workers' health needs to be further strengthened, in particular by framing special research agendas, giving it priority in national research programmes and grant schemes, and fostering practical and participatory research.
Priority Area	Priority 4.1b: Encourage practical research on emerging issues, including climate change.
Purpose of facilitating project	To collate and summarise current evidence of the potential effects of climate change on workers health to help inform future research on this important emerging topic area.
GPA Managers	Jo Harris-Roberts, Ed Robinson
CC Initiative Leaders and contact information	Jo Harris-Roberts (jo.harris-roberts@hsl.gov.uk) Ed Robinson (edward.robinson@hsl.gov.uk) (HSL, UK)
WHO responsible person	Ivan Ivanov
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	Emerging Area 2: Climate change Federal Institute for Occupational Safety and Health (BAuA), Germany IGNIS - Income generation and climate by valorising municipal solid wastes in a sustainable way in emerging megacities (GPA4.21s) Daniela Bleck Bleck.daniela@baua.bund.de Safe Work Australia Emerging OHS issues associated with climate change (GPA4.21ap) Dr Peta Miller peta.miller@safeworkaustralia.gov.au Health and Safety Laboratory, UK The impact of climate change on workers health (GPA4.21ak) Dr Jo Harris-Roberts Jo.harris-roberts@hsl.gov.uk
WHO Regional offices actively involved in this project (name and email)	EURO
Summary of the facilitating project (max 100 words)	Climate change represents a key emerging issue that will have implications on global health and safety. The programmes of work within this facilitating project will contribute to the identification, collection and summary of current evidence of the potential effects of climate change on workers health, identify needs and gaps to help inform future research on this important emerging topic area.
Anticipated deliverables by 2012 from contributing projects	GPA4.21s: In the competence and training centre the compiled results are spread and used. Special transfer studies will try to find out how aspects of IGNIS can be transferred to other Megacities and introduce, if necessary, a transfer of technology and information. The utilization of (part) aspects is held in an utilization plan. Flyer: http://www.emerging-

	<p>megacities.org/(S(wibgz245hoxn5smduubwynn4))/download/flyer-hauptphase/flyer_future_megacities_addis_ababa.pdf</p> <p>GPA4.21ap: Raised awareness of the emerging OHS issues associated with climate change among Australian and South Pacific workers and persons conducting business undertakings, and the development of Australia OHS Regulations on the management of heat as a hazard. Our research also aims to assist OHS policy makers within Safe Work Australia and internationally to identify and implement climate change mitigation and adaptation measures and priorities for workers.</p> <p>GPA4.21aq: A clearer picture of the research needs on the topic with a focus on both developed and developing countries</p> <p>Other outcomes may arise from new contributing projects that may also provide valuable input into this theme.</p>
Critical Gaps to be filled by 2012 in order to fulfil GPA priorities (these lead to deliverables desired by 2012)	<p>Clear understanding of the issues facing workers of both developed and developing countries</p> <p>Knowledge of the previous and current research in the topic area</p>
Examples of deliverables desired by 2012 to adequately assist developing countries. It is these deliverables for which we will seek projects from CCs	<p>A position paper on the current situation regarding climate change and workers health.</p> <p>Guidelines for countries to take forwards that will provide a summary of potential hazards, examples of how this is being addressed elsewhere and recommendations for action to implement own strategies for addressing the issue of climate change.</p>
Barriers to success that must be addressed	<p>Raising the profile of this topic and gaining the support of government departments, industry and academia to ensure the findings are acted upon</p>

FACILITING PROJECT (administrative) Work plan project number	Facilitating Project for GPA 4.2: Further develop the global research agenda for workers' health
Facilitating Project title	Global research Matrix
GPA Objective	Objective 4: To provide and communicate evidence for action and practice
GPA Action	4.21 Research on workers' health needs to be further strengthened; in particular by framing special research agendas, giving it priority in national research programmes and grant schemes, and fostering practical and participatory research.
Priority Area	Priority 4.2: Further develop the global research agenda for workers' health
Purpose of facilitating project	To collate and summarise current strategies for occupational health and safety research from CC members within the WHO network and establish potential gaps and opportunities for further research.
GPA Managers	Jo Harris-Roberts, Ed Robinson

CC Initiative Leaders and contact information	Jo Harris-Roberts (jo.harris-roberts@hsl.gov.uk) Ed Robinson (edward.robinson@hsl.gov.uk) (HSL, UK)
WHO responsible person	Ivan Ivanov
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Currently, there are no specific Contributing projects that have the aims of addressing this priority in their own right,</p> <p>However, under the scope of this facilitating project, all CC members currently within all the GPA objective areas will potentially “contribute” to this work by sharing basic strategic information to help populate a research matrix.</p> <p>This current facilitating project is led by the Health and Safety Laboratory, UK</p>
WHO Regional offices actively involved in this project (name and email)	EURO
Summary of the facilitating project (max 100 words)	<p>In order to assist the further development of the global research agenda into workers’ health, a clear understanding must first be obtained of the current (and historical) research topics that countries are(or have been) involved with.</p> <p>HSL will make best use of the WHO CC network to establish current topics of OHS research. This will lead to the development of a ‘matrix’ that summarizes the work to date in order to identify current gaps in research activities. This information will in turn be disseminated to the wider community to assist the future strategic direction of OSH research allowing for greater focus on topics that will have a greater, measurable impact on the workers health in both developed and developing countries.</p>
Anticipated deliverables by 2012 from contributing projects	Other outcomes may arise from new contributing projects that may also provide valuable input into this theme.
Critical Gaps to be filled by 2012 in order to fulfil GPA priorities (these lead to deliverables desired by 2012)	Clear understanding of the current research themes undertaken by relevant establishments in the field of occupational safety and health.
Examples of deliverables desired by 2012 to adequately assist developing countries. It is	<p>An overview of current research strategies and topics will also help to identify areas of work that are not currently supported or that don’t address the needs of the wider community.</p> <p>This will allow the research gaps to be identified which in turn will offer future</p>

these deliverables for which we will seek projects from CCs	direction to the decisions and strategies of occupational health and safety research agendas both in the developed and developing world.
Barriers to success that must be addressed	Gaining the support of potential contributors to offer and share their research strategies in order to populate a research matrix.

