



INTERIM SITUATION REPORT, 28 July 2023

(Based on laboratory testing data up until 20 July 2023)

Issued by the National Institute for Communicable Diseases based on laboratory testing data

Highlights

- The NICD has tested 6541 serum samples for measles since epidemiological week 40, 2022, of which 1115 (17%) were confirmed positive. In the past weeks (week 28 up until week 29, 22/07/2023) only one laboratory-confirmed measles case was detected across the country from the Western Cape province.
- The percentage of samples testing positive (PTP) increased from 0% (0/19) of samples tested in week 28 to 8% (1/12.) of samples tested in week 29.
- Three cases from the database were moved from Gauteng province to Kwazulu-Natal province. The cases were initially allocated to Gauteng since they were tested in a private lab located in Gauteng. However, the cases were from KwaZulu-Natal.
- The outbreak is effectively over, however, sporadic cases are still reported in most provinces across South Africa. Limpopo province is currently completing a mop-up vaccination campaign.
- To declare the measles outbreak over, the following criteria should be achieved: Absence of newly detected measles cases for more than two incubation periods (42 days). The criteria for declaring the measles outbreak over was met in the Northern Cape province in week 15, the North West province in week 24, and the Free State province in week 25. Sporadic cases are still seen in Gauteng, Mpumalanga, KwaZulu-Natal, and the Western Cape.

Outbreak overview

From epidemiological week 40 2022 to week 29 2022, the NICD tested 6541 serum samples for measles of which 1115 (17%) were confirmed measles cases. The number of samples submitted and the percentage of laboratory-confirmed measles-positive cases are shown in Figure 1. From epidemiological week 40 of 2022 to week 29 of 2023, 1107 laboratory-confirmed cases were reported from eight provinces with declared measles outbreaks; Limpopo (512 cases), Mpumalanga (112 cases), North West (217 cases), Gauteng (182 cases), Free State (32 cases), Western Cape (18), KwaZulu-Natal (32) and Northern Cape (7) (Table 1). The number of blood samples and throat swabs submitted to the NICD for measles serology and PCR were 12 tests in week 29.

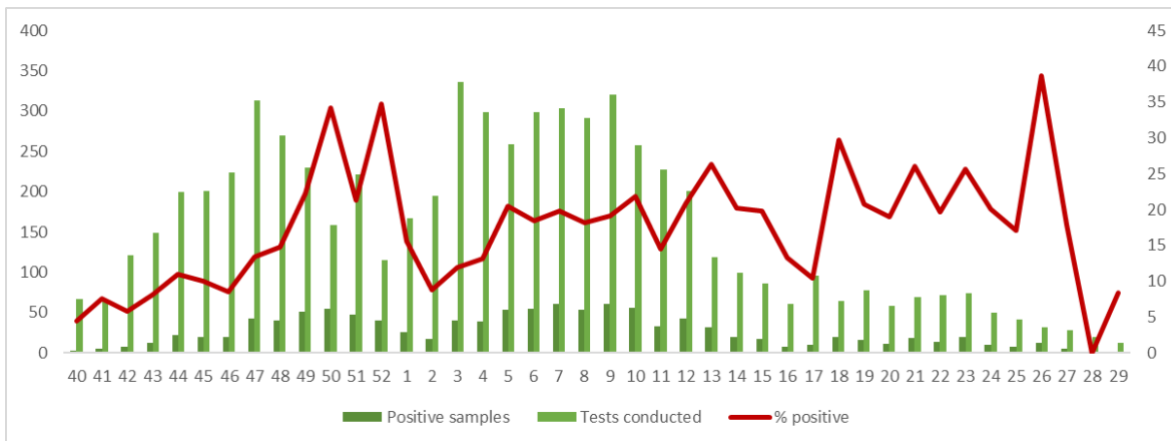


Figure 1. Number of serum samples submitted to the NICD for measles, week 40 2022, until week 29, 2023, and the number (dark green) and % tested positive (red line), by epidemiological week using the date the specimen was collected. *Data from week 29 represent partial data and will be updated in next week's situation report when complete data from samples collected that week becomes available.

Table 1. Cases of laboratory-confirmed measles tested by the NICD from all provinces in South Africa from epidemiological week 40, 2022 to week 29, 2023. Outbreak-associated cases are contained within the red bordered cells* (FS=Free State; GP=Gauteng; KZN=KwaZulu-Natal; LP=Limpopo; MP=Mpumalanga NW=North West; NC=Northern Cape, WC = Western Cape). * A measles outbreak is classified as three or more confirmed laboratory measles cases reported within 30 days of onset of disease, in a district. *Data from week 29 represents partial data and will be updated in next week's situation report when complete data from samples collected that week becomes available.

