For information
18 March 2004

Legislative Council Panel on Manpower

Occupational Diseases: Recent Trends and Prevention

PURPOSE

This paper sets out the recent trends of occupational diseases in Hong Kong and the work of the Occupational Health Service (OHS) of the Labour Department in the prevention of occupational diseases.

BACKGROUND

2. In Hong Kong, there are 49 occupational diseases prescribed for compensation purpose. They come under the Employees’ Compensation Ordinance, the Occupational Deafness (Compensation) Ordinance, and the Pneumoconiosis (Compensation) Ordinance. If a worker is diagnosed to have any of these diseases and has been employed in a specified occupation or exposed to specific hazards at work within a specified period as stipulated in the Ordinances, the disease is presumed to be occupational in origin and compensable under the laws. A list of the 49 occupational diseases is at Annex I.

3. The compensable occupational diseases are also specified in Schedule 2 of the Occupational Safety and Health Ordinance (OSHO) as notifiable occupational diseases. Under section 15 of the Ordinance, medical practitioners are required to report cases of these occupational diseases to the Commissioner for Labour.

SURVEILLANCE OF OCCUPATIONAL DISEASE

4. Surveillance of occupational diseases is important for assessing the health status of the working population and for planning promotional and enforcement action to maintain a high standard of health among the workforce.
5. The OHS is responsible for investigating notified cases of occupational diseases. The sources of information include notifications given by medical practitioners under the OSHO, notices reported by employers under the Employees’ Compensation Ordinance, patients seen at the Occupational Health Clinic of the Labour Department as well as referrals and complaints made by other government departments and individual employees.

RECENT STATISTICS

6. The number and incidence rate of confirmed occupational diseases from 1999 to 2003 revealed a downward trend, with the number of cases dropping substantially from 734 to 258 and the incidence rate falling markedly from 30.4 to 10.9 per 100,000 employed workers. These figures compare favourably with those of the United States, Singapore and Australia.

7. An analysis of the cases shows that occupational deafness, silicosis, tenosynovitis of hand and forearm and tuberculosis are the most common occupational diseases in Hong Kong.

Occupational Deafness

8. Occupational deafness is a permanent hearing loss due to prolonged exposure to loud noise at work. It was made compensable under the Occupational Deafness (Compensation) Ordinance in 1995. Between 1999 and 2003, a total of 903 cases were diagnosed and compensated. Most of the cases were related to rock grinding, chiselling, cutting or percussion (56%), metal grinding and percussion (18%) and working near internal combustion engines, turbines, pressurised fuel burners or jet engines (8.3%).

9. As a result of the confirmation and compensation of accumulated cases in the past years as well as the intensive publicity and education efforts by the Labour Department and the Occupational Deafness Compensation Board in preventing the disease, the number of new cases has decreased significantly. It is expected that the decreasing trend will continue in the coming years. In 2003, there were only 74 cases.
Silicosis

10. Silicosis is a chronic disease that causes fibrosis of the lungs leading to impaired lung functions. Among the 548 cases reported in 1999-2003, more than 90% were from quarry and construction workers and of these 50% had history of employment in hand-dug caisson operations where workers are exposed to extremely high level of silica dust. The disease has a long latent period and symptoms usually develop 10 to 20 years after initial exposure. Therefore, the cases confirmed in recent years were actually due to silica exposure many years ago.

11. As hand-dug caisson operation is an unsafe work practice and high levels of silica dust are generated, its use has been restricted by the Buildings Department since 1995. Because of the long latent period of silicosis, the number of cases will likely to start falling significantly only in 10 to 20 years’ time. In 2003, a total of 74 cases were confirmed.

Tenosynovitis

12. Tenosynovitis is an inflammatory disease of tendons and the associated tendon sheath as a result of prolonged and repetitive movements or excessive exertion of the hands and forearms. It was most commonly reported in service personnel such as cooks, cleaners and housework assistant (40%), clerical and related personnel such as typists, secretaries and clerks (25%) as well as production related personnel and labourers (22%).

