

Responding to chemical events: a multisectoral responsibility

Are we ready to respond to chemical events of international health concern?

The International Health Regulations (IHR) are an international legal instrument that requires countries to report certain disease outbreaks and public health events to WHO. Their aim is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide. They cover not only certain diseases but also biological (zoonotic, food safety and other infectious hazards), chemical, radiological or nuclear hazards. Dangerous releases of chemicals can arise from technological incidents, natural disasters, conflicts and terrorism and may need international cooperation to deal with them.

IHR “core capacities” are those required to detect, assess, notify and report events, and respond to public health risks and emergencies of national and international concern. Two stakeholders meetings in 2012 and 2013 identified gaps and challenges in countries of the Eastern Mediterranean Region (EMR) in implementing IHR core capacities concerning chemical events. These included insufficient coordination and information sharing; lack of supportive legislation, national policies, plans, mapping of chemical hazards and risk assessments; unavailability of procedures for monitoring of chemical-related emergencies; and guidelines and standards. On the other hand, in-depth assessment missions carried out in different Member States suggested that national and regional capabilities in chemical event handling may be better than suggested by the IHR self-assessments in 2012 and 2013 and that there was a need to revisit the assessment in the presence of all chemical safety partners and other stakeholders.

Strengthening links between IHR and related stakeholders

In response to this need, a Regional Consultation was held on Strengthening National Capacities of Preparedness and Response to Chemical Events as required under the International Health Regulations 2005. The meeting aimed to strengthen the links between IHR and related stakeholders and with existing Regional and international networks; confirm existing capacities and identify gaps in implementation; agree on a prioritized list of minimum requirements for capacity building; review and propose areas of work to enhance capacity by the set deadline of June 2014 and beyond; delineate roles, responsibilities and contributions as to what is expected from WHO and Member States; and discuss opportunities for mobilization of resources.

The meeting took place in Amman, Jordan, from 1 to 3 April 2014 and was organized by the WHO Regional Office for the Eastern Mediterranean/Centre for Environmental Health Action (CEHA) in collaboration with the Department of Communicable Disease and Control (DCD). About 60 participants from 18 countries in the Region—representing ministries of health, IHR national focal point, ministries of environment and civil defence and protection—took part in country presentations, panel discussions and working groups.

Readiness to respond to chemical events: key points

A number of important points were highlighted and issues identified during the meeting in consideration of enhancing capacity and readiness to respond to chemical events.

- Responding to chemical events is a multisectoral responsibility that requires input from a wide range of government and nongovernmental bodies. The health sector may not necessarily be the lead agency in all aspects of management of a chemical event; however, being the designated IHR national focal point means that it has the responsibility of ensuring the presence of national capacities for the rapid and efficiently coordinated response to chemical events.
- The existing capacities of some Member States in the Region are not in line with those previously reported through the annual IHR report. This suggests that there is insufficient coordination and sharing of information among the different relevant sectors and with the IHR national focal point.
- Gaps related to coordination, surveillance and clinical response to chemical events are common among several Member States in the Region and can be considered as regional gaps. Other major gaps, such as the absence of poison centres and up-to-date national chemical profiles, have been identified among the low-income countries and those affected by conflict: Afghanistan, Djibouti, Somalia, Sudan and Yemen.
- There is a need to integrate with IHR capacities relevant capacities in chemicals management that are already available to countries through other multilateral environmental agreements; these include the Strategic Approach to International Chemicals Management (SAICM), the Basel, Minamata, Rotterdam and Stockholm Conventions, and the Organization for the Prevention of Chemical Weapons.
- The chemicals/petrochemicals industry will have relevant “know how” regarding the management of chemical hazards. Tapping into their experience and expertise would augment national capacities.

