THIRD ITEM ON THE AGENDA

Prevention of occupational diseases

Purpose of the document

This paper examines the scale and dynamic nature of occupational diseases and the challenges associated with their prevention. Based on the experiences and lessons learned in the recognition and prevention of occupational diseases, it describes the Office strategy and invites the Governing Body to provide guidance on how to enhance the effectiveness of action to prevent occupational diseases (see the draft decision in paragraph 42).

Relevant strategic objective: Enhance the coverage and effectiveness of social protection for all (Outcome 6: Workers and enterprises benefit from improved safety and health conditions at work).

Policy implications: None.

Legal implications: None.

Financial implications: None.

Follow-up action required: Based on the Governing Body’s guidance, the Office should work closely with constituents and other international players for better prevention of occupational diseases.

Author unit: Programme on Safety and Health at Work and the Environment (SafeWork).

Related documents: GB.307/13(Rev.).
Executive summary

Occupational diseases cause huge suffering and losses to workers, businesses, social security funds and societies at large. According to ILO estimates, diseases caused by work kill six times more workers than work-related accidents. Effective recognition and prevention of occupational diseases are thus essential for sound national occupational safety and health (OSH) programmes and for making decent work a reality. However, this issue has not yet received adequate attention in most countries. This paper examines the scale and dynamic nature of occupational diseases and the challenges associated with their prevention. Drawing on experiences at the national and international levels, it puts forward the Office strategy for continuing or increased ILO action in this area and asks the Governing Body for any additional guidance it might wish to propose.

I. Introduction

1. When prevention and control measures at work fail, occupational diseases can occur. While diseases such as pneumoconiosis caused by traditional occupational hazards are still widespread, new occupational diseases such as mental and musculoskeletal disorders (MSDs) are on the rise. Work that causes serious occupational diseases represents an unacceptable decent work deficit.

A. Scale of the problem

2. It is estimated that there are globally about 2.02 million deaths annually caused by disease due to work, \(^1\) while the annual global number of cases of non-fatal work-related disease is estimated to be 160 million. In addition to causing immeasurable human suffering to victims and their families, such diseases entail major economic losses for enterprises and societies as a whole, such as lost productivity and reduced work capacity. Globally, the ILO estimates that around 4 per cent of the world’s gross domestic product (GDP), or about US$2.8 trillion, is lost owing to work-related accidents and diseases in direct and indirect costs.

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3. While the mechanization of working processes and improvement of working conditions have led to a reduction in occupational diseases in some countries and sectors, other countries have witnessed an increase. China, France and Italy, for example, have experienced a rise in the number of reported cases of occupational disease from 12,212 in 2005\(^2\) to 27,240 in 2010,\(^3\) from 53,605 in 2007 to 71,194 in 2010\(^4\) and from 28,933 in 2007 to 46,558 in 2011,\(^5\) respectively.

4. Types of reported diseases vary between countries and are changing. For example, MSDs in the Republic of Korea increased sharply from 1,634 in 2001 to 5,502 in 2010, while Japan compensated an increasing number of cases of mental disorder, from 108 cases in 2003 to 325 in 2011. In the United Kingdom, pneumoconiosis, diffuse mesothelioma and osteoarthritis of the knee in miners were the three leading causes among the 8,530 cases which were recognized and compensated in 2009. In China, pneumoconiosis accounted for 23,812 of the 27,240 cases of occupational disease reported in 2010, and in Japan, pneumoconiosis and low back pain were most common among the 7,779 reported cases of occupational disease in 2011. In the United States, skin diseases, hearing loss and respiratory conditions were the three leading diseases among the 224,500 reported cases of non-fatal occupational illness in 2009. Argentina reported 22,013 cases in 2010, with noise-induced hearing loss, MSD and respiratory diseases as the leading diseases. Thailand reported 4,575 cases in 2009. Asbestos-related diseases (ARD) (asbestosis, asbestos-related lung cancer, mesothelioma) continue to represent an enormous threat to the health of workers and the public; although its use is prohibited in more than 50 countries, including all the European Union (EU) Member States, 200,000 mesothelioma deaths may be expected over the period 1995–2029 in France, Germany, Italy, Netherlands, Switzerland and the United Kingdom.\(^6\) Moreover, asbestos is still used in the developing world where preventive and reporting capacities, legal systems and compensation mechanisms are often inadequate.

