NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service

Communicable Diseases Communiqué

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EDITORIAL

This month we report on a number of international communicable disease events that have impacted on our preparedness and surveillance activities. In response to the Zimbabwean cholera outbreak, preparedness activities have been initiated across the country. Two cases of cholera, one in a returned traveller from Zimbabwe, and the second in her husband were rapidly identified, treated and successfully contained in Gauteng Province. The Ebola outbreak continues in the Democratic Republic of Congo. A South African Ebola preparedness plan has been formulated and implemented to ensure early detection of imported cases. The Centre for Emerging Zoonotic and Parasitic Diseases briefly describes some of the vaccine and immunotherapeutic interventions that are being used to contain that outbreak.

Within South Africa, we report on a number of outbreaks. KwaZulu-Natal Province reports their 8th laboratory-confirmed rabies case. A single case of Congo-Crimean haemorrhagic fever was diagnosed in Free State Province. The influenza season has been unusually long this year, with the second half of the season dominated by influenza B. Pertussis cases have been reported across the country in increased numbers. The Mpumalanga Provincial Department of Health reports on a cluster of cases in Emalahleni Sub-district.

We offer a new column where responses to frequently asked questions received by our 24-hour hotline doctors are highlighted. This edition we share how to access the NICD website. Additional articles this month describe malaria, this year's trends in meningococcal disease and an update on rubella in South Africa. As usual we include the WHO-AFRO regional communicable disease event infographic.

1 ZOONOTIC AND VECTOR-BORNE DISEASES

a An update on rabies in South Africa, 2018

Fourteen human rabies cases (including the case reported here) have been laboratory-confirmed in South Africa to date. These cases were reported from KwaZulu-Natal (n= 8) and Eastern Cape (n=6) provinces. Two additional probable cases were reported from the Eastern Cape Province. These cases could not be confirmed through laboratory testing, but presented with a rabies compatible clinical history and history of exposure to potentially rabid dogs. This is the greatest number of human rabies cases reported in South Africa since 2010. During 2017, a total of seven cases was reported, and only two cases in 2016. The increase in the number of human rabies cases reported relates to the outbreak of dog rabies in KwaZulu-Natal and Eastern Cape provinces.

Since the previous report, rabies was confirmed in a two-year-old girl from Inanda, KwaZulu-Natal Province. The child was bitten by a neighbour's dog in the third week of August 2018, sustaining wounds on her face. The child reportedly received rabies post-exposure prophylaxis, but fell ill on 7 September. Short incubation periods for rabies have been reported in previous cases involving invasive wounds to the head, neck and shoulders. Ante-mortem saliva investigation for rabies yielded negative results. Negative results from ante-mortem saliva testing does not exclude the diagnosis of rabies. This child also reportedly received rabies vaccination and this may also explain the negative results obtained from saliva samples. The child died in the first week of October and diagnosis of rabies was confirmed by testing of postmortem-collected brain samples.

The public is urged to ensure that their dogs and cats are vaccinated against rabies. It should be appreciated that due to the outbreak of rabies in KwaZulu-Natal and Eastern Cape provinces, the risk of rabies occurring in other areas of South Africa is also increased. An example of this was the outbreak of rabies in Soweto, Gauteng Province, in 2010. Due to low vaccination coverage in dogs in the area, and following an introduction of an infected animal from KwaZulu-Natal Province, an outbreak of rabies in dogs in Soweto ensued. The outbreak required considerable efforts to bring under control and a human case of rabies was reported during the course of the outbreak. Vaccination of dogs and cats doesn't only afford protection of the animal, but also indirectly protects the humans that it may have contact with from potentially contracting the disease. When possible exposure events occur, it is imperative that medical attention is sought as a matter of urgency. Wounds require thorough washing with soap and water (and possible antibiotic treatment), and if rabies risk is present, rabies vaccination (and rabies immunoglobulin therapy) will be provided to prevent infection. Rabies is an incurable disease upon the onset of clinical symptoms, but it may be prevented through vaccination of animals and rabies post-exposure prophylaxis following possible exposure events. For more information regarding post-exposure prophylaxis for rabies, visit www.nicd.ac.za

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; januszp@nicd.ac.za

b Fatal tick bite fever in Gauteng Province

The patient, a 34-year-old woman, was admitted to the intensive care unit of a private hospital in Heidelberg, eastern Gauteng Province, with internal bleeding, suspected disseminated intravascular coagulopathy, and multi-organ involvement. She had apparently been ill with fever and headache for more than a week. There was a history of tick bites. Two typical rickettsial eschars were noted, and a generalised maculopapular rash was present. The white cell count was markedly raised at 31.83 x 10^9/L, and platelets were very low at 38 x 10^9/L. Liver and renal functions were abnormal. Antibiotic treatment included intravenous ciprofloxacin. A clinical diagnosis of sepsis was made, probably due to severe tick bite fever (TBF). The clinical diagnosis was supported by the observation of the typical eschars.

Blood samples were sent to NICD for Crimean-Congo haemorrhagic fever investigations, and eschar swabs and blood for rickettsial PCR testing were processed at a private laboratory. After transfer to a provincial academic hospital, she remained in a critical clinical condition, and died the next day. Rickettsial PCR assays on blood and eschar swabs were positive; partial sequences of the rickettsial *gltA* gene matched most closely with *Rickettsia conorii*. This rickettsial species is associated with more severe disease than the other common cause of African TBF, *R. africae*. When diagnosed late and/or sub-optimally treated, TBF can be a severe infection, clinically resembling viral haemorrhagic fever or other severe infections with multi-organ failure and bleeding. Treatment with doxycycline is recommended, and intravenous ciprofloxacin can be used if oral doxycycline administration is not possible. Unfortunately, deaths from severe TBF occur every year in South Africa. See Communicable Diseases Communiqué January 2018 Vol. 17(1); and May 2018 Vol. 17(5).

