



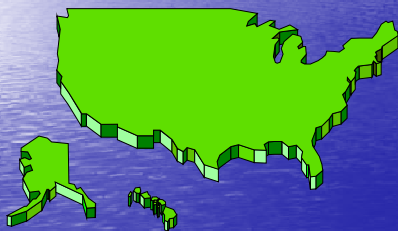
Dr. Corti  
Giampaolo

Unità di Malattie  
infettive<sup>\*,\*\*</sup>,  
Dip. Area critica  
medico-chirurgica

**\*S.O.D. e D.H. Malattie  
Infettive e Tropicali**

**\*\* Ambulatorio di  
Patologie Infettive  
Epatiche**

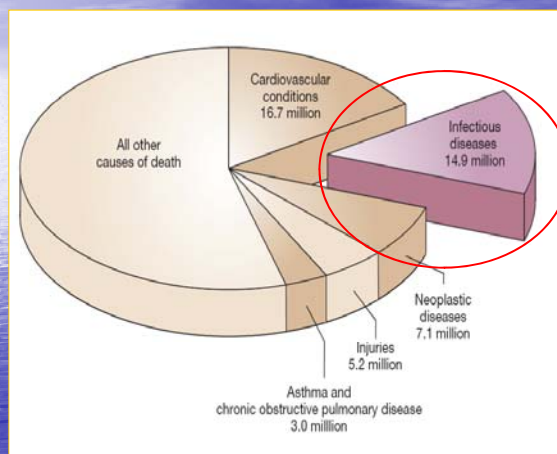
“E’ giunto il momento di  
chiudere il libro delle  
malattie infettive...”



...negli Stati Uniti le  
abbiamo praticamente  
debellate”

**William H. Stewart, chirurgo generale, 1967**

## Principali cause di morte nel mondo



(<http://www.who.int/whr/en>)

### Morti/anno (milioni)

Infezioni respiratorie	3,96
HIV/AIDS	2,77
Diarree	1,80
Tubercolosi	1,56
Mal. prevenibili da vaccini	1,12
Malaria	1,27
Malattie sesso-trasmesse	0,18
Meningite	0,17
Epatite B e C	0,16
Mal. parassitarie tropicali	0,13
Dengue	0,02
Altre malattie infettive	1,76



## Global burden of cancers attributable to infections in 2008: a review and synthetic analysis



Catherine de Martel, Jacques Ferlay, Silvia Franceschi, Jérôme Vignat, Freddie Bray, David Forman, Martyn Plummer

### Summary

**Background** Infections with certain viruses, bacteria, and parasites have been identified as strong risk factors for specific cancers. An update of their respective contribution to the global burden of cancer is warranted.

**Methods** We considered infectious agents classified as carcinogenic to humans by the International Agency for Research on Cancer. We calculated their population attributable fraction worldwide and in eight geographical regions, using statistics on estimated cancer incidence in 2008. When associations were very strong, calculations were based on the prevalence of infection in cancer cases rather than in the general population. Estimates of infection prevalence and relative risk were extracted from published data.

**Findings** Of the 12.7 million new cancer cases that occurred in 2008, the population attributable fraction (PAF) for infectious agents was 16.1%, meaning that around 2 million new cancer cases were attributable to infections. This fraction was higher in less developed countries (22.9%) than in more developed countries (7.4%), and varied from 3.3% in Australia and New Zealand to 32.7% in sub-Saharan Africa. *Helicobacter pylori*, hepatitis B and C viruses, and human papillomaviruses were responsible for 1.9 million cases, mainly gastric, liver, and cervix uteri cancers. In women, cervix uteri cancer accounted for about half of the infection-related burden of cancer; in men, liver and gastric cancers accounted for more than 80%. Around 30% of infection-attributable cases occur in people younger than 50 years.

**Interpretation** Around 2 million cancer cases each year are caused by infectious agents. Application of existing public health methods for infection prevention, such as vaccination, safer injection practice, or antimicrobial treatments, could have a substantial effect on the future burden of cancer worldwide.

**Funding** Fondation Innovations en Infectiologie (FINOVI) and the Bill & Melinda Gates Foundation (BMGF).

Published Online  
May 9, 2012  
DOI:10.1016/S1473-2045(12)70137-7

See Online/Comment  
DOI:10.1016/S1473-2045(12)70176-6

International Agency for Research on Cancer, Lyon, France (C de Martel MD, J Ferlay ME, S Franceschi MD, J Vignat MSc, F Bray PhD, D Forman PhD, M Plummer PhD)

Correspondence to: Dr Martyn Plummer, International Agency for Research on Cancer, 150 cours Albert Thomas, 69372 Lyon cedex 08, France; plummern@iarc.fr

INFEZIONI E CANCRO		
Patogeno	Neoplasia	Prevalenza
<i>H. pylori</i>	Cancro gastrico	90%
	Linfoma non-Hodgkin gastrico	86%
EBV	Linfoma di Hodgkin	Mondo occidentale 40%
	Linfoma di Burkitt	PVS 90% bambini, 60% adulti Africa subsahariana 100%
	Carcinoma nasofaringeo	Resto del mondo 20-30% 80-100%
HBV/HCV	Epatocarcinoma	Sudest asiatico 79-87%
		Africa e Medio Oriente 82-84% America latina 82% Mondo occidentale 42-48%
HCV	Linfoma non-Hodgkin	5-18%
HHV-8	Sarcoma di Kaposi	100%
HPV	Cancro della cervice	100%
	Carcinoma anale	88%
	Carcinoma vaginale	70%
	Carcinoma penieno	50%
	Carcinoma vulvare	43%
	Carcinoma orofaringeo	17-56%
HTLV-1	Leucemia/linfoma a cellule T	100%
<i>Opistorchis</i>	Colangiocarcinoma	?
<i>S. haematobium</i>	Carcinoma vescicale	Medio Oriente 42%
		Africa subsahariana 41%

de Martel et al, Lancet  
Oncol online, 9/5/12

## Prescrizione ambulatoriale di antibiotici nelle infezioni respiratorie


- Faringite 76%
- Bronchite 66%
- Sinusite 56%
- Altre (laringofaringite ecc.) 52%
- Raffreddore 51%
- Otite media 47%

Gonzales et al, JAMA 1997, 278: 901-4


10 anni dopo, le prescrizioni sono diminuite del 18-41%

Grijalva et al, JAMA 2009, 302: 758-66





# ANTIBIOTICI? USALI SOLO QUANDO NECESSARIO



**NON USARLI IN CASO DI RAFFREDDORE  
O INFLUENZA**


**ASSUMILI SOLO DIETRO PRESCRIZIONE  
MEDICA**

**PRENDILI NELLE DOSI E NEI TEMPI  
INDICATI DAL MEDICO**

**DIFENDI LE TUE DIFESE**

VGA Net srl con il patrocinio del Ministero della Salute

## ANTIBIOTICI? USALI SOLO QUANDO NECESSARIO



### Consumi e spesa per antibiotici nel 2011

La spesa a carico del Servizio Sanitario Nazionale per gli antibiotici fa registrare nel 2011 livelli sostanzialmente stabili per consumi e una lieve diminuzione per la spesa (-7%).

A livello ospedaliero, per il periodo gennaio - ottobre 2011, si osserva un leggero decremento della spesa (-1,2%) che è accompagnato da una crescita della prescrizione (+14%), a conferma del fatto che i consumi dei farmaci non vengono razionalizzati, ma aumenta il ricorso a quelli a brevetto scaduto (generici).

Se si analizza il tipo di prescrizione si può osservare una marcata differenza fra quella territoriale e quella ospedaliera. Sul territorio penicilline (8,4 DDD), macrolidi, chinoloni, e cefalosporine orali sono gli antibiotici maggiormente prescritti. Fra questi si osserva una riduzione della prescrizione per chinoloni, cefalosporine orali e macrolidi (-1,7%, -0,9%, -0,3%), mentre aumentano le penicilline (+5,4%). L'associazione amoxicillina/acido clavulanico compare fra i primi 30 principi attivi a più alto consumo e spesa territoriale.

A livello ospedaliero, invece, fra gli antibiotici aumenta la prescrizione di chinoloni, penicilline e cefalosporine di II e III generazione; tale aumento si accompagna ad una diminuzione della spesa per la perdita di brevetto della maggior parte dei principi attivi e il conseguente aumento dell'impiego di generici. Aumenta invece sia la prescrizione sia la spesa dei glicopeptidi e degli altri antibiotici, verosimilmente dovuta a teicoplanina, linezolid e daptomicina, principi attivi ad elevato costo. Diminuisce invece la prescrizione di carbapenemi (-12,9%), aminoglicosidi (-11,1%) e macrolidi (-23,4%).

**AIFA - Comunicato stampa  
n° 240 del 9/5/2012**

**18 novembre: giornata europea della  
consapevolezza sugli antibiotici**

VGA Net srl con il patrocinio del Ministero della Salute

A seguito della valutazione, il Direttore Generale rilascia l'attestato di conformità alla buona pratica regionale:

## IGIENE DELLE MANI



**ATTESTATO DI  
BUONA PRATICA**

Univ. Careggi

A seguito della valutazione, il Direttore Generale rilascia l'attestato di conformità alla buona pratica regionale:

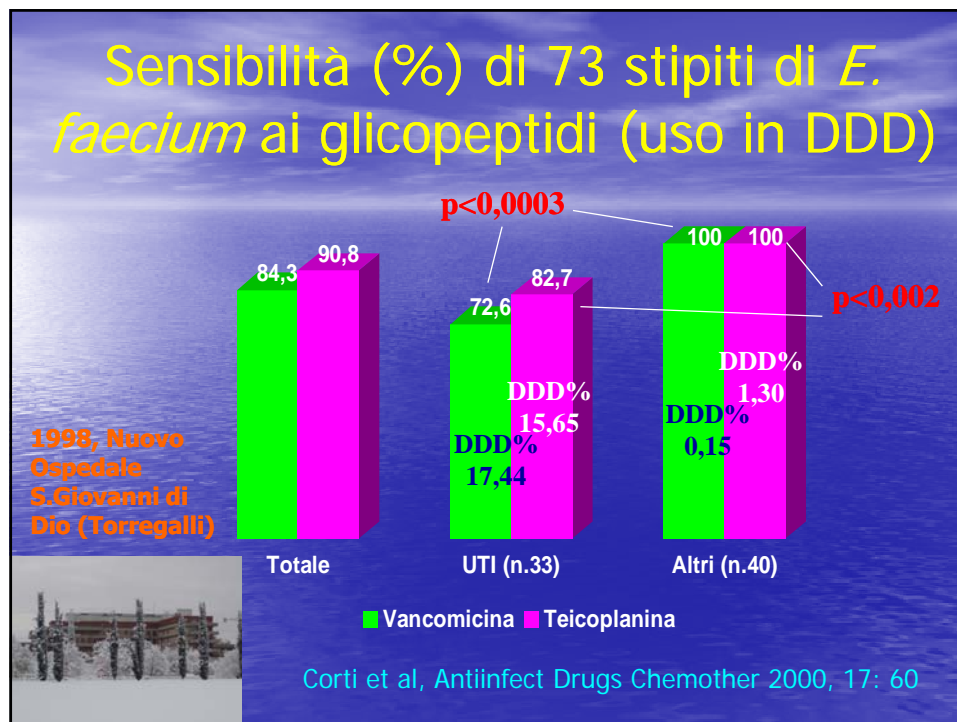
## USO CORRETTO DEGLI ANTIBIOTICI



**ATTESTATO DI  
BUONA PRATICA**

Univ. Careggi





## Terminologia

- *Staphylococcus aureus*
- *Streptococcus pyogenes*
- *Escherichia coli*
- *Pseudomonas aeruginosa*
- *Candida albicans*
- *Cryptococcus neoformans*
- *Plasmodium falciparum*
- *Toxoplasma gondii*

## Pandemie influenzali del XX secolo



**1918: Spagnola**

20-50.000.000 morti

**A(H<sub>1</sub>N<sub>1</sub>)**



**1957: Asiatica**

~2.000.000 morti

**A(H<sub>2</sub>N<sub>2</sub>)**



**1968: Hong Kong**

~1.000.000 morti

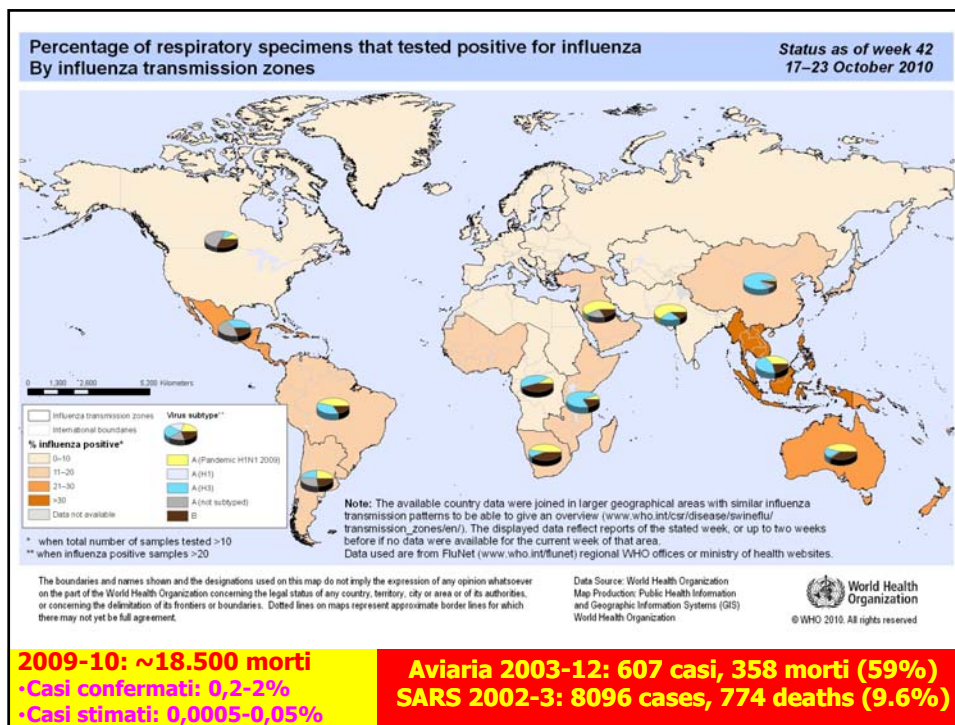
**A(H<sub>3</sub>N<sub>2</sub>)**

**1<sup>a</sup> guerra mondiale: 35-40 milioni tra morti, feriti, dispersi e prigionieri**

## Pandemia influenzale da A(H<sub>1</sub>N<sub>1</sub>)v

- 1° caso confermato: Messico, 17/3/2009
- 1° allarme OMS: 24/4/2009
- Dichiarazione OMS di epidemia: 28/4 (fase 4), 30/4 (fase 5)
- Dichiarazione OMS di pandemia (fase 6): 11/6/2009





## Estimated global mortality associated with the first 12 months of 2009 pandemic influenza A H1N1 virus circulation: a modelling study



*Fatimah S Dawood, A Danielle Iullano, Carrie Reed, Martin Metzger, David K Shay, Po-Yung Cheng, Don Bandaranayake, Robert F Breiman, W Abdullah Brooks, Philippe Buchy, Daniel R Felkin, Karen B Fowler, Aubree Gordon, Nguyen Tran Hien, Peter Harby, Q Sue Huang, Mark A Katz, Anand Krishnan, Renu Lal, Joel M Montgomery, Kåre Mølbak, Richard Pebody, Anne M Presanis, Hugo Razuri, Anneke Steens, Yeny O Tinoco, Jacco Wallinga, Hongjie Yu, Sirenda Vong, Joseph Bresee, Marc-Alain Widdowson*

### Summary

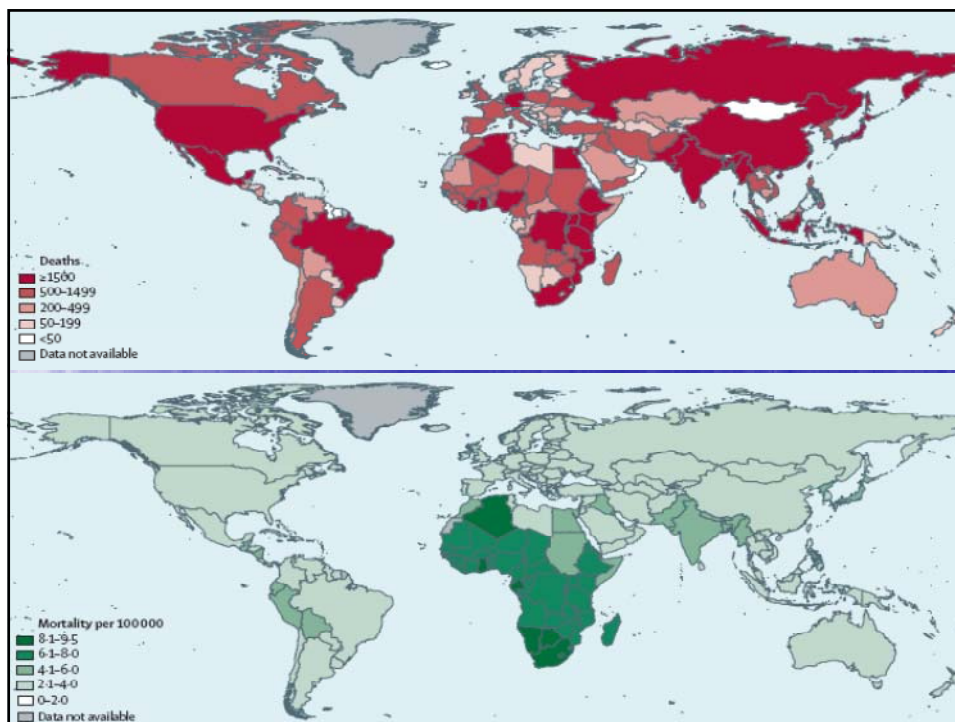
**Background** 18500 laboratory-confirmed deaths caused by the 2009 pandemic influenza A H1N1 were reported worldwide for the period April, 2009, to August, 2010. This number is likely to be only a fraction of the true number of the deaths associated with 2009 pandemic influenza A H1N1. We aimed to estimate the global number of deaths during the first 12 months of virus circulation in each country.

