



# ECDC: atividades durante grandes eventos

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# Desafio à saúde pública

## *Grande escala*

- Maior risco à SP?
  - Doenças importadas / epidêmicas
  - Condições climáticas / trauma
  - Liberação deliberada
- Desafio às medidas de controle
- Eventos de alto perfil



# Como preparar?

- Populações comparáveis?
- Adaptar a vigilância?
  - informes/relatorios diários
  - agilizar, aumentar freqüência
    - aumentar sensibilidade
    - evitar falsos positivos
  - Pressão sob a infraestrutura da saúde pública

# A saúde do indivíduo pode ser afetada por



- condições atmosféricas/climáticas
- distribuição das pessoas pelos locais
- duração do evento
- condições de higiene disponíveis
- características dos participantes
  - consumo de substâncias aditivas,
  - idade,
  - os hábitos de higiene,
  - atitudes na presença de multidões (atropelamentos e consequentes traumatismos),
  - doenças crónicas, doenças infecciosas,
  - comportamentos de risco,
  - proteção solar adotada,
  - hábitos de hidratação

# Exemplos de surtos de doenças infecto-contagiosas detectadas/associadas a grandes eventos

<b>Evento</b>	<b>País</b>	<b>Ano</b>	<b>surto</b>	<b>casos</b>	<b>mortes</b>
International Special Olympics	US	1991	Sarampo	25	
Campeonato futebol	Spain	1997	Hepatite A	114	
Triathlon	US	1998	Leptospirose	98	
Copa Futebol	France	1998	Legionnella	20	4
Special Olympics USA	US	2006	Norovirus?	>30	
International Youth Sporting event	US	2007	Sarampo	6 primary	
Olimpiadas Inverno	Canada	2010	Sarampo	82	

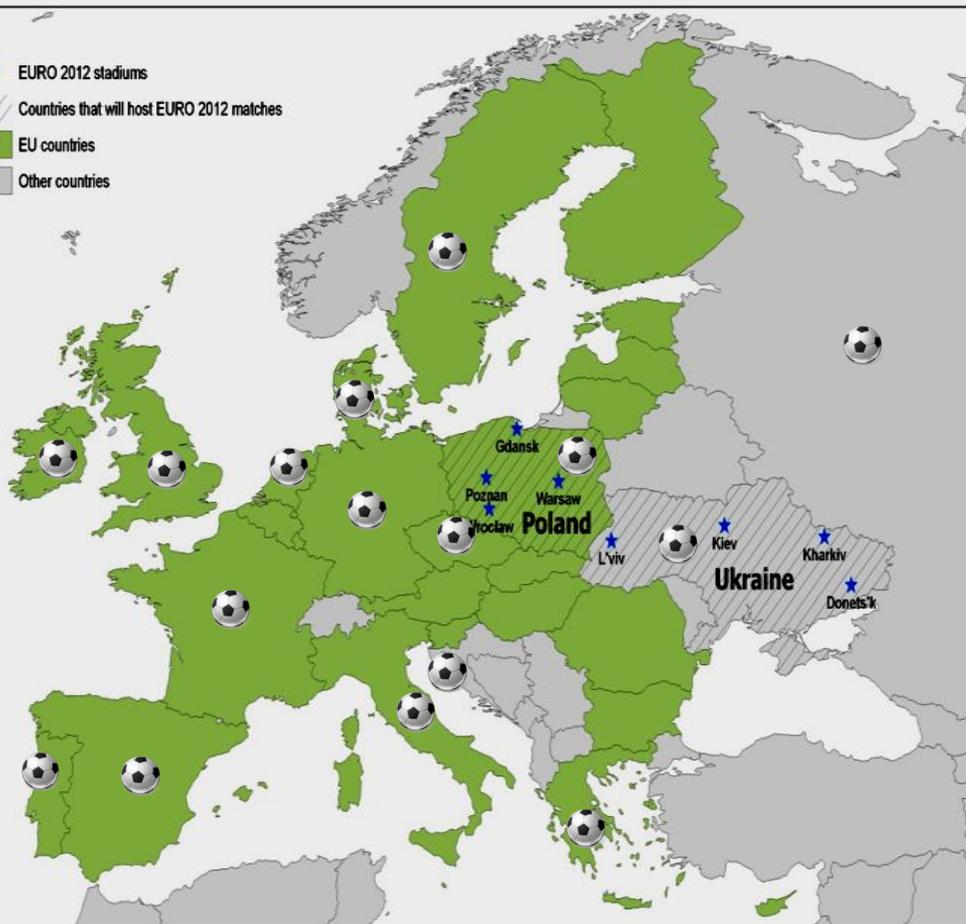
# Objetivo da colaboração do ECDC durante grandes eventos

