Meeting of the States Parties to the BWTC
Geneva, 6-10 December 2004

Preparedness for Deliberate Epidemics
WHO Approach

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Early WHO efforts on CBW

early 1950s: UN approached WHO to investigate allegations of BW use during Korean War. The investigation was not carried out.

1959: WHO contributed to the First Pugwash International Conference of Scientists to assess chemical and biological weapons.

1968: UN requested WHO contribution for the UN report Chemical and Bacteriological (Biological) Weapons and the Effects of their Possible use.

1970: WHO publishes Health aspects of chemical and biological weapons

– Biological and Chemical Weapons Convention of 1972 and 1993
Deliberate use of BC agents: a threat to public health

• “Low probability, high consequence event” (mortality, morbidity, panic and fear).

• New technology – biotechnology and genetic engineering – contributes to combat CBW; however, it could also be potentially used for non-peaceful purposes.

• The BWC and CWC include provision for assistance in the event of attack or threat of attack.
  – OPCW
  – As yet there is no similar organization for BW. WHO, among other actors, can provide technical assistance Member States on public health aspects.
WHO’s Mandate
Basic Documents

• Preamble of the *WHO Constitution* of 1948
  – “THE STATES Parties to this Constitution declare, in conformity with the Charter of the United Nations, that the following principles are basic to the happiness, harmonious relations and security of all peoples.”
  – article 2(d) WHO shall “… *furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments*;…”

• *International Health Regulations*
  – Draft revised IHR:
    • “*public health emergencies of international concern*”
URGES Member States

- to treat any deliberate use as a global public health threat, and to respond to such a threat in other countries by sharing expertise, supplies and resources...;

REQUESTS the Director-General

- to strengthen global surveillance;
- to provide tools and support for Member States, particularly developing countries, in strengthening their national health systems;
- to continue to issue international guidance and technical information ...;
- to examine the possible development of new tools”
Why deliberately caused epidemics are different?

Fundamentally *transform the context* in which public health services must be delivered in order to ensure human safety and security.

– Need for national and international roles, responsibilities, and mechanisms to be clearly defined *before such incidents occur* as a prerequisite for responding with the requisite speed and effectiveness.
Deliberate Use of Biological Agents represents a challenge to both Public Health and Security

Different roles and responsibilities, different mandates

WHO differs fundamentally from the IAEA and the OPCW as it is not in any way empowered to monitor or to verify compliance with international disarmament or non-proliferation agreements
Managing risks to public health posed by the deliberate use of biological agents

Prevention

Preparedness

Event

Recovery

Response
Managing risks to public health posed by the deliberate use of biological agents

Prevention ➔ Preparedness ➔ Response ➔ Recovery
Alert and response operations

WHO's Epidemic Intelligence

WHO's Epidemiological Verification

Public Health Response

Follow-up
SARS: what we have learned

• In the world today an infectious disease in one country is a threat to all: infectious diseases do not respect international borders
• Information and travel guidance can contain the international spread of an infectious disease
• Experts in laboratory, epidemiology and patient care can work together for the public health good despite heavy pressure to publish academically
• Emerging infectious disease outbreaks often have an unnecessary negative economic impact on tourism, travel and trade
• Infectious disease outbreaks reveal weaknesses in public health infrastructure
• Emerging infections can be contained with high level government commitment and international collaboration if necessary
• Because it is a naturally-occurring disease, did not test the coordination and interaction between health authorities (such as WHO) and international security mechanisms
Managing risks to public health posed by deliberate use of biological agents

Preparedness

- Prevention
- Recovery
- Response
BACTERIA
* **Anthrax** *(Bacillus anthracis)*
* **Brucellosis** *(Brucella abortus, B. suis and B. melitensis)*
  Glanders *(Burkholderia mallei)*
  Melioidosis *(Burkholderia pseudomallei)*
* **Tularaemia** *(Francisella tularensis)*
* **Plague** *(Yersinia pestis)*
  Q Fever *(Coxiella burnetii)*
  Typhus Fever *(Rickettsia prowazeki)*

FUNGI
  Coccidioidomycosis *(Coccidiodes immitis)*

VIRUSES
  Venezuelan equine encephalomyelitis
  * **Smallpox** *(Variola virus)*
Objectives of activities on Anthrax

To establish a global network of anthrax experts and laboratories with defined anthrax capabilities

To establish standard procedures relating to anthrax and disseminate information

To set up and implement training and quality assurance
• Policy guidance to Ministries of Health of Member States.

