

# Current Perspectives in Occupational Health

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The economic need to have an efficient workforce has always been the key to economic progress. However, when disease and disability arising from the workplace hinder efforts towards increased efficiency, programs to provide effective occupational health and safety programs become imperative. Increasing awareness of the importance of occupational health and safety is becoming evident.

A changing pattern of occupational health problems is seen as a result of workers being introduced to pressures of increased production, faster machines, newer chemicals, and both continuous and shift work at speeds determined by needs of production. While historically Hippocrates (circa 370 BC) described lead colic in a man extracting metals, Agricola in the 16th century reported "consumption" among miners and Percival Pott (1775) described scrotal cancer among chimney sweeps<sup>1</sup> as a result of high levels of exposures. There is increasing concern of low level long duration exposures. Although the link between asbestos and lung cancer, vinyl chloride and angiosarcoma of the liver, benzene and leukemia<sup>2,3</sup> have been established, the question of a safe level (threshold versus no threshold level) is still being discussed<sup>4,5</sup>. Repetitive movements whether on the assembly line or while working with visual display terminals and the emergence of repetitive strain injury (RSI) or occupational overuse syndrome has attracted the attention of ergonomists to continuously strive for better workstations and occupational health agencies to publish guidance notes for their prevention<sup>6</sup>. Indoor air quality issues in the office settings and neurobehavioural effects of solvents are actively being studied. With an increasing number of women in the workforce, problems associated with reproductive hazards have led to the discussion whether employers can exclude for protection of children<sup>7,8</sup>. As new occupational health problems emerge; Bernardino Ramazzini's call for doctors to visit the places where people work (1700) needs to be reiterated.

Historically, occupational health in Malaysia began in the early 20th century, with the FMS Mining Enactment 1926 and the Rump Labour Code 1933. The Rump Labour Code 1933 provides for accommodation, sanitary and health requirements on agricultural estates. The Workers Minimum Standards of Housing and Amenities Act 1990 has been a positive development in this area. The Workmens Compensation Act 1952, patterned to that in Britain, provided compensation for workers injured or suffering from occupational diseases. A change occurred when the Employees Social Security Act 1969 (SOCSO) was enacted to provide benefits to workers suffering from occupational injuries and diseases. SOCSO has increasingly provided coverage to those previously under the Workmens Compensation Act. SOCSO currently provides benefits to contributors under 2 schemes, the Employment Injury Scheme and the Invalidity Pension Scheme<sup>9</sup>. The list of compensable occupational diseases was expanded in 1986. A special medical board was established for reviewing occupational diseases. However, it has not included occupational physicians among its members. Migrant workers in the country since April 1993 are covered under the Workmen's Compensation Act.

A major development in occupational health and safety took place with the enactment of the Factories and Machinery Act, 1967. The Act is enforced by the Factories and Machinery Department (FMD) and FMD currently plays the major role in ensuring a healthy and safe workplace. It has formulated various occupational health regulations under the Factories and Machinery Act, 1967, including the Health, Safety and Welfare Regulations (1970), Lead Regulations (1984), Asbestos Process Regulations (1986),

Noise Exposure Regulations (1989) and the Mineral Dust Regulations (1989) which involve the medical practitioners. Medical surveillance requirements under these regulations are comparable to international requirements<sup>10</sup>. An industrial health unit with the services of an industrial health officer was in the Ministry of Labour till 1970, when it was transferred to the Ministry of Health as an occupational health unit. The occupational health unit until the last few years predominantly provided consultative and advisory services on occupational health and medical activities<sup>11</sup>. Although it has been in the back seat of occupational health activities, it is slowly awakening to contribute more effectively in this area. A task force was set up early this year to determine their role in the changing occupational health scene and pilot studies on data collection started in a few states. It is hoped its role will increase using medical officers already trained in occupational health and currently working in other public health disciplines. The Pesticides Board under the Ministry of Agriculture regulates the safe use of pesticides. The Atomic Energy Licensing Act 1984 provides for the protection of the health and safety of workers and all persons from ionizing radiation.

The Occupational Safety and Health Advisory Council with multi-agency representation has become active and provides direction to current developments. The National Institute of Occupational Safety and Health (NIOSH) was launched in December, 1992. The role it will play is key to future developments in this field and personnel selected to lead this organisation need to be visionary. The Occupational Safety and Health Act, which has been "coming soon" since 1989<sup>12</sup>, has now been prepared, increasing the scope and coverage of occupational health and safety in the country, including specific provisions for safety committees, protecting workers victimised for raising issues on safety and stiffer penalties for non-compliance. It is hoped it is enacted as early as possible.

Scarcity of data available poses a problem in determining the magnitude of occupational health problems. Information on accidents are mainly dependent on those reported to SOCSO, the FMD, and those under the Workmens Compensation Act. While the number of reported accidents to SOCSO are increasing each year as a result of increased coverage, with a total of 124,898 accidents and 300 deaths in 1991, the rates have been fairly steady in recent years. Upper limb injuries were responsible for 56.9% of permanent disabilities. Rates vary in the different industry groups<sup>13</sup>. Accidents in the logging and construction sector have been identified priority areas for action.

On the magnitude of the occupational disease problem, while no comprehensive study has been conducted, surveys carried out on specific industries have formed the basis of understanding occupational disease patterns in the country. Noise induced hearing loss was reported among various industry groups<sup>14</sup>, silicosis among quarry workers<sup>15,16</sup> and lead poisoning among battery workers<sup>17</sup>. Dermatitis among agricultural workers exposed to paraquat<sup>18</sup>, keratitis among padi farmers<sup>19</sup> and byssinosis among textile workers<sup>20</sup> have been reported.

