

# EDITORIAL

## Consensus on evidence or evidence of consensus? The evolving role and the new expertise of the occupational physician

### Consensus on evidence of social benefits

In the past 10 years, the framework directive 89/391/EEC has been implemented in the legislation of European Union (EU) countries. Although European directives represent a reference for national laws, each country is allowed to issue more restrictive and protective laws. Further differences exist in the way and degree the regulations are applied and enforced. A political approach to workers' health protection is necessary to allow enactment of laws to standardize health and safety in single EU states. However, some elements represent a barrier for sharing common values that would improve health conditions in workplaces. The tendency to globalize activity to obtain the best economical results, the increasing effort in working solutions aimed at providing better products and services, and optimizing resources, can threaten a real improvement in working conditions.

Commitment towards workers' health is not universally shared. Different stakeholders have different and opposing interests, due to a variety of reasons, ranging from idealistic and economical reasons to conjectural difficulties and the need for meeting competition with countries where workers' health is less well safeguarded. Different interests can influence lobbying activity on governments to introduce legislative changes less oriented towards workers' health. In Italy, new national rules have been introduced recently that allow the employers themselves to assess the risk to health from exposure to chemicals (previously assessed by occupational health professionals) and entitling other health professionals without specialist qualification to carry out the function of the occupational physician [1,2]. If this approach spreads throughout EU countries, a new scenario might emerge in which occupational health will demand less attention. Enterprises could invoke economical difficulties and increased competition, thus leading to lobbying action towards national governments resulting in decreased attention and vigilance. This effect might be increased following the admission of new EU members, as is set to happen in the next 5 years. In spite of the commitment required by the European Commission of applicant countries to meet EU standards on social policy, including occupational health, concern exists about the economic capacity of new entrant countries to comply with these requirements. In the next few years, this could lead to a very different application of legis-

lation, leading to a general drop in protection following requests for deregulatory rules and the need of industries to compete with Eastern countries.

In spite of this, occupational health should be viewed within the framework of a new concept of productivity, which includes the quality of production, its social usefulness, its impact on workers' health, on the environment and on the quality of life [3]. Society itself, in the broader sense of the term, expresses a consensus in evidencing a range of benefits, including the contribution to national development, and a measure of success in economic and social policy [4]. This should overcome different commitments and attitudes in enforcing health and safety regulations.

### Evidence of scientific consensus on effectiveness

The modern concept of occupational health is based on scientific evidence. Research is needed to support policy making, including the provision of practice guidelines and standard setting. Authorities are presently recommending the development of a research agenda to build the evidence base that will guide policy making for public health practice [5]. There is diffuse opinion from the different stakeholders that several public health practices, including workers' health examination, are not effective in protecting workers' health [6]. These practices are no longer supported and accepted by US employers, who instead claim the right to be informed about drug use by employees [7].

In comparison with clinical research, the research in occupational health is different both in the evidence searching stage and in the evidence appraisal stage. The evidence-based medicine model is based on evidence provided by randomized controlled trials [8], whereas this body of evidence is often unavailable for preventative actions (studies are not feasible or unethical). Uncertainties and difficulties in this field have been recognized by the Cochrane Collaboration, which stimulated the establishment of a specific Cochrane group aiming to value non-randomized studies of health care interventions in systematic reviews. In spite of these problems, the appraisal of research evidence has been suggested in occupational health [9]. Moreover, an analytical framework for identifying the evidence has recently been provided, and the suitability of the preventive study design has been classified according to a standard algorithm [10]. The greatest level of suitability is provided by concurrent comparison groups and measurement of both exposure and outcome, whereas the lowest level is provided by single pre- and post-measurement without a

control group. Thus, research evidence is available for occupational health decisions. Scientific evidence alone is not an adequate guide to action: strength of effectiveness evidence is generally linked to strength in recommendation, although other items, such as applicability, and economic evaluation and barriers to implementation, may be considered. An effort should be made to study more extensively the impact of the usually adopted practices in preventing risks and in protecting workers' health, in critically evaluating the relevancy and usefulness of the existing guidelines, and in combining the scientific appropriateness with the cost.

### The emerging role and the new expertise of the occupational physician

The evolution of occupational health practice in the last 50 years is shown in Table 1.

The renewed and evolving role of the occupational physician reflects the development of occupational medicine in the last 50 years, the cultural and professional difference among countries, the different conceptual model and approach, and the influence of legislation. The value of workers' health examination is declining. Instead, advice and consultation on complex problems, such as psychological stress and maintenance of work ability, are increasingly requested. New strategies, methods and techniques will be needed to deal with these issues [11].

The occupational physician requires new and broader competencies. In addition to the introduction of new working technologies, methods and tools, the changing demographics of the workforce (male/female ratio, migration, ageing population) and occupational restructuring are important elements in determining the training needs of occupational physicians [12]. The exigency to satisfy a broad variety of needs, ranging from the diagnosis of health changes in the individual to the assessment and communication of the risk in a factory, requires specific skills and competencies [13]. However, in spite of the invoked needs of harmonization [14], differences exist throughout EU countries in activities, training and education, and efforts have been made

to define the common competencies to be developed [15,16]. The evolution of the role of the occupational health practitioner is based on the need to improve the quality of professional practice. It requires a figure who acts according to a model which (i) takes into account the context of where the health problem occurs and its complexity; (ii) emphasizes the linkage with other stakeholders involved in solving the health problem; and (iii) stresses finding, appraising and applying the evidence in practice.

### Conclusion

In spite of the different interests and level of commitment that stakeholders have in the working population's health, a consensus exists on evidence that society will provide resources as long as the quality of the interventions, such as their conformity to clients' expectation (including legal requirements), is demonstrated [17]. Which measures are to be taken to pursue this goal?

First, the correct approach: this should be not be an a priori defence of either occupational physician leadership or all occupational health practices. Occupational physicians should act professionally, according to sound scientific-based practice and robust ethical principles. Other elements to be considered are less attention to clinical aspects; a shift from the prevention of individual risk towards population-based surveillance; and more attention to multi-discipline teamwork, a characteristic which is not always familiar to doctors. In the future, new professional components will emerge: the occupational physician will be an expert in the field, a facilitator, a political navigator, and will be able to experiment with alternative and innovative models for service provision.

Secondly, stakeholders' involvement: to convince stakeholders that health protection and promotion are a high priority in the longer term. Occupational health practice should be considered as a production factor and not as a consumer of society resources. However, new models of interventions, more focus on applied research, more useful, beneficial and ethical practices, and more attention to the real world needs are required in order to satisfy

**Table 1.** The evolution of occupational health practice in the last 50 years

	1950–1960	1970–1980	1990	2000
Goal	Diagnosing and preventing diseases	Preventing diseases and risks	Preventing hazards and risks	Promoting individual health and maintaining work ability
Needs	Legal requirements	Legal requirements	Legal requirements	Stakeholders' satisfaction (including legal requirements)
Focus	Worker	Worker	Worker	Working individual
Approach	Medical diagnosis	Medical diagnosis and risk based	Medical diagnosis and risk based	Risk based and consumer satisfaction
Tools	Medical examination and laboratory exams	Medical examination and biomonitoring	Medical examination and biomonitoring; epidemiologic surveillance and information	Questionnaire, biomonitoring, epidemiological surveillance, counselling, medical examination (if needed)

the interested parties, whose interest must not prevail over the working individual's health.

This will support the implementation of the best professional practice according to the need to satisfy the new working life: acting on scientific evidence of effectiveness, on social consensus and on ethical values.

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