



INTERIM SITUATION REPORT, 14 July 2023

(Based on laboratory testing data up until 04 July 2023)

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

Highlights

- The NICD has tested 6490 serum samples for measles since epidemiological week 40, 2022, of which 1110 (17%) were confirmed positive. In the past weeks (week 26 up until week 27, 08/07/2023) there have been 10 laboratory-confirmed measles cases detected across the country, of which 5 cases are from Limpopo and 4 from Gauteng and 1 from KwaZulu-Natal.
- The percentage of samples testing positive (PTP) decreased from 31% (12/31) of samples tested in week 26 to 12.5 % (1/8) of samples tested in week 27.
- In week 26 (week ending 01/07/2023), Limpopo province reported a total of five new measles cases and Gauteng reported four cases, while a sporadic case was reported in the Western Cape.
- In week 26, of the five cases in Limpopo province, Waterberg recorded two (2) cases, Greater Sekhukhune one (1) and two (2) from Capricorn district. No cases from Limpopo were recorded in week 27.
- All the cases in Gauteng were detected in the City of Tshwane.
- 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 27 2022, the NICD tested 6490 serum samples for measles of which 1110 (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 27 of 2023, 1102 laboratory-confirmed cases were reported from eight provinces with declared measles outbreaks; Limpopo (510 cases), Mpumalanga (112 cases), North West (217 cases), Gauteng (184 cases), Free State (32 cases), Western Cape (17), KwaZulu-Natal (23) and Northern Cape (7) (Table 1). The number of blood samples and throat swabs submitted to the NICD for measles serology and PCR testing decreased from 31 in week 26 to 8 tests in week 27.

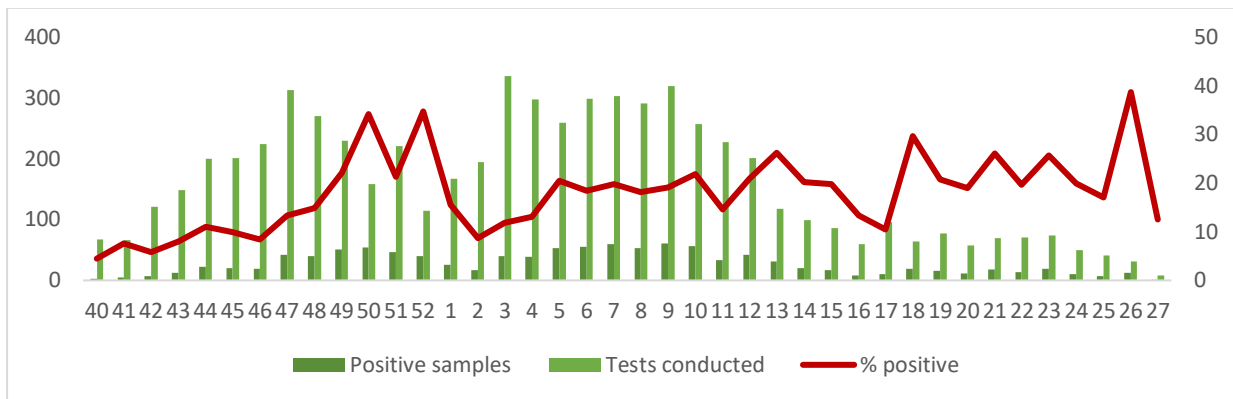


Figure 1. Number of serum samples submitted to the NICD for measles, week 40 2022, until week 27, 2023, and the number (dark green) and % tested positive (red line), by epidemiological week using the date the specimen was collected. *Data from week 27 represent partial data and will be updated in next 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 27, 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 27 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	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		5				1	12
27, 2023				1						1
Total	8	32	184	23	510	112	217	7	17	1110

Overview of the measles outbreak in the Limpopo Province

In total, 510 cases of laboratory-confirmed measles were reported between epidemiological week 40, 2022 to week 27, 2023 with the majority of the measles cases reported in the Waterberg, Greater Sekhukhune, and Mopani districts. Figure 2, shows an epidemiological curve from week 40, 2022 to week 27 of 2023 in Limpopo province. Waterberg district reported the highest (219) number of measles cases, Mopani district reported 99 cases, Greater Sekhukhune district reported 142 cases, Vhembe district reported 35 cases and Capricorn district reported 11 cases. In week 26 Limpopo province reported a total of 5 cases, Waterberg (2) Greater Sekhukhune (2) and one (1) case from Capricorn district. The last laboratory-confirmed measles case in Vhembe district was reported in week 17. No cases were reported in week 27. The age of measles cases across Limpopo ranged from 4 months to 45 years.