GPA Objective 5: To Incorporate Workers' Health into Non-health Policies and Projects

FACILITATING PROJECT	GPA 5.1 Review and summary of cost-benefit studies to clarify the economic benefits of workers' health
Project title	Review and summary of cost-benefit studies to clarify the economic benefits of workers' health
GPA Objective	Objective 5: to incorporate workers' health in to other policies
GPA Actions	5.24 to 5.28
Priority Area	Priority 5.1: Collate and conduct cost-benefit studies to clarify the economic benefits of workers' health.
Purpose of facilitating project	The aim of this facilitating project is to coordinate projects that directly contribute to achievement of Priority 5.1 – to examine these industries, identify causes of injuries and fatalities, and collate and conduct cost-benefit studies to clarify the economic benefits of workers' health, thereby contributing to GPA Objective 5.
GPA Manager	<i>Wendy Macdonald</i>
CC Initiative Leader and contact information	Jos Verbeek;
WHO responsible person	Evelyn Kortum
Collaborating centre partners with separate contributing projects	<p>5.24 Economic dimensions of occupational safety and health. Finnish Institute of Occupational Health (FIOH). Jos Verbeek, jos.verbeek@ttl.fi</p> <p>5.24b National analysis of Disability Adjusted Life Years (DALY) in relation to occupational diseases and injuries and indication of prevention strategies in workplaces. Dept. of Occupational Medicine, ISPESL. Dr Diana Gagliardi (diana.gagliardi@ispesl.it); Dr Bruna Maria Rondinone (bruna.rondinone@ispesl.it); Dr Carlo Grandi (carlo.grandi@ispesl.it)</p> <p>5.24f Development of a Workplace Intervention Net-Cost (or WIN) Calculator, Occupational Safety and Health Division, Ministry of Manpower, Singapore. Dr Sweet Far Ho Sweet-Far-Ho@mom.gov.sg</p>
WHO Regional offices actively involved in this project (name and email)	
Summary of the facilitating project	The primary purpose of this project is to identify gaps in the deliverables expected from the existing three projects, as a basis for identifying future strategies and specific projects to more effectively clarify the economic benefits of improved OSH.
Anticipated deliverables by 2012 from contributing projects	<p>5.24 Eleven presentations from a workshop on <i>The impact of OSH on company performance</i>, downloadable from: http://www.ttl.fi/Internet/partner/Ecosh/Workshop+on+Productivity/presentations.htm. Workshops to date have identified various needs for further action, including: Two further workshops in 2009, on: Economic evaluation of OSH interventions Economic incentives for the uptake of OSH measures.</p>

	<p>Additional information on the Ecosh website</p> <p>Written reports: 9 scientific articles summary report for WHO network (most effective means of dissemination to be discussed)</p> <p>5.24b Occupational risk factors and exposed worker population have been identified. Calculation of DALY (ongoing) Two publications have been produced: Valenti A, Rondinone BM, Iavicoli S – <i>Salute e sicurezza sul lavoro – Costo Zero</i> (3): 70-71, 2008. Rondinone BM, Boccuni F, Petyx C, Valenti A, Iavicoli S – <i>Proposta di applicazioni della metodologia per il calcolo del DALY (Disability Adjusted Life Years) per le malattie professionali in Italia – G Ital Med Lav Erg</i> 2006, 28(3): 341-343. Quantification of number of DALYs due to occupational diseases at national level. Quantification of costs per DALY avoided Synthesis of major results on scientific peer-reviewed publications Transferability of results through training events</p> <p>5.24f A Workplace Intervention Net-Cost (WIN) Calculator that will help companies estimate the net-cost of their investment in engineering control measures to minimize exposure to health hazards</p>
Critical Gaps	<p>Gaps in research evidence: Insufficient insight into the relation between physical and mental health and job performance or productivity insufficient insight into the relation between job satisfaction, engagement and commitment to work. For some of these parameters we don't even now if they contribute to health or to illhealth.</p> <p>Gaps in professional expertise of OSH practitioners: OSH practitioners need more expertise in marketing and communication strategies; and in using/implementing costbenefit analysis techniques.</p> <p>Need for wider dissemination of OSH: Should mainstream OSH into education system, especially in courses of lawyers, engineers, economists.</p>
Examples of deliverables desired by 2012	
Barriers to success that must addressed	

FACILITATING PROJECT	GPA 5.2 Recommendations to manage risks associated with the effects of globalization on workers' health
Project title	Recommendations to manage risks associated with the effects of globalization on workers' health
GPA Objective	Objective 5: to incorporate workers' health in to other policies

