Occupational Health in West Malaysia

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1. Introduction

THE FEDERAL GOVERNMENT has placed much emphasis on industrial growth and development of new industries since the introduction of the General Plan of Development in 1956. This was continued through the second five years of the Social and Economic Development plan for 1961 – 1965. The specific objective in all these plans in relation to occupational health is the development of industries designed to be labour-intensive so as to generate employment opportunities and reduce unemployment. Essentially these development plans were formulated to promote the economic welfare of all people in general and the workers in particular.

Recognising this fact, the Cabinet in June 1966 made a decision to establish an Industrial Health Unit. This unit was initially to be based in the Ministry of Labour and Manpower with the specific objective of evolving a nation-wide Occupational Health Service. It was also envisaged that this scheme would stimulate interest and the need for such a service among the management, workers and the medical profession in general. In conjunction with the Ministry of Labour, particularly the Factory Inspectorate, the unit had the task of assessing the cost to the national economy of industrial diseases and accidents.

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In June 1970, the unit having completed its initial task requested the formation of a joint committee in occupational health of members of the Ministries of Health and Labour to further intensify its activities and co-ordinate overlapping objectives. Further, the Ministry of Health in consultation with the Ministry of Labour and Manpower, obtained the services of a World Health Organisation consultant on occupational health from Canada. After careful study of the existing facilities, especially the infra-structure for Health Care Delivery System, he recommended the transfer of the unit to the Ministry of Health, basing his recommendations on the desirability of developing the unit into an occupational health facility within the health centre based medical care.

The scope and magnitude of the task before the Occupational Health Unit can be judged from Table 1 which gives the number of work establishments and structure of the economically-active population in 1973. The effectiveness of the unit will depend on the health care it can provide for a known population of 2.9 million work force. However, this figure does not include the self-employed and the numerous cottage industries scattered all over the country.

2. National occupational health and safety legislations

The responsibility for safety, health and welfare of the working population is distributed essentially between the Ministry of Health and Labour. Other ministries involved are the Ministry of Local Government, Agriculture, Transport and Communication. Table 2 gives a comprehensive list of all legislations

Table 1

Distribution of national work force by branch of economic activity, 1973

Branch of economic activity	Number of establishments	Total economically active population (in thousands)	%
Agriculture, forestry, hunting and fishing	12,324	1,359.1	46.8
Mining and quarrying	1,156	55.2	1.9
Manufacturing	3,074	251.9	8.7
Construction	1,390	92.4	3.2
Electricity, gas, water and sanitary services	108	19.7	0.68
Commerce	20,331	274.6	9.43
Transport, storage and communication	1,561	97.9	3.37
Services	14,432	472.6	16.3
Activities not adequately described	Na	101.3	3.5
Persons seeking work for the first time and unemployed	Na	178.4	6.15
TOTAL	54,378	2,903.1	100.0

operative and their functions as indicated by appropriate code number below the table. It is not possible in this general review to discuss in detail all the legislations but the major ordinances, namely the Rump Labour Code 1933, Workmen's Compensation Ordinance 1952, the Factory and Machinery Act 1970 and the recent Employees' Social Security Act 1967 will be briefly summarised.

The Rump Labour Code 1933: This code deals primarily with the provision of accommodation, sanitation, health requirements and the provision of hospitals and medical care services in the estates and mines. It also provides generally for inspection by labour officers of conditions of work, maternity benefits and, to some extent, wages. Medical officers of health are gazetted under this code and are responsible for the health provisions.

Factories and Machinery Act 1970: The act was initially introduced in 1967 and further modified in 1970 forms the major legislation regulating health, safety and welfare in all places of work. This act provides for the appointment of the Factory Inspectorate and the appointment of any other officers from time to time as deemed necessary by the Director-General of Factories and Machineries. One such officer gazetted as an inspector is the Industrial Health Officer. He then deals primarily with prescribing health and welfare requirements such as sanitation, preventive measures including health screening, medical examinations – pre-employment, periodic of workers exposed to special risks and toxic substances, and the provision of treatment services. Though this is a comprehensive legislation, as far as safety and welfare is concerned, the main deficiency as regards health is in the requirement for notification of occupational diseases. The act requires the employer, not the attending physician, to notify such diseases. The employer notifies as required to the Director-General of Factories and Machineries and not to the Occupational Health Unit in the Ministry of Health. Secondly, not all work places are covered by this act, as it excludes premises where less than five employees work and those in which no machinery is used.

The Workmen's Compensation Ordinance 1952: This provides for compensation to workmen for injury and diseases in the course of employment. It however, excludes workers who work under a direct contract of services, casual labour, domestic servants and those whose income exceeds $500 a month. The ordinance defines the legal liability of employers and the quantum of compensation to be paid. It also spells out the role of the Ministry of Health in the provision of medical examinations, treatment of injured workmen and designation of approved hospitals. Finally, it outlines procedures of arbitration proceedings in cases of disagreements between employer and employees. The second schedule of the ordinance provides a list of compensatable occupational diseases. The list, perhaps comprehensive in 1967, has omitted occupational lung disorders especially in relation to lung dust diseases.

