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STRENGTHENING OF OCCUPATIONAL HEALTH IN THE BALTIC SEA COUNTRIES

Report on a WHO Meeting

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HEALTH OF PEOPLE AT WORK

By the year 2000, the health of workers in all Member States should be improved by making work environments more healthy, reducing work-related disease and injury, and promoting the wellbeing of people at work.

ABSTRACT

Information systems for occupational health and safety should serve several levels and groups, such as decision-makers, government authorities, employers and employees, educational and research institutions, and the general public. The WHO European Centre for Environment and Health, Bilthoven Division, in collaboration with the Latvian Institute of Environmental and Occupational Health and the Finnish Institute of Occupational Health, invited experts and managers from the countries around the Baltic Sea to review the indicators and procedures used in different countries, and to assess the situation in occupational health and progress in building up an information network. The participants recommended that country profiles be compiled and published, covering legislation, responsible government authorities, government and nongovernmental infrastructures, human and financial resources, and other information needed to assess occupational health and safety practice. The arrangements for establishing the telematic information network on occupational health and safety among the countries around the Baltic Sea were deemed to be well underway.

Keywords

OCCUPATIONAL HEALTH
INFORMATION SYSTEMS
LATVIA
ESTONIA
LITHUANIA

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INTRODUCTION

Dr Boguslaw Baranski, Regional Adviser, Occupational Health, World Health Organization Regional Office for Europe (WHO/EURO), welcomed the participants on behalf of the Regional Director, Dr Jo E. Asvall, to the follow-up Meeting on Strengthening of Occupational Health in the Baltic Sea Countries. He expressed the gratitude of the Regional Office to the Latvian Institute of Environmental and Occupational Health for taking the responsibility for organizing the Meeting in collaboration with the WHO European Centre for Environment and Health, Bilthoven Division, and the Finnish Institute of Occupational Health for cooperation in planning it.

Professor Maija Eglite, Director of the Institute of Occupational and Environmental Health, Latvia, as the host and organizer of the Meeting, welcomed participants to Jurmala and to the Meeting.

Dr Janis Vetra, Rector of the Latvian Medical Academy, welcomed the participants to Vaivari. He stressed the importance of education and training in the field of occupational health and the value of good strategic goals, particularly at this time when the occupational health and safety services were being restructured.

Mr Andris Berzins, State Minister of Labour of Latvia, officially opened the Meeting. He said that it was important to strengthen occupational health in the countries around the Baltic Sea. Latvia was no exception. The need to meet European Union (EU) standards and directives was a governing principle in the implementation of all regulations and developments in occupational health and safety in Latvia. International organizations such as WHO, the International Labour Office (ILO) and the EU should collaborate closely in providing joint assistance to these countries in the Region to facilitate their interpretation, understanding and application of various approaches and programmes. Mr Berzins considered that the occupational health services needed active development, and he hoped that the Meeting would offer a good opportunity for lively discussions and effective exchange of information.

Professor Jorma Rantanen was elected Chairperson, Professor Maija Eglite Vice-chairperson, and Ms Suvi Lehtinen Rapporteur. The list of participants is given in Annex 1.

PURPOSE OF THE MEETING

The Meeting followed on three previous WHO meetings: the first organized by WHO headquarters dealing with the development of occupational health services in the countries in transition, held in Moscow, Russian Federation (8–9 February 1994); the second organized by WHO/EURO, charting the situation of occupational health services in countries in socioeconomic transition, held in Lodz, Poland (15–17 December 1994); and the third dealing with strengthening occupational health services in the Baltic countries, also organized by WHO/EURO, held in Copenhagen, Denmark (6–7 November 1995).

The purpose of the Meeting was to assess national progress in occupational health since the Copenhagen meeting and to plan future joint activities within the Baltic network. At its plenary session in Geneva on 25 May 1996, the 49th World Health Assembly (WHA) had endorsed the

WHO global strategy for occupational health for all and stressed that occupational health and healthy work environments were essential for individuals, communities and countries as well as for the economic success of each enterprise. This Meeting was organized in implementation of the strategy for occupational health for all, as recommended by the 1995 meeting in Copenhagen.

Economic challenges and the globalization of market and business operations require the joint development of a regional strategy aiming at the harmonization of national legislation and preventive measures in occupational health and safety and minimizing inequities in health and socioeconomic development among and within the European Member States of WHO. The collection and appropriate use of information on occupational health and safety is a prerequisite for quality management and the ability to offer similar opportunities to entrepreneurs and the labour force in different countries. For the sustainable development of companies and countries, it is essential to have appropriate occupational health and safety profiles which may become tools to increase mutual confidence and social stability. The comparability of data across different countries is of crucial importance when such profiles are made.