• More than 100 experts from all WHO regions which act as in their personal capacities.

• International Organizations, academia and NGOs (FAO, ICRC, OIE, OPCW, WFP, UN, Harvard-Sussex Program, Pugwash).
Guidelines for Assessing National Health Preparedness Programmes for the Deliberate Use of Biological and Chemical Agents

Elements of guidelines development

- Country’s assessment process
  - how to organise and carry out an assessment and follow up – *final tool will help country’s self assessment*

- Risk assessment
  - Definition of terms, methodology, process, role of the different partners.
  - Prioritisation by comparison of risk assessment for preparedness planning for the deliberate use of BC agents with those for naturally and accidentally occurring diseases, chemical accidents and major natural and technological disasters.

- Emergency management
  - Review of the elements of a preparedness programme. This will include the assessment of the following domains:
    - National Policy
    - Risk, Hazard and Vulnerability
    - Preparedness Planning
    - Capacity Building and Training
    - Monitoring and Evaluation
Guidelines for Assessing National Health Preparedness Programmes for the Deliberate Use of Biological and Chemical Agents
Guidelines for Assessing National Health Preparedness Programmes for the Deliberate Use of Biological and Chemical Agents

Current field testing process

PHASE I
-6 Months -3 Months -2 Months 0 +1 Month +6-18 Months
Agreement Pre-visit Consolidate Documentation Preliminary Assessment Agree Action Plan Self Assessment and Development
3 Days 3 weeks 3 Days
Introductory Workshop Field Visits Report Writing Debriefing Workshop Agree on Follow-up Process
2-3 Days 14 Days 2 days 1 Day 1 Day

World Health Organization
Assessment Domains

POLICY → RISK, and VULNERABILITY → PREPAREDNESS and PLANNING → TRAINING and DEVELOPMENT

MONITORING and EVALUATION
Guidelines for Assessing National Health Preparedness Programmes for the Deliberate Use of Biological and Chemical Agents

Field testing programme

Thailand, September 2003, with the Organisation for the Prohibition of Chemical Weapons (OPCW), the Asian Disaster Preparedness Centre (ADPC). In addition of MoH, 18 agencies participated.

Jordan, March/April 2004, with the technical contribution of various Jordanian ministries (health, defence, interior, industry, etc.), Jordanian Red Crescent Society, AusAID, Health Canada, OPCW, UNICEF, as well as different technical programmes from WHO HQ and EMRO. More than 55 institutions/agencies participated.

Canada, November-December 2004 (with contribution of OPCW, IAEA).

The Philippines, February 2005 (confirmed)

Moldova, 2005 (agreed, date to be confirmed)

One African country, 2005 (under discussion)
Managing risks to public health posed by the deliberate use of biological agents

Prevention

Response

Recovery

Preparedness
WHO Biosafety Programme

- Coordination of global Biosafety networks
  - WHO Biosafety Advisory Group (BAG)
- UN model regulations
  - Transport of infectious substance
- Biosafety inspections: Smallpox repositories laboratories
WHO’s network on deliberate use CB agents

The need for a global partnership

• More than 100 CBW experts from all WHO regions which have contributed to the 2nd edition of the *Public health response to biological and chemical weapons: WHO guidance*

• Informal network of CBW disarmament experts and diplomats

• “CBW” Working Group (in-house HQ and Regional Offices);

• “CBW” Scientific Advisory Group: Being established;

• Biosafety Advisory Group (BAG);

• Disease specific laboratory and expert networks (anthrax, smallpox);

• Global Network of Poisons Centres;

• Global Network of chemical incident and emergency experts;

• Inter-Organization Programme for the Sound Management of Chemicals (IOMC);

• Others, e.g. FAO, OIE, UN, OPCW, IAEA, ICGEB, UNICRI, etc.

• Others…….
An email address: deliberate@who.int has been created to answer questions relating to WHO's activities on chemical and biological weapons.