Fortalece e apoia os estados membro da UE no preparo e na resposta rápida para os desafios à saúde pública associados aos grandes eventos eletivos



# UEFA EURO 2012 – campeonato de futebol

- ★ EURO 2012 stadiums
- /// Countries that will host EURO 2012 matches
- EU countries
- Other countries



8 Junho – 1 Julho  
Ucrânia e Polônia

>1,4 milhões tickets vendidos  
4 estádios em cada país  
16 países participantes (13 EU)

*Polônia*  
Croácia  
Rep Tcheca  
Grécia  
Irlanda  
Italia  
Russia  
Espanha

*Ucrânia*  
Dinamarca  
Inglaterra  
França  
Alemanha  
Holanda  
Portugal  
Suécia

# London 2012 – Jogos Olímpicos e Paraolímpicos

Olímpicos: 27 Julho – 12 Agosto  
Paraolímpicos: 29 Agosto – 9 Setembro

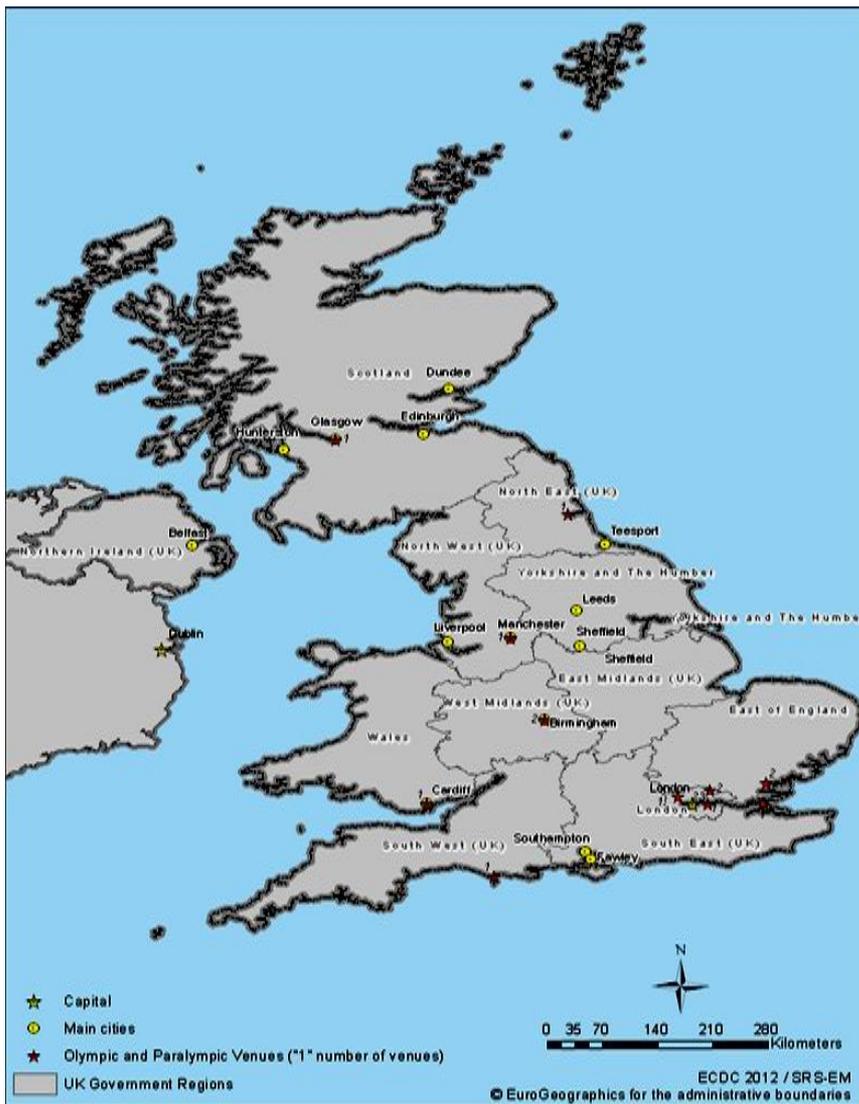
10 500 atletas olímpicos  
4 200 atletas paraolímpicos  
21 000 media and jornalistas

