EuroTravNet
&
Geosentinel in Europe

Prof. Philippe PAROLA, MD, PhD
EuroTravNet Project Coordinator
GeoSentinel Director Europe
Marseille, France
Travel Medicine in Europe: existing structures, functions and added-value of ECDC. Building a network to support Travel and Tropical Medicine related activities at ECDC. OJ/2008/07/08-PROC/2008/019

ECDC wishes to conclude “a framework contract with a body or network of clinical experts in tropical and travel medicine that will support ECDC for detection, verification, assessment and communication of communicable diseases that can be associated with travelling and specifically with tropical diseases.” This tender further requests to “build, maintain and strengthen a multi-disciplinary network of highly qualified experts with demonstrated competence in the diseases covered by this tender, ideally in the field of travel advice, tropical medicine, clinical diagnosis of the returned traveller, and detection, identification and management of imported infections”.
European Sites and Members of GEOSENTINEL
The Global Surveillance Network of the ISTM and CDC

- Provider-based Surveillance of international travelers and migrants. Does not cover endemic diseases in local populations
  - 55 travel/tropical medicine clinics globally (since 1996)
  - 215 Network Members on all 6 continents (since 2002)
Principles of GeoSentinel

• Provider-based **surveillance**
  1. Diagnosis
  2. Place of Exposure
  3. Chronology of Exposure

• Only basic demographics

• Not a complete clinical record
WP 1: Secretariat and information management of the network
WP 2: Travel medicine resources review
WP 3: Support to ECDC’s Epidemic Intelligence and Response activities
Welcome

The International Society of Travel Medicine (ISTM) has initiated EuroTravNet - the European Travel Medicine Network - to create a network of clinical experts in tropical and travel medicine to support detection, verification, assessment and communication of communicable diseases that can be associated with travelling and specifically with tropical diseases. The goal of EuroTravNet is to build, maintain and strengthen a multi-disciplinary network of highly qualified experts with demonstrated competence in diseases of interest, ideally in the field of travel advice, tropical medicine, clinical diagnosis of the returned traveller, and detection, identification and management of imported infections.

EuroTravNet is the collaborative network of the European Centre for Disease Prevention and Control (ECDC). It has been funded in 2008 through the public tender "Travel Medicine in Europe: existing structures, functions and added-value of ECDC. Building a network to support Travel and Tropical Medicine related activities at ECDC.,” and in 2010 through the public tender "Network to support Travel and Tropical Medicine related activities at ECDC."

The EuroTravNet founding core sites and members belong to the GeoSentinel Global Surveillance Network, a worldwide communication and data collection network for the surveillance of travel related morbidity.

www.eurotravnet.eu
Network of travel and tropical medicine specialists (EuroTravNet)

ECDC is funding an expert network of travel and tropical medicine specialists. EuroTravNet, through a public call for tender. The detailed tender specifications of the current (second) framework contract, in place since mid-2010, are available from: Network to support Travel and Tropical Medicine related activities at ECDC.

The first framework contract was established in 2008, and more information is available from: Travel Medicine in Europe: existing structures, functions and added-value of ECDC. Building a network to support Travel and Tropical Medicine related activities at ECDC.

More information including details on how to join the network, can be found on the dedicated EuroTravNet webpage.

 SCOPE OF THE PROJECT:

- To support detection, verification, assessment and communication of communicable diseases that can be associated with travelling, specifically with tropical diseases.
- To provide ad hoc response to specific queries regarding potential outbreaks or trends in travel-related infections.

Form of collaboration: Framework service contract established in September, 2008.

Project manager and liaison at ECDC: Dr. Francisco Santos O’Connor.