Source: Centre for Emerging Zoonotic and Parasitic Diseases and Division of Public Health Surveillance and Response, NICD-NHLS; Ampath Laboratories, Centurion; januszp@nicd.ac.za

c Crimean-Congo haemorrhagic fever in Free State Province

A case of Crimean-Congo haemorrhagic fever (CCHF) was confirmed in a 45-year-old veterinary assistant from Kroonstad, Free State Province. The patient was bitten by *hyalomma* ticks (also known as 'bontpoot' ticks (Figure 1) on 24 October 2018. The patient developed fever and headache on 26 October and sought medical consultation on 27 October 2018. The patient also complained of muscle pain and nausea on 27 October 2018. Given the exposure history and identification of the ticks involved, CCHF was highly considered in the differential diagnosis of the patient. The platelet count on admission was normal (250 X 10^9/L), and there was no evidence of liver dysfunction. Patients with CCHF typically present with normal bloods early on in the disease. The clinical diagnosis was based on the recognition of the tick species, the patient's symptoms and clinical experience with CCHF cases. This patient presented early on day 2-3 of illness onset.

Blood samples collected on 27 October tested RT-PCR positive. The patient is receiving medical attention with strict infection prevention and control measures in place. Subsequent testing confirmed a progressive leucopaenia and thrombocytopaenia, but no liver dysfunction.

CCHF is transmitted through the bite of the *hyalomma* (or 'bontpoot') ticks. More than two thirds of cases report such exposures. Few cases involved transmission of the virus through contact with infected animal blood and tissues. Strict infection prevention and control measures are required during the management of CCHF patients to reduce the risk of transmission of the virus to healthcare workers. Secondary cases of CCHF involving healthcare workers or laboratory workers have been noted on four occasions since 1981.

For 2018 to date, a total of two cases of CCHF (including the case reported here) has been reported. The first case was reported from the North West Province. During 2017, a total of eight CCHF cases was reported from the Northern Cape (n=6) and Free State (n=2) provinces.

For more information on CCHF, please visit www.nicd.ac.za

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; januszp@nicd.ac.za

Figure 1. Two *hyalomma* ticks that the patient removed from his lower legs (with permission from the patient).

2 VACCINE PREVENTABLE DISEASES

a A cluster of pertussis cases in Emalahleni Sub-district, Mpumalanga Province

Pertussis (whooping cough), caused by the bacterium *Bordetella pertussis*, is a highly contagious, vaccine-preventable respiratory tract disease. Unvaccinated, or partially vaccinated infants and young children are at high risk for infection and severe disease. Immunity following vaccination lasts for 5-6 years.

A laboratory-confirmed pertussis case in a five-month old male was notified from a private hospital in the Emalahleni Sub-district of Mpumalanga Province, on 17 July 2018. This was followed by a second case on 25 July 2018. During investigation of the cases, an epidemiological link was found between the two cases. The cases are family friends and travelled together on holiday. The second case was found to be a teacher at a primary school; two more teachers and 11 learners were found to be positive for pertussis in this primary school.

Both district and sub-district outbreak response teams in Nkangala District were activated to conduct investigation and public health action, which included: identification and tracing of contacts, providing of prophylaxis, testing of symptomatic contacts and providing Expanded Programme on Immunization (EPI) catch-up vaccine to contacts as per requirement. Consent forms, together with a fact sheet on pertussis, were issued to the school and the parents of school going children. The Provincial Department of Health informed the Provincial Department of Basic Education about the increase of cases. Both departments worked together to release media statements and thereafter radio slots were conducted.

From July 2018 – October 2018, a total of 25 pertussis cases linked to this cluster was diagnosed. Five (5/25, 20%) of the cases were reported in children ≤5 years, 52% (13/25) were in the 6–19 years age group and 28% (7/25), in the ≥ 20 years age group. In total, one aftercare centre, three schools (two primary schools and one secondary school) and one orphanage were affected. No new cases linked to this cluster have been reported since the last case tested positive on 13 September 2018 (Figure 2). The situation is still being monitored by the team.

There is a concurrent increase in pertussis cases as detected through the NICD sentinel sites (Western Cape, Gauteng, Mpumalanga, North West and KwaZulu-Natal provinces), September Communiqué Vol. 17(9). Clinicians are advised to be on the alert for cases, to conduct diagnostic testing where appropriate, to notify cases and prescribe post-exposure prophylaxis to close and high-risk contacts of suspected or confirmed cases. NICD recommendations for pertussis diagnosis, management and public health response may be found on the NICD web page (http://www.nicd.ac.za/index.php/pertussis/).

Source: Mpumalanga Provincial Department of Health, Division of Public Health Surveillance and Response, NICD Provincial Epidemiology Team and Centre for Respiratory Diseases and Meningitis, NICD-NHLS (outbreak@nicd.ac.za)