Published Online  
June 26, 2012  
[http://dx.doi.org/10.1016/S1473-3099\(12\)70121-4](http://dx.doi.org/10.1016/S1473-3099(12)70121-4)

**Findings** We estimate that globally there were 201200 respiratory deaths (range 105700–395600) with an additional 83300 cardiovascular deaths (46000–179900) associated with 2009 pandemic influenza A H1N1. 80% of the respiratory and cardiovascular deaths were in people younger than 65 years and 51% occurred in southeast Asia and Africa.

**Interpretation** Our estimate of respiratory and cardiovascular mortality associated with the 2009 pandemic influenza A H1N1 was 15 times higher than reported laboratory-confirmed deaths. Although no estimates of sCFRs were available from Africa and southeast Asia, a disproportionate number of estimated pandemic deaths might have occurred in these regions. Therefore, efforts to prevent influenza need to effectively target these regions in future pandemics.





## Pandemia influenzale da A(H<sub>1</sub>N<sub>1</sub>)v

La copertura vaccinale, per categoria (2 maggio 2010 - 17<sup>a</sup> settimana)

Categoria	Dosi somministrate	Popolazione eleggibile	Copertura vaccinale (%)
a1	160.658	1.069.264	15,03
Personale sanitario e sociosanitario Forze di pubblica sicurezza e della protezione civile			
a2	72.178	1.228.155	5,88
Vigili del fuoco e Ministero Interni Forze armate Servizi pubblici essenziali			
a3	6.329	742.349	0,85
Donatori di sangue periodici			
b1	23.015	189.915	12,12
Donne al secondo o al terzo trimestre di gravidanza			
b2	8.170	237.594	3,44
Donne che hanno partorito da meno di sei mesi o persona che assiste il bambino			
c1	549.082	4.309.466	12,74
Portatori di almeno una delle condizioni di rischio di età compresa tra i 6 mesi e i 65 anni			
c2	13.561	710.862	1,91
Portatori di almeno una delle condizioni di rischio di età superiore ai 65 anni			
d1	4.618	89.394	5,17
Bambini di età superiore a sei mesi che frequentano l'asilo nido (non inclusi nei precedenti punti)			
d2	1.120	10.155	11,03
Minori che vivono in comunità o istituzionalizzati (non inclusi nei precedenti punti)			
d3	1.595	20.657	7,72
Soggetti con meno di 24 mesi nati gravemente pretermine			
e	20.307	7.671.581	0,26
Soggetti sani di età compresa tra 6 mesi e 17 anni			
f	5.650	4.642.188	0,12
Soggetti sani di età compresa tra 18 e 27 anni			
<b>Subtotale</b>	<b>866.283</b>	<b>20.921.580</b>	<b>4,14</b>
altro	4.903		
Altri soggetti non inclusi			
<b>Totale</b>	<b>871.186</b>		

## Il vaccino antinfluenzale

- Efficacia: elevata
- Sicurezza: reazioni locali, febbre, cefalea, dolori (lievi, autolimitanti, per 1-2 giorni)
- Eventi gravi e/o rari difficili da osservare nei trial clinici → sorveglianza post-marketing
- Timori legati alla genesi della sindrome di Guillain-Barré: mai confermati

## Infezione da HIV

### Cenni storici nei Paesi Occidentali

- 1981 - Segnalazione dei CDC di 5 casi di polmonite da *Pneumocystis carinii* a Los Angeles in giovani omosessuali maschi (5 giugno)
- 1983 - **Luc Montagner** identifica un virus nei linfonodi dei soggetti ammalati denominato LAV
- 1984 - **Robert Gallo** isola un virus della famiglia dei retrovirus umani denominato HTLV-III
- 1985 - Test anticorpali per la diagnosi
- 1986 - Il Comitato internazionale per la tassonomia dei virus conia il termine di HIV
- 1987 - Primo farmaco antiretrovirale (AZT) approvato dalla FDA
- 1988 - 1 dicembre, 1ª giornata mondiale per la lotta all'AIDS
- 1993 - L'AIDS diventa la principale causa di morte nei giovani adulti negli Stati Uniti
- 1994 - Limiti della monoterapia
- 1995 - Inizio della "terapia antiretrovirale altamente attiva" (HAART)

## Liquidi biologici a rischio HIV

Isolamento da:                      Trasmissione accertata

Sangue	Sì
Liquido seminale	Sì
Secreto vaginale	Sì
Latte materno	Sì
Saliva	No
Lacrime	No
Sudore	No
Urine	No
Feci	No



Paris protège l'amour.

MAIRIE DE PARIS SIDA INFO SERVICE 0 800 840 800

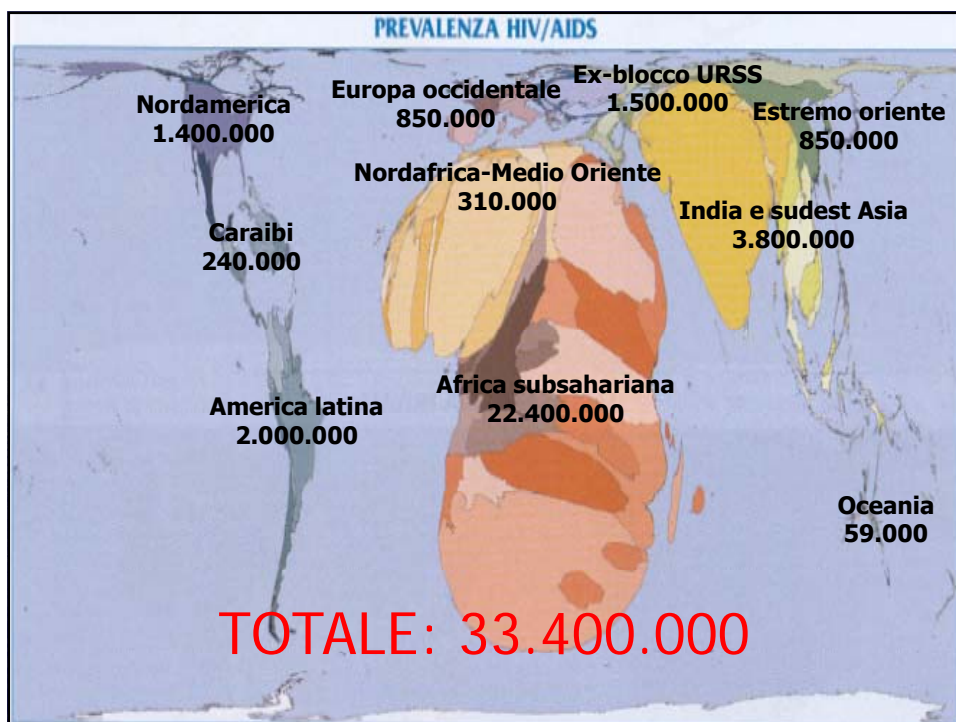
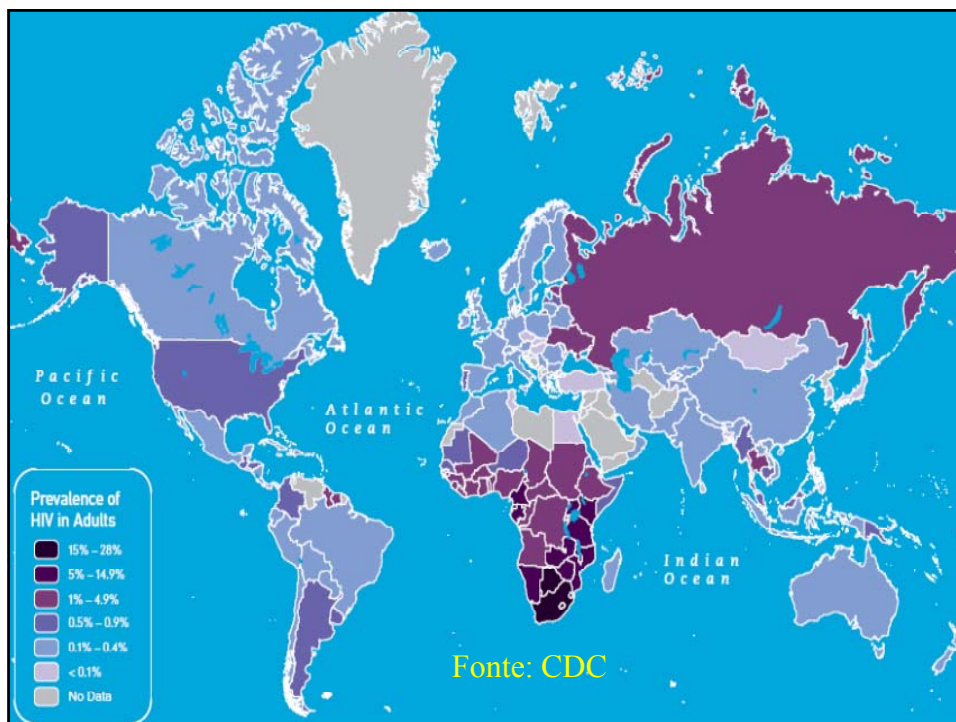
PARIS PLAISIRS PARIS CAPOTS

Erano famosi ma sono morti di AIDS:

- ✓ attori
- ✓ ballerini
- ✓ cantanti
- ✓ tennisti



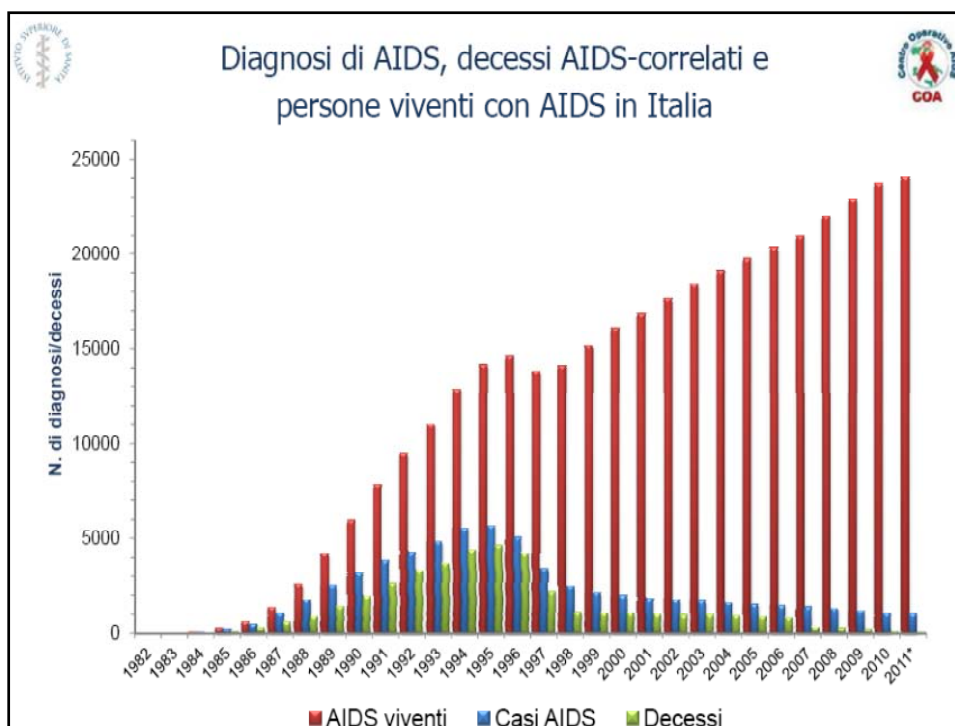


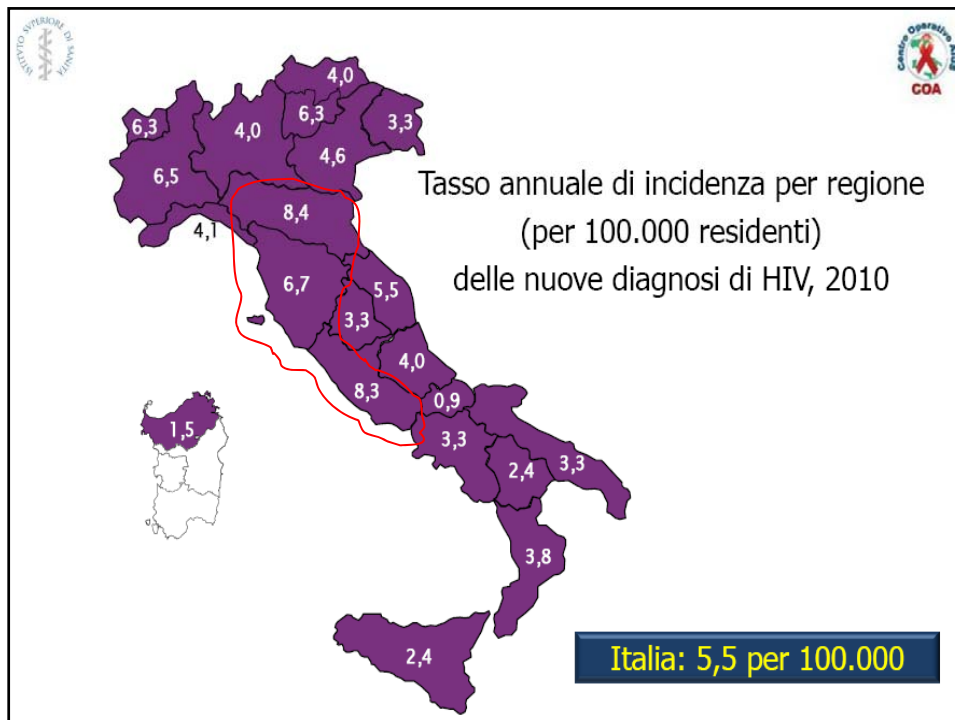


## Infezione da HIV

### Dimensioni nazionali del problema

- ☀ **In Italia si stimano presenti dai 140.000 ai 180.000 sieropositivi**
- ☀ **In Toscana almeno 7.500 sieropositivi**
- ☀ **In rapporto agli abitanti, significa 1 sieropositivo ogni 500 persone**





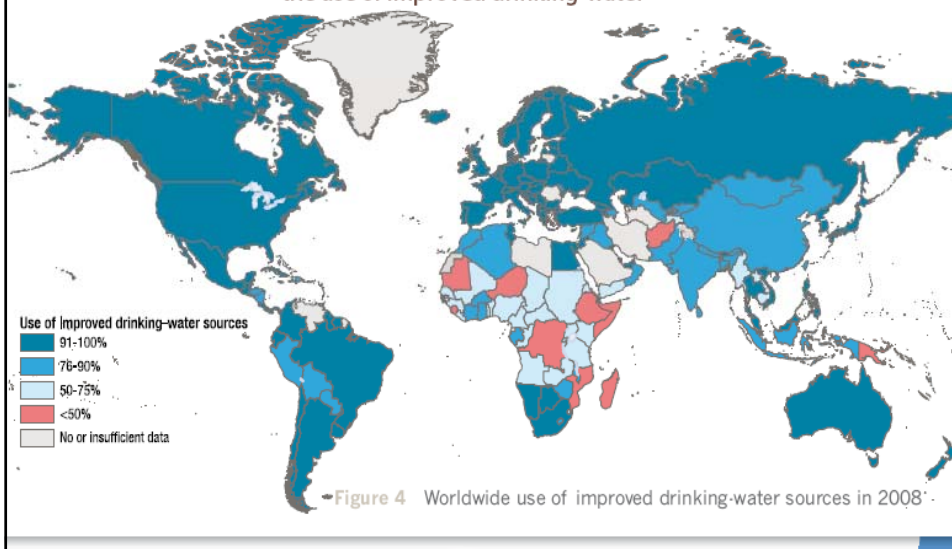
## Le 15 pietre miliari in medicina (%) Sondaggio lettori BMJ, gennaio 2007

1. Sanificazione acque	15,8	8. Evidence-based med.	5,6
2. Antibiotici	14,5	9. Radiologia	4,2
3. Anestesia	13,9	10. Informatica	3,6
4. Vaccini	11,8	11. Reidratazione orale	2,7
5. Struttura del DNA	8,8	12. Rischi del fumo	1,6
6. Teoria dei germi	7,4	13. Immunologia	1,6
7. Pillola contraccettiva	7,4	14. Antipsicotici	0,6
		15. Colture tissutali	0,4

