

Problems of modernization and occupational health in the People's Republic of China

An introduction

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The first report to the West on occupational health conditions in the People's Republic of China was Herbert Abram's article, in 1980, based on his brief visit the previous year (1). It was followed by a more comprehensive review of Chinese industrial health by David C Christiani (2). Christiani spent a year in Shanghai in 1981—1982, performing studies of occupational respiratory diseases in collaboration with colleagues at the Shanghai First Medical College. At his instigation, colleagues in the Occupational Health Program at Harvard began to organize an exchange with safety and health professionals in China, to be sponsored jointly by Harvard and the Industrial Health Department of the Shanghai College. The US-China People's Friendship Association, Eastern Region, also agreed to sponsor the exchange and made arrangements for a group of 32 occupational health professionals to participate in the first "Occupational Safety and Health Exchange," 5—21 July 1982. The goal of the exchange was to learn about China's modernization campaign and its implications for worker health and safety. The delegation visited urban industrial sites and rural workplaces and discussed issues of occupational safety and health and industrial hygiene with Chinese colleagues. The conference "Problems of Modernization and Occupational Health" was held during the last 2 d in Shanghai, where papers of both delegation members and Chinese participants were presented.

This first trip was designed to be exploratory. Plant visits and meetings with health professionals were held in Beijing, Tianjin, Shijiazhuang, Wuxi, and Shang-

hai. In the various cities, the group met with factory managers and engineers, health and safety committee members, trade unionists, Women's Federation representatives, antiepidemic station personnel, and government and academic occupational health scientists. A wide range of industries was visited, including a production brigade of an agricultural commune; a steel rolling mill; a textile mill; a coke production and by-products plant; a pharmaceutical firm producing antibiotics, glucose, and glass vials; and a tractor factory. The group's reception in factories and at research institutes was extremely cordial. Both the Chinese and the delegation members found the meetings very informative and were encouraged to find a way to promote ongoing professional exchange. On return to the United States, David Christiani, Margaret Quinn, and Charles Levenstein, exchange coordinators, and David Wegman, then acting head of the Occupational Health Program at Harvard, organized a permanent US-China Occupational Health Exchange Advisory Committee to promote a continuing relationship with occupational health professionals in China.

This advisory committee, in cooperation with the Shanghai First Medical College and the US-China People's Friendship Association, organized a second exchange in 1983 based on the major topic of interest generated from the 1982 conference in Shanghai, the "Health Hazard Evaluation," developed by the National Institute for Occupational Safety and Health in the United States (US), as a model for solving occupational health problems.

Both the Chinese and the visitors were able to build on the experiences of the first exchange in many ways. To develop the knowledge and skills needed to conduct health hazard evaluations, it was decided that the second year of the exchange should include a short course with three sections: industrial hygiene methods, epidemiology methods, and policy issues. To expand the opportunity for collegial interactions, each section was cotaught by a delegation member(s) and a Chinese colleague at the Shanghai College. Case studies of research projects in progress were prepared by the Chinese prior to the conference and used as the basis for discussion and the teaching of methods

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used by the Chinese and visiting scientists and policy makers.

During this second exchange, a half-day conference organized around the same health hazard evaluation theme was also held in Beijing at the Institute of Health. Both the Chinese and the delegation members presented papers on current research.

A second, day-long conference was held in Harbin, a highly industrialized city in Heilongjiang Province in the northeast of China. This conference was hosted by the Department of Occupational Health, Harbin Medical University, School of Public Health. The delegation's reception at the Harbin Medical University and the Chinese colleagues' interest in occupational health issues were overwhelming. Harbin scientists are currently involved in research on noise, ergonomics, and occupational diseases.

The second exchange concluded with a meeting with occupational health colleagues at the Department of Hygiene, Dalian Medical College, Dalian, and a visit to the industrial and agricultural sites at the Shanghai antiepidemic station, a demonstration center of the World Health Organization. During the course of the second exchange, the US delegation also visited a flax factory, a ball-bearing factory, an oil refinery, a locomotive factory, and traditional crafts factories such as glass blowing and ivory carving.

The People's Republic of China seems to be experiencing a pattern similar to that found in more technologically developed nations, ie, technological development is being accompanied by a new set of occupational and environmental problems. What the visitors to China observed on the two trips in 1982 and 1983 was "uneven development" both in industry and in occupational health. Dust controls, for instance, in one textile mill included highly automated opening, picking, and carding equipment, while in the same mill, the din from old weaving looms posed a continuing noise hazard. Modernization in a country that is developing economically, but is still quite poor, requires difficult choices and sometimes proceeds in an unplanned or circuitous way. The People's Republic of China is trying to address the health hazards of modernization by improving public health services and developing knowledge about industrial hygiene, toxicology, and occupational epidemiology.

In this supplement of the *Scandinavian Journal of Work, Environment & Health* are the Chinese papers selected from those presented at the 1982 and 1983 exchange conferences on occupational health in Shanghai, Beijing, and Harbin. The collection represents an overview and selection of current occupational health research in China, including exposures posing the greatest problems and priorities for research. Just as China itself is developing, so is its field of occupational health and safety. It can be appreciated that research methods need to be updated and more resources allocated for workers' health and safety. Occupational health and safety planning must occur simultaneously with economic development planning. International exchanges can play an important role in "modernizing" occupational health and safety.

The exchanges initiated in 1982 are now in their fourth year. They have demonstrated that there is much to be gained from collaborative work with colleagues in other nations and that it is possible to work cooperatively despite what may at first seem like insurmountable barriers. The Advisory Committee will continue an exchange with China in several ways: by sponsoring further US-China delegations and exchange conferences; by sponsoring visiting Chinese scholars and students for extended periods of study in occupational health programs in the United States and other countries; by encouraging collaborative research both inside and outside of China; and by generally maintaining a link between the Chinese and Western occupational health communities. This is the first time that such a large collection of Chinese papers in occupational health has been published in one place in the international literature. We believe this to be an important step in furthering international dialogue and broadening scientific exchange in the world occupational health community.

References

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