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

Communicable Diseases Communiqué

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CONTENTS

1 ZOONOTIC AND VECTOR-BORNE DISEASES

a An update on rabies in South Africa, 2017

A case of rabies was confirmed in a three-year-old male child from Zimbabwe. The child was scratched by stray dog in May 2017 in Zimbabwe (exact location or date not clear at time of report). The patient did receive injections post-bite, but the exact post-exposure prophylaxis regimen could not be established. The patient was admitted to a Johannesburg hospital on 4 August with fever, hypersalivation, vomiting and depressed consciousness. Rabies was confirmed by RT-PCR on three saliva specimens collected at different time points. The patient demised on 11 August.

To date, two human rabies cases have been reported in South Africa, excluding the case reported here, which was not acquired in South Africa. Both South African cases were reported from the north-east part of the Eastern Cape Province, which remains one of the highest risk areas.

An increasing number of dog rabies cases in several coastal districts of KwaZulu-Natal requires increased vigilance and consideration for possible human exposures (Figure 1). Cases of rabies in animals were also reported from the Eastern Cape, Limpopo, Mpumalanga, Northern Cape and North West provinces during the month of July 2017 (Agriculture Research Council- Onderstepoort Veterinary Research and Allerton Provincial Veterinary Laboratory).

For more information regarding the guidelines for post-exposure prophylaxis in humans, please visit the NICD website, www.nicd.ac.za.

Source: Centre for Emerging, Zoonotic and Parasitic Diseases, NICD/NHLS; (januszp@nicd.ac.za); Charlotte Maxeke Johannesburg Academic Hospital; Allerton Provincial Veterinary Laboratory and Agriculture Research Council — Onderstepoort Veterinary Research

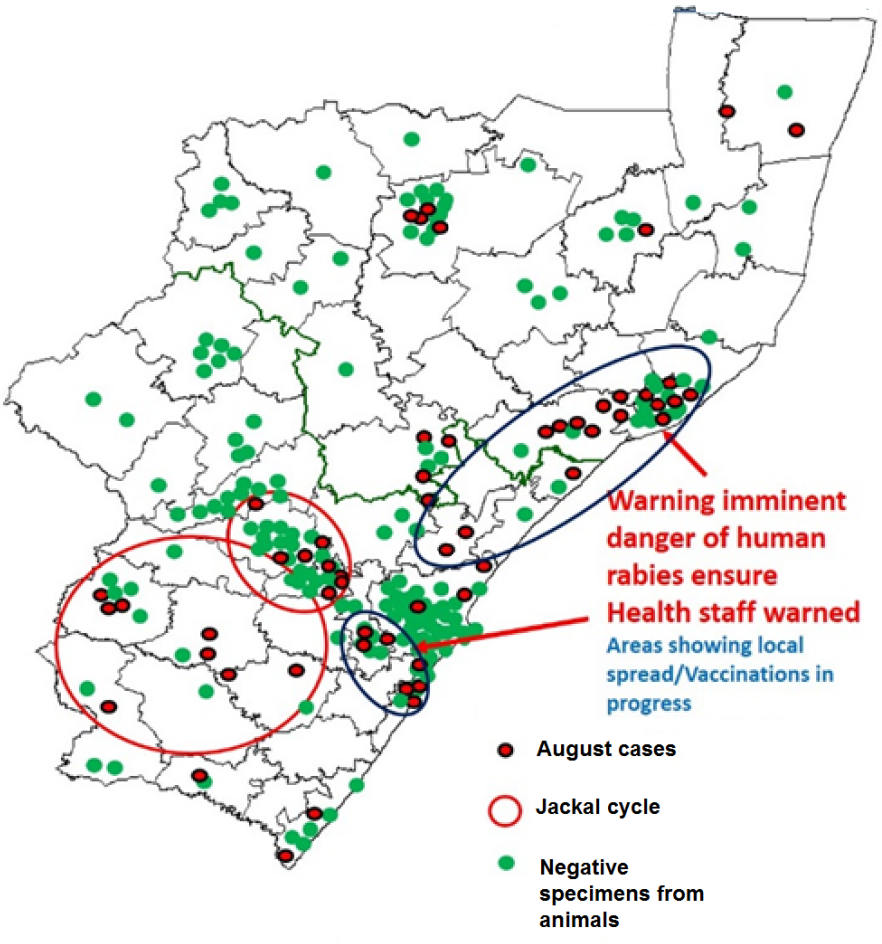

Figure 1.
Map indicating laboratory-based surveillance for rabies amongst animals in KwaZulu-Natal for 2017 to date. Two cycles of rabies virus circulation have been identified in the province: a domestic dog cycle and a jackal cycle. The major concern currently, is the increase in domestic dog cases as indicated in the blue circles (Contribution by Allerton Provincial Veterinary Laboratory).

b Update on Crimean-Congo haemorrhagic fever in South Africa

A total of five cases of CCHF was confirmed in South Africa for 2017 to date. These cases were reported from the Western Cape (n=1), Northern Cape (n=2) and the Free State (n=2) provinces. A case of Crimean-Congo haemorrhagic fever (CCHF) was confirmed in a patient from Namibia in August. This was the second case of CCHF to be confirmed in a Namibian patient for 2017 to date.

Crimean-Congo haemorrhagic fever is a tick-borne disease which is widely distributed in Africa, Eastern Europe and the Middle East. Humans are exposed primarily through tick contact (specifically *Hyalomma* species), but may also get infected with the virus through contact with infected animal blood and tissues. Human-to-human transmission is limited, although few reports of nosocomial transmission have been noted. The risk of contracting the disease is greater during the late summer months, but prevailing weather and environmental conditions that may support tick activity may extend this risk year long. Typically farmers, farm workers, abattoir workers and veterinarians that are at greater risk of contracting the disease, but any person that may have tick exposures (such as campers or hikers) or contact with infected blood and tissues (such as hunters) may be exposed. For more information visit the NICD website at www.nicd.ac.za.