Epi Week	EC	FS	GP	KZN	LP	MP	NW	NC	WC	Total
40, 2022			1		2					3
41, 2022					5					5
42, 2022			1		4		1		1	7
43, 2022	1				11					12
44, 2022				1	19	2				22
45, 2022		1	1		12	3	1	1	1	20
46, 2022			1	1	9	8				19
47, 2022		1	2		18	15	4	1	1	42
48, 2022			1		18	17	4			40
49, 2022		3	2	2	10	14	18	1	1	51
50, 2022			3		16	6	30			55
51, 2022		3	3	1	7	5	28			47
52, 2022		2	1		7	5	24	1		40
01, 2023		3	1		7	1	13		1	26
02, 2023		1	2		3	4	7			17
03, 2023	1	4	9		9	5	11		1	40
04, 2023	1	2	10	2	9	5	9		1	39
05, 2023		2	12	2	20	2	14		1	53
06, 2023	1	1	17	3	19	3	10		1	55
07, 2023			19	3	26	2	9	1	1	61
08, 2023	2	1	14	1	20	5	8	2		53
09, 2023		3	19	1	26	4	8		1	62
10, 2023		1	17		27		11			56
11, 2023		1	9	1	22					33
12, 2023			7		29	1	4		1	42
13, 2023			6	1	22		2			31
14, 2023			2	1	17					20
15, 2023			3		11	1			2	17
16, 2023			3		5					8
17, 2023					10					10
18, 2023		1	4		13		1			19
19, 2023		2	2		12					16
20, 2023			1		9				1	11
21, 2023			2	1	14	1				18
22, 2023			2		12					14
23, 2023	2		3		13	1				19
24, 2023			2		7	1				10
25, 2023			1		5				1	7
26, 2023			4	1	5	1			1	12
27, 2023				2	2					5
28, 2023										1
29, 2023			1							0
Total	8	32	182	27	512	112	217	7	18	1115

Overview of the measles outbreak in South Africa

A total of 1107 cases of laboratory-confirmed measles were reported between epidemiological week 40, 2022 to week 29 in South Africa. From Epi week 26 most reported cases were primarily from Limpopo and Gauteng provinces. Between weeks 28 and 29, South Africa recorded the lowest number (1) of measles cases since the beginning of the outbreak in Epi week 40 of 2022 (Fig.2). No cases were reported in week 29 in South Africa.

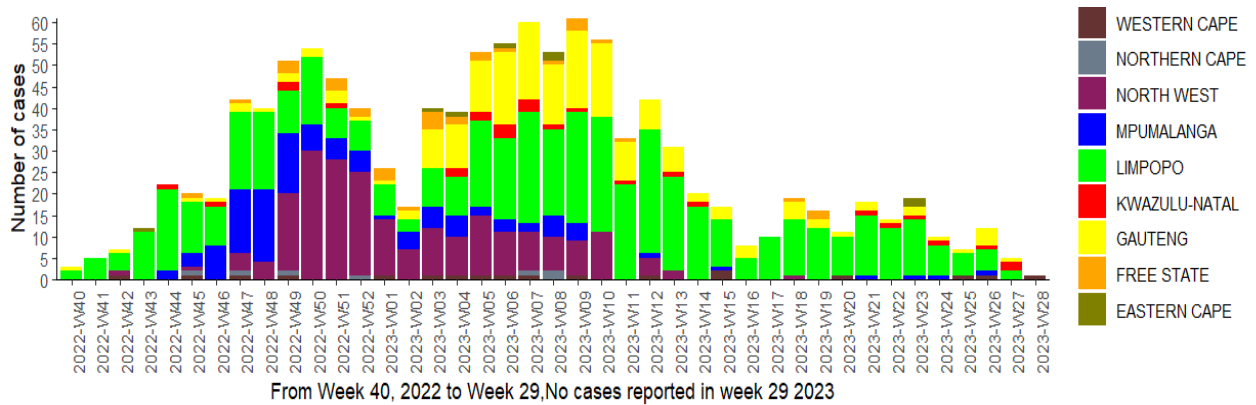


Figure 2. The epidemiological curve of the number of laboratory-confirmed measles cases by Provinces in South Africa, from epidemiological week 40, 2022 to week 29, 2023 by specimen collection dates.

