



Media monitoring: Experience of outbreak monitoring at ECDC to monitor vaccine safety potential crisis- A pilot using MediSYS

“Building Trust, Managing Risk: Vaccine Confidence and Human Papillomavirus Vaccination” Symposium

London, LSHTM, 7-8 June 2017

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Mission

To identify, assess and communicate current and emerging threats to human health from communicable diseases

A decentralized Agency of the European Union established in 2005 (budget 2016 \approx EUR 58 M, staff \approx 280)

[Not risk management, No monitoring of vaccine safety]

Target audiences

- EU Member States
- European Commission (DG SANTE)
- Other EU agencies, WHO and other international organisations
- Public health stakeholders
- The Public

Core functions of ECDC

- Disease surveillance
- **Epidemic intelligence: 24/7, 365 days, Public health threats**
- Risk assessment
- Scientific advice and guidance
- Response support
- Preparedness and capacity strengthening
- Training
- **Communication: daily, ECDC focus**

ECDC expertise in public health threat monitoring to identify “safety threats”

Indicator-based surveillance



- Produces credible information but reporting is often slow



- Is mainly designed for known diseases



- In some areas it is not well established

Event-based surveillance



- Rapid detection of public health events



- Complements Indicator-based surveillance



- Can detect rare and new events that may not be picked up by standard surveillance mechanisms



- For threats with unknown origin



- To meet the requirements of the revised International Health Regulations (IHR 2005)

“Relevance” of an event



Check the date of the article!



Ask yourself if the source is reliable



Search for background information about the disease in the country/region



Consult the Diseases Specific experts



Consult the country focal points

Sources

EWRS

WHO
IHR

EPIS

**Restricted
platforms**

RASFF
INFOSAN

**National or
regional
surveillance
systems**

TESSy

National public
health agency
websites

WHO
websites

**Official public
sources**

CDC
websites

**Informal
sources**

Web
aggregators



Social
media

Web aggregators




Web-based tools screening web-based unstructured information. Sophisticated applications able to gather, filter and classify web-based information for public health purposes



	Advantages	Disadvantages
 <p>Moderated systems rely on human moderation to filter and classify information</p>	analysts reduce redundancy and false positive rate	Time delay, human selection bias
 <p>Automatic systems gather, filter and classify information with little or no human intervention</p>	near real time information	False positive rate, duplication

Some of the sources screened



ProMED-mail
We thank all contributors including journals, news
Tracking Infectious Diseases
Forums Blogs
Latest Activity Mark
Home > Advanced Search
Search Result
Search Results: 88 results in 0.1s
Keywords Members
Sort By Date - last update
Topics
China - Influenza and mostly H3N2 - November Started by sharon sanders
China - Pediatric ward respiratory tract ills - Hul Started by sharon sanders
China - Reportedly pne hospitals in Ningbo - Nov Started by sharon sanders

FluTrack
MEDIS
Top Stories
Event Extraction
Recent Disease Incidents
Alert Statistics
Communicable Diseases
Symptoms
Bioterrorism
Nuclear
Chemical
ECDC
EFSA
Medical Devices
Other
Continents
Official Sources
Sources List

34 alerts
save this search
Source Date
16 Nov 2016
16 Nov 2016
16 Nov 2016
16 Nov 2016
16 Nov 2016
15 Nov 2016
15 Nov 2016