EUROTRAVNET: CURRENT PERIOD

Network to support Travel and Tropical Medicine related activities at ECDC


2010-2011 Contract with ECDC

57 EuroTravNet Members
16 Core Sites +
41 Network Members in
22 countries

Last new members:
Milan - Czech Republic - Denmark – Russia - Romania
EUROTRAVNET / GEOSENTINEL: 2010 - 2011

Project Directors
- David Freedman (ISTM)
- Philippe Parola (EuroTravNet) (EuroTravNet) (ISTM)
- Phyllis Kozarsky (ISTM/DGMQ)
- Mark Sotir (DGMQ)

Special Consultant
- Marty Cetron (DGMQ)

Data Manager
- Elena Axelrod (ISTM)

Med. Epidemiologist
- Doug Esposito (DGMQ)

Statistical Support
- Pauline Han (DGMQ)
- Kira Harvey (DGMQ)

ISTM Executive Board

Publication Committee
- 5 Rotating Site Directors and GeoSentinel Staff

210 Network Members in 40 countries

55 Surveillance Sites on 6 continents

Program Manager: Adam Plier (UAB)

Fiscal Management & Travel Coordination: Elena Val (ISTM)

GeoSentinel

CDC
3rd **EuroTravNet Annual Meeting**: Bucharest, at the Clinical Hospital of Infectious and Tropical Diseases "Dr. V. Babes“, April 2011
EUROTRAVNET: 2010 – 2011

Network to support Travel and Tropical Medicine related activities at ECDC


WP 1: Network secretariat and information management

WP 2: Guidance on “Travel risks, precautions and vaccination requirements”

WP 3: Support to ECDC’s Epidemic Intelligence and Response activities

EXPERTISE + GEOSENTINEL SURVEILLANCE SYSTEM
CORE SITES
What Is a EuroTravNet Core Site?

EuroTravNet founding Core Sites are EuroTravNet members who participate in the GeoSentinel Network as full surveillance sites in Europe, participating in surveillance and monitoring of all travel-related illnesses seen in their clinic. They submit epidemiologic data linking diagnoses with exposure information. These data are entered into a database and periodically analysed. Information on how to become a GeoSentinel surveillance site is available at the GeoSentinel web site.

Patients with travel-related condition

GeoSentinel Site

In Europe = EuroTravNet Cores Site

Surveillance Data

Reports

Central Database

European GeoSentinel sites are financially supported by ETN. The idea is to help support expansion of GeoS sites in Europe by defraying DataEntry costs that GeoS makes, but it needs to be clear that GeoS is still supporting almost 70% of these data entry costs.
For the entire duration of the tender, EuroTravNet members will actively participate in the epidemic intelligence activities (support outbreak and cluster detection, verification and investigation) and give advice and guidance for risk assessment and risk communication.

For this purpose EuroTravNet will maintain a 24/7 on call duty system (generic dial-in number and email address) through which the ECDC can access all year round the expertise within the network. The 24/7 System will be in place no later than three months after the signature of the contract that is at the end of the first quarter of 2009.
De: Jas Mantero <Jas.Mantero@ecdc.europa.eu>
Objet: Tularemia, Central Anatolia (ECDC)
À: "surveillance@euro travnet.eu" <surveillance@euro travnet.eu>
Cc: "secretariat@euro travnet.eu" <secretariat@euro travnet.eu>
Date: Lundi 21 mars 2011, 16h10

Dear Philippe,

During the last days we were informed about a few confirmed cases of tularemia in EU citizens coming back from Central Anatolia. Cases were reported between the end of 2010 and beginning of 2011 and had in some case no clear exposure to animals.

The information has been shared through the EWRS, our confidential communication platform and we cannot share too many details but we considered that this information could be of some interest for EuroTravNet in order to raise awareness about a disease that could be missed or detected with some delay among citizens coming back from endemic areas like this.