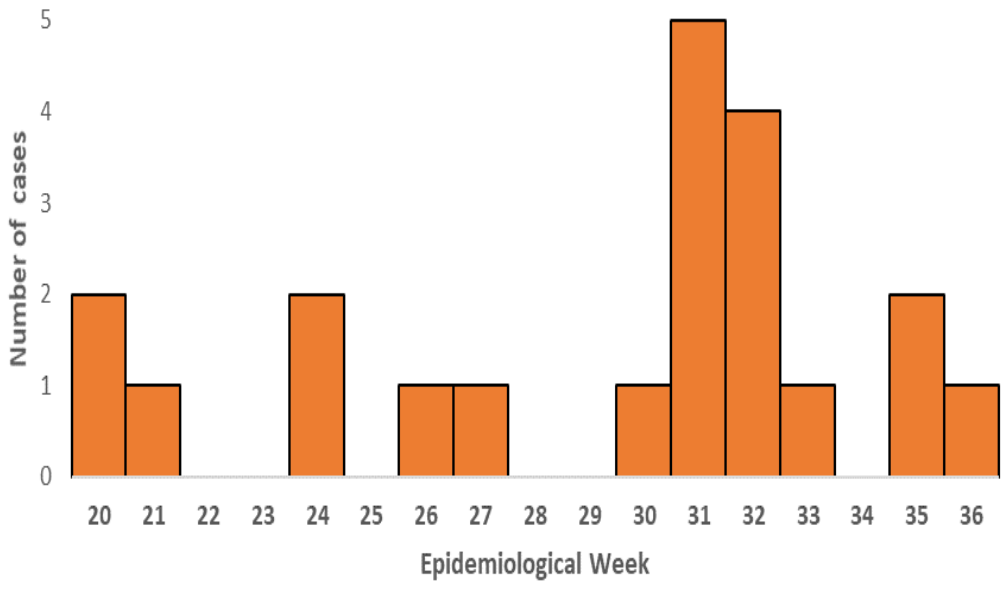


Figure 2. Epidemic curve of laboratory-confirmed pertussis cases by week of illness onset, Emalahleni Sub-district, Nkangala District July - September 2018.

3 ENTERIC DISEASES

a Two confirmed cholera cases in Gauteng Province, South Africa

There is an ongoing cholera outbreak in Zimbabwe, with 9 116 cases and 54 deaths reported as of 12 October 2018. While the outbreak is concentrated in the densely populated suburbs of Harare, cases have also been reported from eight other provinces. A mass oral cholera vaccination campaign was launched in Harare on 3 October 2018 targeting >420 000 people. Subsequent phases of the vaccination campaign targeting an additional 370 000 people are imminent.

A case of cholera in South Africa was confirmed in a 50-year-old female with a travel history to Zimbabwe. The patient travelled from Harare (Zimbabwe) to Pretoria by bus on 28-29 September, and developed abdominal cramps and diarrhoea whilst travelling. She was admitted to a Tshwane hospital on 1 October presenting with profuse watery diarrhoea complicated by dehydration. She reported contact with ill people during her stay in Harare. The patient's husband, a 49-year-old male, was admitted on 4 October with acute watery diarrhoea also confirmed as cholera. Both patients responded to intravenous rehydration and antibiotic therapy and recovered uneventfully.

Vibrio cholerae was isolated from stool samples at the testing NHLS laboratory in both cases, and confirmed to be toxin-producing *V. cholerae* O1 serotype Ogawa at the National Institute for communicable Diseases (NICD). The isolates are resistant to most first-line antibiotics (including tetracycline, cotrimoxazole, doxycycline, ceftriaxone and ciprofloxacin) but are susceptible to azithromycin.

Cholera is usually transmitted through contaminated drinking water or food. However, cholera can also be transmitted following direct contact with infective material (e.g. stool or vomitus), so transmission within households is not uncommon.
Mild-to-moderate cases may be treated with oral rehydration fluid. Severe cases require admission and intravenous fluid administration. Antibiotic treatment is recommended for patients with moderate to severe dehydration, as it reduces disease severity and the risk of further transmission. Azithromycin is recommended for cases linked to the current Zimbabwean outbreak, since this cholera strain is resistant to ciprofloxacin.

In South Africa, heightened awareness for possible cholera cases must be maintained whilst the outbreak continues in Zimbabwe. Any patient who develops acute watery diarrhoea with or without vomiting should be investigated.

Any suspected case should be notified immediately to the facility's infection prevention and control practitioner, district Communicable Disease Control Coordinators (CDCCs) and to the national notifiable medical condition (NMC) system. Healthcare workers should ensure that stools or rectal swab specimens are collected, and specimens should be sent to the testing laboratory with a specific request for cholera testing. If a delay in testing or transport of specimens is anticipated, specimens should be submitted in Cary-Blair transport media. Additional information on cholera, including guidance on specimen collection and case management, can be accessed on the NICD website: http://www.nicd.ac.za under the diseases A-Z Tab.

Source: Centre for Enteric Diseases, Division of Public Health Surveillance and Response and Provincial Epidemiology Team, NICD-NHLS; Gauteng Provincial and City of Tshwane CDCCs; (junot@nicd.ac.za; outbreak@nicd.ac.za)

4 INTERNATIONAL OUTBREAKS OF IMPORTANCE

a Ebola virus disease outbreak, Democratic Republic of Congo (DRC)

The Ebola virus disease (EVD) outbreak in North Kivu, Democratic Republic of Congo (DRC) is ongoing. As of 21 October 2018, a total of 238 confirmed and probable EVD cases, including 155 deaths (case fatality ratio 68.31%) has been reported. Of the 238 cases, 203 are confirmed and 35 are probable. Of the 155 deaths, 120 occurred in confirmed cases. As of 10 October 2018, 20 healthcare workers have been affected in this outbreak, of which 19 are laboratory confirmed and three have died. Beni, Butembo, Masereka and Mabalako continue to report an increasing number of new cases, indicating the persistence of Ebola virus transmission in these areas.

Recent cases in Beni include a disproportional number of cases in children aged ≤16 years; 47% (n=20) of 43 total cases reported since 1 October 2018, including nine cases in infants and young children aged <5 years. Investigation teams are intensively reviewing potential sources of the recent increase in cases among children. As of 15 October 2018, 57 cases have recovered, been discharged from Ebola treatment centres (ETCs), and reintegrated into their communities. The treatment centres in Beni and Butembo recorded an occupancy rate of 76% (31/41) and 42% (10/24) respectively.

Unstable political situation has hampered follow-up of contacts.

