

This article was downloaded by: [185.55.64.226]

On: 14 March 2015, At: 10:19

Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954

Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## International Journal of Occupational Safety and Ergonomics

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/tose20>

### Occupational Health Care in Small and Medium-Sized Enterprises—How Many Doctors Do We Need and How Do We Ensure Good Care?

Brigitte Froneberg<sup>a</sup>, Lutz Wienhold<sup>b</sup> & Detlef Glomm<sup>c</sup>

<sup>a</sup> Federal Institute for Occupational Safety and Health, Germany

<sup>b</sup> Systemkonzept—Gesellschaft für Systemforschung und Konzeptentwicklung, Germany

<sup>c</sup> Center of the Occupational Health Insurance Funds (BAD), Germany

Published online: 08 Jan 2015.

To cite this article: Brigitte Froneberg, Lutz Wienhold & Detlef Glomm (1999) Occupational Health Care in Small and Medium-Sized Enterprises—How Many Doctors Do We Need and How Do We Ensure Good Care?, *International Journal of Occupational Safety and Ergonomics*, 5:4, 585-590

To link to this article: <http://dx.doi.org/10.1080/10803548.1999.11076440>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing,

systematic supply, or distribution in any form to anyone is expressly forbidden.  
Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

NOTES

**Occupational Health Care in Small and Medium-Sized Enterprises—How Many Doctors Do We Need and How Do We Ensure Good Care?**

**Brigitte Froneberg**

Federal Institute for Occupational Safety and Health,  
Germany

**Lutz Wienhold**

Systemkonzept—Gesellschaft für Systemforschung und  
Konzeptentwicklung, Germany

**Detlef Glomm**

Center of the Occupational Health Insurance Funds (BAD),  
Germany

The translation of the framework directive 89/391/EEC (Council Directive 89/391/EEC) into national law aims at supplying occupational protection and health care to all employees of large, small, and medium-sized enterprises (SMEs) likewise, depending on assessed exposure. Prior incomplete protection of the German workforce with bias against the SMEs requires an assessment of quantitative and qualitative adequacy of present occupational health care practice and also of future needs.

Therefore, the Federal Institute for Occupational Safety and Health of Germany initiated a study to evaluate the present state of occupational health care in 4 regions with different geographic and economic structure. Based on these data the future demand for adequately trained occupational physicians will be estimated by employing a statistical method that allows for including a large number of modifying variables (economic development, demographic change, etc.).

Expected result of the applied technique are the estimated minimal and maximal number of occupational physicians that have to be trained to meet future demand. In the same study models of best practice will be identified and evaluated for general application. The project started in October 1997 and will be finished by January 2000.

---

occupational health care SMEs occupational physician training  
quality models of best practice scenario technique

---

For more than one century Germany developed step by step a very complex and comprehensive system of legislation and institutions for the prevention of industrial accidents and occupational diseases that proved to be undoubtedly very effective as measured by the downwards trend of these two indicators.

At least since the introduction of the German Health and Safety Act of 1974 (*Arbeitssicherheitsgesetz*, 1973) equal access to occupational health care for all workers was intended, but due to the lack of specialized staff at that time, exemptions had to be made for small-scale enterprises thus leaving roughly half of the workforce without occupational health care.

New emphasis was placed upon a modern approach to preventive occupational health and the development of occupational health services (OHS) for all by adopting the third action program of the European Commission, especially by the framework directive 89/391/EEC (Council Directive 89/391/EEC), translated into German law in 1996 (*Arbeitsschutzgesetz*, 1996), and incidentally also by concomitant international strategy papers of the World Health Organization and the International Labor Office.

The task could be so very easy.

Realizing that at a given time only some 50% of the workforce are under occupational health care coverage, one simply would want to double the number of trained occupational physicians over the next few years, and soon full coverage ought to be reached. Which unfortunately, of course, would not be true, as we are operating under unstable socio-economic conditions, and also lessons and assumptions learned from larger industry cannot be directly transferred to small-scale enterprises.

In order to allow for adequate planning of capacities, the Federal Institute for Occupational Safety and Health of Germany initiated

---

Presentation made at the International Symposium on Good Occupational Health Practice and Evaluation of Occupational Health Services, June 8–10, 1998, Hanasaari Cultural Centre, Espoo, Finland.

Correspondence and requests for reprints should be sent to Brigitte Froneberg, Federal Institute for Occupational Safety and Health, Nöldner Str. 40/42, D-10317 Berlin, Germany. E-mail: <froneberg@baua.de>.



a study to assess the present state of occupational health care in four regions with different geographic and economic structure (urban-rural, east-west), and also to evaluate the current medical practice in terms of quantitative and qualitative adequacy of care. Based on these data the future demand for adequately trained occupational physicians will be estimated by employing a statistical method that allows for including a large number of modifying variables (scenario technique).

In the first place these variables with influence on the delivery of occupational health care will be defined and rated by experts according to importance. Also, a basic understanding of what is to be considered good occupational health care in terms of quantity and quality has to be agreed upon to begin with.

Which factors then are likely to influence the delivery of quantitative and qualitative adequate delivery of occupational health care? We have to look at the occupational physician or, more exactly, at the extent of the market availability of occupational health care. We have to make best guesses on future economical development and also consider the size and structure of our future workforce. Last, but not least, we have to take into account that full coverage will not start suddenly from one day to the next, we are rather dealing with a process.

