

GLOBAL
HEALTH
SECURITY

EPIDEMIC
ALERT &
RESPONSE

Preparedness for Deliberate Epidemics

**To support Member States in
enhancing their preparedness and
response programmes for the
possible deliberate use of biological
agents that affect health**

**Programme of work for the
biennium 2004–2005**



World Health
Organization

DEPARTMENT OF COMMUNICABLE DISEASE
SURVEILLANCE AND RESPONSE

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We are looking forward to continuing this fruitful collaboration throughout 2004 and 2005 and beyond.

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I. Background information

In most of the world, the public health infrastructure is already stretched to its limits in coping with natural health hazards. Against such a background, the additional threat to health services posed by the possible deliberate use of biological or chemical agents or radionuclear materials could be considered as little more than a slight addition to the existing burden. For deliberate releases or threats of release of such agents or materials, a spectrum of outcomes can be envisaged that ranges between two extremes: relative insignificance at one end, to mass destruction of life or mass casualties at the other. Whatever the magnitude of such releases might be, however, widespread panic and fear would be certain; the public health system would be overwhelmed and economic impact would be considerable.

It is possible that a deliberately caused epidemic might initially be perceived as a natural event, especially if the agent was spread covertly. In particular, the covert release of a biological agent will not have an immediate effect because of the incubation period for the agent use. In addition, because of the medical profession's lack of experience on those diseases generally associated with such biological agents, the detection of the epidemic could be delayed. During the incubation period a deliberately caused epidemic could spread to a few or even many countries. The first casualties would be identified by health personnel at the periphery of the health system. The implementation of effective disease surveillance and early warning systems in all countries would enable public health officials to track and identify as soon as possible any unusual events. In the case of a highly contagious agent, only a small window of opportunity would be available between the time the first case is identified and the spread of the disease in the population. If a deliberately induced disease has spread to a few or many countries before it is identified, the subsequent containment of such an outbreak would require an highly coordinated response at local, national and international levels to be effective. Such outbreaks may in practice prove very difficult to distinguish from natural outbreaks, and – because of their security implications – will also require health agencies to collaborate closely with new and unfamiliar partners such as military, security and law enforcement agencies. To be effective, collaborative arrangements involving all partners will have to be established and tested well before an incident or emergency occurs.

WHO's role

In 1970, WHO made technical guidance available to Member States in the publication *Health aspects of biological and chemical weapons*. This report was instrumental in facilitating international consensus on the Biological and Toxin Weapons Convention¹ (BWC) and the Chemical Weapons Convention.² These conventions, along with the 1925 Geneva Protocol,³ are the international legal mechanisms banning these classes of weapons. The 1970's report has recently been revised and its second edition *Public health response to biological and chemical weapons: WHO guidance* is now available.⁴

¹ <http://disarmament.un.org:8080/wmd/bwc>

² http://www.opcw.org/html/db/cwc/eng/cwc_frameset.html

³ <http://disarmament.un.org:8080/TreatyStatus.nsf/0/fd968846cc28913e852568770079dd93?OpenDocument>

⁴ <http://www.who.int/csr/delibepidemics/biochemguide/en/index.html>

The dissemination of anthrax spores through the United States Postal Service in the autumn of 2001, closely following the events of 11 September, highlighted the pressing need for a suitable level of international public health preparedness for the possible deliberate use of biological agents. Health organizations in developing and industrialized countries were subsequently overwhelmed by requests for information and guidance by their people on various aspects of health preparedness for the deliberate use of such agents. WHO along with other international, non-governmental and private organizations were also overwhelmed by such requests.

Primary responsibility for international preparedness for and response to the deliberate use of chemical agents and radionuclear materials is vested in the Organisation for the Prohibition of Chemical Weapons and the International Atomic Energy Agency, respectively. Although, WHO would clearly collaborate with these organizations and the Member States in the public health sphere. In the absence of an international organization to monitor and implement the BWC, however, the international community is looking to WHO for assistance and advice on the deliberate use of biological agents that affect health in particular. The disarmament and non-proliferation dimensions of the BWC are clearly outside the public health mandate of WHO. This explains why the primary emphasis of WHO's work on deliberately caused diseases is on the public health preparedness and response to the deliberate use of biological agents that affect health.