Vaccines and new drugs being used
A ring vaccination program was implemented in the

affected areas in North Kivu Province, DRC, from 8 August 2018. The ring vaccination entails vaccination of contacts of confirmed EVD cases, and contacts of those contacts, using a recombinant vesicular stomatitis virus vaccine expressing the Ebola virus glycoprotein (rVSVΔG-ZEBOV-GP). According to the World Health Organization (WHO), as of 17 October 2018, a total of 17 976 eligible persons had been vaccinated as part of control efforts of the North Kivu outbreak. As part of case management, Ebola treatment centres continue to provide therapeutic treatment to patients under monitored emergency use approval. The WHO approved the use of five experimental molecules, including two antiviral drugs (Remdesivir and Favipiravir) and three antibody cocktails (ZMapp, Regeneron-REGN3470-3471-3479 and mAb114). The latest available update from WHO indicates that as of 1 October 2018, 47 patients had received therapeutic treatment in addition to the standard care: 26 treated with mAb 114, 10 with Remdesivir, eight with Zmapp and three with Regeneron.

WHO risk assessment

The first International Health Regulation (IHR) Emergency Committee on the Ebola Virus Disease (EVD) outbreak in North Kivu, Democratic Republic of the Congo (DRC), was convened on 17 October 2018. At the end of the meeting, the Emergency Committee decided that the current EVD outbreak does not constitute a public health emergency of international concern at this time; although the outbreak is still deeply concerning and the risk of spread to neighbouring countries remains very high**.**

Situation in South Africa

As at 30 October 2018, there have been no EVD cases in South Africa associated with the current outbreak in the DRC. In addition, there are no suspected cases of EVD in South Africa at present.

Source: Division of Public Health Surveillance and Response, Centre for Emerging Zoonotic and Parasitic Diseases (outbreak@nicd.ac.za); WHO: www.who.int

5 SEASONAL DISEASES

a Influenza

The 2018 influenza season, which started in week 18 (first week of May) is ongoing, although the number of influenza positive samples has declined over the past few weeks. The number of specimens per week submitted by Viral Watch sites declined from an average of 45 in September to ≤ 12 in October.

During May and June, influenza A(H1N1)pdm09 accounted for ≥90% of influenza detections. From August onwards influenza B has accounted for ≥90% of detections per week.

Since the onset of the season, a total of 671 influenza detections has been made. Of these, 382 (57%) have been identified as A(H1N1)pdm09, 20 (3%) as A(H3N2) and 266 (40%) as influenza B. Three influenza A detections are untyped due to low viral load. Although the number of patients testing positive for influenza has declined, clinicians are reminded that influenza should still be considered as one of the potential cause of illness in patients presenting with influenza-like illness or respiratory illness during this period.

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; (cherylc@nicd.ac.za)

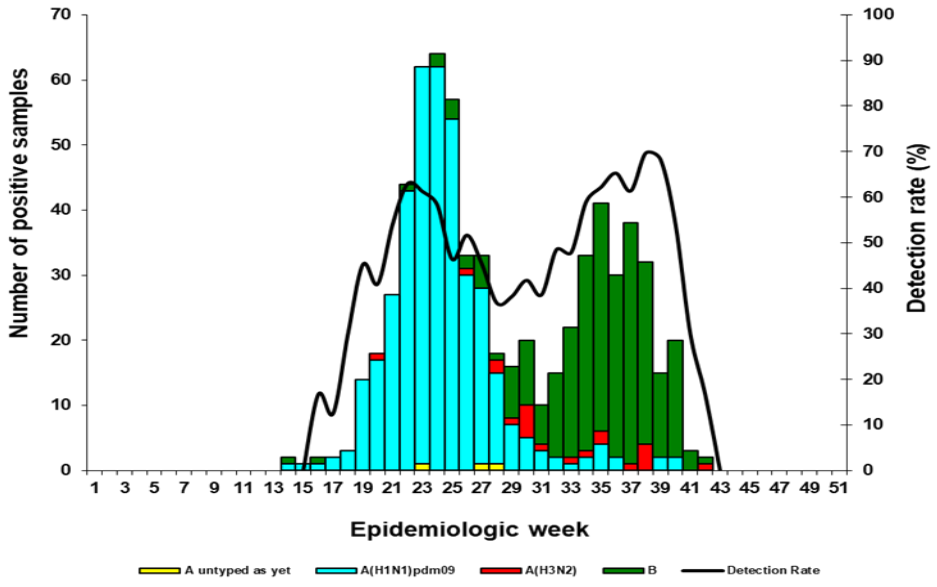


Figure 3.
Viral Watch 2018: Number of positive samples by influenza types and subtypes and detection rate*

*Only reported for weeks with >10 specimens submitted.

Patients known to have acquired influenza abroad or from contact with travellers are not included in the epidemiological curve.

b Invasive meningococcal disease surveillance: January to September 2018

Meningococcal disease occurs throughout the year in South Africa, appearing most frequently in the winter and spring months (Figure 4). Patients presenting with symptoms suggestive of meningitis/ bacteraemia, with or without a petechial rash, should receive prompt antibiotic therapy targeting meningococcal disease. Clinically suspected cases should be notified immediately for urgent public health action.

Up until week 39 of 2018, 92 cases have been reported to the GERMS-SA network, 72% (66/92) of which had isolates available for serogrouping. Serogroup B caused 44% (29/66) of disease, followed by W (24%, 16), Y (20%, 13) and C (12%, 8). The majority of cases occurred in Gauteng Province (33%, 30/92), followed by Eastern Cape (22%, 20/92) and Western Cape provinces (29%, 27/92). Of patients with known age, 52% (43/83) were less than 10 years old, 20 of which were infants.

Microbiology laboratories (both NHLS and private laboratories) are encouraged to submit ALL meningococcal isolates as soon as possible to the NICD for confirmation and serogrouping of the isolates; or to submit the actual CSF, blood and/or blood culture (for culture negative, but latex antigen positive and Gram-negative cocci seen on Gram stain) for PCR confirmation. Meningococcal disease is a category 1 notifiable medical condition (NMC) and any clinically suspected case should be reported immediately to the provincial Communicable Disease Control Coordinators to ensure appropriate contact tracing, responsible prescribing of chemoprophylaxis and case counting.