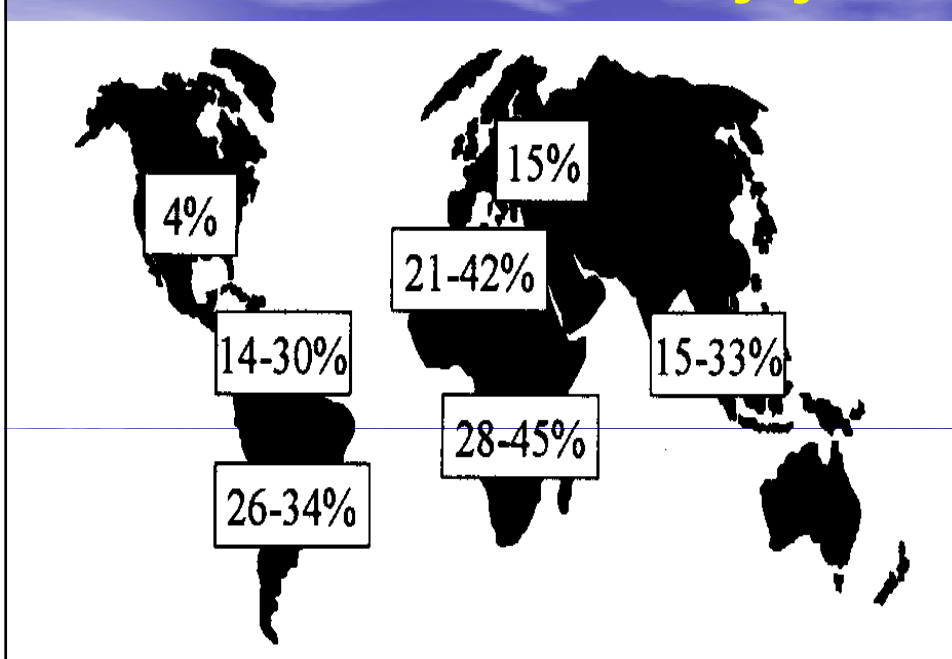


## Dal 1993, il 22 marzo è la giornata mondiale dell'acqua

Sub-Saharan Africa faces the greatest challenge in increasing the use of improved drinking-water



## Rischio di diarrea infettiva nelle varie aree geografiche



## Prevenzione della diarrea

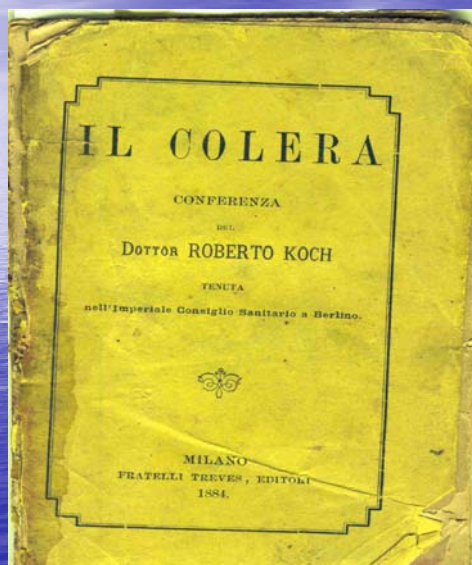
### Scala del rischio alimentare

Basso rischio (dal meno al più rischioso)	Alto rischio (dal più al meno rischioso)
Caffè e tè serviti caldi	Alimenti da venditori ambulanti
Cibo servito a <60 C	Dessert (specie se creme non cotte)
Frutta sbucciata dal consumatore	Acqua di rubinetto e <u>ghiaccio</u>
Spremute di frutta fresca	Frutti di mare precotti
Acqua e bibite gassate	Formaggi e piatti freddi
Pane	Salse
Acqua non gassata imbottigliata	Insalate e verdure crude
Burro	Latte

11-17 giugno 2012: Settimana mondiale della sicurezza degli alimenti

R. Benigni - L'inno del corpo sciolto

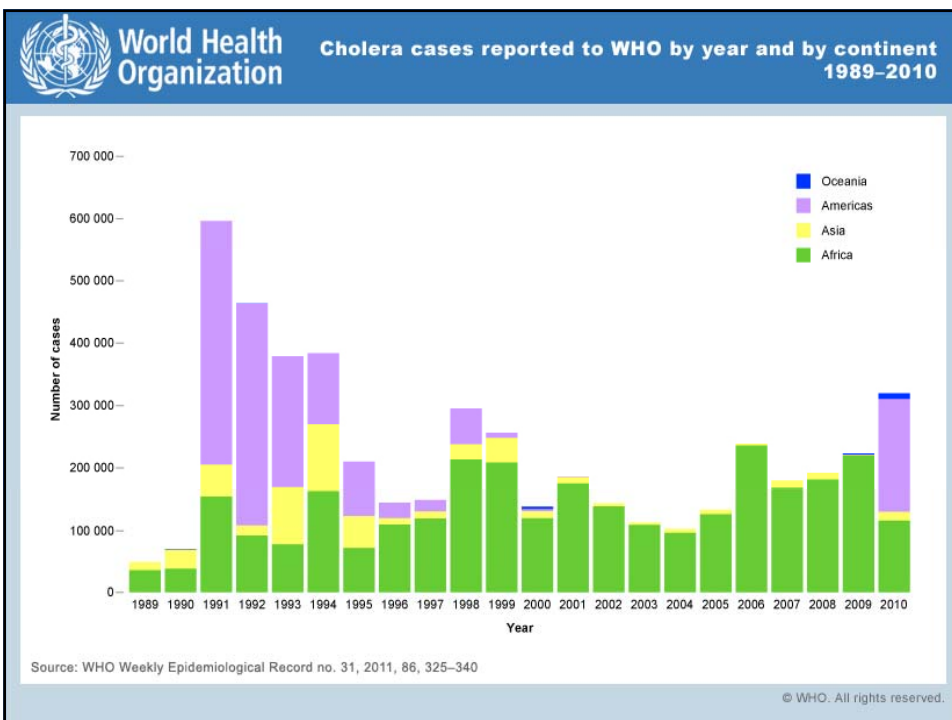
### Koch nel 1883 dimostrò il batterio causa del colera



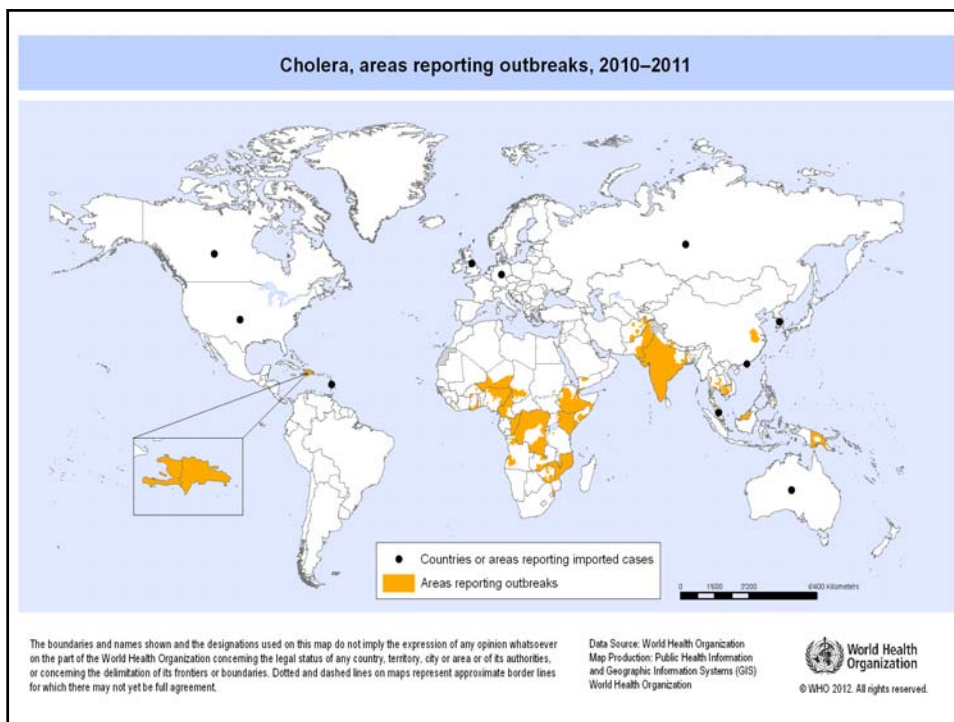
## Agosto 1973: a Napoli scoppia il colera



Mario Soscia, direttore del "Cotugno": "La folla dei parenti premeva contro i cancelli per avere notizie dei propri cari in isolamento. Usavamo un megafono per fornire notizie".

**Ottobre 1973: l'Organizzazione Mondiale della Sanità dichiara terminata, a tre mesi dallo scoppio, l'emergenza colera a Napoli.**








## RAPID RISK ASSESSMENT

# Outbreak of cholera in Cuba, potential risk for European travellers

12 July 2012





**London Olympics 2012: monitoring health threats**  
19 Jul 2012

ECDC is enhancing its surveillance activities for the London 2012 Olympic and Paralympic Games. ECDC is watching for any infectious disease health events that could present a public health threat and as of Friday 20 July, a summary of relevant health events will be included in the weekly [Communicable Disease Threat Report \(CDTR\)](#), published on this website.

Global mass gathering events can present challenges for public health because of their scale and the possible additional demands made of the public health services. To tackle these challenges, surveillance systems can be enhanced to target specific diseases or syndromes and to support timely response actions to reduce their impact and risk of spread.

ECDC is carrying out enhanced international event-based surveillance as part of its routine epidemic intelligence activities July to September. It has adapted media screening tools to assist detecting timely infectious disease



ECDC

The organisers of these mass gatherings have published public messages about how to stay healthy in order to best enjoy these events. Preventative measures that people can take themselves and can contribute to keeping others healthy include things such as: washing hands regularly, ensure relevant vaccinations are up to date (particularly for measles, mumps and rubella), **practice safe sex**, apply sunscreen to avoid sunburn, drink plenty of water to keep hydrated and stay at home if you feel unwell.

## STORIA DELLA TUBERCOLOSI (TB) - 1

✓ Prime osservazioni → paleopatologi hanno identificato alterazioni ossee tipiche nella fauna del periodo paleolitico e neolitico



✓ Prime evidenze di TB umana: valle del Nilo in era predinastica (prima del 3000 a.C.) e Perù pre-colombiano

✓ Sanatori per malati forse presenti in Egitto già nel 1000 a.C.

✓ I greci la chiamavano *phthisis* (consumazione) per l'importante deperimento dei casi non trattati (Ippocrate)

✓ Aristotele → contagio attraverso l'aria respirata dal soggetto sano posto in vicinanza del malato

## STORIA DELLA TB - 2

**1882, KOCH** → SCOPERTA DEL  
MICOBATTERIO TUBERCOLARE (24/3)

→ *inizio dell'era della batteriologia*



**1896, ROENTGEN** → SCOPERTA DEI RAGGI X → *inizio della diagnostica radiologica*

**1944** → utilizzo della STREPTOMICINA

**1952** → utilizzo dell'ISONIAZIDE

**1982** → 24 MARZO: prima giornata mondiale della TB

La tubercolosi non esisteva in forma epidemica prima del 1870:

il presupposto è l'aggregazione sociale

**1870: RIVOLUZIONE INDUSTRIALE**

**MODELLO EPIDEMIOLOGICO**



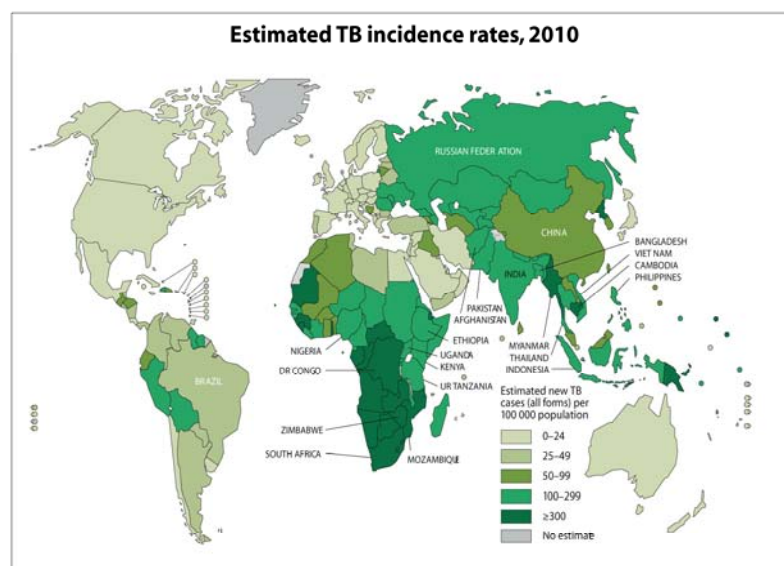
la TB si diffonde rapidamente in questi condizioni:

- turni lavorativi eccessivi
- ambienti piccoli e bui
- sovraffollamento
- malnutrizione
- clima umido



## Epidemiologia della TB (dati OMS)

- 1/3 della popolazione globale infetta
- 9-10 milioni di nuovi casi l'anno, l'80% in 22 Paesi ad elevata endemia (in Italia ~4000/anno)
- 85% di casi in Africa ed Asia (35% in Cina e India)
- 75% dei casi in età 15-54 anni
- 1,5-2 milioni di morti l'anno
- La patologia infettiva che ha fatto più morti sinora
- Morti famosi: Chopin, Paganini, marchesa Pompadour



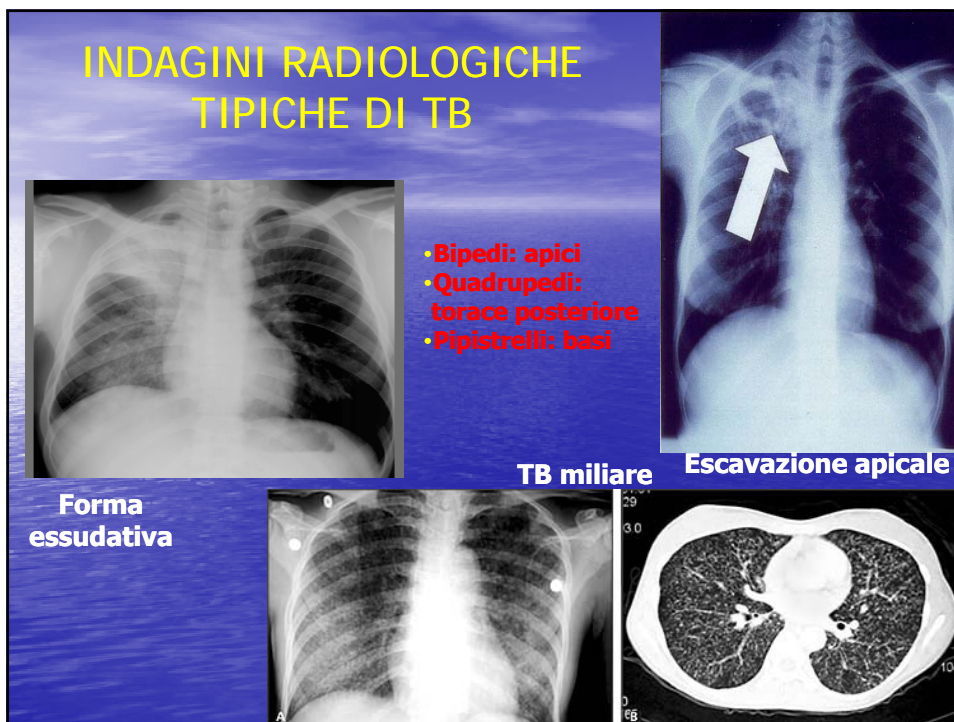
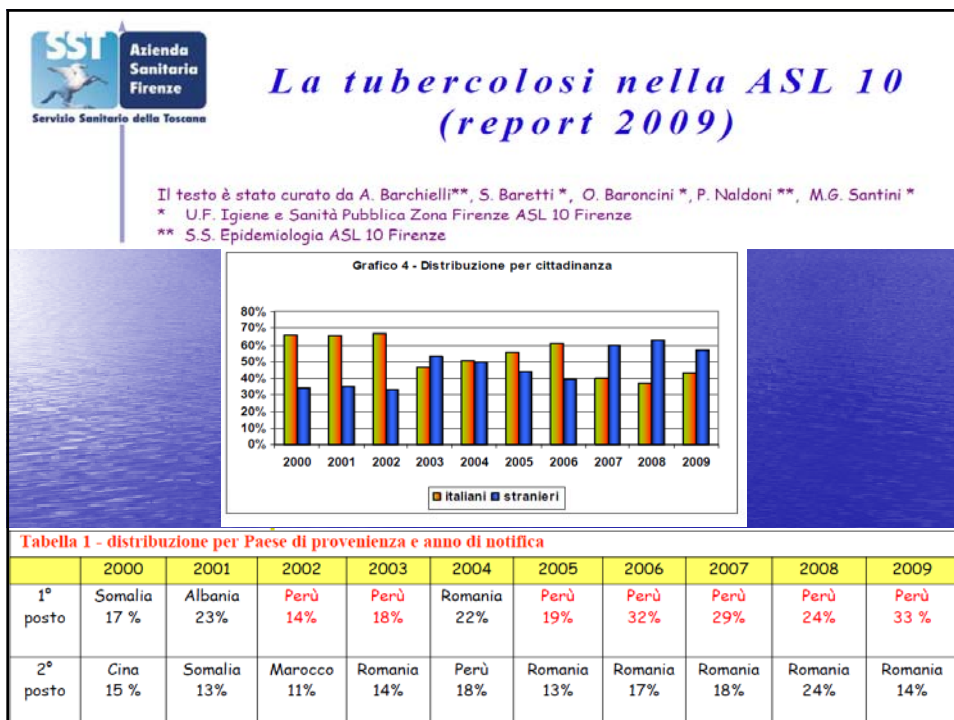
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Source: *Global Tuberculosis Control 2011*, WHO, 2011.