<p>GPA Actions 24-27</p>	<p>Resolution WHA 60.26 urged Member States of WHO ... (6) to encourage incorporation of workers' health in national and sectoral policies for sustainable development, poverty reduction, employment, trade, environmental protection, and education; and (7) to encourage the development of effective mechanisms for collaboration and cooperation between developed and developing countries at regional, subregional and country levels in implementing the global plan of action on workers' health; The most specifically relevant GPA Actions are: 24. The capacities of the health sector to promote the inclusion of workers' health in other sectors' policies should be strengthened. Measures to protect workers' health should be incorporated in economic development policies and poverty reduction strategies. The health sector should collaborate with the private sector in order to avoid international transfer of occupational risks and to protect health at the workplace. Similar measures should be incorporated in national plans and programmes for sustainable development. 25. Workers' health should likewise be considered in the context of trade policies when taking measures as specified in resolution WHA59.26 on international trade and health. 26. Employment policies also influence health; assessment of the health impact of employment strategies should therefore be encouraged. Environmental protection should be strengthened in relation to workers' health through, for instance, implementation of the risk-reduction measures foreseen in the Strategic Approach to International Chemicals Management, and consideration of workers' health aspects of multilateral environmental agreements and mitigation strategies, environmental management systems and plans for emergency preparedness and response.</p>
<p>Priority Area</p>	<p>5.2 Develop specific and relevant recommendations to manage risks associated with the effects of globalization on workers' health.</p>
<p>Purpose of facilitating project</p>	<p>A key purpose of this project is to identify gaps in the deliverables expected from the existing four projects, as a basis for identifying future strategies and specific projects required to generate an effective set of recommendations addressing negative impacts of globalization on OSH.</p>
<p>GPA Manager</p>	<p><i>Wendy Macdonald</i></p>
<p>CC Initiative Leader and contact information</p>	<p>David Rees, National Institute for Occupational Health, South Africa David.rees@nioh.nhls.ac.za +27 11 7126502</p>
<p>WHO responsible person</p>	<p>Evelyn Kortum</p>
<p>Collaborating centre partners with separate contributing projects</p>	<p>5.24a Global situation analysis – overall project. Dr Wendy Macdonald; Centre for Research and Teaching in Occupational Ergonomics, La Trobe University, Email : w.macdonald@latrobe.edu.au Prof. David Rees: South African National Institute for Occupational Health, Email: david.rees@nioh.nhls.ac.za</p> <p>5.24a-1 Globalization and Occupational Health in Shanghai, China. Taiyi. JIN and Wei LU Email address: tyjin@shmu.edu.cn, weiloo@scdc.sh.cn. Department of Occupational Health, Fudan University; Shanghai Municipal Center of Disease Prevention and Control.</p> <p>5.26a Changing patterns in employment and its impact in occupational health in South American countries. Dr. Marisol Concha, Sr. Rodrigo Pezo mconcha@achs.cl; rpezo@achs.cl Asociación Chilena de Seguridad (ACHS).</p>

	<p>5.26b The requirement analysis of occupational safety and health for migrant workers ongoing globalization and changing employment patterns in China. Tao Li. niohplt@sina.com. National Institute of Occupational Health and Poison Control, Chinese Centre for Disease Control and Prevention, Beijing.</p>
WHO Regional offices actively involved (name and email)	
Summary of the facilitating project	This project documents expected outputs from the four existing projects, in order to identify gaps in expected deliverables and to identify the nature of further work required to generate an effective set of recommendations to address identified negative effects of globalization on workers' health.
Anticipated deliverables by 2012 from contributing projects	<p>5.24a A summary report of evidence-based conclusions concerning key determinants of the negative effects of globalization on workers' health within a conceptual framework identifying relationships between these determinants, focusing particularly on work-related hazards and risk factors A short report outlining the kinds of policy instruments, recommendations and actions that could be taken to reduce the negative aspects of globalization on work-related hazards of all types, at international, regional and national levels. compilation of short documents appropriate for specific target groups to disseminate the policies, recommendations and actions</p> <p>5.24a-1 The current status of basic occupational health services in 19 counties and districts of 4 provinces in China has been documented, including analyses of: status of migrant workers incidence of occupational diseases. Substantial capacity development within the area studied: training courses and other significant improvements in basic occupational health service practices were implemented. The area covered will extended from 19 to 40 counties and districts of more provinces.</p> <p>5.26a A discussion paper on changing employment patterns and their impact on occupational health in some South America countries</p> <p>5.26b Survey of the current status of occupational health services in state-owned enterprises, joint ventures and sole proprietorship corporations in Shanghai Municipality Presentation to ICOH 2009 on <i>Globalization and Occupational Health in China</i></p>
Critical Gaps	<p>Current projects are very limited in terms of both their regional coverage and the kinds of issues addressed. Expansion of coverage by a wider set of specific projects would be very useful. The current project teams needs to recruit additional expertise to assist in formulating examples of feasible and effective recommendations, policy tools and actions to address the negative aspects of globalization. A global task team to address this need, focusing on development of some specific types of policies and strategies, may be a solution.</p>
EGs of deliverables desired by 2012	
Barriers that must addressed	

FACILITATING PROJECT	GPA 5.3-1 Facilitating Project – Hazardous Industries (with projects organized by area of work)
Project title	Development and implementation of toolkits for the assessment and management of occupational safety and health hazards in high risk industry sectors.
GPA Objective	Objective 5: to incorporate workers' health in to other policies
GPA Actions	5.24, 5.27, 5.28
Priority Area	Priority 5.3: Implement toolkits for the assessment and management of OSH hazards in high risk industry sectors and for vulnerable groups of workers.
Purpose of facilitating project	The top four most hazardous industry sectors, based on fatality rates, are agriculture, mining, transportation, and construction. The aim of this facilitating project is to coordinate projects that examine these industries, identify causes of injuries and fatalities, and design occupational toolkits to control these hazards. The projects are separated into five areas: Area A: Agriculture. Area B: Transport. Area C: Construction Area D: Mining Area E: Multi-sector
GPA Manager	<i>Wendy Macdonald</i>
CC Initiative Leader and contact information	Catherine Beaucham; htn9@cdc.gov
WHO responsible person	Evelyn Kortum
Collaborating centre partners with separate contributing PROJECTS (List CC, project title, project number, project leader, and email)	<p>Projects are organized by area:</p> <p>Area A: Agriculture: Claudio Colosio 5.28e Improving the working environment in cutting and extraction of wood in south-central state of Rio Grande do Sul – Brazil. Project Leader: Cristiane Paim da Cunha; cristiane.cunha@fundacentro.gov.br FUNDACENTRO, BRAZIL. 5.28h Exposure Assessment and occupational health in petrochemical industry, banana production and floriculture in Ecuador. Project Leaders: Vito Foa; vito.foa@unimi.it. Silvia Fustinoni; silvia.fustinoni@unimi.it Clinica del Lavoro “Luigi Devoto” Milano, Italy 5.28j Control of Occupational hazards associated with pesticides in agriculture. Project Leader: Professor L London ll@cormack.uct.ac.za; Tropical Pesticides Research Institute, Arusha, Tanzania. 5.28k Lung disease in Agriculture – tools for assessment of exposure, burden of disease and prevention. Project Leader: Holger Dressel; Holger.Dressel@med.uni-muenchen.de Rudi Schierl; Rudolf.schierl@med.uni-muenchen.de 5.28l Ergonomics Checkpoints in Agriculture – A toolkit for developing countries. Project Leader; David C Caple; davidcaple@pacific.net.au 5.28m Development of risk assessment guidelines for agricultural workers. Project Leader: Angelo Moretto; angelo.moretto@icps.it. ICPS, Milan, Italy.</p> <p>Area B: Transport: Lygia Therese Budnik; Jane Hingston, 5.24d Establishment of an international working group for the utilization of telemedicine to reduce health risks of seafarers. Project Leader: Marcus Oldenburg, Xaver Baur; marcus.oldenburg@bwg.hamburg.de Department of Maritime Medicine of Central Institute of Occupational Medicine, Hamburg, Germany. 5.27b Road safety toolkits for organizations whose employees travel abroad within the PAHO region. Project Leader: Stephanie Pratt sqp2@cdc.gov NIOSH, USA</p>