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; annev@nicd.ac.za

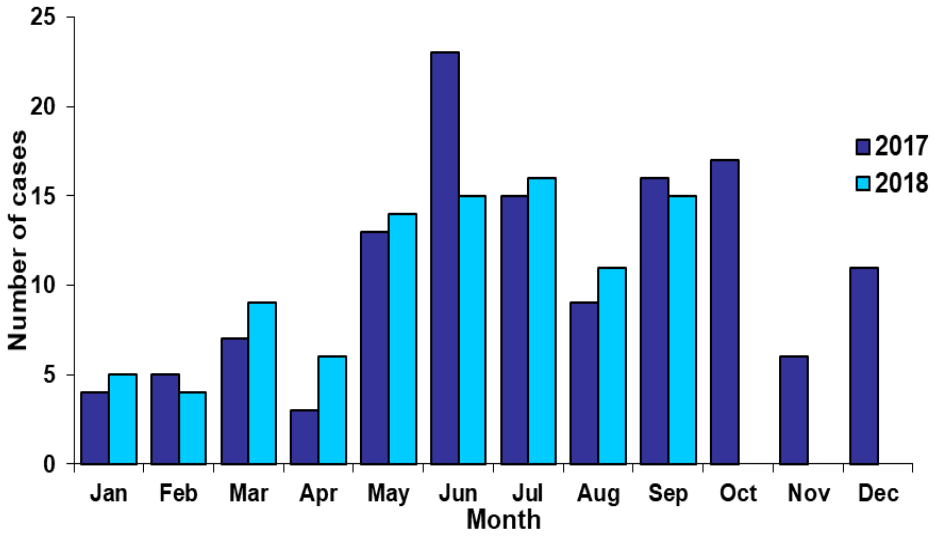


Figure 4. Number of *Neisseria meningitidis* cases reported to GERMS-SA by month, South Africa, 2017 and 2018 (until end week 39).

c Malaria seasonal advisory

Southern Africa is experiencing its annual malaria season and it is anticipated that there will be an increase in transmission due to increases in ambient temperature, rainfall and humidity. With the approach of the holiday season in December, it is important for travellers visiting any of the malaria areas within southern Africa or elsewhere to take appropriate precautions and maintain a high index of suspicion for symptoms of malaria on their return.

As shown in the revised malaria risk map in the September Communiqué (Vol. 17(9): 7-8) [http://www.nicd.ac.za/wp-content/uploads/2018/09/Malaria.pdf], the major areas of transmission of malaria in South Africa are the north-eastern parts of Limpopo Province (along the borders with Mozambique and Zimbabwe), the lowveld areas of Mpumalanga Province (including the Kruger National Park but excluding Nelspruit/Mbombela, White River, Sabie, and their immediate surrounds) and the far northern parts of KwaZulu-Natal Province. Personal protection against mosquito bites should be the focus of malaria prevention, together with use of chemoprophylaxis (preventive medication) in the indicated higher-risk areas. Chemoprophylaxis is now available in pharmacies without prescription. Regardless of antimalarial measures used, the occurrence of an acute fever and 'flu-like illness in the month after return from transmission areas must prompt an urgent malaria blood test and follow-up of results.

Regarding neighbouring countries:

1. Mozambique and Zambia have high malaria transmission throughout the country. The majority of malaria cases treated in South Africa have a history of travel to Mozambique.

2. Zimbabwe, including the Victoria Falls, is a high transmission area except for Bulawayo, Harare and Gweru and their immediate surrounds.
3. Malawi and the area around Lake Malawi are high transmission areas.
4. Botswana has transmission in the central and northwest districts, including the Chobe National Park and the Okavango Delta, but there is no malaria transmission in Gaborone.
5. In Namibia, malaria is present in the northern regions (Kavango East and West, Kunene, Ohangwena, Omusati, Oshana, Oshikoto, Otjozondjupa, and Zambezi), and there is no malaria transmission in Windhoek.
6. Malaria control in Swaziland has resulted in a major decrease in local cases and there are limited areas of malaria transmission in the lowveld area in the east of the country bordering Mozambique.

Guidelines on prevention and treatment of malaria, as well as FAQs, are available on the NICD website: www.nicd.ac.za

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; johnf@nicd.ac.za

d Rubella

Rubella, or German measles, is a viral infection that circulates widely in South Africa. It is spread through direct or droplet contact with the respiratory secretions of an infected person. A maculopapular rash occurs 14 to 17 days after exposure, first appearing on the face and progressing from head to foot lasting about 3 days. Complications of rubella are rare and generally occur more often in adults than in children. The most serious complication of rubella infection is congenital rubella syndrome (CRS), which occurs when the rubella virus infects a developing foetus. CRS in the first trimester of pregnancy is teratogenic and can lead to miscarriage or serious birth defects such as deafness, eye defects, heart defects, and mental retardation in as many as 85% of infected infants.

Rubella vaccination is not part of the current South African expanded programme on immunization (EPI), although it is available in the private sector as measles mumps and rubella (MMR). Historically, the omission of rubella vaccine from EPI was based on the understanding that natural rubella infection in childhood should render most women of childbearing age immune and therefore prevent CRS. In addition, under conditions of imperfect vaccine coverage, the addition of a rubella-containing vaccine (RCV) could increase the susceptibility of adult women by slowing, but not interrupting, rubella transmission. This may theoretically increase the age of primary rubella infection and therefore increase the number of CRS cases. For this reason, the introduction of a RCV into the EPI should be carefully considered and meticulously implemented to avoid increasing the risk of CRS.

From 1 January to 19 October 2018, 821 NICD laboratory-confirmed rubella cases have been detected in South Africa from blood specimens submitted for measles testing (Figure 5). Rubella cases have been detected in all nine provinces, of which KwaZulu-Natal (n=378), Eastern Cape (n=143) and Western Cape (n=98) provinces have the highest number of cases. The epidemiological curve shows persistent circulation with a peak in spring (week 35 to 40). Rubella was similarly distributed amongst males and females (51% and 49%, respectively) and was predominant in the 0-4 and the 5-9 year-old age groups (Figure 6). Importantly, 14 NICD laboratory confirmed rubella cases were detected amongst females aged 15 to 44 years old, indicating an immunity gap in women of childbearing age.