Government of Canada / Gouvernement du Canada
Jobs Immigration Travel Business Benefits
Home > Public Health Agency of Canada > Centre for Emergency Preparedness and Response
Global Public Health Intelligence Network
Filter Results (results filtered using 'default' query)
Show Map and Graph
Map showing global distribution of diseases with markers for North America, South America, Europe, Africa, and Asia.
Showing 1 to 50 of 2 405 entries
Title
2016-11-17 12 48 UTC Fujian's inspection and quarantine Technology Center by Pseudorabies international proficiency testing
2016-11-17 12 47 UTC Shandong port entry of major animal epidemic prevention and control walkthrough
2016-11-17 12 43 UTC MOH: 2 New Confirmed Corona Cases Recorded
2016-11-17 12 28 UTC France tightens restrictions to avoid bird flu contamination
2016-11-17 12 28 UTC DC urges all segment of society to play role for polio eradication
2016-11-17 12 28 UTC Dengue fever in Thar
2016-11-17 12 28 UTC KEA dengue vaccines authorised by the NH all 17 countries listed
2016-11-17 12 28 UTC KEA dengue vaccines authorised by the NH all 17 countries listed
2016-11-17 12 27 UTC Pessimism is a risk factor for heart disease, says study
2016-11-17 12 26 UTC Kama will purchase an additional 35 thousand doses of hepatitis vaccine

MEDISYS – Pilot testing for HPV



EU Commission tool for media monitoring of public health threats

“Media Aggregator”, **Joint Research Centre (JRC)** established in 2004

Data broker for the European Commission

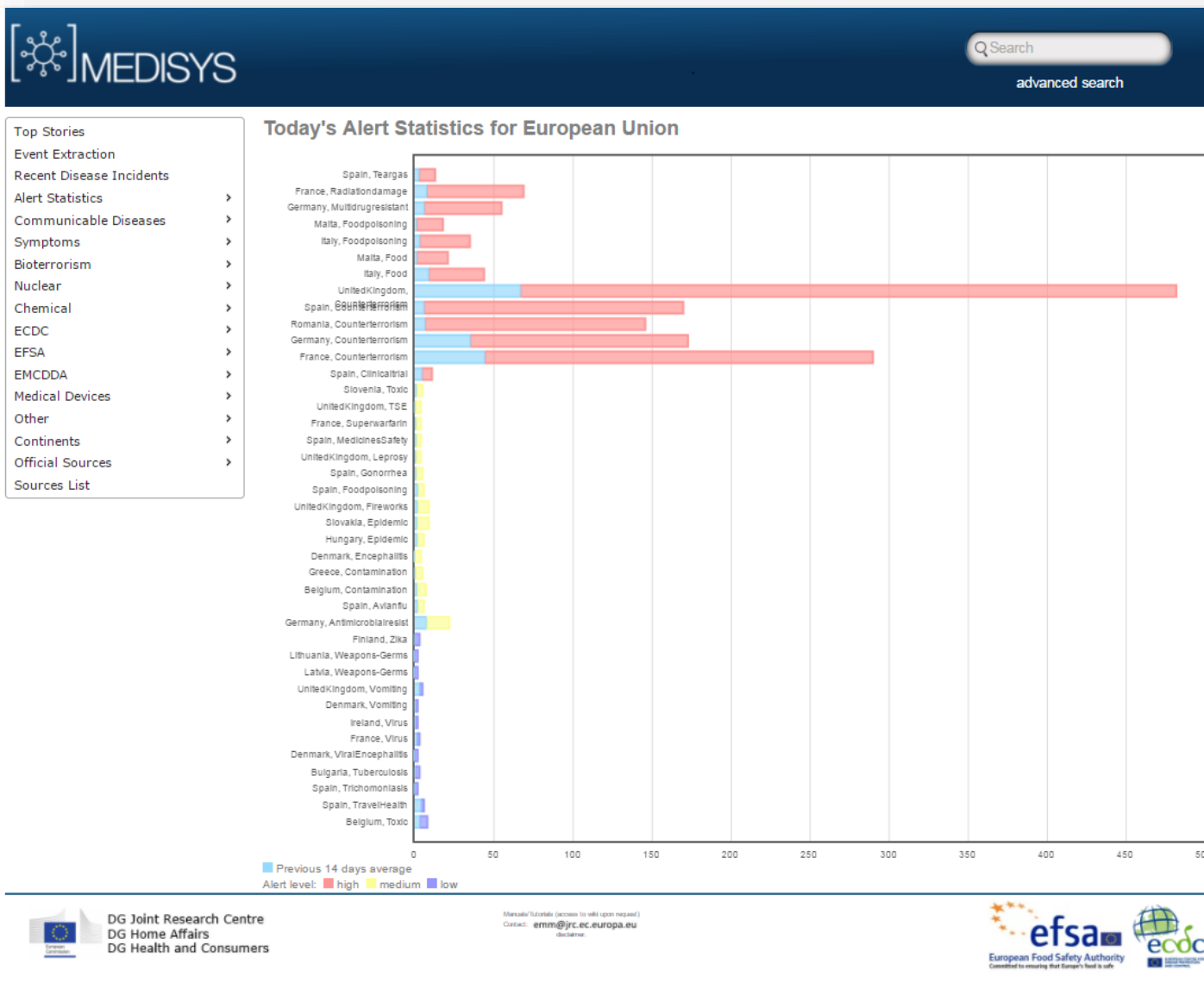
- Approx. 25.000 news items and 60M tweets per day, wires, BBC feeds, scientific literature, patents

