

GOOD PRACTICE IN HEALTH, ENVIRONMENT AND SAFETY MANAGEMENT IN ENTERPRISE

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Abstract. Good practice in health, environment and safety management in enterprise (GP HESME) is a process that aims at continuous improvement in health, environment and safety performance, involving all stakeholders within and outside the enterprise. This WHO program is supported by other international organizations, and the declaration of Ministers of Health and Ministers of Environment adopted in 1999.

The basic issues of the GP HESME concept are presented as well as its prerequisites, benefits and participants. The key partners in GP HESME are employers and their organizations, representatives of employees, governmental agencies, local authorities, financial and insurance institutions, occupational health services, environmental and social services, associations of professionals, research and training institutions. The HESME system is intended to function at different levels: international, national, local community, and enterprise settings. The lists of expected benefits for each group of stakeholders are discussed. Evaluation of GP HESME is based on the criteria and indicators, the most important of them are briefly presented.

Key words:

Occupational health, Health care policy, Occupational safety, Environmental health, Good practice, International program

INTRODUCTION

The problem of quality of occupational health services is widely discussed and numerous reports claim the effective quality management in occupational health services [1,2]. Although health protection and care practice in an enterprise are oriented towards prevention of work-related diseases and injuries, it is usually not sufficiently linked with work hygiene units, which perform monitoring and control of work environment. Work hygiene laboratories very often do not see the need to work closely with occupational physicians on preventing occupational health hazards. Large industrial enterprises have developed and established environment management units. Their responsibility is to implement the environment protection policy and program [3]. While such programs are usually based on performed environmental impact assessment for

an individual enterprise, they usually lack assessment of the health impact of the environment affected by an enterprise [4]. Occupational hygiene is based mainly on the activities of specialized services at national or regional levels. Also environmental protection is also frequently recognized as a service independent of the occupational hygiene, or occupational medicine. Activities of occupational medicine cannot be only restricted to prophylactic examinations, and diagnoses of occupational diseases.

CONCEPT OF GP HESME

The disintegration of different services (health, environmental and safety) results in the dispersion of efforts, leading to poorer quality for higher costs of separate services, which act independently of each other. So, it is reasonable to combine the efforts directed towards the simi-

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lar, or even identical aims. Recently, it has been more and more emphasized that the development within a company of separate management systems for health, safety, environment, and consumer protection is expensive and often unproductive. Instead, integrated holistic approaches can provide companies with synergy and more effective implementation of all these aspects [5]. The integration of the management of various health protection-related issues faced by enterprises into one Health, Environment and Safety Management (HESM) prevents the duplication of managerial efforts and confrontation of different approaches [6]. Good Practice in HESME should assure the appropriate quality of these activities. A growing awareness of the need to improve health, environment and safety management systems in enterprises by integrating all the health and environmental protection aspects within one management system has led the WHO Regional Office for Europe and the Polish government to close collaboration in developing a concept and guiding principles on health, environment and safety management in industry and other enterprises. The Nofer Institute of Occupational Medicine in Łódź was designated by the Polish government as a national co-ordinator of this international project. This collaborative work, expert and intergovernmental consultations, resulted in a document entitled "Towards Good Practice in Health, Environment and Safety Management in Industrial and Other Enterprises" [7] that was prepared and presented at the Third Ministerial Conference on Environment and Health in London, 16–18 June 1999. All European countries attending the Conference, as guidance for its implementation by individual countries endorsed the principles included in the document.

There are different approaches to quality improvement in occupational health services (OHS). Some of them implement good practices in occupational health. Terms referring to "good practices" in medicine are commonly used, but their meanings are different [8,9,10]. The well described are: Good Laboratory Practice (GLP), Good Clinical Practice (GCP) and Good Manufacturing Practice (GMP). Audits on the bases of GLP, GCP or GMP have to be performed according to rigid rules and requirements.

On the other hand, Good Practice in Occupational Health Services or Good Practices in Health Promotion are more based on the auditor's knowledge and experience than on measurements of indicators [11,12]

Good Practice in Health Environment and Safety Management in Enterprise (GP HESME) is an initiative of WHO/EURO with important participation of the Nofer Institute of Occupational Medicine in Łódź. GP HESME is a process that aims at continuous improvement in health, environment and safety performance, involving all stakeholders within and outside the enterprise. There are obvious interactions between environment and safety management in enterprises and the health of employees and public at large. GP HESME in industrial and other enterprises is a multidisciplinary approach to protecting and promoting health and safety in the workplace and minimizing its harmful impacts on the environment and public health [5].

