TropNet Global Surveillance News 2011


A total of 938 Hanta VHF cases were reported in Shandong province (including 24 fatal cases) in 2011. This figure is 1.88 per cent lower than in 2010. All patients were from rural areas and were reported to had either contact with infected rats, eaten food contaminated by rats, or been stung [bitten] by mites that had also bitten rats, before showing symptoms of fever and bleeding disorders. The provincial health bureau has organized vaccinations in the epidemic-affected areas and mobilized campaigns to kill rats. Since 2008 1.5 million people in Shandong province were vaccinated since 2008. Outbreaks of Hanta VHF had been reported in the 1980s and 1990s in Shandong province, when more than 10,000 people were infected on average each year. The specific hantavirus involved in these hemorrhagic fever cases has not been reported. The most likely viruses responsible for the cases are Hantaan or Seoul virus, or both. ([Reference])

27. Dec. 2011 - USA, Boston area: Epidemic Mycoplasma pneumonia

An outbreak of *Mycoplasma pneumoniae* infections is reported from the Boston area: "90 percent attack rate, whole families ill, with individual family members suffering varying degrees of clinical severity. Often misdiagnosed as a viral syndrome." ([Reference])

27. Dec. 2011 - Australia ex Bali, Indonesia: HIV link to Bali tattoo suspected

The Australian Department of Health is warning of the potential health risks of getting a tattoo in Bali, following confirmation of a HIV infection in a Australian traveler where all the evidence points to a tattoo received recently in Bali as being the source of the infection. ([Reference])


According to the Thai Ministry of Public Health a total of 3699 cases of leptospirosis and 66 fatalities were reported from 69 provinces between 1 Jan 2011 and 14 Dec 2011. The attack
rate was 5.82 per 100,000 population. The case fatality rate (CFR) was 0.10 percent. The highest percentage of cases was reported in the 45-54 year old age group (23.33 percent), followed by the 35-44 year old age group (21.03 per cent) and 25-34 year old age group (15.82 percent). When comparing the figures to last year the floodings of 2011 appear to have had no significant influence on the incidence of leptospirosis: In 2010, a total of 4944 cases and 43 fatalities attributed to leptospirosis were reported in Thailand. The attack rate was 7.78 per 100 000 population. The CFR was 0.07 percent. (Reference)


Suspected cases of Lassa fever have been reported from the Eastern region and the Ashanti region of Ghana. (Reference)


HFMD 2011: Vietnam: >96,000 cases (156 deaths, 55% EV71); China: >1.3 Mio cases (437 deaths, mostly EV71); Japan: >337,000 cases (mostly CA6)

Hand, foot and mouth disease (HFMD) is a common infectious disease whose main clinical symptoms include mouth ulcers and vesicles on the hands, feet and mouth. The infection occurs most often in children, but can occur in adolescents and occasionally in adults. In most cases, the disease is mild and self limiting, but more severe clinical presentation with neurological symptoms such as meningitis, encephalitis and polio-like paralysis may occur. HFMD is caused by a group of non-polio enteroviruses, particularly those viruses belonging to the Human Enterovirus species A (HEV-A). Of these, enterovirus 71 (EV71) is more commonly linked with severe symptoms, including central nervous system disorders, and fatal cases resulting from pulmonary edema in a small proportion of children, particularly those aged 5 years and younger. Outbreaks of HFMD have occurred every two to three years in different Member States across the Western Pacific Region over the last two decades. Occurrence of EV71 as the dominant strain in the outbreak has been a little more sporadic. However, when EV71 is dominant, more cases have severe consequences resulting in higher morbidity and mortality and a greater burden on the public health system. (enlarge graphic) (Reference)

Currently several autochtonous malaria cases have been reported from Dubai. The UAE were declared malaria-free by the World Health Organisation in 2007. (Reference)


In 2011 a total number of 55 human H5N1 cases (including 29 fatal cases) have been registered: Egypt (34 (12 deaths)), Indonesia (11 (9 deaths)), Cambodia (8 (8 deaths), Bangladesh (2 cases (0 deaths)). Since the beginning of the avian influenza H5N1 outbreak in China and Vietnam in 2003 a total number of 571 human cases have been reported worldwide, including 335 fatal cases. (Reference)


A meningitis epidemic has killed 109 people in the north eastern Brazilian state of Bahia since the start of the year, according to a report released by local authorities on Friday [9 Dec 2011]. According to the local authorities 1670 bacterial meningitis cases have been reported this year. (Reference)

*Background:* Outbreaks of meningococcal meningitis in Brazil have been due to serogroup B and C (B>>C). There was an ongoing outbreak of meningococcal meningitis in Bahia in 2009 and 2010: In 2009 2218 meningococcal meningitis cases (including 138 fatal cases) were registered; In 2010 330 confirmed cases (including 39 fatal cases) were registered from Jan 1st - May 5th.


In the Beni province close to the city of Trinidad (North-East of the country) several suspected cases of Machupo (Bolivian hemorrhagic fever) infections have been reported. (Reference)

2. Dec. 2011 - Senegal: Yellow fever

The Ministry of Health in Senegal notified the WHO of 3 cases of yellow fever in Kedougou and Saraya Health districts, near the border with Mali and Guinea Conakry on 26 Oct 2011. (Reference)

1. Dec. 2011 - Delhi, India: Chikungunya

Chikungunya is yet to subside in the city despite the onset of winter. The number of chikungunya virus infections in Delhi has increased slightly from 95 (on 26th November) to now
100 cases 6 days later. Last year 70 cases of chikungunya had been registered at the same time. It is difficult to explain why dengue cases are declining yet chikungunya virus infections continue, since the viruses are transmitted by the same Aedes mosquito vector. Perhaps a greater proportion of the population is already immune to dengue viruses but has not had previous chikungunya virus infections and would be susceptible. With the continuing colder weather, transmission of both viruses is expected to decrease in the near future. (a Reference)

30. Nov. 2011 - Philippines: Paralytic Shellfish Poisoning (PSP)

In central Luzon, North of Manila several people contracted Paralytic Shellfish Poisoning (PSP) after consuming seafood. One person died.

