Report: 10th meeting of the global network of WHO collaborating centres for occupational health

28–29 May 2015, Jeju Island, Republic of Korea
Acknowledgement: We are grateful to Dr Dana Madigan (University of Illinois School of Public Health) for taking notes and writing the meeting report.
© World Health Organization 2017

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: “This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition”.

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization.


Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Sales, rights and licensing. To purchase WHO publications, see http://apps.who.int/bookorders. To submit requests for commercial use and queries on rights and licensing, see http://www.who.int/about/licensing.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers’ products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

This publication contains the report of the technical consultation of WHO and European Respiratory Society and does not necessarily represent the decisions or policies of WHO.

WHO/FWC/IHE/17.2
Executive summary

On 28–29 May 2015, the WHO held the 10th meeting of the global network of WHO collaborating centres for occupational health at the KAL Hotel on Jeju Island, Republic of Korea. It was hosted by the Korean Occupational Safety and Health Agency (KOSHA) and attended by representatives from WHO collaborating centres (CCs) for occupational health, nongovernmental organizations that have a formal relationship with WHO, and WHO technical staff from headquarters and regional offices. Other institutions, collaborating with WHO in the area of occupational health, were invited as observers.

The objectives of the meeting were:

• to review the progress made on the implementation of the 2012–2017 Global Master Plan (GMP) on implementing resolution WHA 60.26 “Workers’ health: Global Plan of Action”, and to develop recommendations for updating as necessary;
• to discuss the strategic directions for global action on workers’ health in the context of the post-2015 development agenda;
• to provide guidance on the ways of working for future activities of the network, bearing in mind the new requirements of WHO for working with the CCs and the results of the post-implementation review.

The meeting reached the following conclusions and recommendations:

• The meeting agreed with the proposed structure, priorities and products of the updated GMP for 2015–2018.
• Based on the outcomes of the World Café sessions, WHO should develop specific activities and inputs requested from the CCs for the implementation of products under the GMP 2015–2018.
• All CCs should carefully consider, according to the available human and financial resources, which GMP activities and tasks they can undertake and include these activities in their individual workplans for collaboration with WHO.
• The post-2015 development agenda - and in particular the sustainable development goals (SDG1, SDG3 and SDG 8) - provide many opportunities for scaling up actions by the health systems for protecting and promoting the health of workers in the context of poverty elimination.
• A publication on workers’ health in the SDGs is needed to raise awareness about what the health systems can do, together with labour and social security, about achieving the SDGs and the specific targets on workers’ health.
• The global network of WHO collaborating centres for occupational health has accumulated a lot of experience and traditions in its 25-year history that should be preserved and further developed into the new Ways of working.
• It was agreed that the revised version of the Ways of working document will be sent to meeting participants for final inputs before approval by WHO senior management.
• WHO is encouraged to look into the opportunity of continuing the institutional commitments of the CCs to provide leadership to the network.
Introduction

In 2007, the Sixtieth World Health Assembly adopted the Global Plan of Action on Workers Health 2008–2017 (GPA) and requested WHO to promote its implementation. The global network of WHO collaborating centres for occupational health (the network) is an important mechanism for implementation of the GPA.

The network includes more than 50 national institutions designated as WHO collaborating centres (CCs); three nongovernmental organizations (NGOs) that specialize in occupational health and have a formal relationship with WHO (International Commission on Occupational Health (ICOH), International Occupational Hygiene Association (IOHA), and International Ergonomics Association (IEA)); and the International Labour Organization (ILO). The network provides technical support and stimulates collaboration between the individual institutions in order to advance WHO’s mandate in the area of occupational health. The network’s contribution towards the implementation of the GPA is carried out through its operational workplans, including the 2006–2008 workplan adopted by the 7th network meeting in Stresa in 2006; the 2009–2011 workplan adopted by the 8th network meeting in Geneva in 2009; and the 2012–2017 Global Master Plan (GMP) adopted at the 9th network meeting in Cancun in 2012. The experience of implementing the GMP in 2012–2014 suggests the need for updating and revision of the plan.

WHO initiated a process of reforming its activities, including those of the CCs, to focus its limited resources on fewer priorities – producing good quality products that are requested by the Member States. This has resulted in the need to move from a supply-driven process to a demand-driven planning and implementation process. In order to learn from the network’s experience in implementing the GPA, a post-implementation review was conducted at the request of the network’s Global Advisory Committee. The results of the review will help inform the adaption of the organization, structure and ways of working of the network to the new WHO requirements and priorities for action.

In September 2015, the United Nations General Assembly adopted a set of Sustainable Development Goals (SDGs) to guide the development agenda for the next 15 years. The outcome document of the Open Ended Working Group already proposes certain goals and targets that are highly relevant to the global work on occupational health, such as universal health coverage, prevention and control of noncommunicable diseases (NCDs), prevention of pollution-related diseases, and promoting a safe working environment for all people. The SDGs will shape the challenges and opportunities for international and national action on protecting and promoting the health of workers.

On 28–29 May 2015, WHO held the 10th meeting of the global network of WHO collaborating centres for occupational health at the KAL Hotel on Jeju Island, Republic of Korea. It was hosted by the Korean Occupational Safety and Health Agency (KOSHA) and attended by representatives from WHO CCs for occupational health, NGOs that have a formal relationship with WHO, and WHO technical staff from headquarters and regional offices. Other institutions, collaborating with WHO in the area of occupational health, were invited as observers. The meeting also marked the 25th anniversary of the network.

Dr Margaret Kitt, of the National Institute for Occupational Safety and Health (NIOSH), United States of America, was unanimously elected chair of the meeting. Dr Kitt opened the proceedings by thanking WHO for convening the meeting, KOSHA for hosting it, and the participants for attending. The meeting provided a rare opportunity for all the CCs to discuss important issues for the network.
Leaders from KOSHA, the ILO and the NGOs (ICOH, IOHA and IEA) greeted participants on behalf of their organizations.

Dr Ivan Ivanov welcomed participants on behalf of WHO and outlined the objectives of the meeting. The meeting was expected to achieve the following objectives:

- to review the progress made on the implementation of the GMP and develop recommendations for updating as necessary;
- to discuss the strategic directions for global action on workers’ health in the context of the post-2015 development agenda;
- to provide guidance on the ways of working for future activities of the network, bearing in mind the new requirements of WHO for working with the CCs and the results of the post-implementation review.

Global Master Plan: Progress and updates
This session included presentations from WHO officers about the progress made in implementing the 2012–2017 GMP, as well as discussions on possible activities to be carried out by the CCs on the updated GMP for 2015–2018.

Progress made on the implementation of the WHO Global Plan of Action on Workers’ Health
Ivan Ivanov, WHO headquarters

The GPA, endorsed by the World Health Assembly, contains four objectives that request specific action by the WHO Secretariat, with support from the CCs. Under the first objective, to devise and implement policy instruments on workers’ health, progress has been made regarding: campaigns on asbestos-related diseases, hepatitis B vaccination, and the ILO/WHO global campaign for elimination of silicosis. More work is needed on developing guidance and policy options for national action plans and profiles.

Under the second objective, to protect and promote health in the workplace, progress has been made regarding: nanotechnology guidelines, review of minimum requirements for workplace health protection, the global framework for healthy workplaces, occupational health during the recent Ebola outbreak, and guidelines on HIV/AIDS and tuberculosis services for health-care workers. Remaining needs include: the development of tools for protecting and promoting health at the workplace, recommendations for government and private sector engagement on NCDs in the workplace, and the creation of an occupational health panel for the International Health Regulations.

Under the third objective, to improve the performance of and access to occupational health services, progress has been made regarding: the integration of occupational health in primary health care; definition of essential interventions for prevention and control of occupational and work-related diseases and injuries, as well as development of a module for costing them under the OneHealth international tool for costing health interventions; and indicators for measuring workers’ health coverage. Needs still exist for training modules for primary health-care providers, and policy options for health systems to improve the health coverage of informal sector workers.
Under the fourth objective, to provide and communicate evidence for action and practice, progress has been made regarding: development of indicators for sustainable jobs, a global database of workers’ health, input to ILO diagnostic and exposure criteria for occupational diseases, and occupational health input to the International Classification of Diseases 11th revision (ICD-11). Remaining needs include development of the global workers’ health observatory (a platform to provide information by country, region and globally), and global indicators and methodologies for measuring and monitoring workers’ health and for early detection of occupational disease.

A midterm progress report on the implementation of the GPA was presented at the Sixty-sixth World Health Assembly in 2013. Member States judged that satisfactory progress had been made. Recommendations for further work by WHO include building capacities of ministries of health in the area of occupational health (primarily in African and Asian countries) and strengthening the performance of health systems to address the specific health needs of workers (e.g. through integration of occupational health in the delivery of people-centred primary health care).

Protecting and promoting health at the workplace
Evelyn Kortum, WHO headquarters

Assessing the effectiveness of tools includes the selection of pilot sites, development of a methodology, and piloting of protocols. Current outputs include toolkits for the physical working environment, work organization, managing multiple hazards and evaluation of healthy workplace programmes. Other toolkits are under development. They will be available through a website hosted and maintained by the network. While most of these toolkits are still in development, maintenance of all toolkits is necessary through regular updating. Outcomes are aimed at increased promotion of comprehensive programmes (on the physical and psychological working environment, personal health resources and business responsibility) and the ability of resource constrained workplaces to implement the tools.