	<p>5.28g Promoting Initiatives for Occupational Road Safety. Project Leader: Jane Hingston, JHingston@cdc.gov; NIOSH, USA</p> <p>Area C: Construction: Henk Van der Molen</p> <p>5.28b Preventive programme designed to reduce musculoskeletal pain for construction workers and students of construction schools. Project Leader: Zbigniew W. Józwiak, zbyszekij@imp.lodz.pl Nofer Institute of Occupational Medicine, Lodz, Poland.</p> <p>5.28i Estimation of work-related physical load and occupational risk evaluation in construction sector.</p> <p>5.28n Assessment of exposure to carcinogenic compounds, focusing on pycyclic aromatic hydrocarbons (PAHs), in construction workers. Clinica del Lavoro “Luigi Devoto”, Milano, Project Leader: Laura Campo laura.campo@unimi.it.</p> <p>Area D: Mining</p> <p>5.27c Improving Mining Safety and Health in Colombian Mines. Project Leader: Jeffery L. Kohler, Ph.D. JKohler@CDC.gov; NIOSH, USA.</p> <p>Area E: Multi-sector</p> <p>5.27a Sharing workplace OSH practices through sector-based global collaborations (NORA). Project Leader: Max Lum; mlum@cdc.gov, Marilyn Fingerhut; mfingerhut@cdc.gov; NIOSH, USA.</p> <p>5.28c Enhancement of Occupational Health and Safety in Mexican Industry Project Leader: Leonard Sassano; lsassano@iapa.ca; IAPA, Canada</p> <p>5.28d Enhancement of Occupational Health and Safety in Brazilian Industry. Project Leader: Leonard Sassano; lsassano@iapa.ca; IAPA, Canada</p> <p>5.28f Occupational Health Services of Small Scale Industries. Project Leader: Shigeki Koda; koda@h.jniosh.go.jp Aichi University of Education, Japan</p>
<p>WHO Regional offices actively involved in this project (name and email)</p>	
<p>Summary of the facilitating project (max 100 words)</p>	<p>These projects have identified hazards in the industrial sectors of agriculture, transport, construction, and mining. Each contributing project in this facilitating project studies the conditions contributing to injuries and fatalities within the sectors, and examines a toolkit approach to control the hazard or increase the knowledge of the professionals involved in controlling the hazard. The 5th category examines the problem from a multi-sectoral approach.</p>
<p>Anticipated deliverables by 2012 from contributing projects</p>	<p>Area A: Agriculture: Claudio Colosio</p> <p>5.28e Improving the working environment in cutting and extraction of wood in south-central state of Rio Grande do Sul – Brazil. Project Leader: Cristiane Paim da Cunha; cristiane.cunha@fundacentro.gov.br FUNDACENTRO, Brazil</p> <p>Studying the current conditions of the working environment through risk assessment evaluation</p> <p>Generate scientific data for OSH activities for publication. 1 article has been published.</p> <p>Planning specific training in OSH for the actors involved. Thus far, 100 employees have been trained and 30 entrepreneurs have been trained.</p> <p>Dissemination of results to the local community, class organizations, and research bodies involved.</p> <p>Development of search Engines</p> <p>Collection and analysis of data</p> <p>Participation in events, 3 in Brazil, 1 International Event.</p> <p>Additional article expected by 2012</p> <p>Health and safety improvement in 60% of small and mirco enterprises studied expected by 2012.</p>

5.28h Exposure Assessment and occupational health in petrochemical industry, banana production and floriculture in Ecuador. Project Leaders: Vito Foa; vito.foa@unimi.it. Silvia Fustinoni; silvia.fustinoni@unimi.it Clinica del Lavoro "Luigi Devoto" Milano, Italy

To conduct three Studies in Ecuador on: petrochemical industry, floiculture and banana producers. Investigate exposure to solvents, heavy metals, and pesticides and will establish their outcome on workers' health.

To develop training programs for physicians, nurses, and technicians in occupational health.

To publish booklets to address risk management and scientific articles to report the results of the studies.

To improve technical capability of laboratories in Ecuador dealing with environmental and biological monitoring of occupational exposure.

An exposure study on Ecuadorian floriculture workers has been carried out, which involves measurement work (health and exposures information) in the open field environment and greenhouses. COMPLETED.

Exposure to ethylenbisdithiocarbamate fungicides (EBDTCs) was investigated in a group of greenhouse farmers by measuring urinary ethylenethiourea (ETU), which is a major metabolide of EBDTCs. This work has demonstrated that ETU measurements may be adopted as a biomarker of short-term exposure. COMPLETED.