We would appreciate any comment from your side and ask you to share this very basic information with colleagues from the network.
Rapid communications


P Gautret (surveillance@eurotravnet.eu), J Clerinx, E Caumes, F Simon, M Jensenius, L Loutan, P Schlagenhauf, F Castelli, D Freedman, A Miller, U Bronner, P Parola, for EuroTravNet

Perspectives

EuroTravNet: imported Chagas disease in nine European countries, 2008 to 2009

J A Perez-Molina (jose.perezmolina@gmail.com), A Perez-Ayala, P Parola, Y Jackson, S Odolini, R Lopez-Velez, for the EuroTravNet Network

Article published on 15 September 2011
Provider-based Sentinel Surveillance
The 3 Functions of GeoSentinel

1. Surveillance – Response
   - Alarming sentinel events

2. Surveillance – ongoing trends

3. Analysis of morbidity and estimating risk
   - Diagnosing the ill-returnee; the clinician perspective
   - Advising the Prospective Traveler; the traveler perspective
   - Defining associations between patient characteristics and disease
Provider-based Sentinel Surveillance
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1. Surveillance – Response - Alarming sentinel events

Dear Friends,

see below a message from Phil Gautret about Dengue in Benin, Africa.

Furthermore, as you have seen in Promed, there is a big and still ongoing outbreak of dengue in French Caribbean islands, including Martinique and Guadeloupe! The Army is now fighting with mosquitoes there.

Phil

The Marseille site reported Dengue in travelers from Benin.
Together with an alert on Benin, these cases indicate where dengue is not usual and all cases should be reported.

Sincerely,
Dr. Philippe Gautret

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**Rapid Communications**

**Dengue virus infections in travellers returning from Benin to France, July-August 2010**

P Gautret (surveillance@eurotravnet.eu), E Botelho-Nevers, R N Charrel, P Parola

1. Infectious and Tropical Diseases Unit, Hôpital Nord AP-HM, Marseille, France
2. EuroTravNet, the Network for travel medicine and tropical diseases of the European Centre for Disease Prevention and Control, Marseille, France
3. Virology laboratory, AP-HM hospital Timone, Marseille, France

Citation style for this article:

Published in EuroSurveillance 7 days later

In July and August 2010, two cases of dengue fever were diagnosed in travellers returning from Benin to France. These two cases exemplify that dengue fever should be considered in febrile travellers, even those returning from areas where the infection is not usual.

The second case was a migrant from Benin in her 30s, established in France for over five years, who visited friends and relatives in Cotonou in July and August 2010. During her stay, she suffered from fever (39°C), headaches, arthralgias, myalgias, nausea, anorexia
Rapid communications

Plasmodium vivax malaria in a Romanian traveller returning from Greece, August 2011

In August 2011, a Plasmodium vivax malaria infection was diagnosed in a Romanian traveller returning from Greece. This case together with several reports over the past decade of autochthonous cases in Greece highlight that malaria should be considered as differential diagnosis in symptomatic travellers returning from this country. Travellers may serve as sentinels of emerging vector-borne diseases.

outbreak response support team from ECDC in Greece to assess the current situation related to malaria
Rapid communications

Imported extensively drug-resistant Mycobacterium tuberculosis Beijing genotype, Marseilles, France, 2011

S Cohen-Bacrie1,2, I Ben Kahla1,2, E Botelho-Nevers2,3, M Million2,3, P Parola2,3, P Brouqui2,3, M Drancourt
(michel.drancourt@univmed.fr)1,2

Multidrug- (MDR) and extensively drug-resistant (XDR) tuberculosis (TB) are reported to gradually spread across European countries with low TB prevalence including France. Some isolates may even accumulate traits of resistance in addition to the XDR profile, as a result of therapeutic mismanagement. We report here the first case of XDR TB in Marseilles and discuss the potential effectiveness of sulfamide treatment in such cases.
GeoSentinel Response Capabilities

- Rapid Query-Response loop
  - 55 GeoSentinel Sites
  - 215 GeoSentinel Network Members
  - ISTM members
    (TravelMed; 2600 members in 75 countries)
  - Partners
    (WHO, ProMed, IDSA, TropMed, CDC, etc)
- Outgoing Alerts/Advisories
  - Broadcast radius is situation dependent
- Collaboration with public health partners
Alarming Events Strategy

• Fixed list of flagged diagnoses
  – Any such record entered into the central database triggers an immediate alarm
  – Immediate notification of a Project Director for decision on response

