Organization of Occupational Health and Occupational Hygiene in Finland

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As a country of about the same size as Switzerland, Finland gives us an example of how remarkably occupational medicine and a model institute have developed.

The population of Finland is about 4.7 million, the total work force being 2.2 million *(Table 1)* of which 400,000 are self-employed.
The economic structure of Finland has been rapidly changing during the past decade. The proportion of workers in primary production has steadily decreased, while that of service and industrial workers has increased (Labor reports 1975) [1]. This trend is expected to continue through the 1970s *(Fig. 1)*.
Most of the about 80,000 Finnish workplaces, including the industrial ones, are small with less than 20 employees. Of the total industrial establishments in 1972, there were only 172 with more than 500 employees, and 46 of these had more than 1,000 employees *(Ylikoski* and *Rossi* 1976).
During the 1970s occupational health in Finland has developed rapidly *(Fig. 2)*. This phenomenon would not have been possible without rapid development in the field of public health and labor protection. In order to understand the organization of occupational health in Finland, one must also have knowledge of the general outlines of the Finnish systems of public health and labor protection. Therefore, a brief description of these systems is given before the presentation on occupational health and hygiene.

Table 1. Distribution of the occupationally active population of Finland in 1975 by industry* and a rough estimate of the coverage of occupational health services

Industry	Total work force	Coverage of occupational health services (%)
1. Agriculture, hunting, forestry, fishing	303,000	3
2. Mining and quarrying	7,000	97
3. Manufacturing	581,000	67
4. Electricity, gas and water	21,000	50
5. Construction	178,500	20
6. Trade, restaurants and hotels	353,000	20
7. Transport, storage and communication	155,000	69
8. Financing, insurance, real estate and business services	107,000	37
9. Community, social and personal services	476,000	48
10. Industry unknown	29,000	
Total	2,210,500	49

* Source: Labor reports *18*, 3–4, 4 (1975).

Public Health
Health care in Finland is primarily the responsibility of society. Most hospitals are community owned, either alone or jointly, and the personnel is salaried. The state pays about 40–70 % of the operating expenses and also 40–70 % of construction costs. Only about 4 % of hospital services are provided by private hospitals [8].
The Public Health Act of 1972 introduced a new organization of primary health care services *(Fig. 3)*. The communes and municipalities, either alone or jointly, must establish health centers and organize health services that include health guidance, counseling on contraception, health screening, medical care, medical rehabilitation, transportation facilities for patients, dental care (only for a limited age range at present), and health care for those in school, expectant mothers and children. As in the case of hospital care, the state is responsible for most of the costs of primary health care. Nevertheless, a substantial part of primary health care services, as well as laboratory and X-ray services are still private. It has been estimated that about 30 % of primary health care services are provided by private physicians. This figure also includes private consultation services of specialists.
The fees in the publicly owned hospitals are low, about $4.00 per day. A visit to a doctor at a community health center costs the patient less than $1.00, while laboratory and X-ray services are free. The fees of private services are naturally considerably higher. Nevertheless, a compulsory sickness insurance system (Sickness Insurance Act 1964) covers the entire popu-

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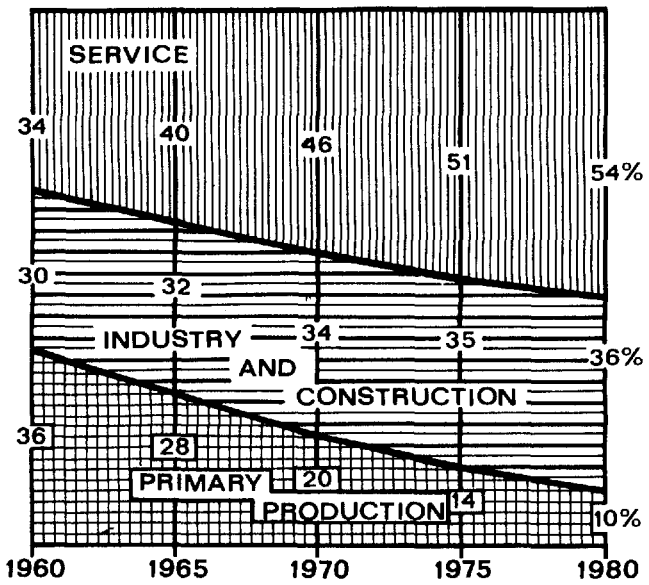
Fig. 1. Change of the economic structure of the occupationally active population of Finland during 1960–1980.
Source: Labor reports 18, 3–4, 4 (1975).



