The deliberate use of biological and chemical agents to cause harm: public health response

Report by the Secretariat

1. During the past two decades, Member States have on several occasions expressed concerns about the possibility that biological and chemical agents might deliberately be used to harm populations. An alert about the risk of such agents being used as weapons usually comes from a nation’s security or defence sectors. The responsibility for responding usually lies with the health sector.

2. In recent months, health ministries of several countries have reported that they have increased their state of alert for the intentional malevolent use of pathogens or chemicals, such as pesticides, by spread through air, water or food. Their responses, based on various scenarios, have included (a) increased preparedness within the national public health system, including identifying the location – and even stockpiling – of critical medicines and other commodities, (b) informing members of the public, particularly those thought to be at greatest risk, and (c) readiness to handle large numbers of “suspect incidents”. Increased preparedness of the public health system usually includes improved surveillance of incidents and illness, enhanced contingency planning and more effective national response capacity.

3. The scenarios used by some health ministries for planning have included the release of combinations of biological and chemical agents, simultaneous release in more than one location, and/or use of unknown chemicals or genetically modified organisms. Such threats would pose extreme difficulties for public health systems.

4. Several Member States have asked WHO for advice. All activities implemented by WHO on prevention, preparedness and response to natural, accidental or deliberate releases of biological, chemical and radiological agents involve the closest possible coordination with relevant national and international organizations. A deliberate release of biological, chemical or radiological agent would likely be considered initially as a natural event, unless the agent had been spread overtly or on a massive scale, and may prove difficult to distinguish from a naturally occurring disease event.

5. WHO focuses on the possible public health consequences of such an incident, regardless of whether it is initially characterized as an act of terrorism or a naturally occurring health emergency.
The Organization’s basic activity in this area is to strengthen disease alert and response systems at all levels, as such a system will detect and respond to diseases that may be deliberately caused.  

6. When a Member State is concerned and wants to be prepared, WHO advises strengthening public health surveillance and response activities, with an emphasis on:

- more effective national surveillance of outbreaks of illness;
- better communication between responsible agencies (public health, water supply, food safety, veterinary, radiological, nuclear safety, poison-control and related services), and better coordination of their responses;
- improved assessments of vulnerability, and effective communication about risks to both professionals and the public;
- preparation for handling the psychosocial consequences of the deliberate use of pathogens and chemicals to cause harm; and
- contingency plans for an enhanced response capacity (with the ability to enlist additional resources for public health, such as civil defence, security, law-enforcement authorities and other bodies, and the preparedness to work together, spelt out through cooperative agreements).

7. WHO’s guidance to countries on strengthening national preparedness and effective responses is set out in the document “Public health response to biological and chemical weapons”. WHO country teams, regional offices, headquarter units and the WHO/CSR Office in Lyon, France, may all be involved in the communication between the Organization and countries at risk. The WHO/CSR Office in Lyon offers support in strengthening national laboratory and epidemiological skills.

8. In resolution WHA54.14 the Health Assembly asked the Director-General to make appropriate arrangements for the development of plans for regional preparedness and responses. WHO has helped to elaborate an efficient and proven system for global alert, verification and response, based on a network of many regional and subregional networks. This global network provides access to technical expertise for alerting, verifying and responding to disease-causing biological and chemical agents.

9. The existing capacity for surveillance of and response to biological disease outbreaks has evolved well during more than 10 years. The focus of activities has been on naturally occurring epidemic diseases (such as Ebola haemorrhagic fever). However, such alert and response mechanisms still need to be strengthened, especially with respect to chemicals and threats involving the food and water supply chains, and especially in developing countries.

10. Technical expertise for responding to intentionally caused illness is maintained by WHO through a roster of experts and can be made available to Member States, should the need arise. The

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1 WHO document “WHO Efforts to Counter Terrorism” sent to Patrizio Civili, United Nations Assistant Secretary-General for Economic Affairs on 21 December 2001, in response to his request to United Nations bodies, 10 December 2001.

2 Almost all agents known to have been weaponized are zoonotic pathogens.

3 See www.who.int/emc/pdfs/BIOWEAPONS_exec_sum2.pdf

4 See document A54/9.
United Nations General Assembly has mandated the Secretary-General to investigate “reports that may be brought to his attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin weapons […] in order to ascertain the facts of the matter …” (resolution 42/37C, 30 November 1987). The Chemical Weapons Convention of 1993 requires the Organisation for the Prohibition of Chemical Weapons to investigate any alleged use of chemical weapons against a State Party, in cooperation with the Secretary-General if a State not party to the Convention is involved. According to the Biological and Toxin Weapons Convention of 1972, any State Party that finds that any other State Party is in breach of its obligations under the Convention may lodge a complaint with or request assistance from the United Nations Security Council.

11. Should the United Nations be called on to respond to a particular incident, WHO would no doubt be asked to make available its existing resources and mechanisms. If such a request were made, information about the public health response, including the results of epidemiological and laboratory investigations, would be reported by WHO to the government of the country or countries where the event was occurring. Health Assembly resolution WHA54.14 on global health security provides a mandate for WHO to facilitate a forum for discussion and joint action in cases where an event might constitute a public health risk for more than one country.

12. WHO also works closely with a wide range of international organizations that may have an interest in this field – such as IAEA, FAO, the Office international des épizooties and the Organisation for the Prohibition of Chemical Weapons. WHO exchanges technical information with experts who work with the Biological and Toxin Weapons Convention. WHO, in partnership with IAEA, responds to reports of radiation incidents that may entail a risk to human health.

**ACTION BY THE EXECUTIVE BOARD**

13. The Executive Board is invited to note the report.