• Temporary flagged diagnoses added based on situations arising
Rare Alarming Events

- Anthrax, pulmonary/cutaneous
- Botulism
- Chagas disease, acute
- Cholera (toxigenic V. cholera)
- Death
- Dengue (severe/complicated)
- Diphtheria
- Ebola virus
- Encephalitis, acute
- Hemorrhagic fever, acute
- Influenza, Avian
- Lassa Fever
- Malaria - Atovaquone/Mefloquine/Quinine resistant
- Meningococcal meningitis
- Mycobacterium tuberculosis (MDR or XDR)
- Polio
- Rabies
- Rickettsia prowazeki
- SARS
- Smallpox
- Trypanosomiasis, African
- Tularemia
- Yellow Fever
- *Yersinia pestis*, plague & pneumonic
1. Surveillance – Response
   - Alarming sentinel events

2. Surveillance – ongoing trends

3. Analysis of morbidity and estimating risk
   - Diagnosing the ill-returnee; the clinician perspective
   - Advising the Prospective Traveler; the traveler perspective
   - Defining associations between patient characteristics and disease
In late February-early April 2010, five cases of dengue fever were diagnosed in returning travellers in Europe in EurotravNet sites in Sweden and France in patients with travel history to the Comoros and/or Zanzibar, Tanzania. Four cases were non-complicated dengue fever and one case dengue hemorrhagic fever. Three patients were viraemic at the time of diagnosis and infected with Dengue type 3 virus.

Returning travellers serve as sentinels for local outbreaks in endemic areas!
Dengue Morbidity in Sentinel Travelers Can Herald Regional Epidemics

Provider-based Sentinel Surveillance
The 3 Functions of GeoSentinel

1. Surveillance – Response
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3. Analysis of morbidity and estimating risk
   – Diagnosing the ill-returnee; the clinician perspective
   – Advising the Prospective Traveler; the traveler perspective
   – Defining associations between patient characteristics and disease
### Patient Report by Diagnosis and/or Travel Exposures

**Patients (24 Matches)**

<table>
<thead>
<tr>
<th>Patient ID</th>
<th>Age</th>
<th>Gender</th>
<th>Birth Country</th>
<th>Country of Residence</th>
<th>Clinic Visit Date</th>
<th>Record Created Date</th>
<th>Travel Reason</th>
<th>Risk Level Qualifier</th>
<th>Final Diagnosis</th>
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</tbody>
</table>

**Additional Information**
- **Country of Exposure:** Various
- **Reason for Travel:** Business, Medical
- **Risk Level Qualifier:** Pre-Arranged or Organized Travel
- **Final Diagnosis:** CHIKUNGUNYA, Suspect, Confirmed
Diagnoses: Comprehensive & Flexible

**Comprehensive**
- 520 available diagnosis codes in table
- New codes added as needed
- 199,134 final diagnoses for 155,086 patients

**Flexible**
- 1000x Etiologies
- 100x Diseases
- 10x Syndromes
GeoSentinel Dataset, Sept 2011

Number of Patients in GeoSentinel ($n = 155,086$)

Place of Likely Exposure in Patients Seen After Travel
Who are GeoSentinel patients? (as of Sept 2011)

Complete Database
(n = 155,086)

- 50% (77,828)
- 31% (48,373)
- 15% (22,489)
- Visit clinic after travel
- Visit clinic during travel
- Immigration travel only
- Not travel related

After Travel Visits Only
(n = 77,828)

- Tourism 57% (42,252)
- Business 14% (11,014)
- Missionary Volunteer Work 14% (10,579)
- VFR 12% (9,602)
- Student 2% (1,619)

Visit clinic after travel
Visit clinic during travel
Immigration travel only
Not travel related

CDC
Contribution by Treating Site

$n = 155,086$ patients as of Sept 2011

- **US**: 17%
- **Nepal**: 20%
- **Canada**: 11%
- **Europe**: 32%
- **Israel**: 3%
- **Asia**: 11%
- **Aus/NZ**: 3%
- 1.7% from Latin America, Africa, Caribbean
## Rich Database of Travel Morbidity