Added-value


- **Real-time:** refreshed every 10 mns
- **Multilingual key words:** 80 languages covered
- **Analyse:** categorise, filter, geolocate, statistics
- **Present results:** website, email alerts, rss, moderation tools

→ **Pilot tested for HPV media/threat monitoring**

MEDISYS Alert Statistics



MEDISYS – VPD specific searches



Search
advanced search

Top Stories

Event Extraction

Recent Disease Incidents

Alert Statistics

Communicable Diseases

Symptoms

Bioterrorism

Nuclear

Chemical

ECDC

EFSA

EMCDDA

Medical Devices

Other

Continents

Official Sources

Sources List

Chickenpox

О санитарно-эпидемиологической обстановке в Республике Алтай и итогах деятельности за период с 27.05.2017 по 02.06.2017 [\[en\]](#) [\[other\]](#)

За обозначенный период времени в регионе сохранялась стабильная санитарно-эпидемиологическая обстановка. За неделю зарегистрировано 24 случая острых кишечных инфекций, в том числе 21 среди детей до 14 лет, 1 случай гепатита А, 10 случаев ветряной оспы, 3 случая туберкулеза, 11 случаев внебольничной пневмонии....

От инфекции до аллергии. Почему на коже появляются пятна [\[en\]](#) [\[other\]](#)

Most Active Topics

- ECDC-Focus
- WHO-2017
- VaccinePreventableDiseases
- Hemorrhagic Fever
- FWDiseases
- SeasonalMonitoring
- Hajj
- Unknown Disease
- ECDC
- Public Health Migrants
- Microcephaly
- Zika Outbreak

Chickenpox

Diphtheria

HPV

HPV vaccine

HPV vaccine safety

Meningitis

Mumps

Pertussis

Rabies

Tetanus

More articles...

Se suman 410 casos sospechosos de difteria [\[en\]](#) [\[other\]](#)

05 de junio de 2017 12:05 AM La Red Defendamos la Epidemiología reporta que hay registros de 311 casos sospechosos de difteria en las últimas 16 semanas de 2016 cuando comenzó la epidemia de la enfermedad erradicada hace 24 años, y otros 86 casos sospechosos en las primeras 16 semanas de 2017....

More articles...

HPV

Bajan a dos dosis vacuna contra HPV [\[en\]](#) [\[other\]](#)

Aunque todavía no es obligatoria, la vacunación contra el virus del papiloma humano (HPV) ha mejorado significativamente desde el año pasado. Más de la mitad de las niñas nacidas en 2004, y que debían comenzar a inocularse en 2016, ya se han dado las dosis necesarias....