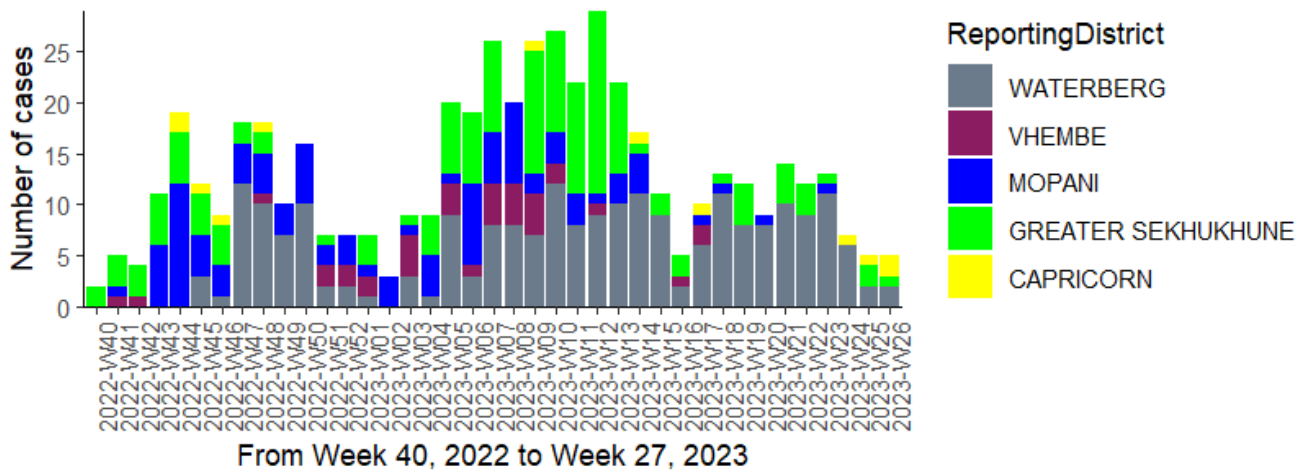


Figure 2. The epidemiological curve of the number of laboratory-confirmed measles cases by districts of Limpopo Province from epidemiological week 40, 2022 to week 27, 2023 by specimen collection dates.

The incidence rate of laboratory-confirmed measles cases by age group in Limpopo province

Measles transmission continues in the Limpopo province. Most of the cases were reported in the Waterberg district in the previous weeks (up to week 24), in weeks 25 and 26 a total of six cases were reported in Limpopo from three districts which reported two cases each (Waterberg, Greater Sekhukhune and Capricorn). For weeks 25 and 26 the age groups 1-4 years have the highest incidence rates of infection (Figure 3).