Rubella cannot be clinically distinguished from measles. All febrile rash cases should be reported. A serum sample should be submitted for laboratory testing for measles and rubella.

Source: Centre for Vaccines and Immunology, NICD-NHLS; Division of Public Health Surveillance and Response, NICD-NHLS; (heatherh@nicd.ac.za)

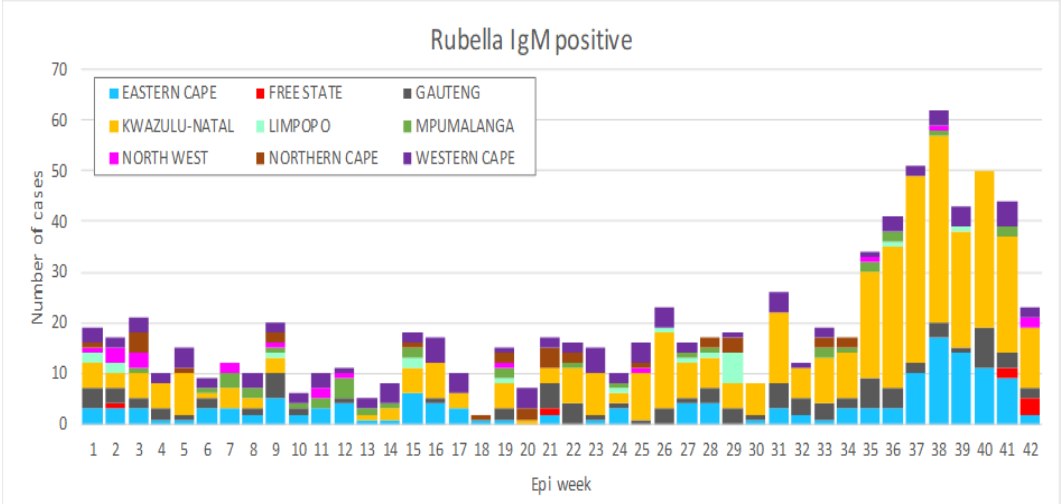


Figure 5. NICD laboratory-confirmed rubella cases in South Africa by province, 1 January – 19 October 2018 (n=821).

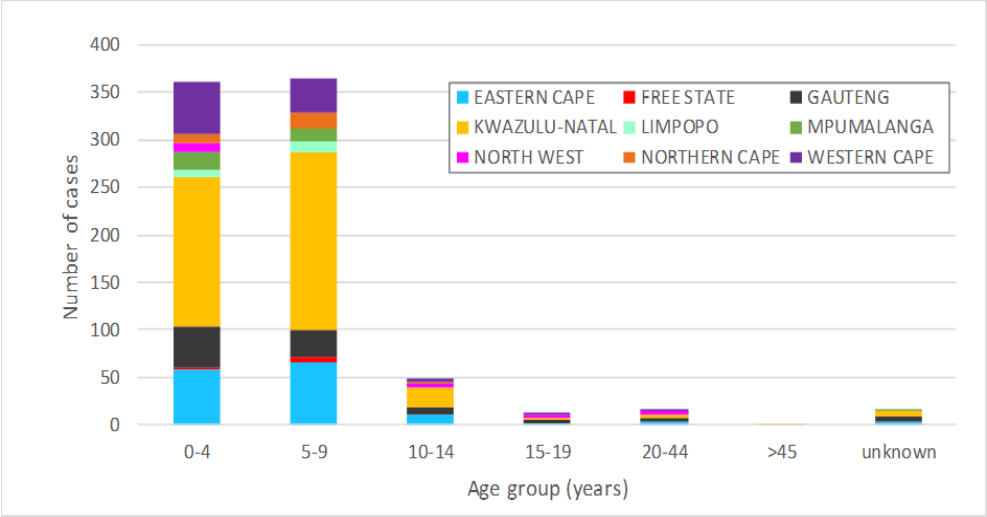


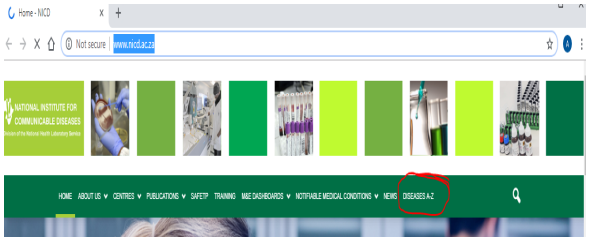
Figure 6. NICD laboratory-confirmed rubella cases in South Africa by age group, 1 January – 19 October 2018 (n=821)

6 FREQUENTLY-ASKED QUESTIONS TO THE NICD 24-HOUR HOTLINE

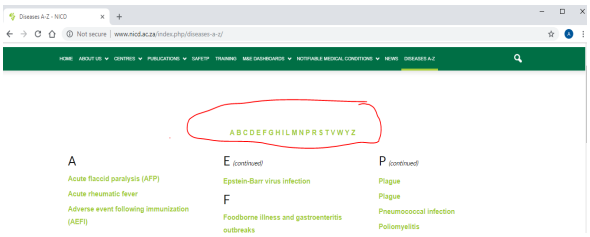
How does one access diseases of public health importance on the NICD website?

Step 1: Go to the NICD website; http://www.nicd.ac.za/

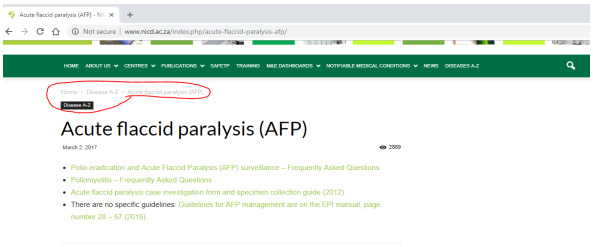
Step 2: Click on the Diseases A-Z tap on the home page - see area circled in red.



