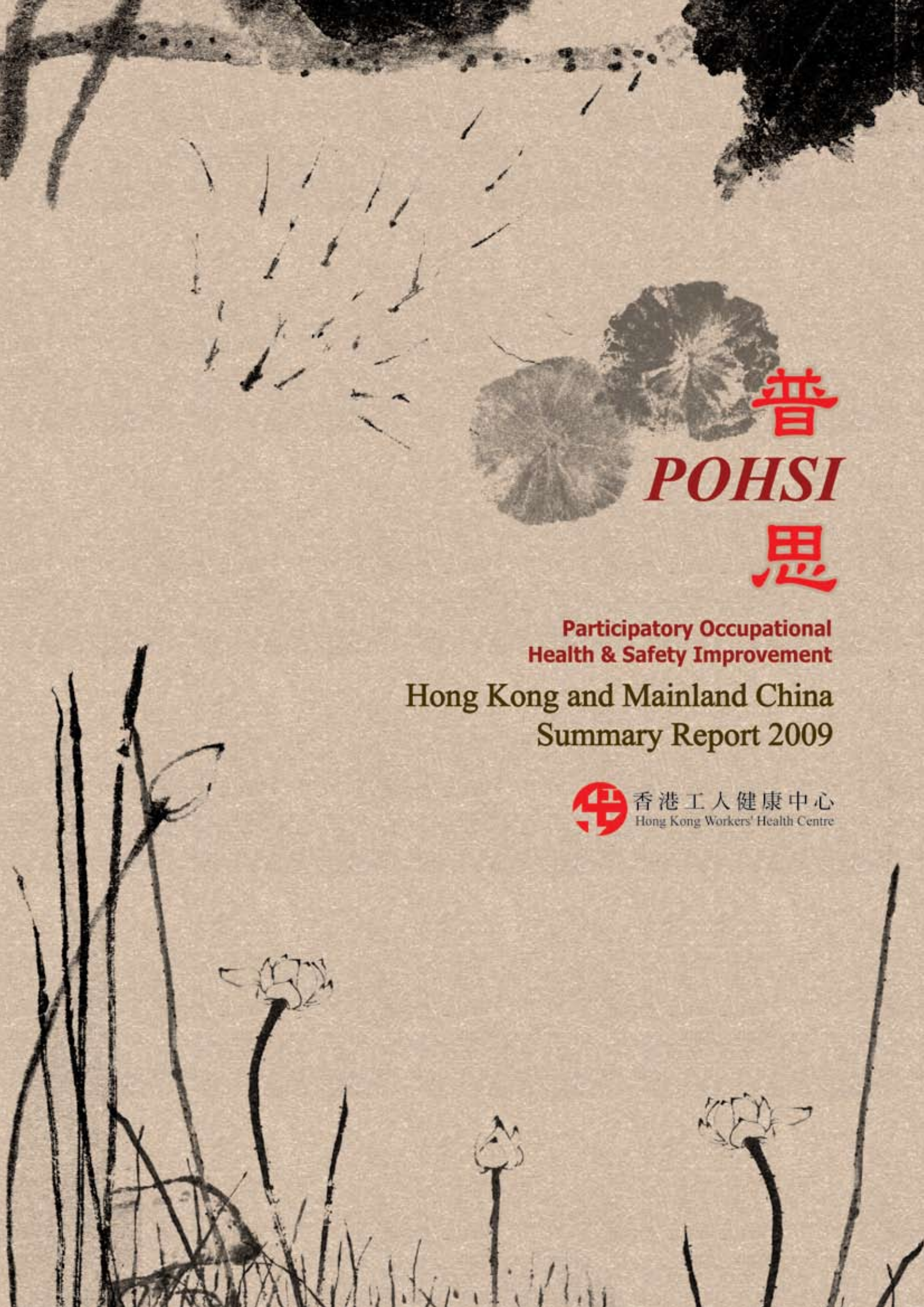


普 POHSI 思

Participatory Occupational Health & Safety Improvement

Hong Kong and Mainland China Summary Report 2009

香港工人健康中心
Hong Kong Workers' Health Centre

Preface

To learn from good examples
To mine collective wisdom
To advance the work together

It was more than 20 years ago when the Hong Kong Workers' Health Centre (HKWHC) first started to promote workers participation in occupational health and safety. Mobile exhibitions (Road Shows) were held in MTR stations and shopping malls, with distribution of pamphlets/booklets to advocate the rights of workers to participate in safety committees and act as safety representatives. After that, HKWHC also organized training courses for occupational health and safety representatives with some unions in Hong Kong.

Around 10 years ago, HKWHC began to introduce participatory training in occupational health and safety to Hong Kong, emphasizing on the active participation of workers in the training process. This training method was further extended to training activities in factories in mainland China in 2003. Participatory training in Hong Kong and China was originally based on the POSITIVE (**P**articipation **O**riented **S**afety **I**mprovements by **T**rade Union **I**nitiati**VE**) model of Japan International Labour Foundation (JILAF). With cumulating experiences over the years, the professional training team has developed a training model that is particularly adapted to the situations in Hong Kong and mainland China. Elements for continuous occupational health and safety improvements in enterprises have been added, to enable front line workers to participate more actively in the process. As the actual training method and means for continuous occupational health and safety improvements have now deviated from the original POSITIVE model, HKWHC feels it more appropriate and opportune to rename the participatory training model now used in China and Hong Kong POHSI (**P**articipatory **O**ccupational **H**ealth and **S**afety **I**mprovement).

POHSI training starts with using photos of good examples in occupational health and safety collected from various workplaces to broaden the horizon of participants. Workers then participate in an actual worksite inspection using an action checklist in small groups. This is followed by small group discussions, mining the talents and wisdom of the participants to arrive at a prioritized list of practical occupational health and safety improvements in the enterprise. By establishing better communication channels and collaborations, front line workers join hand with management to improve occupational health and safety of the enterprise, resulting in a win-win situation that is sustainable.

