

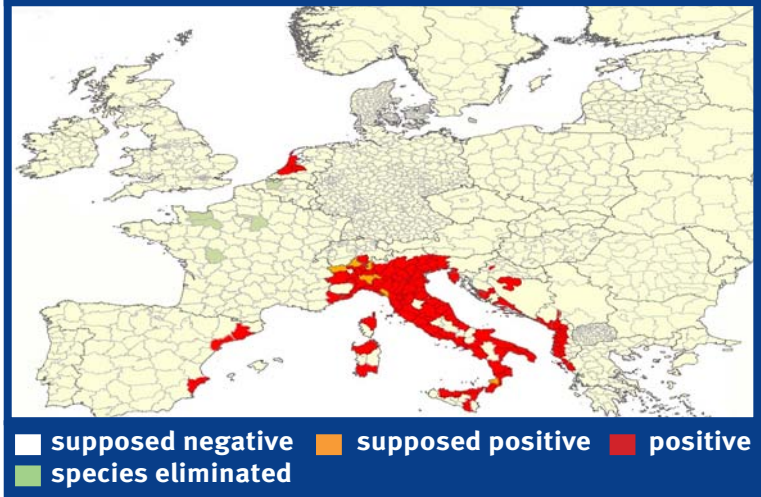
Italian chikungunya fever outbreak over but risk for new outbreaks in the spring

ECDC led team assessing outbreak of chikungunya in Italy, September 2007



Credit: Scholte E.-J. & Schaffner F., Waiting for the tiger: establishment and spread of the Asian Tiger Mosquito in Europe, 2007, Wageningen Academic Publishers.

Establishment and spread of the Asian Tiger Mosquito in Europe



Key points:

- Even though the present outbreak in Italy is over, new outbreaks may appear with the start of next mosquito season.
- Unless the 'tiger mosquito' can be effectively controlled in Europe, there is a risk that the disease could be established in the European mainland – even if it is uncertain how far north the mosquito could spread
- As the virus is blood-borne and can be transmitted via blood transfusions, this could have implications also on blood safety in affected countries.
- Surveillance of the mosquito vector is an important part of vector control.

Chikungunya fever is a viral disease transmitted by mosquitoes, which is characterised by high fever, joint pain and rash, but which rarely is fatal. The infection is widespread in parts of Africa, South-East Asia and on the Indian sub-continent. Since 2005, large outbreaks have been reported on several islands in the Indian Ocean and in India. Travellers returning from areas affected by chikungunya had been diagnosed with the disease in Europe, but until summer 2007 there had not been any further spread.

In August 2007, the first ever outbreak on the European continent originating from a returning traveller was detected by local health authorities of the province of Ravenna, Region Emilia-Romagna, Italy. From the initial focus in two small villages, the disease spread to other parts of the province, and also to two neighbouring provinces. The insect spreading the disease from one infected person to the next was the 'Asian tiger mosquito' (*Aedes albopictus*). Intensive measures were undertaken to control the mosquito vector, and with winter coming the outbreak is now fully under control. It is possible that the virus can survive in the mosquito population and reappear in spring to cause new outbreaks among humans – or that it is again 'imported' by infected travellers. The 'tiger mosquito' was introduced in several European countries some 15 years ago, mainly along the Mediterranean, but also in countries bordering the North Sea. The route seems to have been, importation of used tyres and of lucky bamboo (a decoration plant).

The ECDC already performed a chikungunya risk assessment for Europe in 2006; is working with entomologists to assess the likely future spread of the tiger mosquito in the EU; and is preparing a tool kit for Member States to use in communication about chikungunya to their citizens.

