

## THE IMPORTANCE OF OCCUPATIONAL HEALTH TO THE FUTURE OF SINGAPORE\*

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Singapore is no exception to the principle that all industrialized countries, or countries which are becoming industrialized, require good standards of medical care for their workers. The Prime Minister has pointed out in a recent speech that Singapore has, next to Hongkong, the highest density of population per square mile in the world. We do not have natural resources, nor place for our surplus population to emigrate to. Hence we, more than most other countries in the world, require to industrialize quickly, intensively, profitably—and I hope also safely and intelligently. This in effect means, as I shall explain, that we, more than most other countries, require facilities for good Occupational Health.

To safeguard the future of Singapore, it is important that a sound basis for Occupational Health should be laid now and not years later. If we industrialize now without proper regard for the health of the workers, we will reap a dreary harvest of human suffering and economic loss. Moreover, we have to take hygiene and safety standards at the very beginning in the siting, design and layout of factories, work-floors, machinery, and canteen and rest-room facilities for the workers. To carry out health measures later may mean unnecessary expense in the processes of resiting and redesigning of such entities.

In 1966 there were 8,599 workers in Singapore injured at their work. 522 of these were disabled for life. 108 workers were killed. With further industrialization, these figures may reach gigantic proportions. We cannot afford to further jeopardize the economic future of Singapore by sustaining such losses of skilled manpower.

We should profit by the experience of developed countries. Britain took an active interest in Occupational Health, long after it embarked on industrialization. As a result, in the words of a famous author, there was "a smoky pall which lay over most of the large industrial towns, descending as a relentless deposit of dirt on the face of Britain. Remorselessly, in the course of the nineteenth century,

the old London of Canaletto, with its clear skies and glistening white stonework, was blotted out . . . The plight of the towns in the Midlands, and the North was even worse. As the textile and metal industries expanded, their uncontrolled growth made the new town life hideous and squalid."

Even in 1961, long after the importance of Occupational Health had gained recognition, there were half a million casualties in British industry. It was estimated that those casualties cost the staggering financial loss to the nation of seventy million pounds sterling, in terms of manpower wastage. This worked out to be about £5 for each worker in Britain. When we transpose this figure to the approximately 60,000 workers we have in Singapore at present, accidents on that scale would cost us £300,000 or nearly two and half a million dollars in local currency. Let it be noted that this loss would be in terms of manpower wastage alone, and loss of productivity could account for a further heavy cost. It is obvious that for the future of Singapore we must prevent such stupendous losses.

When we discuss the subject of Occupational Health, we must not forget the diseases due to occupations. Already there are in Singapore today hazards such as decompression sickness (in divers and deep sea fishermen) which can result in permanent paralysis; lead poisoning (in painters and workers in battery works and others); skin diseases (in chemical plants, etc), and pneumoconiosis (a chronic and disabling lung disease found in quarries and other places). There is also a danger of cancer in the chemical, asbestos, rubber and other industries.

We are not saying that we should turn back the clock of progress. While it is true that if there is no industry, there will be no industrial diseases or accidents, the very survival of us all in Singapore will depend on industrialization. What we are saying is that we can, at relatively little cost, make the factory a very safe place for workers.

When we think of factories, again, we must not only think of the huge industrial complexes

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in Jurong, Kallang and Redhill. We must also remember the several thousands of little workshops in Singapore making, grinding, welding, cutting, moulding and painting various things. Often there is inadequate ventilation and very primitive equipment. Often there is very little knowledge of, or concern with, safety and hygiene. These little workshops can together pose an enormous threat to the workers, health, and therefore to the future of Singapore.

The previous speakers have said—and I wish to repeat and emphasize this—that improvement in health standards can often lead to an increase in the volume and quality of the workers output. This is probably one of the main considerations which induce so many employers to join the many corporate Industrial Health Service units in developed countries. This is also probably the reason why many firms in the West and in Japan insist that their executive staff should be subject to extensive and exhaustive medical examinations regularly. They maintain that the cost of such medical care is more than paid for by the benefit these measures confer. It is obviously beneficial to any Company to have health and emotionally well-balanced executive staff, who can make the right decisions, and workers who have less sick leave and higher morale. I see no reason why industry in Singapore cannot likewise benefit by such measures.