© WHO 2011. All rights reserved.





## Use of Diagnostic Imaging Studies and Associated Radiation Exposure for Patients Enrolled in Large Integrated Health Care Systems, 1996-2010

Rebecca Smith-Bindman, MD  
 Diana L. Migliorini, PhD  
 Eric Johnson, MS  
 Choonsik Lee, PhD  
 Heather Spencer Feigelson, PhD, MPH  
 Michael Flynn, PhD  
 Robert T. Greenlee, PhD, MPH  
 Raudell L. Kruger, PhD  
 Mark C. Hornbrook, PhD  
 Douglas Roblin, PhD  
 Leif I. Solberg, MD  
 Nicholas Vanneman, MA  
 Sheila Weinmann, PhD  
 Andrew E. Williams, PhD

**T**HE USE OF DIAGNOSTIC IMAGING in the Medicare population has increased significantly over the last 2 decades, particularly using expensive new technologies such as computed tomography (CT), magnetic resonance imaging (MRI), and nuclear medicine positron emission tomography (PET).<sup>1,2</sup> The development and improvement in these advanced diagnostic imaging technologies is widely credited with leading to earlier and more accurate diagnoses of disease using noninvasive techniques. However, utilization and costs of advanced diagnostic imaging in the United States

**Context** Use of diagnostic imaging has increased significantly within fee-for-service models of care. Little is known about patterns of imaging among members of integrated health care systems.

**Objective** To estimate trends in imaging utilization and associated radiation exposure among members of integrated health care systems.

**Design, Setting, and Participants** Retrospective analysis of electronic records of members of 6 large integrated health systems from different regions of the United States. Review of medical records allowed direct estimation of radiation exposure from selected tests. Between 1 million and 2 million member-patients were included each year from 1996 to 2010.

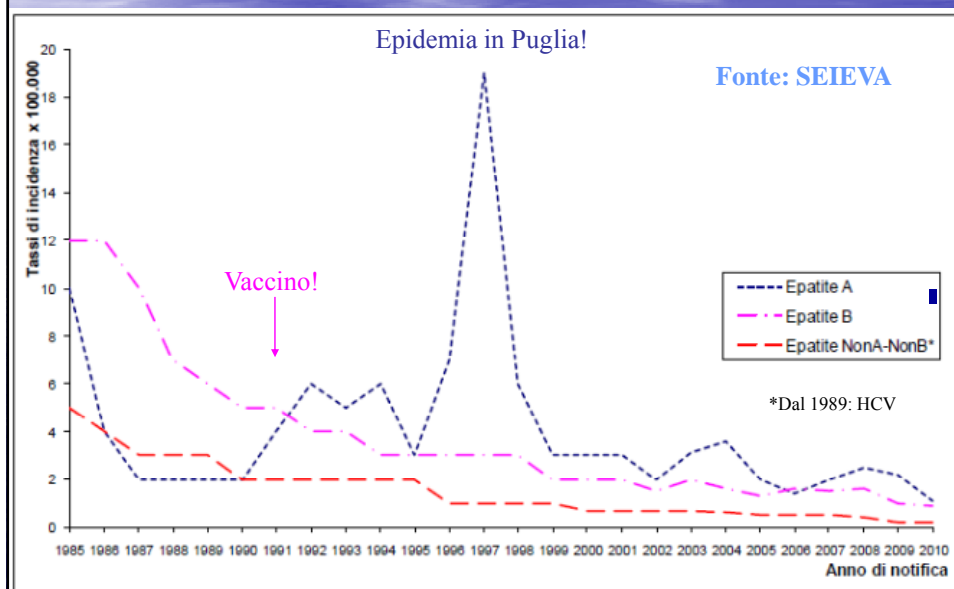
**Main Outcome Measure** Advanced diagnostic imaging rates and cumulative annual radiation exposure from medical imaging.

**Results** During the 15-year study period, enrollees underwent a total of 30.9 million imaging examinations (25.8 million person-years), reflecting 1.18 tests (95% CI, 1.17-1.19) per person per year, of which 35% were for advanced diagnostic imaging (computed tomography [CT], magnetic resonance imaging [MRI], nuclear medicine, and ultrasound). Use of advanced diagnostic imaging increased from 1996 to 2010; CT examinations increased from 52 per 1000 enrollees in 1996 to 149 per 1000 in 2010, **7.8% annual increase** (95% CI, 5.8%-9.8%); MRI use increased from 17 to 65 per 1000 enrollees, **10% annual growth** (95% CI, 3.3%-16.5%); and ultrasound rates increased from 134 to 230 per 1000 enrollees, **3.9% annual growth** (95% CI, 3.0%-4.9%). Although nuclear medicine use decreased from 32 to 21 per 1000 enrollees, **3% annual decline** (95% CI, 7.7% decline to 1.3% increase), **PET imaging rates** increased after 2004 from 0.24 to 3.6 per 1000 enrollees, **57% annual growth**. Although imaging use increased within all health systems, the adoption of different modalities for anatomic area assessment varied. Increased use of CT between 1996 and 2010 resulted in increased radiation exposure for enrollees, with a doubling in the mean per capita effective dose (1.2 mSv vs 2.3 mSv) and the proportion of enrollees who received high (>20-50 mSv) exposure (1.2% vs 2.8%) and very high (>50 mSv) annual radiation exposure (0.6% vs 1.4%). By 2010, 6.8% of enrollees who underwent imaging received high annual radiation exposure (>20-50 mSv) and 3.9% received very high annual exposure (>50 mSv).

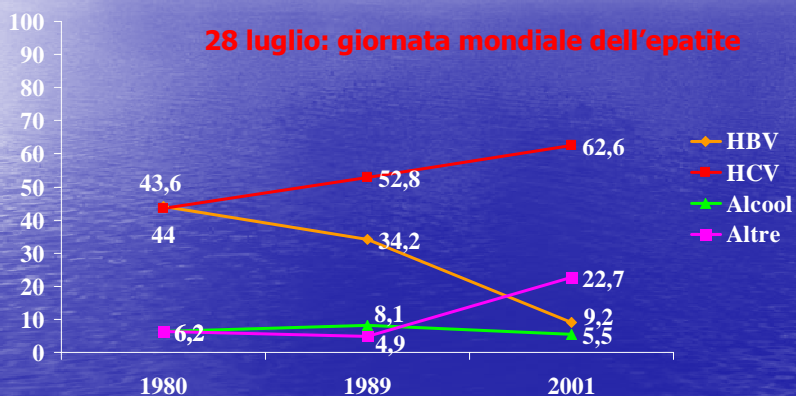
**Conclusion** Within integrated health care systems, there was a large increase in the rate of advanced diagnostic imaging and associated radiation exposure between 1996 and 2010. *JAMA*. 2012;307(22):2400-2409. [www.jama.com](http://www.jama.com)



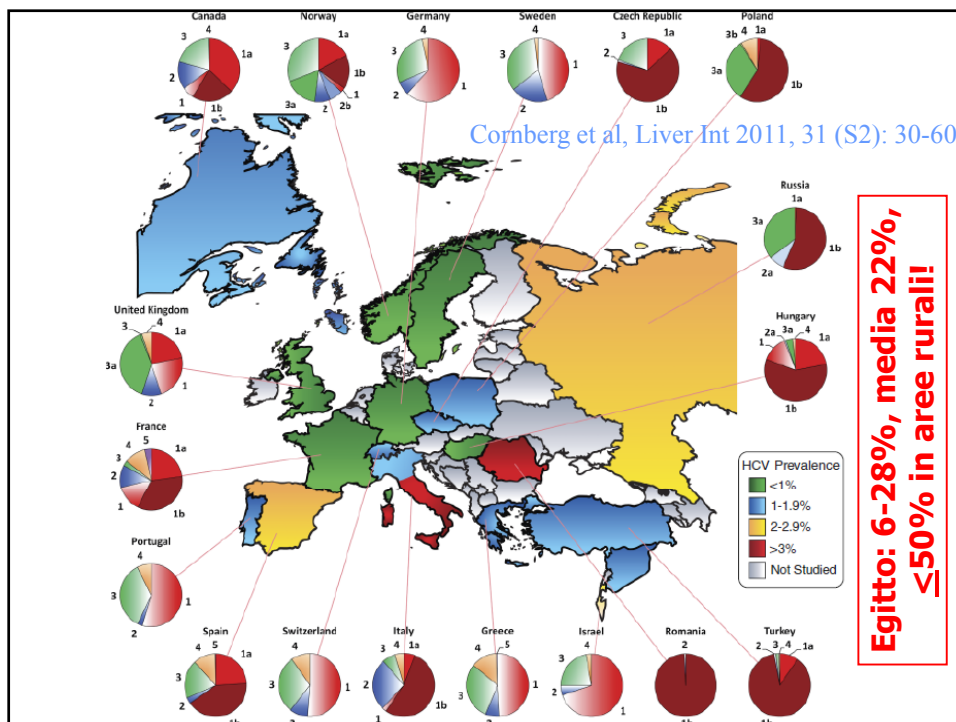
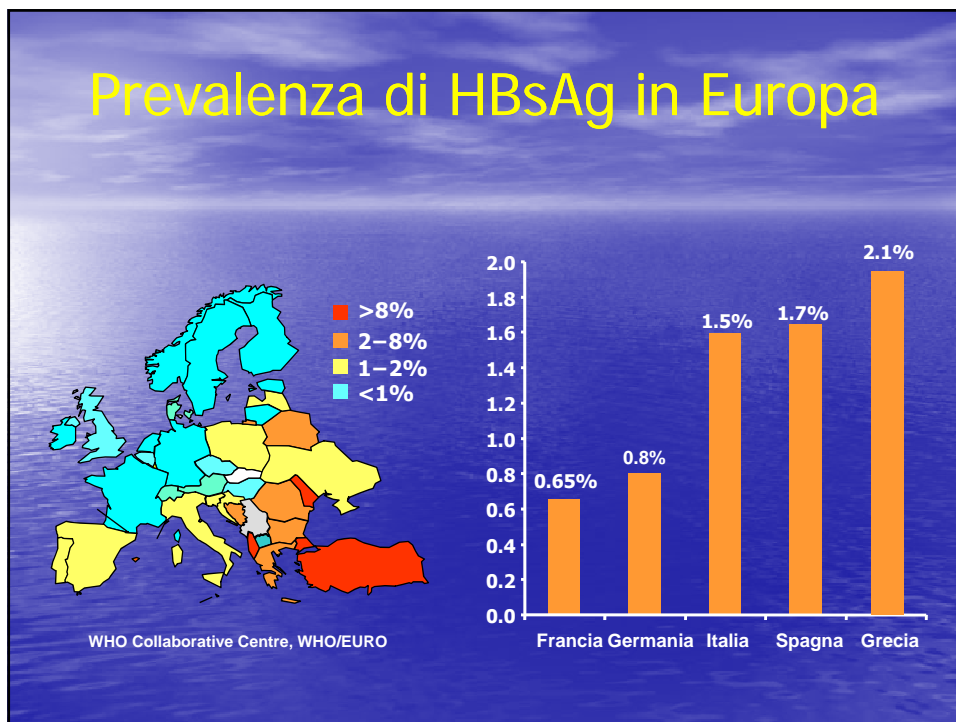
## Incidenza dell'epatite virale acuta in Italia



## CAUSE DI EPATITE CRONICA IN ITALIA (%)



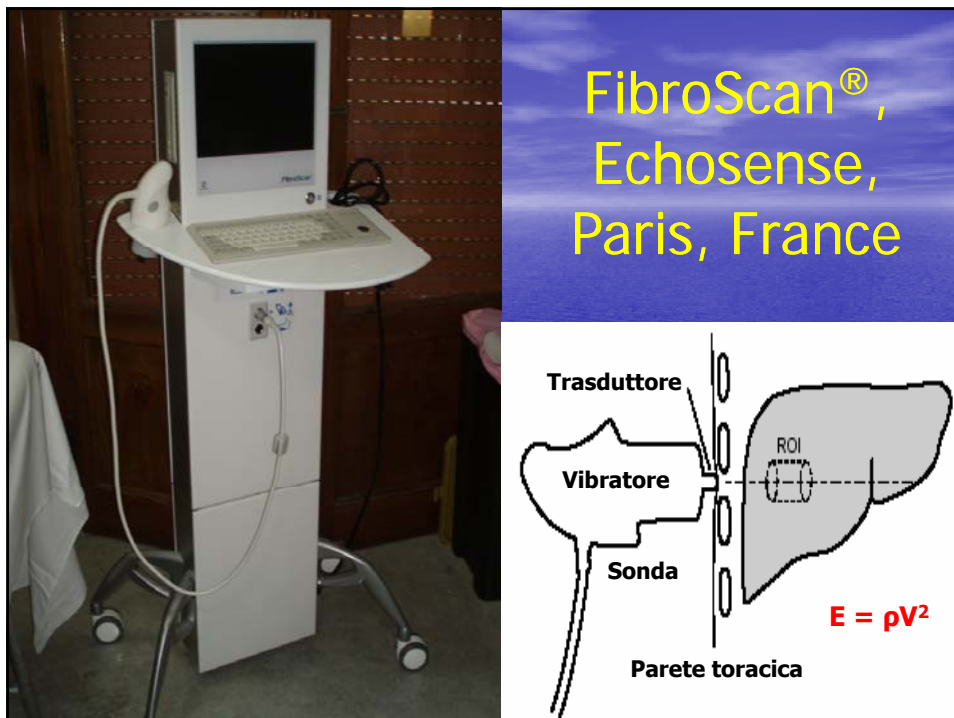
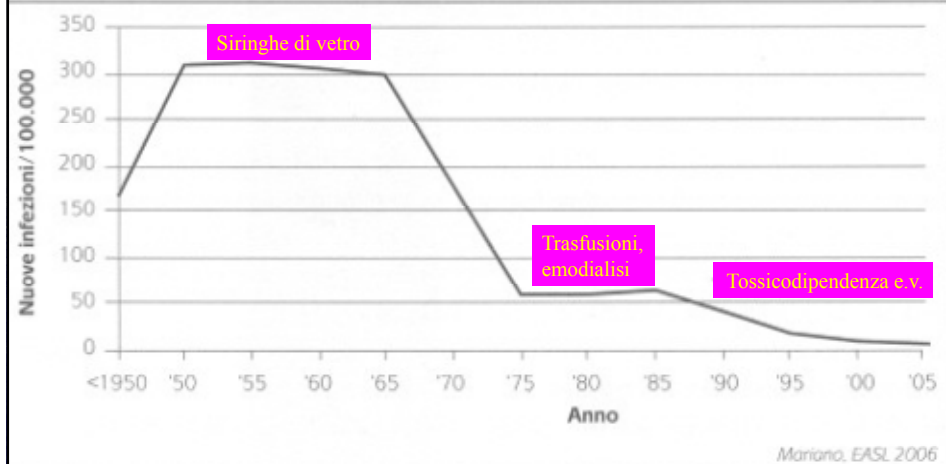
Stroffolini et al, Dig Liver Dis 2004, 36: 829-33





## Cause d'infezione da HCV

Figura 1 Incidenza stimata di infezione da HCV in Italia



## ORIGINAL ARTICLES

## VIRAL HEPATITIS

## Acute Viral Hepatitis Increases Liver Stiffness Values Measured by Transient Elastography

Umberto Arena,<sup>1a</sup> Francesco Vizzutti,<sup>1b</sup> Giampaolo Corti,<sup>3</sup> Silvia Ambu,<sup>4</sup> Cristina Stasi,<sup>3</sup> Silvia Bresci,<sup>4</sup> Stefania Moscarella,<sup>1</sup> Vieri Boddi,<sup>5</sup> Antonio Petrarca,<sup>1</sup> Giacomo Laffi,<sup>1</sup> Fabio Marra,<sup>1,2</sup> and Massimo Pinzani<sup>1,2</sup>

Liver tissue alterations other than fibrosis may have an impact on liver stiffness measurement. In this study we evaluated 18 patients without a previous clinical history of liver disease, consecutively admitted for acute viral hepatitis. In each patient, aminotransferase determination and liver stiffness measurement were performed on the same study day, at 3 different points: (1) peak increase in aminotransferase; (2) aminotransferase 50% or less of the peak; (3) aminotransferase levels  $\leq 2 \times$  the upper limit of normal. In all patients, the degree of liver stiffness at the time of the peak increase in aminotransferases exceeded the cutoff values proposed for the prediction of significant fibrosis or cirrhosis. A progressive significant reduction in liver stiffness values was observed ( $P < 0.0001$ ) in the follow-up period in parallel with the reduction of aminotransferase levels ( $P < 0.0001$ ). Moreover, a statistically significant, positive correlation between aminotransferases and liver stiffness measurement (LSM) at the onset of acute viral hepatitis was found ( $r = 0.53$ ,  $P = 0.02$  and  $r = 0.51$ ,  $P = 0.03$  for alanine aminotransferase and aspartate aminotransferase, respectively). In conclusion, the extent of necroinflammatory activity needs to be carefully considered in future studies aimed at further validating transient elastography, particularly in patients with absent or low-stage liver fibrosis (in other words, F0-F2 METAVIR). LSM does not represent a reliable instrument to detect the presence of advanced fibrosis and cirrhosis in patients presenting with a clinical picture of acute hepatitis. (HEPATOLOGY 2008;47:380-384.)