>10.2 milhões tickets

180 000 espectadores/dia no Parque Olímpico

17 000 vivendo na Vila Olímpica

26 esportes olímpicos em 34 locais  
20 esportes paraolímpicos 17 locais

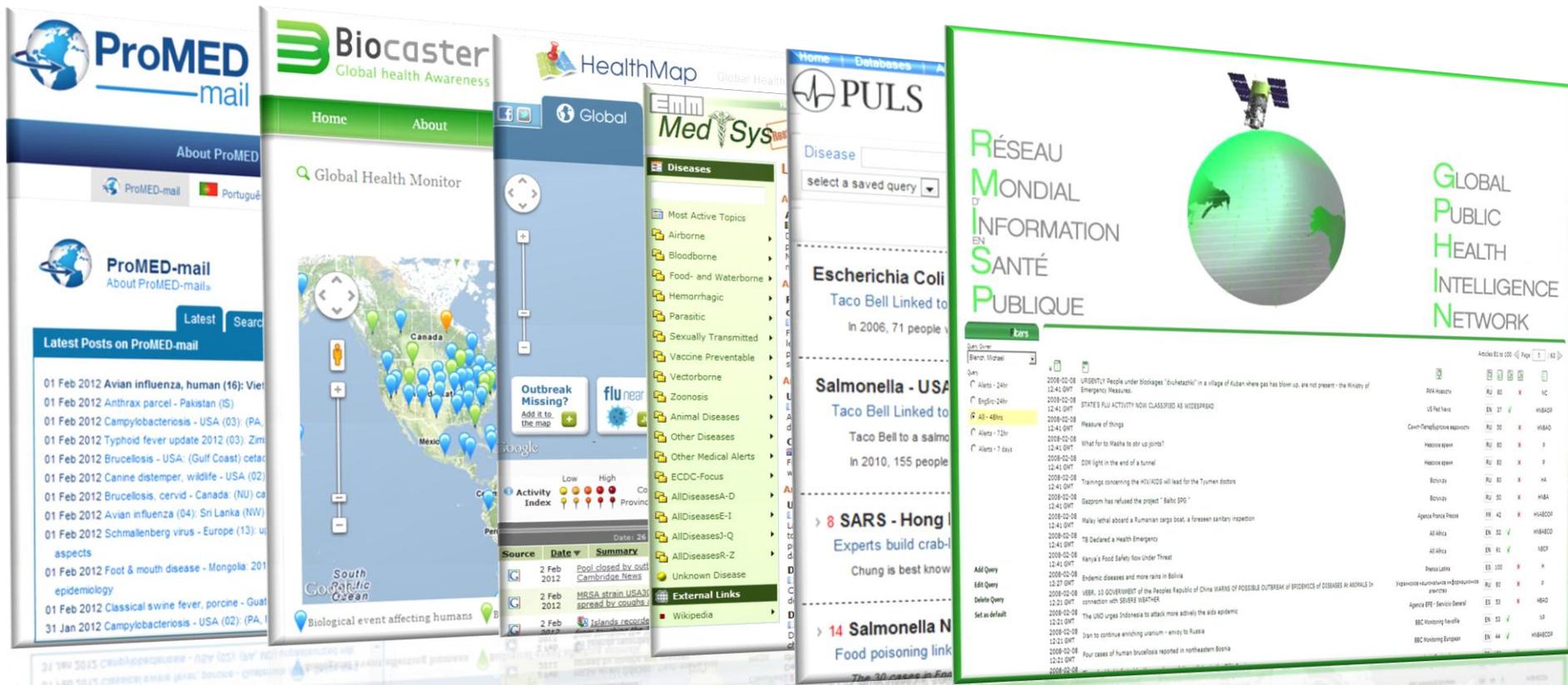


Global participation

**Como o ECDC se preparou e ajudou os Estados Membro da UE a se preparar para os grandes eventos de 2012?**



# Rotina: Fontes de informação e informação agregada



The image displays a collage of several public health information sources:

- ProMED-mail:** A website interface showing the latest posts on ProMED-mail, including updates on avian influenza, anthrax, campylobacteriosis, typhoid fever, brucellosis, canine distemper, and classical swine fever.
- Biocaster:** A website interface with a "Global Health Monitor" section, featuring a map of North America with various colored markers indicating health events.
- HealthMap:** A website interface showing a "Global Health Monitor" section with a map of North America and a "Diseases" list including Airborne, Bloodborne, Food- and Waterborne, Hemorrhagic, Parasitic, Sexually Transmitted, Vaccine Preventable, Vectorborne, Zoonosis, Animal Diseases, Other Diseases, and Other Medical Alerts.
- Med Sys:** A website interface showing a "Diseases" list with categories like ECDC-Focus, AllDiseasesA-D, AllDiseasesE-I, AllDiseasesJ-Q, AllDiseasesR-Z, and Unknown Disease.
- PULS:** A website interface showing a "Disease" search bar and a list of diseases including Escherichia Coli, Salmonella - USA, SARS - Hong Kong, and Salmonella N.
- Réseau Mondial d'Information en Santé Publique:** A website interface showing a "Réseau Mondial d'Information en Santé Publique" section with a globe and a list of news items.



# Method: qualitative estimation of public health risk



**Probabilidade de importar p/ Olimpíadas**

**Impacto em saúde pública**  
severidade, potencial de surto, interesse mediático



**Probabilidade de ocorrer durante as Olimpíadas**



**Probabilidade de exportar p/ UE**

			public health impact				
			Lowest			Highest	
			5	4	3	2	1
Likelihood	Most Likely	1	Yellow	Orange	Orange	Higher risk	Higher risk
		2	Yellow	Yellow	Orange	Orange	Higher risk
		3	Lower risk	Yellow	Yellow	Orange	Higher risk
	Least Likely	4	Lower risk	Yellow	Yellow	Yellow	Orange
		5	Lower risk	Lower risk	Yellow	Yellow	Orange

# Avaliados usando processo 'Delphi'

## 1) Tabela gerada para cada ameaça identificada

- Dados complementares: incidência na GB & UE, distribuição global, período de incubação, etc.

## 2) Um time generico de experts do ECDC

- Pontuaram todas as doenças usando matriz qualitativa:
  - ❖ Pontuaram impacto,
  - ❖ Pontuaram probabilidade e risco de doenças importadas / autoctones / exportadas.

## 3) Sete times específicos para doenças

- Pontuaram ameaças independentemente, baseando-se somente na própria expertise:
  - ❖ Pontuaram probabilidade de doenças importadas / autoctones / exportadas.,
  - ❖ Pontuaram risco para a GB / UE.

## 4) Consenso entre as pontuações de ambos times, genérico e específico

- Time genérico discutiu pontuação com os times expert individualmente.

# Resultados

## 1) Doenças de potencial ameaça identificados:

▪ 71 doenças infecto-contagiosas, todas já dentro da lista de clipping do ECDC “epidemic intelligence”

## 2) Prioridade mais elevada para o screening:

Disease Group	Diseases with high overall risk / likelihood		
	Generic Team	Final	Details
Food and waterborne	8	8	EHECs, 'gastrointestinal diseases', hepatitis A
Zoonoses	4	4	rabies, anthrax, leptospirosis
Airborne	3	5	TB, SARS; added influenza, 'influenza like illness'
Vaccine preventable	3	4	measles, meningococcal disease; added diphtheria
Healthcare associated	2	2	added invasive group A streptococcal disease
Emerging diseases	2	2	smallpox, haemorrhagic fevers
STIs	2	2	syphilis, HIV
Other	2	0	two reclassified as healthcare associated
Vector borne	0	0	
<b>Total</b>	<b>26</b>	<b>27</b>	

# Como foram usados os resultados?

## 1) Ferramentas para o clipping foram adaptadas e aprimoradas

- Fontes web adaptadas, algoritmos de agregação multilinguais, e alertas automáticos.

## 2) Prioridades incorporadas para o screening e os protocolos de filtração

- Diariamente eram definidos os sinais e alertas e os limiares,
- Requerimentos específicos da GB foram incorporados,
- Protocolos testados com HPA, 16-21 April 2012,
- Screening 24/7 do dia 2 July – 23 September 2012.
  - Contato telefônico diário com o UK HPA,
  - Relatório dos resultados do screening distribuídos diariamente e semanalmente.