Table 2

National occupational health and safety services (administration)

Sector	Institution responsible	Relevant legislation(s) (title, year)	Functions*
Health	Ministry of Health	The Poisons (Sodium Arsenite) Ordinance 1949 and Regulations.	1
		The Radioactive Substances Act 1963.	
		The (Draft) Public Health Act.	
		The Hydrogen Cyanide (Fumigation) Ordinance 1953	1
Labour	Dept. of Labour	The Factories and Machinery Act 1970	1, 14
	Dept. of Factories and Machinery	The Rump Labour Code 1933	1
		The Workmen's Compensation Ordinance 1952	1, 11
		The Employment Ordinance 1955.	1
		The Children and Young Persons (Employment) Act 1966 and Regulations.	1
		The Workers' (Minimum Standards of Housing) Act 1966 and Regulations	1
Social Security	Dept. of Social Security	The Employees' Social Security Act 1969.	9, 10
Non-governmental	Local Authority	By-laws of municipalities, town boards (or councils) and local councils	1, 5 6
Other	Dept. of Mining.	The FMS. Mining Enactment 1926	1, 2
	Petronas.	Air Navigation Ordinance 1952, The Air	1, 4
	Dept. of Agriculture	Navigation Order 1953, The Air Navigation	1
	Ministry of Transport	(General) Regulations 1953, The Air Navigation (Radio) Regulations 1953	
		The Railway Ordinance 1948	1
		The Road Traffic Ordinance 1958	1
		Road Traffic (Amendment) Act 1964	
		The Merchant Shipping Ordinance 1952	1
		The Port Authorities Act 1963	
		The Pineapple Industry Ordinance 1957	1
		The Dangerous Trades (Calcining or Roasting of Sulphurous or Arsenical Ores) Rules 1924.	5
		Environmental Quality Act 1974.	4

*** Appropriate code number of functions**

1. Inspection and enforcement
2. Advisory
3. Surveillance
4. Norms, guides, criteria, standards
5. Health licensure of work places
6. Sanitary supervision
7. Pre-employment examination
8. Periodical examination
9. Curative care
10. Rehabilitation
11. Workmen's compensation
12. Education of workers
13. Education of employers
14. Registration of notified occupational accidents/diseases

The Employees' Social Security Act 1969: This act provides for benefits to employees in case of invalidity and employment injury including occupational diseases. However, it excludes all workers earning more than $500 a month, agricultural workers and also all enterprises employing less than five workers.

The act provides for methods of administration involving the handling of funds contributed by the employers and employees, appointment of inspectors and medical officers for the purposes of the act. The constitution of the Medical Board and the Appalate Medical Board are also defined. Occupational diseases are covered in the fifth schedule. The list is not comprehensive and requires further addition of recognised occupational diseases.

Initially the act was introduced on a pilot basis in five selected areas and is being progressively

extended to other parts of Peninsular Malaysia. It is envisaged that the act, when fully operational, will by and large replace the Workman's Compensation Act.

3. Health manpower, training and education in occupational health and safety

The distribution of the estimated total medical and other health personnel by the type of employment in Peninsular Malaysia is shown in Table 3. Out of a total of 17,154 health personnel, over a third are employed in the provision of medical and health services in the private sector which includes plantations and industries. Most of the 901 physicians in the private sector do provide treatment services to the industries and plantations. Only a handful have had any form of training in occupational health. In the Government sector, i.e., the Ministry of Health, there are three physicians with occupational health training and one health inspector with some experience.

Occupational health is still in its infancy and little emphasis is placed on it in the training institutions of the country. The undergraduate medical students are given eight hours lecture with a factory visit, while the postgraduate trainees in the Master of Public Health programme devote a total of 18 hours with a limited number of factory visits.

4. Health services for workers

It is not possible to obtain figures to estimate the percentage of work establishments where health services are provided at plant level but my impressions are that in most some form of first aid is available. In some, curative care with diagnostics and referal system have been developed through the utilisation of hospital assistants and nurses. A few establishments have the services of a part-time medical practitioner who is retained by the firm to provide essentially curative service. Some industrial concerns employ their own physician who provides pre-employment, periodic medical examinations with diagnostic and curative care. It is discouraging to note that none of the establishment provides any form of health education to workers on occupational hazards or monitor the working environment.

However, estates and mines have evolved a more comprehensive medical facility for their workers mainly to satisfy the Rump Labour Code which requires employers to provide free medical, health and housing facilities. Most establishments have the services of a visiting medical officer who visits periodically, usually at intervals of a week. He examines all cases referred to him by the resident medical assistant and, if necessary, refers the more complicated cases to government hospitals. Preventive activity is usually confined to sanitation, anti-larval control, and immunisation. Provision of family planning and health education, though minimal, is being attempted in many estates.

