

## **Introduction & Overview**

### **Introduction**

Mercury is a persistent, bioaccumulative and toxic material (PBT). Exposure to elemental mercury in hospitals from spills or broken equipment, such as mercury-containing fever thermometers and blood pressure cuffs, is a serious problem for employees, patients and visitors. Waste mercury is also a concern for the global environment, as it can easily escape through the air, water and solid waste streams. Exposure to mercury is preventable through the careful choice of non-mercury medical products and through the methodical control of equipment or devices where mercury cannot be easily eliminated.

Another important aspect is that in many countries and regions, mercury is regulated by occupational and environmental policies including national laws, standards, rules and norms. Even if your location does not have mercury regulations at present, it is likely to in the future as international mercury reduction efforts expand further.

This workbook will guide you through a systematic, hospital-wide approach for education, assessment, and improvement of mercury-containing products and the practices related to mercury in your institution. It is based on a model of continuous improvement so that the workbook is appropriate for healthcare institutions at all different levels of experience in their mercury reduction efforts.

### **Methodology**

The workbook uses a participatory strategy for mercury reduction and alternatives assessment that integrates environmental and human safety and health. What “participatory” means is that it actively engages all groups that are affected by a change.

The strategy recognizes that a rigid focus on one aspect of a problem, such as addressing only the environmental characteristic of a mercury product or practice, will not generate solutions that are sustainable over the long term. Instead, a successful mercury reduction program will consider how all the pieces come together: the hospital’s policies and practices, environmental characteristics of products, and how products are selected, used, maintained and disposed of in the hospital. The procurers and users of mercury devices are key players, to ensure that the necessary functions and pertinent characteristics are satisfied with any replacement products.

The workbook will take you through the following series of logical steps. Tools and resources found in the Appendices will provide additional guidance.

- Developing organizational capacity to conduct mercury reduction
- Conducting a baseline assessment of mercury policies and practices
- Quantifying mercury use in the hospital
- Prioritizing and developing action plans
- Implementing action plans
- Conducting a post-implementation assessment

### **How to Use the Workbook**

The workbook contains a step-by-step plan to help you develop safe practices related to mercury, systematically remove mercury-containing products from your facility, carefully manage mercury devices

that cannot be immediately replaced, and monitor the progress of the effort. The information in the workbook sections can be used to

- Plan, launch and maintain a new mercury reduction program
- Enhance or build upon current activities in an ongoing program

The principles may also be applied to other pollution prevention or safety & health activities in your facility.

For those responsible for a hospital-wide mercury reduction effort, the workbook lays out a comprehensive strategy for the program. For teams working on a specific element of the hospital's program, each workbook section is designed so that it can be used as a stand-alone unit. The tools and factsheets included in the appendices complement the workbook sections and provide guidance.

### **Target Audience**

The audience for this information includes hospital administrators, department managers, clinicians, hospital staff, members of hospital committees and work teams, and individuals who are involved in mercury handling. Different sections of the workbook will be useful to different members of the hospital team, and sample forms and worksheets may be adapted to your specific needs.

### **Organizational Steps**

The following sections describe organizational steps that comprise an effective mercury reduction program:

- I. Develop organizational capacity: guidance to training and implementation
- II. Baseline assessment
- III. Quantifying mercury use
- IV. Prioritizing and developing action plans
- V. Implementing action plans
- VI. Post-implementation assessment