We sincerely hope that this participatory training model will be able to introduce continuous occupational health and safety improvements at low cost and with appropriate technology in different workplaces.

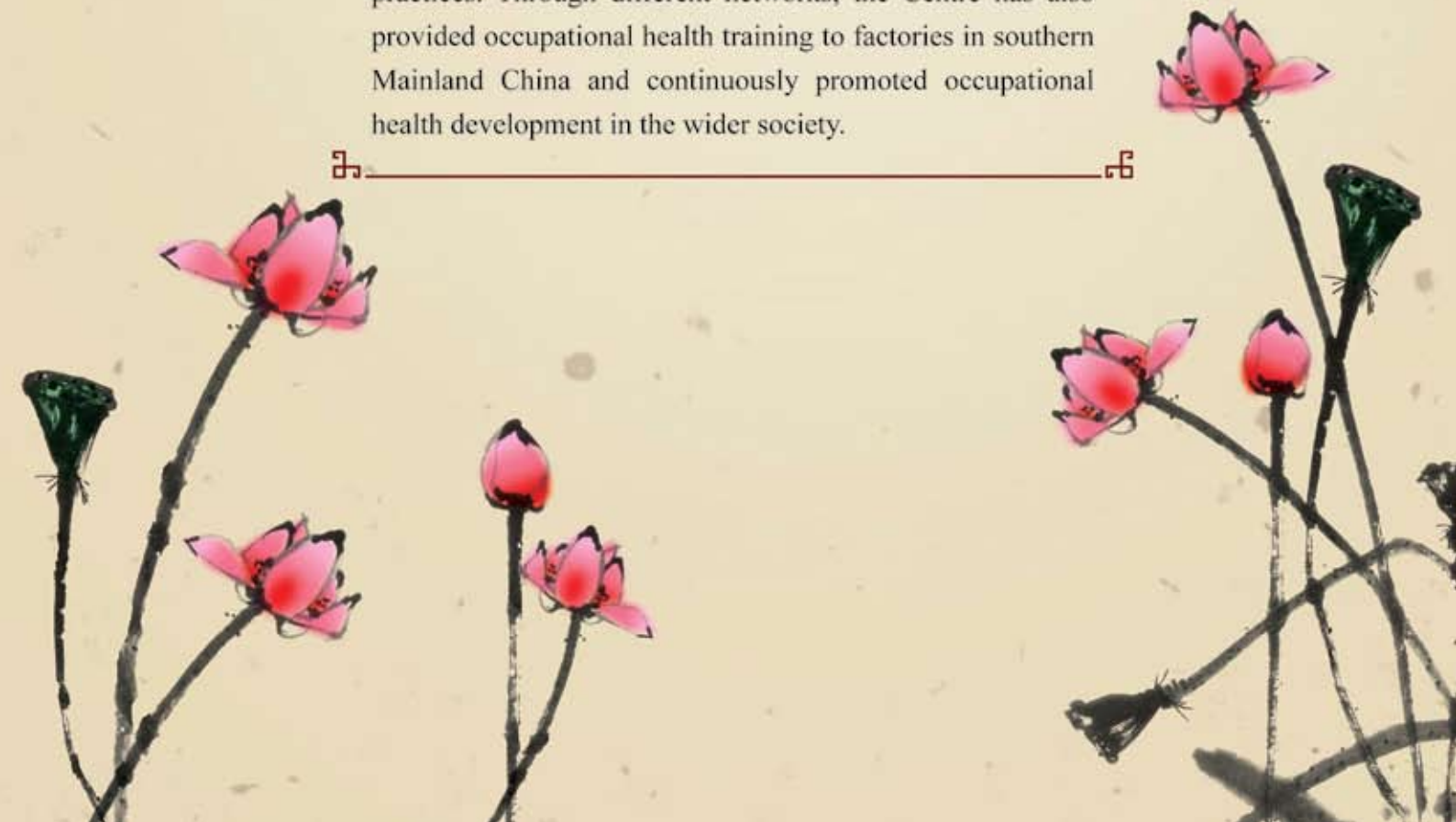
余德新教授
Professor Yu, Tak-sun Ignatius
Department of Community and Family Medicine
The Chinese University of Hong Kong

Honorary Medical Advisor of the Hong Kong Workers' Health Centre

Introduction to The Hong Kong Workers' Health Centre

The Centre was established in 1984 by a group of professionals including doctors, occupational health experts, ergonomics experts, rehabilitation therapists and social workers. The Centre has always made OHS protection for local workers central to its vision, and has been working hard to help workers with occupational injuries to return to their jobs and re-integrate into the community.

Since 2003, the Centre has been engaged in a systematic effort to promote occupational health and rehabilitation in southern Mainland China. In collaboration with the Guangdong Provincial Work Injury Rehabilitation Center, it has helped to establish the Occupational Health & Occupational Rehabilitation Resource Centre whose main objective is to develop various occupational health and rehabilitation practices. Through different networks, the Centre has also provided occupational health training to factories in southern Mainland China and continuously promoted occupational health development in the wider society.



Contents

Background

Over the past twenty years, China has grown into the world's leading production centre. There are two principal reasons for this development: 1) the effective economic reform policies carried out in Mainland China and the decision of factory owners in Hong Kong to relocate their factories to the Mainland and, 2) Rapid development of the world economy and increasing demand for goods from China.