5. Caution is needed in interpreting these changes, because increases in statistics can be due to a number of reasons, including: (1) better systems for recognition, including improvements in health surveillance systems and compensation; (2) changes in work process and organization; (3) better awareness of occupational diseases among workers and employers; (4) broadening of the definition of occupational diseases; and (5) impact of long-latency diseases.

6. Some countries collect data from a broader perspective. For example, United Kingdom data from Labour Force Surveys showed a total of 1,073,000 cases of self-reported illnesses caused by or made worse by work in 2011–12 (principally MSDs and illnesses related to stress, depression and anxiety).

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\(^5\) National Institute for Insurance against Accidents at Work, Italy (Istituto Nazionale per l’Assicurazione contro gli Infortuni sul Lavoro – INAIL).

B. Costs due to occupational diseases

7. Great economic losses due to occupational diseases have been evidenced in countries with good data collection systems. A study calculates the cost of work-related diseases at a minimum of €145 billion per year in the EU. A New Zealand report indicated that the total financial cost for occupational injury and disease in 2004–05 was 4.9 billion New Zealand dollars (NZD) (3.4 per cent of GDP), excluding the cost of suffering and early death. Financial costs per case for occupational cancer are nearly NZD700,000, with total costs per case of NZD2.9 million, far higher than any other category.

8. As to the cost due to ARD, France estimates compensation costs at between €27 and €37 billion for 2001–20; in the United States, insurance companies paid US$21.6 billion in 2000 for asbestos exposure cases, in addition to $32 billion paid by the prosecuted enterprises. Compensation claims are expected to increase to $200–265 billion.

C. Emerging risks and new challenges

9. Alongside traditional workplace hazards, new occupational risks are emerging as a result of technical innovation and social changes. Where technological changes are introduced, they are often not accompanied by prevention measures against well-known OSH risks. In the last 20 years there has been an enormous growth in the number of new chemicals used in the industrial environment, many of which have not been adequately tested. New materials, such as nanomaterials, in the workplace pose a new challenge. Emerging physical risks include poor ergonomic conditions at work, electromagnetic radiation and high psychological and mental demands and constraints. The European Commission reports that MSDs account for the highest number of absences (49.9 per cent of all absences of more than three days) and cases of permanent incapacity for work (60 per cent).

10. Unclear division of responsibilities of different government departments sometimes undermines prevention of occupational diseases. Government responsibilities for health and safety at work often belong to both the labour and health ministries. Similarly, technological choices, design of workplaces and equipment, specifications and technical standards, as well as prohibition, licensing and authorization, involve a wide variety of actors and institutions.

11. Changing patterns of employment such as restructured work organization, downsizing, attrition of the workforce, subcontracting and outsourcing, especially when they occur in times of downturn with high unemployment, can increase workers’ acceptance of work

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9 P. Huré: Respiratory diseases linked to exposure to products such as asbestos: Are preventive measures sufficient? (Special Commission on Prevention, National Research and Safety Institute, France), at: http://www.issa.int/pdf/prevention/2hure.pdf.

with health risks while making it more difficult to ensure adequate monitoring of workplace conditions.

12. Intensified migration, ageing of the workforce, growing participation of women in the labour force, increasing numbers of workers in temporary or casual work and the continued significance of the informal economy create complications for health surveillance and additional difficulties for the effective implementation of strategies for occupational disease prevention. Rural workers and workers in the informal economy and small and medium-sized enterprises are likely to face high levels of risk, not least because they tend to be outside the systems which diagnose and report on occupational diseases.