Overview of the measles outbreak in the Limpopo Province

In total, 512 cases of laboratory-confirmed measles were reported between epidemiological week 40, 2022 to week 29, 2023 with the majority of the measles cases reported in the Waterberg, Greater Sekhukhune, and Mopani districts. Figure 3 shows an epidemiological curve from week 40, 2022 to week 29 of 2023 in Limpopo province. Waterberg district reported the highest (224) number of measles cases, Mopani district reported 99 cases, Greater Sekhukhune district reported 142 cases, Vhembe district reported 35 cases and Capricorn district reported 12 cases. No cases were reported in Limpopo province since week 28.

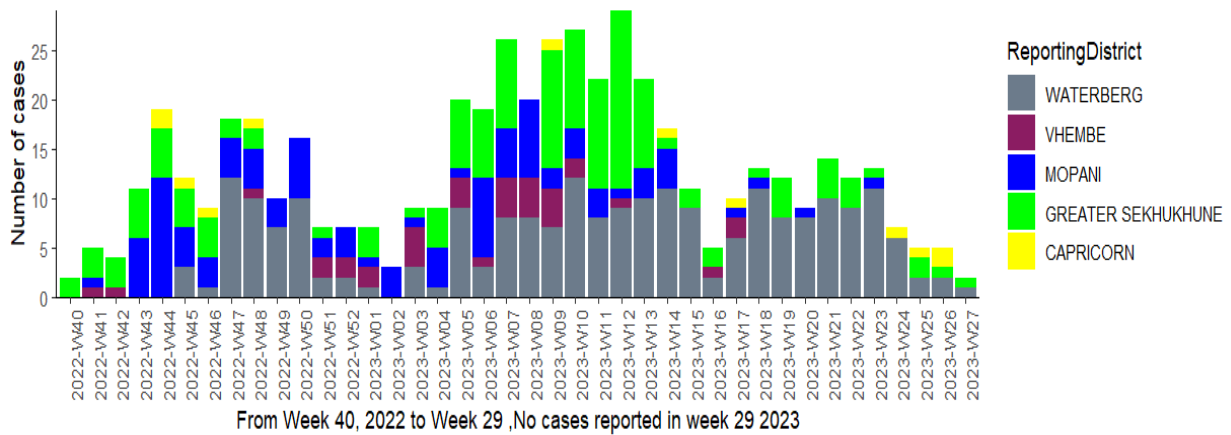


Figure 3. The epidemiological curve of the number of laboratory-confirmed measles cases by districts of Limpopo Province from epidemiological week 40, 2022 to week 29, 2023 by specimen collection dates.

Overview of the measles outbreak in Gauteng

A total of 27 laboratory-confirmed measles cases have been reported from epidemiological week 40, 2022 to week 29, 2023 in KwaZulu-Natal province displayed in Figure 4. The majority of cases, 110, have been reported from the City of Ekurhuleni, 44 from the City of Tshwane, 17 cases from the City of Johannesburg, and 11 cases from West Rand. The last measles case in the West Rand district was reported in week 18. In week 27, three (3) cases were reported in Gauteng, one from the City of Tshwane and two from the City of Johannesburg metro. No cases reported in the province since week 28.

