



# The Commission Health Emergency Operations Facility: for a coordinated management of public health emergency at EU level



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[http://ec.europa.eu/dgs/health\\_consumer/index\\_en.htm](http://ec.europa.eu/dgs/health_consumer/index_en.htm)

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# INTRODUCTION

Each member state is responsible for the safety of its citizens and the management of emergency situations (in case of human and natural caused disasters which may impact public health safety). But communicable diseases and CBRN events do not respect national borders. It is therefore important to ensure a coordinated approach between EU countries for the public health management in emergency situations.

For these reasons the EU Ministers of Health adopted the Health Security Programme, after a number of terrorist attacks in 2001. One of the priorities of this programme is the setting up of a **"mechanism for information exchange, consultation and coordination for the handling of health-related issues linked to attacks in which biological and chemical agents might be used or have been used.**

In this context two tools were put in place at the very beginning of this activity: a **rapid alert system** called RAS-BICHAT dedicated to deliberate release of chemical, biological and radio-nuclear substances, and a **Crisis room and Communication Centre facility** for the management of alerts and emergencies notified by Member States.

Following the constitution of the "Health Threats unit" in 2003, all operations in respect of the **Network for the epidemiological surveillance and control of communicable diseases**, established by [Decision 2119/98/EC](#) of the European Parliament and the Council, were also conducted in this facility which was an appropriate tool to deal with communicable diseases emergencies.

Since its establishment, the Health Emergency Operations Facility is continuously developed to support EU countries to react to situations where cross border coordination and information sharing is justified.

# LEGAL BASIS



The Commission's mission is currently laid down in the following EU texts:

- **EC-Treaty establishing the European Community (Article 152)**

- **Decision 2119/98/EC of the European Parliament and the**

**Council** setting up a network for the epidemiological surveillance and control of communicable diseases in the Community. This decision addresses the need for co-ordinated action and sharing of information between the Member States and Commission, and it is establishing a mechanism of early warning and response.

- **Public health programme** defining objectives and strands of activities, contributing to the EU capacity to prevent and manage public health crisis.

- **Conclusions of the Health Council of 22 February 2007** on the transitional prolongation and extension of the mandate of the Health Security Committee. This committee deals with preparedness activities at EU level:

- Preparedness and response to health-related threats resulting from attacks in which biological and chemical agents might be used or have been used;
- Generic preparedness for health emergencies;
- Influenza preparedness and response.

# PUBLIC HEALTH EMERGENCY MANAGEMENT STRUCTURE

Public health incident may occur at any time, and early warning and rapid alert systems are in place to exchange information on incidents within the EU and neighbouring or third countries. Three levels of public health emergency are defined:

## 3 ALERT PHASES



- Small sized events- a green phase: Health Threats Unit on-duty officer manages the response as a part of the regular monitoring mechanism.



- Medium or major sized events- a yellow alert phase: Health Threats Unit manages the response, using enhanced operating procedures.

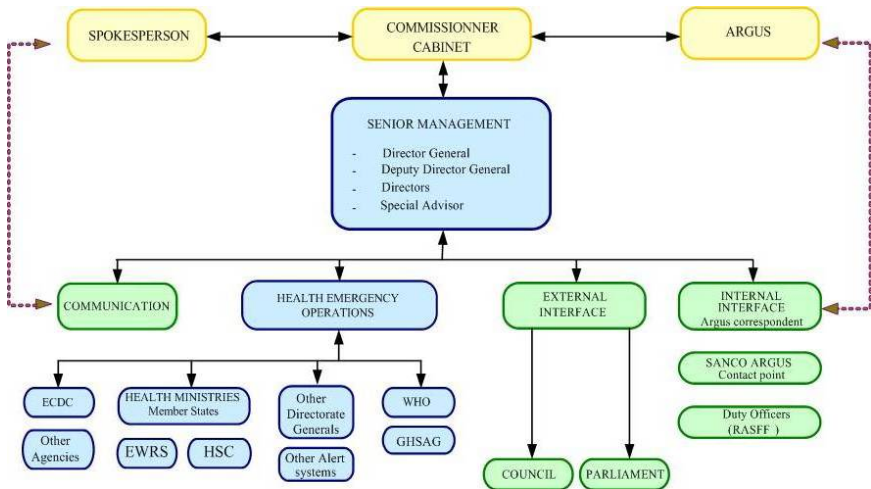


- Acute crisis- a red alert phase, which can not be managed using normal operating procedures, and where Senior Management decides to activate Health Emergency Operations Facility (HEOF) and SANCO's Public Health Emergency Management Structure.