lation. It compensates patients for part of private physicians' fees, laboratory and X-ray services, physiotherapy, and travel expenses. In addition, a certain percentage of the costs of all prescribed drugs is paid by the state, and in the case of many chronic illnesses complete compensation is provided for essential drugs. The sickness insurance system also pays allowances for sick leaves of more than 7 days' duration and maternity allowances for a period of 174 days. This system also partially reimburses employers for their occupational health costs.

Labor Protection

The labor protection system was completely reorganized and resources for it were increased in 1972 when the Board of Labor Protection was founded as a subordinate of the Ministry of Social Welfare and Health *(Fig. 3)*. The main function of the Board of Labor Protection is to promote labor protection by seeing that the laws related to safety at work are complied with at the workplace. In connection with the Ministry of Social Welfare and Health an Advisory Board of Labor Protection is nominated for a period of three years by the Council of State. On this board the representatives of labor market organizations and other interest groups discuss matters regarding cooperation in the field of labor protection.

For regional inspection and control there are 11 provincial labor protection district offices, and at the communal level the Community Board of Health is responsible for labor protection. Each provincial labor protection district office has an Advisory District Board of Labor Protection which deals with matters regarding the coordination of labor protection activities in the district.

The provincial labor protection district offices, which are governmental bodies, are responsible for the inspection of all workplaces with more than 10 employees. The communal labor inspectorate takes care of only the smaller workplaces.

The employer appoints a labor protection supervisor, who is the representative of the employer with regard to labor protection in the enterprise. In all workplaces with more than 10 employees the workers vote for a labor protection representative to represent them with regard to occupational safety and health in the enterprise. The labor protection representative has the right to use some of his regular work time for matters related to labor protection in the workplace and he also has the right to see all documents bearing any relation to occupational safety and health. In workplaces with more than 20 workers there must be a labor protection committee, which is a cooperative body for the promotion of labor protection and health at the workplace. Half of the members represent the workmen, one-fourth the salaried employees, and one-fourth the employer.

At present the employer hires and dismisses the occupational health personnel, who, in principle, are independent of the labor protection committee and only take part in its work as expert advisers. It has been suggested, in the recent proposal (1975) for a new law on occupational health, that the operation of occupational health at the workplace should be subordinated to the labor protection committee, which should also have the right to hire and dismiss the members of the occupational health staff. Quite expectedly, contradictory opinions exist with regard to this proposal.

In contrast to other health care systems in Finland, occupational health care is at present mainly organized on a private and voluntary basis. Nevertheless, the sickness insurance system, run by the Social Insurance Institution, provides compensation to the employer for organizing occupational health services, the compensation varying from 25 to 60 % of the accepted costs, depending on the comprehensiveness of the services. The average conpensation percentage in 1974 was 47.5 %.

The agreement on the development of occupational health care was signed by the most important labor market organizations representing the workers and employers in 1971, and it has provided guidelines for the rapid development of occupational health in Finland during this decade *(Fig. 2)*. This agreement is based on Recommendation No. 112 (1959) of the International Labor Organization.

Although occupational health has greatly expanded during recent years, the coverage of occupational health services in different industrial fields is very unevenly distributed *(Table 1)*. While almost all the workers in the mining industry have access to occupational health services, very few of those in, e.g., agriculture and the construction industry are covered. In fact agriculture has virtually no occupational health services since the percentage shown in *Table 1* repre-

sents almost completely services provided for forestry workers employed by big enterprises. Similarly, most of the 20 % coverage shown for the construction industry is made up of the services provided for the state-employed road construction workers, and thus the workers of construction companies are almost without occupational health services. Although the coverage of occupational health services is unsatisfactory also in some other industries, the construction industry and agriculture are probably the most important ones in this respect since both fields of activity have many health hazards which could be decreased or even prevented by efficient occupational health services.

Apart from the uneven distribution of services between industries, there is another important organizational problem. In big enterprises occupational health services are usually well-organized, but most of the small ones remain completely without such services *(Table 2)*. In 1972, about 180,000 workers worked at workplaces with 1–19 employees, and about 160,000 workers at workplaces with 20–99 employees [8].