![Map of Philippines](image)

**Background:** Shellfish poisoning is caused by a group of toxins elaborated by planktonic algae (dinoflagellates, in most cases) upon which the shellfish feed. The toxins are accumulated and sometimes metabolized by the shellfish. Ingestion of contaminated shellfish results in a wide variety of symptoms, depending upon the toxins(s) present, their concentrations in the shellfish and the amount of contaminated shellfish consumed:

- Paralytic Shellfish Poisoning (PSP) -> Epidemiology: [enlarge map](#)
- Diarrheic Shellfish Poisoning (DSP)
- Neurotoxic Shellfish Poisoning (NSP)
- Amnesic Shellfish Poisoning (ASP)

In the case of PSP (saxotoxin), the effects are predominantly neurological and include tingling, burning, numbness, drowsiness, incoherent speech, and respiratory paralysis. Important: the saxotoxin is heat stable! (a Reference)


In November 6 children from the Achuar indigenous community in Taisha canton, Ecuador died because of vampire bat rabies. Another 8 children with rabies-suspicious symptoms are currently hospitalized. A vaccination campaign in the region has been initiated. The Achuar indigenous tribe lives along either side of the border between Ecuador and Peru. While several human cases of vampire bat transmitted rabies has been reported from the Peruvian Amazon
this year, this is the first reported rabies outbreak involving people in 2011 in Ecuador. (see report from the 29. Sep. 2011 below) (Reference)

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27. Nov. 2011 - Europe: West Nile Fever update

As of 24 November 2011, 93 confirmed human cases of West Nile fever have been reported in the EU; 69 cases in Greece, 14 in Italy and 10 in Romania. In the neighbouring countries, another 189 cases have been declared; 2 in Albania, 4 in the Former Yugoslav Republic of Macedonia, 33 in Israel, 136 in the Russian Federation, 3 in Tunisia, 3 in Turkey and 8 cases in Ukraine. (Reference)

26. Nov. 2011 - Italy ex India: cluster of NDM-1 carrying Enterobacteriaceae

Between July 2011 and August 2011, the New Delhi metallo-beta-lactamase 1 (NDM-1) gene was detected in Klebsiella pneumoniae and Escherichia coli isolates obtained from 6 patients hospitalized in 4 healthcare facilities in northern Italy. A patient who had been hospitalized in New Delhi, India, from February to May 2011 and subsequently in the Bologna area, Italy, from May to July 2011, may have been the source of the outbreak. The findings suggest ongoing spread of this carbapenem-resistance gene in Italy and highlight the need for intensive surveillance. (Reference)

Note: 28. Nov. 2011: First report of NDM-1 carrying Klebsiella pneumoniae from Guatemala (Reference)


Background: Carbapenems are the preferred treatment for severe infections caused by multidrug-resistant Gram-negative bacteria producing an extended-spectrum beta-lactamase (ESBL). Therefore the increasing and rapid spread of mobile genetic elements that determine acquired resistance to carbapenems and all other beta-lactams in Enterobacteriaceae is of great concern. In 2008, the 1st case of a novel carbapenemase "New Delhi metallo-beta-lactamase 1" (NDM-1) has been detected in a patient in Sweden that had traveled to India. This NDM-1 carbapenemase can be produced by several Enterobacteriaceae species. In 2010, Canada and the USA detected cases in travelers coming from India. In Europe: a total of 77 cases were reported from 13 countries from 2008 to 2010 (Reference). In Italy, NDM-1-positive isolates were first described earlier in 2011 (Reference).
23. Nov. 2011 Russia: Hepatitis A outbreak in Novosibirsk

So far during November more than 56 confirmed cases of hepatitis A have been reported from the city of Novosibirsk. The Municipal health authorities have now identified almost 2000 potential contacts. All of the identified contacts, who have not had hepatitis A previously or been vaccinated, have now been vaccinated. (Reference)


Influenza activity in the temperate regions of the northern hemisphere remains low or undetectable, though a recent outbreak of influenza A(H3N2) in a seniors lodge has been reported in Alberta, Significant influenza activity was reported in only a few countries of the tropical zone including Nicaragua in the Americas, Cameroon in central Africa, and Cambodia in South East Asia. Transmission in the temperate countries of the southern hemisphere has returned to intra-seasonal levels, with some persistence of influenza A(H3N2) in Australia. (Reference) [enlarge map]


Health authorities in the Northern Region have confirmed a new case of yellow fever. This follows laboratory findings that attributed the death of a 16-year-old-boy from Dikatami in the Sawla-Tuna-Kalba District to yellow fever infection. (also see report below: 12. Nov. 2011) (Reference)

18. Nov. 2011 - Europe: Measles

In the 29 countries of the EU/EFTA more than 29.100 cases of measles have been recorded, half of the cases are reported from France. 8 fatal cases and 24 cases of measles encephalitis have been reported. In Germany 2 children developed subacute sclerosing panencephalitis (SSPE). One of the children died meanwhile.

From May-October 2011 a total number of 61 *P. vivax* malaria cases have been reported in Greece. 33 cases were Greek citizen without travel history to malaria endemic countries. 27 of these cases are residents of the Eurotas river delta in South Lakonia. 28 cases were migrants (with 21 coming from endemic countries, mostly Pakistan and Afghanistan) working in the agricultural sector in the Eurotas river delta. (Reference: CDTR 46)(see also our previous note from 13. Oct. 2011)


<table>
<thead>
<tr>
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<th>Year-to-date 2011</th>
<th>Year-to-date 2010</th>
<th>Total in 2010</th>
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<tr>
<td>Globally:</td>
<td>520 /</td>
<td>789 /</td>
<td>1352</td>
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<tr>
<td>- endemic countries:</td>
<td>241 /</td>
<td>184 /</td>
<td>232</td>
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<tr>
<td>- non-endemic countries:</td>
<td>279 /</td>
<td>605 /</td>
<td>1120</td>
</tr>
</tbody>
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2011 annual totals by county as of 16 Nov 2011:

**15. Nov. 2011 - Malaysia: Hepatitis A outbreak**

River water is believed to be the source of the hepatitis A outbreak that has infected 800 people in three villages in Hulu Terengganu district [Terengganu state] (Reference)

**15. Nov. 2011 - Americas: Dengue update**

**Paraguay:** this year the country reported the highest number of suspected dengue fever cases ever: >40.000 cases. Most cases were reported from the Eastern provinces: Alto Paraná (Iguazu water falls), Asuncion, Amambay, and Concepción.