Dni Walki z Rakiem 2017 – postaw na profilaktykę! [\[en\]](#) [\[other\]](#)

W dniach 4-24 czerwca obchodzimy Dni Walki z Rakiem. W związku z tym po raz kolejny przypominamy, że choroby nowotworowej mogą zapobiec przede wszystkim zdrowy tryb życia i profilaktyka. Wykonywanie badań profilaktycznych to najskuteczniejszy sposób na wczesne wykrycie raka. Dzięki temu pacjenci mają szansę na całkowite wyleczenie....

More articles...

HPV vaccine


Bajan a dos dosis vacuna contra HPV [\[en\]](#) [\[other\]](#)

Tools

Monday, June 5, 2017
10:04:00 AM CEST

subscribe | manage

info

Languages 

Select your languages

ar	az	be	bg	bs	ca
cs	da	de	el	en	eo
es	et	fa	fi	fr	ga
ha	he	hi	hr	hu	hy
id	is	it	ja	ka	km
ko	ku	lb	lo	lt	lv
mk	ml	mt	nl	no	pa
pl	pt	pt	ro	ru	rw
se	si	sk	sl	sq	sr
sv	sw	ta	th	tr	uk
ur	vi	zh			
all					

Interface: en - English

ableDiseases.html

Source: <http://medisys.newsbrief.eu/medisys/groupedition/en/VaccinePreventableDiseases.html> (5 June 2017)

HPV specific searches

1. HPV (catches all HPV articles, high volume!)

<http://medisys.newsbrief.eu/medisys/alertedition/en/HPV.html>

2. HPV vaccine (catches all HPV vaccine articles):

<http://medisys.newsbrief.eu/medisys/alertedition/en/HPVvaccinegeneral.html>

3. HPV vaccine safety (catches all HPV vaccine articles that mention "safety"):

<http://medisys.newsbrief.eu/medisys/alertedition/en/HPVvaccine.html>

Latest News About - HPV

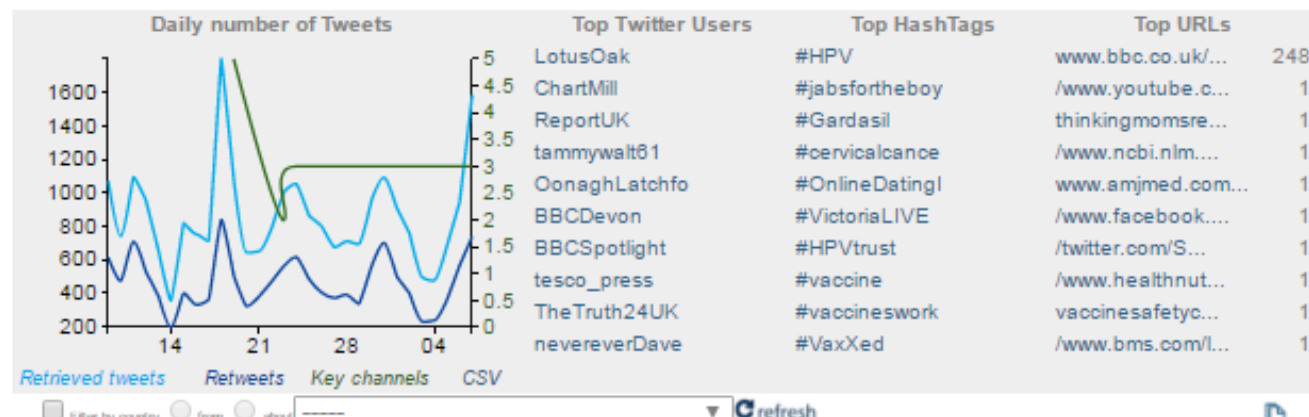
TWITTER

#HPV

#papillomavirus vaccine

#Gardasil

#cervarix)



BBC

Sign in

News

Sport

Weather

Shop

Earth

Travel

More

Search



NEWS

Home

Video

World

UK

Business

Tech

Science

Magazine

Entertainment & Arts

Health

World News TV

More

England

Regions

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närmaste optiker



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A Novartis
Division

*Synundersökning kan krävas. Avgift för detta kan tillkomma. Endast din optiker kan avgöra om kontaktlinser är rätt val för dig.