Occupational Health can have an important bearing not only on the health and purse of the workers and their families, but on the health and prosperity of Singapore as a whole. If we do not watch out, Singapore can be like those bleak unhealthy English towns that I was referring to. The sky can be grey with smoke and dust. The seas around can be black with oil, and many of the fish on which the livelihood of our fishermen depends will be killed by the improperly-treated waste products from the factories. I am glad to note that our Government is aware of this problem, and has invited an international expert to advise it on how to prevent atmospheric pollution. I must stress, however, that the onus is on all of us who have the future of Singapore at heart to make sure that our factory, our car or our home is not contributing to that problem. Obviously, we cannot hope to attract tourists if Singapore loses its bright sky and blue seas. There again is a case in point of how closely-knit is Singapore's future is with the health in its factories.

Moreover, the policy of the Government to build a rugged society might be undermined

if our youths and our children would be breathing soot-laden smoke instead of pure air into their lungs. On the other hand, proper Occupational Health safeguards can ensure the creation of a truly rugged society!

How should the foundation of Occupational Health be laid to ensure a happy and prosperous Singapore? Firstly, I would suggest that an initial step should be the provision by the Government of an adequately-staffed and adequately-equipped Industrial Health Unit. I congratulate the Government on having started such an unit, but it is far from being adequately-staffed and equipped. Among other things, we need at least five doctors to run the Unit efficiently in order to detect and solve medical problems in the rapidly-growing number of factories in Singapore. We cannot say we cannot afford this quantity of doctor-manpower now, when we have 1,200 doctors to 2 millions population, and when several doctors are out of jobs. In addition, the Industrial Health Unit team should include some industrial hygienists or engineers, ergonomists, social workers, nurses and others—all with special training in the subject. For a start potential members should be sent overseas for training, to form a nucleus of local experts. They in turn, can train others until there is a sufficient and continuing number of people skilled in the various divisions of occupational health.

Secondly, we cannot and should not expect the Government to shoulder all the expense involved in providing Occupational Health to all the workers. After a central Industrial Health Unit has been properly set up by the Government, to provide for general supervision and coordination, firms and factories should also be called upon to invest in the well-being of their workers. Perhaps a form of contributory health insurance is best. I wish to emphasize that the money should not be solely used to pay doctors for the treatment of coughs and colds and other ordinary diseases. Some funds at least should be channelled into the support of several Industrial Health Service units, which can look after several tens or scores of small factories on a corporate basis. These Industrial Health Service units should be distributed throughout the industrial areas of Singapore. The primary function of such Services would be preventive rather than curative. We all know the adage, "Prevention is better than cure". However, minor injuries and illnesses could also perhaps be treated on the factory

site by the staff of such services, thereby saving a lot of wasted time consumed in sending the worker to a hospital or a clinic miles away. Such Industrial Health Service Units can be set up either by the Government or private enterprise.

Thirdly, I am sure that when we all think of the future of Singapore we realise that its future is intertwined with the future of the region in which it is. We should therefore be thinking of how Singapore can contribute towards the future of South East Asia. I would suggest that one important way in which Singapore can do so is to offer the site and perhaps the administrative structure for an Institute of Occupational Health, to serve the growing needs of our neighbours and ourselves. Singapore is very strategically placed. Already it has been the meeting place of several international conferences, or conferences with an international flavour, such as the present Medical Convention. Already the Diploma in Public Health course of the University of Singapore is drawing doctors from the whole of Asia. There is a very strong likelihood that international bodies and national governments would welcome such a gesture by Singapore, and contribute financially and otherwise towards it. Such an Institute can serve as a centre to train personnel, as a reference laboratory, and a research station.

Fourthly, Singapore seems destined to be an important tool-making centre for South-East Asia. The economic advantages of this are obvious. What is not so obvious is that the size and design of many tools imported from the west are not well-suited to the physique of South-East Asian workers. Again, our country can play a more meaningful role in this region if it could undertake research into the design and manufacture of tools which could improve the speed of work and lessen the fatigue of the industrial workers of South-East Asia. There is where the science of Ergonomics comes in. There are various definitions of Ergonomics. One is "Ergonomics is the science of fitting the man to his job, and the job to the man." Here again is an apt illustration of how regard for the comfort and health of the worker can improve productivity.

Therefore I would submit that just as industrialization is of paramount importance to the future of Singapore, so is Occupational health of paramount importance to the success of industrialization. I would like to conclude by drawing the attention of all parties concerned in the future of Singapore to the truth of the wise proverb which says, "A wise man is one who learns from his own mistakes, but a wiser man is one who learns from other people's mistakes." May Singapore be wiser rather than merely wise.

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