

Communicable Diseases Communiqué

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Updated guide for 2010 football World Cup visitors to South Africa

The 2010 Football World Cup is taking place in South Africa from 11 June to 11 July 2010. During the games a programme of enhanced surveillance is being conducted by the National Institute for Communicable Diseases (NICD) as well as the Provincial and National Departments of Health through public and private health facilities. This activity aims to detect and respond to public health incidents as effectively as possible, thereby reducing the impact of infectious disease threats on visitors and the community. A short guide, accessible on the NICD website (<http://www.nicd.ac.za/fifa2010/Communicable-Disease-and-the-2010-Football-WC-17-06-2010.pdf>), is available for travellers to the 2010 football World Cup. This covers important health topics,

including: food and water safety, hepatitis A, influenza, malaria, measles, meningococcal disease, polio, rabies, Rift Valley fever, sexually transmitted infections, tick bite fever, tuberculosis and yellow fever.

General travel advice including recommendations on preventive measures for travellers to the World Cup is provided in this document. In addition to this a regular update on infectious disease surveillance will be provided, targeting interested members of the public and the media.

Source: Travel Health and Outbreak Response Units, NICD

Rift Valley fever update

In recent weeks we have observed a decreasing trend in the number of new cases of Rift Valley fever (RVF) confirmed in South Africa. As of 18 June 2010, the NICD has confirmed a total of 221 human cases, 24 of which were fatal. Direct contact with RVF affected livestock remains the most common route of transmission. For detail on the RVF out-

break in South Africa, see the most recent interim report available via the NICD website (www.nicd.ac.za).

Source: SA-FELTP, Special Pathogens and Outbreak Response Units, NICD; Departments of Health and Agriculture, Forestry and Fisheries

Measles outbreak update

There have been 1 669 additional laboratory-confirmed measles cases since the last published Communiqué, bringing the total to 16 028 cases from the beginning of 2009 to 7 June 2010. Cases have been reported from all nine provinces, with Gauteng (31%, 4 992/16 028), KwaZulu-Natal (24%, 3 855/16 028) and Mpumalanga (11%, 1 790/16 028) provinces accounting for the highest propor-

tions of the total. Measles cases remain high but there seems to be a general decrease in the number of new cases reported each week; however, this might not be a true reflection due to delays in laboratory-based surveillance (Figure). Children under five years of age accounted for 52% (7 883/15 274) of cases, with 25% occurring in those aged 6 to

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11 months. A recent mass measles vaccination campaign will likely reduce the number of new cases. However, measles vaccination is strongly recommended for those visitors to South Africa who may not be immune through prior immunization or disease.

A French journalist visiting South Africa for the football world cup presented with a fever, maculopapular rash and cough on 18 May. A diagnosis of measles was made (based on positive IgG and IgM), and assumed to be locally acquired infection. Subsequent genotyping and sequencing confirmed that

the measles virus belongs to genotype D4, and is identical to strains identified in Europe and North America. This strain has not been identified in South Africa previously, and the current outbreak in South Africa is due to a genotype B3 strain. This is therefore an imported case of measles, and highlights the possibility of imported communicable diseases making an appearance during the football world cup event.

