



Better Training for Safer Food BTSF

**Programme Animal Health Prevention and Control
of Emerging Animal Diseases**

**Epidemiological intelligence with web
resources - Virtual surveillance**

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Web and emerging infectious diseases

- *Taking profit of internet resources*
 - **Epidemiological surveillance**
 - **Early warning**
- *Two ways*
 - **Observation of data posted on internet**
 - **Use of internet to collect data**

Agenda

- *Internet-based EID intelligence*
- *HealthMap project*
- *Web resources: ProMed*
- *Virtual surveillance: Moss*

Internet-based EID intelligence

- *Web-information about infectious diseases:*
 - **Governmental and international agency web sites**
 - **Monitoring and surveillance systems**
 - **ProMED system**
 - **Google news searches**
 - **Discussion forums**
 - **Mailing lists**
 - **Twitter – facebook: unknown use yet**

Internet-based EID intelligence

- *Early detection*
 - **Local information**
 - **Even from hidden areas**
 - **Awareness of disease outbreak before official recognition**
- *Filtration of information*
 - **Various sources, absence of validation**
 - **Information overload**
 - **Difficult to distinguish « signal from noise »**














HealthMap

- *Use online informal sources*
 - **For disease outbreak monitoring**
 - **For real-time surveillance of emerging public health threats**
- *Sources*
 - **Online news aggregators**
 - **Eyewitness reports**
 - **Expert discussions**
 - **Validated official reports**



HealthMap

Global Health, Local Knowledge

-  [ProMED Mail](#): Program for Monitoring Emerging Diseases, a program of the [International Society for Infectious Diseases](#).
-  [World Health Organization](#): The [United Nations](#) specialized agency for health.
-  [GeoSentinel](#): Clinician-based sentinel surveillance of individual travelers from the [International Society of Travel Medicine](#) and [CDC](#).
-  [OIE - World Organisation for Animal Health](#): The intergovernmental organisation responsible for improving animal health worldwide.
-  [FAO - Food and Agriculture Organization of the United Nations](#): An intergovernmental organization for ensuring worldwide food quality and agricultural productivity.
-  [EuroSurveillance](#): Peer-reviewed European information on communicable disease surveillance and control. Published by the [European Centre for Disease Prevention and Control](#).
-  [Google News](#): A commercial news aggregation service provided by [Google](#).
-  [Moreover](#): A commercial news feed aggregation service provided by [VeriSign](#).
-  [Wildlife Disease Information Node](#): A news feed from the Global Wildlife Disease News Map provided by the NBII-Wildlife Disease Information Node at the [US Geological Survey](#).
-  [Baidu News 新闻](#): A Chinese language commercial news aggregation service provided by [Baidu](#), the number 1 search engine in China.
-  [SOSO Info 资讯](#): A Chinese language commercial news aggregation service provided by the Chinese search engine [Soso](#).



HealthMap

Global Health, Local Knowledge



What is HealthMap?



Global



Local



News

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[Français](#)

Rechercher



[Recherche avancée](#)

Display Options:



Outbreak Missing?
Add it to the map

flu near you

[Quick Views](#)

Données cartographiques ©2012 MapLink, Tele Atlas

Indice d'activité

Faible	Elevé	
		Pays
		Provin ou loc

Alerts from past week

Avian Influenza (past month)

Drought in Africa 2011

ProMed: programme for monitoring emerging diseases

- *Internet-based reporting system, 7 days a week*
- *Rapid global dissemination of information on outbreaks of infectious diseases and acute exposures to toxins that affect human health, including those in animals and in plants grown for food or animal feed*
- *By providing early warning of outbreaks of emerging and re-emerging diseases, public health precautions at all levels can be taken in a timely manner to prevent epidemic transmission and to save lives*



ProMED
mail



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Latest Posts on ProMED-mail

- 18 Apr 2012 **Avian influenza (31): China (NX) H5N1, OIE**
- 18 Apr 2012 Pythiosis, human - USA: (TX)
- 18 Apr 2012 Avian influenza (31): Israel (HD) turkeys, NOT
- 17 Apr 2012 Salmonellosis - Australia: (Bass Strait)
- 17 Apr 2012 Serratia marcescens - Venezuela (02): (CA) NICU, fatal
- 17 Apr 2012 Hantavirus update 2012 - Americas (13) Chile, USA
- 17 Apr 2012 Pythiosis, human - USA (TX)
- 17 Apr 2012 Influenza (32): vaccine efficacy
- 17 Apr 2012 Rabies - Canada (ON): human, ex Dominican Republic
- 17 Apr 2012 Hand, foot & mouth disease - Viet Nam (06), Mekong Delta
- 17 Apr 2012 Undiagnosed illness - Viet Nam (02): (QG) RFI
- 17 Apr 2012 Foot & mouth disease - Palestinian Auth. (Gaza strip): susp., RFI
- 16 Apr 2012 Influenza (31): USA (WA, NV, CO) surveillance
- 16 Apr 2012 Brucellosis, feral swine - USA: (NC)
- 16 Apr 2012 Avian influenza (30): Israel (HD) turkeys, NOT, RFI, feline, OIE
- 16 Apr 2012 Dengue/DHF update 2012 (16)
- 16 Apr 2012 Serratia marcescens - Venezuela: (CA) NICU, fatal RFI
- 16 Apr 2012 Botulism - USA (04): uneviscerated fish ex Guvana. risk. recal

Most Recent Alert

View printable version Share this post:

Published Date: 2012-04-18 16:19:36

Subject: PRO/AH/EDR> Avian influenza (31): China (NX) H5N1, OIE

Archive Number: 20120418.1105794

AVIAN INFLUENZA (31): CHINA (NINGXIA HUI), H5N1, OIE

A ProMED-mail post

<http://www.promedmail.org>

ProMED-mail is a program of the
International Society for Infectious Diseases

<http://www.isid.org>

Date: Wed 18 Apr 2012

Source: AFP via Focus Information Agency [edited]

<http://www.focus-fen.net/index.php?id=n275931>

Agricultural authorities in northwest China have culled about 95 000 chickens after an outbreak of the H5N1 bird flu virus, state press reported Wed [18 Apr 2012], AFP reports.