## SANCO PUBLIC HEALTH EMERGENCY MANAGEMENT STRUCTURE

The Health Emergency Operations Facility (HEOF) is a part of SANCO public health emergency management structure, which consists of a Senior Management Team supported by 4 Operational Teams dealing with different aspects of the crisis management. This structure replaces the normal Management Structure for matters relating to the particular health emergency, as long as red level is maintained.

The **Senior management** team is responsible for triggering Public Health Emergency Operations and for the overall management and direction of SANCO's response, and leads the Emergency Management Team. It is liaising with the Commissioner and his Cabinet, coordinating the response and establishing policy lines.



The **Communication** team is in charge of producing press and media messages and interaction with the spokesperson and with the communication officers from other public health authorities (EU Member States, institutions and agencies and relevant international organisations).

The **External interface** team is responsible for liaising with the Presidency, the Council and the Parliament and, if necessary, the Committee of Regions and Economic and Social Committee.

The **Internal interface** team is in charge of coordinating activities with different Commission Directorates General and services through ARGUS, which is the Commission's internal mechanism aiming at ensuring a coordinated and effective management of major multi-

sector crisis, such as terrorist attacks or tsunami like events, that require a reaction at the European Community level.

The **Health Emergency Operations** team, in liaison with the Member States' Ministries of Health, ECDC and International organizations, contributes to the coordination of health emergency management efforts. HEOF validates a level of threat, informs the Member States and the hierarchy on the situation and prepares policy briefings, and facilitates the decision making process concerning necessary measures.

## HEOF ACTIVITIES

HEOF is intended to ensure the **coordination** between the Commission, Member States, other associated countries (candidate countries, EEA countries), Agencies, such as European Centre for Disease Prevention and Control (ECDC), European Food Safety Agency (EFSA) and European Agency for the Evaluation of Medicinal Products (EMA), and international organisations (such as WHO) during an emergency situation. Two committees, in which Member States are represented (the **Early Warning and Response System** (EWRS) committee for the prevention and control of communicable diseases and the **Health Security Committee** (HSC) dealing with chemical, biological and radio-nuclear threats, and generic preparedness and response issues), are part of the overall coordination structure. The International Health Regulations (IHR) Focal Points group is also associated with this process.

HEOF's role is also to provide the Commission and Member States with an **overview of the situation**.



# COMMUNICATION AND INFORMATION TOOLS

Regarding its central role in the coordination of the response to health threats, the Commission has set up various tools in order to support EU countries in their effort to tackle with threats from various origins such as communicable diseases, chemical, biological and radio-nuclear threats.

These tools are aiming at facilitating communication and providing the right information at the right moment to all stakeholders.

## Surveillance and detection of signal: MedISys

**MedISys (Medical Intelligence System)** is an internet monitoring and analysis system developed by the Commission Joint Research Centre (**JRC**) for the Health and Consumer Protection Directorate General (**DGSANCO**) to identify potential threats to the public health using information from the Internet. These 'threats' include both **communicable disease and chemical, biological and radio-nuclear threats** which could have a widespread impact on the health of the European Community.

MedISys collects articles from various sources on Internet. Articles are **classified in pre-defined categories**. Statistics are stored on the filtered categories and an algorithm is used to **detect 'breaking news'** in a given category. Based on the level of new articles and the detected keywords, an **alert** may be sent to key persons by email or SMS.

**Target audience:** MedISys is available in two versions: a restricted version available for public health authorities and a public version.