### Benefits
- Guide diagnostic approach
- Guide empiric therapy
- Prioritize pre-travel prevention strategies
Multicenter EuroTravNet/GeoSentinel Study of Travel-related Infectious Diseases in Europe

Philippe Gautret, Patricia Schlagenhauf, Jean Gaudart, Francesco Castelli, Philippe Brouqui, Frank von Sonnenburg, Louis Loutan, and Philippe Parola, for the GeoSentinel Surveillance Network\textsuperscript{1,2}

Emerging Infectious Diseases • www.cdc.gov/eid • Vol. 15, No. 11, November 2009

[Graph showing distribution of travelers by region]
Multicenter EuroTravNet/GeoSentinel Study of Travel-related Infectious Diseases in Europe

Philippe Gautret, Patricia Schlagenhaus, Jean Gaudart, Francesco Castelli, Philippe Brouqui, Frank von Sonnenburg, Louis Loutan, and Philippe Parola, for the GeoSentinel Surveillance Network¹,²

Emerging Infectious Diseases • www.cdc.gov/eid • Vol. 15, No. 11, November 2009

10 ill returned travellers

4 Gastro-intestinal diseases
2 Febrile systemic illnesses
2 Dermatologic
1 Respiratory diseases

17228 patients
1997-2007
### Reason for travelling

<table>
<thead>
<tr>
<th></th>
<th>Acute Diarrhea</th>
<th><em>P. falciparum</em> Malaria</th>
<th>Dermatologic</th>
<th>GU STD</th>
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<tbody>
<tr>
<td>Tourist</td>
<td>22.7%</td>
<td>5.3%</td>
<td>15.9%</td>
<td>3.0%</td>
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<tr>
<td>Immigrant</td>
<td>10.5</td>
<td>24.8</td>
<td>11.1</td>
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<tr>
<td>VFR</td>
<td>20.3</td>
<td>5.0</td>
<td>13.3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Proportionate Morbidity: no. of patients with given diagnosis (or group of diagnoses) / all ill travelers to a destination
Place of exposure
Febrile systemic illnesses

- Typhoid fever: 0.3%
- Dengue: 2.4%
- Chikungunya: 0.2%
- Rickettsiosis: 0.6%
- P. falciparum: 5.3%
- Other: 1.7%, 6.3%, 13.9%, 32.0%, 5.7%
Risk groups: targets for prevention

- **Acute diarrhea**: all categories of European travellers to South Central Asia, North Africa and Middle East, but particularly classic tourist-travellers.

- **P. falciparum malaria**: immigrant-travellers from Italy and France who visit friends and relatives in sub-Saharan Africa and the Indian Ocean Islands.

- **Dengue**: travellers to South East Asia.

- **Thyphoid fever**: travellers to South Central Asia.

- **Rickettsiosis**: travellers to sub-Saharan Africa.

- **Dermatological conditions**: tourist travellers to the Caribbean and Central and South America (parasitic diseases) and to North Africa, Middle East and South East Asia (Potentially rabid animal bites).

- **STD**: missionary expatriate and immigrant VFR travellers to Eastern Europe, South East Asia and Caribbean.
Eu vs Non Eu
Travel and migration associated infectious diseases morbidity in Europe, 2008

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BMC Infectious Diseases 2010, 10:330

6957 Ill returned travellers

3 deaths recorded
- *E.coli* pyelonephritis and sepsis following a 2-month sojourn in Spain
- Dengue Shock Syndrome following a 3 week pre-arranged tourist trip to Phuket
- *P. falciparum* malaria related death in an aid worker who had visited Liberia for three weeks
Gastro-intestinal: 33% of illnesses followed by febrile systemic illnesses: 20%
dermatological conditions: 12% and respiratory illnesses: 8%

Febrile systemic illnesses (20%) with identified pathogen:

Malaria (5.4%) accounted for most cases followed by dengue (1.9%)

Others including chikungunya, rickettsial diseases, leptospirosis, brucellosis, EBV infections, tick-borne encephalitis (TBE) and viral hepatitis.
Dermatological conditions (12% of total) :
dominated by bacterial infections, arthropod bites, cutaneous larva migrans
animal bites requiring rabies post-exposure prophylaxis and also leishmaniasis, myasis, tungiasis and one case of leprosy.