**Columbia:** up to now >26.000 suspected Dengue fever cases (>4000 laboratory confirmed) have been reported in 2011.

**Mexico:** around 26.000 suspected Dengue fever cases have been reported 2011 (>6000 laboratory confirmed). Currently the numbers are rising in Yucatan.
12. Nov. 2011 - Ghana: Yellow fever

The Upper West Region has recorded 3 yellow fever cases this year with one each in Wa Municipality, Jirapa and Wa East Districts. No cases of Yellow fever have been reported from the region the last 6 years. Consequently, a district mass immunisation programme has been launched. (Reference)

10. Nov. 2011 - Philippins: Dengue

From 1st January - 22th October this year 97.158 dengue cases have been recorded by the Dengue Surveillance of the Department of Health. According to the National Epidemiology Center the number is 36.87% than the 153.906 dengue cases recorded during the same period last year. This year's 527 deaths were also lower than the 947 last year. Most cases were reported from Metro Manila (22.225), Central Luzon (19.995), the Calabarzon sub-region (13.746), and the Ilocos Region (12.754). (Reference)

10. Nov. 2011 - Peru: Yellow fever

A fatal case of Yellow Fever has been confirmed from the Union Mantaro community, Llochegua district in the Apurimac - Ene River valley. Histopatological examinations confirmed YF as the cause of death in a 15-year-old woman dying three days after giving birth. According to reports from the DIRESA Epidemiology Office, the 1st YF outbreak in the valley was registered in 2006, the year in which 7 cases were reported, with a 100% case fatality rate. (Reference)


Rabies remains (with up to 30.000 registered dog bites reported per half year) a serious public health problem in Bali. Since the beginning of the rabies outbreak in 2008 the number of human cases has now risen to 149. Vaccination programs of the dog population and culling of stray dogs have been conducted with limited success. Experts calculate with the eradication of rabies on the island not before 2015. Access and temporary shortage of postexposure prophylaxis (esp. the availability of passive immunisation/immunoglobulines) remains a serious concern.

Additionally to the threat by dogs we would like to highlight the frequently observed exposure risk (bite and scratch wounds) of tourists while visiting the "Sacred Monkey Forrest Sanctuary" of Padangtegal (close to Ubud) in Bali. The local population of macaques is infamous for aggressive behaviour and close physical contact to tourists. (Reference)
7. Nov. 2011 - Netherlands ex Austria: Tick-borne encephalitis in 2 Dutch travellers

Tick-borne encephalitis has been diagnosed in 2 Dutch travellers returning from Austria in July and August 2011. A positive anamnesis for a stay in a TBEV endemic area (incubation period of typically 7-14 days) and a tick bite are epidemiological parameters that should entail a confirmative diagnosis based on positive TBEV IgM and IgG responses. Based on these criteria, in the 5-year period from 2006 to 2010, only one Dutch person has been diagnosed as an acute TBEV case. (Reference)

4. Nov. 2011 - India: Polio update

During 2010 and 2011, India made substantial progress toward polio eradication. A year has passed since the last confirmed WPV3 (wild polio virus) case, and >9 months have passed since the last confirmed WPV1 case. The absence of any reported WPV cases since January, including during much of the June-November high-transmission season, is unprecedented. WPV was last detected in sewage in Delhi in August 2010 and in Mumbai in November 2010. The subsequent lack of detection of WPV in any samples from any site is further indication that WPV transmission might have been interrupted. No WPV cases have been reported for >17 months and >12 months in the previously polio-endemic states of Uttar Pradesh and Bihar, respectively. If no WPV is identified throughout the high-transmission season in 2012, India will be regarded as polio-free. This would put the World Health Organization South-East Asia Region, of which India is a member, on track to be certified polio-free as early as 2014. (Reference)


For the first time Dengue fever has been reported from the Marshall Islands with 75 confirmed cases. Additionally two other pacific island groups reported Dengue fever cases: Yap (130 reported cases) and Palau (30 reported hospitalized cases)


Solving the mystery that hung over the recent outbreak of clinical cases resembling Japanese encephalitis in India, it has been confirmed that several of these cases were identified as West Nile fever. The exact details of the prevalence of the West Nile virus - which has been found to be spreading slowly along the coastal belt - in India, are currently insufficient. (Reference)


The GeoSentinel network reports 23 cases of probable zoonotic sarcocystis infection in returning travelers seen at 9 different clinics in 6 countries. All travelers, some traveling in groups, had vacationed on Tioman Island off the east coast of the Peninsular Malaysia between
June and August 2011. Most, but not all of these travelers visited Perhentiau Island. All patients had fever, myalgia or musculoskeletal complaints, and marked eosinophilia.

The largest cluster of 8 cases is reported by our TropNet member August Stich from the Missionsärztlche Klinik in Würzburg, Germany. The travelers were a group from Southern Germany, who visited Tioman Pulau in July 2011 during a month long trip in Malaysia. At the end of the trip, all had mild diarrhea, and one week after return, they developed fever and myalgias, which became severe during the 2nd week of August 2011. (Reference)


The death of a tourist from New Zealand dying on Bali might be linked to a potent local cocktail, that has been connected to 29 deaths in 2009. In 2009, 25 people died of alcohol poisoning after drinking arak containing methanol, a by-product of the incorrect distillation of ethanol. In the same week the tourist from New Zealand died, an Australian nurse suffered suspected brain damage and kidney failure possibly related to a similar drink she had on the Indonesian island of Lombok. (Reference)


An outbreak of cholera in Ranong, the Thai border port popular with Phuket expats making one-day visa runs to Burma [Myanmar], has alarmed local health authorities. A Burmese cook in a restaurant has been traced as the cause of 24 cases in the past week [week of 24 Oct 2011]. 4 more people were admitted to Ranong Hospital today. (Reference)


Crimean Congo hemorrhagic fever virus (CCHFV) was detected in Hyalomma lusitanicum ticks collected in Caceres (Extremadura, Spain) by RT-PCR. Sequencing showed 98% similarity with CCHFV isolates from Mauritania, Senegal, and South-Eastern Europe. This is the first report of CCHFV isolated in South-Western Europe (Reference)