**URL public version:** <http://medusa.jrc.it>

Home Diseases Bioterrorism Nuclear Chemical Other Search

en - English  
Monday, December 11, 2006  
4:56:45 PM CET

**EMM MedSys**  
Medical Information System Updated every 10 minutes, 24 hours per day.

Diseases  
 AIDS-HIV  
 Sexual Transmitted  
 Enteric Infections  
 Respiratory Infections  
 Vaccine Preventable  
 Other Diseases  
 Other Topics  
 Symptoms

**Most Active Topics - diseases**

- DengueFever
  - CM: High fever put me in hospital**  
*theStar Monday, December 11, 2006 1:09:00 AM CET*  
 Meeting reporters a day after he was discharged from the Putra Specialist Hospital, Chief Minister Datuk Seri Mohd Ali Rustam told them: "I missed all of you..."
  - FEATURE-After taming malaria, Singapore fights dengue**  
*alefnet Monday, December 11, 2006 12:26:00 AM CET*  
 Source: Reuters (17 minutes ago)...
  - Mumps
    - Public health professionals' perceptions toward provision of health protection in England: a survey of expectations of Primary Care Trusts and Health**  
*biomedcentral Thursday, December 7, 2006 3:22:00 PM CET*  
 Background: Effective health protection requires systematised responses with clear accountabilities. In England, Primary Care Trusts and the Health Protection Agency both have statutory responsibilities for health protection. A Memorandum of Understanding identifies responsibilities of both parties...
    - New vaccinations may be needed in Miss. (AP)**  
*yahoohealth Friday, December 1, 2006 11:22:00 PM CET*  
 AP - Mississippi health officials say 750 children and adults in the Newton area may need new vaccinations because the drugs used initially may have been stored at too cold a temperature and their effectiveness weakened....
    - Shigellosis
      - Flooding emergency in the Horn of Africa: Major health risks**  
*reliefWeb Friday, December 8, 2006 6:05:00 PM CET*  
 8 DECEMBER 2006/NAIROBI/GENEVA - The World Health Organization (WHO) continues to be deeply concerned by the health situation of people living in the flood affected areas in the Horn of Africa. Since October, unusually heavy rains have caused major flooding in Ethiopia, Kenya and Somalia....
      - I'M A MUM TO 100 APES EXCLUSIVE The Brit devoting her life to saving endangered gorillas**

Graph - Daily Stats ?

**Today's Alert Statistics**  
24th Aug 2006

Disease	Normalised Alert Statistics	Expected no of daily articles
DengueFever	3.2	10
Mumps	3.2	10
Shigellosis	3.2	10
Campylobacter	2.0	10
Cryptosporidiosis	2.0	10
Giardiasis	2.0	10
Leptospirosis	2.0	10
Typhoid	2.0	10
Rabies	2.0	10
SARS	2.0	10
Vomiting	2.0	10
Genoecoccal	2.0	10

Legend: Normalised Alert Statistics (Green bars), Expected no of daily articles (Red line)

## Early warning and rapid alert systems: EWRS, RAS-BICHAT and RAS-CHEM



In order to ensure a rapid and effective response by the EU to a wide range of emergencies, the Commission has put in place several early warning and rapid alert systems.

These systems allow public health authorities in Member States and the Commission to **receive and trigger an alert** as well as **exchanging other relevant information** regarding events likely to affect public health at EU-level and **coordination of measures**.

## EWRS

**EWRS** is the EU Early Warning and Response System set up to address threats related to **communicable diseases**.

Under Decision 2119/98/EC of the European Parliament and of the Council and Decision 2000/57/EC, the **Member States should inform one another and the Commission about events likely to affect public health at the EU-level**. These decisions also regulate the procedure for reporting and for the functioning of the system. Therefore, the EWRS is frequently used for notification of outbreaks, exchange of information and discussion about the coordination of measures among players.

This system will shortly be hosted by the European Centre for Disease Control (ECDC). It is closely associated with the information of WHO and other contracting parties required under the International Health Regulations (IHR).