## Reliability of transient elastography for the diagnosis of advanced fibrosis in chronic hepatitis C

U Arena,<sup>1</sup> F Vizzutti,<sup>1</sup> J G Abraldes,<sup>2</sup> G Corti,<sup>3</sup> C Stasi,<sup>3</sup> S Moscarella,<sup>1</sup> S Milani,<sup>4,5</sup> E Lorefice,<sup>4</sup> A Petrarca,<sup>1</sup> R G Romanelli,<sup>1</sup> G Laffi,<sup>1</sup> J Bosch,<sup>2</sup> F Marra,<sup>1,5</sup> M Pinzani<sup>1,5</sup>

<sup>1</sup> Department of Internal Medicine, University of Firenze, Firenze, Italy; <sup>2</sup> Hepatic Hemodynamic Laboratory, Hospital Clinic, University of Barcelona, Barcelona, Spain; <sup>3</sup> Unit for Infective and Tropical Diseases, University of Firenze, Firenze, Italy; <sup>4</sup> Department of Clinical Pathophysiology, University of Firenze, Firenze, Italy; <sup>5</sup> Center for Research, Higher Education and Transfer DENDRE, University of Firenze, Firenze, Italy

Correspondence to: Professor M. Pinzani, Dipartimento di Medicina Interna, Viale G.B. Morgagni, 85, 50134 Firenze, Italy; m.pinzani@dim.unifi.it

UA and FM contributed equally to this study.

Received 13 March 2008  
Accepted 15 April 2008  
Published Online First 6 May 2008

### ABSTRACT

**Background:** Transient elastography (TE) has received increasing attention as a means to evaluate disease progression in patients with chronic liver disease.

**Aim:** To assess the value of TE for predicting the stage of fibrosis.

**Methods:** Liver biopsy and TE were performed in 150 consecutive patients with chronic hepatitis C-related hepatitis (92 men and 58 women, age 50.6 (SD 12.5) years on the same day. Necro-inflammatory activity and the degree of steatosis at biopsy were also evaluated.

**Results:** The areas under the curve for the prediction of significant fibrosis ( $\geq F2$ ), advanced fibrosis ( $\geq F3$ ) or cirrhosis were 0.91, 0.99 and 0.98, respectively. Calculation of multilevel likelihood ratios showed that values of TE  $< 6$  or  $\geq 12$ ,  $< 9$  or  $\geq 12$ , and  $< 12$  or  $\geq 18$ , clearly indicated the absence or presence of significant fibrosis, advanced fibrosis, and cirrhosis, respectively. Intermediate values could not be reliably associated with the absence or presence of the target condition. The presence of inflammation significantly affected TE measurements in patients who did not have cirrhosis ( $P < 0.0001$ ), even after adjusting for the stage of fibrosis. Importantly, TE measurements were not influenced by the degree of steatosis.

**Conclusions:** TE is more suitable for the identification of patients with advanced fibrosis than of those with cirrhosis or significant fibrosis. In patients in whom likelihood ratios are not optimal and do not provide a reliable indication of the disease stage, liver biopsy should be considered when clinically indicated. Necro-inflammatory activity, but not steatosis, strongly and independently influences TE measurement in patients who do not have cirrhosis.

same time of TE and/or with suboptimal sample characteristics<sup>3,4,5,6</sup> or the inclusion of different aetiological groups within the same analysis.<sup>7,8</sup> Another problem emerging from the published reports concerns the different spectrum of fibrosis stages ("spectrum bias", i.e. over-representation of extreme stages of fibrosis) that make some assumptions unsuitable for clinical practice.<sup>7,8,9</sup> Finally, it is increasingly evident that features of CLD other than fibrosis, i.e. inflammatory infiltration, tissue necrosis or oedema, influence TE.<sup>10</sup> Regardless, a key feature of the studies published so far is the dichotomisation of TE measurements by cut-off values selected by binary measures like sensitivity and specificity. However, it does not seem sufficiently informative to discriminate the optimal cut-off value in a wide range of TE values. It is therefore clinically relevant to pursue a more efficient approach that allows the exploration of the whole spectrum of TE measurements, such as the analysis of multilevel likelihood ratios (LRs).<sup>11</sup>

The purpose of the present study was to further assess the accuracy of TE in identifying hepatitis C virus (HCV)-related CLD patients characterised by significant ( $\geq F2$ ) or advanced ( $\geq F3$ ) fibrosis, or cirrhosis (F4) by a multilevel LR analysis approach, and to evaluate the possible interfering role of inflammation and steatosis in a cohort of consecutive patients with HCV admitted to our centre for the histopathological assessment of disease progression.

### PATIENTS AND METHODS

cirrhosis.

## Sindromi ed agenti eziologici più frequenti in relazione alla meta del viaggio, 1997-2007

Diagnosis	(total)	Travel region											
		North Africa	Sub-Saharan Africa	Indian Ocean Islands	Caribbean	Central America	South America	South-Central Asia	Southeast Asia	Northeast Asia	Middle East	Eastern Europe	Oceania
No. patients	17,228	1,343	5,349	415	825	742	1,436	2,850	3,158	323	452	245	90
Acute diarrhoea	22.7	35.2	16.4	13.0	21.0	22.0	22.0	34.3	19.2	20.4	30.5	23.7	6.7
Febrile systemic illness	23.0	8.9	33.2	55.2	20.0	15.4	16.3	16.9	22.3	14.6	8.0	10.2	33.3
<i>P. falciparum</i> malaria	5.3	0.3	13.9	32.0	0.6	0.0	0.3	0.2	0.4	0.0	0.0	0.0	0.0
Malaria, other	1.8	0.4	3.1	5.8	0.1	0.8	1.9	0.9	1.1	0.0	0.0	0.4	14.4
Dengue	2.4	0.2	0.7	1.9	3.5	3.8	2.6	3.1	5.7	0.0	0.0	0.8	6.7
Chikungunya	0.2	0.0	0.1	6.3	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0
Rickettsioses	0.6	0.2	1.7	0.2	0.1	0.1	0.0	0.1	0.2	0.0	0.4	0.0	0.0
Salmonellosis	0.3	0.1	0.2	0.2	0.2	0.0	0.3	1.4	0.1	0.0	0.0	0.0	0.0
Dermatologic	15.9	13.8	12.4	14.9	20.4	21.2	20.7	13.5	21.4	7.4	14.2	15.1	30.0
Respiratory	7.3	4.3	7.4	1.9	7.2	7.3	6.0	7.7	8.5	12.7	4.9	15.1	4.4
GU-STD	3.0	2.5	3.1	1.4	3.4	1.8	3.0	2.9	3.5	2.2	2.9	4.9	1.1
Schistosomiasis	0.9	1.0	2.0	1.2	0.1	0.1	0.7	0.2	0.3	0.0	0.4	0.0	0.0
Cerebrospinal infection	0.3	1.0	0.2	0.2	0.4	0.1	0.5	0.2	0.3	0.0	0.4	2.4	0.0

Gautret et al, Emerg Infect Dis 2009; 15: 1783-90

## Viaggiatore febbrile

Dal 15 al 37% di chi effettua un viaggio di breve durata accusa un problema sanitario, e fino all'11% presenta al ritorno una malattia febbrile

Lo Re III & Gluckman, Am Fam Physician 2003; 68: 1343-50

La valutazione iniziale di questi viaggiatori dovrebbe focalizzarsi su infezioni potenzialmente letali, curabili o che pongono rischi alla sanità pubblica

Leggat PA, Aust Fam Physician 2007; 36: 328-32

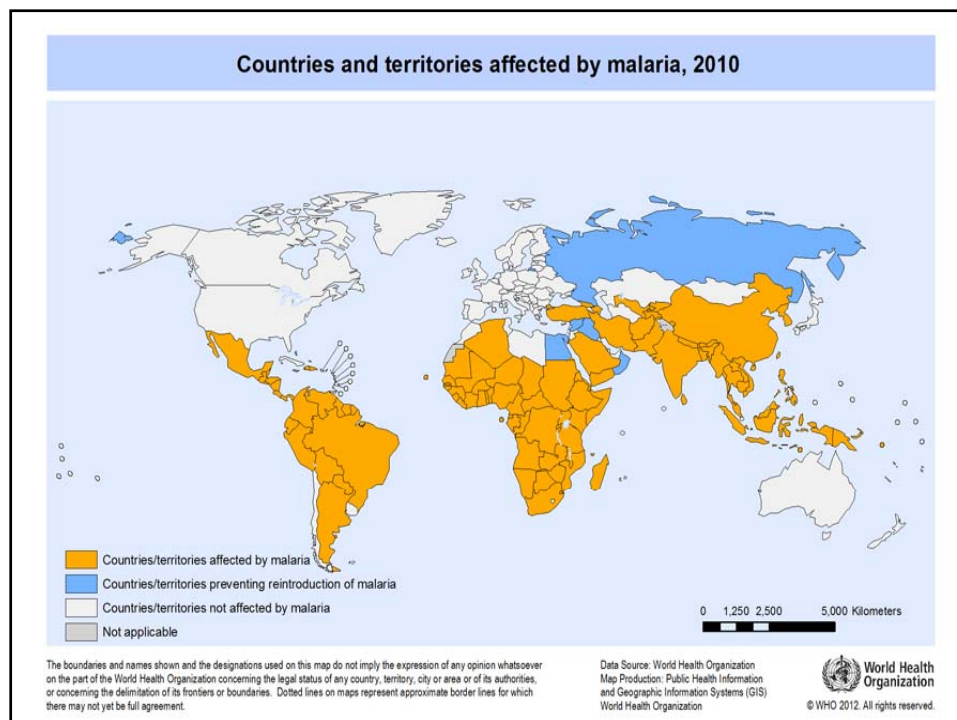
Un viaggiatore che rientra da un'area endemica con febbre dovrebbe essere considerato come malarico fino a prova contraria

Schwartz MD, Wilderness Environ Med 2003; 14: 24-32

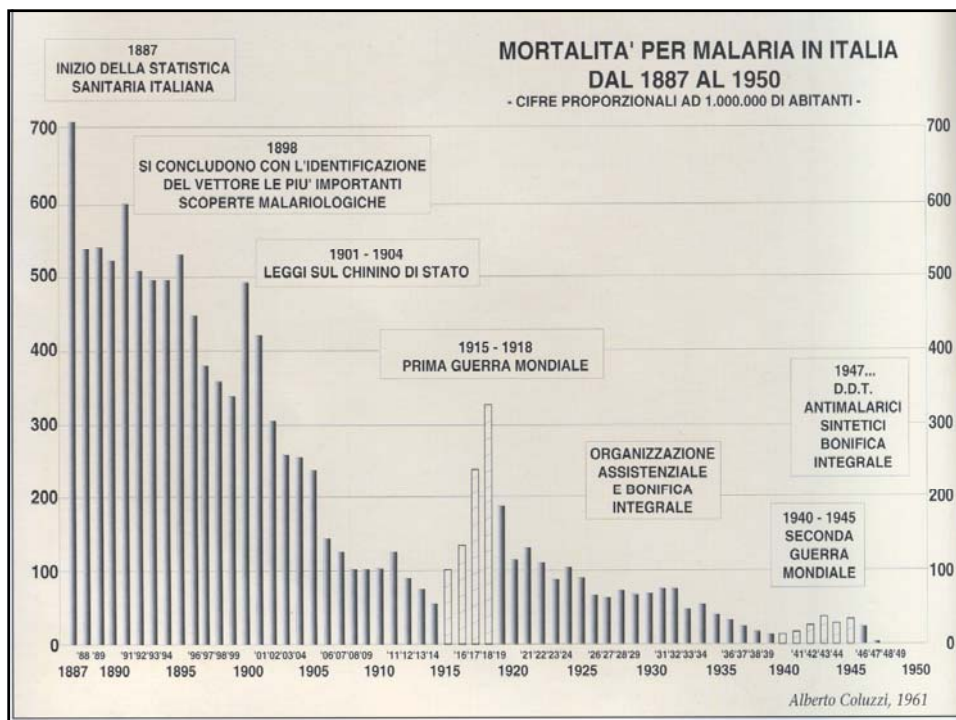
# MALARIA

## DIMENSIONI DEL PROBLEMA

- ✓ Il 41% della popolazione mondiale vive in zone a rischio
- ✓ 700.000-2.700.000 persone muoiono ogni anno per malaria
- ✓ Il 75% sono bambini africani (2700 morti al giorno, 2 morti al minuto)
- ✓ La malaria è causa di oltre 300 milioni di episodi acuti di malattia ogni anno
- ✓ 25 aprile: giornata mondiale della lotta alla malaria (dal 2007)








## Malaria autoctona in Italia

I casi AUTOCTONI (= persone che non hanno mai visitato aree endemiche) si suddividono in:


- casi di recidiva da *P.vivax* e *P.ovale*
- malaria criptica (da bagaglio e da aeroporto)
- malaria indotta (trasfusione di sangue, trapianto d'organo, scambio di siringhe fra tossicodipendenti, accidentale)
- caso di Grosseto, estate '97 (anziana donna contagiata da bambina indiana parassitemica)



Presenza di ceppi di *Anopheles labranchiae* sensibili all'infezione di plasmodi malarici in aree rurali del centro-sud



**Eurosurveillance**  
Europe's Journal on infectious disease epidemiology, prevention and control



---

**Eurosurveillance, Volume 11, Issue 46, 16 November 2006**

Articles

---

Citation style for this article: Armengaud A, Legros F, Quatresous I, Barre H, Valayer P, Fanton Y, D'Ortenzio E, Schaffner F. A case of autochthonous *Plasmodium vivax* malaria, Corsica, August 2006. Euro Surveill. 2006;11(46):pii=3081. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=3081>

---

**A case of autochthonous *Plasmodium vivax* malaria, Corsica, August 2006**

A Armengaud<sup>1</sup> ([dr13-cire-sud@sante.gouv.fr](mailto:dr13-cire-sud@sante.gouv.fr)), F Legros<sup>2,3</sup>, I Quatresous<sup>4</sup>, H Barre<sup>5</sup>, P Valayer<sup>6</sup>, Y Fanton<sup>6</sup>, E D'Ortenzio<sup>2</sup>, F Schaffner<sup>7</sup>

<sup>1</sup>Cellule inter régionale d'épidémiologie sud, Marseille, France

<sup>2</sup>Centre National de Référence du paludisme, Paris, France


<sup>3</sup>Institut Recherche et Développement, Montpellier & Paris, France

<sup>4</sup>Institut de Veille Sanitaire, Saint Maurice, France

<sup>5</sup>Direction de la solidarité et de la santé de Corse et de la Corse du Sud, France

<sup>6</sup>Centre hospitalier d'Ajaccio, Corse du Sud, France

<sup>7</sup>Entente inter départementale de la démoustication, Montpellier, France



## 3.13 Autochthonous malaria in Greece

Annual Threat Report 2009



In summer 2009, two immigrants from Pakistan and Afghanistan with a past history of malaria due to *Plasmodium vivax* arrived in Greece. In August 2009, while both were working on a farm in a small village, they developed symptoms and were confirmed positive for *P. vivax*. Between September and October 2009, six other persons residing in the same area of Greece were diagnosed with *P. vivax*. None of them had a past history of malaria or had travelled to a malaria-affected area. It is possible that the two initial cases (both coming from endemic countries) introduced the parasite to the concerned area, where at least one competent vector for malaria was present. Secondary cases occurred within two months.

