



## Communicable Diseases and the 2010 Football World Cup in South Africa

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### 1. Introduction

The 2010 Football World Cup is taking place in 9 cities around the country until 11 July 2010. This event poses specific challenges given its size, the diversity of attendees and the potential for transmission of imported and/or endemic communicable diseases. Endemic diseases include those circulating as a result of current outbreaks, as well as those occurring only in specific regions of the country. During the period of the World Cup a programme of enhanced surveillance is being conducted by the National Institute of Communicable Diseases (NICD) and the Provincial and National Departments of Health 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. The NICD produces a regular situation report on relevant public health threats and on trends in incidence for priority diseases across the country, so that changing disease trends can be identified and acted upon early either nationally or internationally. Reference to specific diseases and updates can be found on the NICD website ([www.nicd.ac.za](http://www.nicd.ac.za)).

### 2. Food and water safety (updated)

Food sold from supermarkets, restaurants and registered fast-food outlets is generally considered safe. Milk bought from these stores is pasteurised and dairy products are safe for consumption. Local meat, poultry, seafood, fruit and vegetables are generally considered safe to eat. You are advised as a traveller to be careful when eating food from street vendors or other informal outlets. Pre-accreditation of food providers at the official FIFA World Cup centres has been conducted.

Water from taps or faucets is considered safe in the larger towns/cities, but is of variable quality in small towns. Water is treated so that it is free of harmful micro-organisms. In some areas, tap water is mildly discoloured due to the mineral content; this is harmless and still of good quality. Drinking water directly from rivers and streams could put you at risk of waterborne diseases.

**Reported incidents:** Isolated foodborne illness outbreaks have been reported during the World Cup period, mostly involving small numbers of people and without serious illness. In a recently reported outbreak, 120 of 890 volunteers supporting the 2010 Football World Cup activities in Mbombela, Mpumalanga Province, developed gastrointestinal

symptoms on average 16 hours after consuming a meal prepared by pre-accredited caterers. Illness was self-limiting and no one was admitted to hospital. Two persons required a short course of intravenous fluids at the medical field station to correct dehydration. Results of microbiological investigations on patient samples are awaited. Corrective actions have been taken to prevent further outbreaks at these facilities. Whilst there were no reported cases among tourists or fans, this outbreak highlights the challenges faced by caterers during mass gatherings and the potential for the occurrence of foodborne illness.

### 3. Hepatitis A

Hepatitis A is endemic in Southern Africa. Risks to travellers will be low if precautions for safe water and food are followed.

### 4. Influenza (updated)

As of 23 June 2010 the influenza activity monitored through the national influenza surveillance programmes remains low to moderate. Influenza B and A (H3N2) are currently circulating, but to date no isolations of Influenza A (H1N1) have been made. Levels of circulating influenza are likely to increase over the next few weeks. Although the risk of influenza transmission in open stadia should be low, influenza outbreaks have been previously reported at outdoor mass gatherings. While there is limited information on the risks of transmission of respiratory pathogens, the risk is unlikely to be more than that expected when people shout, sing or swear and expel respiratory droplets. In addition it is feasible that a number of the infectious droplets would be absorbed within the surfaces of the instrument. The sharing of vuvuzelas should, however, be avoided.

The 2010 southern hemisphere influenza vaccine includes pandemic influenza A (H1N1) as part of the triple formulation. Other preventive measures should focus on strong educational messaging surrounding cough etiquette and hand hygiene, availability of tissues and facilities to cleanse hands in common areas, and self-isolation of mild cases at home for 1 week.

### 5. Malaria

The malaria risks for visitors to South Africa should be low considering the low transmission season from May to September, the successes of the National Malaria Control Programme, and that all the stadia are outside recognised malaria transmission areas. Visitors who travel to game parks, such as the Kruger National Park, should take precautions against mosquito bites. Chemoprophylaxis (atovaquone-proguanil, doxycycline or mefloquine) should be considered for travellers who plan to visit neighbouring countries like Mozambique.

A high index of suspicion for malaria is critical in any febrile person who has visited a malaria risk area. *Plasmodium falciparum* is the predominant species in the region. Artemisinin-combination therapy is used as first-line therapy treatment for uncomplicated malaria.

Figure 1: Map of the Endemic Malaria areas within South Africa



## **6. Measles (updated)**

A measles outbreak that started in early 2009 in Gauteng Province has spread to all provinces. As of the 23 June, measles activity is ongoing. A recent mass measles vaccination campaign will likely reduce the number of new cases. Visitors remain at some risk if they are non-immune through prior immunization or disease. A few cases of imported measles have also been confirmed in visitors during the past month.

## **7. Meningococcal disease (updated)**

As expected, sporadic cases continue to be diagnosed, but there is no increase in the number of cases as compared to 2009. Sporadic cases of meningococcal disease occur year-round with a seasonal increase from May to October. Serogroup W135 is currently the predominant serogroup. Pre-travel vaccination is not routinely recommended.