II. National data collection system for occupational diseases

A. Challenges in data collection

13. Occupational hazards exist everywhere and can affect anyone. And yet occupational diseases can be invisible in public policy discussion, since in most countries, especially developing countries, there is very limited reporting of such diseases. The long latency period of many diseases such as occupational cancer further aggravates the difficulties in recording and reporting them. Another problem is low capacity in the surveillance of workers’ health and their occupational exposure. Most countries’ official national statistics based on reported data cover only a fraction of actual cases, reflecting challenges in defining, recognizing and reporting occupational diseases. Globally, more than half of countries do not provide statistics for occupational diseases.

14. Many diseases due to mixed causes and characterized by long latent periods tend to escape identification until the manifestation of acute symptoms and signs. The movement of workers to different jobs and levels of exposure, and the interaction of many workplace and non-workplace factors in causing diseases, can make it hard to know if there is an occupational origin. Some workers may have contracted diseases in a job involving exposure to substances not yet identified as hazardous. A comprehensive list of occupational diseases with a section on those suspected of being occupational in origin would provide a major contribution to addressing the data gap and stimulate preventive strategies as provided for in Paragraph 2(c) of the List of Occupational Diseases Recommendation, 2002 (No. 194).

B. Channels for data collection

15. Data are mainly collected from three channels: (1) reporting by employers to labour inspectorates in accordance with legal requirements; (2) claims accepted by work injury compensation schemes; and (3) information from medical practitioners.

16. Diseases are diagnosed by medical doctors and their attribution to work has to be assessed for recognition of their occupational origin. Diagnosis of occupational diseases requires specific knowledge and experience, but this is not adequately available in many developing countries, which also constrains data collection and national capacity in health surveillance for workers exposed to health hazards.

17. Regular monitoring of the working environment and health surveillance of workers enables employers to report occupational diseases. Linking health surveillance to the monitoring of hazards at work helps determine whether a particular disease contracted by workers is
related to the work they perform and also contributes to preventing recurrence of the
disease among other workers. Although the primary purpose of health surveillance is early
detection of health impact and action for prevention, it also facilitates the recognition of
occupational diseases with long latency. A good national system of occupational health
services in accordance with the Occupational Health Services Convention, 1985 (No. 161),
is crucial to assisting employers in arranging proper health surveillance for their workers.
A requirement for doctors to inform OSH inspectorates or other responsible authorities
enables the collection of information complementing the above two channels.

18. Work injury and disease compensation schemes collect data on occupational diseases. As
promoted by the Employment Injury Benefits Convention, 1964 [Schedule I amended in
1980] (No. 121), and with a view to providing compensation for occupational diseases
with a long latency period and protecting workers in small enterprises, some countries
(such as China, Japan, Thailand, Viet Nam and many countries in Europe) have expanded
national social security systems to cover more occupational diseases. These systems
provide valuable data on occupational diseases with long latency periods, since workers
may be working for another establishment when diseases are diagnosed.

C. Suspected occupational diseases

19. It takes time before there is enough knowledge and experience to set up well-defined
diagnostic criteria for new diseases and to conclude on their aetiology. A system to
monitor diseases suspected of being occupational in origin would provide a major
contribution to developing awareness of the risks involved in work and stimulate
preventive strategies. A number of countries (such as Denmark, Finland, Germany, New
Zealand, South Africa and United States) collect information on suspected occupational
diseases.

20. The list of occupational diseases annexed to Recommendation No. 194 was revised in
items” in the list which provide for recognition of new diseases rely on an active
contribution by hygienists and physicians, as well as by employers, workers and
government authorities.