A WHO publication (under review) which deals with the international requirements for health protection at the workplace, has been developed by consolidating health requirements applicable to most workplaces in low- and middle-income settings, and identifying the main gaps in setting minimum requirements for health protection in workplaces.

The WHO guidelines for worker exposure to manufactured nanomaterials (NANOH) targets policymakers and other stakeholders to make evidence-based recommendations that are not legally binding. NANOH guidelines are being developed on prioritization of materials, hazard categories, highest exposure situations and risk management. The guidelines are evidence-based, applying the GRADE approach, and include full disclosure of who developed the guidelines, the methods used and the intended audience.

Strengthening health systems for workers’ health
Ivan Ivanov, WHO headquarters; Said Arnaout, WHO Regional Office for the Eastern Mediterranean; Julietta Rodriguez-Guzman, WHO Regional Office for the Americas

The work on guidance and tools for scaling up health coverage for workers included field studies on the occupational health content of primary health care in Colombia, Italy, Iran, South Africa and Thailand, and the development of the Workers’ Health Module of the OneHealth Tool. There is still a need for the validation of indicators of workers’ health coverage, so that measures are comparable
across countries. This priority area also requires the development of training modules for primary health-care providers to build capacities for workplace visits, case management of occupational diseases and health surveillance of workers. The available training materials were collected and analysed. The work on national outlooks and action plans on workers’ health seeks to develop, preferably together with the ILO, a template for country outlooks on workers’ health. This would include the sociodemographic and health status of the working population, occupational risks, work-related social determinants, behavioural risks and health coverage. This activity also included development of national action plans on workers’ health that would guide priority setting, partnerships and actions taken by health systems.

The launch of the GPA was a turning point for the WHO Eastern Mediterranean Region. Migrant workers constitute the large majority of workers in Gulf countries. This increase has not been matched by occupational health and safety resources, such as training and research. The health impacts of occupational risks, combined with communicable diseases and NCDs, represents a triple burden of disease. In 2008, the WHO Regional Office for the Eastern Mediterranean held a workshop with countries to develop a regional framework for GPA implementation. A survey revealed that in one third of countries less than 5% of workers had health coverage, in another third over 30% had coverage, and in the final third it was somewhere in between. Egypt provided a success story, as 2011–2020 was officially proclaimed the Egyptian Decade for Occupational Health and Safety through the Cairo Declaration of the Regional Conference on Population and Development in the Arab States, 2013. In 2011, the Kuwait Initiative for Promotion of Occupational Health in the Gulf Cooperation Council States was adopted. In Qatar, a 4-week training was carried out for primary health-care practitioners with responsibilities to provide care for working populations. In addition, the WHO Regional Office, in collaboration with the Council of Ministers of Health of the Gulf Cooperation Council developed a set of occupational and environmental health standards for accreditation of hospitals and health-care facilities. These standards, together with a plan for implementation, were endorsed in January 2014. Also, in 2014 an international consultation was held in Semnan, Islamic Republic of Iran, about interventions and indicators for workers’ health coverage. The meeting developed a road map for strengthening the performance of the health system regarding workers’ health in the Eastern Mediterranean Region and endorsed the Semnan Declaration on universal health coverage for workers.

The Regional Office for the Americas is focusing on capacity-building related to policy and regulations and technical recommendations for the development of lists of occupational diseases. Regarding national plans for action, 22 have been completed by countries but are not standardized or systematic, so it is necessary to work towards harmonizing these plans with the recommendations of WHO. The work of the Regional Office has a strong focus on social determinants and health equity, so the Office partnered with CCs and other organizations to carry out surveys on health, work and equity. Many countries that have carried out such surveys are now embarking on developing action plans to reduce disparities among workers in their countries. The Regional Office is also looking to build minimum knowledge and capacities in occupational health and safety at the primary care level, in the context of universal access and universal health coverage. Piloting is being conducted in several countries, including Colombia and Cuba, in order to develop regional guides for implementation. Challenges for the Region include the growth of the informal workforce and the huge income inequities within the Americas.
Evidence for action and practice

Anil Adisesh, Dalhousie University; Shengli Niu, International Labour Organization (ILO); Tim Driscoll, University of Sydney; Ivan Ivanov, WHO headquarters

For ICD-11, the WHO global working group on occupational diseases developed definitions and content models for the diseases included in the ILO list of occupational diseases. The beta version of ICD-11 already has good coverage of occupational health items. Comments are still welcomed through the ICD beta browser\(^1\), and this increases the chance that they will be accepted later by the revisions committee. The current plan is to present ICD-11 to the World Health Assembly in 2017 for a 2018 adoption. It is possible to develop linearization of coding for specialties, such as occupational medicine, as this would limit the visible items to codes that are of specific relevance for research and practice in occupational health.

Though countries are required to report fatal occupational injuries to the ILO, only 13 countries do so regularly. For this reason, calculations and surveys are used to estimate the actual number of occupational injuries, diseases and fatalities. Reporting of occupational diseases, both traditional and emerging, is increasing. International comparison of these numbers is problematic because systems of recognition and reporting of occupational disease are different from one country to another. The ILO wants to promote its list of occupational diseases from 2010, and a working group has been assembled together with WHO to formulate international guidance on diagnostic and exposure criteria.

New work has been conducted on improving methodology and data sources for measuring the global burden of disease. Information is to be made available on global, regional and country-specific levels. The Global Burden of Disease (GBD) collaboration is led by the Institute for Health Metrics and Evaluation at the University of Washington and funded by Bill and Melinda Gates Foundation. The GBD has an expert working group on the burden of disease attributable to occupational health. The results of the GBD 2013 study were released in September 2015, including data on the burden of disease attributable to occupational risks. The GBD group is looking for better information on occupational exposure (carcinogens, gases, vapours, dusts, fumes, noise and ergonomic risk factors) and occupational injuries. It is possible to consider including other risk factors with a significant health impact, provided that the proposal is supported by a sufficient level of evidence on the relationship between exposures and specific health outcomes, and that good information about exposed populations and levels of exposure is provided.

Good statistics are urgently needed to support stronger occupational health action on the global agenda. Therefore, WHO is trying to develop new metrics and indicators to measure and monitor workers’ health.

Occupational noncommunicable diseases

Julietta Rodriguez-Guzman, WHO Regional Office for the Americas; Aliya Kosbayeva, WHO Regional Office for Europe; Nasir Hassan, WHO Regional Office for the Western Pacific

Since 2008, the WHO Regional Office for the Americas has been formally committed to preventing and controlling silicosis, asbestos-related diseases and cancer. Five countries participated in the Silica Programme, training in hygiene and biological monitoring through X-rays and tests, and

---

carrying out risk assessment. A baseline measure of the number of people suffering from silicosis is needed. In 2013, Chile searched primary health care records to identify cases, which could possibly serve as a model for other countries. Another WHO project in this area of work is the Asbestos Atlas of the Americas. It was difficult to get information from the countries, but, through other collaborators, the Regional Office is getting the information that the countries are not providing. The Regional Office has now been able to map mesothelioma cases. Finally, the Regional Office is developing a methodology guideline for occupational cancer with input from Canada, and has carried out training to use surveillance projects that estimates the number of persons exposed to substances associated with cancer in workplace and community environments (CAREX - CARcinogen EXposure (CAREX) projects) for each country. The goal is to finish a regional CAREX of the Americas in 2018.

The WHO Regional Office for Europe engaged in various activities towards the elimination of asbestos-related diseases, through the development of national programmes, as required by the Parma Ministerial Declaration on Environment and Health, 2010. The outcomes of these activities include: a report on national programmes (2011), a report on the burden of asbestos-related diseases in Europe (2012), conducting of exposures and risks workshops (2013), a shaping the message workshop (2014) and a report on policies and economic benefits related to shifting to asbestos-free materials (2015). The next steps for 2016–2017 include developing national profiles and diagnostic procedures in Bulgaria and the Former Yugoslav Republic of Macedonia. The Regional Office is engaged in ongoing collaboration with the Baltic Sea Network on Occupational Health and Safety, the South-East European Network on Workers’ Health and other networks and institutions.

In 2014, the WHO Regional Office for the Western Pacific contacted all CCs in the Region dealing with occupational health (over 20 centres). They agreed to work together to strengthen occupational health in Cambodia, Laos, Mongolia and Viet Nam through developing national profiles of workers’ health and guidelines for action. NCDs are an emerging issue for workers’ health, affecting productivity, and are responsible for 50% of deaths in low- and middle-income countries. Goals include developing guidance for engagement with the labour sector on health promotion in the workplace and workers’ health.

**Updating the Global Master Plan for 2015–2018**

**Discussion**

The GMP provides an operational framework for joint work between the WHO Secretariat (headquarters and the regional offices) and the CCs for occupational health. This facilitates the implementation of WHO’s mandated work under the GPA, the Medium-Term Strategic Plan and the WHO programme budgets 2012/2013, 2014/2015 and 2016/2017 in the area of workers’ health. The GMP is intended to guide multilateral collaborations and the development of the individual workplans for designations and redesignations of WHO CCs.