Against the background of these developments, the Centre became aware of the increasing OHS risks in Mainland China. Beginning in 2003 and in cooperation with the Guangdong Provincial Work Injury Rehabilitation Center, it helped to establish the Occupational Health & Occupational Rehabilitation Resource Center in Guangzhou for OHS education and promotion. Concurrently, the Centre has been active through different networks in holding OHS training sessions and providing relevant follow-up for designated factories in Guangdong Province. This rapid expansion of prevention work represents a new era for the Centre.

Traditional ways of improving OHS rely mainly on managerial personnel and OHS professionals, but ignore the importance and influence of participation by frontline workers. Frontline workers bring a great deal of experience to the process and are familiar with production procedures. Training them to actively participate in improving the working environment is a major component in any effort by enterprises to reduce OHS risks and build up good OHS practices.

It is not only workers who benefit from improvements in OHS conditions, but also investors, factory owners and managers as sick leaves are reduced, along with the need to find substitute replacements for absent workers and other costs. Enhancing an institution's OHS does boost productivity and hence the benefits accrued by all parties.

It was for this reason that, beginning in mid-2004, the Centre launched an ambitious effort to promote POHSI training with working partners in Hong Kong and Mainland China. In order to raise OHS standards in companies over the long-term, POHSI training emphasized the active involvement and management of the OHS reforming process by both management and frontline workers, the enhancement of labor-management communications, and post-training efforts to ensure long-term improvements. This effort on the part of the Centre's professional prevention team of actively promoting OHS development in Hong Kong and southern Mainland China continues today.

This report will summarize the experiences gained and challenges faced by the Centre in carrying out the POHSI program and the efforts to adapt it to the situations found in Hong Kong and southern Mainland China. The Centre believes that this report will not only become a useful reference source for enterprises, but also help in promoting awareness of this method so that more enterprises and factories can systematically apply this training method. Our hope is that through these efforts to continually improve upon the working environment for workers, we might make a significant contribution to the wider promotion of OHS in society.

Introduction to POHSI

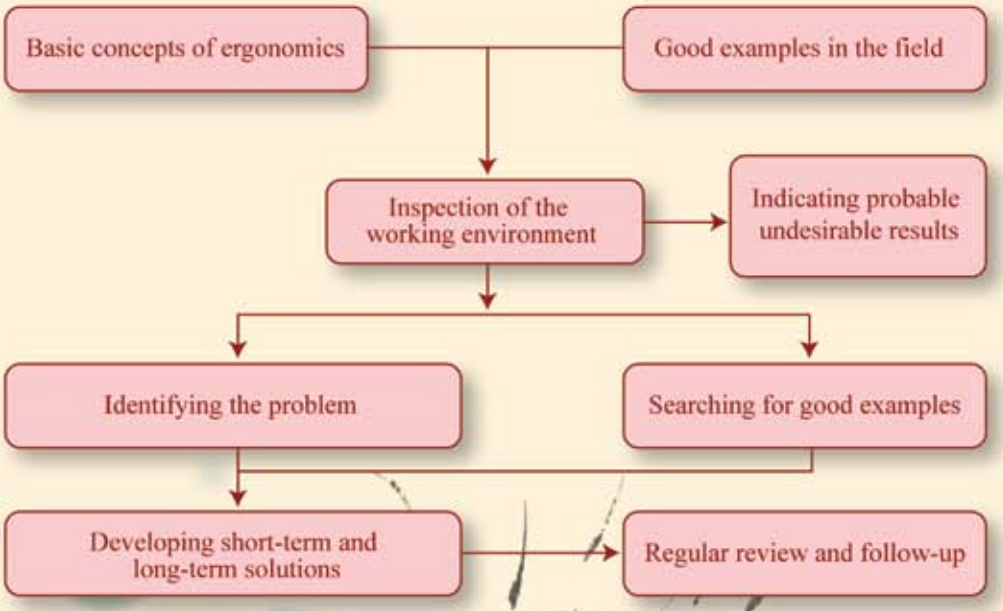
Since 2004, the Centre has provided POHSI Service for different enterprises in Hong Kong and southern Mainland China. POHSI Services include POHSI Training and related preparations and follow-up work. There are 255 workers' representatives who have already attended the training courses. Below is a brief introduction to POHSI:

Briefing on POSITIVE Training

POSITIVE (Participation Oriented Safety Improvements by Trade Union InitiatiVE) is an occupational health training method designed according to ergonomic principles by the Japan International Labour Foundation (JILAF) and a well-known scholar Dr. Kazutaka Kogi. Its aim is to protect workers from occupational accidents and diseases by encouraging the participation of frontline workers in making changes in the working environment. In addition, the method recognizes the importance of training efficiency and practicality. Dr. Kazutaka Kogi was once chief representative of the International Labour Organization Safety and Health Branch in Geneva of the International Labour Organization[1] . He has excelled in assisting small and medium size enterprises to design work improvement plans. Significant improvements in OHS have been observed when the POSITIVE training method has been applied. A case in point is the method's application in the Philippines in 1994 where it enjoyed active cooperation from unions.

The POSITIVE training approach stresses the promotion of basic concepts of occupational health, the inspection of work environments, and regular follow-ups and assessments. An over view of this approach is shown in the flow chart below:

Diagram 1. Flow Chart of POSITIVE training



[1] Chief, International Labour Organization Safety and Health Branch, Geneva, 1988 - 1991

Changing from POSITIVE Training to POHSI Training

Due to the differences in the social system, in stages of economic development and in the culture of Hong Kong and Mainland China, the Centre used POSITIVE as a backbone to develop POHSI (Participatory Occupational Health & Safety Improvement) Program (see Diagram 2). POHSI Training makes use of interactive methods to encourage the participation of a company's frontline workers and different managerial personnel to address OHS concerns. It also emphasizes post-training follow-up to assist companies in setting up in-house OHS committees for promoting continuous OHS development.