III. Prevention of occupational diseases

A. National OSH policies and programmes

21. The Occupational Safety and Health Convention, 1981 (No. 155), Convention No. 161 and
the Promotional Framework for Occupational Safety and Health Convention, 2006
(No. 187), provide guidance on a strategic approach to integrating prevention of
occupational diseases in national OSH policies and programmes. This approach is applied
by a number of countries. For example, the Australian strategy (2002–12) has prevention
of occupational diseases as a focus, with actions on control of workplace exposures,
effective engagement of social partners, developing systems to provide better data and
improving the regulatory approach. Some countries (such as Argentina, China, Malaysia,
Portugal, Thailand, United Kingdom and Viet Nam) have established national OSH
programmes with prevention of occupational diseases as a priority. Other countries (such
as India, Lao People’s Democratic Republic, Papua New Guinea and South Africa) also

mention the prevention of occupational diseases in their national OSH policy or programmes. However, in general the prevention of occupational diseases does not receive globally the priority warranted by the real scale and severity of the problem.

22. Strengthening labour inspection is also important as a means of preventing occupational diseases through better compliance with legal requirements. For example, Angola, Benin, Burkina Faso, Central African Republic, China, India, Indonesia, Lebanon, Mali, Mauritania, Republic of Moldova, Morocco, Senegal, South Africa, Syrian Arab Republic, The former Yugoslav Republic of Macedonia, Togo and Tunisia have taken actions to enhance their labour inspectorates and OSH inspection activities, including the prevention of occupational diseases as promoted by the Labour Inspection Convention, 1947 (No. 81).

23. The ILO list of occupational diseases revised in 2010 has been used by member States as a reference in shaping and revising their own national lists. For example, China has translated the ILO list into Chinese and used it as a key reference in the updating of its national list. Mexico has taken the ILO list as a key resource for the review of its own national list.

24. For effective implementation of national policies and programmes, a good national OSH system is critical, including:

- laws and regulations, and collective agreements where appropriate, on occupational disease prevention;
- law compliance mechanisms, including effective workplace inspection systems;
- cooperation between management and workers and their representatives;
- occupational health services;
- a mechanism for the collection and analysis of data on occupational diseases;
- provision of OSH training and information;
- collaboration with social security schemes covering occupational injuries and diseases.

B. Prevention of silicosis and other specific diseases

25. Brazil, Chile, India, Peru, South Africa, Thailand, Turkey and Viet Nam have launched national programmes on the elimination of silicosis and prevention of other pneumoconioses within the framework of the ILO/WHO Global Programme for the Elimination of Silicosis. Special efforts have been made to implement the 2006 ILC resolution concerning asbestos and enhance national capacities in recognizing and preventing ARD.


26. The Asian Intensive Reader of Pneumoconiosis Project (AIR Pneumo), first started in 2008 in Thailand with ILO support, has expanded to other countries in Asia and Latin America. It is aimed at upgrading skills of specialists in developing countries through training on recognition of pneumoconioses by using the ILO Radiographs. 14

27. A number of countries have been reinforcing prevention of psychosocial risks. For example, Italy introduced occupational safety and health legislation in April 2008 that explicitly mentions work-related stress to be included in any risk assessment. 15 The 2006 Labour Code of the Czech Republic also includes a provision on work-related stress. 16 The Committee of Senior Labour Inspectors (SLIC) launched its European Campaign 2012 on psychosocial risks and, in collaboration with the European Agency for Safety and Health at Work (EU-OSHA), has developed an inspection toolkit available in 22 languages.

28. At the regional level, the EU recently proposed to the EU Council that it authorize EU Member States to ratify the Chemicals Convention, 1990 (No. 170). This would promote wide ratification and implementation of the Convention in all EU countries and could result in enhancing measures for the prevention of occupational diseases.

C. Role of employers' and workers' organizations

29. Active participation of employers’ and workers’ organizations is important for the development of national policies and programmes for the prevention of occupational diseases. At the enterprise level, employers have a duty to prevent such diseases by taking preventive and protective measures through assessment and control of risks at work. Managers, supervisors and OSH professionals, as well as workers, their safety and health representatives and trade unions, all have important roles to play through effective social dialogue and participation.