The main objectives of GP HESME are to provide safe and healthy work environment, preserving the general environment and health of people living outside the premises and to ensure an optimal balance between economic and business interest on the one hand, and the working ability and health of employees and their families on the other. To achieve these objectives, GP HESME should be developed on the basis of existing national structures and practices in occupational health and safety, environmental health and health promotion. Effective implementation of GP HESME requires that the management of an enterprise in close cooperation with representatives of employees develop mutually agreed principles, standards and indicators as the basis for HESM performance in the enterprise. The development of GP HESME will be based on an appropriate mix of technical contribution, expertise and knowledge of the following existing disciplines:

- occupational health as a basis for preventing work-related diseases and accidents;
- health promotion at work providing guidance for a practice of maintaining and enhancing good health of employees;
- environmental health contributing principles and procedures for assessing and minimizing the impact of environ-

Table 1. Extract from London Declaration on Action in Partnership

<p>We, ministers and representatives of European Member States of WHO responsible for health and the environment gathered in London from 16 to 18 June 1999. Our meeting built on foundations laid at the previous Environment and Health conferences in Frankfurt (1989) and Helsinki (1994) and marked a new commitment to action in partnership for improving the environment and health in the twenty-first century.</p> <p>Health, environment and safety management</p> <p>35. We note with appreciation the document "Towards good practice in health, environment and safety management in industrial and other enterprises" and we recognize our role and the role of stakeholders in implementing its objectives. We thank the Government of Poland for leading its development and will take into account its holistic and participatory approach as a basis for assessing, strengthening or establishing, as appropriate, national policies designed to facilitate good practice in all types of enterprises.</p> <p>36. We recognize the importance of instituting workplace measures to meet public health needs and goals, and the right of workers to be involved in the decision-making process on those measures. We will promote good practice in health, environment and safety management in enterprises, in collaboration with stakeholders in our countries such as local authorities, enforcement agencies, business (including small and medium-sized enterprises), trade unions, NGOs, social and private insurance institutions, educational and research institutions, auditing bodies, and providers of prevention services. The current regulatory frameworks and economical appraisal related to health and safety should be, if necessary, strengthened for this purpose and self-regulatory mechanisms (voluntary initiatives and agreements) should be used as complementary measures. We invite WHO and the International Labour Organization to work together to assist countries in developing processes, involving all stakeholders, for implementation of environmental practice, which also promotes public health, and to develop close cooperation with the European Commission to assist the candidate countries for membership of the European Union to meet their obligations.</p> <p>37. We recognize the rights and needs of workers to be informed of occupational and environmental health hazards in the workplace, and of the public to be informed of hazards posed to the community by the activities of enterprises. We will create or strengthen information systems on health, environment and safety management and performance in enterprises, making them accessible to employers and employees as well as to national and foreign investors.</p> <p>38. We invite all concerned intergovernmental bodies and international organizations to promote a holistic concept of health, environment and safety management in enterprises, both nationally and internationally, by applying a precautionary, step-by-step approach.</p>
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onmental pollution and excessive use of natural resources on health of people; and

- social capital and community development.

POLITICAL BACKGROUND AND PREREQUISITES FOR GP HESME

The most important political statement on GP HESME is the declaration of Ministers of Health and Ministers of Environment adopted at the Third Ministerial Conference held in June 1999 in London (Table 1). Good practice in HESME will contribute to achieving the EU objectives indicated in the Amsterdam Treaty [13]:

- Article 137: Improvement of the work environment to protect workers' health and safety;
- Article 152: Improvement of public health, preventing human illness and diseases, and obviating sources of danger to human health;
- Article 174: Preserving, protecting and improving the quality of the environment;
- Article 153: Protecting the health, safety and economic interests of consumers.

GP HESME combines parts of several international programs: ILO Safe Work [14], UNEP Cleaner Production [15], and UN Sustainable Development [16], which meet the needs of the present generation without compromising the ability of future generations to meet their own needs. Sustainable Development encompasses environmental and economic sustenance and socio-demographic and health dimensions. Good Practice in HESME has been recognized as an important tool to reach most of the public health objectives defined in the new global and European WHO HFA strategies for the 21st century [17]. Health, Environment and Safety Management in Enterprise is composed of occupational health and safety, workplace health promotion, environmental management, and social capital and community development. Good practice in HESME aims at improving health and safety, work environment and ambient environment. As compared with traditional methods for occupational health, safety and environment protection, being so far quite isolated, GP HESME introduces new elements:

- co-ordination, inside the enterprise, among the separated elements of HESME;

- better inclusion of health promotion at workplace into the whole of enterprise policy;
- integration of health, environment and safety teams;
- improvement of working ability as a part of the enterprise policy;
- taking into account employability of current and future employees;
- providing platform for national, provincial and branch co-operation in health, safety and environment policies of different actors engaged in HES;
- economic appraisal of HESME;
- social capital and community health development.