BACKGROUND

Dr Baranski presented the goals of the Meeting in more detail, giving background information about general developments in occupational health and safety and the WHO/EURO occupational health programme for 1996–1997. He recognized the need for proper information systems in the development of occupational health and safety at the international, national and local levels. He also emphasized the role of quality assurance in occupational health and safety, and the need for indicators to evaluate the activities carried out.

Dr Baranski referred to the reports of the Eleventh and Twelfth Joint ILO/WHO Committees on Occupational Health and Safety which confirmed that, in accordance with ILO Conventions 155 and 161, and the WHO health for all strategy, occupational health and safety services are not only hazard- and risk-oriented but also include the promotion of health and the ability to work. Occupational health and safety services should concentrate on:

- maintaining workers' health and working capacity
- improving the working environment and developing work conducive to health
- organization of work,

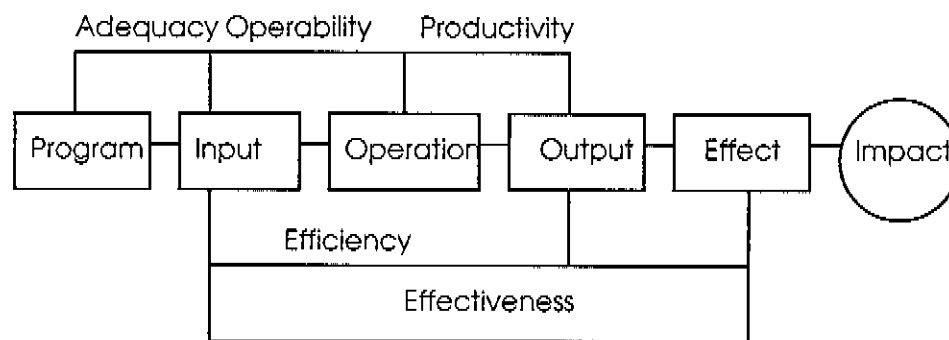
to focus on the idea that high-quality products cannot be produced if workers are not provided with a good working environment. Thus, development of occupational health and safety will eventually give enterprises a better competitive edge through improved productivity.

Professor Rantanen reviewed the current status of occupational health services (OHS) in Europe and worldwide, taking into account the challenges posed by the WHO global strategy on occupational health for all. The Declaration and global strategy on occupational health for all had been approved by the network of WHO collaborating centres in occupational health in 1994 (52 centres altogether, 30 in the European Region). Since the WHA adopted the global strategy in May 1996, it can be used as guidance in developing national occupational health and safety programmes.

The European survey of occupational health services, carried out by the European Foundation for the Improvement of Living and Working Conditions, had revealed that the bases (e.g. legislation, collective agreements) of these services differ between countries. However, the top ten priorities in the countries were to a great extent the same. This is a good basis for collaboration and the cost-effective use of resources.

The evaluation of OHS programmes, as well as of the system itself, is important. Professor Rantanen described the general outline for process evaluation (Fig. 1).

Fig. 1. General outline of the evaluation process

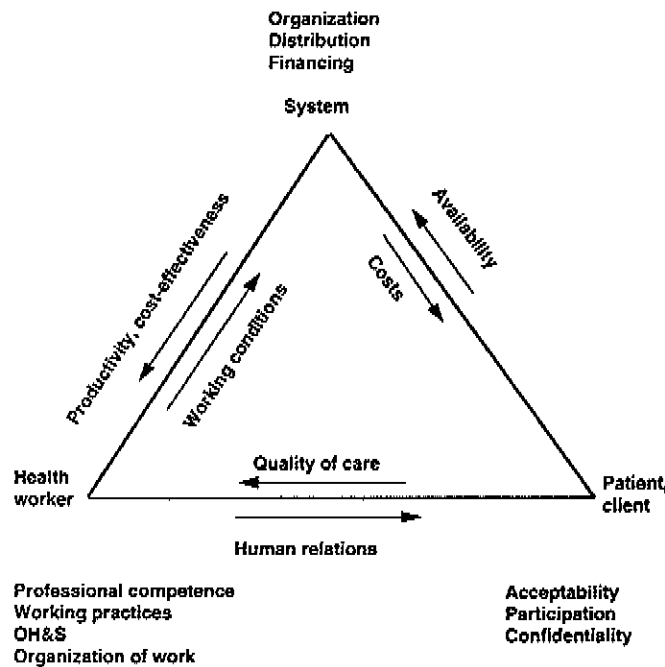


He stressed the need to take into account changes in both working life and social phenomena in different countries when planning the development of occupational health and safety. A new system for developing OHS is therefore needed. The connections, interests, capacities and opportunities of various actors should be combined in a balanced way (Fig. 2).