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

2 VACCINE-PREVENTABLE DISEASES

a Diphtheria outbreak in the Western Cape Province

A total of four laboratory-confirmed cases of diphtheria and one asymptomatic carrier of toxin-producing *Corynebacterium diphtheriae* has been identified in a community in the Eastern sub-district of the Cape Town Metropolitan District.

On 3 August 2017, a diagnosis of diphtheria was confirmed in a 10-year-old child at a provincial hospital in Cape Town. The case presented severely ill with membranous pharyngitis and respiratory obstruction and died in ICU on 4 August. Two siblings and a neighbour of the family were diagnosed with diphtheria, and the mother tested positive for *Corynebacterium diphtheriae* but was asymptomatic. Diphtheria anti-toxin and appropriate antibiotics were administered to the two surviving siblings. No further diphtheria cases have been identified since 14 August.

Provincial and district health services were activated immediately to identify contacts of the family, including household members, pupils at the school attended by the index case and health care workers in order to identify and prevent additional cases. Throat swabs were taken, azithromycin prophylaxis was provided and age-appropriate diphtheria vaccination was administered to close and eligible at-risk contacts. As part of contact tracing nearly 500 persons were given antibiotic prophylaxis, 200 laboratory screening tests were conducted, and over 1 000 vaccines were administered. Information, education and communication material were distributed to the public and healthcare care workers.

In response to the low community vaccination coverage rates for the Td booster for children scheduled at 6 and 12 years of age, a selective vaccination campaign targeting the at-risk community commenced on 14 August. To date, 11 506 children 6 to 15 years of age have been vaccinated at schools in the area. In addition, a catch-up campaign has also commenced with 2 817 vaccines given to children under 6 years of age. Various methods, e.g. house-to-house call out and mobile health buses, are being used to enhance community participation.

Clinicians and other healthcare workers need to be made aware of the clinical case definition of diphtheria, the importance of notifying suspected cases as well as good communication with the laboratory. Early case detection and appropriate treatment is essential to minimize the risk of the infection spreading if it is introduced into a community. District, sub-district, and local health authorities must put strategies in place to improve the routine vaccination coverage in the primary series (6, 10, 14 weeks) and booster doses at 18 months, 6 and 12 years of age. Every effort should be made to adhere to all components of the 'Reach Every District' WHO vaccination strategy which has been adopted by South African National and Provincial departments of health.

Source: Western Cape Department of Health; Division of Public Health, Surveillance and Response, Centre for Respiratory Disease and Meningitis; NICD-NHLS; charlene.jacobs@westerncape.gov.za

b Measles outbreak declared in KwaZulu-Natal Province

KwaZulu-Natal Province has declared an outbreak with 19 confirmed or probable cases in three districts: Ethekwini (n=12), Umgungundlovu (n=5), Ilembe (n=2). The majority of measles cases have been reported in children over the age of 5 years (Figure 2) and within communities that are hesitant to accept vaccination for religious reasons.

Provincial and district outbreak response teams have met, and interventions are being planned, including targeted vaccination campaigns. Community engagement meetings are being held, and information, education and communication material are being disseminated.

Health care workers should notify all suspected cases to district and provincial authorities, and should confirm each measles case through submission of a blood specimen and a completed case investigation form to the NICD, which provides testing free of charge.

Material on vaccination, including statements from the Jaimatul Ulama, and the Islamic Medical association in support of vaccination may be found on the NICD website.

To date, 133 laboratory-confirmed measles cases have been reported in South Africa. Laboratory confirmed measles cases were detected in seven provinces; Eastern Cape (n=4), Gauteng (n=68), KwaZulu-Natal (n=19), Limpopo (n=3), Mpumalanga (n=2), North West (n=6) and Western Cape (n=31) (Figure 3). Measles cases in Gauteng Province are continuing to increase with cases detected in various age groups.

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

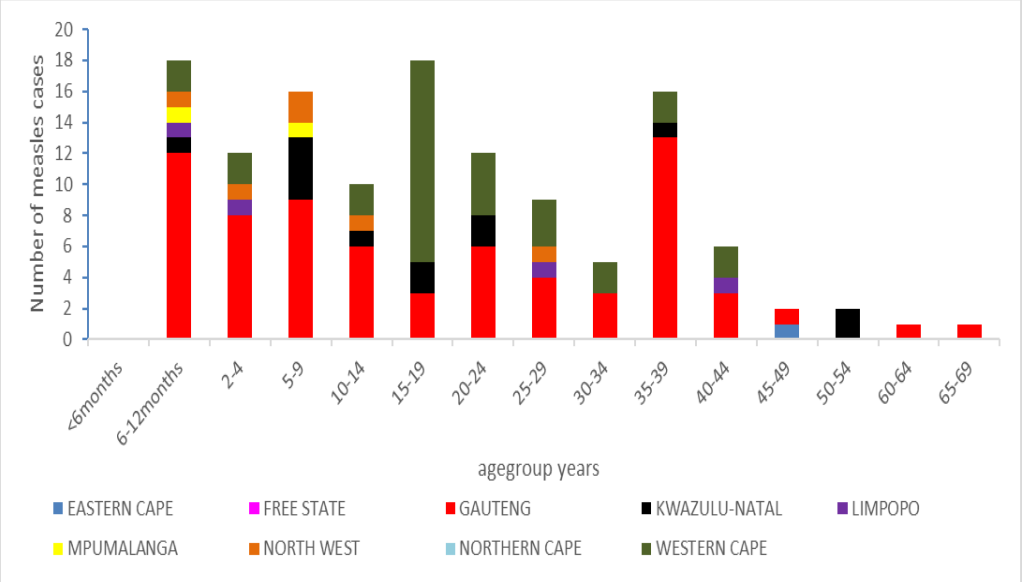

Figure 2. Laboratory- confirmed measles cases in South Africa by age group, 1 January – 18 August 2017

