



## **INTERIM SITUATION REPORT, 30 June 2023**

**(Based on laboratory testing data up until 21 June 2023)**

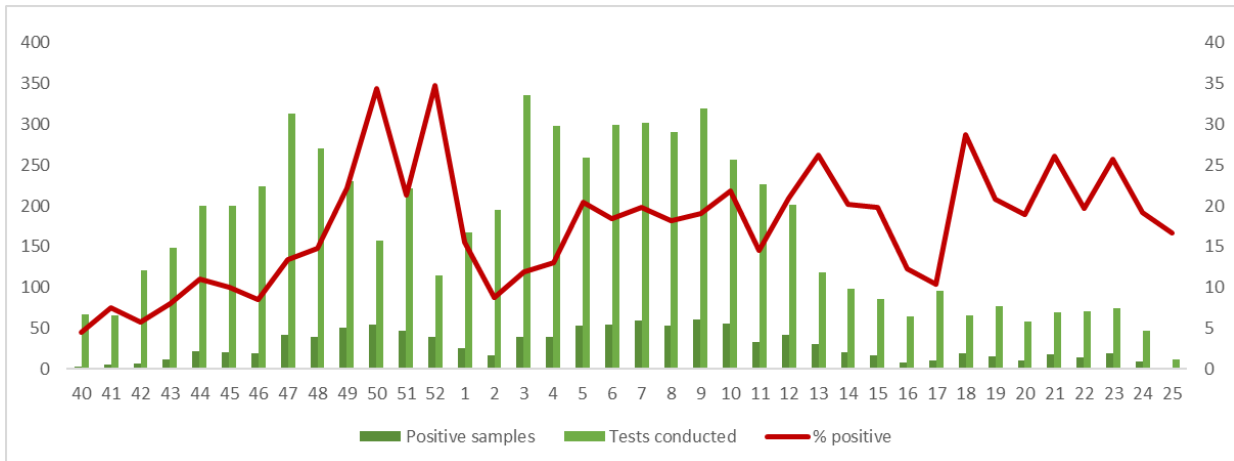
Issued by the National Institute for Communicable Diseases based on laboratory testing data

### **Highlights**

- The NICD has tested 6422 serum samples for measles since epidemiological week 40, 2022, of which 1091 (17%) were confirmed positive. In the past weeks (week 24 up until week 25, 26/06/2023) there have been 11 laboratory-confirmed measles cases detected across the country, of which the majority were from Limpopo (9).
- The percentage of samples testing positive (PTP) decreased from 19% (9/47) of samples tested in week 24 to 17% (2/12) of samples tested in week 25.
- In week 24 (week ending 19/06/2023), Limpopo province reported a total of 7 new measles cases, while sporadic cases were reported in KwaZulu-Natal (1) and Mpumalanga (1).
- Measles-confirmed cases have not been detected for more than two incubation periods (42 days) in the Northern Cape and North West provinces. This means the outbreak may be declared over in these provinces. The outbreak in the Free State and the Western Cape provinces is likely to meet these criteria within the next week or two. Unfortunately, the outbreak cannot however be declared over in Gauteng, Limpopo and Mpumalanga because of ongoing sporadic cases.
- In Limpopo province, eight cases were reported in the Waterberg District in weeks 24 and 25, and one in Sekukhune District. Most 50% (4/8) of the cases were children aged 1-4 years.
- The vaccination campaign in Limpopo province targeting the 5-15 years age group has come to an end with overall vaccination coverage of 56%. To achieve a higher coverage rate, the NICD is informed that a mop-up campaign will be conducted from 24 July 2023 to 31 August 2023.
- For Limpopo province, At the district level, the reproduction number as of 2023-06-14 was estimated to be 1.1 (0.69 – 1.4) in Waterberg, suggesting that infection incidence may be increasing, and 1 (0.6 – 1.6) in Greater Sekukhune, suggesting that infection incidence is stable; however, the small number of cases overall leads to substantial uncertainty in these estimates. Greater Sekukhune has reported only one case since the last report.