Source: Divisions of Epidemiology and Virology, NICD

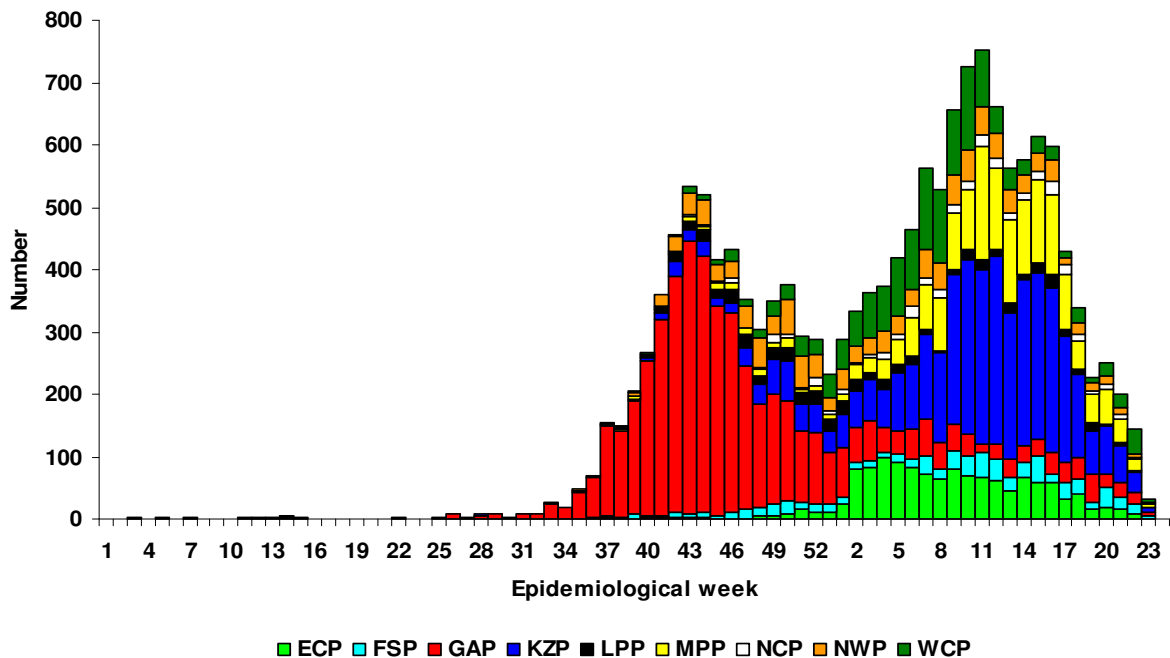


Figure: Measles IgM positive results per province: South Africa, January 2009 to 7 June 2010

Note: WCP has resumed measles testing after it had initially stopped testing during week 10. The circular to resume measles testing was issued on 28 May 2010.

Influenza

The number of specimens submitted for respiratory virus isolation started to increase in the first week of May. In addition to the 3 sporadic influenza B detections reported in the May communiqué, a further 8 influenza B infections were detected bringing the total to 11. Seven patients were from Gauteng Province and 4 from Northern Cape Province. Influenza A(H3N2) was detected in 5

patients from specimens collected between 2 and 13 June; 4 from Gauteng Province and one from Mpumalanga Province. The South African influenza season typically begins in early June, peaking in early July. Clinicians are therefore encouraged to remain vigilant and regularly check the NICD website (www.nicd.ac.za) for updates on influenza activity.

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As of 6 June 2010, the WHO reported active but declining transmission of pandemic influenza in areas of the tropics, notably Southeast Asia and the Caribbean. In temperate southern hemisphere countries entering winter only sporadic influenza activity has been reported, except in Chile and Uruguay, both of which have recently reported small

numbers of pandemic influenza detection. In the temperate northern hemisphere regions, only sporadic pandemic influenza cases have been detected during the past month.

Source: Epidemiology and Surveillance, Respiratory Virus, Virus Diagnostic and Outbreak Response Units, NICD

Meningococcal disease

Sporadic cases of meningococcal disease continue to be reported across the country, with no noticeable seasonal increase of laboratory-confirmed cases reported to the NICD. We do, however, expect cases to increase during June and July, and to peak during the months of August to October. Laboratory-based reporting has inherent delays, so although clinical cases may be increasing already, such cases may not be reflected in our reports for this month.

By 13 June (the end of epidemiological week 23), a total of 105 laboratory-confirmed cases was reported to the Respiratory and Meningeal Pathogens Reference Unit (RMPRU), NICD since 1 January 2010 (Table). These cases show diversity in serogroups, which is in keeping with sporadic endemic disease in the country. Serogroup data are available for 74/104 (70%) of cases. Serogroup B and W135 have been

identified most commonly this year (28/74, 38% serogroup B and 29/74, 39% serogroup W135). Other serogroups included: A (1%, 1/74), C (9%, 7/74) and Y (12%, 9/74).

The winter and spring seasons are when we typically detect an increase in cases of meningococcal disease. As such, there should be a high index of suspicion for meningococcal disease which may present with nonspecific early signs and symptoms. Disease typically has a rapid progression and should be managed as a medical emergency in order to reduce morbidity and mortality.

Source: Respiratory and Meningeal Pathogens Reference Unit, NICD

Table. Number of laboratory-confirmed meningococcal disease cases reported by epidemiological week 23, 2009 and 2010, by province

Province	2009	2010
Eastern Cape	13	9
Free State	3	8
Gauteng	79	46
KwaZulu-Natal	14	5
Limpopo	0	2
Mpumalanga	10	6
Northern Cape	1	9
North West	5	3
Western Cape	27	17
South Africa	152	105

