This study was conducted to assess chemical safety in schools and prevent chemical exposure among students and personnel.

**Goals and Objectives**

The goal of the project is to protect the health and well-being of students and school personnel through:

1. Prevention and control of chemical exposure; and
2. Promotion of chemical safety.

The objectives of the study are to:

- Conduct a systematic assessment to help the school administration identify the available and needed resources needed for chemical safety;
- Establish an action plan for chemical safety in schools;
- Prepare an information, education and communication (IEC) plan; and
- Develop training modules on chemical safety to capacitate teachers and school personnel.

**Project Overview**

**Context**

Several chemical incidents involving mercury and other chemicals have occurred in some schools in the Philippines in the past years. The Department of Health (DOH) has been providing assistance to the Department of Education (DepEd) in handling chemical incidents and conducting health assessment of students and teachers exposed to toxic chemicals. Due to the health impacts caused by these incidents, the DOH collaborated with the DepEd on several activities aimed at preventing chemical exposures among students and school personnel.

The DOH took the initiative to conduct the study to assess the current situation of schools in the Philippines with regards to chemical safety, and partnered with other institutions to achieve the objectives of this project.

**Approach**

The Disease Prevention and Control Bureau – Occupational Diseases Division (DPCB-ODD) spearheaded the project and used a multisectoral approach to conduct the study. The DPCB-ODD coordinated with the Poison Control Center (PCC) of the East Avenue Medical Center (EAMC) and the DepEd Regional Office for concurrence and support.

A total of 21 public schools participated in the study using the survey/assessment tool for chemical safety developed by the DOH.

The DOH conducted two workshops where the participants answered the assessment tool and developed their own action plan on chemical safety. The EAMC PCC also gave lectures on chemical safety and the health effects of different chemicals on humans as part of capacity-building. When the study was completed, the DOH informed the DepEd and other government agencies about the results of the study as well as the issues and concerns of the teachers in implementing chemical safety in schools through the Inter-Agency Committee on Environmental Health (IACEH).
Results

A report was prepared by the DOH to summarize the results of the study. The IACEH and other Inter-agency Technical Working Groups (TWGs) were used to inform other government agencies of the project and its implementation. The IACEH has a sectoral committee specifically for chemical safety and health composed of different government agencies and civil society groups, which has regulatory and statutory functions on chemicals and chemical safety. The following concerns were discussed at the IACEH/TWG meetings:

- Proper disposal of used/expired chemicals and equipment containing hazardous chemicals such as mercury.
- Updating of the laboratory safety manual and possible inclusion of chemical safety and health in the curriculum for primary and secondary schools.

The DOH also partnered with civil society groups for the development of IEC materials on chemical safety in schools and advocacy campaigns for the annual celebration of Poison Prevention Week.

The DOH – through its Poison Control Centers – is currently developing training modules on chemical safety for teachers, basic toxicology and the initial management of patients exposed to toxic chemicals. The training modules should be completed by the end of the year.

Lastly, each school was able to develop their own action plan to promote chemical safety, prevention and control of chemical incidents in schools.

Lessons Learned

The DOH was able to accomplish the objectives of the study through a multisectoral approach. The Department recognized the importance of using an inter-agency approach such as the IACEH as a collaborative platform to effectively discuss chemical safety in schools in the Philippines.

However, funding support for implementation of the chemical safety in schools project is still a problem. Currently, the budget is not adequate to shoulder expenses for the proper disposal of unused/expired toxic chemicals and equipment containing mercury in schools nationwide. Laboratory thermometers containing mercury are still in temporary storage in schools in the Philippines since its use was phased out in 2010.

There is also a need to capacitate the teachers with regards to preparedness and response to accidental chemical events/incidents in schools.

Recommendations

1. Strengthen coordination with other government agencies such as the DepEd and the Environmental Management Bureau (EMB) through quarterly IACEH meetings to proactively promote chemical safety in schools and provide long-term solutions to problems encountered in the implementation of the project through:

   - Development of policies on the disposal of chemical laboratory wastes and equipment containing mercury in schools, as well as inclusion of chemical safety in the curriculum for primary and secondary schools.
   - Capacity-building of teachers, school doctors and nurses on chemical safety, toxicology and initial management of students exposed to chemicals.
   - Development and dissemination of IEC materials on chemical safety in schools.

2. Request for additional funding for the implementation of chemical safety in schools from the national government or international organizations.