The draft for the updated GMP was developed by WHO headquarters and regional offices, taking into consideration: (1) the requests of the Member States for technical assistance and products; (2) the Programme Budget for 2016–2017, which outlines the expected deliverables and indicators at the global, regional and country level for health and environment, including occupational health; and (3) the available human and financial resources of the WHO Secretariat.

---

The updated GMP includes the following priority areas and products:

**Priority 1. Regional and national programmes on occupational noncommunicable diseases, with a focus on cancer, silica- and asbestos-related diseases**

- AMR Regional Product 1.1. Occupational cancer prevention programme in the Americas;
- EUR Regional Product 1.2. National profiles and programmes for the elimination of asbestos-related diseases in the WHO European Region;
- SEA/WPR Regional Product 1.3. Asian asbestos initiative;
- AMR Regional Product 1.4. Asbestos Project for the Americas;
- AMR Regional Product 1.5. Programme for the elimination of silicosis in the Americas;

**Priority 2. National programmes and good practices for occupational health and safety of health workers**

- AMR Regional Product 2.7. Initiative for protecting the health of health-care workers in the Americas;
- EMR Regional Product 2.8. Occupational health standards and indicators for use by country or institutional accrediting organizations in the Eastern Mediterranean;
- AFR Regional Product 2.10. Immunization of health-care workers in Africa against hepatitis B;
- AFR Regional Product 2.11. WHO/ILO Tool for Work Improvement in Health-care Facilities (HealthWISE) rolled out in the African Region.

**Priority 3. Tools, standards and capacities for healthy workplaces**

- Global Product 3.1. International toolkits for workplace health – improving the physical, chemical, biological, musculoskeletal disorders, psychosocial working environment, and personal resources;
- Global Product 3.2. WHO modules for training on healthy workplaces;
- Global Product 3.3. WHO guidelines on occupational exposure to manufactured nanomaterials;
- AMR Regional Product 3.5. Tools for prevention and control of ergonomic and psychosocial risks in the Americas;

**Priority 4. Strengthening health systems, governance, capacities and service delivery for workers’ health**

- Global Product 4.1. Guidance and tools for scaling up health coverage of workers;
- Global Product 4.2. Creation, dissemination and evaluation of training and education materials for building capacities of primary care providers to deliver essential interventions for workers’ health (workplace visit, case management of occupational and work-related diseases and injuries, medical assessment for health surveillance);
- Global Product 4.3. Strengthening national health policies and systems regarding workers' health and national outlooks;
- EUR Regional Product 4.5. Action plan for scaling up coverage with and improving the quality of occupational health interventions and services in South East Europe;
• AMR Regional Product 4.6. Regional training programmes on occupational health for primary health care professionals (Spanish version);
• AFR Regional Product 4.7. National profiles and actions on workers’ health in Africa as part of the national action plans on health and environment;
• AMR Regional Product 4.8. Support for development of national policies, regulatory frameworks and action plans on workers’ health in the Americas;
• AMR Product 4.9. Regional recommendations for health surveillance (periodic medical examinations) of workers (18–65);
• AMR Regional Product 4.10. Regional guidance for provision of essential interventions and services for workers’ health in the informal sector;
• WPRO Regional Product 4.11. Document the achievements made by Member States in the development and strengthening of national policies and plans of action for occupational health with appropriate targets and milestones;
• WPRO Regional Product 4.12. Develop the national occupational health profiles of the four selected Member States (Cambodia, Laos, Mongolia and Viet Nam) and identify areas in need of strengthening;
• WPRO Regional Product 4.13. Develop a model integrating provision of essential interventions and services for workers health in the primary health-care system and document and share the experience;

Priority 5. Global metrics of workers’ health
• Global Product 5.1. Global observatory of workers’ health;
• Global Product 5.2. Global indicators of workers’ health;
• Global Product 5.3. Global burden of disease attributable to selected occupational risks.

Priority 6. Classification, diagnostic and exposure criteria for occupational diseases
• Global Product 6.1. Integrating occupational health in ICD-11;
• AMR Regional Product 6.2. Regional guidance for developing and strengthening national systems for information, surveillance and registration of occupational diseases and injuries in the Americas;
• Global Product 6.3. Global guidance on methods for early diagnosis of priority occupational diseases;
• AMRO Regional Product 6.4. Regional guidance for detection and diagnosis of occupational diseases by health providers;
• WPRO Regional Product 6.3. Develop a guideline on establishing the Occupational Disease Surveillance System for developing countries (Cambodia, Laos, Mongolia and Viet Nam) and disseminate the results.

Priority 7. Knowledge networks on occupational health and safety for vulnerable groups and high risk sectors
• Global Product 7.1. Guidance and policy options for action by health systems to improve the health and safety of poor informal sector workers;
• AMR Regional Product 7.2. Development and implementation of initiatives for control of hazardous working conditions and inequities in selected sectors of critical importance for the economy;
• AMR Regional Product 7.3. Action plan on preventing occupational injuries and diseases in the informal sector in the Americas;
• AMR Regional Product 7.4. Technical assistance for developing national research agendas for studying working conditions and employment and inequities and to generate practical solutions, knowledge and evidence;
• WPRO Regional Product 7.5. Develop guidelines on risk assessment and management of occupational hazards in high-risk sectors (Cambodia, Laos, Mongolia and Viet Nam) and vulnerable worker groups and disseminate the results.

All priority areas were discussed in small groups using the World Café methodology. The task of the small groups was to identify how the CCs can support the development of the global and regional products foreseen under GMP 2015–2018. Topics for discussion included: tools and training for healthy workplaces; health systems, services and governance; health of the informal workforce; workers’ health metrics; early detection and notification of occupational diseases; and occupational health and safety of health-care workers.

The results of the World Café sessions were presented in plenary and are shown in Annex 1. The recommendations will be used by WHO to specify the inputs needed from the CCs for the development of GMP products. These inputs will be developed by working groups, focusing on accountability and responsibility. The small group discussions also served as an opportunity for participants to generate ideas and identify gaps and needs to be addressed through collective efforts.

The recommendations of the World Café sessions focused on: translation and validation of materials or interventions, including making them relevant at a local level; increasing capacity for repositories of materials that CCs can use as starting points for new projects; compiling successful examples of the business case or interventions that benefit targeted populations (farmers, small and medium-sized enterprises, informal workers, etc.); and the need to choose terminology with care so that it best represents inclusiveness and the abilities of all workers. The World Café sessions highlighted the overall need for good data, needs assessments and country demand, to ensure that occupational health remains a global health priority. In response, WHO headquarters and regional offices will further ensure that the updated GMP is aligned with the WHO Programme Budget and the operational workplans for the 2016–2017 biennium.

Opportunities and challenges for workers’ health action in the post-2015 development agenda

In September 2015 the world’s leaders adopted a new vision to guide global development until 2020. The purpose of this session was to identify strategic directions for global action on workers’ health in the context of the post-2015 development agenda.

---

Sustainable Development Goals related to workers’ health
Ivan Ivanov, WHO headquarters

The SDGs are the core of the post-2015 development agenda and were approved at the United Nations Summit in September 2015. The SDGs set objectives and targets in 17 areas and are accompanied by indicators for measuring progress.\(^4\)

Action taken to protect and promote the health of workers can contribute directly to achieving the SDGs on eradication of poverty, healthy lives and decent work. In these three areas, possible actions by health systems include:

- **SDG 1. Eradication of poverty**: expanding social protection to working populations not currently covered, including employment injury schemes in the national social protection system; and improving the notification and registration of occupational diseases and injuries;

- **SDG 3. Healthy lives**: prevention and control of occupational NCDs and workplace health promotion; expanding health coverage to underserved working populations, such as migrants and informal sector and agricultural workers; and scaling up coverage, with interventions and basic health services for prevention and control of occupational and work-related diseases and injuries;

- **SDG 8. Decent work**: support for eradication of hazardous child labour and for developing national action plans on health and safety at work; providing scientific evidence and practical tools for healthy working environments; and strengthening occupational health services.

Three parallel working groups discussed possible actions by health systems on workers’ health that would contribute to these goals.

Reports from the working groups on the Sustainable Development Goals

**SDG 1. Social protection**
Diana Gagliardi, Istituto nazionale per l’assicurazione contro gli infortuni sul lavoro (INAIL)

Employment injury benefits should be part of national social protection systems (with reference to ILO Convention 102 from 1952, and ILO Recommendation 202 from 2012). The health systems could: work towards universal coverage based on social inclusion principles; work to provide health coverage for the informal sector; and encourage collaboration between civil society, NGOs and government bodies to determine country level needs for establishing appropriate schemes. WHO CCs should be more involved in delivery of knowledge at the local level (translating research into practice).

Ministries of health and health services could: improve detection and registration of occupational diseases by combining prevention, health promotion and compensation systems; raise awareness of the SDGs among health-care providers and working communities; include occupational health

---

training in undergraduate education (increase early detection because all health-care specialists need to have basic knowledge about occupational diseases); and improve occupational health competencies among primary health-care providers. In addition, there is a need to establish criteria on how to document occupational diseases by linking the disease to the job, especially in the informal economy.