Two field studies to evaluate personal exposure to ethylenbisdithiocarbamate fungicides (EBDTCs) in floriculture workers were performed, and the utility of urinary ethylenethiourea as a short-term marker of exposure was assessed. Data on exposure to pesticides in banana plantation workers and in the general population leaving nearby will be collected; Possible health effects related to this exposure, especially dermal and neurological effects, will be investigated.

5.28j Control of Occupational hazards associated with pesticides in agriculture. Project Leader: Professor L London ll@cormack.uct.ac.za; Tropical Pesticides Research Institute, Arusha, Tanzania.

PhD study into acute pesticide poisoning (APP_) in Tanzania almost completed

Proposal for surveillance system for APP in Tanzania tabled to Ministry of Health

Study of risk perceptions of small farmers published in Crop Protection 2007; 26: 1617-1624.

Study of policy implication for small farmers' protections from pesticides: Development Southern Africa, 2008: 25(4): 399-424

Chapter in Encyclopedia of Pest Management on chemical hazards: Rother, H-A & London, L. (2008). *Classification and Labeling of Chemicals: New Globally Harmonized System (GHS)*, Encyclopaedia of Pest Management, 1:1, 1-6.

Two regional meetings held for pesticide registrars

List server for pesticide registrars running

Postgraduate Diploma in development - targeting pest management scientists, including registrars, to be introduced 2010.

Short courses run: grantwriting for researchers (2006); exposure assessment for pesticides (2006); neurobehavioural assessment in occupational and environmental health in March 2009.

Pesticides list server running from UCT to region

Series of policy briefs produced and disseminated (www.wahsa.net) on Acute pesticide poisoning and the need for national surveillance systems; Reducing pesticide risks through building capacity of African regulators; Pesticide laboratory capacity in the SADC region- a vital link in Pesticide Risk Reduction; South-South collaboration for pesticide safety; Reducing the Impact of pesticides through Community Pesticide monitoring; South-South Collaboration for pesticide safety; Action project in process in Ngarenyuki district, Tanzania

Resource centre operating at TPRI to relocate to MUHAS

PhD study into acute pesticide poisoning (APP) in Tanzania by 2010

Postgraduate Diploma and M Phil in Pesticide Risk Management - targeting pest management scientists, including registrars and environmental health professionals to be introduced 2010

	<p>Short-courses on pesticide policy, health and environmental risk assessment, controlling pesticide risk, pesticides and public health based on the post graduate diploma</p> <p>Ongoing networking: running Pesticides list server and Registrars list server</p> <p>Publications from ongoing research activities in Ngarenyuki and Western Cape</p> <p>Implementation of acute pesticide poisoning surveillance in Tanzania</p> <p>5.28k Lung disease in Agriculture – tools for assessment of exposure, burden of disease and prevention. Project Leader: Holger Dressel; Holger.Dressel@med.uni-muenchen.de Rudi Schierl; Rudolf.schierl@med.uni-muenchen.de</p> <p>Develop simple recommendations to reduce allergen exposure in farmers' homes (by 2006)</p> <p>Data presented at the European Respiratory Society Congress 2006</p> <p>Develop tools for the evaluation of educational interventions (by 2007)</p> <p>Data will be presented at the German Congress for Occupational Health 2007.</p> <p>Develop tools for secondary prevention (by 2008)</p> <p>Poster presentation in Buxton. Results were also distributed by local press and television.</p> <p>Dissemination of tools through WHO CC centers (by 2009)</p> <p>Currently planning studies to develop efficient screening strategies to detect agricultural lung disease at an early stage and are planning cooperation with Médecine du Travail, Faculté des Sciences de la Santé, Cotonou, Benin and Institute of Occupational Medicine, Skopje, Macedonia.</p> <p>5.28l Ergonomics Checkpoints in Agriculture – A toolkit for developing countries. Project Leader; David C Caple; davidcaple@pacific.net.au</p> <p>The IEA has finalized the Checkpoints in 2009. An illustrator from Vietnam has developed the graphics for each checkpoint and these have been checked for accuracy and cultural suitability.</p> <p>The checkpoints have been checked (with the ILO Regional Advisor) in Bangkok and in Vietnam.</p> <p>The checkpoints have now been forwarded to the ILO SafeWork program in Geneva for final editing and printing.</p> <p>The IEA is hosting an international conference on ergonomics in agriculture in Malaysia. The website is www.aedec.org</p> <p>It is expected that the final handbook will be sent to the Orders in November 2009 once they are back from the printers. The ergonomics in agriculture publication will then be integrated into a range of ILO outreach programs such as WISE and WIND in developing countries.</p> <p>The product will also be available for Unions, Employers, and Governments to utilize in their training and outreach programs.</p> <p>The IEA will continue to liaise with the ILO on the take up of the document in 2010.</p> <p>5.28m Development of risk assessment guidelines for agricultural workers. Project Leader: Angelo Moretto; angelo.moretto@icps.it. ICPS, Milan, Italy.</p> <p>A generic model to perform pesticide risk assessment for agricultural workers has been developed. COMPLETED</p> <p>Specific risk profiles for exposure to plant protection products in greenhouses, maize, rice have been finalized. COMPLETED.</p> <p>Environmental and biological monitoring study has been carried out to validate the greenhouses risk profile. COMPLETED</p> <p>The obtained results have been presented in regional and national conferences. COMPLETED</p> <p>An article has been submitted to scientific journal to disseminate the tool.</p> <p>Development of a probabilistic approach for assessment of exposure to pesticides in selected scenarios. IN PROCESS</p> <p>Elaboration of guidelines for health surveillance of agricultural workers. IN PROCESS</p>
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Area B: Transport: Lygia Therese Budnik; Jane Hingston

5.24d Establishment of an international working group for the utilization of telemedicine to reduce health risks of seafarers. Project Leader: Marcus Oldenburg, Xaver Baur; marcus.oldenburg@bwg.hamburg.de Department of Maritime Medicine of Central Institute of Occupational Medicine, Hamburg, Germany.