Respiratory illness (8% of total) :
• 112 tuberculosis including 6 MDR tuberculosis,
• 104 cases of influenza like illness
• 5 cases of Legionnaires disease.

Sexually transmitted infections (STI) : 0.6%
including HIV infection and syphilis.

165 cases of potentially vaccine preventable diseases
Purpose of travel and destination specific risk factors was identified for several diagnoses such as

- Chagas disease in immigrant travellers from South America
- *P. falciparum* malaria in immigrants from sub-Saharan Africa (SSA).

**Travel within Europe** is also associated with health risks with distinctive profiles for Eastern and Western Europe.
Marked increase in the number of travellers exposed in North America and western Europe.

Respiratory illnesses, in particular pandemic A(H1N1) influenza, influenza-like syndromes, and tuberculosis, were also observed more frequently. A significant increase in reported dengue cases in 2009 as compared with 2008 was observed (n = 172, 2.7% vs. n = 131, 1.90%). The numbers of malaria and chikungunya cases were also increasing, although not significantly.

Two deaths: visceral leishmaniasis and sepsis in a Sudanese migrant, and Acinetobacter sp. pneumonia in a patient who had visited Spain.
Travel-related imported infections in Europe, EuroTravNet 2009

S. Odolini¹, P. Parola², E. Gkrania-Klotsas³, E. Caumes⁴, P. Schlagenhauf⁵, R. López-Vélez⁶, G.-D. Burchard⁷, F. Santos-O’Connor⁸, L. Weld⁹, F. von Sonnenburg¹⁰, V. Field¹¹, P. de Vries¹², M. Jensenius¹³, L. Loutan¹⁴ and F. Castelli¹

H1 N1
## 2010: on going analysis
7408 ill returned travellers

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>2008</th>
<th>2009</th>
<th>2010 excluding new sites</th>
<th>2010 all sites</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>P. falciparum</em> malaria</td>
<td>254 (3.67)</td>
<td>260 (4.54)</td>
<td>361 (5.80)</td>
<td>426 (5.75)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Non falciparum malaria</td>
<td>104 (1.50)</td>
<td>77 (1.35)</td>
<td>111 (1.78)</td>
<td>146 (1.97)</td>
<td>0.14</td>
</tr>
<tr>
<td>Severe malaria</td>
<td>12 (0.17)</td>
<td>13 (0.23)</td>
<td>30 (0.48)</td>
<td>35 (0.47)</td>
<td>0.003</td>
</tr>
<tr>
<td>Dengue</td>
<td>127 (1.84)</td>
<td>127 (2.22)</td>
<td>299 (4.80)</td>
<td>357 (4.82)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Chikungunya</td>
<td>12 (0.17)</td>
<td>14 (0.24)</td>
<td>25 (0.40)</td>
<td>30 (0.40)</td>
<td>0.04</td>
</tr>
<tr>
<td>Giardia</td>
<td>190 (2.75)</td>
<td>156 (2.73)</td>
<td>182 (2.92)</td>
<td>215 (2.90)</td>
<td>0.76</td>
</tr>
<tr>
<td>Campylobacter</td>
<td>87 (1.26)</td>
<td>92 (1.61)</td>
<td>126 (2.02)</td>
<td>174 (2.35)</td>
<td>0.002</td>
</tr>
<tr>
<td>Salmonella</td>
<td>77 (1.11)</td>
<td>68 (1.19)</td>
<td>99 (1.59)</td>
<td>127 (1.71)</td>
<td>0.04</td>
</tr>
<tr>
<td>Pulmonary tuberculosis</td>
<td>39 (0.56)</td>
<td>78 (1.36)</td>
<td>117 (1.88)</td>
<td>121 (1.63)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Schistosomiasis</td>
<td>124 (1.79)</td>
<td>108 (1.89)</td>
<td>134 (2.15)</td>
<td>152 (2.05)</td>
<td>0.31</td>
</tr>
<tr>
<td>Chronic Chagas</td>
<td>94 (1.36)</td>
<td>30 (0.52)</td>
<td>60 (0.96)</td>
<td>60 (0.81)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Cutaneous Larva migrans</td>
<td>95 (1.37)</td>
<td>86 (1.50)</td>
<td>92 (1.48)</td>
<td>112 (1.51)</td>
<td>0.81</td>
</tr>
</tbody>
</table>
2010: ongoing analysis