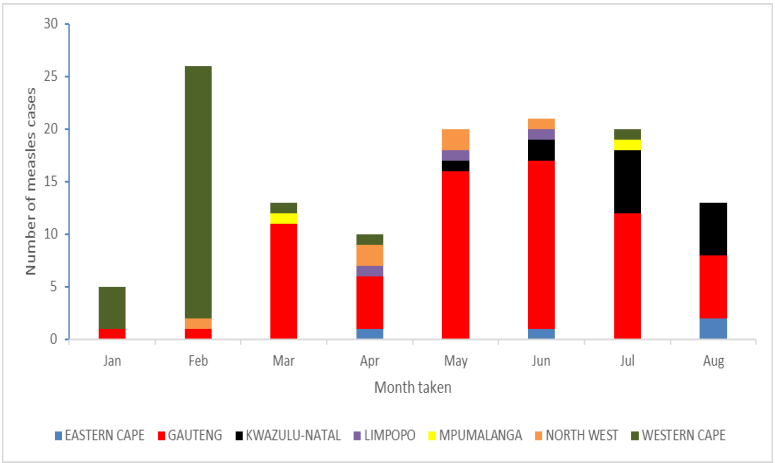

Figure 3. Laboratory-confirmed measles cases in South Africa by province, 1 January - 18 August 2017

3 SEASONAL DISEASES

a The influenza season, 2017

The 2017 influenza season which started in week 21 (week ending 4 June) is continuing, though the number of specimens received has started to decline. The season peaked in week 26 (week ending 2 July) when 106 specimens were received, with 72 (68%) positive for influenza. Since then the number of specimens received per week has dropped to an average of 75 (range 69-80). A total of 499 influenza detections has been made, the majority of which has been influenza A(H3N2) which was detected in 415 patients. Influenza A(H1N1)pdm09 has been detected in 35, and influenza B in 44 patients. In addition, dual infection of influenza A(H1N1)pdm09 and A(H3N2) was detected in two patients, influenza A (untyped as yet), in one patient. Influenza has been detected in all eight provinces with Viral Watch sites. In the first three months of the year, influenza A(H3N2) was detected in five patients who had either travelled abroad, or had contact with travellers from the northern hemisphere. Additionally, 70 specimens have been received from patients at a point of entry into South Africa, and influenza was detected in 33 of these patients.

Influenza B was detected in an ill contact of a 15-year-old male who died in hospital following rapid onset of pneumonia and respiratory distress. Influenza B infection has been associated with deaths in otherwise healthy young adults often secondary to cardiac complications such as pericarditis or arrhythmia.

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

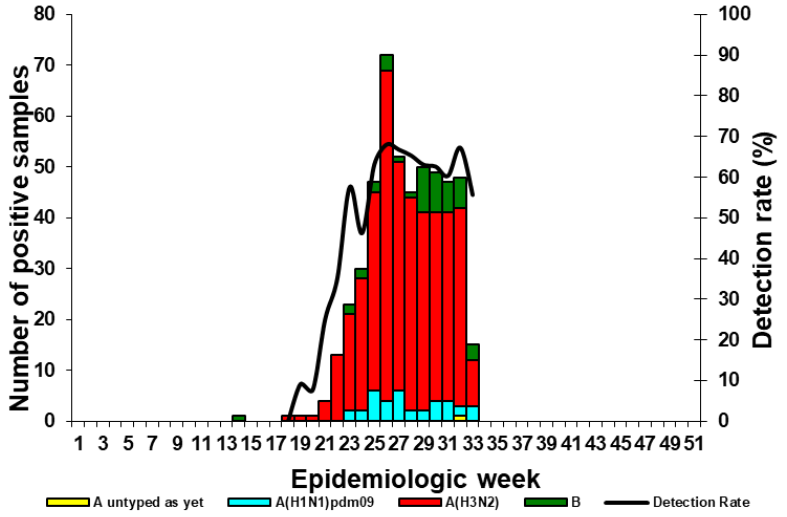

Figure 4. Findings from the influenza surveillance 'Viral Watch' programme indicating the number of positive samples by influenza types and subtypes and detection rate by epidemiological week in 2017 (only reported for weeks with >10 specimens submitted). Patients known to have acquired influenza abroad or from contact with travellers are not included in the epidemiological curve.

b Avian influenza in South Africa: no human cases identified

The outbreak of highly pathogenic avian influenza A (H5N8) in poultry is ongoing after its emergence in South Africa in June 2017. According to an update report issued by the Department of Agriculture, Forestry and Fisheries on 25 August 2017, 24 localized outbreaks have been identified to date as follows: ten outbreaks in commercial chickens, three outbreaks in commercial ostrich, five outbreaks in wild birds, three outbreaks amongst birds kept as a hobby, and three outbreaks in backyard poultry. Outbreaks have been reported to the OIE, and reports may be found at http://www.oie.int.

While on a global level, H5N8 has not been documented to cause human infection, it is appropriate that all exposed workers with symptoms of influenza-like illness are tested for possible avian influenza infection. Therefore, following the first reported avian influenza A(H5N8) outbreaks in poultry in South Africa, human surveillance to detect possible human infections has been initiated by the National Institute for Communicable Diseases (NICD) in persons exposed to the virus on affected farms.

The NICD is using the following case definition to guide laboratory testing of exposed persons. A

suspected case of A(H5N8) is defined as:

- the presence of cough, fever, sore throat, runny nose, difficulty breathing or conjunctivitis;

AND

- documented exposure (direct contact or proximity of <15 meters) to infected birds (alive or dead) OR having had worked in a poultry house with infected birds, in the 10 days preceding the onset of symptoms.

To date, workers at 3 affected poultry farms in Mpumalanga and Gauteng provinces have been screened for A(H5N8) according to the case definition above and plans are in place for screening at poultry and ostrich farms in the Western Cape Province. Exposed persons from the first two affected farms in Mpumalanga (n=35) and the first affected farm in Gauteng (n=25) all tested negative for influenza A (includes avian influenza). Two additional samples received by the NICD in July from persons meeting the case definition tested positive for seasonal human influenza A and negative for avian influenza A viruses.

The continued cooperation of the public and the poultry industry including timeous reporting of dead and dying birds to veterinary services is essential to facilitate disease control efforts. It is important that persons working with infected poultry, their excrement or their products should use appropriate personal protective clothing and adhere to disinfection procedures. Exposed workers meeting the case definition provided above should have samples collected to test for avian influenza. If testing is required, please contact the NICD doctor on call to discuss the case (082 883 9920).