### **Outbreak overview**

From epidemiological week 40 2022 to week 25 2023, the NICD has tested 6422 serum samples for measles of which 1091 (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 25 of 2023, 1083 laboratory-confirmed cases were reported from eight provinces with declared measles outbreaks; Limpopo (502 cases), Mpumalanga (111 cases), North West (217 cases), Gauteng (178 cases), Free State (32 cases), Western Cape (15), KwaZulu-Natal (21) 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 47 in week 24 to 12 tests in 25

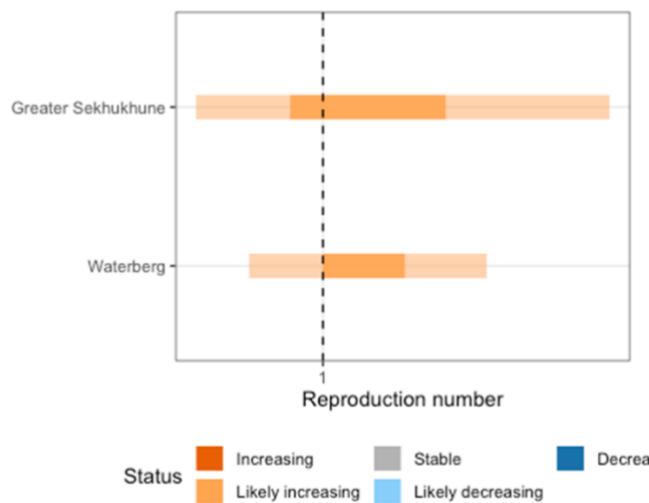


**Figure 1.** Number of serum samples submitted to the NICD for measles, week 40 2022, until week 25, 2023, and the number (dark green) and % tested positive (red line), by epidemiological week using the date the specimen was collected. \*Data from week 25 represent partial data and will be updated in next week’s situation report when complete data from samples collected that week becomes available.

### Reproduction Number



The figure below shows the latest reproduction number estimates, for districts with a minimum of 40 detected cases since week 40 of 2022 and at least 7 days with cases in the past 60 days. For Limpopo province, At the district level, the reproduction number as of 2023-06-06 was estimated to be 1.1 (0.69 – 1.4) in Waterberg and 1.1 (0.6 – 1.6) in Greater Sekhukhune. The small number of cases (Sekukhune=1, Waterberg = 8) overall leads to substantial uncertainty in these estimates. The weekly report on nowcasts and forecasts for measles in South Africa is available at <https://www.sacema.org/sacema-nicd-measles-forecast/>



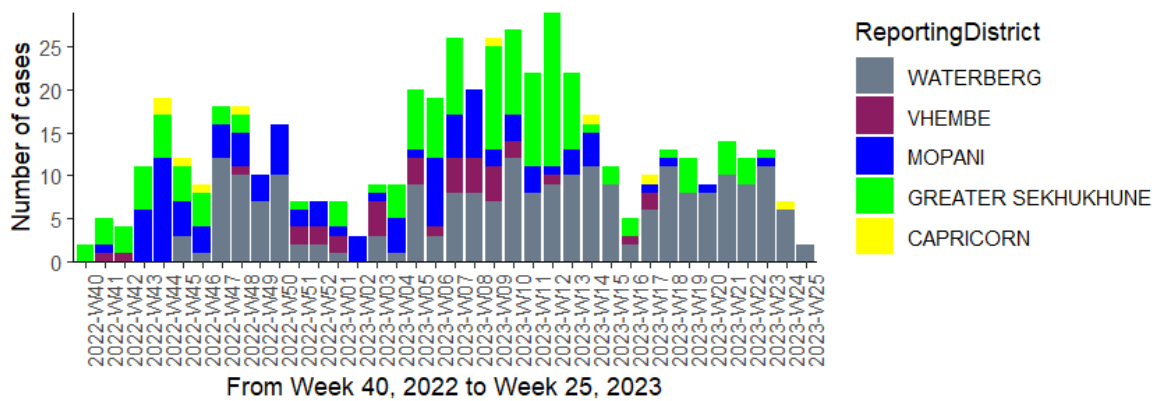
**Figure 2.** Limpopo district time-varying reproductive estimate from week 40, 2022 to 2023-06-06

**Table 1.** Cases of laboratory-confirmed measles tested by the NICD from all provinces in South Africa from epidemiological week 40, 2022 to week 25, 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 25 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	18	1				18
22, 2023			2		14					14
23, 2023	2		3		13	1				19
24, 2023			1		7	1				9
25, 2023					2					2
<b>Total</b>	<b>8</b>	<b>32</b>	<b>178</b>	<b>21</b>	<b>502</b>	<b>111</b>	<b>217</b>	<b>7</b>	<b>15</b>	<b>1091</b>