Dengue all cases
GeoSentinel Publications 2009-2011


EuroTravNet / Geosentinel platform: NEW TOOLS

EuroTravNet HealthMap – live at ECDC and all sites in real time
EuroTravNet / Geosentinel platform: EuroTravNet HealthMap update

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Malaria, P. falciparum — confirmed, Republic of Congo
Malaria, P. falciparum — confirmed
Place of exposure reported to GeoSentinel: Brazzaville, Congo, Republic of Congo
GeoSentinel clinic visit date: 7 Mar 2011
Date reported to GeoSentinel: 9 Mar 2011
Appropriate chemoprophylaxis taken (Yes/NO): no
Disease: Malaria
View map: Republic of Congo

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Rickettsia, tick borne spotted fever — probable, South Africa
Rickettsia, tick borne spotted fever (r. africae, r. conori, r. rickettsii, and other) — probable
Place of exposure reported to GeoSentinel: South Africa
GeoSentinel clinic visit date: 18 Feb 2011
Date reported to GeoSentinel: 10 Mar 2011
Disease: Rickettsia
View map: South Africa

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Meningitis, viral — confirmed, Mexico
Meningitis, viral — confirmed
Place of exposure reported to GeoSentinel: Puerto Vallarta, Jalisco, Mexico, Mexico
GeoSentinel clinic visit date: 1 Jul 2010
Date reported to GeoSentinel: 3 Jul 2010
Disease: Meningitis
View map: Puerto Vallarta, Jalisco, Mexico
Extra Task include Research Proposals

Survey Background - Imported DENV and CHIKV infections (23 Apr 2010, 127 kB PDF)
Consent Form - Imported DENV and CHIKV infections (27 Jan 2010, 28 kB Word)

Diagnosis and Specific Surveillance of Rickettsioses
Survey Background - Rickettsioses (REVISED 25 Nov 2009, 95 kB PDF)
Survey Form - Rickettsioses (REVISED 25 Nov 2009, 106 kB PDF)

Diagnosis and Specific Surveillance of Katayama Syndrome
Survey Background - PCR for Katayama (67 kB PDF)
Survey Form - PCR for Katayama (REVISED 24 Nov 2009, 54 kB PDF)

Diagnosis and Specific Surveillance of Imported Staphylococcus aureus
Survey Background - StaphTrav Presentation (5.03 MB PDF)
Study Protocol (76 kB PDF)
Forms available at Web Site - www.staphtrav.eu E-mail - info@staphtrav.eu
EuroTravNet future ?
Futur Collaboration between ECDC and Geosentinel?

Focus on Expertise + Epidemic Intelligence and Supports activities = Geosentinel plateform & surveillance system
Public Health Agency of Canada will provide financial support to the consortium of Canadian sites for data entry through geosentinel.

The terms are exactly the same as the model with ECDC for EuroTravNet.
Who can join?
How to join?
What is the benefit?

www.eurotravnet.eu
THANK YOU

www.eurotravnet.eu
www.geosentinel.org

Special thanks:
   EuroTravNet / Geosentinel reporting sites and members
   Geosentinel staff and Directors
   Partners at ISTM, US CDC, ECDC