OCCUPATIONAL HEALTH AND SAFETY ASSESSMENT

The first session of the Meeting was devoted to a review of the qualitative and quantitative indicators (measures, indices, descriptors, etc.) and procedures used in different countries for the assessment of occupational safety and hygiene, healthy work practices, the protection and promotion of the ability to work and health at work, and of the quality of occupational health and safety services. Proposals for evaluating the effectiveness and efficiency of such services, for prioritizing investments in occupational health and safety, or for evaluating the effectiveness of national policies were welcomed. It was anticipated that the Meeting would propose modifications to the regional indicators for monitoring progress in occupational health towards health for all in the WHO European Region (Target 25: Health of people at work; Target 11: Accidents). The indicators should allow for the identification of differences in occupational health and safety between and within countries and the structuring of information for decision-making.

Fig. 2. New setting in the occupational health and safety service system



Country experiences

Poland

Professor Danuta Koradecka stated that the tasks and duties of the state, employer and employees are determined in ILO Convention No. 155. She described the monitoring of occupational health and safety and risk factors at work (noise, vibration, chemical substances, etc.), stressing that the associations between technological, biological and social factors should be taken into account and that experts in various areas should collaborate in dealing with problems at enterprise level. She emphasized the role of threshold limit values in assessing the status of work environments. These also provide a quantitative indicator for measuring the levels of exposure.

In Poland the Central Institute for Labour Protection tests working conditions and equipment and issues certificates. A new labour code was to come into force in 1996, which would include risk assessment and information about the risks, the certification of machines and personal protective equipment, and a provision to make employers responsible for safety at work. Some 1.7 million of Poland's 5.7 million workers work in environments with hazardous exposures. It is therefore especially important for occupational health and safety that employers assess the risks and inform workers of the results.

Professor Koradecka described the methods that enterprises can use in assessing risk factors at the workplace. They are requested to prepare risk-based control plans differentiating between substantial unacceptable risks and acceptable risks, and are then required to take various measures on the basis of the plans. Insurance is related to the occupational hazards in companies' workplaces, as an economic incentive to companies to control their risk factors.

Quality assurance of all activities is the key to ensuring the quality and effectiveness of production, protecting workers' health at work, and protecting the natural environment in this regard.

Participants considered that the presentation demonstrated well how to combine occupational health and safety strategies effectively in a standard setting, and commented on the structuring of the insurance system as an incentive to small enterprises.

Germany

Professor Claus Piekarski described how occupational health and safety in Germany started in mining and smelting. Mining has always been regulated by the Government, and in 1865 women were prohibited from doing underground mining work. The Liability Insurance system dates back to 1871. In 1885 the Industrial Accidents Act came into force, establishing compulsory accident insurance to cover all occupational accidents. *Berufsgenossenschaften* (associations of employers in different fields) could establish accident prevention rules. In 1913, the Kaiser Wilhelm Institute for Occupational Physiology was founded to conduct scientific research into occupational diseases.

Occupational safety and occupational health services were started in 1974. Minimum doctor hours per employee per year are laid down, depending on the branch of economy and the type of work performed by the employees (e.g. 2500 miners per physician). The minimum qualifications for doctors in enterprises are laid down. In recent years, the number of occupational medical specialists has increased but is still insufficient to meet the needs. In 1995, there were 3600 highly qualified occupational medicine doctors, and an additional 3500 with lower qualifications.

The unification of the two German states had caused some problems in the field of occupational health and safety. In the former West Germany occupational health physicians concentrated solely on prevention, whereas in the former East Germany they also offered curative services. New legislation now covers the whole country. The Occupational Hygiene Inspectorate monitors the situation in enterprises.

Legislation for standard compensation for occupational diseases was also needed. Some 11 300 cases of bronchial carcinoma of miners had been diagnosed and reported because of radon exposure. There is a registry for asbestos diseases, but because of the confidentiality of data there is no cancer registry: confidentiality of data has led to the destruction of registries, which cannot now even be established for scientific purposes. Another problem has been that the keeping of good registries established earlier has not been continued.

Participants discussed the publication of an annual occupational health and safety report, including fatal accidents and changes in safety procedures, and the coverage and contents of occupational health services in Germany. All accidents have to be reported to a special board as well as to the employer. These reports are accessible. Scarcity of inspectorate staff has, however, prevented the inspection of all workplaces.