27. Oct 2011 - Finland ex Italy: Botulism due to jarred olives

Italian olives tainted with botulinum toxin sickened 2 members of a Helsinki family last week. Both individuals reported having eaten Gaudiano Organic Olives Stuffed with Almonds. Lab tests confirmed that the jar from which the 2 patients had eaten the olives contained botulinum toxin. The tainted olives were packed in 314 ml glass jars, with a "best before" date of 09/2012. They were imported into Finland by Kespro as early as September 2010. The olives were sold in Finland to K-food stores KCM Big Apple (Espoo), KCM Jumbo (Vantaa), and KSM
South Centre (Rovaniemi), and to a few restaurants. The olives have been withdrawn from sale in Finland, and consumers who purchased this product are asked to return it to the store. Germany's Federal Office for Consumer Protection and Food Safety has learned that some of these olives also were distributed in Germany, and is asking its citizens to dispose of any of the implicated jars of olives "with household waste". (Reference)


The Ministry of Health of Indonesia has announced two new confirmed cases of human infection with avian influenza A(H5N1) virus. The first case is a 5-year old female from Bangli district, Bali Province. She developed symptoms on 27 September, and was first admitted to a local general hospital on 5 October. She died on 9 October. The second case is a 10-year old male, the brother of the first case. He developed symptoms on 30 September, and was first admitted to the hospital on the same day as his sister. He died on 10 October. An epidemiological investigation conducted by the Ministry of Health and local health officers indicated that the children lived in an area with poultry, and household and neighborhood poultry had died prior to the children’s illnesses. Laboratory tests have confirmed infection with avian influenza A(H5N1) virus. Of the 181 cases confirmed to date in Indonesia, 149 have been fatal. (Reference)


Swedish researchers have discovered a new tick-borne illness that can cause blood clots in the legs and lungs, with 3 cases having been reported in Sweden. A total of 8 cases of the disease have been reported so far, with patients in Germany, Switzerland, and the Czech Republic also having been infected. All of those affected by the disease suffer from a weakened immune system. The illness, which researchers call "neo disease" after the bacterium that causes it, "Candidatus Neoehrlichia mikurensis", also brings about flu-like symptoms with long-lasting high fevers, coughing, and aches. The 1st case was discovered in the summer of 2009 after a 77-year-old man from Gothenburg came down with a high fever and lost consciousness. During his treatment, doctors discovered blood clots in his leg and lungs. The man's fever returned several times and doctors eventually found traces of an unknown bacterium in his blood. The disease, which is transmitted by ticks, had never before been reported in Sweden and it was unclear what caused the disease in humans. The 2 additional Swedes who have become ill due to the bacteria are in their 60s and 70s. (Reference)


A whooping cough outbreak in Nelson and Marlborough may cause a nationwide epidemic, health officials warn. Nelson Marlborough District Health Board says the outbreak in the top of
the south, with similar outbreaks in West Coast and Hawke's Bay, may develop into a nationwide epidemic similar to 2004-2005. ([Reference])

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At least 94 people - adults and children under 5 - are affected by a chikungunya virus outbreak. The cases are reported from Central Java (Sungan Durian village, Ambawang district and Kuala Kuala village). ([Reference])

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Until September 2011 the following numbers of Dengue cases have been reported from South-East Asia:
- Philippines: 76,463 cases, mostly June-August (2010: 101,899)
- Vietnam: 38,684 cases, 25% from HCMC. (2010: less cases than 2011, exact figures unknown)
- Malaysia: 14,686 cases (2010: 37,419)
- Cambodia: 13,184 cases (2010: 12,500)
- Singapore: 4,490 (2010: 3,895)
- Lao PDR: 2,585 (2010: 19,062)
- Australia: 577 (2010: 741)  ([Reference])

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In the far North-East of Kenia ([Mandera]) - the border region to Somalia and Ethiopia - increasing numbers of Dengue cases are reported for the first time since the 1980s. Around 1,000 suspected cases have been registered. Individual cases have been confirmed. The surveillance situation in the region is insufficient and the current flow of Somali refugees in the region is an aggravating factor. ([Reference])

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**14. Oct. 2011 - Italy: 4 cases of West Nile Fever transmission following multi-organ donation**

Eurosurveillance reports four cases of West Nile virus (WNV) transmission following a single multiorgan donation in North-Eastern Italy. The transmissions were promptly detected by local transplant centres. The donor had been tested for WNV by nucleic acid amplification test (NAT) prior to transplantation and was negative. There were no detected errors in the nationally implemented WNV safety protocols. ([Reference])

In Palm Beach an autochthonous case of Dengue fever has been confirmed. In Florida (mosly on the "Keys") sporadic Dengue cases are regularly reported. (Reference)


![Map of Greece showing the location of Laconia](image)

Until 13. Oct. 41 cases of vivax malaria have been reported from 5 districts in Laconia (southern Peloponnese). 22 cases were greece citizen without travel history. (see also our previous note from 19. Aug. 2011) (Reference: CDTR Wo 41)


A pneumonic plague epidemic has been declared in the district of Miarinarivo located in the province of Antananarivo. One person has died, 5 other persons are under treatment. The district of Miarinarivo and its environs are among the 12 endemic regions known for occurrence of the disease on the island. The last plague outbreaks occurred in December 2010 (5 cases including 1 death) in a village 15 km from the capital and in February 2011 (16 deaths in Ambilobe) in the North of Madagascar. (Reference)


![Graph showing Dengue fever cases in Brazil](image)

Up to date 715.000 cases of Dengue fever have been reported nationwide. Most cases are reported from the South-East, followed by the North-East, North, South, and the central West (incl. Amazonas region). 75% of all cases are reported from the states: Rio de Janeiro (159.052), Sao Paulo, Amazonas, Ceara, Parana, Minas Gerais, Espirito Santo and Bahia. (Reference)

A combination of typhoons and greater than expected rainfall has brought massive floodings to the South-East-Asian region, affecting 6.5 Mio. people. The most affected countries are: Cambodia, Lao PDR, Thailand, and the Philippines (mostly Luzon and Mindanao).


Currently in the Huancabamba Province, Piura Region, there is an outbreak of Bartonellosis (Carrion's disease) with severe cases and deaths. Until epidemiological week 39 [26 Sep-2 Oct 2011], the Office of epidemiology of Piura has reported 74 cases of the infection of which 96 percent (71/74) are confirmed. 45 percent (33/74) corresponds to the acute form - "Oroya fever" - and 55 percent (41/74) to the chronic form - "verruga peruana" [Peruvian wart]. There have been 2 deaths attributed to the outbreak. [A news report dated 28. Sep 2011 (in Spanish) mentions 85 confirmed cases, a 90 percent increase in the cumulative number of cases reported in 2010] (Reference)


In 2011, several large measles outbreaks have been reported from Member States in the European and African regions, with several reported outbreaks in the Americas linked to Europe or Africa.