Poultry and poultry products that are available for sale in retail outlets are safe for human consumption. There is no danger of transmission of avian influenza from chicken or egg products to humans.

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

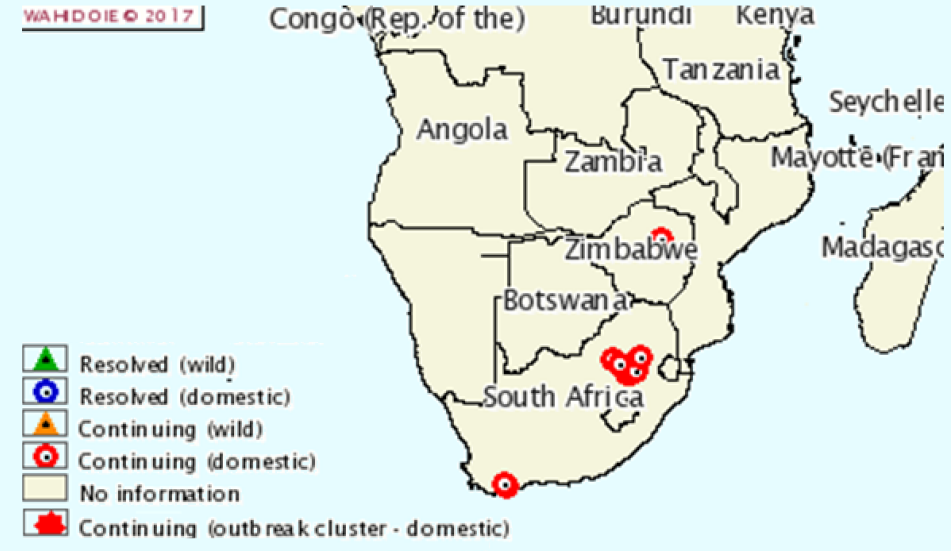

Figure 5. OIE summary report of South African HPAI outbreak in domestic poultry as accessed on 14 Aug 2017, period 1 May 2017 to 16 August 2017. (http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review/viewsummary?reportid=24127; accessed 16/08/2017)

c Meningococcal disease update

Sixty-three laboratory-confirmed cases of invasive meningococcal disease have been reported to the GERMS-SA surveillance programme from January 2017 until 6 August 2017 (end of week 31) (Figure 6). Most cases were from the Western Cape Province (25, 40%), followed by Gauteng (19, 30%) and Eastern Cape (10, 16%). No cases have been reported to date from Limpopo or Mpumalanga.

The median age of persons diagnosed with meningococcoal disease is 13 years, however the greatest burden of disease is in those ≤5 years (22 cases) and in the 15 to 24-year age-category (12 cases).

Meningococcus was found in CSF in 39 (62%) cases, blood only in 23 cases and in ascitic fluid in 1 case. Serogroup data is still unknown for 20/63 cases, however serogroup B accounted for 21 (49%),

W for 10, Y for 7 and C for 5 cases.

Meningococcal disease usually peaks from May to October, therefore clinicians should be aware of this disease in their differential diagnoses and search for early indications of a non-blanching petechial rash in patients presenting with sudden onset of fever, headache and/or vomiting. Antibiotic treatment should be started without delay and clinically suspected cases notified immediately to the provincial CDCCs for assistance with contact tracing and provision of prophylaxis to close contacts. Sudden unexplained deaths should also be investigated for meningococcal disease.

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

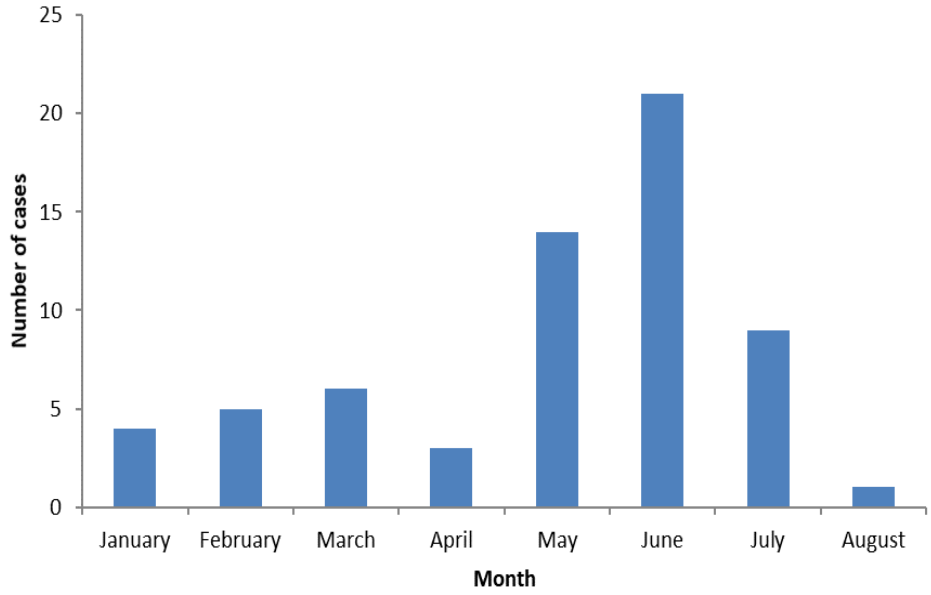

Figure 6. Seasonality of invasive meningococcal disease cases by month, South Africa, January to 6 August 2017 (n=63)

d Malaria update

The past 2016/17 malaria season was a particularly busy one, with large numbers of cases reported in Limpopo and Mpumalanga provinces, South Africa, as well as in neighboring countries of Mozambique, Botswana, Zimbabwe and Namibia.

The summer 2017 malaria season is due to start in September but the winter period has seen an unusually high number of cases due to relatively warm temperatures in malaria areas.

All travellers to malaria risk areas, including the Kruger National Park, should take precautions against mosquito bites, consider the use of malarial preventive drugs, and most importantly, should seek medical help if they develop fever or a 'flu-like illness in the month after returning.