The uneven distribution of occupational health services between industries on one hand and between small and large workplaces on the other has created a need to organize occupational health care on a nationwide basis so that occupational health services become the mandatory responsibility of the employer.

The 1975 Proposal for an Occupational Health Bill

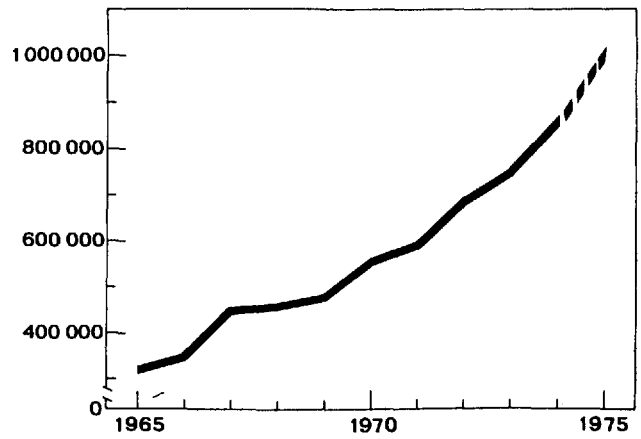
Already in 1971 a draft was made for an occupational health act, which has not however been given to the Parliament. In 1975 the Ministry of Social Welfare and Health presented a new proposition for an occupational health act for discussion. Its main points are given here since they illustrate very well the general trend in occupational health in Finland today.

According to the proposal the employer would be obligated to organize occupational health services for the workers. As is now the case, the sickness insurance system would partially compensate the employer for accepted costs, and the employer would be free to choose the kind of organizational model (the alternatives are presented later) that would provide these services, one possibility being services provided by community health centers. Thus the services would be available relatively near every workplace in the country. Compulsory services would include the following:

1. The assessment and prevention of health and safety hazards at work.
2. The completion of the necessary preplacement and other health examinations, as well as the assessment of the personal qualifications of the workers in connection with job placement.
3. The provision of adequate information for the workers with regard to health hazards at work.
4. The provision of instructions for workers on the most proper treatment and rehabilitation when needed.

Thus the proposition emphasizes preventive work at the workplace. Medical care for sickness is not included in the proposal because medical care is, according to the law (Public Health Act 1972), the obligation of the communes and municipalities and it cannot be transferred to the employers. Nevertheless, medical care could be included in occupational health services, but it would not be compulsory.

Fig. 2. Coverage of occupational health services in 1965–1975.



Occupational Health Personnel

Today, more than 200 full-time and 600 part-time physicians work in occupational health services. They use approximately half of their work time for preventive work and the other half for curative medicine. The part-time physicians often use more than half of their work time for sickness consultations, however.

The number of occupational health nurses is about 1,500 and most of them are employed full-time. Most of their working time is dedicated to preventive work, but at some workplaces medical care still prevails as the most important work of the occupational health nurse.

In addition to physicians and occupational health nurses there are quite a few auxiliary personnel, laboratory and X-ray technicians and clerks. About 100 full-time physiotherapists are emplyed in occupational health services. At the Institute of Occupational Health about 10 occupational physiotherapists are employed. Their work has been mainly therapeutical thus far but it is

Table 2. Number of employees covered by occupational health services in 1974 according to size of workplace.

Number of employees in establishment	Number of employees covered by organized occupational health services
1– 19	2,034
20– 99	29,425
100– 499	168,094
500–1499	232,641
1500–	431,361
Total	863,555

becoming more preventive as ergonomics and the organization of workplace exercises became their main fields of activity.
The largest establishments and some joint occupational health systems have their own occupational hygienist, the total number in such work being about 30. In addition, the Institute of Occupational Health employs about 30 occupational hygienists.