Ascertaining the number and suitability of telemedical equipment (e.g. ECG by semiautomatic defibrillators, X-rays and photos) by considering ship-specific hazards (frequently injuries and diseases) (by 2006)

Reinforcing international standardization, harmonization, and co-operation (by 2006)

Testing medical devices and the quality of transmitting telemedical signals on board (by 2007)

5.27b Road safety toolkits for organizations whose employees travel abroad within the PAHO region. Project Leader: Stephanie Pratt sgp2@cdc.gov NIOSH, USA

Special session on occupational road safety at “Road Safety in the Americas” conference, Puerto Rico, December 2007

Session on occupational road safety in Latin America at International Conference on Road Safety at Work (Washington, DC, February 16-18, 2009)

Collaborated with PAHO to include question on availability of data on road traffic injury at work in data collection instrument for the Americas, *Global Road Safety Status Report*, 2008 COMPLETED

Road Safety toolkit for travelers in the Americas

Project activities may be integrated with a Latin American regional meeting to be organized as a follow-on to the International Conference on Road Safety at Work

5.28g Promoting Initiatives for Occupational Road Safety. Project Leader: Jane Hingston, JHingston@cdc.gov; NIOSH, USA

International Conference on Road Safety at Work (Washington, DC, February 16-18, 2009, the first international conference dedicated to preventing occupational road traffic injuries, a leading cause of occupational fatalities worldwide

Organized by NIOSH, with co-sponsorship from World Health Organization, International Labour Organization, National Safety Council, World Bank, and U.S. Department of State

220 delegates from 44 countries representing business, academia, government, and labor

Sessions on research, policy, and practice, with special focus on emerging markets

Draft conference “white paper” available at: www.cdc.gov/niosh/programs/twu/global

Conference videos and presentations available at: <http://www.virtualriskmanager.net/main/aboutus/niosh.php>

Conference included in UN Secretary General’s 2009 report on Improving Global Road Safety as a key road safety event

Wikipedia site on Global Road Safety for Workers: http://en.wikipedia.org/wiki/Global_road_safety_for_workers.

In collaboration with UN Road Safety Collaboration, Fleet Safety Project Group, planning is underway for regional occupational road safety meetings in West Africa and Southeast Asia/Australasia

Inclusion of fleet safety in 2008 UN General Assembly resolution on road safety, and in proposed resolution to be discussed in late 2009 or early 2010

Contributed US data on occupational road safety to *Global Road Safety Status Report* prepared by WHO with Bloomberg Foundation funding COMPLETED

Publication of revised “white paper” and conference proceedings as joint NIOSH/WHO document IN PROCESS

Continued participation in UN Road Safety Collaboration and “Global Road Safety Roundtable” of US government agencies

Additional regional meetings in other parts of the world, possibly India and Latin America

	<p>Dissemination of conference outputs through international organizations, professional conferences, and other outlets</p> <p>Area C: Construction: Henk Van der Molen</p> <p>5.28b Preventive programme designed to reduce musculoskeletal pain for construction workers and students of construction schools. Project Leader: Zbigniew W. Józwiak, zbyszekij@imp.lodz.pl Nofer Institute of Occupational Medicine, Lodz, Poland.</p> <p>The preventive programme for construction workers and students will help to reduce physical overload and prevalence of musculo-skeletal symptoms in these workers. A programme will consist of two main elements: theoretical training and a set of physical exercises. Develop the user friendly program by 2008.</p> <p>To develop training packages for the toolkit deliverable through e-learning and face-to-face (2009)</p> <p>To integrate the toolkit in the provision of construction workers and students 2012</p> <p>2 lectures - workshops for construction sector managers and safety officers (physical workload in construction workers, REBA – good method for physical workload estimation) – about 200 trained persons</p> <p>Next workshops for managers and safety officers on physical workload in construction, saving back and other elements of musculoskeletal system for about 250 persons</p> <p>Final version of PowerPoint presentation for construction workers</p> <p>Training sessions for construction workers for about 500 workers – practical testing of prepared presentation</p> <p>Presentation of prepared programme and its effects in occupational safety press and by internet.</p> <p>5.28i Estimation of work-related physical load and occupational risk evaluation in construction sector.</p> <p>4 training sessions for nurses organized by various nurses organisations (proper patients handling techniques) – about 300 nurses trained</p> <p>2 lectures - workshops for construction sector managers and safety officers (physical workload in construction workers, REBA – good method for physical workload estimation) – about 200 trained persons</p> <p>2 lectures – workshops for dentists (physical workload of dentists, dental assistants and hygienists, RULA – good method for physical workload in dentistry estimation) during International Conferences (about 250 persons trained): International Dental Ergonomics Congress, 22 Annual Meeting European Society of Dental Ergonomics, V Forum Ergonomics in Dentistry (Cracow, May 2009). COMPLETED</p> <p>Next workshops for managers, safety officers, nurses and dental staff on physical workload, saving back and other elements of musculoskeletal system for about 500 persons</p> <p>New version of PowerPoint presentation for nurses disseminated by CDROMs and internet</p> <p>First version of PowerPoint presentation for dental staff</p> <p>Training sessions for nurses and dentists for about 400 persons</p> <p>19th Central European Dental Exhibition Session - ERGONOMICS IN DENTISTRY. A NECESSITY OR ANOTHER FASHION? Ergonomic position of the entire body - methods of self-assessment with regard to the position of the body during work. (Poznań, September 2009)</p> <p>5.28n Assessment of exposure to carcinogenic compounds, focusing on polycyclic aromatic hydrocarbons (PAHs), in construction workers. Project Leader: Laura Campo laura.campo@unimi.it.</p> <p>Development of analytical methods to measure urinary biomarkers of exposure to carcinogenic compounds, with particular attention to exposure to polycyclic aromatic hydrocarbons (PAHs) and their application in workers exposed to bitumen fumes (asphalt workers and roofers).</p>
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Evaluation of influence of genetic factors and of life style (tobacco smoking, diet) on PAHs exposure.
 Two analytical methods have been developed:
 1) a headspace solid-phase microextraction gas chromatography– mass spectrometry (HS-SPME/GC–MS) method for the simultaneous quantification of 13 PAHs (from naphthalene to benzo(a)pyrene) in urine samples. The method has been published [Campo et al., *Analytica Chimica Acta* 631 (2009) 196–205].
 2) a GC/MS for the simultaneous quantification of 12 urinary monohydroxy metabolites of PAHs, namely 1-hydroxynaphthalene, 2-hydroxynaphthalene, 2-hydroxyfluorene, 9-hydroxyfluorene, 1-hydroxyphenanthrene, 2-hydroxyphenanthrene, 3-hydroxyphenanthrene, 4-hydroxyphenanthrene, 9-hydroxyphenanthrene, 1-hydroxypyrene, 6-hydroxychrysene, and 3-hydroxybenzo[a]pyrene. The method has been published [Campo et al., *Journal of Chromatography B*, 875 (2008) 531–540].
 Analysis of the biological samples collected to quantify urinary PAHs and urinary monohydroxy metabolites.
 Analysis of exposure pads applied on skin of workers to evaluate dermal exposure