# Web-based event based surveillance tools customisation

- Identificadas doenças prioritárias
- Revisão de fontes na net em países relevantes para serem rastreadas
- Revisão de alertas automáticos em várias linguas



# MediSys para vigilância baseada em eventos



- <https://medisys.jrc.it/medisys/filteredition/ecdc/en/London2012UKfocus.html>
- <https://medisys.jrc.it/medisys/filteredition/ecdc/en/UEFA2012Ukraine.html>

The screenshot shows the MediSys interface for the 'London 2012 UK focus' category. The top navigation bar includes 'Home', 'Diseases', 'Symptoms', 'Bioresearch', 'Nuclear', 'Chemical', 'ECDC', 'EFSA', and 'Other'. The main content area is titled 'Latest News About - London 2012 UK focus' and lists several articles published more than 12 hours ago, including '2012 Summer Olympic and Paralympic Games in London, England' and 'Choose your menu wisely: cuisine-associated food-poisoning risks in restaurants in England and Wales'. A sidebar on the left shows a 'Most Active Topics' list with 'Diseases\_A\_E' and 'Diseases\_F\_P' highlighted. A 'Daily new' section features a line graph showing the number of articles published per day from 28/03 to 26/04, with a peak around 24/04. Below the graph is a list of 'Most active sources for this category' including 'hpa', 'sciencedirect', and 'bbc-news'.

The screenshot shows the MediSys interface for the 'EURO 2012 Ukraine' category. The top navigation bar is similar to the previous screenshot. The main content area is titled 'Latest News About - EURO 2012 Ukraine' and lists several articles published more than 3 hours ago, including 'Neues Impfkonzept für Kinder präsentiert' and 'Mesajul deputatului Varujan Pamuccian cu ocazia Zilei de 24 Aprilie'. A sidebar on the left shows a 'Most Active Topics' list with 'Diseases\_A\_E' and 'Diseases\_F\_P' highlighted. A 'Daily new' section features a line graph showing the number of articles published per day from 28/03 to 26/04, with a peak around 24/04. Below the graph is a list of 'Most active sources for this category' including 'meta-ua', 'forum-ua-uk', and 'publisa'.

# Special daily bulletin for Member States

[Hyperlink to CDTR test version for OG2012](#)



COMMUNICABLE DISEASE THREATS REPORT

UK Olympics 2012  
30 April 2012

For ECDC and European Commission only

This daily bulletin provides updates on threats monitored by ECDC for UK Olympics 2012

## I. Executive summary

### EU Focus

#### **New!** TEST London 2012 UK focus

Opening date: 30 April 2012

This section contains information under assessment about potential public health threats occurring at UK level and triggering international media concern.

→ Update of the day

International media attention outside UK is focusing today 17 April on the nationwide increase of whooping cough cases and on the finding of a study about contaminated meat sold in UK supermarkets.

#### **New!** TEST London 2012 International focus: Europe

Opening date: 30 April 2012

→ Update of the day

Today 17 April 2012 we are including information about brucella contaminated food products in France and about an ongoing flu outbreak on a cruise ship. In addition we are including the ECDC weekly update about the measles situation in Europe.

### Non EU Focus

#### **New!** TEST London 2012 International focus: outside Europe

Opening date: 30 April 2012

This section contains information about potential public health threats occurring at international level outside Europe, that could affect the event.

→ Update of the day

Today we are including information about ongoing Salmonella Bareilly outbreak US, increase in cholera cases Dominican Republic and update about ongoing meningitis outbreak Burkina Faso and Chad.

1/6

European Centre for Disease Prevention and Control (ECDC)

Postal address: ECDC 171 83 Stockholm, Sweden  
Visiting address: Tomtebodavägen 11a, Solna, Sweden