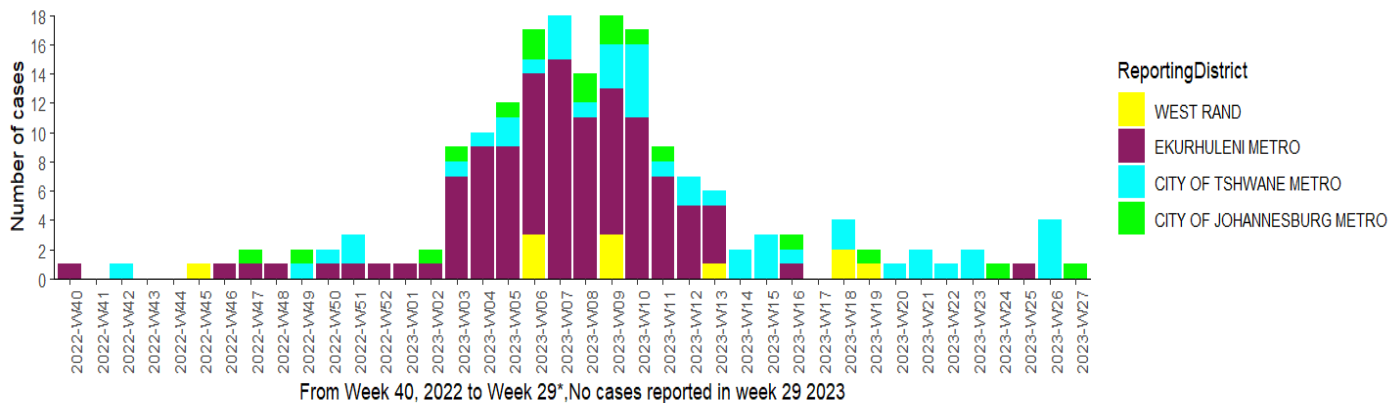


Figure 4. The epidemiological curve of the number of laboratory-confirmed measles cases in districts of Gauteng Province from epidemiological week 40, 2022 to week 29, 2023 by specimen collection dates.

Overview of the measles outbreak in KwaZulu-Natal

A total of 27 laboratory-confirmed measles cases have been reported from epidemiological week 40, 2022 to week 29, 2023 in KwaZulu-Natal province (Figure 5). The most of cases, 13, have been reported from Ethekewini Metro. Ugu and Umgungundlovu reported three cases each, similarly, King Cetshwayo and Uthukela reported two cases each. Most of the sub-districts reported one case each since the outbreak (Umkhanyakude, Umzinyathi, Zululand and Amajuba). Since Epi week 22, the KwaZulu-Natal province has been reporting cases in the Ethekewini Metro. No cases have been reported for weeks 28 and 29.

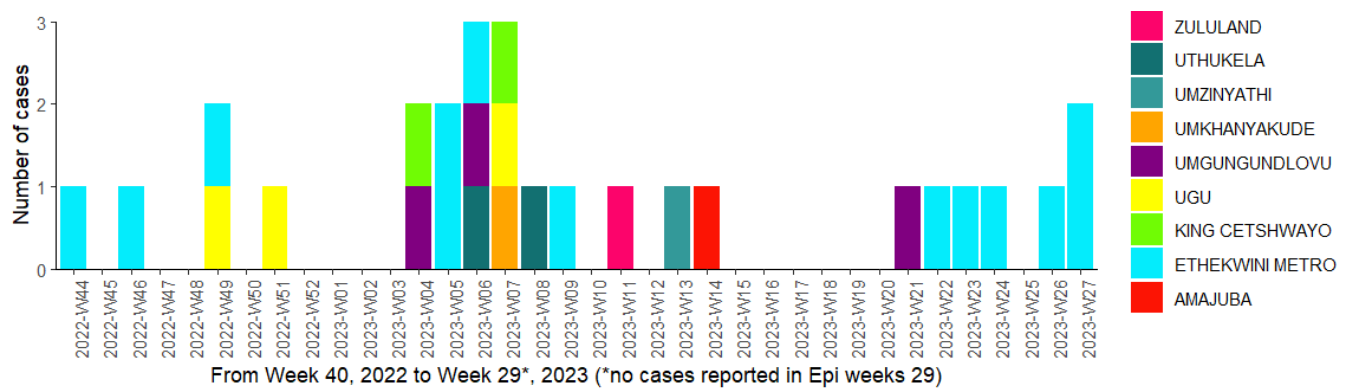


Figure 5. The epidemiological curve of the number of laboratory-confirmed measles cases by districts of Limpopo Province from epidemiological week 40, 2022 to week 29, 2023 by specimen collection dates.

Conclusion

The number of measles cases has significantly declined in the past two weeks. Strengthening surveillance for measles cases is recommended so as not to miss sporadic cases in the areas where measles cases are not reported after the measles vaccination campaign. Prevention and control of measles outbreaks can only be achieved through vaccination. The national measles vaccination coverage remains low in the population at risk. The NICD continues to report on a large number of cases with unknown vaccination status. We urge the district and province to complete the vaccine status on the investigation forms for completeness of data. Clinicians across the country are urged to be on the lookout for measles cases. For more information about measles, case definition, notification, investigation, and guidelines for measles management including vaccination, please refer to our website: <https://www.nicd.ac.za/diseases-a-z-index/measles/>. Healthcare workers are encouraged to submit reports on any adverse events following immunization (AEFI) through the Med Safety application (<https://medsafety.sahpra.org.za/>) or through submitting a case reporting form to their district surveillance office.