30. The inclusion of OSH clauses in collective bargaining agreements can also be an essential tool to improve OSH at the workplace and branch levels. Workers and their organizations have the right to be involved at all levels in the formulation, supervision and implementation of policies and programmes on occupational disease prevention through improvement of working conditions and environment. Public Services International (PSI) health service affiliates in West Africa, for example, have created the West African Health Sector Unions Network in Ghana, Liberia, Nigeria and Sierra Leone, which has succeeded in promoting the establishment of no fewer than 50 OSH workplace policies in the region.

31. Employers’ and workers’ organizations also play an active role in training and education. A number of employers’ organizations arrange training for their affiliates on prevention of occupational diseases. Some workers’ organizations prepare and distribute practical training materials; for example, the hairdressing sector trade union UNI Europa Hair and Beauty and employers’ organization Coiffure EU, the Employers’ Group of Professional Agricultural Organisations in the European Union (Geopa-Copa), the International Road Transport Union, the Confederation of Swedish Enterprise and the European Bitumen Association used the ILO list as a reference in their efforts to prevent occupational diseases.


15 Legislative Decree No. 81 of 9 April 2008 implementing Act No. 123 of 3 August 2007 in regard to health and safety at the workplace.

such as skin diseases, MSDs and diseases due to radiation. Furthermore, PSI has created a user-friendly database of labour standards on OSH issues.

D. ILO responses to occupational disease prevention

32. Over the years, the ILO has adopted a number of instruments with relevance for the prevention of occupational diseases which provide guidance on national policies, strategies and programmes, and has developed practical tools to strengthen national health surveillance systems, diagnostic criteria, recording and reporting of occupational diseases and improvement of the working environment. Some practical approaches have also been developed in collaboration with WHO, such as the Basic Occupational Health Services.

33. There is steady progress in the ratification of OSH Conventions. Since 2000 13 countries have ratified Convention No. 161 and 30 countries have ratified Convention No. 155, which is a good indication of their commitment to strengthening occupational health services, although greater urgency is warranted globally.

34. Ongoing implementation of the Plan of action to achieve widespread ratification and effective implementation of the occupational safety and health instruments (2010–16) (Convention No. 155, its 2002 Protocol and Convention No. 187) is also a major ILO contribution to the prevention of occupational diseases by providing a firm OSH framework.

35. Since the adoption of Recommendation No. 194, the Office has provided assistance to member States and employers’ and workers’ organizations in shaping and changing their national lists in countries such as Belgium, Canada, China, Germany, Grenada, India, Italy, Mexico and United Kingdom, and at the regional level, for example in the EU and the Caribbean Community through conferences, technical advisory and consultation services.

36. As part of ILO efforts in implementing the Global Programme for the Elimination of Silicosis, the Office has organized advanced training courses using the ILO Radiographs in Brazil, Chile, India, Indonesia, Malaysia, Peru, South Africa, Thailand, Turkey and Vietnam, to upgrade knowledge and skills of specialists in the early detection and recognition of pneumoconiosis. The ILO Radiographs, first published in the 1950s and since revised several times, have been a global reference in the classification of pneumoconioses.

Examples of ILO guides and tools include: Recording and notification of occupational accidents and diseases: An ILO code of practice; Technical and ethical guidelines for workers’ health surveillance (Occupational Safety and Health Series No. 72); the ILO International Classification of Radiographs of Pneumoconioses; International Chemical Safety Data Sheets; Approaches to attribution of detrimental health effects to occupational ionizing radiation exposure and their application in compensation programmes for cancer: A practical guide (Occupational Safety and Health Series No. 73); Ergonomic checkpoints (second edition); Stress prevention at work checkpoints: Practical improvements for stress prevention in the workplace; and numerous sectoral codes of practice and guidelines (see GB.316/POL/INF/1 for examples).