Through the World Health Assembly resolution WHA55.16 of 18 May 2002,⁵ WHO's Member States requested the Director-General to strengthen activities on global public health preparedness and response to deliberate use of biological and chemical agents or radionuclear material that affect health. The WHO's *Inter-cluster working group on preparedness and response to natural occurrence, accidental release or deliberate use of biological and chemical agents or radionuclear materials that affect health* was established to improve coordination among all relevant activities related to resolution WHA55.16 both at WHO headquarters and regional offices. WHO focuses exclusively on the public health aspects of preparedness and response and is uniquely placed to play a key role in two main areas: (a) providing the global public health community with timely, verified information on public health emergencies of international concern and coordinating international responses, upon request or with the acceptance of Member States; and (b) providing technical advice and support to Member States on preparing their health systems for responding to threats posed by the possible use of biological or chemical agents, or radionuclear materials. The WHO Programme for Preparedness for Deliberate Epidemics (PDE) focuses on the latter of these two areas, with specific regard to the possible deliberate use of biological agents that affect health. The following sections report on the PDE programme of work planned for the biennium 2004–2005.

⁵ World Health Assembly resolution WHA55.16 of 18 May 2002. *Global public health response to natural occurrence, accidental release or deliberate use of biological and chemical agents or radionuclear material that affect health*. http://www.who.int/gb/EB_WHA/PDF/WHA55/ewha5516.pdf

II. PDE'S strategy

To fulfil the WHO vision of the attainment of the highest possible level of public health by all nations, each WHO Member State must, inter alia, have the capacity to respond appropriately and effectively to threats posed by naturally occurring and accidentally or deliberately caused epidemics, with a view to minimizing their negative impact on the health, security and economic stability of individual Member States and the international community as a whole.

Public health emergencies arising from deliberate epidemics — whether they have actually occurred or may have yet to occur — fundamentally transform the context in which public health services must be delivered in order to ensure human safety and security. The function of PDE is to facilitate preparations for such contingencies that are attuned to the different risk and threat assessments and levels of preparedness of individual WHO Member States.

PDE's programme of work contributes to WHO's response to the requests made by Member States in resolution WHA55.16 by: (a) strengthening global health preparedness and response; (b) providing tools and support to Member States for health emergency preparedness and response; (c) developing guidelines, information and/or training materials on specific risks to public health; and (d) examining the possible development of new tools, and mechanisms, research and technologies with the potential to enhance public health preparedness and response.

(a) Strengthening global health preparedness and response

The PDE objective in this area is to contribute to the strengthening of global preparedness and response by increasing coordination and collaboration at the international level with various networks relevant to the public health aspects of possible deliberate use of biological agents, with a view to avoiding duplication and exploring possibilities for new collaboration.

The following activities are planned for 2004–2005:

- (i) monitoring the work of the BWC as agreed at the Fifth BWC Review Conference, by exchanging information with delegates at Expert Meetings and Meetings of BWC States Parties;
- (ii) coordinating with other initiatives of relevance to national and international public health preparedness such the Global Health Security Network;
- (iii) contributing to the development of a WHO internal emergency plan, with specific regard to responses to the deliberate use of biological agents;
- (iv) in close cooperation with WHO Member States, drafting and disseminating a policy and strategy paper on the implementation of resolution WHA55.16.

(b) Providing tools and support to Member States

The PDE objective in this area is to respond to the greatly increased number of requests from Member States for technical assistance to strengthen their national preparedness and response programmes for the deliberate use of biological and chemical agents or radionuclear material, with particular regard to biological agents.

At the heart of these activities is the finalization of the *Draft guidelines to assess national health preparedness and response programmes for the deliberate use of biological and chemical agents*, along with the development of networks of laboratories and experts.