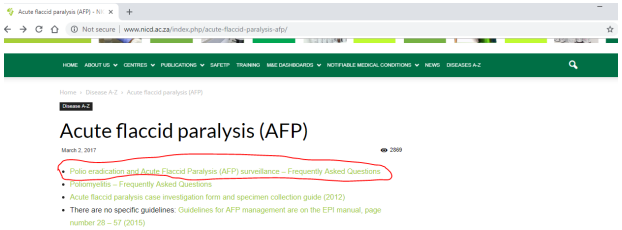
Step 3: The list of diseases A-Z will be displayed in alphabetical order. You can scroll down to see the entire list or click the alphabet for the disease you want – see area circled in red.



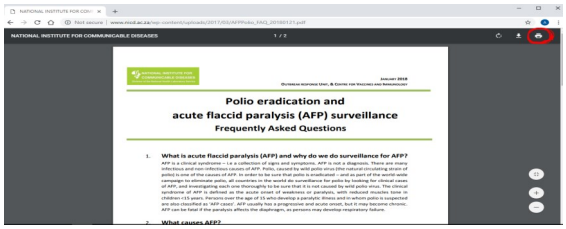
Step 4: Click the disease you want to see/display the list of documents available - e.g. AFP



Step 5: Click the document you want on the list of documents displayed - e.g. Polio eradication and Acute Flaccid Paralysis (AFP) surveillance – Frequently Asked Questions.



Step 6: The document will be downloaded. To print the document, click on the "printer" icon on the right hand corner - see area circled in red.



Step 7: To save the document click on the "down load" icon on the right hand corner - see area circled in red, open and save the document.

Source: Division of Public Health Surveillance and Response (outbreak@nicd.ac.za)

7 BEYOND OUR BORDERS

The 'Beyond our Borders' column focuses on selected and current international diseases that may affect South Africans travelling abroad. Numbers correspond to Figure 7 on page 10.

1. Dengue: Spain, France and Senegal
Dengue is a mosquito-borne infectious disease. It is prevalent in many parts of Asia and countries along the tropical and subtropical belt. The first partially effective dengue vaccine was commercially available in 2016; this vaccine, however, has caused controversy due to its extreme case side-effects on receivers who haven't had dengue previously, limiting the receivers to those who live in the area of exposure and who have been previously infected by the virus.

In October, several countries, such as France, Spain and Senegal, amongst others, have experienced dengue outbreaks. On 10 October 2018 the Spanish Ministry of Health confirmed that three Spanish citizens have been infected by the dengue virus, without any of them having travelled to areas where this disease is present. Those infected by the dengue virus had been in Cadiz, Murcia and Madrid and are from the Granada Province. Investigation for the source are ongoing. Subsequently on 18 October 2018 a dengue outbreak was detected after four new cases in France, Saint-Laurent-du-Var in the Alpes-Maritimes. There are now five people who have contracted dengue in France. Senegal also reported their 4th dengue epidemic on 19 October 2018, with at least 23 confirmed dengue cases been confirmed in the Fatick region following tests on 487 suspected cases.

2. Hepatitis E: Namibia
The outbreak of hepatitis E that was declared on 14 December 2017 by the Ministry of Health and Social Services of Namibia, is still on-going. The outbreak was initially detected in Windhoek district, Khomas Region, following confirmation of hepatitis E in seven patients presenting with acute jaundice syndrome by the Lancet laboratory in South Africa. Since April 2018, the outbreak has spread to six other regions across the country, namely Erongo, Omusati, Oshana, Ohangwen, Oshikoto and Kavango. As of 14 October 2018, a cumulative total of 3 674 cases of acute jaundice syndrome (AJS), including 31 deaths (case fatality ratio 0.8%) has been reported from seven regions across the country. Of these, 540 are laboratory-confirmed, 2 657 epidemiologically-linked and 477 suspected. Pregnant women account for 34% (n= 184) of confirmed cases. Of the 31 deaths that have been reported, 14 (45%) are maternal deaths. The Ministry of Health is receiving technical and operational support from the WHO, US Centers for Disease Control, and other partners in an attempt to control the outbreak.

3. Poliomyelitis: Pakistan
Pakistan has confirmed wild poliovirus type 1 (WPV1)-associated disease in the Gadap area of Karachi, in Sindh province. The case involved a 42-month-old female with date of onset of disease on 22 September 2018. The child had a verbal history of three doses of oral polio vaccine (OPV) and no doses of inactivated polio vaccine (IPV) as part of routine immunization activities, although this was not verified by review of a vaccination card. The child presented atypically with pain in her right hip and weakness of bilateral lower extremities. An X-ray revealed a dislocation of the right hip joint.

4. Lassa fever Nigeria
During 2018, an unusual increase in Lassa fever cases occurred in Nigeria. In week 41 (week ending 14 October 2018), 13 new confirmed cases were reported, with four deaths. The trend of cases is increasing since epi week 37 when only two confirmed cases were reported. Fifteen states have exited the active phase of the outbreak while seven, Edo, Delta, Ondo, Bauchi, Ebonyi, Kogi and Imo states remain active. Except for the infected healthcare workers, most affected individuals probably acquired their infections from rodent hosts of the virus.