Organization Models for Occupational Health Services

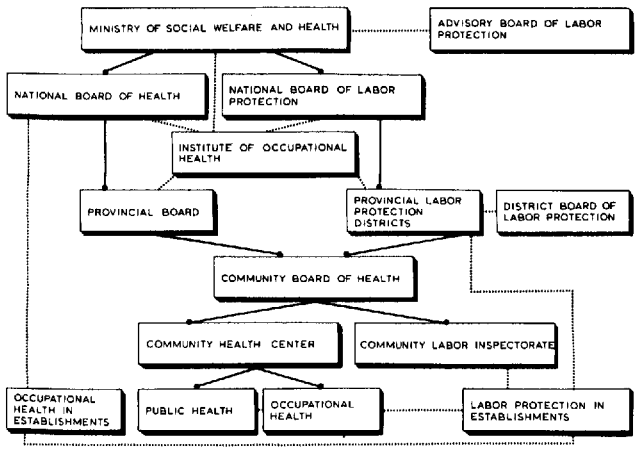
Since the facilities for organizing occupational health services vary in different workplaces and in different parts of the country, there are also different organizational models for occupational health services, and the employer is free to make his choice among them. According to the 1975 proposal for an occupational health bill this choice would remain also in the case of mandatory occupational health care. In principle there are the following four different models.

1. Integrated occupational health services organized by private enterprises in close connection with the workplace. This model suits best the relatively big enterprises and represents the traditional model of occupational health. In this model the enterprise usually has its own health station located at the workplace and run by an occupational health physician and occupational health nurses. About 550 companies employ about 120 full-time physicians, some 500 part-time physicians and 1,000 occupational health nurses, as well as about 30 occupational hygienists or technicians. The occupational health services of some 750,000 workers are organized according to this model.

2. Occupational health centers organized jointly by a number of enterprises. This model suits small enterprises which are located in the same vicinity but are not large enough to organize integrated occupational health services of their own. There are about 20 such centers which employ some 20 to 30 full- or part-time physicians and about 30 occupational health nurses and a few occupational hygienists and technicians. In all, the number of workplaces covered by this model is about 350 employing a total of some 40,000 workers.

3. Occupational health services provided by the community health centers. The community may, with the consent of the Provincial Board of Health, agree to provide occupational services at the community health center. It has been the aim of the state to provide occupational health services for small workplaces especially through the community health centers since this is the only and probably also the most efficient way to organize occupational health services for small workplaces outside the largest cities. The National Board of Health has issued directives to the local authorities with regard to the priority of different industries and the functions of occupational health services. At present more than 1,000 employers with a total of some 150,000 workers receive occupational health services from the community health centers. There are about 180 occupational health physicians (about 90 full-time) and 200 occupational health nurses (about 100 full-time) in community health centers now, and plans have been made to increase the number of both occupational health physicians and nurses by about 30 full-time persons yearly until at least 1980. *Tolonen* [5] has presented a detailed description of the occupational health system in small Finnish workplaces.

Fig. 3. Organizational chart of labor protection and occupational health in Finland.
subordinate
cooperative or supervising



4. Occupational health services provided by private group practices. About 40 private group practices in the largest cities provide occupational health services for about 700 enterprises with a total of some 100,000 workers. They employ about 10 full-time and quite a few part-time physicians and some 30 occupational health nurses, as well as a few occupational hygienists.
It should be emphasized that the mere provision of occupational health services does not mean that the services are adequate. In general, the most comprehensive service is provided by the integrated occupational health systems and the most variable services are provided by the private group practices which often offer mainly medical care and health examinations. In contrast to the other systems, community health centers cannot provide medical care as a part of their occupational health programs, but they do however offer medical care for all the inhabitants of the community, including the working population. Since the workplaces which are without occupational health services today are mostly small workplaces situated all over the country, it is evident that the major burden of organizing more occupational health services in the future will be on the community health centers.

Occupational Health Functions

In the occupational health care provided in Finland today, preventive work is emphasized since medical care is considered mainly the task of the society and not the employer. Therefore, only the organization of

first-aid services and the guidances of workers to proper community or other medical systems are considered as the necessary medical procedures of occupational health services. Nevertheless, especially at large workplaces occupational health services provide comprehensive medical care, excluding hospital care, in addition to their preventive work. In fact occupational health services in Finland were usually started as free medical care for the employees, and they have developed into a system emphasizing preventive work only within the last ten years.
The preventive functions of an occupational health care system can be classified as follows:

1. Surveillance of the work environment. Occupational health personnel regularly visit the workplace. They pay special attention to the recognition, assessment and control of different health hazards in cooperation with the firm's labor protection organization. For example, the chemical composition and possible health effects of chemicals used or produced are evaluated, and special attention is paid to ergonomic problems such as work positions and physical factors such as draft, illumination and noise. Simple measurements can be made by the health personnel, but for more complicated measurements an occupational hygienist or one of the regional institutes of occupational health is consulted.