<http://www.promedmail.org/>



De: owner-promed-ahead-edr@promed.isid.harvard.edu de la part de ProMED-mail
[promed@promed.isid.harvard.edu]
Envoyé: samedi 24 mars 2012 20:51
À: promed-ahead-edr@promedmail.org
Objet: PRO/AH/EDR> Schmallenberg virus - Europe (31): update, international impact

SCHMALLEMBERG VIRUS - EUROPE (31): UPDATE, INTERNATIONAL IMPACT

A ProMED-mail post

<<http://www.promedmail.org>>

ProMED-mail is a program of the
International Society for Infectious Diseases
<<http://www.isid.org>>

In this update:

- [1] UK, Jersey
- [2] European Commission Statement
- [3] Latest accumulated testing results, compiled

[1] UK, Jersey

Date: Fri, 23 Mar 2012

Source: BBC News [edited]

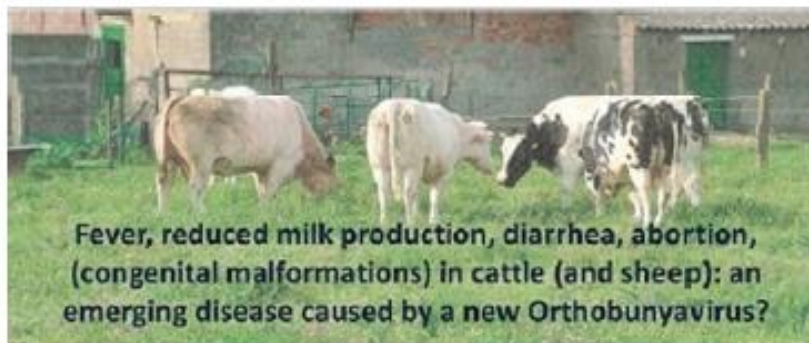
<<http://www.bbc.co.uk/news/world-europe-jersey-17487570>>

Schmallenberg virus confirmed in Jersey sheep

Virtual surveillance: example of MoSS (Monitoring and Surveillance system)

- *Early detection of EID*
- *Real-time detection by recording atypical and potentially emerging diseases by vets and other observers*
- *Automatic clustering of the data*
- *Assessment by experts*
- *In addition: quick information to animal health professionals*
- *It relies on a voluntary reporting*

Monitoring and Surveillance System (MoSS)



Fever, reduced milk production, diarrhea, abortion, (congenital malformations) in cattle (and sheep): an emerging disease caused by a new Orthobunyavirus?

1 2 3 4 5

Early detection of emerging animal diseases

You are on the homepage of the "Monitoring and Surveillance System"(MoSS).

The MoSS is created on behalf of Belgian health authorities - and soon other countries - to develop, via the web application *MoSS-emergences2*, a system for early detection and identification of emerging syndromes. The system aims at real-time detection and analysis/assessment by experts of unusual clinical cases in domesticated and wild animals. In fact, **early detection and expertise** are essential in the fight against "new diseases" and their consequences.

Veterinarians and other observers are working closely together at the success of the MoSS, by recording atypical and potentially emerging diseases via this website, which are then automatically clustered and assessed by experts of the system to define if they correspond to the development of a "new disease".

In addition, the MoSS has the capability to manage real-time information to quickly inform observers of animal health about diseases - in the phase of emergence in the world - which may have epidemiological consequences in the area in which they are in charge of surveillance.

Activity on MoSS-emergences2: 3 recent (definitive) records

- Itheron - Disease Atypical - 2012-03-01 17:35:01 - Bovine (Bos taurus)
- Itheron - Disease Atypical - 2012-03-01 17:25:58 - Bovine (Bos taurus)
- liesbeth - Disease Atypical - 2012-02-05 15:52:10 - Bovine (Bos taurus)

Sign in - Register

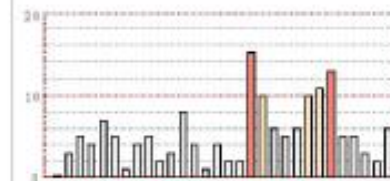
User:

Password:

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News on emerging diseases

- Online CE course on foreign animal disease - Pork Magazine
- Dog Owners, Beware: Ticks in Feeding Frenzy After Mild Winter - Patch.com
- Healthy pets, healthy family - Ventura County Star
- Beware Crypto the calf killer, says vet - Farming Life
- Intronic Sequence Analysis Indicates Longer than Anticipated Evolutionary ... - GenomeWeb
- UGA Voices lecture series concludes with wildlife's role in health pandemics - Online Athens
- Human Diarrhea Parasite Found Lurking in Piglets - LiveScience.com
- 5 Ways to Turn a Liberal Into a Conservative (At Least Until the Hangover Sets In) - Discover Magazine (blog)



Worldwide Dynamics of the Information

on emerging diseases concerning animals (daily number of news over the past 30 d)

Thank you for your attention