Rabies alert

Rabies was confirmed this month in two domestic dogs from separate households in Witpoortjie, an established suburb on the West Rand of Gauteng Province. One of the dogs had received a single dose of rabies vaccine as a young puppy. Neither dog had left the area prior to developing rabies. Both cases were characterised as the canid biotype of rabies virus. The source of the rabies remains unclear, but may be due to contact with a stray rabies-infected dog or undisclosed travel. While no definite human exposures were identified, a course of rabies vaccination was given to two household family members with possible category 2 exposures. An intensive dog vaccination campaign was launched by the Department of Agriculture Forestry and Fisheries. A similar incident occurred in 2009 when rabies was confirmed in a domestic dog in the Johannesburg suburb of Linden. While rabies in domestic animals in suburban areas of Johannesburg is very uncommon, these incidents highlight two important points: the need to consider rabies as a differential

diagnosis in the appropriate clinical setting, as well as rabies post-exposure prophylaxis (PEP) for the management of all persons with animal exposures. PEP is especially important if the exposure is unprovoked, the animal is a stray, the animal is ill or aggressive, or if the animal originates from an area where rabies is common. Thorough wound cleaning is critical, and PEP (with a course of rabies vaccine and rabies immunoglobulin into the wound) according to the national guidelines may be life-saving.

There has been a total of 6 laboratory-confirmed human rabies cases in South Africa for 2010 to date. These cases originate from Mpumalanga (n=1); KwaZulu-Natal (n=1), Eastern Cape (n=1) and Limpopo (n=3) provinces.

Source: Special Pathogens and Outbreak Response Units, NICD; Gauteng Department of Agriculture

Viral haemorrhagic fevers

A total of 3 Crimean-Congo haemorrhagic fever cases has been confirmed for South Africa for 2010 to date. The cases originated from Free State (n=1) and Northern Cape (n=2) provinces. An additional case was reported from Namibia.

Source: Special Pathogens and Outbreak Response Units, NICD

Imported cholera

A 37-year-old female presented to a private casualty facility in Johannesburg on 6 June with abdominal cramps and diarrhoea. She returned from a 10 day business trip on 4 June having visited London and then India; the symptoms began later the same day. She did not require hospital admission, and was prescribed ciprofloxacin and oral rehydration solution. A stool specimen was sent to the laboratory where astute microbiology staff noted that the stool was very watery, and included testing for cholera. *Vibrio cholerae* was isolated, and confirmed at the NICD as toxin-producing *V. cholerae* O1.

The patient reported unsafe food and water consumption whilst travelling in India, including consumption of ice cream, fresh fruit juices, and ice

cubes in drinks. Several co-workers who accompanied her on the trip also reported mild diarrhoeal illness on return, but no clinical specimens were available for testing.

This serves as a reminder to healthcare workers of the importance of obtaining a travel history. Cholera remains endemic in much of Africa, South and Southeast Asia, and parts of South America. Travellers who observe food and water safety recommendations have virtually no risk; a simple, user-friendly guide on food safety for travellers can be accessed at: http://www.who.int/foodsafety/publications/consumer/en/travellers_en.pdf.

Source: Outbreak Response and Enteric Diseases Reference Units, NICD; Lancet Laboratories

Foodborne disease outbreak in Mpumalanga Province

On Wednesday 3 June, the Department of Health was informed of a possible foodborne illness outbreak amongst conference attendees at a lodge in the Mbombela area. A total of 100 learners experienced gastrointestinal illness (predominantly diarrhoea with abdominal cramping) a median of 9 hours after consumption of a buffet lunch. The buffet consisted of: lasagne, roast chicken, rice, cauliflower and broccoli, carrots, gravy, Greek salad, coleslaw, malva pudding with custard, and crème caramel. Six learners were admitted to hospital, but recovered uneventfully. A total of 7 rectal swab specimens were submitted to the laboratory for testing. Environmental health practitioners submitted available food samples to the NHLS Infection Control Services Laboratory in Johannesburg. Samples of drinking water were also submitted for testing. *Bacillus cereus* was isolated from a sample containing lasagne, sausage and cauliflower; *B. cereus* diarrhoeal-toxin testing was also positive.

B. cereus is one of the major foodborne disease pathogens. It causes two types of gastrointestinal

disease, namely the diarrhoeal and emetic syndromes, which are caused by different toxins. The diarrhoeal syndrome typically presents as abdominal pain, watery diarrhoea and occasionally nausea and vomiting, with an incubation period of 8 – 16 hours. The emetic syndrome presents as nausea and vomiting, with a shorter incubation period of 0.5 – 6 hours. Both syndromes last <24 hours and in most cases disease is mild, although fatalities have been described. *B. cereus* food poisoning results from a failure to follow basic food safety rules, including: slow/inadequate cooling, storage at ambient temperature or prolonged heat-keeping at <60°C. A wide variety of foods have been associated with *B. cereus* foodborne disease outbreaks, including: spices, meat, poultry, sprouts, rice, pasta, sauces, vegetables, soups, puddings and milk products.