Norway

Dr Axel Wannag presented a paper on indicators for the work environment at enterprise and national levels. He described the indicators used by the Norwegian Labour Inspectorate (yearly rates for occupational accidents and diseases and a four-yearly survey of work environment matters) to assess the status of occupational health and safety. Norwegian legislation uses concepts such as personal development and participation in the development of the work environment which are difficult to measure objectively, however important they may be. The survey will try to measure

these concepts. Countries that do not use these concepts would naturally not try to use them as indicators. It was important to view countries' indicators within national social, political, legal and general background conditions, especially when making intercountry comparisons.

Near accidents are reported in some enterprises. Some firms were pooling their data so as to increase the number of cases to be analysed and thus enable them to find and correct/eliminate danger spots in their production processes more quickly. This was being extended to combining registry analyses with a survey approach as a good standard for what was really happening in the workplace and to see whether events were in fact being registered. In this connection it was important that workers had complete trust in the researchers.

Participants discussed the choice of indicators and possible bias. When data are analysed they should be broken down as far as possible – at least into gender, age, and groups of trades and professions – to identify risk groups. Problems were arising with the ISCO-88 classification of occupations, which seemed unsuited to identifying people experiencing similar types of work environment exposure.

Denmark

Mr Knud Overgaard Hansen introduced the Danish occupational health and safety system. The development of occupational health and safety activities is covered by legislation. The Working Environment Service comes under the Ministry of Labour, whose activities have to be in accordance with the wishes of all parties concerned. OHS are services for the patient, and the patient is the workplace, not the individual. Some statistics are:

- the workforce numbers 2.9 million (1.6 million men and 1.3 million women);
- 93% of enterprises are small, employing fewer than 20 employees;
- some 15 000 cases of occupational disease were reported in 1995;
- 84 fatal accidents have been reported, and the trend in total number of accidents is rising (although accidents are under-reported);
- in 1992 the total cost of work-related illnesses and occupational accidents was calculated as 3050 million ECU;
- 57 occupational health care centres cover 540 000 workers;
- 60 occupational health units in enterprises cover 190 000 workers;
- 32 334 enterprises are covered by occupational health services;
- there are 586 occupational health professionals, including: 18 physicians, 169 physiotherapists, 81 chemists, 84 environment technicians, 42 psychologists, 53 engineers and 35 construction engineers; this indicates the need for a multidisciplinary team working in occupational health and safety.

The seven main targets of prevention activities in occupational health and safety are:

- fatal accidents
- occupational exposure to carcinogens
- occupational accidents to young people
- injuries caused by heavy lifting, occupational diseases caused by monotonous repetitive work
- psychosocial risk factors at work
- indoor climate, and
- hearing damage caused by noisy work.

The future perspectives for occupational health and safety are:

- stressing the employer's responsibility
- clarifying the concept of workplace assessment
- increasing competitiveness
- increasing the need for advice in finding economic solutions
- increasing requirements for quality
- making major changes in the workforce
- increasing competition between the public and private sectors
- finding good examples of cost-effective occupational health measures
- linking the work and general environments, and
- looking at the new roles of the social partners.

Participants took up the question of comparability of accident statistics, noting that great care should be taken when comparing national statistics between countries without clearly knowing the reporting and recording criteria. They also discussed competition between the public and private sectors in more detail, particularly the problem caused by the discrepancy between advice given to employers by the authorities and by consultants.

Sweden

Professor Peter Westerholm described how Swedish occupational health and safety measures are depend on the free market. The tasks of the OHS are the starting point for defining occupational health and safety indicators. The national planning of health services aims to limit costs, guarantee funding, improve access to the services and individual freedom of choice, strengthen preventive services, be flexible towards customers' needs, have in-built quality control, provide incentives for developing skills, and satisfy ethical requirements. Some of these objectives are contradictory and the best method of reconciling them has to be sought at national level.

The quality of OHS has an association with the market costs, flexibility, competition and the marketing skills of the personnel. In many cases it is very difficult to find good indicators for evaluating occupational health and safety activities, but this is no excuse for not evaluating them. There is an obvious need to develop quality indicators, methods and instruments for such evaluations.

One aspect of occupational health and safety services includes advice given to employers on measures to take to improve working conditions (advice → increased knowledge → behavioural change → changes at the workplace → impact). However, this has to be on the basis that the advice is needed and adequate, that problems are caused by lack of knowledge, and that the advice receives sufficient emphasis in decision-making. The crucial questions in this process are: What do we do? What does it cost? How good is the advice?

Indicators can be identified for goals/strategies, structures, processes, outputs/products or outcome/impact. This all needs systematic documentation. In addition, decisions have to be made as to which indicators should be compiled for use at national level and which at the enterprise level.

Participants stressed the importance of economic assessments of various activities, both at national and enterprise level. They also discussed occupational health and safety indicators, with

particular reference to different systems of indicators, the requirements of present and future occupational health activities, different ways to collect, analyse and use data to improve occupational health and safety, the need to use quantitative and qualitative indicators in a balanced way, and the need to treat small and big enterprises in the same way.