2. Medical surveillance of workers. Medical surveillance includes various health examinations, such as preemployment examinations, periodical health examinations and health examinations for workers working in dangerous occupations, as stipulated in the Labor Safety Act (1958). With regard to general health examinations and screening there is some overlapping with the public health programs of the community health centers. Nevertheless, with the proper coordination, most of the overlapping can be avoided. Since one of the most important practical obstacles of the community screening of the healthy working-aged population is that it is difficult to get people to visit the health centers during work hours, it has been considered that the most practical way to perform such screening is to do it at the workplace, at least when large workplaces are concerned. The inclusion of general mass screening in occupational health programs is voluntary, but the employer receives compensation for it from the sickness insurance system. In order to have mass screening in the occupational health uniformly performed, the National Board of Health and the Social Insurance Institution have issued detailed directions on how the general health examinations in occupational health should be performed [5].
Only the health examinations required by the regulations of the Labor Safety Act (1958) and some other regulations are mandatory. The National Board of Labor Protection, in collaboration with the Institute of Occupational Health, has published detailed guides on how these examinations should be made [3]. The main principle is that if there is a definite risk of becoming ill because of some defined physical, chemical or biological factor at work, the preplacement and periodical health examinations under the given guidelines are mandatory.

3. Provision of information on health hazards at work to the employees and the management. It is the responsibility of the occupational health personnel to provide the workers and the management with adequate information on the health hazards of work. Such information may be provided through personal health education in connection with health examinations, through the organization of special health campaigns, etc.
To summarize, the function on an occupational health program is to aim at preventing work-related health hazards through the use of both technical and medical expertise and methodology.

Institute of Occupational Health

The Institute of Occupational Health is an independent scientific center governed by the Occupational Health Foundation, which is a private organization. Nevertheless, in the Board of Trustees of the Foundation the state has the majority of representatives (state 10, labor market organizations 6, and the city of Helsinki 1, respectively). Plans have been made to bring the Institute completely under governmental control and to change its status from a private to a state-operated official expert body. Today the main functions of the Institute, which employs more than 500 workers, are research, training and service activities in the field of occupational health and safety. From the point of view of occupational health care, the most important functions are the diagnosis and treatment of occupational diseases, the training of occupational health physicians and nurses, as well as occupational hygienists, and the provision of occupational hygienic measurement services.

Occupational Hygiene

The Institute of Occupational Health has, since its foundation in 1951, provided occupational hygiene training. Today most big enterprises have their own occupational hygienists. In most industries they work in close collaborations with the occupational health personnel, and they have good technical facilities at their disposal. The Board of Labor Protection must officially approve the laboratories that make occupational hygienic measurements and many of the laboratories of individual enterprises, run by their own occupational hygienists, have been approved by the Board.
The most important single institution which makes occupational hygienic measurements is the Institute of Occupational Health. Recently its resources in this respect have been expanded to include six regional institutes, which are situated in different parts of the country (Helsinki, Tampere, Turku, Lappeenranta, Kuopio, Oulu). All of these regional institutes have modern equipment with which to make advanced

occupational hygienic measurements and many new staff members have been recruited to the Institute. Thus a good state of readiness exists for the provision of occupational hygienic measurements in all parts of the country, also for small workplaces. This readiness is important since particular emphasis is being paid nowadays to the development of the occupational health services of small workplaces [5]. The main problem with occupational hygienic measurements in small workplaces today is monetary costs of these services. The costs have somewhat limited the requests for such measurements and some kind of state support is needed, before the existing facilities for good technical hygienic surveillance will be in full operation.

Education and Training in the Fields of Occupational Health and Occupational Hygiene

In the basic training program of *physicians* there are about 40 hours of training in occupational health. They consist mainly of lectures, but also visits to workplaces and seminars are included. The training covers the laws and agreements which regulate occupational health activities, the general principles of the effect of work on health, the diagnosis, prevention and treatment of the most common occupational diseases, the organization of occupational health services, and basic knowledge on ergonomics and occupational hygiene.

Occupational health is also included in the teaching of medical specialities, e.g., pneumoconioses are dealt with in association with lung diseases and noise-induced hearing loss in connection with the course on audiology.