Europe: As of 20 Sep 2011, 40 of 53 Member States in the WHO European Region have reported 26 025 confirmed measles cases for the period January to July 2011 to the WHO European Regional Office through routine surveillance and outbreak reports. The highest number of cases was reported from France with 14 025 cases for the 1st 6 months of the year. In addition, 11 of all cases in the Region were lethal (6 in France and one in each in Germany, Kyrgyzstan, Romania, the Former Yugoslav Republic of Macedonia and the United Kingdom). The predominant genotype currently circulating in the European Region is D4, the same endemic genotype from the United Kingdom in 2008. The most recent outbreak was reported from Israel in September 2011, with 12 cases. Member States have responded to the outbreak by modifying the vaccination schedule, like France, or by offering vaccination free of charge or in schools, to increase accessibility to and availability of vaccines.

Africa: The Regional Office reports that as of 20 Sep 2011, large measles outbreaks are being reported by the Democratic Republic of the Congo, with over 103 000 cases, Nigeria, with 17 428 cases, Zambia, with 5397 cases and Ethiopia, with 2902 cases. Even though deaths are not routinely reported to the Regional Office, the WHO Country Office in the Democratic Republic of the Congo DR reported over 1100 measles-associated deaths in the country during 2011.

The Americas: The last case of endemic measles was reported from the region in 2002. In 2011,
the Region has received reports of several outbreaks linked to importation of measles virus from other regions. The largest, in Quebec, Canada, involves 742 reported cases, 89 requiring hospitalization, but no measles-associated deaths. Other outbreaks have been reported from the United States (213 cases), Ecuador (41 cases), Brazil (18 cases), Columbia (7 cases), Mexico (3 cases), and Chile (6 cases). Most of these outbreaks are linked to importations from Europe, except for outbreaks in the United States and Chile linked to cases from Malaysia and the outbreak in Ecuador, linked to Kenya. Measles is a highly infectious disease that causes complications and deaths, even in previously-healthy individuals, but is fully preventable by vaccination. Countries need to ensure that they reach 95 percent coverage with 2 doses of measles vaccine across all age groups up to 15 years of age. Otherwise, the country will experience measles outbreaks with large numbers of cases, associated hospitalizations and deaths. The recent outbreaks in countries with high volumes of international travellers can lead to measles exportation to regions previously free of measles, such as the Region of the Americas or certain African countries. These exportations can lead to large outbreaks and associated deaths. These outbreaks should remind travellers that they should ensure that they have had 2 doses of measles-containing vaccine before their trip. (References)


Since August 2011 at least 9 british tourist returning from the western greek island of Corfu have been diagnosed with Legionellosis. The source of infection is unknown. (References)


The India National Vector Borne Disease (NVBDCP) Control Program updated the numbers on visceral leishmaniasis (kala azar). A total number of 24,231 cases and 60 fatalities have been reported. Most cases are reported from Bihar, Jharkhand, and West Bengal (see map).

State: Cases / Fatalities
Bihar: 18,519 / 56
Jharkhand: 4,264 / 3
West Bengal: 1,431 / 0
Assam: 5 / 0
Himachal Pradesh: 1 / 0
Sikkim: 3 / 0
Uttar Pradesh: 8 / 1
The NVBCP website provides detailed data on the number of reported cases from 2007 - 2011 (Reference)


Health authorities in the state of Guanajuato have reported the occurrence of 19 cases of hepatitis A infections in the towns of Leon and Dolores Hidalgo. The reported cases were pupils from the local primary schools (S. Lira and Emiliano Zapata) in the district of Jacinto Lopez. (Reference)


Up to date number of reported WNF cases from Europe, Turkey and Israel:
Russia: 116
Rumania: 11
Italy: 9 cases (Veneto 6, Toscana 1, Sardinia 2) (Reference)
Albania: 2
Macedonia: 2
Turkey: 3
Israel: 19

29. Sep. 2011 - USA: Listeriosis outbreak through consumption of Cantaloupe Melons

The outbreak has affected 18 states of the USA. 72 people contracted Listeriosis through the consumption of Cantaloupe Melons. Of the 72 reported cases, 13 patients died. The outbreak has been traced to contaminated Cantaloupe melons from a farm in Colorado. (Reference)


The Bali rabies epidemic, which started in 2008 is - despite vaccination campaigns of stray dogs - still ongoing. This year rabies cases have been reported from 18 additional village (Note: Bali has a total of 282 villages). With 18 cases registered until now in 2011 the number of human deaths due to rabies has - since Nov. 2008 - now accumulated to 148. The last cases have been reported from the Denpasar and Gianyar region. Up to 150 cases of dog bites are reported every day in Bali. Post-exposure-prophylaxis (PEP) is frequently limited by the non-availability of immunoglobulines and the shortage of cell-culture-vaccine. In case of emergency tourists can seek help at: "Bali International Medical Center" and "SOS Medika" in Kuta and "RS. Sanglah Emergency Hospital" in Denpasar.
(Note: Rabies in Indonesia is not limited to Bali: On the islands of East Nusa Tenggara (incl. Flores island) 216 human rabies deaths have been registered since 1997) (Reference: CRM)

29. Sep. 2011 - Peru: Vampire bat rabies

Cases of vampire bat rabies are regularly reported from the Americas. The responsible "Common Vampire Bat" (*Desmodus rotundus*) (geographic distribution see map) is found in parts of Mexico, Central America and South America. Most cases have been reported from northern Peru. As the indigenous population is often relying on traditional healers and not reporting to institutions of the national health system no data on the exact number of cases are available. Until mid of September at least 20 fatal cases have been reported. A high number of unregistered cases is suspected. For travelers sleeping outside in endemic areas a mosquito net is highly recommended for protection. (Reference: CRM)