Larger establishments provide and maintain hospitals usually individually or as a group to cover estates within a given area. Such hospitals have the services of a full-time resident medical officer supported by para-medical staff. With fragmentation of estates into small holdings, most group hospitals are increasingly difficult to finance and provide the required comprehensive medical care.

5. Occupational health diseases and problems

Available statistics do not reflect existing occupational diseases because none has been systematically notified, recorded or compensated. The Factories and Machinery Act requires notification of occupational diseases but unfortunately no diseases have been reported by the employers. On

Table 3

Distribution of estimated total medical and para-medical personnel by type of employment

	Total	Employed by government	Employed by private and/or State enterprise in any kind of economic activity		Private
			Full-time	Part-time	
Physicians	2,167	1,266	NA	NA	901
Nurses	7,830	3,621	155	NA	4,054
Medical or health assistants	2,837	1,463	NA	NA	1,374
TOTAL	17,154	9,410	155	NA	5,329

the basis of available clinical evidence from hospital records, the following diseases: silicosis, stannosis, asbetosis, occupational dermatitis, kerato conjunctivitis and noise-induced deafness to mention a few have been diagnosed not infrequently.

6. Occupational accidents

Available data on accidents are insufficient for statistical analysis, especially in relation to frequency and severity rate. This is probably due to poor reporting and lack of an acceptable definition of accidents. Occupational accidents are defined as those occurring at the place of work; the degree of severity is usually specified since trivial occurrences are often unrecorded. In Table 4 accidents reported in 1968 are being compared with those of 1972 and 1973. The total number of accidents seems stable. However, the number of accidents giving rise to permanent disability has increased from 377 in 1972 to 923 in 1973. The highest accident rates are generally among agriculture, forestry and fishing industries.

Table 4

Number of reported industrial accidents in 1968, 1972 and 1973

Branch of economic activity	1968	1972	1973
Agriculture, forestry hunting and fishing	5,407	5,952	6,902
Mining and quarrying	1,028	1,292	1,086
Manufacturing & processing	1,969	3,321	2,650
Construction	1,330	966	765
Electricity, gas, water and sanitary services	130	114	81
Commerce	443	737	592
Transport, storage and communication	1,253	694	408
Services	435	386	254
Activities not adequately described	NA	NA	5
TOTAL	12,595	13,462	12,743

The highest fatality rate is experienced by the agricultural sector, possibly from saw-milling and logging establishments. This is followed closely by manufacturing and quarrying activity. Fatal accidents have risen from 40 in 1972 to 370 in 1973 indicating a 60% rise. This is a grave situation requiring immediate governmental enquiry.

7. Workmen's compensation and sickness absence

The quantum of compensation paid depends on the number of accidents and their severity. It is evident that accidents, especially the more severe resulting in permanent disability and fatality, are on the increase. This is reflected in the amount of compensation paid. This experience is reflected in Table 5 which shows the amount of compensation paid in 1968, 1972 and 1973. Though the breakdown for 1972 is not available, it is discouraging to note that the total amount of compensation paid in 1973 has trebled the amount paid out in 1968. This clearly indicates that there is unnecessary, avoidable loss of labour and enormous loss of potential production. This economic burden imposed on the nation through compensation needs careful study.

Table 5

Workmen's compensation paid in cases of accidents, occupational diseases and sickness absence 1968, 1972 and 1973

Branch of economic activity	1968	1972	1973
	Amount in $	Amount in $	Amount in $
Agriculture, forestry, hunting and fishing	931.83	NA	1380582
Mining and quarrying	571.839	NA	832417
Manufacturing	810.390	NA	1536993
Construction	678.336	NA	617002
Electricity, gas, water and sanitary services	47.762	NA	44721
Commerce	373.439	NA	891153
Transport, storage and communication	465.847	NA	590441
Services	207.705	NA	251008
Activities not adequately described	NA	NA	6211050
TOTAL	4087,131	1219299	12355367

8. Obstacles in occupational health

The main obstacle in developing and implementing an occupational health and safety programme is the lack of a comprehensive legislation and a single authority to regulate and enforce. Secondly, the lack of trained personnel in both the government and the private sector. Last, but not the least, is

the apathy among workers towards individual health and possibly lack of interest in occupational health among the trade unionists.

9. Conclusions

An important task of the occupational health service will be to improve and strengthen the training and teaching of medical graduates (undergraduates and postgraduates), health inspectors and nurses in the principles of occupational health practices.

ii) Develop guidelines, standards and threshold limit values for the country, taking into consideration local and ethnic factors.

iii) Conduct operational surveys throughout the country to identify the nature and magnitude of the incidence and prevalence of occupational diseases.

iv) Present industrial hygiene activity in relation to monitoring and surveillance be intensified.

v) The list of occupational diseases in the second schedule of the Workman's Compensation Act and the fifth schedule of the Employee Social Security Act be reviewed and enlarged.

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11. References

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