### RAPID COMMUNICATIONS

## First autochthonous malaria case due to *Plasmodium vivax* since eradication, Spain, October 2010

P Santa-Olalla Peralta (psantaolalla@msps.es)<sup>1</sup>, M C Vazquez-Torres<sup>1</sup>, E Latorre-Fandós<sup>2</sup>, P Mairal-Claver<sup>3</sup>, P Cortina-Solano<sup>4</sup>, A Puy-Azón<sup>4</sup>, B Adiego Sancho<sup>5</sup>, K Leitmeyer<sup>6</sup>, J Lucientes-Curdi<sup>7</sup>, M J Sierra-Moros<sup>7</sup>

1. Coordinating Centre for Health Alerts and Emergencies, Ministry of Health and Social Policy, Madrid, Spain
2. Haematology Department, Hospital San Jorge, Huesca, Spain
3. Microbiology Department, Hospital San Jorge, Huesca, Spain
4. Sub-directorate General of Public Health of Huesca, Regional Health Service of Aragón, Huesca, Spain
5. Service of Public Health Surveillance, Directorate General of Public Health of Aragón, Regional Health Service of Aragón, Zaragoza, Spain
6. European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden
7. Animal Pathology Department, Veterinary School, Universidad de Zaragoza, Zaragoza, Spain

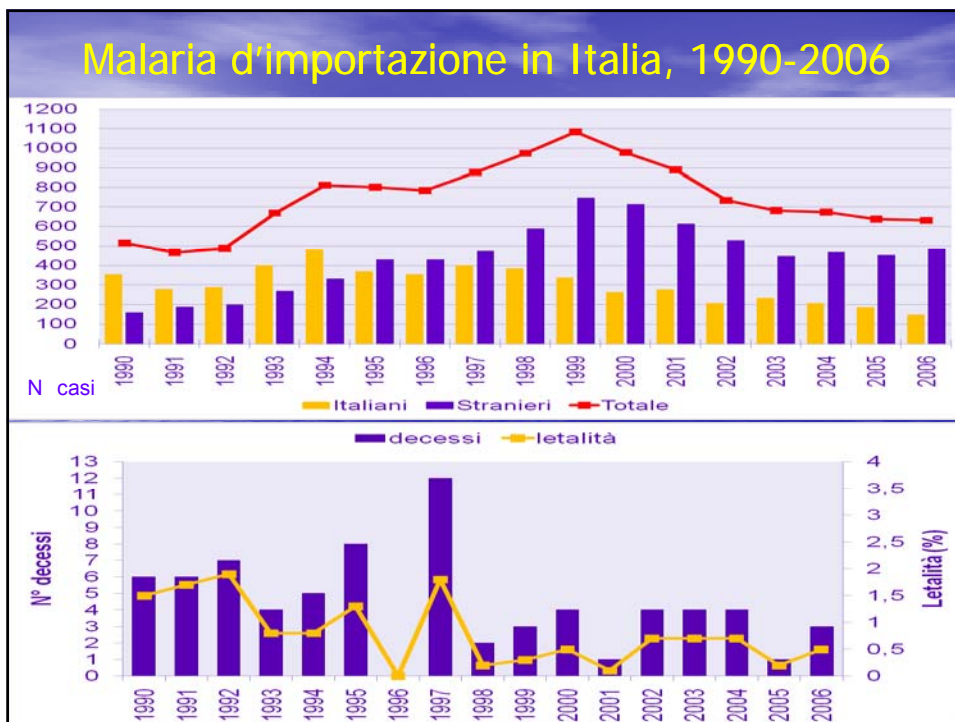
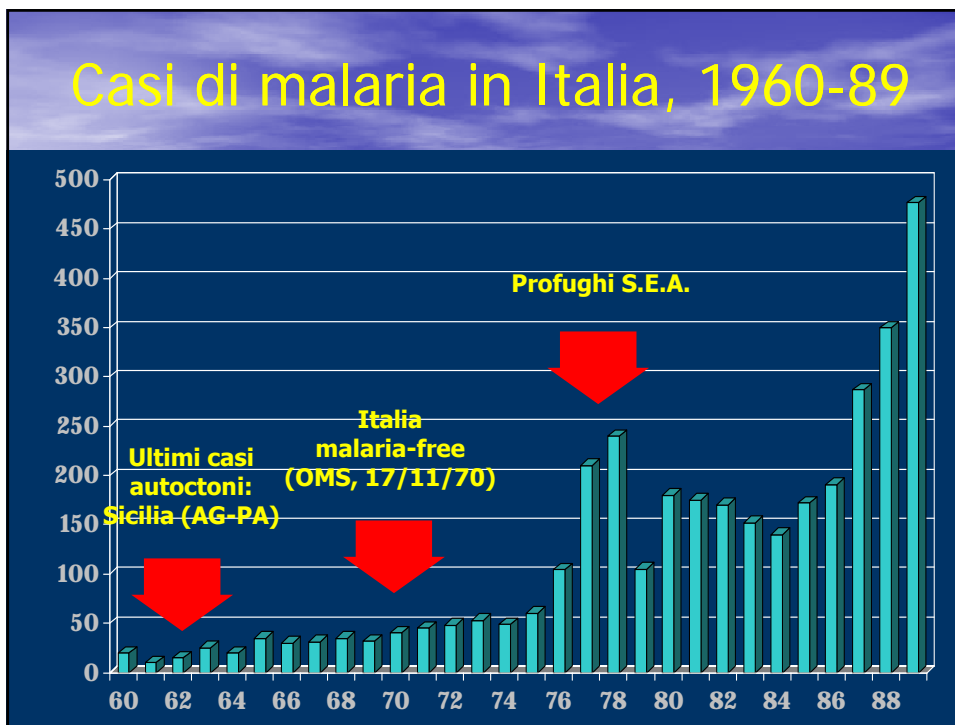
#### Citation style for this article:

Santa-Olalla Peralta P, Vazquez-Torres MC, Latorre-Fandós E, Mairal-Claver P, Cortina-Solano P, Puy-Azón A, Adiego Sancho B, Leitmeyer K, Lucientes-Curdi J, Sierra-Moros M. First autochthonous malaria case due to *Plasmodium vivax* since eradication, Spain, October 2010. Euro Surveill. 2010;15(43):pii=19684. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19684>

Article published on 14 October 2010

In October 2010, one case of autochthonous malaria due to *Plasmodium vivax* was diagnosed in Spain. The case occurred in Aragon, north-eastern Spain, where the vector *Anopheles atroparvus* is present. Although the source of infection could not be identified, this event highlights that sporadic autochthonous transmission of vector-borne diseases in continental Europe is possible and calls for enhanced surveillance and vector control measures.

In *P. vivax* malaria, the incubation period usually ranges from 10 to 21 days and sometimes up to a year. Unlike *P. falciparum* malaria, *P. vivax* malaria is rarely fatal. However, for *P. vivax*, clinical relapses may occur weeks to months after the first infection. These new episodes arise from dormant forms in the liver, and special treatment with primaquine – targeted at these liver stages – is mandatory for a complete cure.

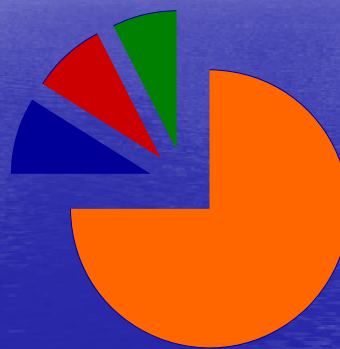




## Chemioprofilassi nei casi di malaria tra gli Italiani, 1998-2002 (1.626 schede)

- ❖ Nessuna 75%
- ❖ Incompleta 9%
- ❖ Completa ma inadeguata 8,5%

**Profilassi completa e adeguata  
7,5% (n=122)**



**Turisti 63%  
Lavoratori 37%**

LA NAZIONE GIOVEDÌ 9 OTTOBRE 2008

CRONACA FIRENZE XIII

### MALATTIE INFETTIVE

## Due casi di malaria In gravi condizioni un quarantenne

di ILARIA ULIVELLI

**S**ONO ARRIVATI in ospedale in gravi condizioni. Contemporaneamente. E tutti e due sono stati ricoverati in terapia intensiva. Un fiorentino di quarant'anni (che non essendosi posti liberi a Firenze è stato trasferito a Prato) e un ingegnere livornese di trentatré, entrambi colpiti da malaria. Hanno preso la malattia durante viaggi di lavoro, in Africa, nella zona Sud sahariana, una delle zone più esposte al rischio parassitosi. Anche se in diversi paesi la vaccinazione contro la malattia febbrile non è obbligatoria, gli infettivologi consigliano di sottoporsi a profilassi prima di partire per i paesi tropicali dell'Africa, dell'Asia e dell'America latina.

Per il Centro di riferimento regionale di malattie infettive tropicali e subtropicali di Careggi, diretto da Alessandro Bartoloni, martedì non è stata una giornata semplice. «I due casi sono arrivati contemporaneamente nelle strutture — ha

spiegato Bartoloni —, entrambi gli uomini erano in gravi condizioni e necessitavano di cure urgenti. Avevano la febbre alta da cinque giorni e nessuno dei due aveva preso in considerazione l'ipotesi malaria, per questo la malattia si era già aggravata molto. Il quarantenne era sicuro di non aver contratto la malattia perché prima di partire si era sottoposto a una cura a base di un prodotto omeopatico che evidentemente non ha funzionato. «Sono stati ripresi per i capelli — racconta Bartoloni — li abbiamo curati con l'artesunato, un derivato dell'artemisia annua che in Cina viene usata da decenni contro la febbre. Ha effetti maggiormente benefici e più rapidi del chinino, effetti che riducono la mortalità per malaria del 30%, un risultato eccezionale».

**ARTESUNATO  
Sono stati curati  
con un farmaco  
che Careggi  
compra in Cina**

È stato proprio il centro guidato da Bartoloni il primo a usare l'artesunato in Italia, seguito dall'ospedale di Brescia. Il farmaco è prodotto in Cina e, nonostante sia stato clinicamente testato,

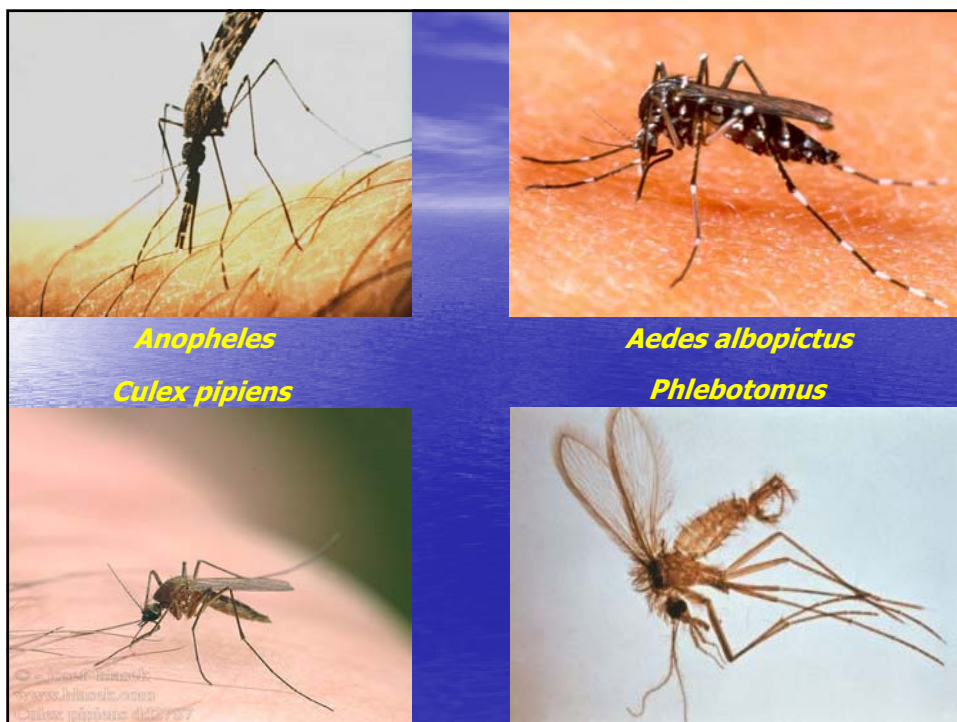
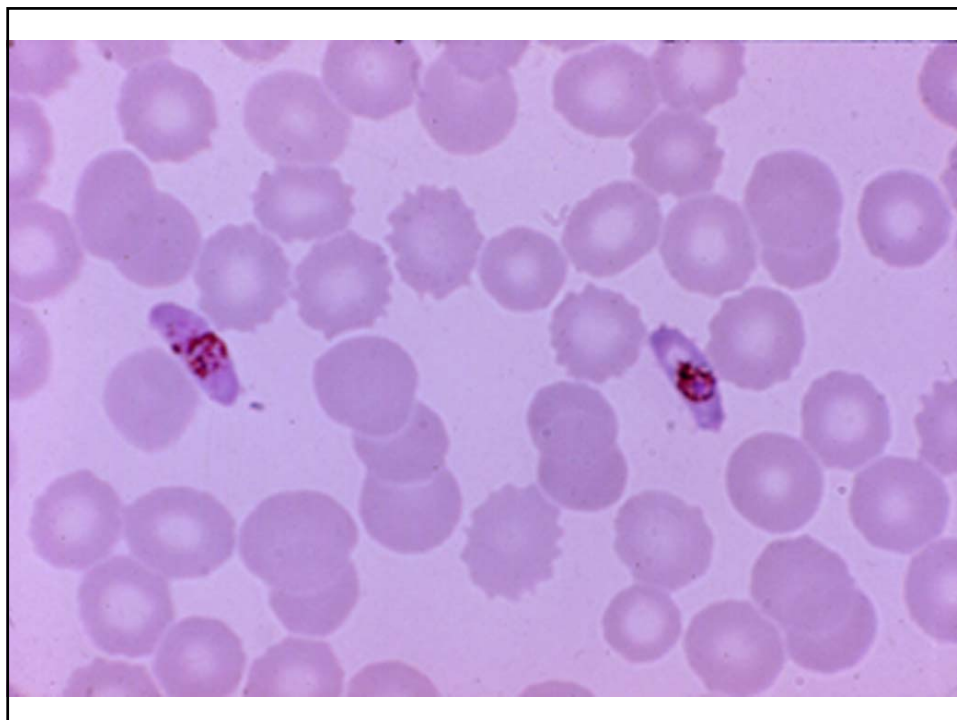


**PROFESSORE  
Alessandro  
Bartoloni  
direttore  
del Centro  
di malattie  
tropicali**

sperimentato e documentato, non ha ancora ottenuto l'approvazione delle agenzie del farmaco statunitense, europea e italiana. «In Italia sarà a disposizione dal 2010, prodotto dal Sigma Tau», spiega Bartoloni — ma nel frattempo sembra etico non usarlo? Per un medico non lo è. È proprio per questo la farmacia di Careggi acquista il farmaco direttamente in Cina e lo somministra ai pazienti. Costa 35 euro a fiala, poco più del chinino, ma con molti effetti collaterali in meno e benefici in più.

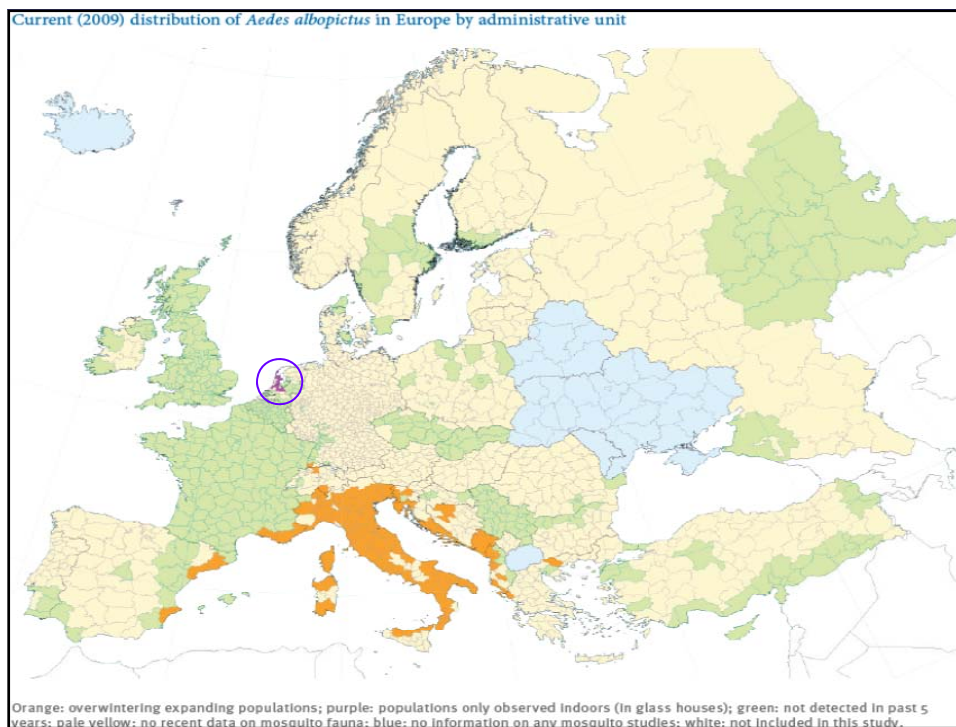
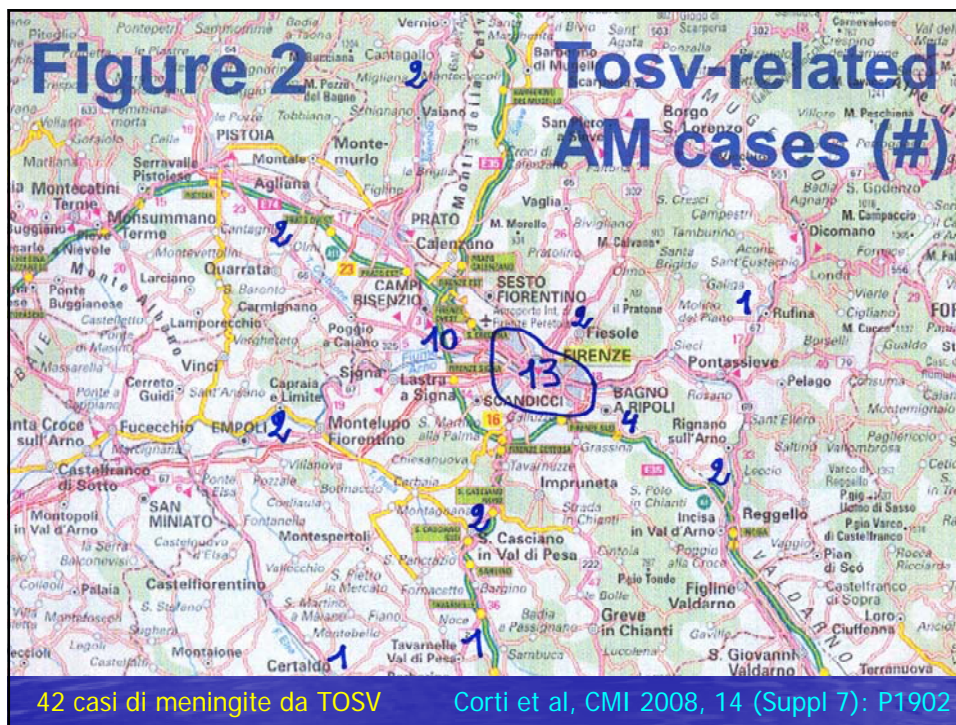
### IL PROGETTO Casa della Creatività la nuova dimora dei giovani artisti