Source: SA-FELTP and Outbreak Response Units, NICD; Mpumalanga Department of Health; NHLS Infection Control Laboratory Service

Beyond Our Borders: infectious disease risks for travellers

The "Beyond Our Borders" column focuses on selected and current international diseases that may affect South Africans travelling abroad.

Disease & Countries	Comments	Advice to travellers
Poliomyelitis: Tajikistan, Uzbekistan, Russia	There is an ongoing outbreak of poliomyelitis in Tajikistan. The number of new cases detected each week is reported to be declining following immunization campaigns in recent weeks. As of 7 June 2010, a total of 586 cases of acute flaccid paralysis (AFP) had been identified, of which 183 are laboratory-confirmed as wild poliovirus type 1. In Uzbekistan, 41 AFP cases have been identified; however, no polio cases have yet been confirmed. In Russia, 2 cases have been confirmed among Tajik citizens who have not travelled to their home country during 2010, thereby raising suspicion of local transmission. No restrictions on travel to the region have been implemented; however, visitors are advised to consider pre-travel immunisation.	Travellers who have previously received three or more doses of OPV or IPV should be offered a booster dose of polio vaccine before departure. Non-immunised individuals require a complete course of vaccine. It is also important to note that vaccination does not guarantee the travellers' safety. Travellers are additionally advised to follow safe food and water practices, and practice good hand hygiene to prevent infection.

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Disease & Countries	Comments	Advice to travellers
Crimean-Congo haemorrhagic fever (CCHF): seasonal increase, eastern Europe and western Asia	Several countries in eastern Europe and western Asia are currently experiencing seasonal increases in CCHF transmission and risk. Recent reports include: <ul style="list-style-type: none"> • Kosovo: from 26 April to 9 June 2010, a total of 72 hospitalisations and 4 deaths due to suspected CCHF have been reported. • Russia (Stavropol): for 2010, 59 cases reporting tick-bites were hospitalised and 4 were confirmed as CCHF. • Kazakhstan: a total of 7 confirmed cases had been reported as of 20 April 2010. 	Ticks act as the main vector of CCHF transmission from animals (typically livestock) to humans. Visitors to countries where CCHF is endemic should practice preventative measures to avoid tick-bites ¹ . There is currently no safe and effective vaccine widely available for human use.
Cholera: DR Congo, Uganda	The territory of Basoko (DR Congo) is experiencing an outbreak of cholera. As of 15 June, over 1000 suspected cases and 32 deaths were reported. In Kawongo village (Kayunga District, Uganda) totals of 30 suspected cases and 15 deaths were reported.	Cholera is transmitted through the faecal-oral route, and primarily through contaminated water. Travellers are urged to take precautions when consuming food and water, ² utilise water purification tablets where needed, and practice good hand hygiene. Vaccine is not routinely recommended for travellers.
Dengue fever: Tropics and sub-tropics	Dengue is currently the most common cause of fever in travellers returning from the Caribbean, central America and south-central Asia. A recent report published by the US Centers for Disease Control and Prevention (CDC, Atlanta) documents the high incidence of dengue fever acquired by US nationals during travel to tropical and subtropical countries, with an average annual incidence of 244 cases from 2006 to 2008.	The differential diagnosis of travellers returning with fever, myalgia and rash must include dengue fever. The mosquito vectors responsible for transmission commonly breed around households and are most active during the day. Travellers should take precautionary measures to avoid being bitten by mosquitoes. ¹

1. Vector-borne transmission. Travellers should take precautionary measures to avoid bites: use insect repellents (containing 30-50% DEET), wear light-coloured clothing, and use insecticide-treated bed nets.
2. Prevention of food and waterborne diseases. Drink water that is bottled or bring it to a rolling boil for 1 minute. Bottled carbonated water is safer than uncarbonated water. Avoid ice and food products (e.g. ice cream) that may be made with contaminated water. Eat foods that have been thoroughly cooked and that are hot and steaming. Avoid raw vegetables and fruits that cannot be peeled. Peel the fruit and vegetables yourself after washing your hands with soap; do not eat the peelings. Avoid foods and beverages obtained from street vendors.

Source: Travel Health and Outbreak Response Units, NICD.

References: ProMED-Mail (www.promedmail.org), World Health Organization (www.who.int), Centers for Disease Control and Prevention (www.cdc.gov), Europe Media Monitor (<http://medusa.jrc.it/medisys/helsinkiedition/en/home.html>); last accessed 2010/06/18.



This communiqué is published by the National Institute for Communicable Diseases (NICD), a division of the National Health Laboratory Service (NHLS), on a monthly basis for the purpose of providing up-to-date information on communicable diseases in South Africa. Much of the information is therefore preliminary and should not be cited or utilised for publication.

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