**Target audience:** members of the EWRS committee (public health authorities)

**Early warning and response system**  
**List of messages**
You are logged in as: [Ec verlaeren](#)

10 Messages / page (113 total messages)

**Order by:**  Last comment date -  Event creation date  last follow up date

Message ID Date	Comment chain	Message type	Show all locations Num comments
200706040010001 Created: 04/06/2007 at 15:01	Cholera HELP!	Vibrio cholerae Early Warning - Level 1	Luxembourg
20070523EC0001 Created: 23/05/2007 at 09:52	Acute diarrhea	Bacillus anthracis Early Warning - Level 1	
20070521EC0001 Created: 21/05/2007 at 15:19	Fever of unknown origin 	Unknown Other information	United Kingdom 1 comments (Last: May-21-2007)
20070223EC0001 Created: 23/02/2007 at 11:15	Fever	Entamoeba histolytica Early Warning - Level 1	Barbados
20070216EC0002 Created: 16/02/2007 at 14:16	Acute diarrhea	Adenovirus Early Warning - Level 3	
20070216EC0001 Created: 16/02/2007 at 13:05	Yellow fever	Congo-Crimean haemorrhagic virus Other information	Albania
20070215EC0001 Created: 15/02/2007 at 11:51	Acute diarrhea	Francisella tularensis Early Warning - Level 1	Bahrain
20070212EC0004 Created: 12/02/2007 at 22:41	Dengue fever	Cytomegalovirus Other information	Japan
20070212EC0003 Created: 12/02/2007 at 22:39	Brucellosis	Cryptosporidium parvum Early Warning - Level 1	Liechtenstein
20070212EC0002 Created: 12/02/2007 at 22:38	Acute diarrhea	E. coli shiga-like toxin producer (VTEC) ... Early Warning - Level 1	Canada

**Legend:**

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# RAS-BICHAT

**RAS-BICHAT** is the EU rapid alert system used for exchanging information on health threats due to **deliberate release of chemical, biological and radio-nuclear agents**.

It is a web-based tool that fulfils the same purpose as EWRS (notification of threats, exchange of information and coordination of measures among partners.) The procedures of exchange have been agreed between the members of the Health Security Committee.

Unlike EWRS system, **Commission plays a role of moderator**. The Commission on-duty officer should acknowledge the message posted by contact points in Member States, authenticate the sender and verify the content of the message, call the sender to get more details and then notify all the stakeholders.

**Target audience:** members of the Health Security Committee

The screenshot displays the RAS-BICHAT web interface. On the left is a navigation menu with sections: Home, Open links, Public Health Web Sites, **Secure Section**, Alerts & Messages, Alert List, Info Bichat List, References, Activated EWRS, Access EWRS, Access MedSiv, SANCO/CRICA info, Meetings, Urgent Message to EC, Tools, Contact List Management, Users Detailed List, List Users, Who's Online, and Ras-Bichat Training. The main content area is a form for sending a message. It includes fields for: Content of messages (with a dropdown and 'Add item' button), Send info via email (checkbox), Notifying Member State (dropdown), Geographical Location of the Events (text field), Date & Time (Day, Month, Year, Hour, Minute dropdowns), Origin of notification (dropdown), and a checkbox for 'if another source than a Member State or a RAS'. There are also fields for BICHAT Internal Identification Number and Nature of Alert (with checkboxes for Biological, Chemical, Radiological, and Unknown at this stage). Transmission rules, Credibility, Certainty, and Severity are also selected via dropdowns. Several text areas for 'Additional Information' and 'Background Information about the incident' are provided, each with a 4000 character limit. At the bottom, there are dropdowns for Information, Need of assistance, Need for resources, and Courtemasures, each with a 4000 character limit.

## RAS-CHEM

**RAS-CHEM** is a rapid alert system currently under development. It is meant to link the various **poison centres** of the European Union and the Ministries of Health for the exchange of information on **incidents including chemical agents** relevant to terrorism and other events leading to release of chemicals, and consultation and coordination of counter-measures.