**N**ASCE a Firenze un nuovo spazio dedicato ai giovani: è la 'Casa della Creatività' che s'inaugura oggi alle 15,30. La sede dell'originale struttura si trova in vicolo Santa Maria Maggiore, nel chiostro del 1600 a fianco della chiesa di Santa Maria Maggiore. Grazie a un bando pubblico, l'Assessorato alle politiche giovanili ha assegnato la gestione del posto per sei anni a un consorzio di imprese composto da Fondazione Sistema Toscana, Aida e Ied (Istituto Europeo di Design), che ha aperto la prima sede in Toscana all'interno della 'Casa della Creatività' e, a febbraio, inaugurerà dei corsi per circa 20 studenti. All'interno della struttura troverà spazio anche la sede operativa del 'Festival della Creatività', che si terrà alla Fortezza da Basso dal 23 al 26 ottobre e che, nelle intenzioni del direttore artistico Daniele Lauria, «non sarà solo un appuntamento annuale ma, grazie alla nuova collocazione, vivrà in questa struttura tutto l'anno, a partire da novembre, con iniziative di arte, musica e letteratura». Tra i servizi offerti, un bar al piano terra aperto dalle 8 alle 22, le attività dell'Informagiovani, un punto vendita di prodotti e servizi dell'Ataf e l'Eurodesk. Dopo l'inaugurazione ufficiale di oggi, con musica, degustazioni, esposizioni e il concerto del trio jazz 'Three Lower Colours', a partire dalle 17,30, la struttura sarà aperta dal lunedì al sabato dalle 8 alle 22. Silvia Mastroianni











## RAPID COMMUNICATIONS

## Introduction and control of three invasive mosquito species in the Netherlands, July-October 2010

E J Scholte (e.j.scholte@minlnv.nl)<sup>1</sup>, W Den Hartog<sup>1</sup>, M Dik<sup>1</sup>, B Schoelitsz<sup>2</sup>, M Brooks<sup>2</sup>, F Schaffner<sup>3,4</sup>, R Foussadier<sup>5</sup>, M Braks<sup>6</sup>, J Beeuwkes<sup>5</sup>

1. National Centre for Monitoring of Vectors (CMV), New Food and Consumer Product Safety Authority (nVWA), Dutch Ministry of Economic Affairs, Agriculture and Innovation, Wageningen, the Netherlands
2. Kenniscentrum Dierplagen (KAD), Wageningen, the Netherlands
3. Agriculture and Veterinary Information and Analysis (Avia-GIS), Zoersel, Belgium
4. Institute of Parasitology, University of Zurich, Switzerland
5. Entente Interdépartementale (EID) Rhone-Alpes, Chindrieux, France
6. Laboratory for Zoonoses and Environmental Microbiology, Centre for Infectious Disease Control (RIVM), the Netherlands, Bilthoven, the Netherlands

Citation style for this article:  
Scholte EJ, Den Hartog W, Dik M, Schoelitsz B, Brooks M, Schaffner F, Foussadier R, Braks M, Beeuwkes J. Introduction and control of three invasive mosquito species in the Netherlands, July-October 2010. Euro Surveill. 2010;15(45):pii=19710. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19710>

Article published on 11 November 2010

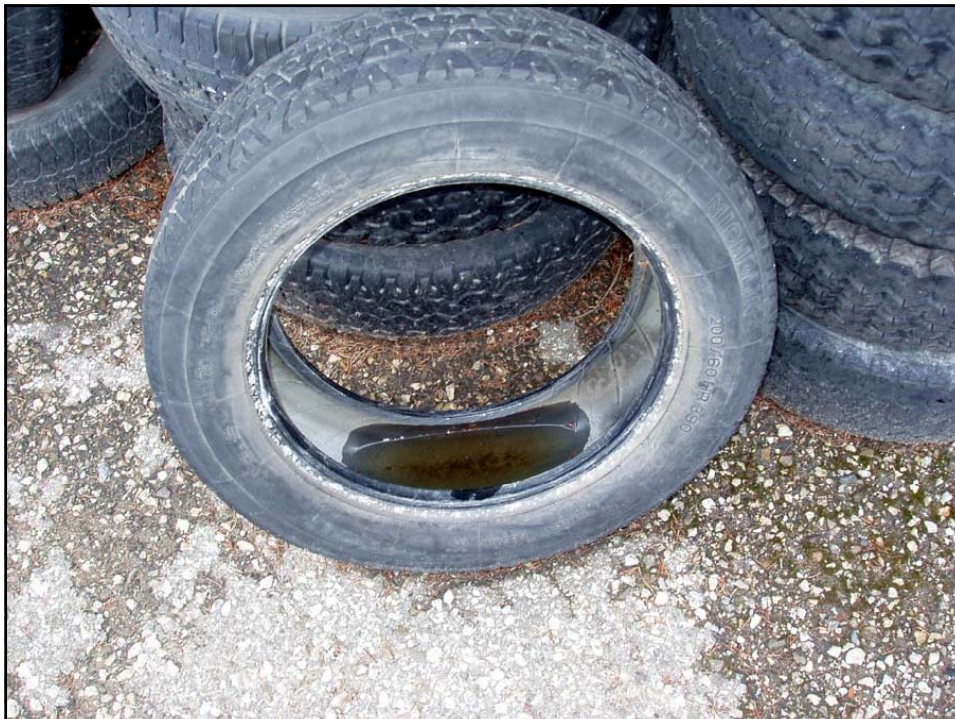
In July 2010, during routine mosquito surveillance inspections at companies that import used tires, three invasive species were found at five locations in the Netherlands: the yellow fever mosquito (*Aedes aegypti*), the Asian tiger mosquito (*Ae. albopictus*), and the American rock-pool mosquito (*Ae. atropalpus*).

This is the first time that *Ae. aegypti* is reported from the Netherlands. Mosquito control was initiated one week after the first invasive mosquito was found, using adulticides and larvicides. The available data suggest that the implemented control measures have been effective for this season.

Control of three invasive mosquito species, *Ae. aegypti*, *Ae. albopictus* and *Ae. atropalpus* in the Netherlands.

### Methods

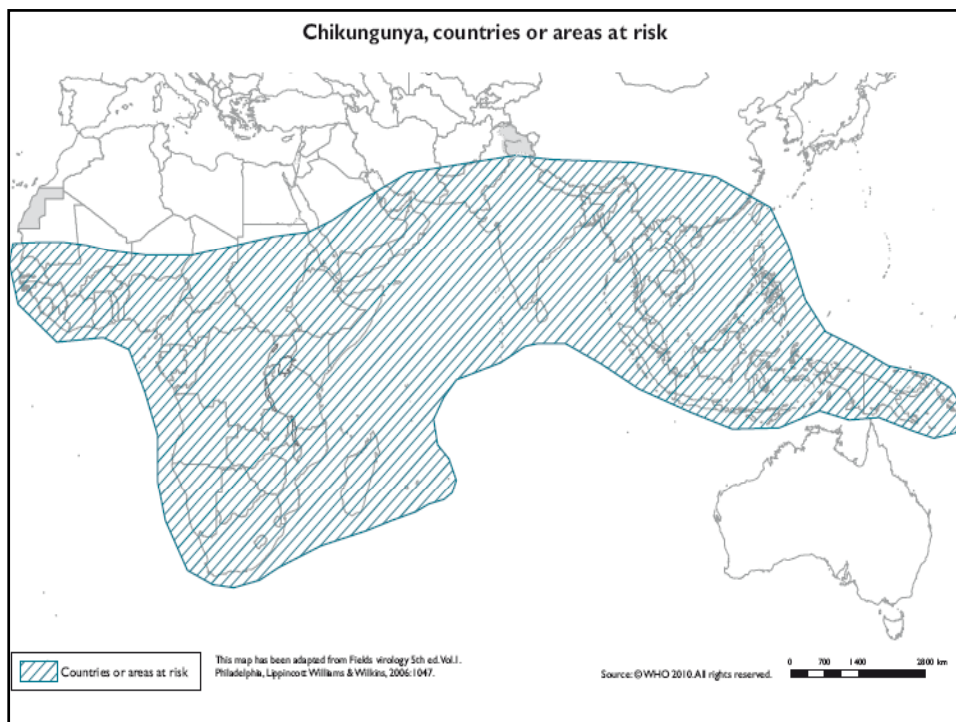
A total of 34 companies that import used tires into the Netherlands were included in the invasive mosquito survey. Routine inspections were carried out from April to the last week of October [2]. A qualitative risk assessment on the introduction of invasive mosquito species was performed to determine the frequency of inspection of a company. Parameters in the risk assessment were (i) the type of tires that













## Infection with chikungunya virus in Italy: an outbreak in a temperate region

G Rezza\*, L Nicoletti\*, R Angelini, R Romi, A C Finarelli, M Panning, P Cordiali, C Fortuna, S Boros, F Magurano, G Silvi, P Angelini, M Dottori, M G Ciufolini, G C Majori, A Cassone, for the CHIKV study group†

Lancet 2007; 370: 1840–6



### EDITORIAL

10.1111/j.1469-0691.2010.03386.x

Clinical Microbiology and Infection ©2010 European Society of Clinical Microbiology and Infectious Diseases

## First cases of autochthonous dengue fever and chikungunya fever in France: from bad dream to reality!

E. A. Gould<sup>1,2</sup>, P. Gallian<sup>3</sup>, X. de Lamballerie<sup>2,4</sup> and R. N. Charrel<sup>2,4</sup>

1) Centre for Ecology and Hydrology, Oxford, UK, 2) UMR190 'Emergence des Pathologies Virales', Université de la Méditerranée, IRD, 3) Etablissement Français du Sang Alpes-Méditerranée and 4) Pole Maladies Infectieuses et Microbiologie, AP-HM Timone, Marseille, France  
E-mail: remi.charrel@univmed.fr

Article published online: 5 October 2010

many regions of southern Europe. The two cases of dengue fever occurred in patients (a 64-year-old male and an 18-year-old male) living in Nice in the same neighbourhood and knowing each other. The two cases of chikungunya fever occurred in 12-year-old female patients also living in the vicinity of each other in Fréjus, and attending the same high school. Both presented with high fever, headache, lombalgia and arthralgia. These two patients lived in the same neighbourhood as the unique laboratory-documented imported case of the county, affecting a 7-year-old female patient returning from Asia. All four cases resulted in mild, self-resolving infections.

RAPID COMMUNICATIONS

## First two autochthonous dengue virus infections in metropolitan France, September 2010

G La Roche (g.laruche@invs.sante.fr)<sup>1</sup>, Y Souarès<sup>1</sup>, A Armengaud<sup>2</sup>, F Peloux-Petiot<sup>3</sup>, P Delaunay<sup>4</sup>, P Desprès<sup>5</sup>, A Lenglet<sup>6</sup>, F Jourdain<sup>7</sup>, I Leparc-Goffart<sup>8</sup>, F Charlet<sup>3</sup>, L Ollier<sup>4</sup>, K Mantey<sup>4</sup>, T Mollet<sup>4</sup>, J P Fournier<sup>4</sup>, R Torrents<sup>2</sup>, K Leitmeyer<sup>4</sup>, P Hilaret<sup>4</sup>, H Zeller<sup>4</sup>, W Van Bortel<sup>4</sup>, D Dejour-Salamanca<sup>1</sup>, M Grandadam<sup>3</sup>, M Gastellu-Etchegorry<sup>1</sup>

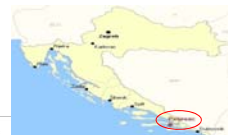
1. French Institute for Public Health Surveillance (Institut de Veille Sanitaire, InVS), Saint-Maurice, France
2. Regional office of the French Institute for Public Health Surveillance (Cire Sud), Marseille, France
3. Regional Health Agency of Provence-Alpes-Côte d'Azur, Marseille and Nice, France
4. Entomology-Parasitology, Virology and Emergency Medicine and Internal Medicine Departments, University Hospital of Nice, Nice, France
5. Institut Pasteur, National Reference Centre for arboviruses, Paris, France
6. European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden
7. Directorate General for Health, Ministry of Health, Paris, France
8. Institut de recherche biomédicale des armées, National Reference Centre for arboviruses associated laboratory, Marseille, France

RAPID COMMUNICATIONS

## Dengue virus infection in a traveller returning from Croatia to Germany

J Schmidt-Chanasit (jonassi@gmx.de)<sup>1</sup>, M Haditsch<sup>2</sup>, I Schöneberg<sup>3</sup>, S Günther<sup>1</sup>, K Stark<sup>3</sup>, C Frank<sup>3</sup>

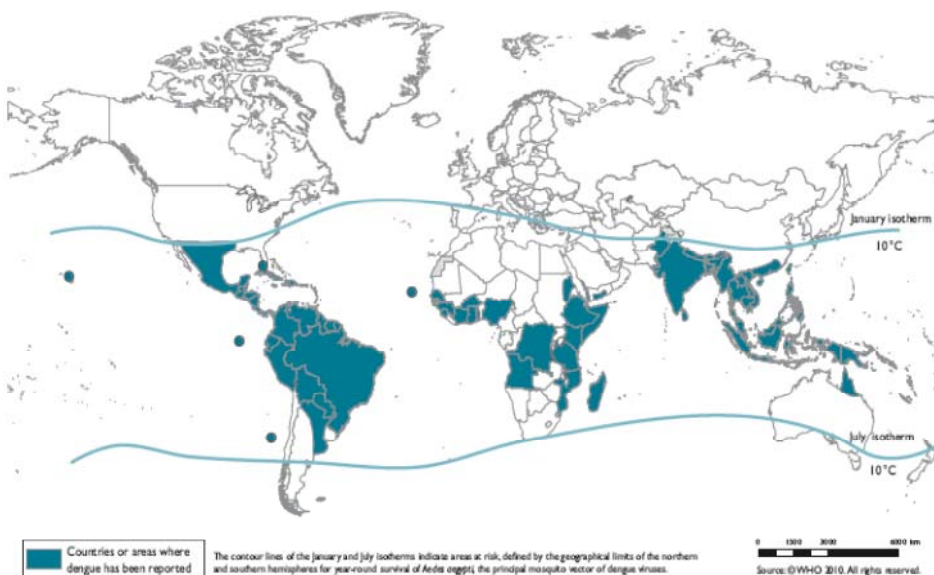
1. Bernhard Nocht Institute for Tropical Medicine, Department of Virology, Hamburg, Germany
2. Labor Hannover MVZ GmbH, Hannover, Germany
3. Robert Koch Institute, Department for Infectious Disease Epidemiology, Berlin, Germany



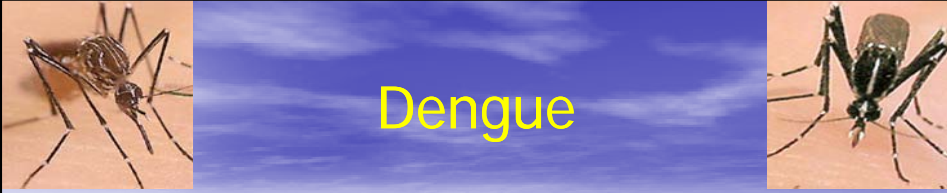
Citation style for this article:  
Schmidt-Chanasit J, Haditsch M, Schöneberg I, Günther S, Stark K, Frank C. Dengue virus infection in a traveller returning from Croatia to Germany. Euro Surveill. 2010;15(4):pii=19677. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19677>

Article published on 7 October 2010

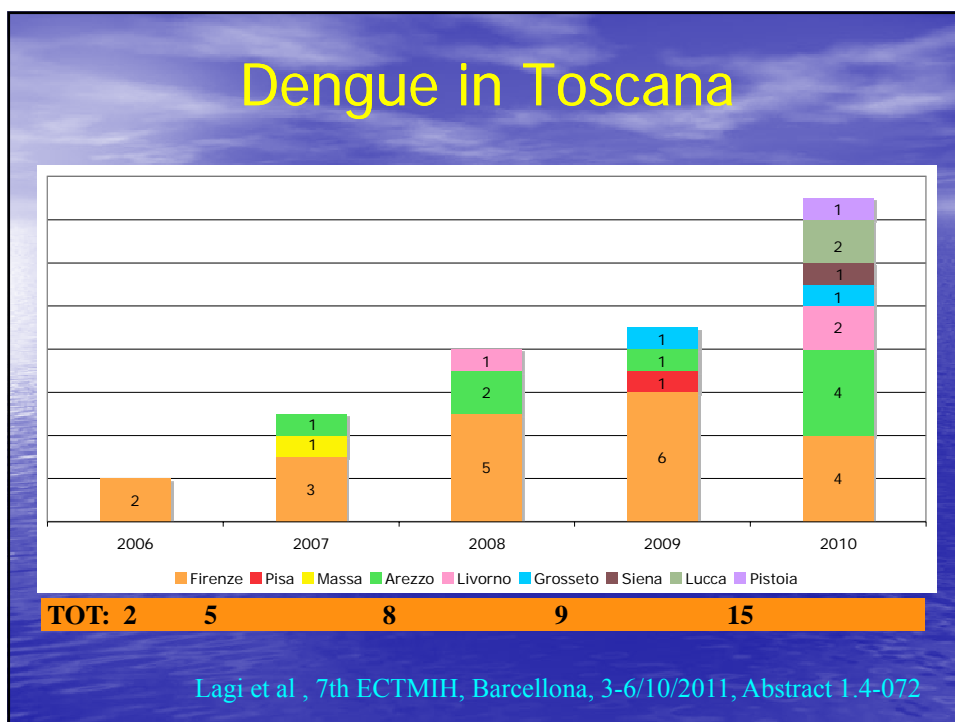
Dengue, countries or areas at risk, 2009



