WORLD HEALTH ORGANIZATION

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WORKERS' HEALTH PROGRAMME IN THE WESTERN PACIFIC REGION

Report by the Regional Director

1. INTRODUCTION

The World Health Assembly, in resolution WHA29.57, requested the Regional Committees "to discuss in 1977 or 1978 the subject of occupational health, with a view to active implementation of regional programmes of work in occupational health at both the country and intercountry levels, based on the needs of each country".[1]

For the last several years the Regional Office has cooperated in exploring occupational health problems and developing the services available. There is at present an occupational health advisory services project in Malaysia and fellowships have been provided for training in occupational health to countries such as the Republic of Korea and Singapore. Several seminars at regional and country level have been organized on different aspects of the problem. Generally speaking, however, the field of occupational health has not received great emphasis in the Region compared to other WHO activities. There is a need to identify priorities and to develop a more continuous programme of work.

The present report aims to provide elements for discussion of the subject by the Regional Committee. It is based on data obtained in reply to a questionnaire circulated between 1975 and 1977, as well as on reports of WHO consultants assigned for occupational health activities in the Region. It proposes broad and specific objectives, strategies and approaches that could be followed in developing a profile of the regional programme to serve as a basis for the medium-term programme.

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[1] WHO Handbook of Resolutions and Decisions, Volume II (2nd edition), 1977, pages 50-51.

2. HEALTH PROBLEMS OF WORKERS

The Western Pacific Region is one of the most rapidly developing regions of the world. Some of its countries are very highly industrialized; others are mainly agricultural but undergoing industrialization. Occupational health or health of working populations should be an area of special concern to health and socio-economic development.

Statistics on workers' health problems are limited and the available data are inconsistent because of lack of adequate reporting systems. Data on occupational diseases may not represent their real occurrence; under-reporting is attributed to weakness in the occupational health services, to them often being separated from the national health services and to the fact that reporting is associated with complicated legal procedures.

There is satisfactory evidence, however, that occupational health problems are of some magnitude and that urgent intervention is needed to control them. In the industrialized countries of the Region there exists a wide variety of problems, and a good deal of money is spent annually in payment of compensation for occupational disability and mortality. In the developing countries or areas, there are large numbers of workers exposed to various occupational hazards, while at the same time affected by endemic diseases. Industrial development adds to the problem and unless some preventive action is taken at an early stage the situation may become more serious in the future and less amenable to control.

Some examples of the occupational diseases prevailing are presented in Annex I. There are five major groups of disease which prevail more frequently than others: the pneumoconioses and obstructive lung diseases resulting from inhalation of dusts; intoxication by pesticides, particularly in agriculture; poisoning by metals, particularly lead; occupational dermatitis; and noise-induced loss of hearing.

"Work related diseases", such as arthritis and bronchitis, have been described in some epidemiological studies as affecting groups of workers when they fail to adapt to various working conditions. Reports on those problems are few and it appears that research is required.

Occupational accidents exact a heavy annual toll of disability and mortality in most occupations. Annual compensation and medical care payments for preventable injuries due to accidents amount to several hundred million dollars.

Occupational health does not aim only at the prevention of occupational and work-related diseases, but at total protection and promotion of health through the appropriate adaptation of work to human capacities and limits. General health problems usually constitute the main proportion of absenteeism in industry through

sickness. While there are some figures which demonstrate a high rate of absenteeism in some countries of the Region, there is little information on the extent of prevalence of general diseases among workers and much less on cases aggravated by work hazards.

3. PROBLEM DEFINITION

3.1 Resources available

Most countries or areas of the Region have developed an infrastructure of occupational health services. In some, those services come under the jurisdiction of the health authorities; the labour authorities; or partly that of labour and partly that of health. The degree of development of the national occupational health services varies and generally depends on the degree of development of the country or area.

The majority of countries or areas have occupational health and safety laws, administered by the labour authorities in almost all cases, regardless of the affiliations of advisory occupational health services. For example, the laws in Australia are enforced by the Labour Department while the Health Department is responsible for general occupational health services, research and standards. In Japan, however, the inspectorate enforcing occupational health laws and the National Institute of Occupational Health are both under the Ministry of Labour.

The occupational health resources in the Western Pacific Region are relatively greater than those found in other developing areas of the world. There are several institutions and governmental and private units interested in research, training and standard setting.

Training in occupational health is found in several university departments such as those of Australia, Japan, Philippines, Republic of Korea and Singapore. The training is organized at the undergraduate and postgraduate level and there are some university departments which provide regular postgraduate courses to physicians at the regional level, leading to a diploma in occupational health.

Private professional societies in occupational health are found in many countries of the Region. The Industrial Safety Association of Japan, for example, has some six thousand members; the Occupational Medical Association in the Republic of Korea has as members over one thousand physicians employed by industry and in the mines; Singapore's counterpart society has over 300 industrial physicians and nurses.