The most important postgraduate training is that of the specialist in occupational medicine. This is an official speciality comparable with, e.g., surgery and internal medicine. The total training time is 6 years. It includes one year of general hospital training which may also be done before graduating. The remaining 5 years must be completed after graduation. The first year of postgraduate education is reserved for general training which includes work as a physician at a community health center and in related primary health care services. The actual training in occupational health lasts 3 to 3.5 years and takes place at the Institute of Occupational Health. One year of this period can however be substituted with a year of service in a department of internal medicine or at an institute of social medicine. The final six months can be considered a part of the supplementary training and do not necessarily have to be served at the Institute of Occupational Health.

The supplementary training consists of 6 months as a workplace physician and 6 months at a department of dermatology, lung diseases, obstetrics and gynecology, surgery, or internal medicine.

During the actual specialization at the Institute of Occupational Health the physicians work in the outpatient clinic of the Department of Occupational Medicine, become familiar with the methods of clinical and work physiology, occupational psychology, rehabilitation, occupational hygiene, ergonomics, and epidemiology and biometry. At the conclusion of their training the physicians must pass a written examination required by the National Board of Health before they are officially recognized as specialists in occupational medicine.

The specialists in occupational medicine are trained with the aim of providing experts to fill research and organizational posts within the Institute of Occupational Health, the universities and university hospitals, as well as governmental and labor market organization posts. Thus this training is not intended for a physician planning a career in industry.

Today, there is no official speciality for workplace physicians, but there are plans calling for part of the physicians who specialize in public health to spend most of their training time in practical work as workplace physicians, and they therefore would become specialists in public health with emphasis on occupational medicine.

At present the training of physicians working in practical occupational medicine includes a 3-week course organized by the Institute of Occupational Health and regular shorter courses at least once a year. One possibility for a physician to deepen his knowledge on occupational health is to serve in one of the resident posts of the Institute of Occupational Health for 3 months. Two of the Institute's nine residencies are primarily reserved for this kind of training.

The basic training of *occupational health nurses* is either that of a registered nurse (2.5 years of training) or of a public health nurse (1 year of training after becoming a registered nurse). The basic training for registered nurses includes a few lectures on occupational health and hygiene, but in the training program of public health nurses about 160 hours of occupational health training is included, of which about 60 hours is practical training at some large workplace.

The title of occupational health nurse is not an official one; this explains the possible differences in basic education. At present about half of the working 1,500 occupational health nurses are trained public health nurses and the remaining half are registered nurses with, usually, much experience in industry. The postgraduate training for both of these groups is similar and consists of a 4-week course organized by the Institute of Occupational Health. In addition, shorter courses of a few day's duration are organized annually.

The basic training of *occupational hygienists* is a master's degree in physics or chemistry. Their postgraduate training takes place at the Institute of Occupational Health and lasts three years. During the three years they work in the Department of Industrial Hygiene and Toxicology and in the regional institutes of occupational health, first as assistants to competent occupational hygienists and later more independently. They also take part in various courses on occupational health and occupational hygiene arranged by the Institute. Scientific research work can also be performed during their training.

In addition to the occupational hygienists also so-

caled measurement hygienists are trained at the Institute of Occupational Health. They are technicians who are trained to make common technical hygienic measurements and analyses, and they work under the supervision of an occupational hygienist.

Summary

Occupational health services have developed rapidly in Finland since the agreement between the most important labor market organizations was signed in 1971. At present, approximately one million of the total work force of 2.2 million workers have access to occupational health services. Nevertheless, there are considerable differences in the coverage of services between different industries on one hand and between small and large workplaces on the other. The mining industry has the best coverage of occupational health services, and agriculture and the construction industry the worst. While most big enterprises have a well-organized occupational health system, most of the small ones remain without any such services today.

Occupational health services may be organized

1. as integrated occupational health services of an individual enterprise
2. in an occupational health center established jointly by a number of enterprises
3. in community health centers, or
4. by a private group practice

In general occupational health activities follow Recommendation No. 112 of the International Labor Organization (1958).

A proposition for an occupational health bill was published in 1975. It aims at making occupational health services a mandatory responsibility of the employer. The provision of these services, especially for small workplaces, would be achieved primarily through the community health centers.