All the above mentioned objectives and activities are beyond the legal requirements, and are based mainly on information, education and awareness of actors participating in GP HESME integrated by effective management procedures. So, GP HESME is driven by current regulatory requirements, voluntary initiatives and agreements, economic appraisal, and effective management. Such approach should provide benefits for the enterprise, but it should also be a tool for various partners outside the enterprise. Fulfilling legal obligations, appropriate governmental policy and most important prerequisites for GP HESME are necessary but not sufficient. Practically, the awareness of its purposes and methods among the participating groups of interest is the only condition for effective implementation of GP HESME. Evidence and data obtained as the result of economic appraisal of HESME are of utmost importance for convincing all actors to HESME effectiveness [18]

PARTICIPANTS AND THEIR POTENTIAL BENEFITS

Emerging challenges in Europe require policy changes for health at workplace. Aging of working population results in different occupational health needs – more curative and rehabilitation activities. Changing structure of employment, diversity and dispersal of traditional work structures (e.g. outsourcing) contribute to the increased temporary employment. An enhanced number of interpersonal contacts at work may induce psychosocial problems. Intensification and repetitive work, unpredictable working hours may be impor-

tant issues as they are related to sleep deficits. [19] None of the above problems may be solved using traditional methods focused on the reduction of physical, chemical or biological hazards at work. However, some of these problems might be addressed by the holistic approach to management of health, environment and safety. For communities, a sufficient number of enterprises with demonstrated GP HESME would lead to remarkable improvement of environmental status and health of population.

According to such approach, the key partners in GP HESME systems may vary at different (national, local or enterprise) levels. At the national level the GP HESME partners are:

- governmental agencies and local authorities,
- employers, employees and their organizations,
- financial and insurance institutions,
- non-governmental organizations,
- occupational, environmental and social services,
- associations of HES professionals,
- research, education and training institutions.

Almost all partners may expect appropriate benefits (mostly health benefits), like extended life and disability-free life expectancy, increased work ability, increased percentage of employees free from serious disability, increased adoption of healthy lifestyle, and increased equity in health. Those are the important issues in national and local health policies. Environmental benefits of GP HESME such as increased efficiency in using natural resources, and increased number of enterprises managing environmental issues are also of substantial value. Social and well-being benefits of GP HESME comprise better quality of working and living conditions; improved self-esteem and motivation of employees; upgraded professional skills of employees and ability to cope with demands of working life; increased social capital; and raised employability. The last, but not least are economic benefits of GP HESME such as increased productivity and economic efficiency; higher competitiveness and probability of economic revenue of investments; improved image of enterprise; adjustment of insurance system to seek benefits of preventives activities; decrease in social insurance premium, and finally lower health care costs.

Table 2. Examples of GP HESME benefits for different groups of participants

<p>GP HESME benefits for employers:</p> <ul style="list-style-type: none"> ■ strengthening and improvement of enterprise image; ■ integration of management in health, environment and safety with general management; ■ economic appraisal of HESM; ■ integration of the functions of different services. <p>GP HESME benefits for employees:Improvements in:</p> <ul style="list-style-type: none"> ■ working environment; ■ health status; ■ maintenance of working ability; ■ employability. <p>GP HESME benefits for politicians:</p> <ul style="list-style-type: none"> ■ integration of separate policies in different disciplines; ■ monitoring the changes in HES at both national and regional levels; ■ a common platform for regional HES policies and dispersed policies of the enterprises in a region; ■ sustainable development of social capital and community health
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Examples of benefits for different participants are summarized in Table 2.

CRITERIA AND INDICATORS

Monitoring and evaluation should be an integral part of target setting and program development. It is essential to identify and use from the start a set of key criteria and indicators for the functioning of the workplace health and environment management system. Clear quantifiable and achievable targets and time frames should be set and monitored for GP HESME programs at any level (national, provincial, local, company). The competences to measure the indicators, or to conduct HES Management assessments are of great value. The presented examples are based on the working paper and results of WHO meeting in Bilthoven [20].