While notification of occupational diseases to FMD and the employer is required under the law, notification has been poor. The inability to diagnose occupational disease, inability to make the link between work and disease, not knowing of the requirement to notify, the fear that notification may affect the contractual agreement between the medical practitioner and the employer<sup>21</sup> and the absence of a form have generally been reasons given for under-notification<sup>21</sup>. A form for notification of occupational diseases has already been prepared.

The changing and increasing role of medical practitioners in the context of occupational health has led to changes in training needs<sup>22</sup>. Increased awareness is taking place with increased curriculum time in undergraduate medical education. A 74 hour, 3 module Introductory Course in Occupational Medicine for general practitioners is also being conducted. Occupational health is being taught in the Master of Public Health course at the University of Malaya and as a specialty area in the Master's of Community Health at UKM. Occupational health is taught to public health inspectors and nurses at the Public Health

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Institute. A twinning program leading to a Diploma in Occupational Health Nursing was started this year in the private sector.

Research in occupational injuries and diseases has been identified as a priority area in the medical/health sector under the Intensification of Research in Priority Areas (IRPA). The development of new and appropriate methods to reduce disability from industrial accidents and the development of effective, affordable, appropriate and acceptable methods for reducing occupational disease and developing mechanisms to improve their monitoring and surveillance has been stressed<sup>23</sup>. It is hoped that applied research to meet our needs will be actively pursued.

A spirit of partnership should prevail in making the workplace safe and healthy. It needs the cooperation of workers, the commitment of management and the support of government. It is not possible to prevent occupational injury and disease without cooperation of those at risk and those with the power to improve conditions at work. The increasing and changing role of the medical practitioner calls for a more proactive role from those involved in providing medical care for the workforce.

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### References

1. Hunter D. *The Diseases of Occupations*. (6th ed). London Hodder and Stoughton. 1980.
2. Proctor NH, Hughes JP, Fischman ML. *Chemical hazards of the workplace*. Philadelphia: JP Lippincott Co, 1988.
3. Alderson M. Agents which cause occupationally induced cancers - vinyl chloride and polyvinyl chloride. In: Alderson M. *Occupational cancer*. London: Butterworth & Co (Publishers) Ltd, 1986: 114-8.
4. Enterline PE. Asbestos and cancer. In: Gordis L (ed). *Epidemiology and health risk assessment*. Oxford University Press: New York, 1988: 82-91.
5. Labarthe DR. Leukemia risks in relation to benzene exposure: An examination of the data. In: Gordis L (ed). *Epidemiology and health risk assessment*. New York: Oxford University Press, 1988: 226-33.
6. National Occupational Health and Safety Commission. Australia: Guidance note for the prevention of occupational overuse syndrome in the manufacturing industry (NOHSC:3015) 1992.
7. Stein ZA, Hatch MC. Ed. *Reproductive problems in the workplace*. State of the Art Reviews. Philadelphia: Hanley & Belfus, 1986.
8. Becker ME. Can employers exclude women to protect children? *JAMA* 1990;264 : 74-8.
9. Social Security Act 1969.
10. Rampal KG. Legal requirements for medical surveillance of asbestos workers in Malaysia, the USA and under international law. In: *Proceedings of the VIIth International Pneumoconiosis Conference*. Pittsburgh, 1988: 965-71.
11. Mahathevan R. Need for comprehensive Occupational Health and Safety Act. In: *Proceedings of the National Seminar on Workers health and Safety Problems in Malaysia*. Sahabat Alam Malaysia: Penang, 1984: 19-28.
12. Nambiar R. For safer workplaces: Proposed Act to go the Cabinet once approved by Labour Minister. *STAR* 1989; Sep 6 : 1(col 1-3).
13. Social Security Organisation. *Annual Report 1991*.
14. Factories and Machinery Department. *Noise induced hearing loss in industry*. Report 1990.
15. Singh A. The prevalence of silicosis among granite quarry workers of the government sector in Peninsular Malaysia. *Med J Malaysia* 1977;31 : 277-80.
16. Noorhassim I, Rampal KG. Prevalence of silicosis in quarry workers in Selangor 1990 (Bahasa Malaysia). In: *Proceedings of the 3rd Medical Colloquium Medical Faculty UKM*. Kuala Lumpur, 1992: 244-8.
17. Wan KC, Abu Bakar J, Abu Bakar CM. A study of occupational exposure to inorganic lead at a battery manufacturing factory in Petaling Jaya. Kuala Lumpur: FMD Report.
18. Howard JK, Sabapathy NN, Whitehead PA. A study of health of Malaysian plantation workers with particular reference to paraquat sprayers. *Br J Ind Med* 1981;38 : 110-6.
19. Lim HH *et al*. Rice millers' syndrome: a preliminary report. *Br J Ind Med* 1984;41 : 445-9.
20. Tan GL. Cotton dust exposure and byssinosis prevalence in textile mills. In: Nicholas C, Wangel A (eds). *Safety at work in Malaysia*. Kuala Lumpur: Institute of Advanced Studies, University of Malaya, 1991: 56-73.
21. Lim HH. Occupational disease in Malaysia: The need for better notification. *Med J Malaysia* 1982;37 : 98-101.
22. Rampal KG. Training of general practitioners in health and safety in the workplace. *The Family Physician* 1991;3 : 17-8.
23. Ministry of Science, Technology and Environment: Priority areas for medical/health research.