## **8. Polio**

South Africa is considered polio-free and there have been no wild-type polio cases since 1989. However, the country remains vulnerable to imported polio virus. Travellers less than 15 years of age from the following countries should also have a polio booster: Angola, Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Guinea, Kenya, Liberia, Mali, Nepal, Niger, Sierra Leone, Somalia, Sudan, Togo and Uganda.

## **9. Rabies**

Rabies is endemic to South Africa and human infection is predominantly through exposure to rabid dogs. Mongooses, cats, cattle, bat-eared foxes and other animals may also be infected. The risk to visitors is generally low and post-exposure prevention with vaccine and rabies immunoglobulin is available in the event of exposure. Visitors should avoid contact with stray animals.

## **10. Rift Valley fever (updated)**

The last human case of Rift Valley fever was confirmed by the NICD on 10 June 2010. No new animal outbreaks have been reported since the beginning of June. Whilst it is too early to declare the outbreak as over, we do not expect any further newly acquiring human infections. As of 23 June 2010, there have been 221 laboratory-confirmed human cases with 25 deaths. The outbreak mainly affected the Free State, Northern Cape, Eastern Cape and North West provinces. Some areas of Western Cape Province have also been affected. Most humans ( $\geq 80\%$ ) with Rift Valley fever infection are asymptomatic or have unapparent mild disease and are not tested. Only symptomatic, ill persons were tested in the current outbreak; therefore, the true burden of disease and case fatality rate cannot be calculated. The vast majority of human cases have been due to direct contact with infected animal tissue in occupationally at-risk persons. The majority of farms affected are outside areas typically visited by tourists.

It is recommended that visitors to South Africa, especially those intending to visit farms and/or game reserves, avoid coming into contact with animal tissues or blood, avoid drinking unpasteurised (uncooked) milk or eating raw meat. Hunting of animals in the affected areas poses a definite risk for exposure. All travellers should take appropriate precautions against bites from mosquitoes and other blood-sucking insects (including the use of insect repellents, wearing long-sleeved shirts and trousers, and sleeping under mosquito nets). To date, there are NO cases of tourists acquiring Rift Valley fever in South Africa.

Rift Valley fever was excluded by a number of laboratory tests as the cause of illness in a German tourist initially reported as testing positive after visiting South Africa. Tick bite fever was confirmed as the cause of illness, presenting as a fever with rash (see also 12: Tick bite fever). The risks of African haemorrhagic fever viruses, notably Crimean-Congo haemorrhagic fever, would be expected to be low given the season and unlikely exposure risk.

## **11. Sexually transmitted infections**

The increased risk of acquiring a sexually transmitted infection (STI) during mass gatherings should be noted. This is of particular relevance for South Africa, where the antenatal HIV prevalence rate in 15-49 year-old women stands at 29% (Department of Health, 2009). Since quinolone-resistant gonorrhoea is widespread, third generation cephalosporins or cefixime are recommended to treat gonococcal infections, and together with doxycycline and metronidazole constitute first-line syndromic management of vaginal discharge- and male urethritis- syndromes in South Africa. Healthcare practitioners faced with a febrile returning traveller from South Africa need to bear in mind HIV-seroconversion illness and STIs as a potential cause.

## 12. Tick bite fever

Preventive measures should be taken against tick bites for those who visit the bush and tick bite fever should be part of the differential diagnosis of persons with febrile illness. The finding of a classical eschar and, if present, a maculopapular rash, must prompt early treatment with doxycycline.

## 13. Tuberculosis (TB)

South Africa has a high prevalence of tuberculosis (TB). TB is spread through close contact with respiratory secretions from persons with active TB, so travellers who are likely to have casual contact with ill persons are at very low risk. All soccer matches will be held outdoors in the presence of natural ventilation and sunlight, both of which limit transmission. BCG vaccine is not recommended as it does not prevent infection with TB. Travellers should avoid close contact for a prolonged time with known TB patients in crowded, enclosed environments.

## 14. Yellow fever

South Africa is not a yellow fever-affected country and there is NO risk of contracting yellow fever. HOWEVER, persons coming from or travelling through yellow fever-affected countries MUST show proof of yellow fever vaccination on arrival as per the WHO/IHR. Yellow fever endemic countries include:

Africa		South America
Angola	Guinea-Bissau	Argentina
Benin	Kenya	Bolivia
Burkina Faso	Liberia	Brazil
Burundi	Mali	Colombia
Cameroon	Mauritania	Ecuador
Central African Republic	Niger	French Guiana
Chad	Nigeria	Guyana
Democratic Republic of Congo	Rwanda	Panama
Republic of Congo (Congo-Brazzaville)	Senegal	Paraguay
Côte d'Ivoire	Sierra Leone	Peru
Equatorial Guinea	Somalia	Suriname
Ethiopia	Sudan	Trinidad and Tobago
Gabon	Sao Tome and Principe	Venezuela
Gambia	Togo	
Ghana	Tanzania	
Guinea	Uganda	