

COMPARISON OF THE EUROPEAN UNION DISEASE SURVEILLANCE NETWORKS' WEBSITES

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Currently the surveillance of infectious disease in the European Union (EU) is supported by the Basic Surveillance Network (BSN) and other disease specific surveillance networks (DSNs). Each network has its own website. The objective of the current study was to describe the information presented with public access on each website from the perspective of its usefulness for the surveillance of an EU member state. The BSN and the DSNs cited in Decision 2003/542/CE were included. Each website was reviewed and assessed on the inclusion of characteristics from three broad categories: 1) general information, 2) procedures for data collection and 3) data presentation. Ten surveillance network websites were reviewed during the week of 5 December 2005. At least 80% of the 10 networks included a list of participating countries, the contact addresses for the coordinator of the network and the participating country gatekeepers and the network's objectives. Only one network specified the source and coverage of the data of each country on its website, and seven presented the disease case definition. Raw data were shown on eight websites and only two networks included presentation of elaborated data for the whole of the EU. Four networks included no reports on their websites. The periodicity of presentation for both raw data and elaborated data varied greatly between networks.

The publicly available information on the 10 network websites studied was not homogeneous. We recommend that all networks present a basic set of characteristics on their websites, including case definitions, procedures used for data collection and periodic reports covering elaborated data for the entire EU.

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Introduction

In 1998 the European Union (EU) created an epidemiological surveillance network for the control of infectious diseases covering all EU member states [1]. The following year the list of diseases included by this network was published [2]. The EU-wide network is currently supported by the Basic Surveillance Network (BSN), and other disease specific networks (DSNs) for the control of infectious diseases [3].

The recent dramatic increase in the use of the internet has facilitated communication within the EU, and epidemiological surveillance networks are therefore increasingly developing the use of the internet to share information, address issues rapidly and communicate to a larger audience. The BSN and each of the DSNs have developed their own websites which allow member states to access disease specific information easily as well as surveillance data from both inside and outside the EU.

The evaluation of websites for the quality of information they present is a growing field and various guidelines exist for this purpose [4-7]. The Health Summit Working Groups have identified criteria for the assessment of the quality of internet health information, these

include credibility, content, disclosure, links, design, interactivity and caveats [4]. However, these criteria apply more specifically to websites which share information on health problems, treatment and their prevention. The evaluations of websites relating to surveillance networks are less common and criteria for this purpose are currently not standardised.

The objective of the current study was to describe and compare the information presented with public access on the websites of the BSN and DSNs, from the perspective of usefulness for the surveillance activities of an EU member state.

Methods

The BSN and the DSNs specified in the EU decision 2003/542/EU were included in the study. The European Antimicrobial Resistance Surveillance System (EARSS) was excluded, as it does not address a specific disease but rather a health problem.

It was necessary to identify characteristics of the websites that are considered useful from a member state's perspective. The identified characteristics were grouped into three broad categories, including: 1) general information, 2) procedures for data collection and 3) data presentation. Within the category of data presentation, raw data were defined as data that had not yet been subjected to analysis. Elaborated data were defined as data presented as reports with some text for their interpretation (not raw data or figures). The websites for each of the networks were then located and examined for these characteristics. Websites were reviewed during the week of 5 December 2005.

Results

A total of ten networks (BSN and 9 DSNs) and their websites were included in the study [TABLE 1]. Twenty three characteristics were identified: seven characteristics for the category of general information, eight characteristics for the category of procedures of data collection and four for the category of data presentation. The category for data presentation was divided into sections for raw data and elaborated data and four characteristics were disaggregated for each of these sections. The characteristics of the networks' websites are shown in Table 2.

General information

Seven networks indicated that they had the participation of all 25 EU countries. All ten networks also included non-EU countries among their members. On all 10 websites reviewed, the participating countries were listed. The contact addresses for the network coordination were presented on nine websites and the contact address for the gatekeepers of participating country on eight websites. Five websites had restricted access links for network members/participating countries only. The principles of collaboration on which the networks are founded were only accessible on four of the websites. All networks presented their objectives on their websites.