In addition to statistics available in registries, data collected directly at various levels should be studied. The possibility of using qualitative data should also be considered, and active compilation of data and passive mechanical registration further developed to complement each other. Proper data analysis and the need to look at the economics of data collection were important.

ILO and occupational health and safety

Dr Jukka Takala informed the Meeting that the ILO is engaged in standard setting, formulation of labour policies, training and education, as well as in technical cooperation activities. In the area of occupational safety and health, the ILO is concerned with regulation and self-regulation, safety culture, the transfer of technology, the harmonization of standards, the environment and the world of work. The ILO has different priorities as regards work in industrialized and developing countries. Worldwide some 800 million people are unemployed or threatened with unemployment and 500 million people are disabled. Their problems cannot be set ahead of each other: all are in need of corrective measures.

Accident rates vary widely in different parts of the world. Enterprises have several ways to identify and control accidents, for example through ILO Convention No. 161 and their own internal control measures.

Several different sets or baskets of indicators could be collected on, for example:

- the adverse effects of poor working conditions – accidents and diseases;
- measurements of resources – personnel, finances and budgets;
- performance indicators – the number of inspections and activities of occupational health services, diagnoses;
- working conditions and the working environment in enterprises – hygienic and biological monitoring and measurements, surveys.

Working groups on occupational health indicators

Three working groups were set up to study indicators in occupational health and safety and answer the following questions.

1. What are the principal indicators to use in describing national occupational health and safety situations?
2. How should the compilation of data be organized?
3. How and who should record and analyse the data?
4. Who are the main users and customers of the data collected?
5. How can occupational health and safety information systems be further developed?

Working Group 1

Chairpersons P. Westerholm, R. Jankauskas

Members D. Beyer, B. Dahlner, H. Kahn, T. Leino, E. Pertilä, J. Skowron, A. Wannag

Group 1 dealt with questions 1, 4 and 5. They identified the principal indicators as related to work environment exposure (types and results of exposure, services to improve the work environment, labour market and economic activity), and the main users as government (central and local), the EU, social partners, insurance institutions, private enterprises, occupational health services and individual citizens.

The group proposed the following action to develop occupational health and safety information systems: train occupational health service personnel; set up an internal control system; improve the use of new information technologies to gather data from new sources; and include an economic calculation of the personnel and occupational health services' activities in the annual report. In connection with the last, the group heard that a software program entitled TERVUS had been developed in Finland to facilitate the economic calculation of the cost-effectiveness of OHS activities. It gives the pay-back times of the investments on the basis of the company data.

Working Group 2

Chairpersons K. Overgaard Hansen, D. Koradecka

Members J. Kopias, A. Kuchuk, C. Piekarski, I. Raik, C. Schlombach, M. Silberschmidt, R. Viinanen

Group 2 identified the following indicators for measuring occupational health and safety: accident rates, work-related diseases, proportion of enterprises having performed a risk assessment, the number of workers above the national standards, performing a risk assessment using a checklist procedure. Data should be compiled and analysed by employers, the inspectorate, the occupational medical service and insurers. Users and customers included employers, the regulation authority, social partners and the funding authority, and possibly also research organizations and training institutions. Proposals for developing occupational health and safety information systems included the development of a tripartite system and risk assessment procedure.

Working Group 3

Chairpersons J. Takala, M. Eglite

Members B. Baranski, E. Jankauskas, K. Kurppa, J. Michalak, A. Vähäpassi, E. Yrjänheikki, T. Zabarowska

Group 3 analysed the following indicators: accidents divided into several subclasses, occupational health service personnel resources, and working conditions. They considered that data should be collected from official statistics, compensation and insurance companies, ministries of labour and health, trade unions, and research centres. All these, together with international organizations, should be involved in analysing the data. Users and customers included politicians, labour inspectorates, trade unions, employers and the general public. Information systems could be further developed by the establishment of a system of data collecting and reporting.

NETWORKS

Telematic Information Network in Occupational Health and Safety

The objective of the second session was to review the type and content of mutual support in the development of the Telematic Information Network on Occupational Health and Safety. Participants in the Copenhagen meeting had agreed that such a network should be established among the countries around the Baltic Sea, considering that collaboration among relevant institutions in these countries within such a network was an effective way to strengthen collaboration and improve synergy between their activities. The Finnish Institute of Occupational Health had been made the focal point in the network, which could contain information about projects and events related to occupational health and safety in the Baltic Region, training opportunities, information materials and, possibly, information bulletin boards.