Doctor's call to 'equally protect' boys with HPV vaccine

By Victoria Gould
BBC News Online

9 hours ago | England



Share

LIVE Election latest

3 minutes ago

Nicola Sturgeon's 'bold' pitch

Top Stories

HPV vaccine safety – Experience to date



Implemented in October 2016

Languages covered: Czech, Danish, Dutch, English, French, German, Italian, Latvian, Portuguese, Romanian, Spanish, Turkish

Search terms

Combination of **“HPV vaccine”** AND **“any term related to safety”**

All terms manually entered and translated

Media impact Dutch documentary

15 Dec. 2016:

Broadcasting of a Dutch documentary on unconfirmed side effects of the HPV vaccine

Search in Dutch + other languages of key words related to HPV, cervical cancer, symptoms of side effects

→ **NO papers retrieved**

HPV vaccine safety, active monitoring period, April 2017 (n=793 hits)

AM AT AU BD BE BO BR BW CA CH CO CU DE DK DO EE ES FR GB GY HN HR ID IE
IN IT JM KE KY MA MX NA NI NL NZ PA PT RO SE SG SN SV TR TT US ZA ZW

140

120

100

80

60

40

20

0

Distribution of media items by country through the HPV vaccine safety specific search, Medisys, April 2017

01/04/2017 02/04/2017 03/04/2017 04/04/2017 05/04/2017 06/04/2017 07/04/2017 08/04/2017 09/04/2017 10/04/2017 11/04/2017 12/04/2017 13/04/2017 14/04/2017 15/04/2017 16/04/2017 17/04/2017 18/04/2017 19/04/2017 20/04/2017 21/04/2017 22/04/2017 23/04/2017 24/04/2017 25/04/2017 26/04/2017 27/04/2017 28/04/2017

HPV vaccine safety, outcome of manual assessment (n=40)

Michael Douglas statement

HPV-Related Throat And Oral Cancer Rates On The Rise

Health agencies are pushing hard for HPV vaccinations, which they say could prevent most of those cancers. In other public health news: CPR, secondhand smoke and PTSD.

The Washington Post: The Scary Reason Doctors Say Kids Need HPV Vaccinations

When actor Michael Douglas told a reporter that his throat cancer was caused by HPV contracted through oral sex, two themes emerged that had nothing to do with celebrity gossip. The first was incredulity — since when was oral sex related to throat cancer? Even the reporter thought he had misheard. The second was embarrassment. This was too much information, not only about sexual behavior but also about one's partners. Douglas apologized, and maybe the world was not ready to hear the greater truth behind what he was suggesting. That was four years ago. (Schaaff, 4/2)