Health systems could create pooled funds to cover informal workers, migrants, contractual workers and farmers to make insurance coverage attractive for self-employed informal workers (for example through free benefits, rehabilitation, return to work initiatives). Health insurance and employment injury schemes should be extended to workers that don’t typically have the financial resources to access existing systems.

**SDG 3. Health goals**

Harri Vainio, Finnish Institute of Occupational Health (FIOH)

There needs to be a shift to understanding health as a dynamic ability and not a state of being. The SDG3 target for reducing NCDs by 30% by 2030 emphasize mortality; however, adding the ability part makes the picture more complex. Prevention efforts can look at causes and causes of causes. The causes of causes are where you can really have a societal impact.

Ministries of health and health systems can hold industries that are manufacturing and marketing unhealthy commodities (tobacco, alcohol, unhealthy foods and drinks) responsible for their products. Regulatory solutions have the strongest evidence for efficacy of interventions.

Provision of health coverage to informal sector workers can be achieved through funding for policy development, mandatory health insurance for these workers, universal health coverage and including primary services in coverage.

Other targets under SDG 3 that can be impacted by health systems include helping people stay in decent work, reduction of road accidents (especially through safe driving policies and policies for work-related transportation and use of alcohol at the workplace. These activities need adequate health metrics and health impact assessments.

**SDG 8. Decent work**

Seong-Kyu Kang, Korean Occupational Safety and Health Agency (KOSHA)

This group addressed questions of how the health systems can contribute to reduction of child labour and safer working conditions.

Reduction and elimination of child labour is complex and difficult, so may be best addressed by the labour sector. The health system may be able to educate and inform broad groups to improve awareness on child labour.

Regarding a safer working environment, health systems could focus on migrant workers in different sectors, such as agriculture and construction. Strategies suggested include: (1) improvement of the working relationships between ministries of health and ministries of labour, (2) of occupational health training for primary health-care providers that care for migrant workers (training programme for “vulnerable groups”), (3) improvement of communication tools by making occupational health and safety information available in different languages, and (4) increasing the number of small research projects involving WHO CCs focusing on monitoring health in a small, specific sector to increase the body of evidence for policy-makers on the health of migrant workers. In addition, the group discussed the long latency periods in some diseases that add layers of complexity. The host
country, in which the worker was exposed, does not bear the burden of diseases and injuries (compensation, disability-adjusted life years, etc.) that the home country does upon the return of the worker.

Discussion on SDGs
In the ensuing discussion, the CC at the University of Nottingham raised the question of why the debate on the SDGs was limited to health systems, as they considered this to be too narrow and a somewhat medicalized approach to the SDG agenda. Ivan Ivanov from WHO headquarters explained that the mandate of WHO extends to health issues, and that WHO works primarily and directly with health systems at the national level. However, health governance and addressing health in all policy processes requires health systems to collaborate with other sectors to influence health outcomes. The institutions which were designated as WHO CCs could work in a much broader scope, but that might not fall under the auspice of the WHO CC work. Furthermore, the term “health systems” should not be confused with “health care”. WHO defines the health systems as all the activities whose primary purpose is to promote, restore and/or maintain health, as well as the people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people’s legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health.\(^5\) For example, occupational safety and health inspectors are actors whose primary goal is to improve health, so the definition of “health system” is not limited to ministers of health, health-care facilities and providers.

Future ways of working for the global network
This session aimed to develop guidance on future ways of working for the network, taking into account the results of the post-implementation review of 2009–2012 and the agreed workplan.

WHO work with collaborating centres
Matias Tuler, WHO headquarters (by video)

WHO’s work with CCs is extensive, with over 800 CCs in 80 Member States. The role of CCs is to support WHO in implementing its mandated work. Related tasks are agreed to in a bilateral contract between the CC and WHO. Being a CC is not a certification, accreditation nor an award. WHO CC activities are based on WHO strategic and operational plans, and do not include the standard activities of the CC. CCs are responsible for delivering high-quality work in the time established, communicating any problems or delays, following regulations and policies, and submitting annual reports.

While the scope of work of a CC is broad, it does not cover: clinical trials undertaken by a university of its own accord; direct advice to Member States; participation in WHO advisory groups (agreement is between institutions and not individuals); establishment of other bodies or entities; and issuance of national guidelines (WHO does not provide national guidelines), or qualifying diplomas (WHO cannot endorse these). Independent or standard activities of an institution are not included in the CC workplan and are not covered by the designation (anything not in the workplan does not get WHO CC designation).

\(^5\) WHO. Health Systems Strengthening Glossary [website]:
Institutions are proposed for designation by a WHO department or programme. Designations are time-limited agreements with deliverables. Agreements are structured by terms of reference (typically one sentence describing the overall goal) and linked activities (detailed, specific descriptions of activities). Key eligibility criteria exist, including at least two years of previous work with WHO. Initial designation lasts four years and automatically expires. Redesignation can be renewed for 1–4 years, with procedures beginning 6 months before the expiration date. If redesignation is not complete by the expiration date, the designation expires. This process should be conducted using WHO’s eCC system for renewal and annual reports.

Additional clarification on the working relationship between WHO and CCs was provided on the following topics.

- **Funding**: WHO does not pay CCs or vice versa. Normally institutions are expected to provide or raise funds for the activities agreed with WHO. WHO has a policy on interaction with industry and the private sector, and funding should not come from companies or any source with a conflict of interest.
- **Intellectual property rights**: These may belong either to the WHO CC or to WHO CCs must look at the terms and conditions to determine which applies to their products and specify ownership in the workplan.
- **Use of WHO name, emblem and flag**: Use of any of these requires the Director General’s authorization in advance and needs to meet the terms and conditions. This authorization expires when designation expires. The main web page of a CC can only have one mention of the CC that links to another page to describe the specific activities under the designation.
- **Networks can be established**: Contract designations are bidirectional but are often split among CCs working together.
- **Additional projects**: These may be requested based on needs and can be extended into a renewal; in which case, they would be formally included in the new contract and stated in the annual report, if begun before the designation has run out.

Details about the legal and administrative requirements for WHO CCs are available from the WHO website.

---

**Post-implementation review of collaborating centres’ work**
Andrea Okun (US NIOSH) and Aditya Jain (Nottingham University)

On the recommendation of the network’s Advisory Committee, experts from WHO and several CCs carried out a review to assess the extent to which the CCs have supported WHO in addressing the five specific objectives of the GPA. This was done through two online surveys: (1) a quantitative survey on workplan activities, products and impacts; and (2) a qualitative survey on network setup, successes, opportunities and constraints. The quantitative survey yielded 202 responses from 46 CCs and 3 NGOs in 28 countries, and the qualitative survey received 25 responses from CCs. A total of 467 outcomes and products were recorded: 272 products and documents by 159 projects, 143 training programmes in 85 projects, and 53 technical assistance programmes run by 38 projects. All five GPA areas were covered, but most were undertaken under GPA Objective 2: to protect and promote health at the workplace. Most CCs (75%) reported fulfilling terms of references and many reported that they were providing technical support and shaping the research agenda. The area of

---

least focus was on articulating evidence-based policies. Output formats were primarily print and web. Almost 50% of CCs were not sure how WHO was using outputs. Despite this, over 66% thought being a CC added value.

The qualitative study on the strengths, weaknesses, opportunities and constraints of the network revealed seven key themes: strengths of CCs, advantages and disadvantages compared to other networks, areas for improvement, new ways of working, external constraints, utilization of CC contributions, and collaboration among CCs. Respondents considered association with the WHO brand to be the major advantage of becoming a WHO CC, as well as acknowledging the value of WHO’s broad and comprehensive approach, the clear plan of action and action-orientation, the possibility for a variety of meeting formats to share expertise and camaraderie, and network size and reach. Major disadvantages identified by respondents included: challenges of the bureaucratic structure, a slow and complex process of designation, lack of transparency, less flexibility leading to less innovation, resource constraints and influences of vested interests.

Identified areas of improvement included: better communication and shared updates, posting of projects, addressing funding constraints, transparency, proactive leadership, proactive identification of new network members and more flexibility with less bureaucracy. Based on these results, the review committee made 14 recommendations. Some of these recommendations are already being acted upon, such as creation of the Ways of working guide to clearly define the relationship between CCs and WHO, promotion of the Guide for WHO collaborating centres to clarify organizational expectations, creation of a shared dialogue through the World Cafés, and collation of outputs from all CCs and NGOs through the GeoLibrary.

Ways of working at the regional and national levels
WHO regional advisers

**WHO Regional Office for the Eastern Mediterranean**

Occupational health is covered by the Department of Health Protection and Promotion, giving it a unique position and entry point in many public health programmes. Partners are the programme managers in change of occupational health in ministries of health in Member States, and sometimes in ministries of labour, the national committees of occupational health and safety or subregional committees (e.g. the Occupational Health Committee of the Gulf Cooperation Council); the ILO; and WONCA. Examples of work with the ILO and WONCA include the Semnan Declaration on scaling up workers’ health coverage in the Eastern Mediterranean region and the development of a unified profile of occupational health and safety in Egypt. All means of communication are used for proactive and reactive communications through regional partnerships. Face-to-face meetings, workshops and consultations at regional level are held to encourage implementation of activities on a biennial basis. Budget issues are a major limiting factor, with other programmes like Maternal and Child Health taking the bulk of the budget, so other funding mechanisms are needed to cover occupational health and safety activities. Priority areas include rural and agricultural health. One idea is that national level occupational health and safety organizations be invited as observers in the meetings of the network.