The following activities are planned for 2004–2005:

- (i) expanding the global network of diagnostic laboratories with defined anthrax capabilities;
- (ii) establishing a global network of diagnostic laboratories with defined tularaemia capabilities;
- (iii) expanding and maintaining a global database of experts on biological agents and incident management, covering possible geographical and technical gaps;
- (iv) contributing to the development and implementation of laboratory training on biological agents associated with deliberate use;
- (v) developing tools for strengthening national health preparedness and response programmes for the deliberate use of biological agents;
- (vi) carrying out three country assessments of national health preparedness and response programmes for the deliberate use of biological agents, upon request or with the acceptance of Member States;
- (vii) providing Member States with guidance on mechanisms for international assistance in case of emergencies or incidents caused by the possible deliberate use of biological agents.

(c) Developing guidelines, information and/or training materials

The PDE objective in this area is to focus primarily on the provision of internationally agreed guidelines, standards, and information and/or training materials on diseases associated with the possible deliberate use of biological agents and on other related subjects relevant to health preparedness and response programmes. With specific regard to biological agents, WHO has already been in the forefront of international efforts in relation to smallpox, plague, anthrax and brucellosis, and work on tularaemia has recently been started.⁶ Other priority diseases — identified by a WHO risk assessment — also include glanders, melioidosis, Q fever, typhus fever, coccidioidomycosis, and Venezuelan equine encephalomyelitis.⁷

The following activities are planned for 2004–2005:

- (i) reviewing and disseminating WHO technical guidance and information materials on anthrax;
- (ii) reviewing and disseminating WHO technical guidance and information materials on brucellosis;
- (iii) drafting and disseminating WHO technical guidance and information materials on tularaemia;
- (iv) translating into French, Russian and Spanish and disseminating the second edition of the WHO publication *Public health preparedness for biological and chemical weapons: WHO guidance*;

⁶ Activities on plague and smallpox are being carried out by other groups in WHO.

⁷ *Public health response to biological and chemical weapons: WHO guidance*, 2nd edition.
<http://www.who.int/csr/delibepidemics/biochemguide/en/index.html>

- (v) drafting, reviewing and disseminating *Supplements* of the second edition of the WHO publication *Public health preparedness for biological and chemical weapons: WHO guidance* on: (a) risk communication, (b) psychosocial consequences, (c) anti-animal and anti-plant biological agents, in collaboration with the Food and Agriculture Organization of the United Nations, Rome, Italy, and the Office International des Epizooties, Paris, France.

(d) Examining possible development of new tools

The PDE objective in this area is to explore the development of new tools, research and technologies, with regard to their application to health preparedness, and to provide scientific guidance to WHO's work on resolution WHA55.16. These activities are complementary to those discussed in section II (a) Strengthening global health preparedness and response.

The following activities are planned for 2004–2005:

- (i) continuing the provision of scientific guidance to WHO Member States on the implementation of resolution WHA55.16 by establishing and holding annual meetings of a Scientific Advisory Group;
- (ii) providing guidance on the possible implications of research developments on Member States' public health preparedness and response capabilities for the deliberate use of biological agents.

(e) Management, coordination and advocacy

The PDE objective in this area is to ensure the best possible management and implementation of the programme and dissemination of information on PDE's activities, as well as to increase synergies and collaboration among the WHO technical programmes working on issues related to biological, chemical and radionuclear threats, and health action in crises, both at headquarters and regional offices. The planned activities are being carried out by PDE, within the Department of Communicable Disease Surveillance and Response (CSR), under the supervision of a Project Leader.

The following activities are planned for 2004–2005:

- (i) advocating and disseminating information on PDE activities, including the PDE web page;
- (iii) coordinating the *Inter-cluster working group on preparedness and response to natural occurrence, accidental release or deliberate use of biological and chemical agents or radionuclear materials that affect health*;
- (ii) continuously reviewing and enhancing the quality and effectiveness of the work of PDE, in close consultation with WHO's Member States.

III. Planned costs for the biennium 2004–2005

Information on the planned costs for activities and human resources for this period can be made available on request⁸.

⁸ contact address: deliberate@who.int