29. Sep. 2011 - Peru: "Iquitos virus" - a novel human pathogenic Orthobunyavirus

Oropouche (ORO) virus is one of the few human pathogens in the Orthobunyavirus genus in the family Bunyaviridae. Phylogenetic analyses of ORO-like strains isolated from febrile patients in Iquitos, Peru, identified a novel ORO reassortant virus, which we named Iquitos (IQT) virus based on the location of the isolation of the virus. This novel pathogen was first isolated during 1999 from a 13-year-old boy who had an illness that included symptoms of fever, headache, eye pain, body pain, arthralgias, diarrhea, and chills. Subsequently, the virus was identified as the cause of outbreaks of “Oropouche fever” during 2005 and 2006 in Iquitos. Limited serological studies indicate that prior infection with ORO virus does not seem to protect against disease caused with the IQT virus infection. (Reference)


The World Health Organization (WHO) and the Uganda Minister for Health confirmed an imported case of yellow fever in an Ugandan traveler, who aquired the infection while traveling
to [the Republic of] Southern Sudan. The patient got infected in the region of the city of Torit, the capital of the state of Eastern Equatoria [Republic of Southern Sudan]. (Note: According to WHO, there are about 200,000 cases of yellow fever each year, with 30,000 deaths) (Reference)


A hunter from Oregon has contracted septicemic plague. Annually there are around 15 cases of plague in the United States, mostly in the border area of Colorado, Utah, Arizona, and New Mexico. In 2010, 2 human cases of plague have been reported from Oregon (Lake/Umnatilla County). (Reference)

18. Sep. 2011 - New Zealand: Meninococcal meningitis (C)

A mass vaccination programme aiming at 44,000 people aged between 1-20 has been launched to prevent the spread of meningococcal meningitis (group C) in the North of New Zealand after 2 fatal cases (a one-year-old child from Ruakaka and a person from Whangarei) in the past month. (Reference) The last epidemic of meningococcal meningitis (group B) in New Zealand took place 1991 - 2004. (Reference: CRM)

17. Sep. 2011 - Pakistan ex Afghanistan: Crimean-Congo hemorrhagic fever

A total of 4 people, including a surgeon and a medical technician, have fallen victim to CCHF [Crimean-Congo haemorrhagic fever] in Quetta. The index patient infected with CCHF was brought to Quetta from Afghanistan for surgery. The surgeon carrying out the operation as well as an assisting medical technician got infected. (Reference)

17. Sep. 2011 - USA, California: Murine typhus

A total of 5 people in Orange County (Southern California) have been diagnosed with confirmed or probable infections caused by flea-borne typhus during the past 3 months. Between 1994 and 2005, there were no reported cases of flea-borne typhus in the county. There was one case in 2006, 6 in 2007, 15 in 2008, and 6 cases each in 2009 and 2010. In total, 8 cases have been reported in 2011 so far. (Reference)

15. Sep. 2011 - Europe: West Nile Fever

![Map of Europe](image)
The ECDC provides a weekly report on the number of reported cases of West Niles virus (WNV) infection in humans and their spatial distribution in the EU Member States and bordering countries. The data refer to autochthonous human cases of WNV infection only. ([Reference](#))

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**15. Sep. 2011 - Russia & Rumania: West Nile Fever**

*Romania:*
until 15th Sept. 7 cases of WNV infections have been reported from Rumania this year. In 2010 42 cases have been confirmed, including 4 fatal cases (Reference: CRM)

*Russia:*
Until 15th Sept. 103 cases of WNV infections have been reported from the Wolgograd region as well as in three neighbouring regions. In 2010 more than 300 cases were reported from the same region. The main transmission time begins mid July. (Reference: CRM)

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Mid August 3 suspected cases of West-Nile-Fever have been reported in Turkey (provinces: Sakarya, Mugla, and Antalya). The 3 suspected cases are the first once reported this year. (Reference: BHI 312) ([Enlarge map](#))

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The number of dog rabies cases are increasing in Bolivia. The most affected regions are Cochabamba, Chuquisaca and the cities Santa Cruz and Sucre. Until now 4 human fatalities have already occurred this year (in 2010 only one human case has been reported). In May a vaccination campaign (involving 150.000 dogs, cats, and monkeys) has been launched. (Reference: CRM)

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Since 15th Aug. the "European network for Legionnaire disease" has reported 13 cases of Legionellosis from the town Lazise (Garda lake region). The patients have stayed in 6 different accomodations. The source of the infection remains unclear. (Reference: CDTR week 37)

Until 13th Sept. 4500 cases of Japanese Encephalitis have been registered in India. Most cases were reported from the East of the country: Uttar Pradesh (Gorakhpur region) (1782), Assam (1308), Tamil Nadu (404), West Bengal (341), and Bihar (288). (» Reference)


According to WHO figures 2.200 cases of dengue fever (including 11 fatal cases) have been reported from the Maledives. The capital Malé and the island of Hulhumalé observed the highest number of cases. In 2010 a total number of 920 dengue cases have been recorded in the Maledives. The last large outbreak was in 2006 with 2.768 recorded cases. (Reference: CRM)


Until 12th Sep 2011 a total number of 41 cases of hepatitis A have been reported in Estonia. Of those, 29 have been reported from » Viljandi County. The 1st case was confirmed in Viljandi this February [2011], and it was linked to travel abroad. However, since 25 Aug 2011, the number of cases has spiked dramatically: 28 cases were reported across the county, 25 of these in the town of Viljandi. (» Reference) (In 2010 only 6 cases and in 2009 only 19 cases were reported from Estonia. The last bigger outbreak (with 989 cases) took place in 1998) (Reference: CRM).

10. Sep. 2011 - Central America: Dengue update

Costa Rica: until 10th Sept. 6650 cases of Dengue fever have been reported. 2/3 from the Atlantic region (Caribbean coast). The number of cases is higher than in 2010. El Salvador: since the beginning of the year 4500 cases of Dengue fever have been reported and the number is currently still rising. Most cases are reported from the departements: La Paz, Usulután, San Miguel and La Unión.


From Paraguay Dengue serotype 4 appears to spread to neighbouring regions: The first cases have been reported from the southern state of Paraná in Brazil, neighbouring Paraguay.

In July 2011 20 cases of Opisthorchiasis due to Opithorchis felineus have been reported in people who consumed raw fish which was caught in the Lago di Bolsena. The onset of symptoms was 2-3 weeks after the consumption of the fish dishes. Reports of Opisthorchiasis due to O. felineus in Italy have been published in the past: Armignacco et al., Liberato et al.