3.2 Occupational health needs

While adequate resources are available in some countries, there exist several problems in the systems for occupational health that could, to a certain extent, be resolved through a WHO regional programme of cooperation. Those problems may be summarized as follows:

3.2.1 Problems of occupational health services in workplaces

Large and medium sized work establishments throughout the Region are usually provided with regular medical and/or nursing units. Although far from satisfying the needs, the estimated proportion of medical and other health personnel employed by industry, plantations and mines in different countries is from 10% to 25% of the total health manpower. Those trained in occupational health represent a small proportion. Consequently, the health services provided within workplaces tend to be too general and palliative, with very limited preventive health action taken. The cost is high and the effectiveness of such health manpower rather low. More training in occupational health is needed and guidelines should be developed on appropriate means of practising preventive occupational health.

There is an outstanding shortage of specialists in occupational hygiene sciences and safety engineering in the Region, which manifests itself in the fact that:

(1) workplaces are often built without the appropriate instalment of preventive engineering devices which results in excessive health hazards;

(2) there is no regular assessment or surveillance of occupational risks and experience in introducing control measures at the sources of those risks is limited.

3.2.2 Occupational health services at the national level

3.2.2.1 The problem of under-serviced working populations

(1) workers in small industry

Several years ago, WHO sponsored a series of national seminars preceded by field surveys in Malaysia, Republic of Korea and Singapore, on the health of workers in small-scale industry. It was found that small industry employs a very large proportion of the working population, sometimes the largest; that those workers are in the low economic income group; and that they are almost always deprived of health services. In addition, it was found that, because they are large in number, labour protective inspection and supervision are not effective. Health problems in small industry are much more serious than those in large industry as health hazards are not controlled and are often excessive. There are several

alternative solutions to the problem, almost all of which lie within the competence of the health authorities. In further studies it has been shown that this problem is not unique to developing countries. It also requires particular attention in industrialized countries.

(2) workers in agriculture

Less information is available on occupational health problems in agriculture, although intoxication by pesticides and work accidents are often reported. There is no other means of developing occupational health care services for agricultural workers than incorporating them within rural health units. The rural health services have not, as yet, developed an occupational health component. Consequently the occurrence of occupational poisoning and accidents is excessive.

(3) migrant workers

There are no less than six million migrant workers in the Western Pacific Region. They are classified as under-serviced mainly because of the diverse and generally unskilled types of work in which they are employed. Many countries in the Region are involved in labour migration. Some are mainly exporters of labour and others mainly host countries. Among the main exporting countries are Malaysia, Philippines and Republic of Korea. Countries of employment include Australia, Japan and Singapore. The employment of unskilled migrant workers in small workshops and with contractors in construction and similar occupations, exposes them to occupational health hazards while the health services available are largely inadequate. They are also exposed to several communicable diseases because of poor housing, generally low income and difficulties encountered in adapting to the new environment. Studies elsewhere in the world have demonstrated a higher rate of occupational accidents and diseases among migrant than among national workers, mainly because they encounter greater risks while carrying out hazardous jobs the local people may not be willing to undertake. Epidemiological studies among migrant workers are needed together with introduction of a system for controlling their health problems.

3.2.2.2 Occupational health legislation and administration

Legislation varies from country to country. There are, however, certain features where regional cooperation might optimize the effectiveness of occupational health services. The following, probably valid, questions often arise:

(1) would the revision of legislation, or some parts of it, ensure appropriate occupational health care delivery to under-serviced working populations, for example those occupied in small industry or migrant workers?

(2) in some countries legislation requires employers to provide occupational health services at workplaces of a certain size. Is it appropriate to assume that some of the shortcomings observed in occupational health services at the plant level are due to lack of the appropriate legal provisions to set the performance standards of those services?

(3) would training occupational health and safety inspectors and providing them with appropriate facilities to detect and evaluate occupational hazards, be one of the areas of concern for WHO cooperation with developing countries in the Region?

(4) is it feasible to provide guidelines in order to develop appropriate measures to ensure legal backing for coordination among the different authorities involved in workers' health and safety, for example, labour, health, industry, social security, workmen's compensation?

3.2.2.3 Coordination

Inadequate coordination among the authorities concerned with occupational health administration (usually the labour authorities) on the one side, and the national health services on the other, deprives occupational health services of some of the essential components of preventive services, particularly with respect to the detection and control of general and work related diseases. Such activities as control of tuberculosis among industrial workers or the immunization of workers against communicable diseases are necessary and usually effective but are rarely implemented because of segregation of services. The health authorities are often not informed of the different health problems of workers. It is obvious that no national health programme can claim to be fully effective and competent without having complete information on the state of health of the different sectors of the community, including that of the economically active population.