As RAS BICHAT only deals with chemical threats in relation with terrorist activities, the Health Security Committee has identified the need of having a warning system which would cover the public health aspects in this area. It should be operated as a forum of exchange of information and advices, used for the identification and the rapid dissemination of information on incidents, outbreaks and illnesses caused by exposure to chemicals, including chemical events relevant to terrorism and other events leading to release of chemicals.

**Target audience:** EU poison centres and Ministries of Health

### Situation awareness: HEDIS and the crisis intranet

## HEDIS

HEDIS is a restricted Web-based tool supporting the Member States and the Commission during disease outbreaks and health emergencies, providing an **overview of the situation** on an identified health threat.

For each new crisis a dedicated sub-portal is generated where stakeholders can find all information related to the threat:

- Relevant **news, reports** and **scientific advice** from various sources (Commission, ECDC, WHO, Europe Media Monitor,...)
- **Maps** locating events
- A logbook presenting a timeline of **actions** taken concerning the specific threat.

The HEDIS platform also regroups a set of tools especially designed to **communicate and share information**:

- A **forum** for communication between stakeholders
- A **secure document repository** for sensitive document storage
- **Questionnaires** used for asking information to stakeholders on particular subjects and gathering answers
- **Alert systems** (E-mail, SMS, Fax)
- **Calendar** application for event scheduling
- A **notice board** to attract users' attention on latest and most important events or documents

Some tools have also been developed to allow HEDIS users to **evaluate real or hypothetical situations**:

- **Mathematical models** have become important tools in analyzing the spread and control of infectious diseases and to assist decision makers in taking proper preparedness and prevention measures.
- **Interactive Disaster Analysis System** providing analysis of the surroundings of a given event (population, activities, hospitals,...)
- **Hospitals database** containing location and other information about European hospitals.

Outside crisis periods, HEDIS also provides access to news and documents related to various threats such as chemical agents, Avian influenza, Meningitis,...

**Target audience:** members of EWRS and HSC committees

Public Health Avian Influenza Portal

EUROPA - European Commission - DG Health and Consumer Protection - Public Health Thursday, October 04, 2007 | Visitor Access | Logout

**HEDIS**  
Health Emergency & Disease Information System

Menu  
 Avian flu home page  
 Situation by country  
 Human Cases  
 On-going Activity  
 News and reports  
 Documents  
 Communication  
 Modelling tools  
 Main Portal

Human Cases  
**Indonesian woman**  
 Tuesday, August 14, 2007 12:00 AM  
**Indonesian girl**  
 Tuesday, August 14, 2007 12:00 AM  
**Indonesian woman**  
 Friday, August 10, 2007 12:00 AM  
**Indonesian girl**  
 Saturday, June 23, 2007 12:00 AM  
**Indonesian girl**  
 Monday, June 11, 2007 12:00 AM  
 Get 5 next items...

**Indonesia Situation**

Legend:

- Fatal
- Infected
- Wild\_Bird
- Domestic\_Bird
- Domestic\_Mammal

Place the mouse on a symbol or click it to get information  
 Click the above image and press (X) to zoom, (A) to un-zoom

- Last week
- Last month
- 2007 Events
- 2006 Events
- Previous events

**News**

**Indonesia ready to use its own anti-bird flu vaccines (People's Daily) **NEW****  
 Tuesday, October 04, 2007 2:00 AM  
 Indonesia, the hardest-hit by bird flu, has been ready to use its own anti-bird flu vaccine on human, after the country completed its clinical test, Health Minister Siti Fadilah Supari said in Jakarta Wednesday. Minister Fadilah ensure ...

**Indonesia records 81th bird flu death (Disaster News Network) **NEW****  
 Tuesday, October 04, 2007 12:00 AM  
 A 21-year-old Indonesian man has died of avian influenza, raising that country's bird flu death toll to 80, the World Health Organisation (WHO) reported Tuesday.  
 Four over bird flu risk increases as festive period nears (Channel NewsAsia)

Wednesday, October 03, 2007 2:32 PM

## DG SANCO INTERNAL CRISIS INTRANET

The **DG SANCO internal crisis intranet** is the place where the Commission decision makers will find all the needed information for the taking of coherent and adapted decisions. All DG SANCO units involved in health emergency management should provide information resulting from their actions.