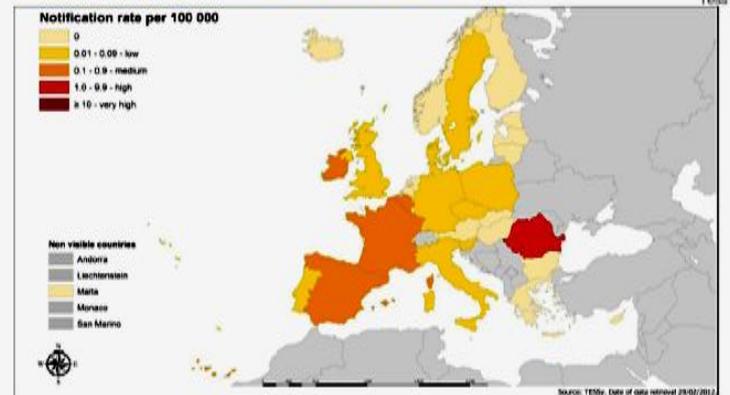
Epidemic Intelligence duty email: [support@ecdc.europa.eu](mailto:support@ecdc.europa.eu)

COMMUNICABLE DISEASE THREATS REPORT

30 April 2012

The CDTR may contain confidential or sensitive information (i.e. EWRS) and therefore, its distribution is restricted to authorized users only.

## Measles, EU/EEA: 2012 notification rates (as of 31 Jan 2012)



#### **New!** TEST London 2012 International focus: outside Europe

Opening date: 30 April 2012

### Epidemiological summary

**Salmonella Bareilly, US:** a US CDC update about the ongoing Salmonella Bareilly multistate outbreak in the US associated with a raw scraped ground tuna product was published. So far a total of 141 individuals infected have been reported from 21 US states. The potential contaminated product has not been reported as being exported to EU countries (RASFF information).

**Cholera, Dominican Republic:** the MoH has confirmed six cases of cholera and several hundreds suspected cases, including a fatal case, in the north of the country; the authorities have set up surveillance activities in the area and have warned the population. An official MoH press release has been published.

**Meningitis, Burkina Faso and Chad:** the severe outbreak affecting the country has already brought to more than 3600 cases including 375 deaths this year; 8 districts are currently affected and serogroup W135 is the most represented. In Chad seven districts are still affected by a serogroup A outbreak with more than 2100 cases reported this year, including 102 deaths.

### ECDC assessment

**Salmonella Bareilly, US:** ECDC is following this event for the potential export of the product to EU countries, including the UK.

**Cholera, Dominican Republic:** this situation needs to be followed as it could represent the starting of a new outbreak in the country. After the severe outbreak of 2010, cases have been reported in Dominican Republic also during 2011 but the number have been decreasing since August 2011, with only sporadic cases reported.

**Meningitis, Burkina Faso and Chad:** since January eleven countries of the meningitis belt are affected by ongoing outbreaks. The situation in Burkina Faso and Chad appears particularly severe and UN agencies are following closely

### Actions

**Salmonella Bareilly, US:** ECDC contacted US CDC in order to get more details about the ongoing investigation.

**Cholera, Dominican Republic:** no actions a part of follow up

**Meningitis, Burkina Faso and Chad:** no actions a part of follow up

### Confidential information

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European Centre for Disease Prevention and Control (ECDC)

Postal address: ECDC 171 83 Stockholm, Sweden  
Visiting address: Tomtebodavägen 11a, Solna, Sweden

Epidemic Intelligence duty email: [support@ecdc.europa.eu](mailto:support@ecdc.europa.eu)

# Epidemic intelligence developments



- Tailored activities include:
  - enhanced screening for specific diseases
  - customisation of media monitoring tool: MedISys (EC)
  - customisation of other web-based event based surveillance tools: PULS (University of Helsinki), GPHIN (PHAC)
  - specific use of blogs/discussion fora
  - twitter syndromic surveillance (London 2012):DIZIE (Biocaster)

# Novel sources

## News

BioCaster About Disclaimer GEN-DR RSS World health alerts

Latest Alerts for London sourced from BioCaster every hour

Latest Alerts for London sourced from DDE every hour



Disease information extraction from tweets



About

Contact

Publications

Disclaimer

BioCaster

City Selector Please select the city and see the trend graph and tweets of the city

Jakarta

Las Vegas

London

Los Angeles

Manaus



10:25 PM



08:25 AM



04:25 PM



08:25 AM



11:25 AM

Musculoskeletal Respiratory Gastrointestinal Hemorrhagic Dermatological Neurological