The very complex and highly decentralized structure of the German occupational health care system does not allow for immediate introduction of occupational health care for all. It rather needs a transition period until finally all workers of all occupations and trades will be under care by the year 2004. According to the often quoted WISE (Work Improvement in Small Enterprises, an ILO program drawing on work experience from developing countries), we should build on local practice. And that means in this case that we have to proceed with our traditional dual system in occupational safety and health, and try to coordinate the activities and interests of our 16 states (Bundesländer) and our 75 accident insurance funds (35 for various industries and commerce, 20 for agriculture, 20 for the public sector), as they have to agree upon new regulations.

If we talk about health for all, we need to find out what "all" will be in future.

- We assume that there will be more small-scale enterprises (SCEs) in future, as they tend to be more flexible in their response to market demands. However, SCEs require also special logistics to be served cost-effectively by OHS.

- Large companies are supposed to have negative employment net growth.
- The economic development in the eastern and the western part of Germany may be different.
- Moving from classical production to the service sector, we have to consider new risks at work. Does that mean more or fewer physicians or at least differently trained physicians?
- Besides our traditional problems we have to anticipate the effects of organizational changes and of new technology. We will probably have to deal with all kinds of informal work and also with increasing rates of unemployment.
- Our future work force might be older in average and, therefore, more in need of occupational health care due to the demographic change, but it is also possible it will not, if we do not keep the elderly on.

Even if it is quite difficult to predict the future, it should be at least easy to assess the present, in terms of expressing the number of occupational physicians needed to serve a certain number of employees by drawing on experience, this experience being stored away in the databases of the organizations in charge. However, even this proves to be anything but easy. To make a sad story short: This body of data does not exist.

- The Federal Chamber of Physicians keeps record on any licensed occupational physician, as long he or she is alive and pays annual dues, whether practicing or not. From a recent regional German study we know that only about 80% of recorded occupational physicians are indeed in practice (Nauert et al., 1998).

In order to obtain reliable data cross checks with several other databases, kept by the labor inspectorate, the occupational accident insurance funds, and the professional organization of occupational physicians have to be made. All these data sets are incomplete subsamples of the total number of practicing occupational physicians.

- What do we have to know about our colleagues? We should know their age distribution in order to make assumptions on when they will retire and thus have to be replaced.
- We should know if they are working full-time or part-time or, to be more exact, how many hours they work, as the classical concept of most occupational accident insurance funds still requires a certain fixed amount of occupational health care time per employee per year, depending on the hazard category of the enterprise. However, even



here there is change, as some occupational accident insurance funds start to base their requirements for occupational health care rather on actual risk assessment.

- We want to know if our colleagues are fully-trained occupational physicians, or if they have some kind of abbreviated—though legally accepted—minor form of training, which still exists as a not too small left-over from the early beginnings of occupational health care, when there was an obvious shortage of professional company doctors that just could not be overcome otherwise.
- We want to know in which type of organizational structure they are practicing. Are they in-house company doctors? Do they belong to some kind of regional or even more extended occupational health service in private ownership or affiliated, for example, to one of the occupational accident insurance funds, or organized by the guilds to serve the craftsmen?
- We want to learn how their work is organized and what kind of duties it comprises.
- We would like to better understand their daily problems: With whom do they have problems? For what reasons? What are their problem solving strategies?
- Besides this we need to know more descriptive details about the companies they are taking care of.

Some of these data may be drawn from officially collected data. Others will have to be obtained by questionnaire from a representative stratified sample.

The results will be used for modification and deepening of earlier made assumptions on future trends in occupational health care that should be used for scenarios of alternative future projections, one being based on more conservative assumptions, one on more progressive ones.

Models of best practice will be identified mainly by drawing on expert opinion, especially from actors in the field with good insight into the practice, for example, members of professional organizations, or professionals from labor inspectorates and occupational accident insurance funds.

These models will then be evaluated by structured interview, using the already developed criteria for assessment of good practice, in order to identify transferable elements useful for general application.

Conclusions from these interviews will be also used to further correct and specify the assumptions made for the development of alternative

scenarios of the conditions surrounding occupational health services in the years to come.

The study was initiated quite a while ago. Actual work finally started in November 1997. Final results are expected by the end of January 2000. Models of best practice and future scenarios will be presented in a workshop in Berlin in December 1999.

We trust the data might be useful in assisting our decision makers in making the necessary arrangements for educating the right number of well trained occupational specialists.

## REFERENCES

- Arbeitssicherheitsgesetz. (1973). Gesetz über Betriebsärzte, Sicherheitsingenieure und andere Fachkräfte für Arbeitssicherheit vom 12.12.1973 [Act on company doctors, safety engineers, and other occupational advisers from 12.12.1973]. *Bundesgesetzblatt I*, 1885.
- Arbeitsschutzgesetz. (1996). Gesetz über die Durchführung von Maßnahmen des Arbeitsschutzes zur Verbesserung der Sicherheit und des Gesundheitsschutzes der Beschäftigten bei der Arbeit vom 07.08.1996 [Act on the introduction of measures encouraging the improvements in the safety and health of workers at work from 07.08.1996]. *Bundesgesetzblatt I*, 1246.
- Council Directive 89/391/EEC of June 12, 1989 on the introduction of measures encouraging. *Official Journal of the European Communities*, No. L 183, June 12, 1989, pp. 1-8.
- Nauert, T., Egler, P., Glomm, D., Jancik, J., Kessel, R., Ratschko, K.-W., Krüger, J., Voigt, G., Heppner, M., Peinecke, W., & Bettinghausen, E. (1998). Qualitätssicherung in der betriebsärztlichen Betreuung in Schleswig-Holstein [Quality assurance in occupational health care in Schleswig-Holstein]. *Arbeitsmedizin Sozialmedizin Umweltmedizin*, 33(7), 289-293.