An urgent malaria blood test must be done on these cases and the results rapidly obtained and treatment initiated if positive. A repeat test should be performed if the initial test is negative.

Symptoms of malaria overlap with those of influenza and the influenza season has not come to an end yet. These symptoms include fever, headache, cold shivers and hot sweats, and muscle pain. There is very effective treatment available for malaria, provided a diagnosis is made early – once complications develop, there will be a number of severely ill patients who do not respond to treatment and who will die as a result.

Refer to malaria prevention guidelines available on the NICD web page at www.nicd.ac.za

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

4 AN OUTBREAK OF HERPES SIMPLEX TYPE 1 VIRUS IN A BURNS UNIT

Between 5-7 July 2017, seven cases of febrile rash were observed amongst children aged 1-5 years who were admitted to a burns unit in Gauteng Province. The rash had a fine, barely visible maculopapular appearance distributed over the trunk and limbs, and was associated with a low-grade fever and coryza. Measles was initially suspected, and appropriate management instituted. However measles and rubella serology was negative.

Over the next few days in two cases, vesicular lesions subsequently developed on the limbs of both patients and on the face of a single patient. Lesions were observed in the burn wounds of one of the patients. Vesicular lesions also developed in a third patient (not amongst the initial seven with febrile rash) who developed lesions on the trunk, arms and legs (Figure 7). Samples of vesicular fluid were obtained from all three patients. Electron microscopy revealed herpes virus particles (Figure 7) and HSV-1 was confirmed by molecular (PCR) testing.

HSV infections have been reported in patients suffering from burns and present as a febrile illness one to three weeks after thermal injury. HSV infection is usually associated with more extensive, full-thickness burns. The rash can begin as focal peri-oral maculopapular lesions that evolve into vesicles, but can occur on any part of the body. The infection can also involve the actual burn wound/s, with vesicles appearing within or around the margins of the wounds, thus impairing wound healing. Atypical presentations, including disseminated vesicular rashes with no peri-oral lesions, are described.

Acyclovir is the treatment of choice, and prophylaxis has been recommended in patients with major thermal injuries, particularly those involving the face. Proper wound care and prevention of transmission are important components of management. Following the diagnosis in this outbreak, ward infection control procedures were reviewed, especially disinfection of the bath, desloughing and wound care areas.

Source: Division of Public Health Surveillance and Response, NICD-NHLS; Department of Paediatrics, Chris Hani Baragwanath Hospital; Electron Microscopy Laboratory, NICD-NHLS; (kerriganm@nicd.ac.za)

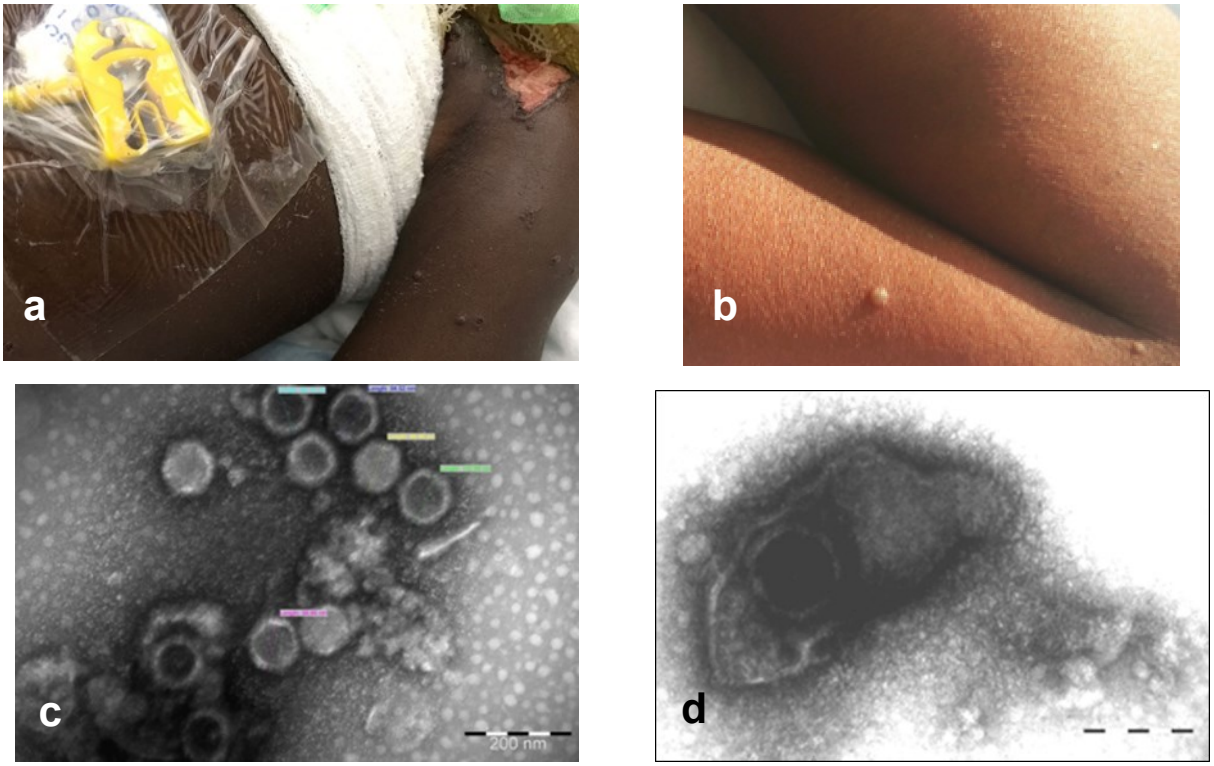

Figure 7. Vesicular lesions due to herpes simplex virus (HSV) type 1 in burns patient illustrating a) lesions in the margin of burn wounds and b) on the limbs of a patient. Electron microscopy of vesicular fluid revealed particles typical of HSV-1 in c), including the viral envelope in d)

5 ENTERIC DISEASES

a Foodborne disease outbreaks reported to the NICD, January—June 2017

Thirty-one food-borne illness (FBI) events were reported to the NICD during January to June 2017 as listed in Table 1, and illustrated in Figure 8. No FBIs were reported from North West, Limpopo or the Northern Cape provinces. Specimens were submitted for 18/23 events where details were reported, and pathogens isolated from only five of these. Notification, investigation and reporting of food-borne illness events can be strengthened. Material for investigation of FBI events is available on the NICD web page under the 'Resources' tab.