**Target audience:** DG SANCO decision makers

Influenza Intranet

Latest News Activities Background Search

Control panel  
 new entry first all entries subscribe to this channel

Home  
 Welcome to Sanco Influenza intranet  
 (2006-03-09)  
 This intranet site is dedicated to influenza. It contains information managed by DG SANCO. You can navigate using the left hand menu or the taps on top right  
 ...more info

» **Epidemiological situation**  
 - Avian flu - Animals  
 - Avian flu - humans

» **Measures taken or in discussion at MS level**  
 - Full summary briefings  
 - Information posted by countries

» **SANCO action**  
 - Unit D1  
 - Unit C1  
 - Unit C6  
 - unit A1

» **External communications**  
 - Agreed line to take  
 - Press reviews

» **WTIO**  
 » **ECDC**  
 » **ARGUS**  
 » **EFSA**  
 » **OIE**

## Vulnerability assessment: MATRIX

**MATRIX** is a web-based tool allowing Member States to **assess their vulnerability** against specific biological and chemical agents. The assessment is based on replies given to a wide range of pre-defined questions related to the threat. It facilitates also their evaluation of level of risk. In addition, MATRIX gives access to:

- A library of guidelines and documents in the field of health threats;
- A table for the classification of events and incidents with health consequences;
- Algorithms applicable for the handling of a crisis;
- Specialised sites, databases and encyclopaedias.

**Target audience:** members of the HSC and EWRS committees

Classification of events

**Description of agent and its properties**

Has a biological/chemical agent that can cause human disease been identified?  Yes  No  Possible

Is the event caused by a disease/agent on a EU-high threat (or CDC A or B) list ?  Yes  No  Possible

Does the disease or agent have a potential for human-human transmission  Yes  No  Possible

Is the event caused by an unidentifiable agent or by an agent with markedly changed characteristics  Yes  No  Possible

**Localisation of agent**

Has the agent been found in a food product or any other goods that has been exported to other countries?  Yes  No  Possible

Are their indication that the agent is aerosolized and has been spread over a large area?  Yes  No  Possible

Is it likely that the disease or agent is present outside a defined area  Yes  No  Possible

**Perception of threat**

How has the relation of the event to an intentional release of biological agent been classified?  No  Credible  Real threat  Confirmed

Have similar events been detected/reported in another country/ies?  No  EU/Neighbour  Other

Are there factors that should alert us to the potential for renewed releases?  Yes  No  Possible

Has or could the event attract a high degree of international media attention?  Yes  No  Possible

**Evaluation of resources and countermeasures**

Are additional external resources needed for an optimal management of the event?  Yes  No  Possible

Are containment procedures likely to be inadequate?  Yes  No  Possible

**Effect on the population**

Have humans been exposed in a way that makes disease possible  Yes  No  Possible

Have human cases been diagnosed?  Yes  No  Possible

Are persons still being exposed to the agent?  Yes  No  Possible

Has the number of cases increased by more than 50% since full countermeasures were initiated?  Yes  No  Possible

Could or has the disease spread internationally?  Yes  No  Possible

Did the event take place in a densely populated area?  Yes  No  Possible



## Communication equipment



The Health Emergency Operations Facility is composed of two teams, one in Luxembourg and the supporting one in Brussels. The teams dispose of a crisis rooms, a communication rooms and one multifunctional meeting room. These rooms are fully equipped with communication tools such as an **audio-**

**conferencing system** allowing connection of up to 100 participants, **video-conferencing tools** (up to 32 contact points), **satellite phones** (as back up) and a Digital Alert Communication System allowing the sending of SMS, the broadcasting of pre-registered messages, and the organisation on spot of audio-conferences. TV screens also allow screening the media during a crisis.

## MORE INFORMATION

Public health Website:

[http://ec.europa.eu/dgs/health\\_consumer/publichealth\\_en.htm](http://ec.europa.eu/dgs/health_consumer/publichealth_en.htm)

EU health portal

<http://health.europa.eu>

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