### Current hotspots



Trend Graph

Tweets

Apr 26th at 04:26 PM in London

Musculoskeletal



Respiratory



Gastrointestinal



Hemorrhagic



Dermatological



Neurological

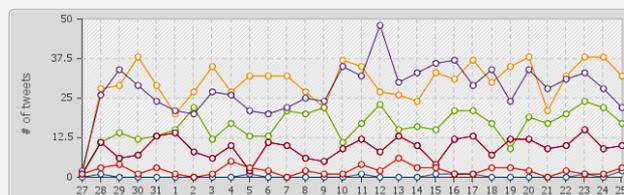


London  
High 16 °C / Low 10 °C  
Cloudy  
Humidity: 55%

Weather by Google

Updated every 30 min. Updated at 12:49 PM

1hour 24hour 1week 1month



Musculoskeletal Respiratory Gastrointestinal Hemorrhagic Dermatological Neurological

Trend Graph Tweets

Tweets related to #plague in London

- 2012-04-06 12:16:58 : Someone please come take my headache away...it's winding me up now. /
- 2012-04-06 10:08:06 : Tony Zito Kelly clearing his nose #nofishbaitmate
- 2012-04-06 10:02:55 : Le Pain quotidien - South Bank, Falmou.
- 2012-04-06 10:02:34 : And Avengers is out today and I am sick and have work and can't go and see it and #jejoivierzjejoivierzjejoivierz /
- 2012-04-06 10:02:00 : shaking like crazy. dizzy like crazy. #lowbloodpressure
- 2012-04-06 09:58:31 : @mrjimbecks good read. Hope the weight loss is going well. Ha
- 2012-04-06 09:52:31 : @davidnail got a sore throat does that count? Caused by laughing so much from watching @jettibham live in London last night
- 2012-04-06 09:46:31 : Was awake from 4 this morning sneezing like crazy. This weather is mad.
- 2012-04-06 08:54:13 : Kicked and upset tummy on arrival at Heathrow weather not as bad as expected though
- 2012-04-06 08:30:15 : @AllMexan not whilst I feel sick aka would be nice though

Latest disease related news for London sourced from BioCaster every hour

### BSS Feed

#### 'Plague' bones dug up at UCL set to go on display to public - Camden New Journal newspapers website

'Plague' bones dug up at UCL set to go on display to public Pictured Above: The bone fragments are discovered at UCL. Published: 26 April, 2012 by WILLIAM...

#### Asian mosquito 'could bring tropical diseases to Britain' - The Independent

An Asian mosquito that can transmit potentially dangerous tropical diseases could soon become established in southern England, according to scientists...

#### CDC: 2011 was worst measles year in U.S. in 15 years

CDC: 2011 was worst measles year in U.S. in 15 years Andy King, for USA TODAY Kamrica Lewis holds her 4-year-old son, London, who caught measles when they...

#### 'Coalition' to blame for swine flu deaths': Ministers 'complacent' over ... - Daily Mail

Conditions 'to blame for swine flu deaths': Ministers 'complacent' over outbreak that killed 474 Hundreds may have died needlessly from swine flu because...

#### Take a walk on the wild side - Manchester Evening News

Jump to Navigation Life & Style Take advantage of the wonderful weather by taking a walk on the wild side - and you don't have to go travel far to enjoy...

#### CDC: Measles on the rise in US - KPRC Houston

Why are measles cases increasing? At this year's Super Bowl in Indianapolis, a handful of fans came home with an unexpected souvenir: the measles. Parents...

#### U.S. Measles outbreak in 2011 is the worst after the year 1996 - Health(V) Destination

U.S. Measles outbreak in 2011 is the worst after the year 1996 ATLANTA- U.S. measles outbreak happened last year was the worst in the measles history of...

#### 2011 a bad year for measles - Winston-Salem Journal

2011 a bad year for measles Last year was the worst year in the last 15 for measles in the United States, health officials said Thursday. They said 222...

#### Measles Makes a Comeback in US as 222 Cases Found in 2011 - BusinessWeek

Measles Makes a Comeback in U.S. as 222 Cases Found in 2011 Measles surged in the U.S. to 222 cases last year more than a decade after it was deemed...