Source: Division of Public Health Surveillance and Response, and Centre for Enteric Diseases, NICD-NHLS; District and Provincial Communicable Disease Co-ordinators; (outbreak@nicd.ac.za)

Table 1. Food-borne outbreaks reported to the Outbreak Response Unit of the NICD, January-June 2017. Numbers correspond to Figure 8 on Page 10. NR=not reported;

No.	Month in 2017	Prov-ince	District	FBI setting	# persons affected	Were speci-men submit-ted?	Pathogens isolated
1	Jan	WCP	Cape Winelands	Hospital	NR	Yes	*Clostridium perfringens*
2	Feb	WCP	Eden	School	14	NR	NR
3	April	WCP	Cape Town Metro	NR	8	Yes	*Salmonella* species
4	Feb	EC	Amathole	NR	NR	Yes	No pathogens isolated
5	Feb	EC	Chris Hani	NR	NR	Yes	*Staphylococcus aureus*
6	Feb	EC	Chris Hani	NR	NR	Yes	No pathogens isolated
7	April	EC	OR Tambo	Home	NR	NR	NR
8	March	EC	Nelson Mandela Metro	Old-age home	60	Yes	NR
9	Feb	FS	Xhariep	Community	21	Yes	NR
10	April	FS	Thabo Mofutsanyana	Home	5	NR	NR
11	March	FS	Thabo Mofutsanyana	School	10	Yes	*Clostridium perfringens*
12	Feb	MPU	Nkangala	NR	NR	NR	NR
13	March	MPU	Ehlanzeni	School	25	No	NR
14	March	MPU	Ehlanzeni	Hospital	NR	Yes	NR
15	March	GP	Ekurhuleni	School	NR	NR	NR
16	March	GP	Ekurhuleni	NR	7	NR	NR
17	Feb	GP	City of Tshwane	School	7	NR	NR
18	Feb	GP	City of Tshwane	NR	6	NR	NR
19	Feb	KZN	Ugu	School	12	Yes	NR
20	March	KZN	Ilembe	School	43	Yes	No pathogens isolated
21	April	KZN	NR	Home	5	Yes	NR
22	May	KZN	Harry Gwala	Home	4	Yes	No pathogens isolated
23	April	KZN	Harry Gwala	Home	21	Yes	NR
24	Feb	KZN	Ethekwini	School	39	Yes	NR
25	Jan	KZN	uMkhanyakude	Community	39	No	NR
26	May	KZN	uMkhanyakude	School	15	No	NR
27	April	KZN	King Cetshwayo	Home	NR	Yes	NR
28	Jan	KZN	King Cetshwayo	Hotel	48	Yes	No pathogens isolated
29	Feb	KZN	King Cetshwayo	NR	11	No	NR
30	May	KZN	Uthukela	Home	3	No	NR
31	May	KZN	Uthukela	Community	36	Yes	*Salmonella* species

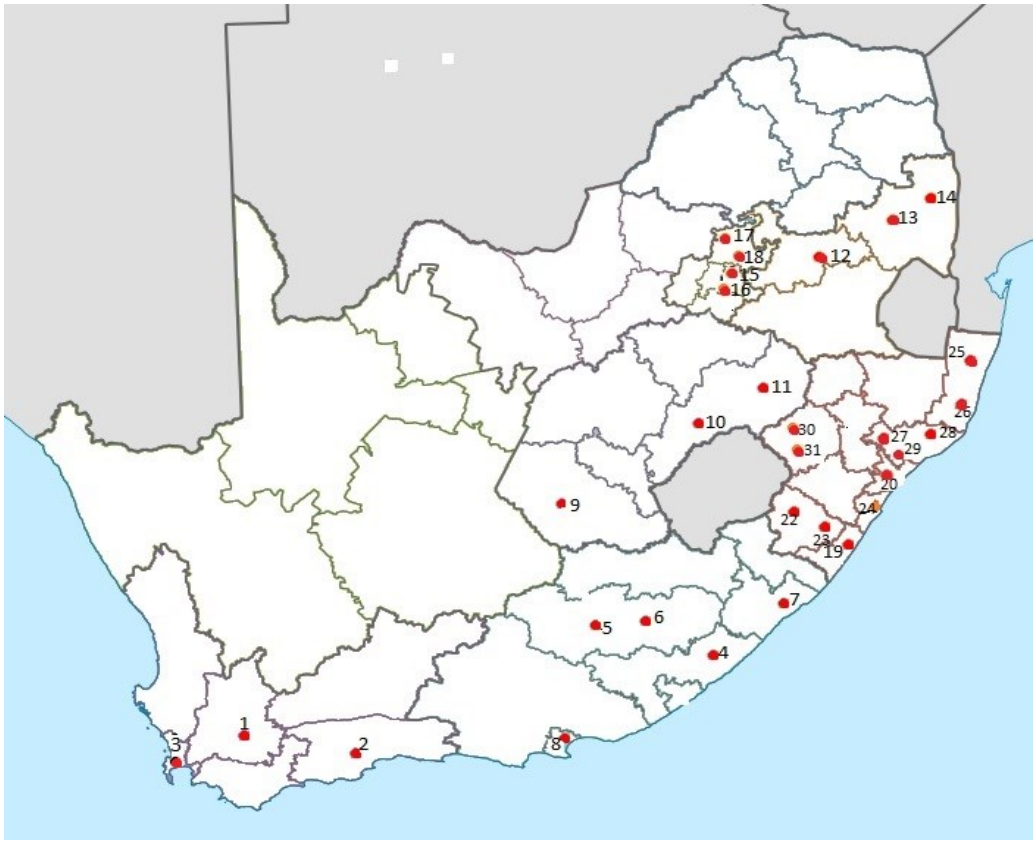

Figure 8. Map of South Africa showing provincial (thick) and district (thin) demarcations, indicating the approximate location of 31 food-borne illness events reported to the NICD from January to June 2017. Numbers correspond to Table 1 on page 9.