The difficulties in distinguishing in routine statistics or field surveys between the effects of occupational and work-related, environmental, lifestyle, and social factors on health of employees should be taken into account in constructing the evaluation procedures and indicators. The criteria and indicators should be relevant and meaningful for improving human health. The indicators should allow demonstrating improvements within company or group of companies using the same health, environment

and safety evaluation system. It is sometimes difficult to distinguish quantitative criteria from indicators. For practical purposes it is proposed that indicators have to be measurable, and criteria may be quantitative or qualitative. To be of any value, the indicators should, as far as possible, be SMART, i.e. Simple, Measurable, Achievable, Realistic, and Timely. Many small organizations may not have the capacity or the resource to identify other than simple and readily available performance measures of workplace health. However, there are several classifications on types of criteria and indicators. The following scheme may be used: input, process, output and outcome. There are severe methodological difficulties, e.g. where the borderline between the output and outcome criteria and indicators should be established. However, from practical point of view each enterprise should use the core indicators that are agreed.

In general, the input criteria and indicators describe the input of the stakeholders into the health and well-being of the employees, as well as into the pollution prevention and environment management in enterprises. Input criteria comprise: policies, which make input possible; legislation – a decisive input; financial investments in the infrastructure; awareness and attitude of employers to employees; occupational health services; instruments and methods used to assess hazards; and voluntary initiatives of organising

human efforts for national or local system. It is easy to assess the financial investments by the use of quantitative indicators, but it is not so easy when the awareness of employees is to be measured. The process indicators might be of high value for voluntary and self-regulatory HES targets, where existence or non-existence of the process can be established with higher accuracy than the expected outcome of the process. Several criteria are advised although they do not measure final health outcome: occupational workplace risk assessment, health promotion needs assessment, company fitness program and vocational training to improve work ability. Output is an immediate result of some HESM processes. The output criteria and indicators are very useful for economic assessment of processes, as these indicators are almost exclusively quantitative. An output indicator might be, for example the number of employees examined by the occupational physician; the number of people participating in a given health promotion program or the number of advices given by occupational physician to supervisors. Outcome indicators are more related to final results of HESME, although factors beyond control of the HES management system can influence the value of outcome indicators. The generally collected statistics data on outcome indicators are: fatality rate; accidents at work rate; sickness absenteeism rate etc. It can be easily seen that all those measures are not related to health, but to deaths or sickness-status. The assessment of outcome is based on **negative** indicators, but the **decrease** in any of them might be recognised as a valuable measurement for HESME effectiveness. Unfortunately, all those data come *post factum*. Moreover, it is thought that health status assessment performed by occupational physicians (prophylactic examinations) or by employees themselves (by the use of appropriate questionnaire) may be of value in measuring the outcomes. The numerous factors influence health status, so it is difficult to ascribe the change in health status (whatever measure would be used) as an outcome of GP HESME. However, it should be decided whether the health of employees is a value for enterprise or not. If it is so, the health status assessment should be performed. Among others, feedback information between enterprises and local or central authorities may be

Table 3. Examples of different kinds of GP HESME for different organizational levels

<p>Enterprise level criteria</p> <p><u>Planning GP HESME</u></p> <ul style="list-style-type: none"> ■ General and detailed plans ■ Reviews and adjustment of programs <p><u>Implementation of GP HESME</u></p> <ul style="list-style-type: none"> ■ Implementation by enterprise ■ Implementation by outside body ■ Action plans prepared and reviewed <p><u>Outcome</u></p> <ul style="list-style-type: none"> ■ Statistical data completed ■ Risk assessment evaluated ■ Sickness absenteeism and accidents at work analyzed ■ Environmental status analyzed <p>National policy criteria</p> <p><u>Annual reports available</u></p> <ul style="list-style-type: none"> ■ Central government statement on GP HESME policy ■ Legislative tools applicable to GP HESME in the country ■ Non-legislative tools and infrastructure for GP HESME ■ Infrastructure for GP HESME in a country ■ Feedback on GP HESME <p>Feedback loop between the enterprise and authorities</p> <ul style="list-style-type: none"> ■ Enterprise opinion on the policy declaration ■ Enterprise opinion on the legislative tools applicable to GP HESME ■ Enterprise opinion on the non-legislative tools applicable to GP HESME ■ Enterprise opinion on the infrastructure for GP HESME in a country
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of value in the process of improvement of legal regulations or local policy. Examples are presented in Table 3.

The establishment of GP HESME criteria and indicators is a continuous process according to the needs of different actors participating in GP HESME. The main problem is how to diminish the number of core indicators, which may be used by possibly high number of enterprises and societies. The works on solving this problem are still in progress, but not yet finished.

CONCLUSIONS

1. GP HESME offers a set of programs, methods and techniques, which may be used for the improvement of occupational health, workers safety and environment protection.
2. GP HESME is also a potent tool for local and national health policies.
3. Further efforts are needed to establish and select core criteria and indicators for GP HESME.

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