

Occupational Health and Safety Management System: Implementation at the Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand

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Occupational Health and Safety Management System (OH&SMS) at the Faculty of Medicine, KKKU started in 2001. In 2003, the Faculty set up the Safety, Health, and Environment (SHE) committee. In 2006, the Faculty established the governing bodies of OH&SMS, including the office of occupational health and safety (OH&S) and a number of occupational health and safety management committees. The office comprised a safety officer, an administrative assistant, and an occupational physician appointed as head of the office. Six years later, two registered nurses were allocated to OH&S office. The OH&S office and OH&S committee are responsible for OH&S policy preparation, the regular monthly meeting, strategic planning, budgeting plan development, goal achievement, management evaluation and review, and continual improvement. For the past 18 years, occupational safety, health, and environment policy has had a formal structure. The OH&S office has essentially managed implementation of both workplace safety and occupational health service activities. Approximately 80% of the heads of the operational sections and units were trained 12 hours in the OH&S management system after which they were appointed as supervisory safety officers. KKKU's Faculty of Medicine thus followed both the Occupational Safety, Health and Environment Act and 85% of the earlier Ministerial Regulation on the Prescribing of Standard for Administration and Management of Occupational Safety and Health and Environment. Occupational health service activities follow standard guidelines albeit gaps exist in workplace safety activities evidenced by repeated correction of faults and control of hazards.

Keywords: Occupational health, Occupational safety, Hospital, Health workers

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Initiatives

The need for Occupational Safety and Health (OS&H) in Thailand was etched into the public consciousness since the severe manganese poisoning among 41 workers at a factory in 1964. OS&H policies were incorporated into the 2nd National Economic and Social Development Plan (1967 to 1971). The first OS&H law was decreed in 1972 under the "Announcement of the Revolutionary Party No. 103 Re: Labour Protection". The Labour Protection Act, BE 2541 (AD 1998) was promulgated, superseding the Announcement. Chapter 8 of the Act established Occupational Safety, Health and Environment, providing the basis for safety and health regulations. Ministerial Regulations relating to OS&H were issued under the Act BE 2549 (AD

2006), Prescribing of Standards for Administration and Management of Occupational Safety and Health and Environment^(1,2). In 2011, the Occupational Safety, Health and Environment Act was enacted in July 16, BE 2554 (AD 2011)⁽³⁾ (OS&H Act). Chapter 8 of the former Labour Protection Act 1998 and its subordinate clauses were thus replaced, and yet the industrial sectors has complied with the 2006 ministerial regulation prescribing standards for administration and management of occupational safety and health⁽²⁾. By contrast, the health care sector was slow to comply. As a consequence, the OS&H management system for health workers has developed as an aspect of The Healthcare Accreditation Institute (HAI)⁽⁴⁾.

Development

We documented the development of an occupational health and safety management system (OH&SMS) at the Faculty of Medicine, Khon Kaen University (KKU), Thailand. KKKU is located in northeastern Thailand and comprises two hospitals employing approximately 6,000 employees. The medical campus comprises 15 large buildings and numerous smaller supply and support structures.

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OH&SMS at the Faculty of Medicine, KKU started in 2001. Initially, only some short-course training was delivered in recognition of health hazard in healthcare workplace for hospital personnel. These efforts were done by an occupational physician who volunteered to educate hospital staff. In 2003, the Faculty set up the Safety, Health, and Environment (SHE) Committee. In 2006, the Faculty established the governing bodies of OH&SMS, including the office of occupational health and safety (OH&S) and a number of occupational health and safety management committees. The office comprised a safety officer, an administrative assistant, and an occupational physician appointed as head of the office. Six years later, two registered nurses were allocated to OH&S office. The OH&S office was initially under the Associate Dean for Administration and later the Associate Dean for Facilities Services and Environment. The OH&S office and OH&S committee are responsible for OH&S policy preparation, the regular monthly meeting, strategic planning, budgeting plan development, goal achievement, management evaluation and review, and continual improvement (Figure 1).

In Thailand generally, it is not common to have a governing body or an office to manage OH&S. There have been only 2 or 3 OH&S offices in the public healthcare setting. Perhaps, in establishing one, KKU's Faculty of Medicine was a pioneer in doing so. Following this development, in 2006, the Ministerial Regulation on Prescribing of Standards for Administration and Management of Occupational Safety and Health and Environment⁽²⁾ was enforced and the healthcare industry was required to follow

suit. KKU's Faculty of Medicine followed the regulation albeit following TIS 18001 and BS OHSAS 18001 as more stringent references.

Following the pattern used by KKU's Faculty of Medicine OH&SMS, Thailand HAI has taken this issue further; considering that OH&SMS should be incorporated with human resource management in the healthcare setting. Recently, the Ministry of Public Health and HAI have launched patient and personnel safety goals (2P Safety Goals) and the KKU OH&SMS model has been used as a model for the development of then a Personnel Safety Goal guideline⁽⁵⁾. In addition, the Thai government launched the "Safety Thailand" project in 2016⁽⁶⁾, and OH&S activities for health personnel and academic and supporting staff have been the target for these policies.

Outcomes

For the past 18 years, occupational safety, health, and environment policy has had a formal structure. The OH&S office has essentially managed implementation of both workplace safety and occupational health service activities. Other related operational units have taken part in the OH&S management team (i.e., the Infection Control Unit, the Surveillance Rapid Response Team, Facilities and Utilities Management, the Engineering and Maintenance Section, and the Risk Management and Hospital Quality Development Units).