Area D: Mining

5.27c Improving Mining Safety and Health in Colombian Mines. Project Leader: Jeffery L. Kohler, Ph.D. JKohler@CDC.gov; NIOSH, USA.
 Train-the-Trainer Workshop (Major Milestone #2) completed September 2009
 March 2011. Three-fold increase of professional capacity in mining safety and health trainers/professionals (baseline of 50)
 September 2011. Adoption of two or more best practices for dust control and explosion prevention
 March 2012. Incorporation of safety and health best practices into an operating coal mine that can be used as a model for other mine operators to study

Area E: Multi-sector

5.27a Sharing workplace OSH practices through sector-based global collaborations (NORA). Project Leader: Max Lum; mlum@cdc.gov, Marilyn Fingerhut; mfingerhut@cdc.gov; NIOSH, USA.
 All 8 NORA Sector Councils have been formed and are working on addressing sector problems. COMPLETED.
 Four NORA sectors have identified worst sector problems and are acting on stakeholder agendas www.cdc.gov/niosh/nora
 Global Transport e-library of good practices www.roadsafetyatwork.org
 International transport conference and global partner follow-up on workers driving, working, or walking on roads.
 Train-the-trainer courses for thousands of healthcare workers in Americas, Egypt, Africa, and Afghanistan. COMPLETED
 Initial training of mining sector partners in Colombia.
 Remaining NORA sectors will complete public stakeholder agendas and will fund critical research and implementation activities
 Followup Fleet Safety Initiative with partners in Africa
 Extensive needlestick prevention training and tools for healthcare workers globally
 Personal protective equipment training tools for HCWs and for small businesses with silica exposures.
 Training of mining sector in Colombia and development of tools for use elsewhere
 Construction sector toolkit for use of small businesses and in developing countries
5.28c Enhancement of Occupational Health and Safety in Mexican Industry
 Project Leader: Leonard Sassano; lsassano@iapa.ca; IAPA, Canada
 Developed and delivered a four day training program on SASST programme implementation to 40 STPS assessors and DGSST inspectors from across Mexico. COMPLETED 2003.
 Presentations on SASST and OHS Management Systems completed at two major OHS conferences in Mexico and at regional workshops across Mexico involving

	<p>government, employers and worker groups. COMPLETED 2003 A Consultant Certification process was developed to enable Mexican assessors to provide services to enterprises enrolled in the SASST programme. COMPLETED 2004. September 2005: To deliver consultant certification to assessors. December 2007: Pilot applications and evaluate results of interventions. Make necessary modifications and refinements based of results. Apply nation wide. NOTE: This project should be considered dormant, due to the change in the Mexican Government last year. We have had no indication that the new government wishes to continue this project. If it becomes active again in the future, we will inform you.</p> <p>5.28d Enhancement of Occupational Health and Safety in Brazilian Industry. Project Leader: Leonard Sassano; lsassano@iapa.ca; IAPA, Canada Needs assessments & stakeholder engagement Completed April 2005. Training of individuals that have responsibility for the development of the information system and web portal. Completed December 2005 Develop consulting skills and begin the development of the SESI management system framework. December 2005. Support SESI in the design and development of an Epidemiological Information System. By 2009 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. By 2009. 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. By 2009. Training of SESI consultants had been completed in November 2008. The project will be completed in September 2009. Pilot project completed. Implementation of managed systems in 8 enterprises with worker involvement in each of them. Some regions in the pilot are offering Occupational Safety and Health consulting services as a result of their experience. SESI will offer Occupational Health & Safety consulting services throughout the organization. It will be rolled out to other regions as well and will become a formal part of SESI's services in all its regional offices.</p> <p>5.28f Occupational Health Services of Small Scale Industries. Project Leader: Shigeki Koda; koda@h.jniosh.go.jp Aichi University of Education, Japan The reports of good practices in small scale industries related to: Improving for working environments and conditions. Improving ergonomic stress Identify OSH risk in the workplaces by using action checklists and training manuals.</p>
<p>Critical Gaps to be filled asap, to assist countries to Implement toolkits to improve OSH risk management in high risk industry sectors.</p>	<p>The hazards in mining are a global problem. This facilitating project needs mining contributing projects.</p>
<p>Examples of additional deliverables desired by 2012</p>	
<p>Barriers to success that must addressed</p>	