Procedures for data collection

The availability of the procedures used by networks for data collection varied across the websites. All networks indicate the diseases under surveillance and, except for the BSN with 49 and ENIVD with 17, the range was between one and four. One network (EISS) specified the source and coverage of the surveillance data for

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TABLE 1

Surveillance networks included in the assessment, with their respective abbreviations, diseases surveyed and website addresses (December 2005)

Number	Surveillance Network	Abbreviation	Disease	Internet site address
1	Basic Surveillance Network	BSN	49 diseases under surveillance for EU	www.eubsn.org
2	European Influenza Surveillance Scheme	EISS	Influenza	www.eiss.org
3	European Network for Diagnostics of "Imported" Viral Diseases	ENIVD	Imported viral haemorrhagic diseases	www.enivd.de
4	A Surveillance Community Network for Vaccine-preventable Infectious Diseases	EUVAC.NET	Measles, pertussis, rubella, mumps	www.ssi.dk/euvac/
5	European Surveillance Scheme for Travel Associated Legionnaire's Disease	EWGLINET	Travel associated Legionnaire's Disease	http://www.ewgli.org/ewglinet.htm
6	HIV/AIDS Surveillance in Europe	EuroHIV	HIV and AIDS	www.eurohiv.org
7	International surveillance network for the enteric infections Salmonella and VTEC O157	Enter-net	Enterohaemorrhagic <i>E. Coli</i> and Salmonellosis	www.hpa.org.uk/hpa/inter/enter-net_menu.htm
8	European Union Invasive Bacterial Infections Surveillance Network	EU-IBIS	<i>Haemophilus influenzae</i> Group B and <i>Neisseria meningitidis</i>	www.euibis.org
9	The European and Allied Countries Collaborative Study Group of CJD plus the Extended European Collaborative Study Group of CJD	EUROCJD NEUROCJD	Infectious spongiform encephalopathy, Creutzfeldt-Jakob variant	www.eurocjd.ed.ac.uk
10	Surveillance of Tuberculosis in Europe	EuroTB	Tuberculosis	www.eurotb.org

TABLE 2 (I)

Characteristics of the websites of European epidemiological surveillance networks (December 2005)

Characteristics studied		Epidemiological surveillance networks										
		Total	BSN	EISS	ENIVD	EUVAC.NET	EWGLINET	EuroHIV	Enter-net	EU-IBIS	EUROCJD	EuroTB
General information	Number of EU participating countries	10	25	25	21	25	25	25	25	24	15	25
	Number of non-EU participating countries	10	3	3	4	7	11	27	10	5	6	27
	Contact address coordination	9		•	•	•	•	•	•	•	•	•
	Contact address participating countries	8		•	•	•	•	•	•	•	•	•
	Restricted access link	5		•	•		•			•		•
	Principles of collaboration	4	•	•	•		•					
	Objectives	10	•	•	•	•	•	•	•	•	•	•
Procedures for data collection	Number of diseases under surveillance	10	49	1	17	4	1	2	2	2	1	1
	Data source by country	1		•								
	Coverage of data by country	1		•								
	Case definition	7		•	•	•	•	•			•	•
	List of variables collected	5	•	•		•	•					•
	Structure and coding for collected variables	1										•
	Periodicity with which data is sent to network	5	•	•		•		•				•
	Handbook for procedures	6	•	•		•	•		•			•

• Indicates when characteristic was present on network website

each of the participating countries. This network was also the only one to obtain aggregated data by week rather than individual case counts. Over 50% of the networks included sections on the official case definition used (seven networks) and the list of variables collected by the network (5 networks). EuroTB is the only DSN to specify the format used and type of data collected, by making the questionnaires for data collection available to the public. The periodicity with which participating countries sent their surveillance data was specified on five websites and the handbook for procedures followed by the participating countries and the networks on six websites.