Ms Suvi Lehtinen outlined the plan for the Network. Since its establishment, situation analyses had been carried out in the three Baltic countries to work out the technical possibilities for them to join the Internet and thereby also contribute to the network. The results of these surveys had been very positive and the three countries had expressed their interest in and willingness to join the network. The Finnish Institute of Occupational Health was applying for funding to start networking activity. In due course each country would integrate the costs into its own budget. The following countries (which had been at the Copenhagen meeting) were now participating in the network: Denmark, Estonia, Finland, Latvia, Lithuania, Norway and Sweden. As the name of the network indicated, Germany, Poland and the Russian Federation also border on the Baltic Sea and were therefore cordially invited to join the network.

Health and Environment Geographical Information System for Europe

Dr Alexander Kuchuk described the Health and Environment Geographical Information System for Europe (HEGIS) being developed in the WHO/EURO Bilthoven Division in the field of environmental health. Its main objectives were:

- the geographical and temporal assessment of priority aspects of the environment and health situation, for purposes of trend and impact analysis;
- intercountry comparisons of the environmental health situation at subnational level according to the health for all targets; and
- monitoring the results of the implementation of national environmental health action plans within the framework of the Environmental Health Action Plan for Europe.

Dr Kuchuk mentioned the difficulties in data collection, compatibility and comparability. For example, data on age-specific mortality, broadly defined cause-specific mortality and life expectancy could be used for international comparisons with some confidence, but those on defined causes of death were not fully amenable to making international comparisons. International comparisons of infant mortality could be made if vital registration reporting differences were taken into consideration. But there are virtually no population-based data on prevalence of diseases and disability with which to make meaningful international comparisons.

The requirement to develop HEGIS for Europe derives from the geographical subnational and local variations in population density, health status and environmental exposure within countries. Ideally,

the system should comprise information at different points in the source-effect chain (source activity → hazard emission → concentration (level) → exposure → burden (amount of a substance in the body) → adverse health effects → morbidity → mortality) and interacting factors, such as social environment, lifestyle, etc., which can be stored in the different databases. But even if the two end-points of this chain (i.e. source activity and mortality) are reasonably open to international comparative analysis, the inner links are concealed because reliable and comparable data are rarely, if ever, available. On the other hand, estimating the impacts of environmental agents on the health of the population requires both information on exposure at the lowest possible level of aggregation, and knowledge about the quantitative relationship between exposure and effects on health.

The data included in HEGIS about the environment and health can be complemented with data on occupational exposure and outcomes in the European Region.

Nature and purpose of a network

Dr Kari Kurppa described the purpose and benefits of a telematic information network on the basis of experience gathered in the ILO-FINNIDA Programme in the Asia-Pacific Region. He described different structures for networks, emphasizing the need to decentralize the information network and keep separate the concepts of "network" and "cooperation" (the ultimate goal). A network is an instrument, cooperation is an activity. Clarity on what a network is has proved to be of much practical importance because an intersectoral network needs to be similarly understood by all. Networks are systems, like railway networks. Their essential activity is linking. They are cooperative arrangements that can be regional, national or purpose-oriented and linked at all of these levels. Establishing a network consists of building a communication system and summarizing the capacities of participating agencies.

The rationale of a network such as the occupational health and safety network is to link organizations to allow them to share information, capacities and activities.

Dr Kurppa stressed the importance of the human network, decentralized organizational autonomy, voluntary participation, maximum flexibility, and information updating at source. The Telematic Information Network is a pointer system: it does not deal with legal issues, it allows horizontal communication, and it promotes electronic communication. It could include, for example, such items as contact information and organizational profiles.

Discussion

In the discussion following these presentations, both Dr Westerholm on behalf of the ICOH Scientific Committee on Health Service Research and Dr Leino on behalf of the Nordic Training Institution (NIVA) expressed the interest of their organizations in joining the network.

Dr Takala offered ILO collaboration, observing that funding for such activities could be jointly examined. National CIS centres could also be used as network members. Mr Vähäpassi (ILO) added a warning about the confidentiality of information. He said that within the framework of the ILO-Finnish Project in the Baltic countries, national policies and labour protection would be developed and the division of work between different national organizations would be discussed. The Lithuanian Ministry of Social Security and Labour and the Latvian Ministry of Welfare were connected to the Internet, but not the relevant Estonian ministry as yet.

The Polish representative emphasized that information on health, labour, and the environment is needed and should be included in the information data base of the network.

The German representatives said that although they were connected to the Internet, the technical facilities still needed some development. Joining the network was important and worthwhile. However, the first task should be to chart the tasks and aims of the network and make clear the need for information. This would also offer a good vehicle for countries' representatives to pass on information about the network at national level and to invite other relevant national bodies to join it.