6 SURVEILLANCE FOR ANTIMICROBIAL RESISTANCE

a Carbapenemase-resistant Enterobacteriaceae—a monthly update

The Antimicrobial Resistance Laboratory and Culture Collection (AMRL-CC) of the Centre for Healthcare-associated infections, Antimicrobial Resistance and Mycoses (CHARM) at the NICD has been testing referred isolates of suspected carbapenemase-producing Enterobacteriaceae (CPE) for the presence of selected carbapenemases. CPE have become a threat to healthcare and patient safety worldwide by compromising empiric antibiotic therapeutic choices and increasing morbidity, hospital costs and the risk of death. We receive clinically-significant isolates from all specimen types based on antimicrobial susceptibility testing criteria for molecular confirmation. For July 2017, a total of 97 Enterobacteriaceae isolates was received. Eighty-five isolates were screened, 75 of which expressed the carbapenemases that were screened for. Two isolates expressed both NDM and OXA-48 and variants (Table 2). Majority of the screened isolates were *Klebsiella pneumoniae* (63) followed by *Enterobacter cloacae* (12).

It is important to note that these figures do not represent the current burden of CPEs in South Africa. However, our data reveal the presence of carbapenemases in Enterobacteriaceae isolates from various specimen types, nationally. As a first step, CPE surveillance is required to determine the extent of the problem in order to restrain the emergence and spread of resistance. The AMRL-CC is currently running a surveillance programme at national sentinel sites for CPE infections in patients with bacteraemia which provides representative data. This significant data will inform public health policy and highlight priorities for action. Controlling the spread and limiting the impact of CPEs in South Africa requires intensive efforts in both the public and private healthcare sectors going forward. NHLS and private laboratories are encouraged to submit suspected CPE isolates based on antimicrobial susceptibility testing (AST) criteria to AMRL-CC, NICD/NHLS. Please telephone (011) 555 0342/44 or email: olgap@nicd.ac.za; for queries or further information.

Source: Centre for Healthcare-associated infections, Antimicrobial Resistance and Mycoses, NICD-NHLS; (olgap@nicd.ac.za)

Table 2. Enterobacteriaceae by CPE enzyme type for January-June 2017 and July 2017 at the AMRL-CC, CHARM, NICD.

Organism	OXA-48 & Variants		NDM		VIM	
	Jan-June 2017	July 2017	Jan-June 2017	July 2017	Jan-June 2017	July 2017
Enterobacter cloacae	55	2	9	2	-	-
Klebsiella oxytoca	3	2	3	-	-	-
Klebsiella pneumoniae	372	52	104	10	7	1
Klebsiella species	6	1	1	2	-	-
Morganella morganii	1	-	3	1	-	-
Serratia marcescens	7	3	-	1	-	-
Providencia stuartii	-	-	-	-	-	-
Total	**444**	**60**	**120**	**16**	**7**	**1**

NDM: New Delhi Metallo-beta-lactamase; **OXA**: Oxacillinase; **VIM**: Verona Intergron-encoded Metallo-beta-lactamase

b NICD support for the SA Antibiotic Stewardship Programme (SAASP) position statement on the need to complete a course of antibiotics.

The NICD wishes to support the recent statement issued by the SA Antibiotic Stewardship Programme (SAASP) which was released in response to a recent article in the British Medical Journal by Llewelyn *et al.* The article re-ignited the debate on whether patients should stop antibiotics when they feel better rather than following instructions to finish the course. The primary importance of this question lies in whether stopping antibiotics early is safe, based on current evidence. SAASP cannot support this call at the current time.

Antibiotics are medicines that treat bacteria. Common bacterial infections include those affecting the lungs, the urinary tract and the skin. Bacteria can also cause infections in less common places such as the brain, the heart and the bones. The number of days that a bacterial infection needs treatment will depend on which part of the body is affected and the type of antibiotic that is being used.

Although many experts believe that stopping antibiotics when the patient feels better may be safe, the evidence for this is largely anecdotal. Current evidence tells us that some types of infections, such as those of the blood, brain, heart, skin and bones in humans and animals need long courses of antibiotics of weeks to months whether or not the patient feels better or the animal appears better, on treatment. A major change in advice in the absence of firm evidence is also likely to cause confusion for the public.

SAASP believes that higher-quality evidence is required before prescribing policy changes are implemented and advises members of the public to follow the advice and instruction of the healthcare professional prescribing antibiotics.

SAASP urges healthcare professionals to ensure that antibiotics are only prescribed to patients who have bacterial infections that require treatment. Members of the public are reminded that antibiotics have no action on viral infections such as the common cold and acute bronchitis, which are major causes of inappropriate antibiotic use that is driving increasing antibiotic resistance. For the full position statement, visit http://www.fidssa.co.za/SAASP/PositionStatement

Reference: Llewelyn et al. The antibiotic course has had its day. BMJ 2017;358;j3418. doi: https://doi.org/10.1136.bmj.j3418

Source: Centre for Healthcare-associated infections, Antimicrobial Resistance and Mycoses, NICD-NHLS; (neleshg@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 9 on page 12.

1. Cholera: Yemen
Over 500 000 persons have contracted cholera and over 2 000 people have died since the outbreak began to spread rapidly in war-torn Yemen at the end of April. Campaigns are underway to improve general hygiene measures with messages of how to prevent cholera. Humanitarian aid is ongoing.

2. Avian influenza A(H7N9) viruses
A total of 1 557 laboratory-confirmed cases of human infections with avian influenza A(H7N9) has been reported in China since 2013 with a total of 592 deaths from the virus (38% mortality). The Chinese government has assessed that it is still likely that sporadic cases will occur in the country, taking into consideration the previous epidemic situation and risk assessment.