FACILITATING PROJECT (administrative)	GPA 5.3-2 – Facilitating Project: Vulnerable Workers
Facilitating Project Title	Toolkits and other resources for improving management of OSH hazards for vulnerable worker groups
GPA Objective	Objective 5: to incorporate worker's health into other policies.
GPA Actions	<p>9. Measures need to be taken to minimize the gaps between different groups of workers in terms of levels of risk and health status. Particular attention should be paid to ... the underserved and vulnerable working populations, such as younger and older workers, persons with disabilities and migrant workers, taking account of gender aspects. ...</p> <p>24. The capacities of the health sector to promote the inclusion of workers' health in other sectors' policies should be strengthened. Measures to protect workers' health should be incorporated in economic development policies and poverty reduction strategies. The health sector should collaborate with the private sector in order to avoid international transfer of occupational risks and to protect health at the workplace. Similar measures should be incorporated in national plans and programmes for sustainable development.</p> <p>25. Workers' health should likewise be considered in the context of trade policies when taking measures as specified in resolution WHA59.26 on international trade and health.</p> <p>26. Employment policies also influence health; assessment of the health impact of employment strategies should therefore be encouraged. ...</p>
Priority Area	5.3: Implement toolkits for the assessment and management of OSH hazards in high risk industry sectors and for vulnerable worker groups
Purpose of facilitating project	<p>This Facilitating Project will assist in coordinating projects addressing the needs of vulnerable worker groups. All tools and materials will be organized in an electronic library for easy availability. Currently there are few projects related to this priority, but they have been grouped into the following areas, to facilitate planning and recruitment of additional projects:</p> <ol style="list-style-type: none"> 1: young workers (not including child labour) 2: child labour 3: older workers 4: migrant workers 5: disadvantaged ethnic groups 6. precariously employed workers 7. women workers 8: more general information and resources
GPA Manager	Wendy Macdonald
CC Initiative Leaders and contact information	Owen Evans: o.evans@latrobe.edu.au Jodi Oakman: j.oakman@latrobe.edu.au
WHO responsible person	Evelyn Kortum
Collaborating centre partners with separate contributing projects	<p>1: Young workers 5.28a Young Workers Occupational Safety and Health Curriculum. National Institute for Occupational Safety and Health (NIOSH). Carol M. Stephenson, Ccstephenson@cdc.gov</p> <p>2: Child labour 5.28o Child labour: strategies for prevention. ISPESL – Dept. of Occupational Medicine ITALY. Dr Marta Petyx (marta.petyx@ispesl.it), Dr Grazia Fortuna (grazia.fortuna@ispesl.it), Dr Fabio Boccuni (fabio.boccuni@ispesl.it)</p> <p>3: Older workers 5.9-1.7h Aged persons and their occupational skills. Development of methods for the</p>

	<p>prevention of impairments. IfADo – Leibniz Research Centre for Working Environment and Human Factors (Institut für Arbeitsforschung an der TU Dortmund) Barbara Griefahn, Professor, MD, griefahn@ifado.de</p> <p>4: Disadvantaged ethnic groups 5.9-1.6e SWIFT – Sustainable Waste Management Initiative For A Healthier Tomorrow - A Comprehensive, Sustainable Approach Focused On The Determinants Of Social Exclusion, Poverty And Health In The Roma, Ashkali And Egyptians In Belgrade, Serbia. Gerry McWeeney (gwe@who.org.rs). Institute Of Occupational and Radiological Health “Dr Dragomir Karajović”, Belgrade, Serbia, Dr Martin Popevic (popevic.martin@gmail.com)</p> <p>5: Precariously employed workers 5.9-1.7g Knowledge transfer about occupational hazards to precarious women workers. Centro de Estudios de la Mujer. Katherine Lippel, klippel@uottawa.ca Ximena Díaz, xdiaz@cem.cl</p> <p>6: Women workers 5.9-1.7g – see under 6, above.</p> <p>7: More general information and resources 5.9-1 Electronic inventory and repository of guidance documents, risk management tools and related resources for vulnerable worker groups. La Trobe University, Australia. Owen Evans, o.evans@latrobe.edu.au</p>
<p>WHO Regional offices actively involved in this project (name and email)</p>	
<p>Summary of the project (max100 words)</p>	<p>The project will identify vulnerable worker groups and the particular hazards which are either characteristic to them. Further it will identify and promulgate control strategies to eliminate or reduce exposure to those hazards.</p>
<p>Anticipated deliverables by 2012 from contributing projects</p>	<p>1. Young Workers Curriculum (English & Spanish) disseminated electronically through the NIOSH web site and WHO educational gateway</p> <p>2. Child Labour Analysis of feasibility to develop an information path on child labour in Europe to raise awareness and visibility of this problem, with specific focus on migrant children Scientific publication on child labour in Italy Second ILO global report on child labour Presentation and dissemination of the project and single teaching units on a web page devoted to this issue on ISPEL portal</p> <p>3. Training programs for elderly workers</p> <p>4. Disadvantaged Ethnic Groups Health System development and assessments during this and the following BCA period, focusing on BOHS (particularly vulnerable workers), and hazardous employment Assessment and report on health hazards and injuries of informal waste collectors Based on that report, formal OSH training and awareness raising among informal waste collectors.</p> <p>5. Precariously employed workers Training workshops on mental health and work Booklets and OSH training for women in agricultural sector</p>

	<p>6. Women workers See 6 above.</p> <p>7. More general information and resources Electronic repository of OSH resources and risk control strategies relevant to hazards experienced by vulnerable worker groups.</p>
Critical gaps to be filled by 2012 in order to fulfil GPA Priorities	<p>Migrant Workers. This group of vulnerable workers is not represented here. (Liaise with GPA 2 leaders, especially of 2.3.)</p> <p>Disadvantaged ethnic groups. Issues are addressed only for a limited range and in one industry and location.</p> <p>Precariously employed workers and women workers are addressed in a single project. These two large groups with both separate and overlapping issues appear to warrant more extensive coverage.</p>
Examples of deliverables desired by 2012	
Barriers to success that must be addressed	