Data presentation: raw data versus elaborated data

Two networks showed raw data for the entire EU (EuroHIV and EuroTB) and six networks showed raw data for all participating countries combined. Eight networks showed raw surveillance data

for each of the participating countries. Two networks for surveillance in Europe (Enter-net and EUVAC.NET) presented only elaborated data. The raw data that were presented by networks was considered to be provisional data in all cases, as they were not indicated as being final data. The periodicity with which raw data are presented on the websites varies by network. EISS, for example, presented raw data for each epidemiological week, and EUROCJD and EuroTB posted raw annual data series. On four network websites, users could request raw data by categories such as country and period.

Four networks (BSN, ENIVD, EWGLINET and EUROCJD) did not show reports with elaborated data on their websites. EuroHIV and EuroTB included specific sections on the EU and surveillance data from the member states of the EU in their reports. The other four networks had elaborated aggregated data for all participating countries and separated by participating country (with the exception

TABLE 2 (II)

Characteristics of the websites of European epidemiological surveillance networks. (December 2005)

Characteristics studied		Epidemiological surveillance networks										
		Total	BSN	EISS	ENIVD	EUVAC.NET	EWGLINET	EuroHIV	Enter-net	EU-IBIS	EUROCCJD	EuroTB
Raw Data	Systematic presentation of raw data:											
	A) Data format:											
	- For entire EU	2						•				•
	- For all participating countries	6		•			•	•		•	•	•
	- By participating country	8	•	•	•		•	•		•	•	•
	B) Data consolidation:											
	- Provisional	8	•	•	•		•	•		•	•	•
	- Final											
	C) Periodicity:											
	- Weekly	1		•								
	- Monthly	2					•			•		
	- 3-monthly	1		•								
	- 6-monthly	0										
	- Annual	4						•		•	•	•
	- Series of years	5	•				•	•			•	•
Non-systematic presentation of raw data	4	•	•			•					•	
Elaborated Data*	Systematic reports on the disease:											
	A) Data format:											
	- For entire EU	2						•				•
	- For all participating countries	6		•		•		•	•	•		•
	- By participating country	5		•		•		•		•		•
	B) Data consolidation:											
	- Provisional	2		•					•			
	- Final	4				•		•		•		•
	C) Periodicity:											
	- Weekly	1		•								
	- Monthly	0										
	- 3-monthly	1							•			
	- 6-monthly	1						•				
	- Annual	4				•		•		•		•
	- Series of years	4				•		•		•		•
D) Date of the last available report: (on 05/12/2005)			Week 47 2005		Annual report 2004		Annual report 2004	Quarterly report Jul-Sep. 2005	Annual report 2002		Annual report 2003	
Non-systematic reports on the disease	3		•			•		•				

• Indicates when characteristic was present on network website

* Elaborated data = data which are presented as reports with some text for their interpretation

of Enter-net). As with the raw data, it was not specified whether data used for reports are final data; however, when annual reports were presented, the elaborated data were considered to be final data. The periodicity with which reports are published varied greatly for all DSNs. Instant reports, such as alert messages, were posted by EISS, Enter-net and EWGLINET. The date of the last report published was also assessed and only EISS and Enter-net had reports relating to surveillance data from 2005.