3. Lassa Fever: Nigeria
Between weeks one and 30 (2017), 366 suspected Lassa fever cases with 88 laboratory-confirmed cases and 56 deaths (CFR, 15.30 percent) from 68 local government authorities in 22 states were reported compared to 760 suspected cases with 74 laboratory-confirmed cases and 87 deaths (CFR, 11.45 percent) from 128 LGAs (27 States) during the same period in 2016. Investigations and active case search is ongoing in affected states.

4. MERS-CoV: Saudi Arabia
In the week of the 12th to the 18th of August 2017, the Saudi Arabia MOH reported 4 new confirmed cases, 1 newly reported fatality and 2 new reported recoveries. As of 18 August 2017, there has been a total of 1 701 laboratory-confirmed cases of MERS-CoV infection, including 687 deaths [CFR 40.4 %], 991 recoveries, and 23 currently active cases, since 2012.

5. Dengue fever: India, China, south east Asia and the Pacific
Dengue fever outbreaks have been increasingly reported across India, China, south east Asia, including Sri Lanka, Taiwan, Pakistan, Indonesia, Viet Nam, Philippines, Laos, Japan and the Pacific (Samoa, Fiji, French Polynesia). Travellers to these areas are advised to take precautions against mosquito bites. Refer to www.promedmail.org, Dengue update 10, 27 August 2017.

6. Dengue fever: Cote D'Ivore
As of 8 August, 623 cases and 2 deaths (192 laboratory-confirmed cases using PCR, 66% DENV-2, 29% DENV-3, and 5 % DENV-1) have been reported. All cases are from Abidjan, with the majority arising from the Cocody Bingerville suburban area.

7. Cholera: Malawi
Cholera was reported in 9 people in the Chikwawa district [Southern region] of Malawi on 21 August 2017.

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

Figure 9. 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

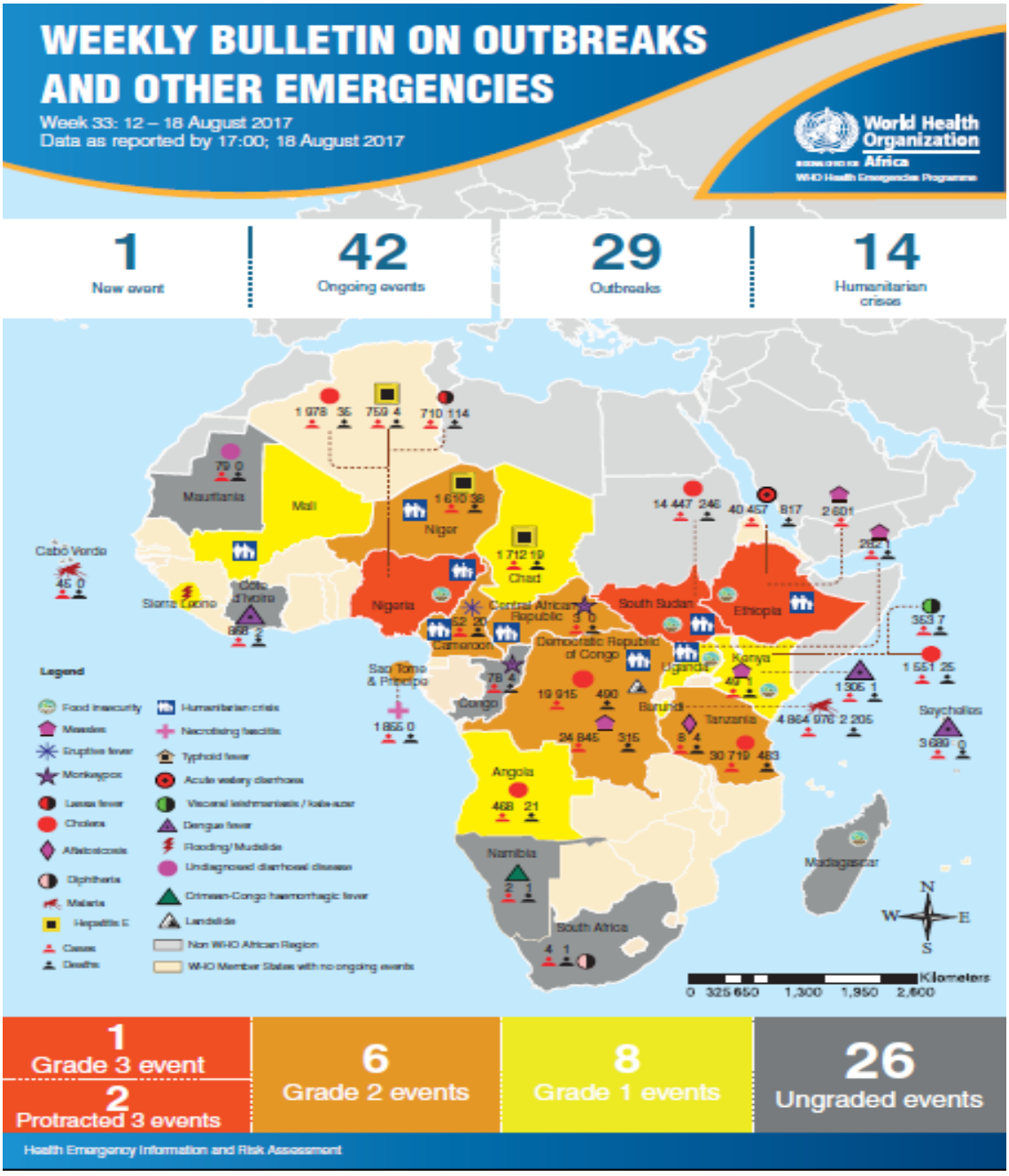

Figure 10. The Weekly WHO Outbreak and Emergencies Bulletin focuses on selected public health emergencies occurring in the WHO African region. The African Region WHO Health Emergencies Programme is currently monitoring 43 events of which 29 are outbreaks and 14 humanitarian crises. For more info see link http://apps.who.int/iris/bitstream/10665/258742/1/OEW33-121382017.pdf