Diagram 2 : Elements of POHSI Program

Base-line Assessment

- ◎ Walk-through Survey
- ◎ Interviews
- ◎ Preparation Meeting for POHSI service

↓

POHSI Training → **See Diagram 3**

↓

Establishment of Occupational Health & Safety Committee

- ◎ Recruitment of Committee Members
- ◎ Capacity Building Workshop for Committee Members
- ◎ Professional Advice and Support
- ◎ Preparation Meeting for OHS Committee

↓

Sustainability Development

- ◎ Interviews with Stakeholders
- ◎ Attendance at OHS Committee Meeting
- ◎ Internal Supervision

POHSI Training (see Diagram 3) is the critical part of POHSI Service. After the completion of POHSI Training, an OHS committee is set up as a platform for workers to utilize what they have learned from the training to minimize OHS risks, and improve labour-management communications. These processes create a win-win solution that is beneficial to the enterprise and to workers.

Diagram 3: Flow chart of POHSI Training

Identification of OHS Hazards

↓

Tailor-made Training Materials

↓

POHSI Training

- Occupational Health & Safety Sessions
- Participatory Orientated Activities
- Site Visit and Action-Checklist Exercises
- Group Discussion
- Group Presentation
- Debriefing

↓

Post-training Follow-up

- Training Evaluation
- Case Interviews
- Observation of Improvements
- Train-the-trainer Session

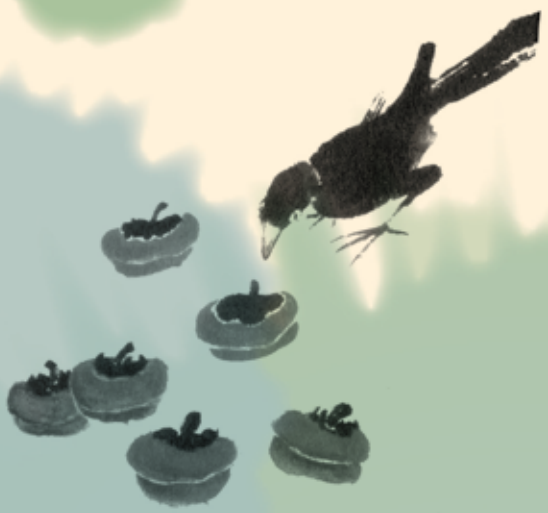
Characteristics of POHSI Service

POHSI Service is suitable for all occupations. The Centre makes use of the following principles to decide and formulate appropriate content for the needs of different enterprises.

Encouraging frontline workers to participate and provide feedback

The frontline workers who work on the production line everyday know their working environment and are most qualified to judge their working conditions. Because of this, it is important that the participation of the frontline workers not be ignored in training designed to improve OHS conditions within an enterprise.

The Centre invites frontline workers or their representatives to take part in every stage of the POHSI Service, including the inspection of work environments, POHSI Trainings and follow-up work such as the establishment of OHS committees. In addition, group activities are organized during POHSI Training to encourage workers to build team spirit and to enhance their communication and mutual understanding. The feedback provided by the workers during training and in group discussions allows the management to understand the OHS risks within the enterprise and try to implement the best solutions for ameliorating those risks.



Acting as a channel of communication between the frontline workers and the management

By encouraging the active participation of frontline workers and using interactive OHS training methods for both workers and management, the mutual understanding of both parties can be enhanced and effective communication channels built up. When frontline workers feel support from managerial personnel, they become more willing to express their opinions and to participate in the work of OHS improvement. This not only helps raise morale and increase a sense of belonging among the workers to the enterprise, it also contributes to retaining talented workers and raising productivity. Being actively involved in the process, the management also becomes more familiar with workers' concerns and the reasons underlying their suggestions. This lays the basis for ongoing improvements in the future to the benefit of all involved.

Low costs, strong practicality

POHSI actions involve low costs but are highly practical. Through the inspection of working environments and interviews with frontline workers, training contents which are suitable for the needs of workers and managerial personnel can be tailor-made using existing materials. During the process of training, instructors can follow a low-cost and highly practical method to guide workers in coming up with inexpensive and practical solutions that are easy to implement within the work environment.

Sharing the experiences of POHSI Training —
Outline of the progress of POHSI Training from 2004 - 2008

Between 2004 and 2008, the Centre conducted 15 POHSI Training programs for different factories and enterprises in Hong Kong and in Mainland China. Each of these interventions was characterized by efforts to encourage cooperation between workers and management in furthering OHS standards. In light of this accumulation of experience, the Centre has continuously sought to add new elements to the POHSI Training:

Inserting inspiring group activities, encouraging participation of workers

In 2004, the Centre conducted POHSI Training for shoe-making and leather factories in Mainland China. The factories chose frontline workers from different departments to participate in the training. Before the training, the Centre's professional team did research on the factories and understood that this would be the first time for both the management and frontline workers to participate in interactive training methods. With this in mind, the Centre's professional team inserted an inspiring game into the training which helped the workers understand that working cooperatively and having a good channel of communication was the first step towards improving OHS standards. During the rest of the training, the management strongly encouraged the participation of the workers, and the workers responded by becoming more active and positive. Following the experience of the game, they began eagerly discussing methods for improving the working environment.

Train-The-Trainer

In 2005, the Centre promoted courses for training instructors in POHSI Training in Hong Kong. The targets were teachers, janitors, laboratory technicians, maintenance workers and administrative workers from 21 kindergartens, primary and secondary schools. The Centre not only hoped to increase their knowledge of OHS, but also hoped that the participants' techniques of workplace risk assessment could be enhanced through simulations of working environment inspections. Participants could then bring the POHSI Training method back to their schools and become the agents for a continual improvement in OHS standards in their schools.