17 Antigua and Barbuda, Belgium, Bulgaria, Colombia, Luxembourg, Montenegro, Niger, Poland, Serbia, Seychelles, Turkey, Ukraine and Zimbabwe.

18 GB.316/LILS/INF/1.
37. Identification and prevention of occupational diseases is a global product of the Office in 2012–13. Guidelines on diagnostic criteria and on recording and reporting of occupational diseases are being developed in collaboration with WHO, professional bodies and employers’ and workers’ organizations. Special emphasis will be placed on national programmes for elimination of silicosis and ARD.

38. At the international level, the Joint ILO/WHO Committee on Occupational Health has played and could continue to play a significant role in elaborating guidance on health and labour strategies to address occupational diseases. The ILO International Occupational Safety and Health Information Centre (CIS) maintains a database on effective workplace prevention tools and major efforts are being made to update it and the ILO flagship reference book, the Encyclopædia of Occupational Health and Safety.

IV. The way forward for prevention of occupational diseases

A. Global efforts on the prevention of occupational diseases

39. A concerted effort is needed at international and national levels to tackle the “invisibility” of occupational diseases and to correct the decent work deficits which are the root cause of these diseases. The fight against occupational diseases must feature more prominently within the global and national agendas for preventive safety and health culture. Greater efforts are required to compile relevant data and carry out research on local situations. This would feed into awareness and advocacy programmes, including global and national campaigns, for an improved understanding of the significance of and the need for urgent action in support of occupational disease prevention among all stakeholders, including decision-makers, high-level officials of government authorities and social security institutions, employers and workers and their representative organizations, labour inspectors, OSH professionals, the media and the public.

40. Effective prevention of occupational diseases requires the continuous improvement of national OSH systems, inspection and prevention programmes and compensation systems in all member States, preferably as a collaborative effort of government and employers’ and workers’ organizations. Where capacity to identify and recognize occupational diseases is weak, especially in developing countries, training with ILO tools, such as the ILO list of occupational diseases, ILO Radiographs, and Guidelines on diagnostic criteria, would be a practical way forward. Emerging occupational diseases, such as MSDs and those related to psychosocial factors, should be addressed.

B. Areas of ILO action

41. In support of this strategy, the relevant ILO units at headquarters and in the field should continue and increase efforts to:

(1) promote the ratification and implementation of ILO Conventions related to occupational diseases;

\(^{20}\) Forthcoming.
(2) support the strengthening of national OSH systems, particularly the legal framework and capacity for recognition and prevention of occupational diseases;

(3) strengthen governments’ capacity for effective inspection of workplace health and safety risks and corrective action;

(4) integrate occupational disease prevention in the ILO labour inspection programme and sectoral activities such as mining, health and agriculture;

(5) support social dialogue on issues related to OSH at global, national, branch and workplace levels;

(6) support the strengthening of compensation of occupational diseases in national social security systems;

(7) support a global awareness campaign on the prevention of occupational diseases through various means, including the World Day for Safety and Health at Work;

(8) facilitate the exchange of good practices on occupational diseases through the CIS and other networks and through international conferences such as the XXth World Congress on Safety and Health at Work in 2014;

(9) establish an international roster of experts who could support the Office activities on prevention of occupational diseases and updating of the ILO list of occupational diseases;

(10) reinforce technical cooperation by seeking donor support for national capacity building and by incorporating occupational disease prevention components in the projects of other ILO technical areas;

(11) strengthen international alliances for the prevention of occupational diseases with other institutions such as WHO, the International Commission on Occupational Health, the International Association of Labour Inspection and the International Social Security Association.

**Draft decision**

42. The Governing Body:

(a) confirms that the prevention of occupational diseases is a central element of the Decent Work Agenda, and supports the strategy and actions for prevention of occupational diseases described in paragraphs 39–41; and

(b) requests the Director-General to intensify the Office’s work on the prevention of occupational diseases reflected in paragraph 41, taking its suggestions into account.