---

WHO Regional Office for Europe
The European Region consists of 53 Member States. Financial and human capacity constraints narrow the scope of what can be done. The network should consider expanding efforts to sub regions, particularly newly independent countries in south-eastern Europe. It is necessary to further discuss how the regional office and CCs can support each other in working towards this.

WHO Regional Office for the Western Pacific
The Regional Office recommends that any regional officer for WHO must attend a meeting of the network to maintain a global perspective, plan for the regional level, and apply this at the country level, as well as to take advantage of the opportunity to meet with global experts. Information is essential, some countries know little about issues of occupational health and safety, so the WHO website must be publicized. Regional materials should complement each other and not compete. Networking capacities need to be increased, so the network must focus on small goals that are practical, tangible and result in interactions. The NCD component is crucial and we need to bring the NCD and occupational health groups together to reduce fragmentation and increase awareness. Funding resource constraints are very concerning, so the Regional Office relies on the network to provide material support and capacity. A human resource limitation is noted as well, in that there is competition between priorities when overseeing many programmes and divisions. Governments in about 27 countries are exploring bringing the ministry of health and ministry of labour together, in context of the SDGs.

WHO Regional Office for the Americas
The Region of the Americas comprises 36 Member States and 500 million workers. The Regional Office also lacks human resources to address the level of need. In 1999, the Regional Office had an action plan with no deadline. In 2006, they performed an assessment of the situation of workers’ health and the regional plan. The 2013 progress report was insightful, and documented many successes and products, but the Region still faces a huge burden of injuries and disease. The Regional Office utilizes internal and external strategic alliances. Internal alliances comprise those within WHO, and the Inter-American Alliance. There are partnerships with WHO regional HIV/hepatitis efforts, alcohol and tobacco in the workplace, health-care workers etc., cross-cutting gender, human rights and ethnicity. External alliances include those with intergovernmental organizations (e.g. the ILO, UN Women, United Nations Environment Programme, etc.) and NGOs (e.g. the ICOH). National partners in the Region include governments, ministries of health and national institutions. The network of CCs is the second biggest network at WHO Regional Office for the Americas. The question is, how do you use all these organizations to tackle a problem? An example of recent collaboration was the action taken to address an outbreak of kidney disease of non-typical origin in four countries. The Regional Office created a workgroup from different programme areas and matched with different CCs to work on case definition, causality, intervention research and occupational characterization of the disease.

Ways of working of the global network
Ivan Ivanov, WHO headquarters

The global network of WHO collaborating centres for occupational health was created in June 1990 at a meeting in Helsinki, Finland. Its first meeting was held in 1992 in Moscow, Russian Federation. Since then the network has grown to more than 50 institutions from all WHO regions and country groupings. Over the years, the network has provided technical expertise and support to WHO to implement its tasks and priority goals under the WHO Global Strategy on Occupational Health for All (Resolution WHA 49.12, 1996), the WHO Global Plan of Action on Workers’ Health 2008–2017.
(Resolution WHA 60.26, 2007), and the regional strategies and action plans in the area of occupational health.

The breadth of World Health Assembly resolutions on occupational health and the size of the network required organizing its activities into triennial workplans, with groups of CCs working together on different priority areas. In addition, in January 2000, the WHO Executive Board encouraged WHO CCs to develop working relations with other centres and national institutions recognized by WHO, instead of collaborating one-on-one with WHO.

Since the network has some specific ways of working, in addition to general WHO requirements, WHO headquarters produced a draft document titled *Global network of WHO collaborating centres for occupational health: Ways of working* to be used in conjunction with the *Guide for WHO collaborating centres*. The documents outlines the WHO strategy on working with the CCs for occupational health as a network. The mission of the network is to stimulate networking between the WHO CCs for occupational health and international partners, to support WHO in implementing its mandated tasks in the area of occupational health and safety. This will be achieved by concentrating technical expertise and international efforts towards promoting equity, justice and fairness in occupational health and safety, and strengthening national and local health systems, especially in developing countries and countries in economic transition. The network comprises the institutions officially designated as WHO CCs for occupational health, as well as the international partners of WHO in the area of occupational health and safety, such as the ILO, NGOs with a formal relationship with WHO, and other international and national organizations as required by WHO.

The work of the network is carried out according to the GMP, developed in consultation with the CCs and partners, and approved by WHO. The plan specifies priority areas, products and activities that require networking between several CCs. Activities in the priority areas of the GMP are carried out by working groups comprising experts from network institutions or other experts invited by WHO.

The network uses an online collaborative workspace and holds its meetings as far as possible in conjunction with major international congresses and conferences on occupational health.

The ICOH and the Faculty of Occupational Medicine, Royal College of Physicians of Ireland invited WHO to convene the 14th Meeting of the global network of WHO collaborating centres for occupational health as a back-to-back event with the 32nd ICOH Congress to be held in Dublin from 29 April to 4 May 2018. The invitation was received with appreciation. A preparatory meeting could be organized in the margins of the World Congress for Safety and Health, to be held in Singapore in September 2017.
Conclusions and recommendations

- The meeting agreed with the proposed structure, priorities and products of the updated GMP for the period 2015–2018.
- Based on the outcomes of the World Café sessions, WHO should develop specific activities and inputs requested from the CCs for the implementation of the products under the GMP 2015–2018.
- All CCs should carefully consider, according to the available human and financial resources, which GMP activities and tasks they can undertake and include these activities in their individual workplans for collaboration with WHO.
- The post-2015 development agenda and in particular the sustainable development goals (SDG 1, SDG 3 and SDG 8) provide many opportunities for scaling up actions by health systems for protecting and promoting the health of workers in the context of poverty elimination.
- A publication on workers’ health in the SDGs is needed to raise awareness about what health systems can do, together with labour and social security, about achieving the SDGs and the specific targets on workers’ health.
- The global network of WHO collaborating centres for occupational health has accumulated a lot of experience and traditions in its 25-year history that should be preserved and further developed into the new ways of working.
- It was agreed that the revised version of the Ways of working document will be sent to meeting participants for final inputs before approval by WHO senior management.
- WHO is encouraged to look into the opportunity of continuing the institutional commitments of the CCs to provide leadership to the network.
Annex 1. Recommendations of the World Café sessions on updating the Global Master Plan 2015-2018

Tools and training for healthy workplaces

Piloting and evaluation of tools for protecting and promoting workers’ health

- Choice of tools for piloting – evidence-based, demonstrated efficacy where possible
- Translation into multiple languages – validation of translations to take account of local nuances, interpretations
- Adapt to local conditions
  - Multiple regions, industry sectors, including small- and medium-sized enterprises and low-income countries
  - Local context – including examples of local good practices
  - Identify key criteria and outcomes for particular tools
- Field test via standard protocol
- Training (where needed) for target users
- Evaluation (post implementation)
  - Efficacy, effectiveness
  - Standard definitions of health outcomes
  - Demonstrate value added – broadest sense (including awareness raising)

Training materials for protecting and promoting health at the workplace

- Need for multi-lingual training materials and tools
- Contextualize tools to local requirements and laws – link with national profiles and actions plans
- Collaborate with other agencies such as International Labour Organization (ILO), European Union Information Agency for Occupational Safety and Health (EU-OSHA)
- Establish quality criteria not only for inclusion in the inventory but also establish criteria for piloting and evaluation
- Collaborating centres (CCs) to review training materials and tools based on the established criteria
- Long-term, ongoing collaborative effort between the CCs and WHO
- Action 1: Send a template to all CCs with the healthy workplace criteria for tools and training to help establish the repository of suitable tools and training materials – to be reviewed by working group members
- Action 2: CCs to provide input to Canadian Centre for Occupational Health and Safety (CCOHS)

Health systems, services and governance

Scaling up health coverage for workers

- Need evidence of efficiency of the scaling-up process (i.e. baseline information)
- Legislation needs adequate funding, guidance and policies
- Availability and training of competent occupational health professionals (e.g. doctors and nurses in primary health-care settings, hygienists)
- Promote involvement and training of key stakeholders (e.g. human resources managers, workers representatives)
- Specific health coverage models for specific occupational groups (e.g. farmers, small- and medium-sized enterprises, informal sector)
- Incentives for employers (e.g. reduced insurance premiums)
- Coverage must extend to self-employed, migrant workers and informal sector
Capacity-building for occupational health at primary care level

- “Fitness for work” means different things in different countries – “return to work” is a preferable term
- Incorporation of occupational health training in undergraduate medical programmes
- Training
  - Web-based
  - University short courses
- Adaptation of training materials
- Training on specific issues (e.g. return to work scenarios)
- Extension of training to other health-care workers
- Need for programme funding – how to raise funds?
- Courses for training of trainers in low-resource settings