Deciding on suitable training material for different kinds of enterprises

Also in 2005, the Centre conducted POHSI Training for shoe-making and accessory factories in Mainland China. The Centre not only used interactive training methods, but also tailor-made training materials for enterprises in different industries. For example, they concentrated on improving knowledge about dangerous chemicals in shoe–making factories and showed examples of good ventilation systems and equipment to stimulate workers' thinking. In contrast, the training for workers in jewelry factories focused on hazards posed by inhaling dust, the use of engineering controls, and the correct way to use personal protective equipment. After the training, most of the participants improved their knowledge, attitudes and behavior on issues of OHS specific to their particular working context.

Focus on follow-up after training, and building the foundation for continuous improvements in occupational health and safety

Having accumulated a good deal of experience, the Centre began placing more emphasis on effectively promoting OHS within enterprises over the long-term. In 2006 and 2007 it concentrated more on post-training follow-up and improvement work. An aircraft cabin cleaning company in Hong Kong serves as an an example. Occupational injuries at the enterprise were often caused by the cramped environment in the cabin and the limited cleaning time. Following the POHSI Training, the company accepted workers' suggestions and in three months provided workers with new personal protective equipment. They even asked specialists to design a new type of backpack which suited the needs of workers, with the result that it became much safer for them to carry and use their tools. Another example is the re-organization of the OHS Committee of a Mainland Chinese printing factory following POHSI Training. The reformed committees not only consisted of members from the management but also representatives of frontline workers. Together they carried out follow-up work and internal audits which had been suggested during the course of the training. They solved OHS problems in the factory together and made possible continuous OHS improvements.

Identification of occupational hazards and the presentation of positive examples from different workplaces through POHSI Training

Before organizing POHSI Training for different factories in Mainland China, the responsible professional team first conducts a walk-in survey to investigate the occupational hazards and potential risks in a given factory. By identifying areas to be improved in the production line, the Centre' professional team performs an in-depth analysis of the OHS situation in the factory which then forms the basis for the subsequent training program. Examples of good local practices are collected and presented as part of to the analysis of the OHS situation.
These walk-in surveys have shown that many factories are facing common challenges, including:

Chemical hazards

The production lines of many factories use a lot of glue, paint and degreasing agents, in which many types of organic solvents are present. These chemicals can be absorbed by the body through the respiratory tract, skin and mucous membrane, and may cause damage to the liver, kidney, nervous system and many other parts of the body. They may even cause cancers. Vapours from these organic solvents may also accumulate if the ventilation system is inadequate. The harmful effects may become more adverse if workers stay for a long period of time in an environment where the concentration of chemicals is high.

When faced with such a situation in a factory, the professional team will introduce the workers and management to the effects of chemicals on the human body and the importance of ventilation systems and other preventive and protective measures. They will also carry out an inspection of the working environment with the participants and encourage them to think of effective ways of protecting the health of workers.

Machine and tool safety

Drilling machines, punching machines, mould makers, and sewing machines, etc. are the most common machines seen in these factories. There are also different tools for workers with different occupations. However, occupational injuries occurring in these factories have many things in common, and the most frequent accidents involve the crushing and fracturing of hands or limbs.

For this reason the Center's professional team encourages management to support training in these factories which introduces key points on the safe use of machines and tools. In addition, the Center focuses on minimizing carelessness among workers by designing focused and repeated trainings, and guiding workers in developing creative improvements suitably adapted to their unique working posts.

Work-related musculoskeletal problems

During the production process, the workstation design or layout may not fit each worker's body dimensions, and this can lead to incorrect postures at work. For example, chairs and tables in the workplace may not be of a suitable height, causing workers to bend over tables or turn their shoulders and necks to compensate for this; workers may also sit on chairs which do not rotate despite the fact that their work of reaching out to the conveyor belt to get assembly parts requires them to turn their trunks; some workers have to hold working tools tightly and constantly shape objects with their fingers. They may develop musculoskeletal problems if these awkward postures are repeated for a long period of time. If medical treatment is not given at the right time, the pain caused by injured areas of the body will only become more serious. Workers may gradually lose their ability to work and this imposes losses on both workers and the factories.

Many workers in these factories have no knowledge of the dangers in their work environment. The Centre introduces ergonomic concepts when carrying out training programs emphasizing the adoption of correct working postures, the use of auxiliary tools to protect themselves, and how tools can be adapted to fit the body movements required by the work. The Centre also encourages workers to solve problems in low-cost and practical ways, as a means of protecting themselves from occupational hazards.

Assessments of the effectiveness of POHSI Training

The Centre conducted 15 POHSI Training activities from 2004 to 2008. In order to allow industries to know more about the effectiveness of POHSI Training, the Centre conducted an in-depth evaluation of these training activities based on the following:

- questionnaires completed by participants before and after the training regarding changes in their knowledge, attitude and behavior concerning OHS
- interviews and inspections of workplaces with managerial personnel after training to gauge the extent of improvements to the working environment

Summary of survey results

Surveys were conducted both before and after training programs to gauge the degree of change in participants' knowledge, attitudes, and behaviors concerning OHS. As of mid-2008, the Centre received 255 pairs of questionnaires, 207 of which were complete and valid. All the collected data were analyzed by computer software. The results are summarized below:

Comparison of knowledge

There were questions covering such areas as manual lifting and carrying, the handling of chemicals, working postures, working environments and stretching exercises and were designed to test participants' knowledge of OHS concepts. Results showed that participants' knowledge of these OHS concepts increased after the training (with an average 7.5% increase in the number of correct answers). The number of participants who answered ten or more questions correctly increased significantly from 46.81% before the training to 61.70% after the training.