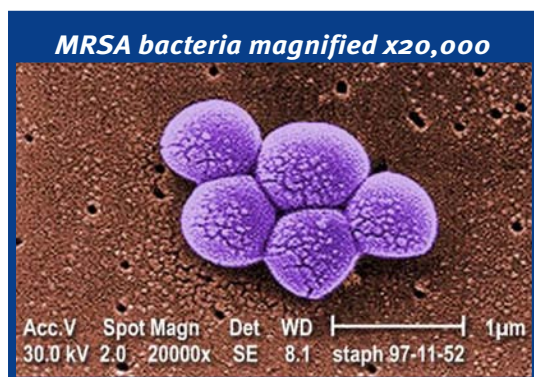
For more information see:

- <http://www.eurosurveillance.org/ew/2007/071122.asp#2>
- http://www.ecdc.europa.eu/documents/pdf/Final_chik_meeting_report.pdf
- http://www.ecdc.europa.eu/pdf/071030CHK_mission_ITA.pdf

New figures show growing threat from drug resistant microbe MRSA

Key points:

- Across Europe microbes are becoming increasingly resistant to commonly used antibiotics. This is a severe threat to modern health care.
- Infection control in healthcare facilities and rational use of antibiotics are key to turning the tide of antimicrobial resistance.
- Through such measures, two countries (France and Slovenia) have succeeded in reversing the upward trend in MRSA.



Credit: US CDC Public Health Image Library

A new report from the European Antimicrobial Resistance Surveillance System (EARSS) shows that across the EU microbes are becoming increasingly resistant to commonly used antibiotics such as penicillins and fluoroquinolones. The most important cause of antibiotic resistant healthcare associated infections worldwide

is methicillin-resistant *Staphylococcus aureus* (MRSA). The EARSS data show that MRSA is an increasing problem all over Europe, with particularly high levels reported in the UK, Ireland and southern European countries. It continues to spread in countries with relatively low levels of endemic MRSA such as the Netherlands, as well as high and medium endemic countries. Since MRSA is difficult to treat, infections often result in prolonged hospital stays and higher mortality. Despite the overall trend of increasing MRSA levels, France and Slovenia have reported decreases for the past six years. In addition, for the first time, there are indications that MRSA levels may start to decline in Belgium. Data indicate that improved control efforts are having a large impact on the spread of MRSA in hospitals.

It should be noted that healthcare-associated infections are important in their own right, whether or not caused by resistant bacteria. Every year approximately three million people in the European Union catch such an infection. That means that one patient out of every 10 that is treated in an EU hospital acquires such an infection. Estimates are that 50,000 of these patients will die.

Faced with the challenges of antimicrobial resistance presented in the report, it is clear that only concerted long-term efforts on infection control and rational antibiotic consumption can turn the tide. There is a Council Recommendation on the prudent use of antimicrobial agents in human medicine (2002/77/EC) and a plan for a Council Recommendation on improving patient safety by prevention and control of healthcare-associated infections. ECDC already performs country visits to assess implementation of recommendation 2002/77/EC. It will provide guidance on MRSA control and will organise the first annual European Antibiotic Awareness Day on 18 November 2008.

For more information see:

http://www.rivm.nl/en/persberichten/antimicrobial_resistance_in_Europe_threatens_effectiveness_of_medicine.jsp
<http://www.eurosurveillance.org/ew/2007/071011.asp#1>

Proportion (%) and trends of MRSA among *Staphylococcus aureus* isolates from blood cultures

EU Member States	MRSA(%) 2006	Trend ^a 1999-2006
Austria	9	—
Belgium	22	↑ ^b
Bulgaria	28	—
Cyprus	32	↓ ^c
Czech Republic	12	↑
Denmark	2	↑
Estonia	2	—
Finland	3	↑
France	27	↓
Germany	20	—
Greece	43	—
Hungary	25	↑
Ireland	42	—
Italy	38	—
Latvia	18	—
Lithuania	12	—
Luxembourg	19	—
Malta	67	↑
Netherlands	1	↑
Poland	20	—
Portugal	48	↑
Romania	55	—
Slovakia	19	— ^d
Slovenia	7	↓
Spain	25	—
Sweden	<1	—
United Kingdom	42	↑

a – The arrows indicate significant trends: ↑, significant increase in %MRSA; ↓, significant DECREASE in %MRSA; —, no significant trend.

b – Belgium: increasing trend on the whole period 1999–2006, but recent inversion of trend (2004-2006).

c – Cyprus: no significant trend when only the laboratories reporting on the whole period 1999-2006 were included.

d – Slovakia: first half year of 2005 (latest available data).