3.2.3 Participation of workers and employers

The participation of workers themselves in occupational health and safety activities is of vital importance to their success and to productivity. As an accessible population, workers can be educated in safety at the workplace as well as in their role in health protection. Some health programmes, for example family planning, have been more successful among working populations than among other sectors. In developing countries, the health education of workers is needed as it helps in facilitating adaptation to industrialization. In most countries or areas of the Region, the health education of workers hardly exists; a sound programme in this field needs to be developed and activated.

Employers are in a position to introduce changes in the work environment so as to prevent hazards and, in most instances, they are responsible for the in-plant health services. The best educational means of motivating employers in occupational health

is to demonstrate its relationship to individual productivity through cost benefit effectiveness studies. Few such studies have been carried out in the Western Pacific Region and educational programmes on health for employers are generally lacking. In a few countries efforts in occupational health education have been made through workers' unions and individually through counselling at the workplace. This could extend to other countries. There is also a need to produce guidelines for the education of workers in different occupations, and educational material. This could be a collaborative effort among countries or areas of the Region where there are differences in language.

3.2.4 Need for occupational health guidelines and criteria

Several countries of the Region are rich in methodology for the health evaluation of workers, job analysis, adaptation of machines and processes to physiological and psychological capacities, industrial hygiene assessment and occupational safety. In several other countries an outstanding shortage exists in those areas. In addition, the methods followed may vary widely, affecting precision in problem assessment and comparability of results.

Furthermore, there are several occupational health problems peculiar to the developing countries of the Region for which there is need to develop appropriate methods of assessment and control. Exposure to vegetable and other organic dust in Malaysia, Philippines and the South Pacific islands are examples. Occupational allergy through exposure to wood extracts and rubber latex is another. Regional cooperation needs to be strengthened in transferring and adapting technology, harmonizing methods and developing means for the evaluation and control of occupational health problems characteristic to certain developing countries. Some areas for such development could be:

(1) criteria and methods for periodical health examination and early detection of occupational and work related diseases;

(2) methods for the evaluation of human capacity in relation to work demands;

(3) methods for the detection and evaluation of physical and chemical hazards at work;

(4) occupational safety methods and personal protective equipment;

(5) techniques for the psychological evaluation of workers and for the detection of psychological disturbances through exposure to certain tasks.

3.2.5 The need for epidemiological information and for health monitoring

Occupational health institutions in the Region have carried out epidemiological studies on some of the outstanding health problems of workers. A large number of such studies are being

carried out in Australia and Japan in which different health problems in various occupational sectors are being investigated and the causative factors in the work environment examined. In the Republic of Korea, several studies have been made, with WHO cooperation, of pneumoconiosis in mining; cross-sectional surveys of workplaces having been carried out. In the Philippines, some studies have been made on lead poisoning and byssinosis due to cotton dust. In Singapore, a study has just been concluded on the health of dock workers and studies on silicosis in quarries have also been carried out for some years.

Environmental and health monitoring for occupational health is, however, limited, even in the most industrialized countries of the Region. This is mainly due to the weakness of the occupational health units in workplaces and the extensive shortage of trained occupational health personnel, particularly in the field of epidemiology.

From the standpoint of assessing needs and identifying priorities, epidemiological information on occupational health problems is the basic foundation for development of an adequate health programme. The effectiveness of such a programme must be evaluated by the further monitoring of data from an appropriate sample of workplaces of different types. In this manner, trends in workers' health can be readily identified and the health programme dynamically adapted to cope with the problems.

Regular monitoring may also be a means for evaluating the cost benefit effectiveness of occupational health programmes after they have been adapted to undertake the measurements which become necessary. The results would not only serve as an evaluative tool, but would also be of use in motivating and educating employers, as explained earlier (see 3.2.3).

The occupational health standards used by most countries of the Region are derived mainly from those recommended by the American Conference of Governmental Industrial Hygienists and other institutions in the United States of America. Although those standards may not apply to existing environmental and human conditions, there are some occupational exposures common to different countries for which no recommended maximum permissible limit of exposure is available. As the cost of standards setting is high and extensive expertise and research is required, it is inevitable that recommended limits should be adjusted to prevailing conditions. This presents an additional indication for epidemiological studies. Such studies may also help in setting standards for the commonly encountered occupational exposures such as vegetable and other organic dusts. They may also reveal some of the hitherto unknown effects of combined exposure to multiple occupational hazards which influence the safety margin in setting permissible limits.