National profiles and plans of action on workers' health

- Promote WHO goals and tools for the development of national profiles and plans
- Ensure participation of designated data collectors and right stakeholders
- Ensure validity and reliability of data; report missing information and problems in data collection
- Help other countries in making national profiles
- Facilitate political, regulatory and technical processes to make occupational health and safety (OHS) action plans

Workers' health metrics

Estimate the global burden of disease (GBD) attributable to selected occupational risks

- Improved exposure information from innovative modelling
- Improved exposure information by making better use of existing public data sources
  - European Chemicals Agency (ECHA) data under REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals)
  - Injury data
- Data to validate GBD estimates (e.g. Population Attributable Fractions (PAFs) estimated using disease registries)
- New risk factors to include ultraviolet and non-melanoma skin cancers

Develop and validate global indicators of workers' health

- WHO and CCs to improve collaboration and sharing of methodology, tools and information
- CCs can help in collecting data and assessing its validity. Data sets can include:
  - exposure, diseases, work capacity, economics, resources and processes
  - interaction between social determinants and work (e.g. work life trends and impact on health) and psychosocial factors
- Consider ways to access data differently (e.g. emergency care admissions for work-related accidents)

Occupational diseases

Improve detection of occupational diseases

- Requires agreement on (1) what an occupational disease is, and (2) criteria for recognition
- Recognize the costs and consequences of notification – for the patient, the doctor and the employer
- Importance of training and curriculum development, and resources for investigation; multidisciplinary groups
- Disease recognition for clinical management vs. compensation
- Pros and cons of screening to detect occupational disease (vs. regular monitoring to reduce exposure)
• Industry-wide information
• “Health passport” vs. “exposure record”?

**Improve use of international statistical classification of diseases (ICD) in occupational diseases**
• Attribution at the individual level to occupation
• Distinguishing occupational and work-related diseases – specialty linearization
• Training and work package for ICD-11 (WHO Family of International Classifications)
  - Awareness building within occupational health community
  - Messaging about ICD-11 and occupational health locally/regionally/nationally
• Checking national systems for occupational disease reporting and representation of those diseases within ICD-11
• Disease recognition can be aided by ICD – financial incentives may exist in some circumstances (e.g. compensation systems)

**Elimination of asbestos-related diseases (ARDs)**
• Overarching principles: (1) primary prevention (stop using) takes precedence; (2) while countries are using (society in transition) industrial hygiene is critical to minimize exposure
• For global elimination of ARD:
  - Countries with a ban on the use of asbestos (asbestos in situ): (1) ARDs increasingly recognized as environmental/household disease; (2) thus secondary prevention (early detection) assumes importance; (3) just compensation schemes insufficient
  - Countries using chrysotile: arguments need strengthening; lack of information widespread: (1) local evidence necessary to convince policy makers, (2) how other countries succeeded with bans (know-how), (3) general awareness and medical expertise needs improvement (e.g. virtual patient WorkNet, chest X-ray training sessions), (4) assist government stance by providing expert advice

**Health of informal workforce**

**Guidance/policy for health and safety at work in low-resource settings**
• Keep in mind that solutions are often outside health systems to address and work with root causes; assure involvement of labour sector and other sectors as required
• Activities formalizing the informal work – policy projects developing incentives to:
  - move enterprises to support OHS for informal workers
  - determine exposures and bio-monitoring at worksites to determine high-risk populations and plan interventions
• Promoting joint policies with the education sector to promote educational projects at all levels (workers’ rights, safety culture)
• Addressing particular vulnerable groups: migrants, jobs not classified in a particular occupation, farmers, domestic workers, temporary employment agencies, child work, elderly, ethnic groups, etc.
• Work closely with nongovernmental organizations building capacities to reach informal workers: community-based research with multicultural/multiethnic approaches and training, promote simple procedures on existing good practices

**Tools for low-resource settings/informal sector**
• Tools required to raise awareness and disseminate information on how to seek support
• Can leverage large companies – only use suppliers that adhere to safety and health standards
• Review evidence-based guidelines that are adapted for use by employer and worker
• Include primary health-care workers as a target group to implement change in companies
• Need to collect suitable train-the-trainer and beginners occupational health training programmes
• We need the business case to convince small companies to develop, implement and evaluate healthy workplace programmes
  - Action 1: Send a template to all CCs with the healthy workplace criteria for tools and training to help establish the repository of suitable tools and training materials – to be reviewed by working group members
  - Action 2: Collect examples of the business case

Occupational health and safety of health-care workers
Dissemination and implementation of WHO tools for occupational health and safety of health-care workers in developing countries
• Dissemination of existing materials (e.g. made the GeoHealth Hub easier to find, utilize Listserv better, promote open access)
• Improving materials – enhance context specificity, enlarge translation options, include economic arguments for effectiveness
• Enlarge the HealthWISE platform
• Reflection: We do not adequately use the materials we already have. We need to energize the demand side of occupational health needs
Annex 2. Meeting programme

Day 1, Thursday 28 May 2015

8:00–9:00 Registration

9:00–10:00 Opening plenary

Welcome by the Chair of the global network of WHO collaborating centres for occupational health
Margaret Kitt, National Institute for Occupational Safety and Health (NIOSH), United States of America

Message from Korean Occupational Safety and Health Agency (KOSHA)
Young-Soon Lee, President, KOSHA

Message from the International Labour Organization (ILO)
Shengli Niu, ILO

Greetings from the nongovernmental organizations
Kazutaka Kogi, International Commission on Occupational Health (ICOH);
Andrea Hiddinga Schipper, International Occupational Hygiene Association (IOHA);
Wendy Macdonald, International Ergonomics Association (IEA)

Welcome by WHO, objectives of the meeting, election of meeting officers
Ivan Ivanov, WHO

Update on the implementation of the WHO Global Plan of Action on Workers’ Health (GPA) since Cancun
Ivan Ivanov, WHO
- status of implementation, feedback from World Health Assembly, lessons learned, outputs by 2017

10:00–10:30 Break

10:30–12:30 Session I: Implementing GPA – Progress made and planning

Protecting and promoting health at the workplace – progress made and future orientations
Evelyn Kortum, WHO
Tools for workplace health, minimum requirements, WHO guidelines (nanotechnology)
- current workplans, achievements, future actions
Strengthening health systems for workers’ health – national plans, health coverage, WHO Regional Advisers, capacity-building, current workplans, achievements, future actions

Ivan Ivanov, Said Arnaout, Julietta Rodriguez-Guzman

World Cafés 1: What can we do towards implementing the GMP?
Andrea Okun
(overall coordination)

Tools and training for healthy workplaces
Table 1. What can you do to support the piloting and evaluation of tools for protecting and promoting health at the workplace?
Table 2. What can you do to contribute to the creation of a global collection of training materials for workers and employers on protection and promotion of health at the workplace?
Table 3. What can you do to support the development of a collection of suitable tools for protecting and promoting health at the workplace for low-resource settings including the informal sector?

Health systems, services and governance
Table 4. What can you do to support WHO efforts to scale up health coverage of workers?
Table 5. What can you do to support WHO efforts to build capacity for occupational health at the primary care level?
Table 6. What can you do to support WHO efforts with countries in developing national profiles/outlooks and plans of action on workers’ health?

Health of informal workforce
Table 7. What can you do to support WHO’s work to develop guidance and policy options for health systems action for improving the health and safety of workers in low-resource informal settings?

12:30–13:30 Lunch

14:00–16:00 Session I (continued)

Evidence for action and practice – occupational diseases, International Classification of Diseases (ICD), burden of disease, databases
- current workplans, achievements, future actions

Ivan Ivanov, Shengli Niu, Tim Driscoll

Occupational noncommunicable diseases (NCDs) (cancer and respiratory diseases, asbestos, silica)
- global and regional action
- current workplans, achievements, future actions

Julietta Rodriguez-Guzman, Aliya Kosbayeva, Nasir Hassan

World Cafés 2: What can we do towards implementing the GMP?
Andrea Okun
(overall coordination)

Workers’ health metrics
Table 1. What can you do to support WHO efforts to develop and validate global indicators of workers’ health?
Table 2. What can you do to support WHO efforts to estimate the global burden of disease attributable to selected occupational risks?
Early detection and notification of occupational diseases

Table 3. What can you do to support WHO efforts to improve early detection of occupational diseases?
Table 4. What can you do to support WHO efforts to improve the use of ICD in occupational health?
Table 5. What can collaborating centres (CCs) do to support WHO efforts to eliminate asbestos-related diseases?

Occupational health and safety of health-care workers

Table 6. What can you do to disseminate and implement WHO training tools for protection of occupational health and safety of health-care workers in developing countries?