Participants considered that the principle of the right to know relevant information in occupational health and safety would be strengthened through the Telematic Information Network. Confidentiality was important. The quality of data included in the network information database would be crucial for the reliability of the whole network, and it was therefore agreed that the responsibility for the relevance and correctness of information to be included should lie with the supplier of the information.

Reports of the working groups on the Telematic Information Network

Working Group 1

Chairpersons P. Westerholm, R. Jankauskas

Members D. Beyer, B. Dahlner, H. Kahn, T. Leino, E. Pertilä, J. Skowron, A. Wannag

Working Group 1 considered (a) the mechanism for providing rules to govern the confidentiality and quality criteria of data and (b) good practices.

They emphasized the responsibility of providers for the confidentiality and quality of data. Existing international codes of ethics (such as the ICOH code) should be followed to ensure confidentiality. The quality of data should be seen in their accuracy, validity and relevance and presentation in a simple, understandable and user-friendly form. The provider of the information should be identifiable.

As regards good practices, the group concluded that all personal communications, consultations and meetings in the net should be free of clearance. A person owning the rights to certain information should be able to share it through the net, although it is good practice to sign it. Public information can be used when the source has been named and permission has been granted. Any information presented in the name of an institution should be cleared according to the rules of that institution.

The group proposed that when the Internet was used as a source of information it should be referred to in the same way as normal publications. The Vancouver reference system includes instructions on how to refer to an electronic information source.

Working Group 2

Chairpersons K. Overgaard Hansen, D. Koradecka

Members J. Kopias, A. Kuchuk, C. Piekarski, I. Raik, C. Schlombach, M. Silberschmidt,
R. Viinanen

Group 2 considered the wording (purpose) of a policy declaration for the network, and the content and layout of the home page. They proposed the following wording for the policy declaration: "The

purpose of the network is to strengthen occupational health and safety in the Baltic Sea countries by establishing a base for collaboration and by effective utilization of modern information and communication technologies". The network's home page could include a statement to the effect that the information is provided by governmental and nongovernmental organizations, the names of the countries involved, and the names of international organizations (such as WHO/EURO, ILO and ICOH) supporting the activities of the network.

Working Group 3

Chairpersons J. Takala, M. Eglite

Members B. Baranski, E. Jankauskas, K. Kurppa, J. Michalak, A. Vähäpassi, E. Yrjänheikki, T. Zabarowska

Working Group 3 dealt with the practical steps to be taken in establishing and developing the telematic network. They proposed that the following organizations should be involved:

- Estonia:* Ministry of Social Affairs, including the Estonian Centre of Occupational Health and the National Working Environment Board
Tartu Technical University
Tallinn Technical University
Ministry of the Environment
university medical faculties
- Latvia:* Ministry of Welfare, including the Department of Health and the Department of Labour
Institute of Occupational and Environmental Health of the Medical Academy of Latvia
State Labour Inspectorate
Ministry of the Environment.
- Lithuania:* Ministry of Social Security and Labour, including the State Labour Inspectorate and the Department of Working Conditions
Ministry of Health, including the Centre for Occupational Medicine
Institute of Hygiene and Hygiene Inspectorate
Kaunas Medical Academy
Vilnius State University
Vilnius Technical University
Agricultural University in Kaunas
Ministry of the Environment.
- Poland:* Ministry of Labour and Social Policy
Ministry of Health and Social Welfare
National Labour Inspectorate
Central Institute for Labour Protection
National Sanitary Supervision
Nofer Institute of Occupational Medicine
State Institute of Hygiene
Institute of Environmental and Occupational Medicine
11 medical academies
Ministry of the Environment.

Contact information should be collected from much the same institutions as those mentioned above.

Information to be fed into the data base would be garnered from replies to a form to be sent to each participating country by the Finnish Institute of Occupational Health, and including *inter alia* the following items:

Name, acronym (if any)	Facilities available
Postal address	Equipment, computers
Telephone, telex and fax numbers, e-mail address	Activities related to occupational health and safety
Directors	Services provided
Contact persons	Printed information available
Background information about the organization	Databases
Purpose/mission statement	Training activities
Fields of competence	Research and development activities
Number of employees	Research reports
Affiliated organizations	