Comparison of attitude

There were a total of 5 questions about attitudes towards OHS in the questionnaire. The concepts covered attitudes towards occupational health, the handling of chemicals, manual lifting and transporting, and working postures. These questions aimed at measuring participants' change in attitude about potential risks, the need to be aware, and the institution and use of preventive measures following the training.

Survey results suggested that before training, participants' awareness and knowledge of chemical hazards, machine and tool safety, and manual lifting were insufficient. For example, the percentage of those who said that having contact with chemicals, using hand tools and bending their backs to lift heavy objects during work would not harm their bodies or were not sure about it were high (65.97%, 59.91% and 61.84% respectively). After training, the corresponding percentages dropped substantially to 49.59%, 44.66% and 46.37% respectively.

Before training, most participants (87.92%) agreed that 'Setting up and maintaining a safe working environment is most important', but only 56.47% agreed that 'Using personal preventive equipment is only the last defense line'. This suggested that participants did not fully understood the origin of the risks they faced nor the concept of prioritizing preventive occupational health measures by engineering and administrative control. After training, over 90% of the participants (94.69%) agreed that 'Setting up and maintaining a safe working environment is most important', and the percentage of participants who understood that 'Using personal preventive equipment is only the last defense line' increased significantly to 80%.

Comparison of behaviour

There were altogether 4 questions about OHS behavior which included practices of OHS in using machines, manual lifting and transporting, and working role. These questions aimed at assessing the degree to which OHS standards were applied to the working methods used before and after training.

Results showed that, before receiving training, some of the participants had a degree of knowledge about the safe use of machines and the advantages of the correct storage of hand tools. 58.57% of the participants said they did not 'Remove the safety shield of machines due to convenience', and 66.67% understood that 'tools have to be put back in a fixed place immediately after use'. But results also showed that 36.23% of the participants bent their backs forward when carrying heavy objects. When comparing this to other risks, it was apparent that participants' knowledge of correct working postures and manual lifting was insufficient, especially their not understanding of the risks of bending forward when lifting heavy objects. After discussing the adverse effects caused by incorrect postures during the training, the number of participants surveyed who responded that they did not bend forward when lifting heavy objects increased significantly to 61.35%.

Results also showed that, 65.7% of the participants had 'promoted the importance of setting up and maintaining a safe working environment' among their colleagues before training; and after training, the percentage rose to 85.51%. This reflected the advantages of POHSI's interactive education method in encouraging workers to remind one another of the importance of creating a healthy and safe working environment.

Conclusion to results of survey

On the whole, the survey results showed that the POHSI Training had significant positive effects on the participants' OHS knowledge, attitude and behavior: 90.59% of the participants were certain that the methods suggested in the POHSI Training could assist them in further knowing and understanding OHS.

The Centre believes that values of workers have a great importance in determining the degree to which OHS management is carried out in a company. It is hoped that in strengthening participants' knowledge of the concepts of occupational health, the Centre can raise awareness of risks in the workplace, modify unsafe behaviors, and raise the level of concern for reducing occupational injuries and diseases. As workers' knowledge of occupational health increases, when management implements effective OHS management systems, and when there exists good communication and opportunities for discussion, a healthy and safe working environment can be achieved.

The environmental improvement measures adopted by the enterprise three months after the training

In addition to carrying out POHSI Training and surveys, the Center's professional team also holds follow-up meetings with an enterprise's management to look into the feasibility and effectiveness of measures suggested by participants during training. On the basis of these consultations, the enterprise then carries out improvement measures.

Three months following training, the Center's team again pays a visit to the enterprise to carry out an inspection of the working environment and taking note of the following aspects:

1) Handling of materials
2) Machine Safety
3) Workstation Changes
4) Working Environments
5) Handling of Chemicals
6) Dust Prevention

The purpose of these inspections is to follow-up on the implementation and effectiveness of the improvement measures suggested by the workers during the training. The Centre provides assistance and suggests solutions to the enterprise in areas where improvements have not been able to be carried out. The process strengthens the ability of the enterprise to engage in continuous improvements following the initial training program.

Most of the companies which have held trainings and participated in follow-up inspections have been able to implement and carry out improvement measures, effectively reducing the occurrence of occupational injuries. For example, after undertaking POHSI Training and participating in follow-up work, a Mainland Chinese factory started to use the '6S' workplace management method to organize the workplace. All materials were placed tidily and safety shields were installed on all machines to avoid upper limb injuries. Although the work environments of all of these enterprises can be improved upon and problems remain in implementation, the Centre believes that the long-term goal of having continuous OHS improvements in enterprises can be achieved through hard work and cooperation between the management and frontline workers.

Below are photos of good examples of OHS improvement measures implemented by enterprises after POHSI Training:

The factory used the '6S' workplace management method to organize the workplace and displayed the information on a board on each floor to allow workers to clearly understand the content and importance of the plan.

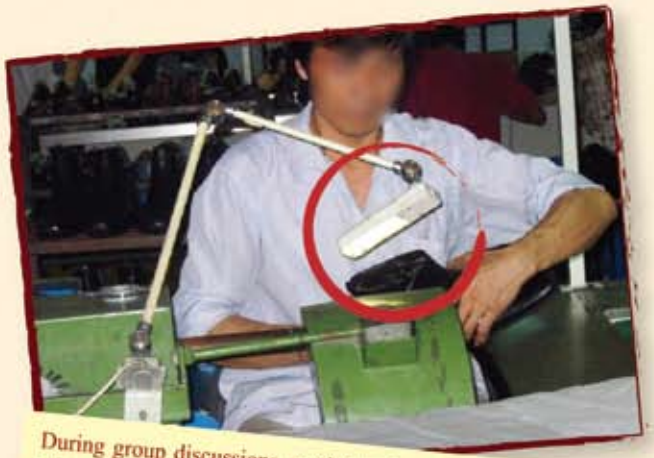
Workers suggested that heavier objects should be put on the bottom shelve while lighter ones could be placed higher, reducing the chances of injury to the body. This photo shows improvement in materials handling.