16:15–16:30 Break

16:30–17:15 Session II. WHO’s work with CCs – administrative requirements, designation and redesignation

WHO’s work with CCs
- overall strategy, rules and regulations
- questions and answers

Matius Tuler, WHO (via video)

17:15–18:30 Session II (continued)

Reports from World Cafés

Updated Global Master Plan 2015–2017
- discussion

Chair wrap-up Session II

Meeting Chair

19:00 Reception: 25th anniversary of the global network of WHO collaborating centres for occupational health
Day 2, Friday 29 May 2015

8:30–10:30 Session III: Workers’ health in the post-2015 development agenda

Opportunities and challenges for workers’ health action in the post-2015 development agenda

Ivan Ivanov

Questions for discussion in working groups

Parallel working groups – Discussion on workers’ health under the Sustainable Development Goals (SDGs):

SDG 1. Social protection (moderated by Diana Gagliardi, INAIL)
SDG 2. Health goals (moderated by Harri Vainio, FIOH)
SDG 8. Decent work (moderated by Seong-Kyu Kang, KOSHA)

Presentation results from working groups on SDGs

Chair wrap-up Session III

Meeting Chair

10:30–11:00 Break

11:00 – 12:30 Session IV: Ways of working of the network

Lessons learned – results of the post-implementation review of CCs’ workplans 2006–2012

Andrea Okun, Aditya Jain

- outputs, outcomes and impacts of the work of the network
- opinions and ideas for structure and ways of working of the network
- proposals for improvement

Ways of working at the regional and national levels, specificities of the regional networks, role of CCs at the national level

WHO Regional Advisers

Ways of working for the global network

Ivan Ivanov

Discussion on Ways of working

Meeting Chair

- Coordination
- Funding for network activities
- Support for developing countries

Chair wrap-up Session IV

Meeting Chair

13:00–13:30 Session V: Wrap-up and closure

Future milestones and major meetings
<table>
<thead>
<tr>
<th>Chair’s summary of the meeting, conclusions and recommendations</th>
<th>Meeting Chair, WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thanks and closure</td>
<td>Meeting Chair, WHO</td>
</tr>
</tbody>
</table>

**13:30– 14:30 Lunch**
Annex 3. List of participants

National institutions

Dr Balazs Adam
Assistant Professor, WHO Collaborating Centre for Occupational Health, Institute of Public Health, College of Medicine and Health Sciences, United Arab Emirates University, Abu Dhabi, United Arab Emirates

Dr Anil Adisesh
JD Irving Limited Research Chair in Occupational Medicine, Dalhousie Medicine New Brunswick (DMNB), Dalhousie University, Saint John, Canada

Professor Tar-Ching Aw
Director, WHO Collaborating Centre for Occupational Health, Institute of Public Health, College of Medicine and Health Sciences, United Arab Emirates University, Abu Dhabi, United Arab Emirates

Dr Kalpana Balakrishnan
Director, WHO Collaborating Centre for Research and Training in Occupational and Environmental Health, Sri Ramachandra University, Chennai, India

Professor Igor V Bukhtiyarov
Director, Federal State Budgetary Scientific Institution, Research Institute of Occupational Health, Moscow, Russian Federation

Professor Sin Eng Chia
Director, WHO Collaborating Centre for Occupational Health, Saw Swee Hock School of Public Health, National University of Singapore, Singapore

Dr Claudio Colosio
Director, International Centre for Rural Health, Milano, Italy

Dr Paul Demers
Director, Occupational Cancer Research Centre, Co-Director CAREX-Canada, Cancer Care Ontario, Toronto, Canada

Dr Hai Doan
Director, WHO Collaborating Centre for Occupational Health, National Institute of Occupational and Environmental Health, Hanoi, Viet Nam
Professor Maureen Dollard  
Director, Centre for Applied Psychological Research, University of South Australia, Adelaide, Australia

Dr Tim Driscoll  
Associate Professor, School of Public Health, University of Sydney, Sydney, Australia

Dr Lori A Edwards  
Assistant Professor, Associate Director for Global Occupational Health, Office of Global Health, University of Maryland School of Nursing, Baltimore, United States of America

Ms Tatiana Farah de Mello  
Specialist in Industrial Development, WHO Collaborating Centre for Occupational Health, Serviço Social da Indústria (Social Services for Industry), Brasilia, Brazil

Dr Maren Formazin  
Research Scientist, WHO Collaborating Centre for Occupational Health, Federal Institute for Occupational Safety and Health, Berlin, Germany

Professor Linda Forst  
Director, WHO Collaborating Centre for Occupational Health, Great Lakes Centers for Occupational & Environmental Safety and Health, University of Illinois School of Public Health, Chicago, United States of America

Ms Rosangela Fricke  
Specialist in Industrial Development, WHO Collaborating Centre for Occupational Health, Serviço Social da Indústria (Social Services for Industry), Brasilia, Brazil

Mr Yoshiyuki Fukuzawa  
Director, WHO Collaborating Centre for Occupational Health, National Institute of Occupational Safety and Health, Kiyose, Japan

Dr Silvia Fustiononi  
Director, WHO Collaborating Centre for Occupational Health, Department of Clinical Sciences and Community Health, Clinica del Lavoro "Luigi Devoto", University of Milan, Milano, Italy

Dr Diana Gagliardi  
Director, WHO Collaborating Centre for Occupational Health, Istituto nazionale per l'assicurazione contro gli infortuni sul lavoro (INAIL), Monteporzio Catone, Italy
Dr Joanna Gaitens  
Director, WHO Collaborating Centre for Occupational Health, Division of Occupational and Environmental Medicine, University of Maryland School of Medicine, Baltimore, United States of America

Dr Siok Lin Gan  
Director, WHO Collaborating Centre for Occupational Health, Workplace Safety and Health Institute, Ministry of Manpower, Singapore

Professor Klaus Golka  
Director, WHO Collaborating Centre for Occupational Health, Leibniz Research Centre for Working Environment and Human Factors, Dortmund, Germany

Professor Mary Gulumian  
WHO Collaborating Centre for Occupational Health, National Institute for Occupational Health (NIOH), Johannesburg, South Africa

Mr Kyu-nam Han  
Senior Manager, Construction and Health Team, WHO Collaborating Centre for Occupational Health, Korea Occupational Safety and Health Agency, Daejeon, Republic of Korea

Professor Volker Harth  
Director, WHO Collaborating Centre for the Health of Seafarers, Institute for Occupational and Maritime Medicine (ZfAM), University Medical Center Hamburg-Eppendorf, Hamburg, Germany

Dr Hans-Martin Hasselhorn  
Director, WHO Collaborating Centre for Occupational Health, Division “Work and Health”, Federal Institute for Occupational Safety and Health (BAuA), Berlin, Germany

Mr François Hébert  
Institutional relations and international coordination, WHO Collaborating Centre for Occupational Health, Institut de Recherche Robert-Sauvé en Santé et en Sécurité du Travail, Montréal, Canada

Mr Joshua Herbst  
WHO Collaborating Centre for Occupational Health, University of Applied Sciences, Northwestern Switzerland FHNW (Fachhochschule Nordwestschweiz), Windisch, Switzerland
Mr Antoine Hinson
WHO Collaborating Centre for Occupational Health, Faculté des Sciences de la Sante, Université d’Abomey-Calavi, Cotonou, Benin

Mr Steve Horvath
Director, WHO Collaborating Centre for Occupational Health, Canadian Centre for Occupational Health and Safety (CCOHS), Hamilton, Canada

Professor Fu Hua
School of Public Health, Fudan University, Shanghai, People’s Republic of China

Ms Susanne Huebenthal
Technical Officer, Institute of Management, WHO Collaborating Centre for Occupational Health, University of Applied Sciences, Northwestern Switzerland FHNW (Fachhochschule Nordwestschweiz), Brugg, Switzerland

Professor Carel TJ Hulshof
Director, WHO Collaborating Centre for Occupational Health, Coronel Institute of Occupational Health, Amsterdam, The Netherlands

Dr Aditya Jain
WHO Collaborating Centre for Occupational Health, Centre for Organizational Health and Development (COHD), University of Nottingham, Nottingham, the United Kingdom

Dr Seong-Kyu Kang
Vice President for Technology, WHO Collaborating Centre for Occupational Health, Korea Occupational Safety and Health Agency, Ulsan, Republic of Korea

Dr Spo Kgalamono
WHO Collaborating Centre for Occupational Health, National Institute for Occupational Health (NIOH), Johannesburg, South Africa

Dr Eun A Kim
Occupational Health Research Department, Occupational Safety and Health Research Institute (OSHRI), WHO Collaborating Centre for Occupational Health, Korea Occupational Safety and Health Agency, Ulsan, Republic of Korea
Dr Margaret Kitt  
Deputy Director, WHO Collaborating Centre for Occupational Health, National Institute for Occupational Safety and Health (NIOSH), Washington DC, United States of America

Dr Sophia Kisting  
Director, WHO Collaborating Centre for Occupational Health, National Institute for Occupational Health (NIOH), Johannesburg, South Africa  
WHO Collaborating Centre for Occupational Health

Dr Jung Wan Koo  
Director, WHO Collaborating Centre for Occupational Health, Catholic University of Korea/Center for Occupational and Environmental Medicine, Seoul, Republic of Korea

Dr Sunil Kumar  
Director, WHO Collaborating Centre for Occupational Health, National Institute of Occupational Health, Ahmedabad, India

Dr Lena Kurtz  
Programme Coordinator, WHO Collaborating Centre for Occupational Health, Institute and Outpatient Clinic for Occupational and Environmental Medicine, University Hospital Munich, Munich, Germany