13 The number of cases varied in recent years and peaked at 90 in 2001. However, there was a sharp fall to only 35 cases in 2002. In 2003, only 34 cases were confirmed. This came in the wake of the intensified publicity and health education activities of the Labour Department and other non-governmental organizations that raised the awareness of employees on the prevention of this occupational disease.

Tuberculosis

14. Tuberculosis is a prescribed occupational disease which usually occurred to those who have close and frequent contacts with a source of the infection by reason of employment, such as those employed in the
medical treatment or nursing of persons suffering from tuberculosis. Over 90% of the reported cases related to health care and welfare institution personnel such as doctors, nurses, health care assistants and elderly home workers.

15. The disease was made notifiable under the OSHO in 1997. In 1998 and 1999, the number of confirmed cases was 39 and 57 respectively. The figure decreased in subsequent years and dropped to 29 and 30 in 2002 and 2003 respectively, following the enhanced effort of the Labour Department in promoting and enforcing safety and health in the health care sector in recent years. Nevertheless, as Hong Kong currently still has a high endemicity of tuberculosis with a total of 5,696 cases in 2003, it is expected that occupation-related cases will continue to be seen in the coming years.

16. There were other less common occupational diseases, such as gas poisoning, occupational dermatitis, asbestosis and compressed air illness. The number of these cases fluctuated. Statistics on the number and incidence rate of occupational diseases as well as a breakdown of these diseases between 1999 and 2003 are at Annex II.

PREVENTION OF OCCUPATIONAL DISEASE

17. The OHS has been providing a range of services in the prevention of occupational diseases, including investigation of notified cases, provision of clinical services and occupational health promotion. It is also responsible for drawing up legislation and law enforcement.

Investigation of Notified Cases

18. When the OHS receives notifications of occupational disease, investigation will be conducted with a view to confirming the diagnosis of the index cases and looking for other unreported cases. In addition, the causes of the disease will be evaluated and the relevant employers will be advised to take remedial safety and health control measures to prevent further occurrence of the occupational disease. In 2003, a total of 2,948 investigations were conducted.
Clinical Services

19. The Occupational Health Clinic of the Labour Department provides clinical consultation, medical treatment, occupational health education and counselling services for workers with occupation-related illnesses. The workplaces of the workers are also inspected when necessary in order to assess the health hazards in the workplaces and to advise on necessary preventive measures to protect the health of workers. In 2003, the clinic provided 7,039 consultations.

20. Besides clinical consultations, the staff of the OHS also perform medical examinations for radiation workers and government workers exposed to specific hazards with a view to identifying early abnormalities or ill health arising from work and providing timely treatment to prevent development into full-blown occupational diseases. In 2003, a total of 1,279 workers were examined in the clinic.

Occupational Health Promotion

21. The OHS regularly organizes occupational health talks to raise the awareness and enhance the occupational health knowledge of employers and employees. A total of 2,153 such talks were held in 2003.

22. Besides health talks, the OSH produces publications on various occupational health issues. These publications focus either on specific industries, health hazards or occupational diseases to convey concise and useful safety and health information to employers and employees from different angles. Recently, casebooks on tenosynovitis and occupational dermatitis have been produced. These casebooks provide examples on how occupational diseases are caused in actual working situations and suggest some practical preventive measures. In 2003, the OHS developed 12 new titles of such publications.

23. The OHS also participates in large-scale publicity programmes jointly held with other organizations, such as the Hearing Conservation Campaign in collaboration with the Occupational Deafness Compensation Board, and the Occupational Health Day and Safety and Health Expo in collaboration with the Occupational Safety and Health Council, etc. These programmes aim to raise the awareness of both the public and workers.
Legislation and Law Enforcement

24. Occupational safety and health legislation is an important means to protect the health of workers by prescribing the responsibilities of employers and employees. The Factories and Industrial Undertakings Ordinance and the Occupational Safety and Health Ordinance provide protection for almost all employees across the board.