In the Rhine-Neckar region, an increasing number of dead blackbirds has been observed. The mosquito experts KABS [Local Action Group to fight mosquitoes] located in Waldsee suspect the African Usutu virus, as the virus has been isolated from local mosquitoes (Culex pipiens). In the years 2001 and 2002 an increase in blackbirds dying of Usutu virus has been observed in Austria. In Italy and Hungary, minor outbreaks of Usutu virus causing a fatal disease in blackbirds have been reported. For humans the virus is considered relatively harmless. Only in rare cases Usutu causes a mild febrile illness. (Reference)


Report of a cluster of 9 cases of acute pulmonary Histoplasmosis in a group of students who were on a biology fieldtrip in Ugand: A 22-year-old female, ordinarily resident in the UK, has been diagnosed with acute pulmonary histoplasmosis following a biology field trip to the rainforest of Uganda (near Fort Portal [Kabarole district, western Uganda] close to the Congolese border). On a single occasion during the last week of her trip she and fellow students climbed into a hollow tree full of bats. Of the group of 24 students who visited Uganda, 8 others have been diagnosed with histoplasmosis in their home country (another in the UK and one each in Austria, Switzerland, the Netherlands, Sweden, Poland, South Africa, and Madagascar). These 8 individuals shared the same risk factor for exposure, having also climbed into the bat-infested tree. 2 of the 8 were initially suspected of having tuberculosis before being diagnosed with histoplasmosis. (Reference)

8. Sep. 2011 - Dominican Republic: Cholera

Countrywide more than 16,000 suspected cases of cholera have been reported. The Santo Domingo region has the highest risk. So far 6 tourist contracted the disease, all in the Punta Cana region. (Reference)

In the last 10 years reported cases of Hanta virus infections in Europe have almost doubled (>3100 cases). While in 2010 most cases were reported from Germany (>1700 cases), the highest number of annual cases are normally reported from Finland, Sweden and Belgium. (Reference)


Until 29th Aug. 44'000 cases of Dengue fever have been reported. Most cases are reported from the central region of the country, followed by the North, the Northeast and the South. (Reference)


After reports of Aedes albopictus mosquitoes from Tessin - the Italian part of Switzerland - in the recent years, the presence of Aedes mosquitoes has now been reported from the Kanton Aargau north of the Alps by local media as a new phenomenon, creating irritation and fear of Dengue and Chikungunya infections in northern Switzerland. Due to the fact, that the current reported Aedes mosquitoes have not been caught and closer investigated, the species remains speculative. This is an important issue, as the presence of Aedes japonicum in the Aargau region is already known for a couple of years. The possibility and risk of the introduction of Aedes albopictus to the northern Alp region by trans-alp road traffic has long been discussed, leading to outdoor spraying campaigns at highway parking and resting places. (Reference)


Chile:
Until mid August 39 cases have been reported (fatality rate approx. 30%). In 2010 a total number of 61 cases have been reported. The most affected areas are the Southern regions Aysen and Los Lagos. The most likely virus responsible is Andes virus. (Reference: CRM)

Paraguay:
Western region: Until end of August 21 confirmed cases of hantavirus infections (HPS-hantavirus pulmonary syndrome) have been reported from the western region of Paraguay. 9 fatal cases occurred (case fatality rate: 43%). The most likely responsible virus is Leguna Negra hantavirus. Ecological pressure generated by forest cutting and fires is supposed to be responsible for the occurrence of cases. These situations cause a population reduction of the natural predators of countryside rats (Calomys laucha) leading to a increase of the rodent population, and an influx of rodents to human settlements in the search for water and food. Hantaviruses are transmitted to humans by inhaling aerosols contaminated with urine, excreta or saliva of
infected rodents. It can also be transmitted by direct handling rodents. (Reference)

**Peru:**
2 fatal cases of HPS (hantavirus pulmonary syndrome) are reported from Iquitos in Peru. (Reference)

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Event</th>
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<tbody>
<tr>
<td>2. Sep. 2011</td>
<td>North India, Haryana</td>
<td>Malaria</td>
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<td>30th Aug. 2011</td>
<td>Global</td>
<td>Shark attacks</td>
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<td>29. Aug. 2011</td>
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Since Aug. 2011 several shark attacks have been reported, including 5 fatal cases. On Sep. 19th the former French bodyboard champion has been killed by a shark offshore Réunion Island. The attack was the 4th (2nd fatal) in the West of the Island this year. On Sep. 4th a bodyboarder died after a shark bite offshore Cape Naturaliste in Western Australia. On Aug. 23rd a surfer died after a shark bite offshore the coast of Plettenberg Bay of South Africa (South coast). Additional shark attacks have been reported from the Seychelles (Anse Lazio, Praslin Island), Kenya, Puerto Rico and (for the first time) from far Eastern Russia (North-West coast of the Japanese Sea). The number of shark attacks has doubled since the 1980s (on average 40 attacks per year) and rose to approx. 90 cases per year in the last decade. (Reference)

From 1st October 2011 Yellow Fever vaccination will be mandatory for all travellers entering South Africa from a YF endemic country (this applies especially for Zambia and Tanzania, were the current WHO recommendations declare the countries to be at risk for YF, but do not recommend vaccination for travelling to Zambia and Tanzania). A detailed description of the regulations valid from 1st October 2011 is available here: (Reference)

4 cases of poliomyelitis (in young children) have been reported from Xinjiang province bordering Pakistan. The isolated virus strain is closely related to a strain from Pakistan. Of the
four polio-endemic countries in the world, Afghanistan, India, Nigeria and Pakistan, Xinjiang neighbors three. (Reference)


The first measles outbreak in five years on Zanzibar’s main island has prompted health officials to mount a two-day emergency immunization of 10,000 children under five. Most of the 76 cases recorded occurred over the past two weeks. (Reference)

26. Aug. 2011 - Pakistan: increasing number of malaria cases in the north

In the northern region of Rawalpindi an increasing number of P. falciparum malaria hospitalisation has been reported. The region is considered to be a low endemic region. (Reference)


Between 16 Jul. and 21 Aug. 2011, 31 cases of West Nile neuroinvasive disease (WNND) were reported from 4 regions in Greece. Of these, 17 occurred in districts that had not been affected in 2010. The re-occurrence of human cases in 2 consecutive years (following the large 2010 outbreak) and the spread of the virus in new areas suggest that West Nile virus is established in Greece, and its transmission may continue to occur in the future. Since July 2011, an outbreak of West Nile virus (WNV) infection has been ongoing in regions in Greece that had already been affected in 2010 and in regions that had never reported human cases before. During 2010, Greece experienced the 2nd largest outbreak of WNV infections in Europe since the one that had occurred in Romania in 1996. Overall, 262 cases of WNV infection in humans were notified mainly in northern Greece. In the Central Macedonia region, all 7 districts had reported cases, and in the adjacent Thessalia region, one of the 4 districts was affected. Among reported cases, 197 presented with WNND, and 33 of these died, indicating a case fatality rate of 17% among WNND cases. (Reference)