CONCLUSIONS AND RECOMMENDATIONS

Information systems and indicators

1. Most of the countries have recognized the need to modify, strengthen, and develop their occupational health and safety information systems. Accidents and diseases are clearly being undernotified, the scope of the systems is limited to the parameters which are registered and do not necessarily refer to the most important problems, and data are not being published effectively. The experience of countries that have carried out relevant registration of data for longer periods should be drawn on in strengthening the systems. The collection of data should be combined with competent analysis, and the context in which the data are compiled taken into consideration.
2. Information systems should be designed to serve several levels and bodies, such as decision-makers, government authorities, social partners, training, education and information bodies, research, and the general public.
3. Great care should be exercised in making international comparisons on the basis of data in which the coverage, concepts, criteria for registration and indicators may vary substantially between countries. The collection of data should be as simple and economical as possible, and gaps in the passive reporting system should be covered by complementary methods such as surveys.
4. Occupational health and safety policies and activities should be strengthened and developed in all countries around the Baltic Sea. It would appear that not all decision-makers, employers and workers fully understand the need for this. Effective training, educational and information programmes and action on the new needs of occupational health and safety are necessary. The possibilities provided by new communication and information technologies for training and information should be fully used in the implementation of such programmes.
5. Indicators should be developed to describe occupational health and safety at both national and workplace level for the purposes of situation analysis; identification of trends; provision of information needed in decision-making, regulation and enforcement; and training,

education and information in occupational health. The "Baltic network" should make joint efforts to develop indicators for the establishment of country profiles in occupational health and safety and for the design of an occupational health and safety policy. The organization of data collection should be as light as possible, using available registers and surveys.

6. Based on the working groups' analyses of the optimal feasibility, structure and content of occupational health and safety data systems, the following items should be taken as the starting point for the development of such systems:
 - legal and administrative structures;
 - availability of services at various levels and their activities (functions);
 - organization of infrastructures and activities for occupational health and safety (structures);
 - exposure to occupational health and safety hazards, and particularly groups and activities at risk (exposure);
 - outcomes and consequences of various conditions and exposures (outcome), such as numbers of occupational diseases, occupational accidents, absenteeism;
 - resources available for prevention and control (financial resources); and
 - human resources available for surveillance and prevention of exposure in the work environment.
7. An analysis should be made of occupational health and safety information needs at various levels and of available sources of information. Information should be collected and transferred according to the needs of the level concerned. Collection and registration of data at various levels should cover the most important steps in the occupational health and safety process: identification, assessment, control, prevention, promotion and evaluation.
8. WHO/EURO should be asked to organize a task force to design in more detail the central indicators (exposure, outcome, service, labour market and economic activity) for measuring progress in occupational health and safety, and to plan a pilot experiment for their implementation in the countries around the Baltic Sea.
9. Country occupational health and safety profiles should be compiled and published covering all aspects of occupational health and safety, including legislation, responsible government authorities, governmental and nongovernmental occupational health and safety infrastructure, human resources, occupational health standards, and other information needed for the assessment of occupational health and safety practice. Such profiles would provide valuable information for multiple users, such as governmental agencies, international organizations, employers and employees, and some new users, such as investors. There is a need for international collaboration in the exchange of experience and for the definition of qualitative and quantitative indicators to be used for the preparation of such a profile. A good example of international data collection is provided by the Health and Environment Geographical Information System (HEGIS), developed by the Bilthoven Division of the WHO European Centre on Environment and Health.

10. Confidentiality of data is important. On the other hand, it is also important that appropriate registries be kept as a source for information. A sound balance between the protection of confidentiality of individual data and the collective health benefits of using data for research and prevention should be found. Follow-up to the Meeting should ensure that the countries around the Baltic Sea continue to try and maintain good statistics and registries on various types of occupational health and safety exposure and outcome data, with the aim of protecting the health and safety of working populations and the general public.
11. Those concerned with occupational health and with environmental health should collaborate closely, within the context of the implementation of the European Environmental Health Action Plan, to complement HEGIS with occupational exposure and occupational health data. Although the distribution of occupational exposure and working populations may differ substantially from geographical distribution, the geographical information system approach combined with occupational information has great potential for improving health monitoring and the recognition of hot spots. It also provides valuable information for analysing baseline data. Existing data collection systems, such as the *Yearbook of labour statistics* compiled annually by ILO, should be used in order to avoid duplication. Further harmonization of such data to make them comparable is of vital importance.
12. The arrangements for establishing the Telematic Information Network on Occupational Health and Safety among the countries around the Baltic Sea were well under way and should be continued according to plan. Participating countries should name focal points and nominate contact persons to be responsible for the development of national components. In general, one person (two if necessary) can be nominated. Extramural funding will cover the basic costs.
13. The participating institutions committed themselves to continue their efforts to develop the information systems in the area, and to join the network as soon as it is functioning. The Finnish Institute of Occupational Health will inform members and potential members about the initial activities. It is important to evaluate and follow up the decisions and recommendations for further collaboration made at this Meeting. WHO/EURO should organize follow-up meetings in 1997 in Lithuania and in 1998 in Estonia, in collaboration with those countries.

Annex 1

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