	Non-official sources		Official sources	
Type of source	Media sources	Topic-specific news aggregators, direct contacts or rumours from professionals	Direct contacts with nominated professionals	Official statements on websites and newsletters, formal notifications
EI process to be applied	<b>Screening</b> <b>Filtering</b> <b>Validation</b> <b>Analysis</b>	<b>Screening</b> <b>Filtering</b> <b>Validation</b> <b>Analysis</b>	<b>Screening</b> <b>Filtering</b> <b>Validation</b> <b>Analysis</b>	<b>Screening</b> <b>Filtering</b> <b>Validation</b> <b>Analysis</b>
Primary sources (daily review)	BBC, CNN, XINHUA, AP, REUTERS, BLOOMBERG	GPHIN PULS/MediSYS ProMed Biocaster HealthMap	CB for threat detection, EWRS contact points WHO-EURO	IHR, EWRS, EU-EEA MoH + CB, WHO HQ+ regional off.
Secondary sources (weekly review)	Other international media or news agencies, health-specific media	Google health AlertNet	WHO-HQ, Regional offices, Other experts	Non-EU MoH + surveillance PH networks
Tertiary sources (Ad Hoc review)	National and regional media Blogs etc..	Other PH specific websites, blogs	Non-EU MoH/ Surveillance institutes, General public	Regional networks

## Recomendações:

1. Adaptar protocolos de screening varias semanas antes do grande evento.
2. Envolver vários experts se o tempo permitir.
3. Repetir a metodologia em grandes eventos em outros países.
4. Levar em consideração perparo e planeamento para disastres naturais (enchentes, terremotos, etc.).

# E no país...

- Mudança na estrutura/hierarquia de comando
- Informação imediata do nível local para o topo da pirâmide para eventos selecionados



# Evolução e desenvolvimento da área

## Redes e contatos específicos:

- Sinergias com EpiNorth (collaboração específica UEFA 2012)
- Collaboration com outras redes de clipping fortificadas
- Ponto de contato específico (liaison) na Ucrânia
- Ponto de contato específico com a OMS



# ECDC Liaison officers



- **Objetivo:**  
facilitar e consolidar comunicação de e para o ECDC relacionadas à informação e alertas, e atividades de suporte na resposta
- Teleconferências e reuniões conjuntas
- Contato diário entre os times
- Relatório semanal ao ECDC
- **Nos Jogos Olímpicos:**  
HPA Colindale, UK: 24 July to 13 August
- **No EURO 2012:**  
Chief Sanitary Inspectorate, Poland: 5 June to 1 July

# Training opportunities

- **EURO 2012**
  - ECDC: epidemic intelligence team
  - Poland: national enhanced surveillance
  - Ukraine: liaison officer from Poland
- **London 2012**
  - ECDC: four UK Public Health specialist trainees joining International team
  - London: surge capacity offer
    - **Up to 10 persons mobilised**



# EPIET fellows

- Training opportunity and surge capacity
  - integrated in daily operations
  - undertake projects
  - outbreak investigation support
- Poland NIPH: 2 EPIETs (Polish speaking)
  - daily operations, surveillance evaluation
- WHO CO Ukraine: 1 EPIET (Russian speaking)
  - surveillance and response
- ECDC: 2 EPIETs (Russian and Romanian speaking)
  - epidemic intelligence screening and assessment

# ECDC epidemic intelligence support for MG

- tailored EI monitoring
- interactive filtering & validation
- special daily bulletins
- daily contact teleconferences
- support to daily risk assessment process

## Examples:

- World Cup Germany 2006
- Euro Cup Austria/CH 2008
- Serbia 2009 (Universiade, EXIT and Guča)
- World athletics Berlin 2009
- VI Jeux de la Francophonie Lebanon 2009
- FIFA World Cup South Africa 2010
- London2012, UK
- EURO2012, Poland and Ukraine



# ECDC operational support: on-site

- participate workshops to support surveillance preparations
- ECDC liaison officers
- surge capacity/field epidemiologists

Some examples:

- ICC Cricket world cup, Caribbean 2007
- Euro football cup, Austria/Switzerland 2008
- Universiade, EXIT and Guča, Serbia 2009
- London2012, UK
- EURO2012, Poland and Ukraine



# Conclusões

- Grandes eventos internacionais: eventos 'incomuns'
  - Diminuir limiar para ação
  - Informação atempada é importante
  - Papel da vigilância global
- ECDC foca em suporte operacional para preparo em Grandes Eventos
  - Atividades de 'epidemic intelligence'
  - Suporte técnico
- Redes e parcerias são chave no preparo
  - Nacional/ internacional
  - Identificar papéis e contatos
  - Envolver-se no suporte ao país anfitrião



# Muito obrigada!

Lara Payne  
Pete Kinross