Table 1 Chemical events planning: activities requiring the support of WHO and other partners

Capacity	Needed support from WHO and other partners
Legislation infrastructure and coordination mechanisms	Technical advice and sharing of model legislations, plans of action and strategies. Resource mobilization and networking between IHR and other related conventions and agreements, e.g. SAICM. Advocacy and technical support for conducting multi-stakeholder meetings for implementation of legislations. Support for exposure visits and capacity-building of relevant stakeholders by appropriate international bodies.
Surveillance systems	Training on chemical surveillance systems. Guidance on risk assessment of chemical events with special focus on industries.
Risk assessment and poison centres	Training and technical support for database management. Organization of a regional consultation on strengthening poison/toxicology information centres in the Region. Provision of access to toxicological databases and information. Facilitation of twinning poison centres.
Risk communication	Training on risk communication and sharing best practices. Guidance on development of risk communication plans.
Emergency preparedness and analytical capacity	Training of all people related to response (e.g. first-responders, specialized teams, health-care personnel). Organization of a regional consultation on needed stockpiles, specifications and supplies. Assessment and selection of 1 or 2 regional reference laboratories and establishment of a collaboration mechanism with other laboratories in the Region.

- A very broad spectrum of chemicals can be involved in a chemical event. Therefore, a comprehensive risk-based chemical management framework, including assessment, management and communication, is the only effective approach to be followed.
- There is an urgent need for setting up national event-based and syndromic surveillance systems for chemical-related diseases and injuries.
- Although much information from different international resources is available, it may not be readily accessible or efficiently used to support countries in strengthening their capacity to handle chemical events.

How can countries meet their IHR obligations related to chemical events?

Having identified the important gaps in meeting the IHR obligations related to chemical events, draft plans of action for bridging these gaps in the coming 2–3 years were developed by each country team. The participants also identified areas in which WHO and other partners can provide support to countries to strengthen their national capacity to respond to chemical events. Table 1 provides a summary of the needed support activities.

What actions are needed?

Following the discussions, the consultation proposed needed actions for countries of the Region and for WHO in order to develop their readiness and capacity of the countries to respond to chemical events.

Recommendations to countries

1. Convene meetings for all relevant stakeholders in each participating country to expand, update and validate the outputs compiled during this consultation. Share these with senior decision-makers for appropriate action.
2. Concentrate national efforts on supporting existing facilities and capacities in chemical events response, avoiding duplication and promoting synergies through a transparent process of good governance.
3. Map out and compile a national inventory of potential chemical hazards, including chemicals arising from industrial, agro-pastoral, commercial and domestic use, and through transportation and storage and waste disposal. Update national plans of preparedness and response to chemical events accordingly.
4. Launch a national, multisectoral process for developing a two-year evidence-based plan of action for establishing the minimum needed capacities for responding to chemical events in Member States where the majority of requirements are lacking.
5. Establish both event-based surveillance for the early detection and response to chemical-related hazards and indicator-based surveillance for known chemicals and diseases of chemical etiology.
6. Establish/strengthen a chemical poisons centre(s) or chemicals information centre(s) for providing information required for identification of chemical events and advice on health sector response.

7. Strengthen the capacity of the public health sector for the response to chemical events, including by infrastructure, equipment, material and fully equipped human resources.

Recommendations to WHO

1. Inform ministers of health and senior decision-makers in Member States of the Region about the results of this consultation and the actions recommended. Advocate for a multistakeholder approach, with effective consultation and coordination mechanisms, to implement the IHR capacity requirements related to chemical events.
2. Promote understanding of IHR implementation with respect to chemical events by organizing appropriate information side-events during the meetings of the multilateral environmental agreements (e.g. the International Conference on Chemicals Management, and the Conferences of the Parties of the other related conventions such as Basel, Minamata, Rotterdam and Stockholm Conventions).
3. Provide technical support at the request of countries requiring guidance on: provision of adequate legislation for implementation the IHR with regards to chemicals events; establishment of poisons information centres and related treatment and analytical facilities; training in poisoned patient management, particularly for the clinical and medical staff of hospitals treating poisoned patients; and the development of project proposals.