## Dengue



- Dopo la malaria, è la 2<sup>a</sup> più frequente causa di febbre di ritorno da un'area tropicale (endemica in >100 paesi)
- Infezione da un arbovirus di cui esistono 4 sierotipi (DEN 1-4), a trasmissione vettoriale (*Aedes aegypti*, *Aedes albopictus* ed altre *Aedes* sp.)
- Le popolazioni che vivono in territori iperendemici sono quelle a maggior rischio di sviluppare forme gravi (dengue severa, letalità 2-20%) come conseguenza di infezioni consecutive da sierotipi diversi



# Virus West Nile

- infezione asintomatica
- sindrome similinfluenzale
- infezione neuroinvasiva (meningite/encefalite, SGB, radicolite, paralisi)

## Letalità

- ✓ Algeria, 1994: 2/15 (13,3%)
- ✓ Romania, 1996: 17/393 (4,3%)
- ✓ Tunisia, 1997: 3/30 (10%)
- ✓ Russia, 1999: 40/826 (4,8%)
- ✓ Israele, 2000: 35/417 (8,4%)
- ✓ Sudan, 2004: 4/31 (12,9%)



**Culex spp.**

**SURVEILLANCE AND OUTBREAK REPORTS**

## Epidemiological surveillance of West Nile neuroinvasive diseases in Italy, 2008 to 2011

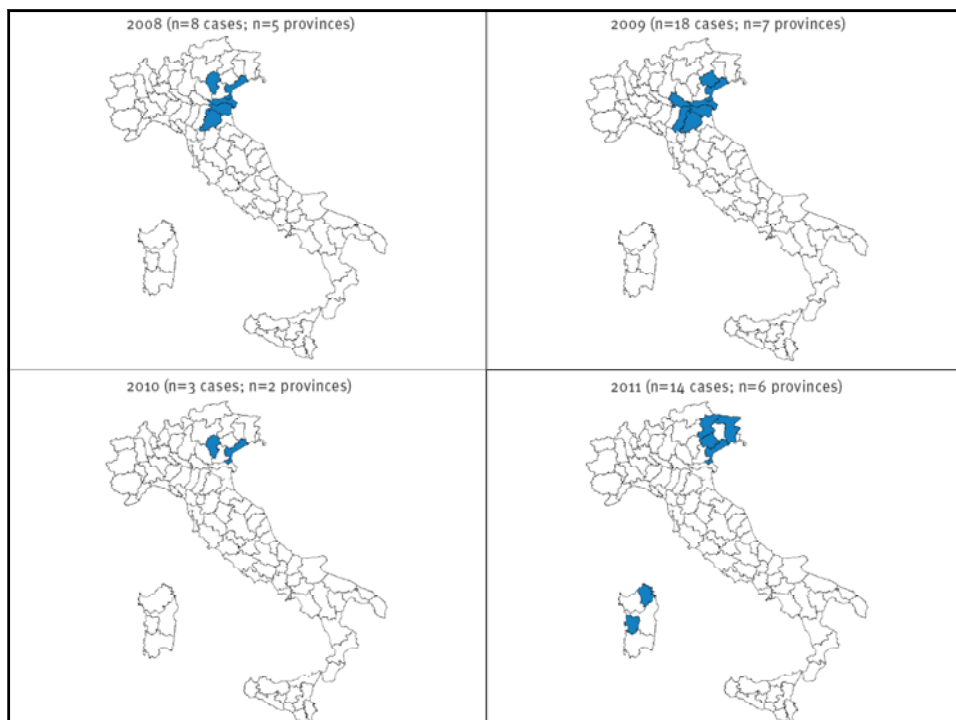
**C Rizzo (caterina.rizzo@iss.it)<sup>1</sup>, P Salcuni<sup>2</sup>, L Nicoletti<sup>3</sup>, M G Ciufolini<sup>3</sup>, F Russo<sup>4</sup>, R Masala<sup>5</sup>, O Frongia<sup>6</sup>, A C Finarelli<sup>7</sup>, M Gramegna<sup>8</sup>, L Gallo<sup>9</sup>, M G Pompa<sup>2</sup>, G Rezza<sup>3</sup>, S Salmasso<sup>4</sup>, S Declich<sup>1</sup>**

1. National Centre for Epidemiology, Surveillance and Health Promotion, National Institute of Health (Istituto Superiore di Sanità, ISS), Rome, Italy
2. Ministry of Health, Department of Prevention and Communication, Rome, Italy
3. Department of Infectious, Parasitic and Immune-mediated Diseases, National Institute of Health (Istituto Superiore di Sanità, ISS), Rome, Italy
4. Regional Health Authority of Veneto, Italy
5. Regional Health Authority of Sardinia, Italy
6. Local Health Authority of Oristano, Sardinia, Italy
7. Regional Health Authority of Emilia-Romagna, Italy
8. Regional Health Authority of Lombardy, Italy
9. Regional Health Authority of Friuli-Venezia Giulia, Italy


- 43 casi confermati
- 7 decessi
- **Letalità 16%**

Citation style for this article:  
Rizzo C, Salcuni P, Nicoletti L, Ciufolini MG, Russo F, Masala R, Frongia O, Finarelli AC, Gramegna M, Gallo L, Pompa MG, Rezza G, Salmasso S, Declich S. Epidemiological surveillance of West Nile neuroinvasive diseases in Italy, 2008 to 2011. Euro Surveill. 2012;17(20):pii=20172. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20172>

Article submitted on 12 January 2012 / published on 17 May 2012








Ministero della Salute  
Istituto Superiore di Sanità

*Centro Nazionale Sangue*

Via Giano della Bella, 77  
00162 Roma  
Tel: 06 4950 4953 / 4954  
Fax: 06 4900 0375  
E-mail: cns@iss.it

I.S.S. - C.N.S.  
CNS 19/06/2012-0001037



Documento Interno 1

Ai Responsabili delle Strutture regionali di coordinamento per le attività trasfusionali delle Regioni e Province Autonome

Alle Direzione del Servizio Trasfusionale delle Forze Armate

Alle Strutture regionali di Sanità Pubblica delle Regioni Emilia Romagna, Lombardia, Veneto, Sardegna, Friuli Venezia Giulia

**Oggetto: indicazioni per la sorveglianza e la prevenzione della trasmissione dell'infezione da West Nile Virus (WNV) mediante la trasfusione di emocomponenti labili nella stagione estivo-autunnale 2012.**

Possibile trasmissione attraverso donazione di sangue, organi e tessuti  
→ Anamnesi accurata (no donazione per 28 gg. se soggiorno di almeno una notte nelle aree interessate di Veneto, Friuli e Sardegna)

**Prevalence of IgM and IgG antibodies to West Nile virus among blood donors in an affected area of north-eastern Italy, summer 2009 → 94/2507 (3,7%)**


Citation style for this article:  
Pezzotti P, Plovesan C, Barzon L, Cusinato R, Cattai M, Pacenti M, Piazza A, Franchin E, Pagni S, Bressan S, Martello T, Potenza R, Scipioni C, Ammendola R, Breda A, Patù G, Russo F, Rezza G. Prevalence of IgM and IgG antibodies to West Nile virus among blood donors in an affected area of north-eastern Italy, summer 2009. Euro Surveill. 2011;16(10):pii=19814. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19814>

14 JUNE | **World Blood Donor Day**  
"Celebrating the Gift of Blood"

**Every blood donor is a hero**

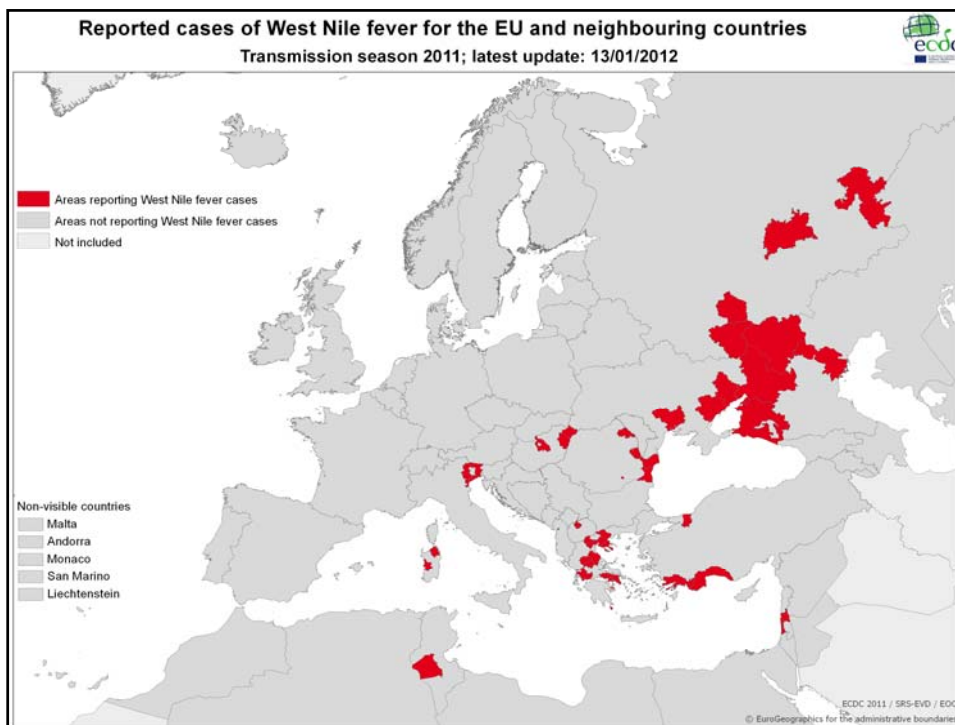
World Blood Donor Day - 14 June 2012

Every year, countries throughout every region of the world organize a huge variety of events and activities to celebrate the day, from football matches to free concerts, and from mobile blood donation clinics to monumental decorations.



Oliver Chanon

WHO and partners have decided to focus the 2012 campaign on the idea that every one of us can become a hero simply by giving blood. The everyday hero responds to an immediate need, whatever the conditions, despite inconvenience, putting the needs of others above their own. Voluntary blood donors come from all walks of life, all regions, backgrounds, religions and ages. By choosing to donate blood without getting paid, these individuals commit an "heroic" act, a gesture of human solidarity with the power to save lives. Some of them do so dozens of times over several decades.



**RAPID COMMUNICATIONS**

## Japanese encephalitis virus RNA detected in *Culex pipiens* mosquitoes in Italy

**P Ravanini<sup>1</sup>, E Huhtamo<sup>2</sup>, V Ilaria<sup>3</sup>, M G Crobu<sup>4</sup>, A M Nicosia<sup>4</sup>, L Servino<sup>5</sup>, F Rivasi<sup>1</sup>, S Allegrini<sup>1</sup>, U Miglio<sup>1</sup>, A Magri<sup>1</sup>, R Minisini<sup>1</sup>, O Vapalahti<sup>2</sup>, R Boldorini<sup>1\*</sup>**

1. Laboratory of Molecular Virology, Azienda Ospedaliero-Universitaria Maggiore della Carità, Novara, Italy
2. Infection Biology Research Programme, Department of Virology, Haartman Institute, Faculty of Medicine, University of Helsinki, Helsinki, Finland
3. Department of Diagnostics, Laboratory Service and Forensic Medicine, Section of Pathological Anatomy, University of Modena and Reggio Emilia, Italy
4. Department of Pathological Anatomy, Faculty of Medicine and Surgery, University Amedeo Avogadro del Piemonte Orientale, Novara, Italy
5. Department of Translational Medicine, University of Eastern Piedmont 'Amedeo Avogadro', Novara, Italy

Citation style for this article:  
Ravanini P, Huhtamo E, Ilaria V, Crobu MG, Nicosia AM, Servino L, Rivasi F, Allegrini S, Miglio U, Magri A, Minisini R, Vapalahti O, Boldorini R. Japanese encephalitis virus RNA detected in *Culex pipiens* mosquitoes in Italy. Euro Surveill. 2012;17(28):pii=20221. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20221>

Article submitted on 4 July 2012 / published on 12 July 2012

**Mosquito collection locations, Italy, summer 2010 and 2011**

**EMILIA ROMAGNA**

**ADRIATIC SEA**

## Malattia di Lyme

### •Epidemiologia

- Stati Uniti
  - Australia
  - Europa: Inghilterra, Svezia, ex-URSS, Francia
  - Italia: più frequente in Liguria e Friuli-Venezia Giulia
- ✓ Sieroprevalenza in Italia: 2,4-4,1%
  - ✓ Mesi estivi ed autunnali
  - ✓ Popolazioni rurali, soggetti che soggiornano in campagna e boschi (cacciatori, pescatori, campeggiatori)



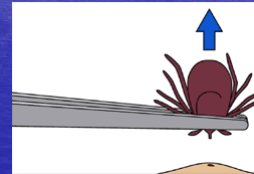
*Ixodes* ticks are much smaller than the common dog and cattle ticks. In their larval and nymphal stages, they are no bigger than a pinhead. Adult *Ixodes* ticks are larger, about the size of a small apple seed. Left to right: Adult Female, Adult male, nymph, larva

## Malattia di Lyme





## Rimozione della zecca

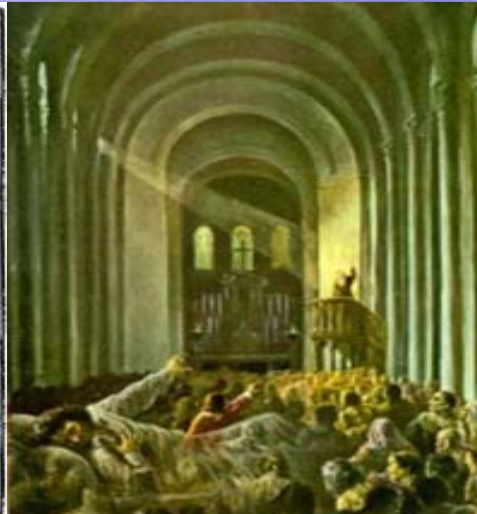


La zecca va estratta nel modo meno traumatico possibile con un lieve movimento rotatorio, in modo da evitare 1) rigurgito di materiale infettante al momento della rimozione e 2) lesioni sede di sovrinfezioni batteriche

## La peste nel passato remoto

**La Peste di Boccaccio (1347-50):** in Europa popolazione quasi dimezzata (25 milioni di morti), in Toscana ridotta del 47-80%

**La Peste di Manzoni (1629-31):** >1 milione di morti al Centro-nord, ca. 1 milione nel regno di Napoli





## La peste nel dopoguerra

Reported human plague cases/outbreaks since January 1945

Country	Year	Location	Confirmed or probable cases	Deaths
Morocco No cases reported since 1945	1945	Countrywide, mainly around Marrakech	811	ND
	1945-1946	Oran	12	1
Algeria No cases reported from 1950 to 2003	1945	Algiers	5	ND
	1946-1950	Countrywide	8	ND
	2003	Kahel'ia (Tafraout, Oran)	18	1
	2008	Laghouat	4	3
Tunisia No cases reported since 1945	1944-1945	Bizerte/Ferryville	34	27
	1972	Nofl'ia	18	3
Libya No cases reported from 1984 to 2009	1976-1977	Tobruk	30	12
	1984	Tobruk	9	ND
	2009	Betnane (Tobruk)	12	1
	1945	Port-Said, Suez, Ismat'ia	218	ND
Egypt No cases reported since 1947	1946	Port-Said, Suez, Ismat'ia, Damietta	66	ND
	1946-1947	Alexandria	145	39

Source: Department of International and tropical diseases, Institut de Veille Sanitaire (DIT-InVS) based on numerous reports and the literature

EUROSURVEILLANCE Vol. 14 · Issue 26 · 2 July 2009 · [www.eurosurveillance.org](http://www.eurosurveillance.org)

1

## Cause "domestiche" di morte

- Scossa sismica
- Folgorazione elettrica (elettrocuzione)
- Caduta dalle scale con frattura cervicale
- Scoppio/avvelenamento per fuga di gas
- Incendio
- Omicidio (uxor-, rapina)
- Caduta di calcinacci, vasi, ecc.
- Infarto miocardico
- Aritmia grave
- Ictus/emorragia cerebrale
- Deragliamento
- Incidente nucleare
- Caduta di aereo