22. Aug. 2011 - India: Malaria & Typhoid fever in Ahmedabad

The Monsun rains facilitate the spread of Malaria and Typhoid fever in Ahmedabad, the biggest city of Gujarat province. The number of Typhoid fever cases (>8309) is 10 times higher than the reference-figures of the last 10 years. In August around 200 people were hospitalised due to Malaria.
22. Aug. 2011 - Cambodia: Avian Influenza (H5N1)

The Ministry of Health of the Kingdom of Cambodia has announced a confirmed case of human infection with avian influenza A (H5N1) virus. The case was a six-year-old girl from Taing Thleung Village, Mepring Commune, Cheung Prey District, Kampong Cham Province. She developed symptoms on 7 August and was admitted to hospital on 12 August but she died two days later. The girl is the 18th person in Cambodia to become infected with the H5N1 virus and the 16th to die from complications of the disease. All eight cases of H5N1 infections in humans in Cambodia this year have been fatal.


In the Guanarito (Portuguesa) region at least 4 people contracted and one person died of Venezuelan hemorrhagic fever caused by the Guanarito virus (Arenavirus family). Human infection with arenaviruses is incidental to the natural cycle of the viruses and occurs when an individual comes into contact with the excretions or materials contaminated with the excretions of an infected rodent, such as ingestion of contaminated food, or by direct contact of abraded or broken skin with rodent excrement. Transmission of this rare, but locally known infection occurs mainly in the rainy season. (Reference)


66 cases of TBE cases have been reported until August. In 2011 a total number of 144 cases has been reported.


Since 2003 565 confirmed cases of H5N1 avian influenza have been reported, including 331 fatal cases (case fatality rate 58%). Most cases are reported from Indonesia: 178 cases (146 fatal), Egypt: 151 cases (52 fatal), Vietnam 119 cases (59 fatal). The last human case has been reported from Cambodia. More than 400 Mio. pieces of poultry have been killed, corresponding to a economical loss of 20 billion US$. (Reference)

19. Aug. 2001 - Americas: Dengue (reported cases until week 30)

North & Central Amerika: 40.098 (Incidence/100.000: 27.3)
- USA: Hawaii and Florida
- Mexico (week 29): 25.307 suspected cases (mostly Chiapas, Guerrero, Nuevo León, Oaxaca)
- El Salvador (week 30): 5644 confirmed cases
- Panama (week 30): 390 suspected cases (249 confirmed cases)

Andean region: 95.361 (93.1)
- Bolivia (week 29): 26,019 suspected cases
- Peru (week 28): 33,888 suspected cases
- Columbia (29): 19,482 suspected cases

**Southern Cone region:** 750,946 (309.7)
- Brasil (26): 715,666 suspected cases
- Paraguay (30): 35,027 suspected cases

**Carribean:** 2.723 (11.5)
- Aruba (15): 1.573 suspected cases
- Other Caribbean islands (Santa Lucia, Bahamas, Antilles...): 1637 (20.6) ([Reference])

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19. Aug. 2011 - Greece: autochtonous cases of Vivax Malaria

Two confirmed cases of Plasmodium vivax malaria have been reported in Romanian tourists, who traveled to Elos and Skala in southern Greece (Peloponnes) around the last week of July. Greece has been malaria free since 1974; however according to Greek health authorities, since June 2011, a total of 6 malaria cases have been reported in persons with no history of travel to a malaria-endemic area. All cases were confirmed to be P. vivax and occurred in the southern region (Peloponnesus) of the country, specifically in Laconia and Evoia districts. ([Reference])

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Various countries have reported confirmed cases:
- Albania (2 cases)
- Greece (22 cases) (2010: >250 cases, mostly in the North of Greece)
- Rumania (1 case)
- Russia (11 cases)

The increased number of reported cases is most likely a result of the higher attention and awareness. Additionally the climate with high rainfall and temperature might have favoured the expansion of the local *Aedes* and *Culex* populations. ([Reference])

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11. Aug. 2011 - USA: Nationwide outbreak of antibiotic-resistant Salmonella linked to ground turkey
Even though the number of cases are dropping the multistate outbreak of *Salmonella enterica serovar Heidelberg* starting March 2011 has now been reported to have reached 111 cases. Collaborative investigative efforts of state, local, and federal public health and regulatory agencies indicate that eating ground turkey is the likely source of this outbreak. More than 36 Mio. pounds of turkey meat products have been destroyed so far. The outbreak strain is resistant to several commonly prescribed antibiotics (Ampicillin, Streptomycin, Tetracycline). *Salmonella enterica serovar Heidelberg* is perhaps the second most frequent *Salmonella* serovar isolated from humans and the most common isolated from animals. (Reference)

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[Map of Ethiopia and Somalia]

Alarming Rise of Measles Deaths in Dollo Ado refugee camp complex. The camp complex is currently sheltering 118,000 Somali refugees. Since the camp opened in June, an average of 10 children under the age of five have been dying each day. An outbreak of suspected measles, combined with high rates of acute malnutrition is thought to be the major cause of death. Across all Dollo Ado sites, 148 cases and 11 deaths due to suspected measles have been reported. (Reference) (View larger image)

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Confirmed Murray Valley Encephalitis cases in the Kimberley und Pilbara region. So far at least 9 infections and 1 fatality. (Reference)

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Rubella: 28 registered cases. Most cases are reported from the capital Suva. Typhoid fever: Rising number of cases in the Western Division.
25. Jul. 2011 - Comoros Islands: Malaria

Between April 2010 and April 2011 a number of 103,670 Malaria cases has been reported, including 53 fatalities (51 from Grand Comore and 2 from Anjouan).


In the north-eastern province of Oriental (Dungu territory located 780 km northeast of Kisangani) a fatal VHF-case has been confirmed to be Lassa VHF. (Reference)


Rising cases of dengue fever. Until the mid of August more than 2000 confirmed cases have been reported.