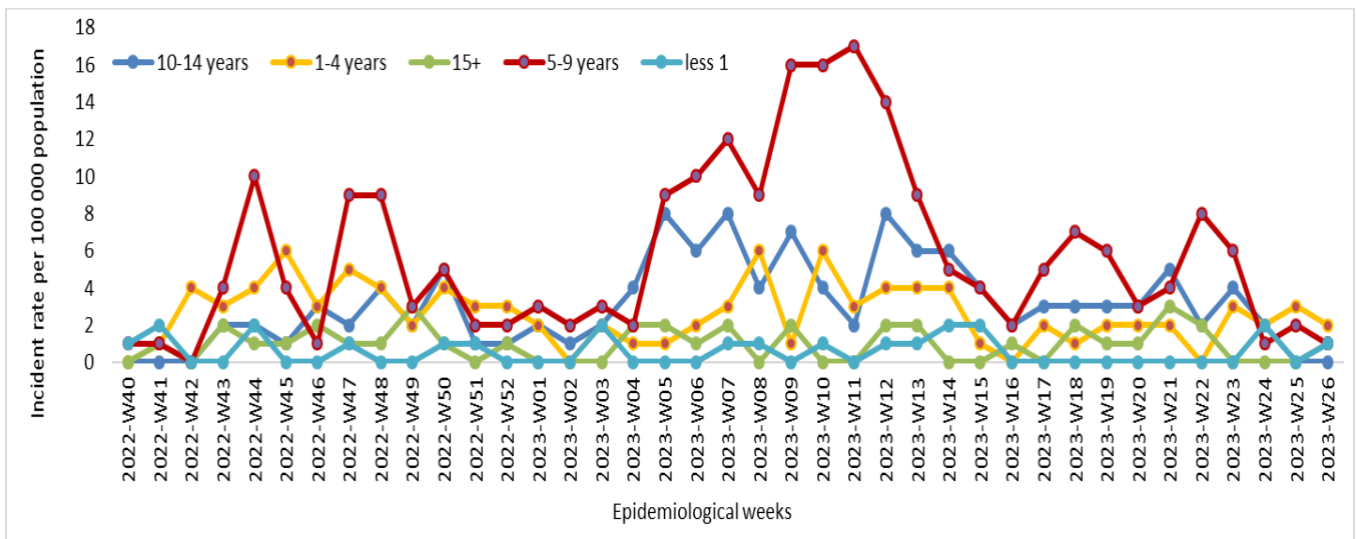


Figure 3: Incidence rate of laboratory-confirmed measles cases by age group in Limpopo Province from epidemiological week 40, 2022 to week 27, 2023 by specimen collection dates.

Gauteng

A total of 184 laboratory-confirmed measles cases have been reported from epidemiological week 40, 2022 to week 26, 2023 in Gauteng Province displayed in Figure 4. The majority of cases, 110, have been reported from the City of Ekurhuleni, 42 from the City of Tshwane, 21 cases from the City of Johannesburg, and 11 cases from West Rand, While the last measles case in West Rand district was reported in week 18. In week 26, four (4) cases from the City of Tshwane have been reported from Gauteng. No measles cases have been reported from the Sedibeng district since the outbreak no cases were reported in week 27.

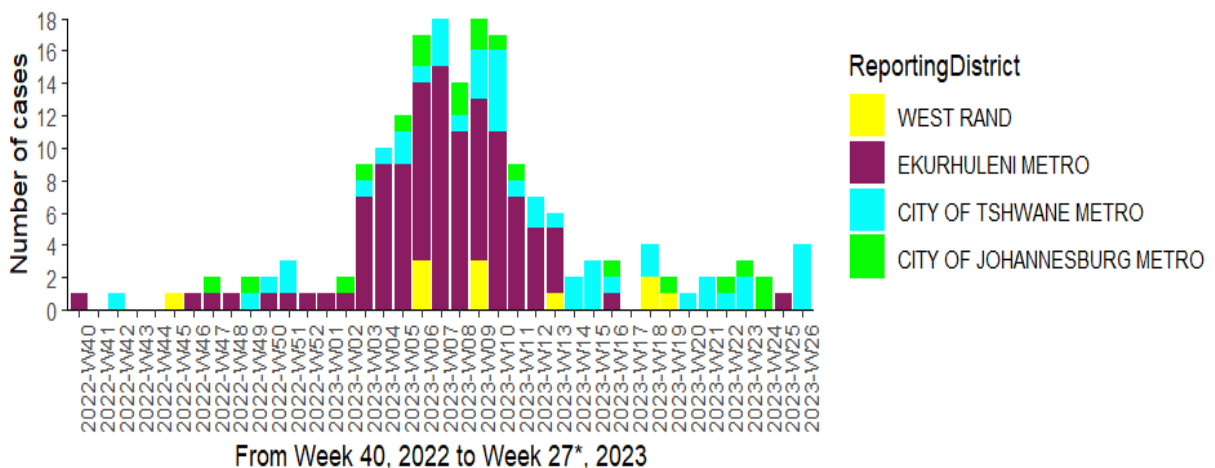


Figure 4. The epidemiological curve of the number of laboratory-confirmed measles cases in districts of Gauteng Province from epidemiological week 40, 2022 to week 27, 2023 by specimen collection dates.

Conclusion

Measles cases are still reported in Limpopo, KwaZulu Natal, Gauteng, Mpumalanga and Western Cape provinces. 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 adverse events following immunization (AEFI) through the Med Safety application (<https://medsafety.sahpra.org.za/>) or submit a case reporting form to their district surveillance office.