Occupational hygienic measurements are made in the enterprises by their own occupational hygienists or occupational health personnel or by the Institute of Occupational Health, which has recently expanded its facilities for occupational hygienic measurements by founding six regional institutes in different parts of the country.

Résumé

L'organisation de la médecine du travail et de l'hygiène du travail en Finlande

Les services de la médecine du travail se sont développés rapidement en Finlande depuis la convention signée en 1971 entre les plus importantes organisations du marché du travail. A présent, environ 1 million sur les 2,2 millions de travailleurs ont accès aux services de la médecine du travail. Il y a néanmoins des différences considérables quant aux services offerts dans les différentes branches de l'industrie d'une part, et dans les petites et les grandes entreprises d'autre part. L'industrie des mines dispose des services de la médecine du travail les plus étendus, alors que l'agriculture et la construction sont le moins bien pourvus. Alors que la plupart des grandes entreprises ont un système bien organisé pour la médecine du travail la grande part des petites entreprises restent aujourd'hui encore sans être pourvues de tels services.

Les services de la santé du travail peuvent être organisés de plusieurs façons:

1. des services de la médecine du travail intégrés à chaque entreprise
2. un centre de médecine du travail établi conjointement par plusieurs entreprises
3. des centres médicaux par quartiers
4. des services de médecine du travail fournis par une pratique de groupe privée

En règle générale, les activités de la médecine du travail suivent la recommandation No 112 de l'Organisation internationale du travail (1958).

Une proposition pour une loi sur la médecine du travail a été publiée en 1975. Elle a pour but d'obliger tout employeur à organiser des services de médecine du travail. Ces services, pour les petites exploitations surtout, seraient offerts surtout par les centres publics.

Des mesures de l'hygiène du travail sont faites dans les entreprises par un employé des services de l'hygiène du travail propre à la maison ou appartenant à un institut d'hygiène du travail, soit aussi par l'Institut national de médecine du travail, institut qui a récemment étendu ses compétences aux mesures de l'hygiène du travail en créant six instituts régionaux dans les différentes parties du pays.

Zusammenfassung

Die Organisation der Arbeitsmedizin und Arbeitshygiene in Finnland

Nach Abschluss des Vertrags von 1971 zwischen den wichtigsten Sozialpartnern zeigten die arbeitsmedizinischen Dienste in Finnland eine rasche Entwicklung. Heute haben von insgesamt 2,2 Millionen Arbeitern etwa eine Million Zugang zu arbeitsmedizinischen Leistungen. Dennoch werden verschiedene Industrien sowie kleinere und grössere Betriebe verschieden gut versorgt. Die höchste Versorgungsdichte mit arbeitsmedizinischen Diensten findet sich im Bergbau, während die Landwirtschaft und die Bauindustrie am schlechtesten abschneiden. Die meisten Grossbetriebe weisen gutorganisierte arbeitsmedizinische Dienste auf, während solche Dienste in Kleinbetrieben meist ganz fehlen.

Verschiedene Organisationsformen kommen für die arbeitsmedizinischen Dienste in Frage:

1. integrierte arbeitsmedizinische Dienste einzelner Unternehmungen
2. arbeitsmedizinische Gesundheitszentren, die gemeinsam durch mehrere Betriebe errichtet werden
3. Integration in Quartiergesundheitszentren oder
4. arbeitsmedizinische Dienste durch private Gruppenpraxen

Im allgemeinen entsprechen die arbeitsmedizinischen Tätigkeiten der Empfehlung Nr. 112 der Internationalen Arbeitsorganisation (1958).

Im Jahre 1975 wurde ein Vorschlag für ein neues arbeitsmedizinisches Gesetz publiziert. Dieses soll jeden Arbeitgeber verpflichten, arbeitsmedizinische Dienste zur Verfügung zu stellen, wobei diese – vor allem für Kleinbetriebe – hauptsächlich im Rahmen der öffentlichen Gesundheitszentren verwirklicht würden.

Arbeitshygienische Messungen werden in den Betrieben durch eigene Arbeitshygieniker oder arbeitsmedizinisches Personal oder aber durch Beizug des nationalen arbeitsmedizinischen Instituts durchgeführt. Dieses hat kürzlich seine Kapazität für arbeitshygienische Messungen durch Errichtung von 6 Regionalinstituten in verschiedenen Landesteilen erheblich erweitert.

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