Source: Promed (www.promed.org) and the World Health Organization (www.who.int)

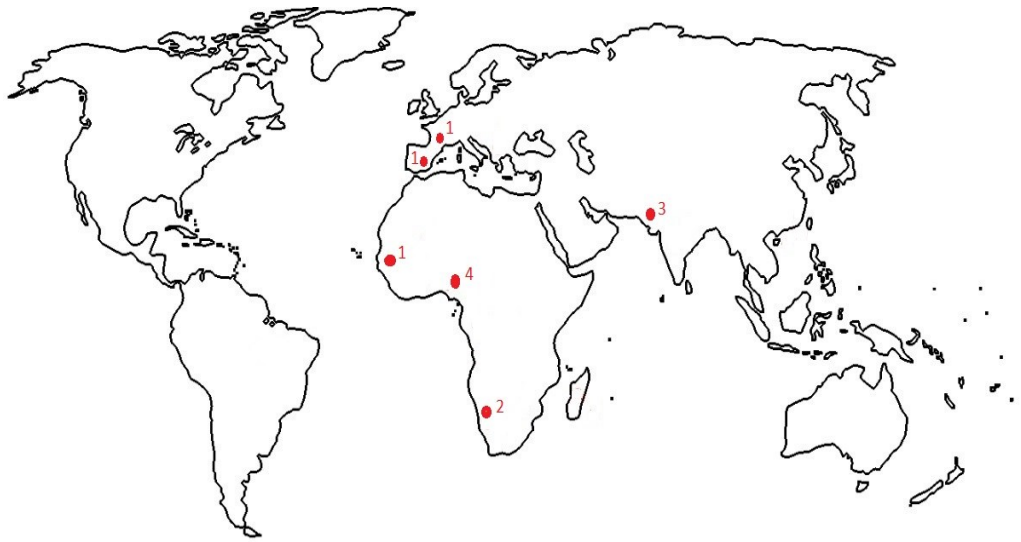


Figure 7. Current outbreaks that may have implications for travellers. Numbers correspond to text above. The red dot is the approximate location of the outbreak or event.

8 WHO-AFRO: OUTBREAKS AND EMERGENCIES

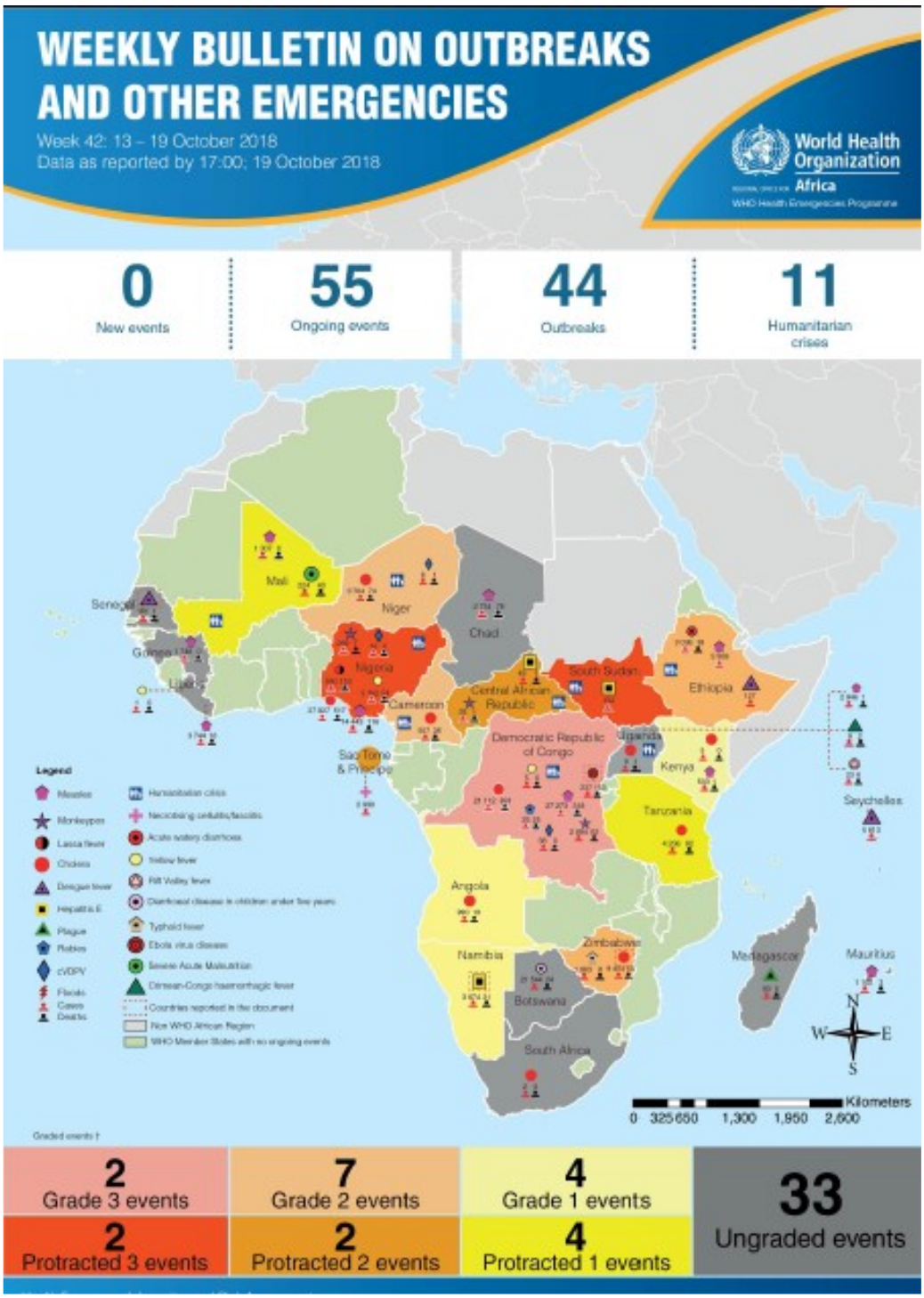


Figure 8. The Weekly WHO Outbreak and Emergencies Bulletin focuses on selected public health emergencies occurring in the WHO African Region. The African Region WHO Health Emergencies Programme is currently monitoring 55 events, of which 44 are outbreaks and 11 humanitarian crises. For more information see link:
http://apps.who.int/iris/bitstream/handle/10665/275493/OEW42-1319102018.pdf