4. COORDINATION WITH OTHER AGENCIES

The International Labour Organisation (ILO)

During the late sixties and early seventies, the International Labour Organisation, operating from its Regional Office in Bangkok, played a role in technical cooperation with countries or areas in the Western Pacific and South-East Asian Regions of WHO. One or more Regional Advisers in occupational safety and health used to be responsible for the programme. The main emphasis of that programme, however, was to assist in developing national occupational safety and hygiene units. Some activities, such as the Joint ILO/WHO/UNDP occupational health and safety project in the Philippines which ended in 1972, were carried out jointly with WHO and UNDP. The ILO is planning to collaborate with the Government of Singapore in 1979 in organizing an industrial hygiene course with funds from UNDP. Similarly, with support from UNDP, the ILO is to collaborate with the Office of Labour Affairs in the Republic of Korea to develop the Institute for the "Science of Labour" which will have an occupational safety and ergonomics function. Obviously, there is a need to coordinate ILO's work with that of WHO. There are several activities on which WHO could concentrate its efforts and it is possible for the work of the two Organizations to be complimentary.

It is also necessary to coordinate WHO's workers' health programme with that of other United Nations agencies, such as the United Nations Industrial Development Organization in the field of industrial development and its health implications, and the Food and Agriculture Organization of the United Nations in the field of health of agricultural workers.

5. PROPOSED OBJECTIVES OF A WHO REGIONAL PROGRAMME IN OCCUPATIONAL HEALTH

5.1 General objectives

Based on the needs expressed earlier in this document and in accordance with the Sixth General Programme of Work covering a specific period (1978-83), it appears that there is a role for WHO to play in promoting workers' health in the Western Pacific Region. The report of the Director-General to the Twenty-ninth World Health Assembly identified two main general objectives for WHO work in this field.[1] Those objectives apply to the general needs of the Region and are to cooperate in:

(a) strengthening national capabilities in the planning and development of occupational health services and institutions for workers in different work sectors;

[1] See document A29/10, page 27, Twenty-ninth World Health Assembly.

(b) the development of knowledge and practice in detecting and controlling workers' health problems, including occupational and work-related diseases and disability, and the effective prevention of occupational risks and diseases.

5.2 Specific objectives

(a) to develop preventive occupational health services in workplaces and at the national level and promote their coordination with national health programmes;

(b) to stimulate the participation of workers and employers in occupational health activities;

(c) to develop criteria and guidelines for preventive medicine, hygiene and ergonomics;

(d) to stimulate the monitoring of work environment and workers' health and promote the application of occupational health epidemiology.

6. STRATEGIES AND APPROACHES

In relation to the above-mentioned general and specific objectives, the Organization will cooperate in:

(a) formulating policies, standards, guidelines and programmes for protection against occupational hazards;

(b) organizing seminars, workshops or national courses in occupational health;

(c) developing the services required for the implementation of occupational health programmes;

(d) developing methods for the early detection of health impairment in workers;

(e) collecting and disseminating information on specific occupational health problems and hazards and methods for solving or combatting them;

(f) promoting collaboration with other international agencies, particularly the International Labour Organisation, in the area of occupational health.

The above-mentioned cooperation will be implemented on government request through:

(a) long-term advisory services;

(b) consultant services;

(c) fellowships;

(d) organization of training courses or seminars, as well as through direct cooperation with the social medicine or public health departments of universities;

(e) promotion of ergonomics;

(f) improvement of personnel management and management/staff relationships.

Epidemiological Research and Monitoring

The Western Pacific Advisory Committee for Medical Research might, at the request of the Regional Committee, consider a number of topics for field studies leading to the improvement of monitoring and development of an epidemiological approach. In addition, such areas as the exposure to occupational hazards of workers affected by chronic diseases are of importance. The feasibility of regular monitoring of the working environment and the health of workers should first be studied in one area and then elaborated to become a regional activity involving several countries or areas.

SOME DATA ON OCCUPATIONAL ACCIDENTS, DISEASES AND COMPENSATION PAYMENTS[1]

Country (Year)	Number of occupational accidents	Number of fatal cases	Number of occupational diseases reported[2]								Compensation payment
			Pneumoconiosis	Toxicity metals	Solvents gas poisoning	Hearing loss (noise)	Occupational dermatitis	Locomotor and arthritis	Other	Total occupational diseases	
Australia (New South Wales) (1974)	128 291	394	2448			1568	2534	889		7 439	Aus. $75 968 626
Japan (1972)	1 419 630	5631	825	82	406		596	7193	9981	30 869	Unavailable
Malaysia (1973)	12 373	370	U N A V A I L A B L E								Mal. $12 355 367
New Zealand (1974)	67 420	60			96		278		533	907	Unavailable
Papua New Guinea (1973)	1 709	245	U N A V A I L A B L E								Aus. $ 548 383
Philippines (1974)	2 627	12	U N A V A I L A B L E								Pesos 19 479 562
Republic of Korea (1974)	69 297	345	817	144	127	1332	406		36	2 862	6 516 929
Singapore (1973)	1 723	54	185	1		5	144		1	336	Sing. $3 264 533

[1] Sources from results of questionnaire and other reports.

[2] Absolute numbers as the numbers for population at risk were unavailable.