The Occupational Safety and Health Act: The Future of Occupational Medicine

Marcus M. Key, M.D.

Soon after the passage of the Occupational Safety and Health Act of 1970, the legislation was acclaimed as a kind of new order of the ages – a "landmark piece of legislation," "one of the most important pieces of legislation . . . ever passed by the Congress," and a "Magna Carta for the workers of America." Certainly expectations were and still are high that the implementation of this new Act by the Departments of Labor and Health, Education, and Welfare, will assure safe and healthful working conditions and preserve our human resources, if I may paraphrase the stated purpose of the Act. Two program elements mentioned in the purpose refer to both the environmental conditions and the human element which are the two basic considerations in the practice of occupational medicine.

Thus, in some respects there will be changes, and in others there will be a reemphasis of our previous practices. I would like to suggest that the changes that will be made by the new Act will be changes in form rather than changes in substance. By form, I mean enforceable standards, new regulations such as those for recording and reporting of occupational injuries and illnesses, and new organizations such as the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Review Commission, and the National Commission on State Workmen's Compensation Laws. By substance, I mean that basic components to the practice of occupational medicine which have been developed over a number of years, such as familiarity with the hazards of the workplace, preplacement examinations, biologic and radiographic monitoring, health maintenance examinations, counselling and health education, and the use of the epidemiologic method. As a Past President of the Industrial Medicine Association has pointed out, the new Act really adds nothing new to the professional practice of occupational medicine. The better medical departments in industry have been operating in an enlightened and progressive manner for many years prior to the passage of the Act.

My purpose in this presentation is not to review the substance of occupational medicine, but rather to try to anticipate some of the changes that can be expected in the form of occupational medicine. I presume to look into the looking-glass only because of my vantage point, not because my eyesight is any better than yours in seeing what lies ahead.

Biological Monitoring

The start-up standards issued by the Occupational Safety and Health Administration on May 29, 1971, emphasize procedural-type safety standards and environmental-type health standards. The Act requires that, where appropriate, standards shall also prescribe the use of labels which indicate relevant symptoms and appropriate emergency treatment, precautions of safe use or exposure, protective equipment, monitoring procedures, and type and frequency of medical examinations and tests. Soon it will be necessary to enlarge on the original health standards. Of particular interest will be proposals that biologic threshold limit values be used as supplementary standards, that chest roentgenograms be required of workers exposed to pneumoconiotic dust, and that periodic physical examinations be required for certain hazardous occupations.

Because of the shortage of health professionals, it makes good sense to utilize the occupational medical personnel of industry in the biologic monitoring process. I anticipate that industry will be required to biologically monitor certain exposures and keep records which will be available to exposed workers as well as to enforcement agencies. Because of medical insistance on confidentiality of medical records, a system will have to be devised to allow the enforcement agency to make a decision regarding compliance with biologic limits or the need for increased environmental sampling. A coded biologic monitoring record for exposed groups of employees for each monitoring period has

From the National Institute for Occupational Safety and Health (Director), Health Services and Mental Health administration, Department of Health, Education and Welfare, Rockville, Md.

Reprint requests to Parklawn Building, 5600 Fisher's Lane, Rockville 20852.

Presented at the Annual Meeting of the Ramazzini Society, Key Biscayne, Fla., Oct. 22, 1971.

Reprinted from J.O.M.
May, 1972, Volume 14, No. 5
pp. 387-389

been suggested as one approach. A certification program would be another approach. This would attest periodically to the accuracy of biologic monitoring (through split samples) and to the accuracy of x-ray classification of the pneumoconioses. There may be qualifying courses required in the use of the UICC or new ILO system for interpretation and classification of the pneumoconioses, as under the Coal Mine Health and Safety Act. In the implementation of the Occupational Safety and Health Act and the Coal Mine Health and Safety Act, NIOSH and DHEW do not wish to be in the position of having to decide who can and cannot work.

Testing and Certification

In the future there will be a certain amount of testing and certification of the paraphernalia of occupational health. A new activity for NIOSH during the coming year will be testing and certification of respirators, detector tubes and industrial hygiene instruments, and eventually it may be necessary to extend testing and certification to personal protective equipment. The present respirator testing and certification program* conducted by the Bureau of Mines in Pittsburgh will be transferred to NIOSH's Appalachian Center for Occupational Safety and Health in Morgantown, W. Va. Performance specifications will for other types of equipment be developed in some cases by the official agencies; in others, by national consensus-standards setting organizations. The present components of the respirator testing and certification program – performance testing and vendor survey for quality control – will be applicable to the overall testing and certification program. If a carbon monoxide detector tube is certified as having 20% accuracy, an OSHA compliance officer would not be sure of noncompliance with a 50 ppm, limit unless the tube read 60 ppm, and conversely a plant physician would not be sure of safe conditions unless the tube read 40 ppm or less. The value of having respirator and other personal protective equipment tested and certified for special exposures is readily apparent, but in no way obviates the need for an equipment maintenance program.