Discussion

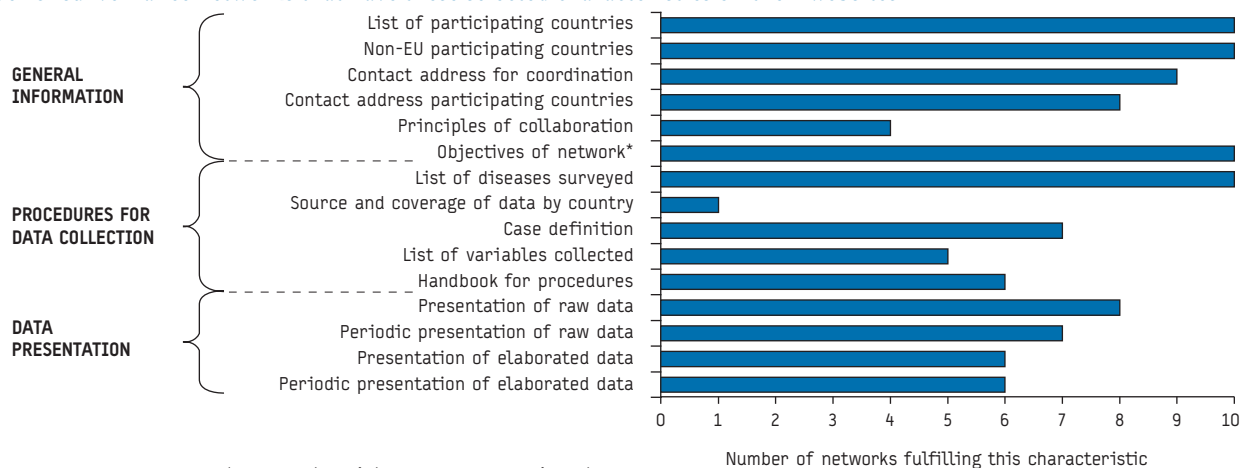
Information sharing by EU DSNs through posting on their websites is extremely valuable given that it is a quick and easy way to distribute and access relevant data and information. For member states to fully understand and make use of this information presented on the internet it is important that the websites clearly state the objectives of the network, which diseases are under surveillance and their case definitions, how to contact the network coordinators and members, how data are collected in each country, and that data are presented in a comprehensive manner.

This study tried to assess whether these criteria were addressed by the information presented on the websites of 10 EU surveillance networks [FIGURE]. Of the seven characteristics pertaining to general information, five were fulfilled by more than 80% of the studied networks, which is highly acceptable. Unfortunately, in terms of the data collection procedures, there were several aspects which are insufficiently explored and not homogeneous between the websites. These include: a) how data are obtained by each network and b) the information available for identifying the sources and coverage of both the raw and elaborated data shown. This makes the data presented difficult to use, compare and interpret.

The networks were created to support communicable disease surveillance in the EU, and it is therefore essential that in addition to raw data, all networks include reports on the disease situation in the entire EU and, if possible, for the groups of countries with similar procedures for collecting surveillance data. As shown in the results, only two networks included reports with this information in their websites at the time of the study. The inclusion of such reports would facilitate the comparison of the situation of each disease between

FIGURE

Number of surveillance networks that have these selected characteristics on their websites



* Objectives vary for each network (including 'alert', 'information sharing', etc.)

each member state and the EU. In addition, it would stimulate the formulation of proposals that would contribute to a standardisation of surveillance procedures in the EU.

Recommendations

Contents of the EU networks' websites should be reviewed to include a basic set of characteristics that are common to each of these sites. These basic characteristics could include: 1) case definitions, 2) procedures used for data collection and 3) periodic reports which include elaborated data for the entire EU and, if it is possible, also raw data. As the European Centre for Disease Prevention and Control (ECDC) will have a role in harmonising the functioning of the European surveillance networks, it should also take a leading role in establishing guidelines for the inclusion of these basic characteristics on the networks' websites.

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ORIGINAL ARTICLES

Outbreak report

TWO CLUSTERS OF HUMAN INFECTION WITH INFLUENZA A/H5N1 VIRUS IN THE REPUBLIC OF AZERBAIJAN, FEBRUARY–MARCH 2006

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Following the appearance of influenza A/H5 virus infection in several wild and domestic bird species in the Republic of Azerbaijan in February 2006, two clusters of potential human avian influenza due to A/H5N1 (HAI) cases were detected and reported by the Ministry of Health (MoH) to the World Health Organization (WHO) Regional Office for Europe during the first two weeks of March 2006. On 15 March 2006, WHO led an international team, including infection control, clinical management, epidemiology, laboratory, and communications experts, to support the MoH in investigation and response activities.

As a result of active surveillance, 22 individuals, including six deaths,