Considering the outcome of OH&S management, approximately 80% of the heads of the operational sections and units were trained 12 hours in the OH&S management

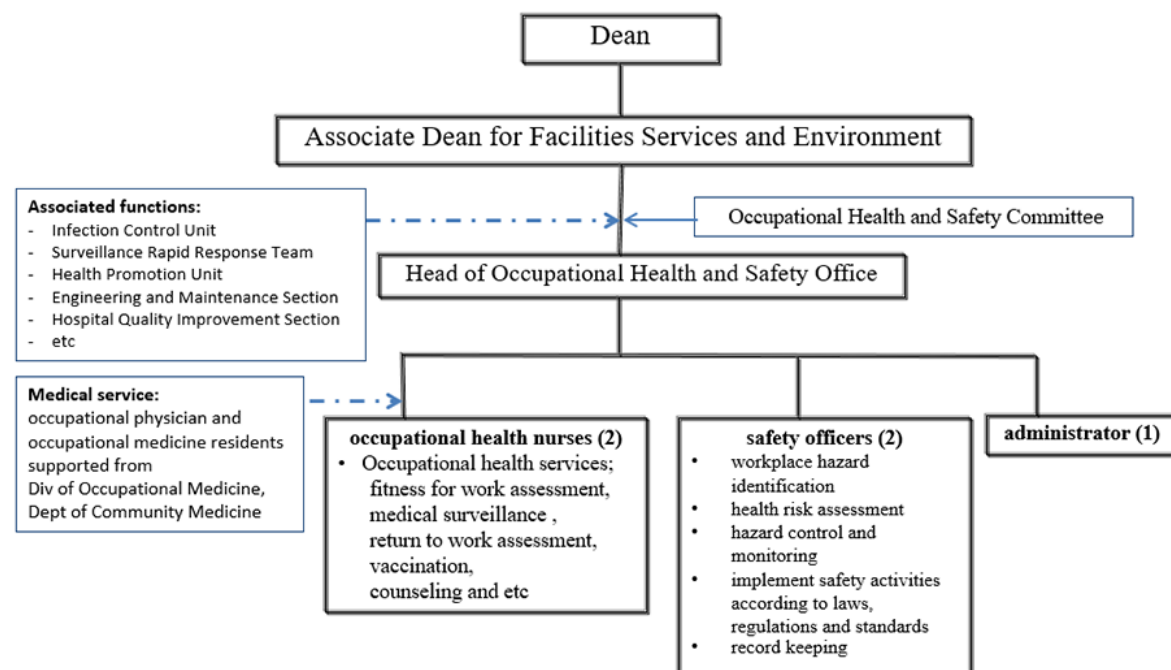


Figure 1. Occupational Health and Safety System of Faculty of Medicine, KKU, Thailand.

system after which they were appointed as supervisory safety officers. KKU's Faculty of Medicine thus followed both the Occupational Safety, Health and Environment Act⁽³⁾ and 85% of the earlier Ministerial Regulation on the Prescribing of Standard for Administration and Management of Occupational Safety and Health and Environment⁽²⁾. Injury/Illness frequency or severity rates are one of the indicators of occupational safety and health management. Quality of working-life is also taken into consideration for measuring worker work-life balance and work organization.

Considering occupational health practices, occupational medicine residents and occupational physician staff play an important role along with the nurses in the OH&S office in implementing clinical prevention activities. Activities include: 1) medical fitness for duty evaluation (pre-placement and return to work); 2) hepatitis B virus and varicella immunity assessment and latent tuberculosis infection assessment; 3) a medical surveillance program; 4) injury and illness investigations; and, 5) workplace medical emergency management. There are 12 medical surveillance programs for staff exposed to significant hazards such as formaldehyde, cytotoxic drugs, and noise. Such programs follow the Occupational Safety and Health Administration (OSHA) medical screening and surveillance⁽⁷⁾. For health workers accidentally exposed to active pulmonary TB patients, they will be included for recent conversion investigation. Like many industries, musculoskeletal disorders have been found in around 50% of health workers, however, there have not been any specific programs for controlling these injuries apart from some ergonomic training.

For workplace safety activities, each workplace is required to perform health risk assessment in order to correct or control workplace hazards. Recently, formal risk assessments were performed for 100% of high-risk activities. Controls for high and moderate risk workplace activities have not all been covered but steps have been put in place to complete them. Chemical safety has been an active issue in recent years as well as other safety issues. These activities have been performed mainly by the professional safety officers.

Further activities following OH&SMS during the last 15 years, the Faculty has trained the responsible personnel for OH&SMS of Thailand hospital across the country. The trained personnel included 3,059 personnel and 640 hospitals in which implementations of OH&SMS for health personnel in their hospitals have been anticipated⁽⁸⁾.

Conclusion

The KKU Faculty of Medicine occupational health and safety management system was initiated in 2001 and well established by 2006. Occupational health service activities follow standard guidelines albeit gaps exist in workplace safety activities evidenced by repeated correction of faults and control of hazards.

What is already known this topic?

Occupational health and safety management

system (OH&SMS) for health workers have been established in developed countries, whereas a focus of occupational health service for health workers in Thailand healthcare sectors has been targeted in most large hospitals. However, OH&S MS remain unstructured.

What this study adds?

KKU Faculty of Medicine (a university hospital) was a pioneer in implementing a structured occupational health and safety management system for health workers employed in the Faculty of Medicine. Following the implementation and evaluation, inputs from KKU were delivered via the guideline of the personnel safety goals (2P Safety Goals). This guideline has been launched and implemented since September 2017.

In addition, KKU Faculty of Medicine's medical surveillance guideline for post exposure to an active pulmonary TB has been used as a reference in developing the guideline of surveillance, prevention and control of tuberculosis in health workers working in health sectors. This development is conducted by Bureau of Occupational and Environmental Diseases, Department of Disease Control, Ministry of Public Health⁽⁹⁾.

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Potential conflicts of interest

The authors declare no conflicts of interest.

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