25. To ensure that occupational health requirements under the Factories and Industrial Undertakings Ordinance and the Occupational Safety and Health Ordinance are complied with and that health risks of workplaces are adequately controlled, OHS staff inspect different workplaces regularly. Enforcement actions are taken against irregularities found.

26. Special campaigns comprising intensified safety and health promotion and blitz inspections of workplace are conducted periodically for targeted trades with particular occupational health risks. Since the outbreak of Severe Acute Respiratory Syndrome (SARS) in March 2003, focused promotional and inspection programmes on workplace infection control have been conducted for high-risk areas such as hospitals, clinics, medical laboratories, nursing homes and places undergoing disinfection and cleansing work with a view to preventing the resurgence SARS in these workplaces.

27. In 2003, OHS conducted 6,092 workplace inspections. A total of 1,097 warnings, 131 improvement notices and one suspension notice were issued and eight prosecutions were taken out for breach of legislation.

Economic Development and Labour Bureau
Labour Department
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Annex I

List of Notifiable Occupational Diseases

1. Radiation Illness
2. Heat Cataract
3. Compressed Air Illness
4. Cramp of Hand or Forearm
5. Beat Hand
6. Beat Knee
7. Beat Elbow
8. Tenosynovitis of Hand or Forearm
9. Anthrax
10. Glanders
11. Leptospirosis
12. Extrinsic Allergic Alveolitis
13. Brucellosis
14. Tuberculosis in Health Care Workers
15. Parenterally Contracted Viral Hepatitis in Health Care Workers
16. Streptococcus Suis Infection
17. Avian Chlamydiosis
18. Lead Poisoning
19. Manganese Poisoning
20. Phosphorus Poisoning
21. Arsenic Poisoning
22. Mercury Poisoning
23. Carbon Bisulphide Poisoning
24 Benzene Poisoning
25 Poisoning by Nitro-, Amino-, or Chloro- Derivatives of Benzene
26 Dinitrophenol Poisoning
27 Poisoning by Halogen Derivatives of Hydrocarbons
28 Diethylene Dioxide Poisoning
29 Chlorinated Naphthalene Poisoning
30 Poisoning by Oxides of Nitrogen
31 Beryllium Poisoning
32 Cadmium Poisoning
33 Dystrophy of the Cornea
34 Skin Cancer
35 Chrome Ulceration
36 Urinary Tract Cancer
37 Peripheral Polyneuropathy
38 Localised Papillomatous or Keratotic New Skin Growth
39 Occupational Vitiligo
40 Occupational Dermatitis
41 Chemical Induced Upper Respiratory Tract Inflammation
42 Nasal or Paranasal Sinus Cancer
43 Byssinosis
44 Occupational Asthma
45 Silicosis
46 Asbestos-related Diseases
47 Occupational Deafness
48 Carpal Tunnel Syndrome
49 Legionnaires’ Disease
Annex II

Number and Incidence Rate of Occupational Disease (1999-2003)

![Graph showing number and incidence rate of occupational disease from 1999 to 2003.]

Breakdown of Occupational Disease Cases from 1999 to 2003

<table>
<thead>
<tr>
<th>Occupational Disease</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational deafness</td>
<td>388</td>
<td>206</td>
<td>121</td>
<td>114</td>
<td>74</td>
</tr>
<tr>
<td>Silicosis</td>
<td>137</td>
<td>105</td>
<td>122</td>
<td>110</td>
<td>74</td>
</tr>
<tr>
<td>Tenosynovitis of hand or forearm</td>
<td>54</td>
<td>81</td>
<td>90</td>
<td>35</td>
<td>34</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>57</td>
<td>39</td>
<td>41</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>Gas poisoning</td>
<td>57</td>
<td>36</td>
<td>11</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Occupational dermatitis</td>
<td>21</td>
<td>17</td>
<td>24</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>Asbestosis</td>
<td>15</td>
<td>11</td>
<td>9</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Compressed air illness</td>
<td>3</td>
<td>6</td>
<td>11</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>734</strong></td>
<td><strong>504</strong></td>
<td><strong>430</strong></td>
<td><strong>364</strong></td>
<td><strong>258</strong></td>
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