During the training, workers suggested installing a protective fence in front of the air intake grill of the air-conditioner. This measure prevented the hindering of ventilation due to the accumulation of goods in front of the grill; workers also suggested having regular checks for the air-conditioning system.

During the training, workers discovered potential risks in the workplace, and suggested installing a horizontal bar on top of a protective fence to prevent the falling of blades.

The factory posted diagrams of correct working postures and information on boards on each floor as a reminder to the workers.

When the resources of the factory could not meet their needs immediately, worker thought of solutions such as piling up chairs, so as to be able to work at the proper height. In the long run, the factory would consider replacing these with chairs of suitable height and with back support.



During group discussions, workers pointed out that there was not enough lighting for procedures that required fine work and suggested installing individual lamps for these workers.

The factory set up individual 'ventilation systems' following suggestions made by workers, and regularly checked and cleaned the exhaust fans to ensure the effective removal of dust from the workplace.

Material safety data sheets (MSDS) of organic solvents in use were posted up in the workplace for workers' reference.

Containers of organic solvents were stored individually, completely covered, and placed tidily on shelves. Relevant material safety data sheets (MSDS) were also posted.

Workers made use of pumps and pipes to avoid direct contact with organic solvents and reduce exposure to chemical vapours.

The factory specially designed and installed individual ventilation systems at each working station for workers who were responsible for polishing, thus effectively reducing dust emissions.

POHSI Service and the interaction between employers and employees

Regardless of the type of company, enterprise or factory involved, discussions and exchanges of opinion between employers and employees are vitally important. These exchanges should be developed as a two-way process, and good communication should be built on the foundation of both parties shared basic knowledge. In addition to such exchanges, the commitment and participation of management and the active participation, support and suggestions for improvement from frontline workers are required if continuous improvements in occupational health are to be achieved.

In an effort to determine whether POHSI Service was useful for:

- ◎ improving communication between the managerial personnel and frontline workers concerning OHS such that workers could more easily implement measures to improve OHS in the enterprise, and

- ◎ encouraging workers and mid-level management who participated in the training to actively give practical suggestions or take action after the training so as to assist the managerial personnel or internal OHS department in reducing risks in the working environment.

The Centre chose a large-scale printing factory which participated in POHSI Service as an experimental site. Three months after the training, the Centre re-visited the factory and met 16 workers (including 3 workshop managers, 2 internal managers of occupational safety, 4 division heads, 3 assistant line supervisors, 2 group leaders and 2 frontline workers) to assess the effectiveness of POHSI through interviews with these different individuals.

The managerial personnel thought that workers could actively make practical suggestions for improvements after POHSI Training

80% of the managerial personnel interviewed pointed out that during the process of POHSI Training, the activity of 'Simulated inspection of a factory's facilities and work environment' was the most effective way of increasing the knowledge of frontline workers with respect to occupational health.

The managerial personnel in the factory found that workers who had joined POHSI Training were more active in voicing their opinions during OHS committee meetings than those who did not participate in POHSI Training. They also observed that some workers made use of the knowledge they gained through the training to improve their workplace. For example, workers of the production division suggested setting up additional ventilation systems and modifying the designs of chairs then in use, and these suggestions were all supported by the management. Furthermore, managerial personnel in the factory reported that it was easier to communicate on the topic of OHS improvements inside the factory with workers who had received training.

Frontline workers had more confidence in expressing suggestions for improvement

Though they were aware of OHS risks in their daily working environment, many frontline workers did not actively reflect and make suggestions to the management. Usually this was because workers did not have the confidence that they would receive support and help from the management after making suggestions. Their reluctance might also have been due to their inability to understand the management's attitude towards the safe use of machines and facilities, and the management's intention to institute improvement measures within the enterprise.

In addition to acquiring a basic knowledge of OHS, POHSI Training also teaches frontline workers to assess their work environment using checklists which form the basis for making suggestions for improvements. By learning together with representatives from middle-level management and receiving their support, frontline workers can build up their confidence and voice out their opinions.

One frontline worker who was interviewed said that he had expressed to his employer that there was not enough lighting in his working area and suggested installing more fluorescent tubes. His suggestion was carried out. Workers who received training also actively suggested to other workers during an OHS committee meeting that once used tools should be stored and placed appropriately. These examples make clear that these workers who were interviewed had the confidence to voice their opinions to employers, and through their participation in OHS committee meetings, actively encouraged colleagues to cooperate in reducing risks in the working environment. Such confidence and willingness to share knowledge is especially important for long-term OHS development.

Middle-level employees can act as a bridge of communication, and POHSI Training made it easier for them to supervise safety during the process of manufacturing

Division heads, line supervisors, and group leaders of factory production lines were all frontline workers before promotion. Their greater working experience and understanding of production procedures allowed them to play an important role in assisting the managerial personnel in supervising production. With support from these middle-level managerial personnel, the effectiveness of efforts to improve occupational health within the company can be greatly increased.

The interviewed middle-level employees all expressed support for POHSI Service. They especially praised the POHSI Training instructors and their use of a more flexible method to raise awareness of the importance of taking self protective measures at work. They also appreciated the establishment of OHS committees which provided a chance for frontline workers to participate in the committee's meetings and more actively cooperate with the management's safety measures. These improvements could help reduce accidents on the production line and also increase productivity.

In conclusion, these interviews found that POHSI Service was supported by both frontline workers and management, both of whom felt that it was effective in improving employer-employee relationships and strengthening communication and exchanges between them. It was felt that the long term benefits of POSHI Service on the development of the company should be promoted.