Agricultural Occupational Health and Safety

In agriculture, the occupational health and safety risks are greater than those arising out of factory employment, and the "small farm problem" is even greater than the "small plant problem." The agricultural establishments are already covered by OSHA standards and the occupational injury and illness recording regulations, but much needs to be done in the areas of research and training.

Initially a position paper would be helpful on the magnitude and extent of the occupational safety and health problems in agriculture and on present resources for research, health education, and delivery of health care. Alternatively, a national conference on agricultural occupational health might be held. Both DHEW and DOL would do well to utilize the Extension Divisions of land-grant universities and colleges and the U.S. Department of Agriculture's extension services for dissemination of health information and for employer-employee education, because of the grassroots communication systems already developed. Many of the land-grant universities will be capable of conducting occupational health and safety research, and they would have the added advantage of familiarity with agricultural problems.

The "small farm problem" like the "small plant problem" will be difficult to solve until the particulars of national health insurance are decided. Should it develop that migrant labor and employees of small farms and plants become eligible for prepaid medical care, then some mechanism will have to be developed to provide quick consultations to physicians on occupational health problems, perhaps by two-way television or toll-free telephone calls to medical centers with occupational medical competence.

Health Maintenance Organizations

Some industrial medical departments, especially in the inner city and rural areas, are expected to broaden their health care activities and offer therapeutic and preventive health care services. This would include treatment of nonwork related problems and should be welcomed by those who have difficulty finding a personal physician. If such primary care programs were financed through capitation payments, and if they eventually intended to open enrollment to Medicare and Medicaid beneficiaries, these programs would be eligible for planning, development and start-up funds from the Health Maintenance Organization Service in HEW. H.R. 2 contains a provision to allow Medicare beneficiaries to opt into a prepaid program. HEW has also acted to help clear the way for HMO formation in a number of States that have restrictive laws regarding group practices and prepaid medical plans.

It would be natural for such activities to flow from experimental programs in which employees and their families were first offered such primary care on a prepaid basis. For those companies wishing to broaden their health care services, but not to the extent of assuming responsibility for Medicare and Medicaid patients, there would probably be financial incentives from savings on health insurance. NIOSH would be interested in providing seed money and evaluation funds for demonstration projects of this nature.

Professional Training

In recognition of DHEW's responsibility to ensure an adequate supply of manpower to carry out the purposes of the act, NIOSH will continue support of the traditional professional programs in occupational safety and health, and will also explore new programs such as the development in one person of health and safety competence. This occupational safety and health professional will not be able to design an industrial ventilation system or complicated machine guards, but he will be able to recognize and evaluate safety and health hazards, and he will know where to get help in correcting them. This type of person could be utilized in a small plant which could not afford two separate professionals, and he would make an ideal compliance officer for OSHA or the States.

I am hoping that the demand for physicians in occupational health activities will stimulate increased interest in residency programs in occupa-

tional medicine, several of which receive NIOSH support. If and when national health insurance becomes a reality, increased emphasis will have to be put on prevention to lessen the medical care load. Reexamination of the requirements for our specialty may be in order, especially if some of the anticipated changes in the form of occupational medical practice do take place.

Workmen's Compensation

The findings and recommendation of the National Commission on State Workmen's Laws will no doubt have a profound influence on the diagnosis of occupational diseases, the evaluation of impairment and disability, the financing and awarding of workmen's compensation, and the incentives for rehabilitation. To some extent the recommendations will depend on the likelihood of passage of a national health legislation. Since I represent the Secretary of DHEW on the Commission, I will not speculate regarding the recommendations of the Commission, which are due by July 31, 1972, but I would like to point out that a broad range of suggestions has already been received, ranging from continued State operation of workmen's compensation programs with Federal guidelines or standards to complete take-over by the Federal Government. There is much sentiment for improving the present system which seems to benefit all concerned except the injured or ill worker. There is also some concern about the growing use of the workmen's compensation systems for compensating degenerative diseases over which the employer has little or no control.

In closing, I would like to point out that the occupational health activity in the Public Health Service is now in its 57th year, yet it was not until recently that we had the three necessary ingredients to mount a truly national program – (1) enabling legislation, (2) organizational status and stability, and (3) adequate resources. I owe much to my predecessors who struggled against many odds for the accomplishments they were able to make. The challenges that lie ahead are formidable and NIOSH will be looking to the professional associations in this field for help and advice.

Addendum

Schedule will be revised shortly to become a joint Bureau of Mines – NIOSH respirator approval and quality control program, which should facilitate the use of respirators under both of the new Acts.