HPV vaccine could have saved Jade Goody, claims Jeff Brazier

By Bang Showbiz in Lifestyle / Showbiz on 11 April 2017

Follow Jade Goody

Jade Goody Jeff Brazier

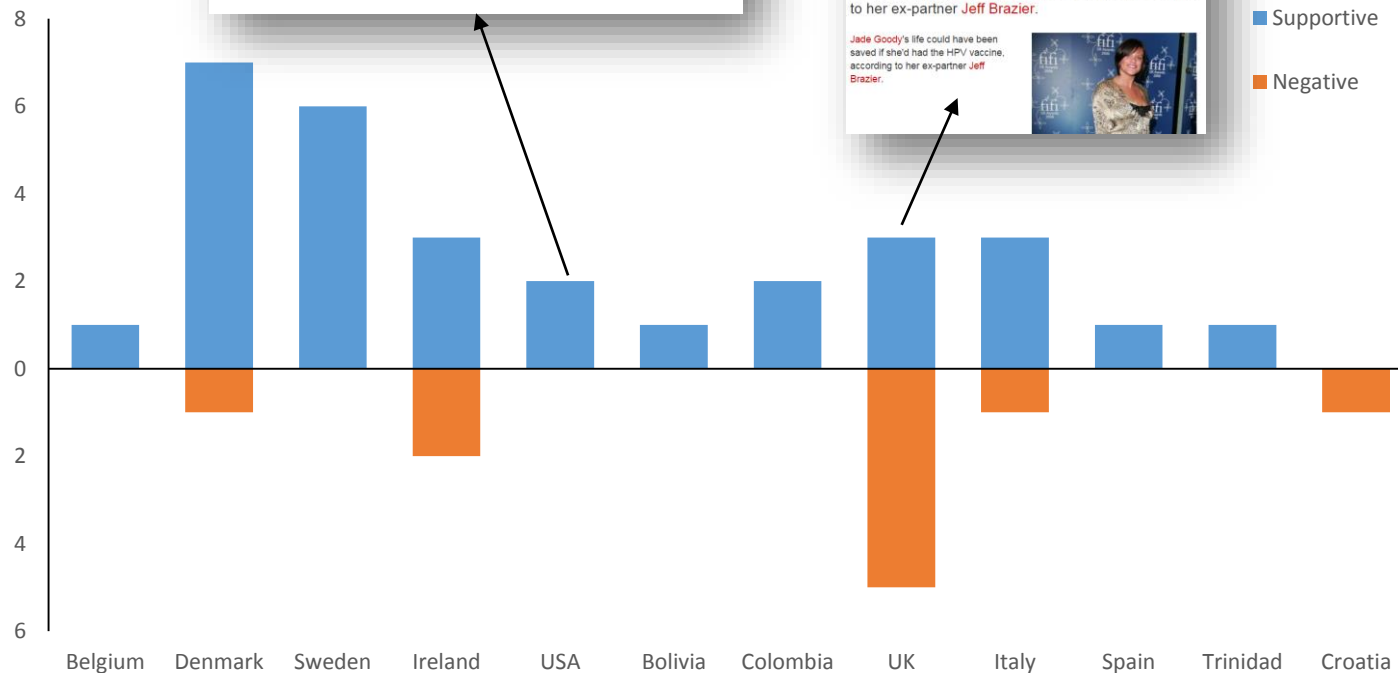
Jade Goody's life could have been saved if she'd been given the HPV vaccine as a teenager, according to her ex-partner Jeff Brazier.

Jade Goody's life could have been saved if she'd had the HPV vaccine, according to her ex-partner Jeff Brazier.



Supportive

Negative



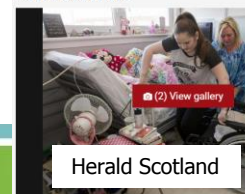
Male discrimination in Sweden

Sluta diskriminera männen, Wikström

Debattörerna: Låt även pojkar få vaccinet som kan rädda liv



Teenager blames cancer jab for leaving her in wheelchair



Discussion - Conclusions

- Screening of media is labour and time intensive → need to define the most sensitive key words and study trends over a longer period of time
- Unless there is already an ongoing crisis, involvement of an *authority/organization* or of a particular celebrity, is little impact in the media to be expected?
- Role of traditional media vs social media as a rapid “crisis” monitoring tool for vaccination?
- Delay in time vs discussion in social media? [anybody is a “reporter” in social media vs accredited trained people in traditional media]
- Which audiences are being targeted?

Thank you for your attention

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We all do media monitoring in our daily activities

Favourite newspapers (webbrowser, app, rss, print)

Google news alerts - <https://www.google.com/alerts>

Email alerts from expert sites (e.g. ProMED-mail) -
<http://www.promedmail.org>

Twitter (App, Tweetdeck) - <https://tweetdeck.twitter.com>

Browsing blogs and dedicated websites

Scientific literature