Mr Buhyun Kwon  
Occupational Health Department, WHO Collaborating Centre for Occupational Health, Korea Occupational Safety and Health Agency, Ulsan, Republic of Korea

Ms Alice Lam  
Senior Consultant, Occupational Safety and Health Council (OSHC), Hong Kong, People’s Republic of China

Dr Saerom Lee  
Senior Research Scientist, Occupational Health Research Department, WHO Collaborating Centre for Occupational Health, Korea Occupational Safety and Health Agency, Ulsan, Republic of Korea

Professor Young-Soon Lee  
President, WHO Collaborating Centre for Occupational Health, Korea Occupational Safety and Health Agency, Ulsan, Republic of Korea
Ms Suvi Lehtinen
Director, WHO Collaborating Centre for Occupational Health, Finnish Institute of Occupational Health, Helsinki, Finland

Dr Timo Leino
Chief Physician, WHO Collaborating Centre for Occupational Health, Finnish Institute of Occupational Health, OHS and Work Health, Helsinki, Finland

Professor Stavroula Leka
Director, WHO Collaborating Centre for Occupational Health, Centre for Organizational Health and Development (COHD), University of Nottingham, Nottingham, United Kingdom

Dr Tom Loney
Assistant Professor, WHO Collaborating Centre for Occupational Health, Institute of Public Health, College of Medicine and Health Sciences, United Arab Emirates University, Abu Dhabi, United Arab Emirates

Mr Rafael Lucchesi
Chief Executive Officer, WHO Collaborating Centre for Occupational Health, Serviço Social da Indústria (Social Services for Industry), Brasilia, Brazil

Dr Melissa McDiarmid
Director, WHO Collaborating Centre for Occupational Health, Division of Occupational and Environmental Medicine, University of Maryland School of Medicine, Baltimore, United States of America

Professor Wendy Macdonald
Director, WHO Collaborating Centre for Occupational Health, School of Public Health and Human Biosciences, Faculty of Health Sciences, Centre for Ergonomics and Human Factors, La Trobe University, Melbourne, Australia
( also representing the International Ergonomics Association)

Dr Dana Madigan
WHO Collaborating Centre for Occupational Health, University of Illinois School of Public Health, Chicago, United States of America
Dr Carolina Mensi
Head, Mesothelioma and Nasal Cancer Registry of the Lombardy Region, WHO Collaborating Centre for Occupational Health, Department of Clinical Sciences and Community Health, Clinica del Lavoro "Luigi Devoto", University of Milan, Milano, Italy

Professor Jun Pyo Myong
Deputy Secretary, WHO Collaborating Centre for Occupational Health, Catholic Industrial Medical Centre (CIMC), Seoul, Republic of Korea

Professor Dennis Nowak
Director, WHO Collaborating Centre for Occupational Health, Institute and Outpatient Clinic for Occupational and Environmental Medicine, Klinikum der Universität München, Munich, Germany

Dr Andrea Okun
Associate Director for Global Collaborations, WHO Collaborating Centre for Occupational Health, National Institute for Occupational Safety and Health (NIOSH), Washington DC, United States of America

Mr Marc Oliver
Research nurse and data analyst, WHO Collaborating Centre for Occupational Health, Division of Occupational and Environmental Medicine, University of Maryland School of Medicine, Baltimore, United States of America

Ms Kayoung Park
Manager, Work Environment Team, WHO Collaborating Centre for Occupational Health, Korea Occupational Safety and Health Agency, Ulsan, Republic of Korea

Professor Laura Punnett
WHO Collaborating Centre for Occupational Health, Department of Work Environment, University of Massachusetts Lowell, Lowell, United States of America

Professor Sunitha Rohini Seneviratne
Director, WHO Collaborating Centre for Occupational Health, Department of Community Medicine, University of Colombo, Colombo, Sri Lanka

Mr Daniel Rojo
WHO Collaborating Centre for Occupational Health, Chilean Institute of Public Health, Santiago de Chile, Chile
Professor Konrad Rydzynski  
Director, WHO Collaborating Centre for Occupational Health, Nofer Institute of Occupational Medicine, Lodz, Poland

Mr Jang-Jin Ryoo  
Director, WHO Collaborating Centre for Occupational Health, Korea Occupational Safety and Health Agency, Ulsan, Republic of Korea

Professor Volker Schulte  
Director, WHO Collaborating Centre for Occupational Health, University of Applied Sciences, Northwestern Switzerland FHNW (Fachhochschule Nordwestschweiz), Windisch, Switzerland

Dr Somkiat Siriruttanapruk  
Senior Officer in Occupational Health, Department of Disease Control, Ministry of Public Health, Nonthaburi, Thailand

Mr Sergio Luiz Souza Motta  
Executive Manager for Workplace Wellness, WHO Collaborating Centre for Occupational Health, Serviço Social da Indústria (Social Services for Industry), Brasilia, Brazil

Dr Jerry Spiegel  
Director, WHO Collaborating Centre for Occupational Health, Global Health Research Program, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Professor Ken Takahashi  
Director, WHO Collaborating Centre for Occupational Health, Department of Environmental Epidemiology, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Kitakyushu, Japan

Dr Masaya Takahashi  
Acting Director, Research Center for Overwork-Related Disorders, WHO Collaborating Centre for Occupational Health, National Institute of Occupational Safety and Health, Kiyose, Japan

Dr Horacio Tovalin Ahumada  
Coordinator of the Occupational Health Programme, Facultad de Estudios Superiores Zaragoza, Universidad Nacional Autónoma de México (UNAM), Iztapalapa, Mexico
Mr Marcos Tadeu Siqueira  
Technical Director, WHO Collaborating Centre for Occupational Health, Serviço Social da Indústria (Social Services for Industry), Brasilia, Brazil

Professor Harri Vainio  
Director, WHO Collaborating Centre for Occupational Health, Finnish Institute of Occupational Health, Helsinki, Finland

Professor Arie Verkuil  
Director, WHO Collaborating Centre for Occupational Health, Institute of Management, University of Applied Sciences, Northwestern Switzerland FHNW (Fachhochschule Nordwestschweiz), Brugg, Switzerland

Dr David Vernez  
Director, WHO Collaborating Centre for Occupational Health, Département Universitaire de la Médecine et Santé Communautaires, Institut Universitaire Romand de Santé au Travail (IST), Lausanne, Switzerland

Dr Norbert Wagner  
WHO Collaborating Centre for Occupational Health, Saw Swee Hock School of Public Health, National University of Singapore, Singapore

Dr Annalee Yassi  
Director, WHO Collaborating Centre for Occupational Health, Global Health Research Program, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Ms Bonnie Yau  
Executive Director, Occupational Safety and Health Council (OSHC), Hong Kong, People’s Republic of China

Professor Alexandra Yepes Boada  
Director of Occupational Health and Industrial Hygiene Graduate Programs, El Bosque University, Bogotá, Colombia

Dr Winson Yeung  
Principal Consultant, Occupational Safety and Health Council (OSHC), Hong Kong, People’s Republic of China
Nongovernmental organizations with a formal relationship with WHO

Professor Kazutaka Kogi
President, International Commission for Occupational Health (ICOH)

Andrea Hiddinga Schipper
Secretary Treasurer, International Occupational Hygiene Association (IOHA)

International Labour Organization

Dr Shengli Niu
Labour Administration, Labour Inspection and Occupational Safety and Health Branch, International Labour Organization, Geneva, Switzerland

World Health Organization

Dr Said Arnaout
Coordinator, Healthy Lifestyle/Regional Adviser, Occupational Health and Health of Special Groups, WHO Regional Office for the Eastern Mediterranean, Cairo, Egypt

Dr Nasir Hassan
Regional Coordinator, Health and the Environment (HAE), Division of NCD and Health through the Life-Course, WHO Regional Office for the Western Pacific, Manila, Philippines

Dr Ivan Ivanov
Team Leader, Workers’ Health, Department of Public Health, Environmental and Social Determinants of Health, WHO headquarters, Geneva, Switzerland

Dr Evelyn Kortum
Technical Officer, Workers’ Health, Department of Public Health, Environmental and Social Determinants of Health, WHO headquarters, Geneva, Switzerland

Dr Aliya Kosbayeva,
Technical Officer, Occupational Health and Multiple Environmental Exposures and Risks, WHO European Centre for Environmental Health, Bonn, Germany

Mrs Lisa Ravenscroft
Assistant to Team, Interventions for Healthy Environments, Department of Public Health, Environmental and Social Determinants of Health, WHO headquarters, Geneva, Switzerland
Dr Julietta Rodriguez-Guzman
Regional Adviser, Workers’ and Consumer’s Health, WHO Regional Office for the Americas/Pan American Health Organization, Washington DC, United States of America

Mr Jung Sub Yeom
Technical Officer, Health and the Environment (HAE), Division of NCD and Health through the Life-Course, WHO Regional Office for the Western Pacific, Manila, Philippines

Dr Doohee You
Consultant, Workers’ Health, Department of Public Health, Environmental and Social Determinants of Health, WHO headquarters, Geneva, Switzerland