Case study :
Case study of POHSI —— Occupational Health and Safety Committee

In 2006 and 2007 the Centre provided POHSI Service for a factory in Guangdong Province. After the POHSI Training was completed, the Centre mainly played the role of consultant in helping the factory set up safety regulations and manage the implementation of OHS improvement measures as regular requirements in the factory. The Centre also guided the factory in regularly inspecting and assessing the standards for the management of continuous OHS development.

Reorganization of the OHS committee

The Centre believes that the manner in which OHS committees are established can be slightly adjusted according to different situations or needs of enterprises. The committee, however, must include 4 main players, including the chairman, secretary-general, divisional managers and staff representatives. The chairman is responsible for the overall implementation of occupational health and safety policies and ensures that employees fulfill their responsibilities under existing policies. The secretary-general is usually the safety officer of the factory, and is responsible for making sure that meetings run smoothly and that the policies are carried out efficiently. The divisional managers should be responsible for the workers OHS issues in their divisions. The staff representatives should gather OHS concerns and comments from their colleagues and report those matters at committee meetings. For the benefit of all staff, the time needed for committee members to carry out duties such as attending meetings, organizing promotional OHS activities and inspecting working environments, should be counted as paid working hours. Before every meeting of the OHS committee, the number of occupational injuries, investigation reports of accidents, follow-up events of the last meeting, and future plans for OHS improvements and trainings should be prepared for discussion. By doing so, the committee members can continuously check and follow-up on OHS events, thereby improving the factory's OHS standards.

The membership of the original OHS committee at the factory mentioned here consisted only of management representatives. As a first step, the Centre assisted the factory in re-organizing its OHS committee to include frontline workers who had received training. This allowed staff representatives from different divisions to directly reflect their opinions to the management team, discuss OHS problems in the factory, and join in looking for practical improvements. The Centre also helped strengthen the functions of the committee by arranging staff representatives to be seated beside division managers, encouraging them to report occupational injuries in their divisions, and giving suggestions for improvement. Division managers would only offer additional comments if the staff representative missed any points. In time, the staff representatives should be able to replace division managers at these meetings, as long as both sides have reached agreements and are prepared for this change. The staff representatives fulfill their responsibilities as committee members by reporting back to division managers after the OHS committee meetings and following-up on whatever resolutions have been made.

Establishment of a departmental OHS committee

For some divisions which have relatively large numbers of staffs, the establishment of a 'divisional OHS committee' can more effectively reflect the opinions of workers and increase the openness of the OHS committee. Such an arrangement allows OHS improvement measures to be more conveniently carried out within the divisions. The structure of the "divisional OHS committee" should be similar to that of the corporate OHS committee. The division manger should be the chairman, the staff representative of OHS committee should be the secretary-general, and representatives from the subdivisions should be committee members. The 'divisional OHS committee' meetings should be timed to take place before meetings of the corporate OHS committee so that divisions can discuss their situations and come to conclusions before reporting and discussing them at the corporate OHS committee meetings.

Following such structural re-organization and strengthening of OHS committee functions in the particular enterprise mentioned above, there was an increase in the diversity of suggestions coming to factory managerial personnel from OHS committee meetings. The participation of frontline workers also allowed managerial personnel to become more active in identifying potential hazards in the workplace and reflecting those risks. This demonstrates that the establishment of an OHS committee which emphasizes the participation of workers is effective in helping both employers and employees raise OHS standards within the factory and increase OHS knowledge among workers. The setting up of a good management system was a key point in allowing for continuous improvement of OHS standards within the factory.

Conclusion

OHS risks are still prevalent in both Hong Kong and Mainland China, and many occupational injuries and diseases are, unfortunately, still occurring. Workers with occupational injuries and diseases not only suffer from physical injuries with temporary or permanent disabilities, but their families are also affected. This results in huge costs to enterprises and to society. The aim of the Centre has always been to find ways to protect the OHS of workers and reduce the occurrence of occupational injuries and diseases.

Based on our past experiences in participatory OHS training, we have further developed the participatory approach and incorporated these insights in our design of the POHSI Service. Through this service and with the active participation of workers, we hope that 1) occupational health hazards present in the working environment can be identified, 2) good examples and areas for improvement can be found, 3) communication and cooperation between employers and employees can be strengthened, and 4) OHS committees and educational workshops with worker participation can be established. All these will help achieve the goal of continuous improvements in OHS within an enterprise.

In the past two years, POHSI Service in Hong Kong and Mainland China has been proven to be effective, and the positive responses from the staff and representatives of enterprises where the program has been run are encouraging. To supplement the limited resources of the Hong Kong Workers' Health Centre, we hope that POHSI Service can be introduced to additional enterprises in partnership with different organizations in Hong Kong and Mainland China, so that the long-term goal of protecting workers' health can be achieved.

If any person or company is interested in learning more about POHSI, they are welcome to contact the staff of the Centre.

POHSI

香港工人健康中心
Hong Kong Workers' Health Centre

Information about Publication：

Advisor : Professor Yu Tak-sun Ignatius
Editors : Karen Lo, Trevor Sun, Anna Li, Kim Ng, Peggy Tsang, Wilson Wong
Publisher : Hong Kong Workers' Health Centre
ISBN : 978-988-99056-7-51

Contact Information：

香港工人健康中心
Hong Kong Workers' Health Centre

Address : Room 1429-1437, 14/F, Beverley Commercial Centre,
87-105 Chatham Road South, Tsimshatsui, Hong Kong
Tel : (852) 2725 - 3996
Fax : (852) 2728 - 6968
Website : www.hkwhc.org.hk
Email : info@hkwhc.org.hk

ISBN 978-988-99056-7-51
9 789889 905675