### An Overview of the Outbreak in the Limpopo Province

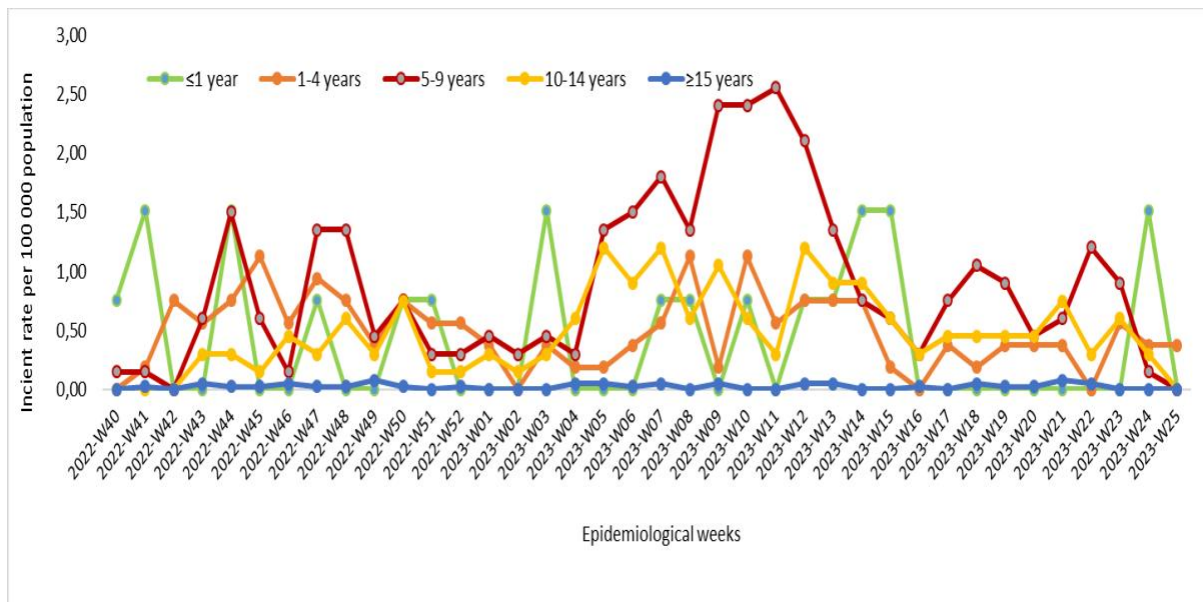
In total, 502 cases of laboratory-confirmed measles were reported between epidemiological week 40, 2022 to week 25, 2023 with the majority of the measles cases reported in the Waterberg, Greater Sekhukhune, and Mopani districts. Figure 3, shows an epidemiological curve from week 40, 2022 to week 25 of 2023 in Limpopo province. Waterberg district reported the highest (219) number of measles cases, Mopani district reported 99 cases, Greater Sekhukhune district reported 140 cases, Vhembe district reported 35 cases and Capricorn district reported nine cases. Dilokong Hospital reported 57 and Mahubahube clinic reported 35 cases in Greater Sekhukhune. In the Waterberg district, 62 cases have been reported from Witpoort Hospital and 40 cases in Shongoane PHC Clinic, both situated in the Lephalale municipality. The age of measles cases across Limpopo ranged from 4 months to 45 years.



**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 25, 2023 by specimen collection dates.

### Incidence rate of laboratory-confirmed measles cases by age group in Limpopo province

Measles transmission continues in the Limpopo province, primarily in the Waterberg district. Up to week 23, the 5-9-years age group were the most affected. Contrarily, since week 24, Most cases reported in Waterberg were among children aged 1-4 years. Waterberg district contributed 73% (8/11) of cases reported nationally in weeks 24 and 25. Most of the cases 50% (4/8) were among children aged 1-4 years, the less than a year old reported two cases, while the 5-9 and 10-14 years old reported one case respectively. The incidence of measles by age group in Limpopo province is shown in Figure 4. For the weeks 24 and 25, the age groups 1-4 years and less than 1 years old have the highest incidence rates of infection.



**Figure 4:** Incidence rate of laboratory-confirmed measles cases by age group in Limpopo Province from epidemiological week 40, 2022 to week 25, 2023 by specimen collection dates.

### Summary of Phase 2 (5-15 years) Measles vaccination campaign outbreak in the Limpopo Province

The overall vaccination coverage for the province for the 5-15 years age group is 56%, Mopani district has the highest (64.3%) coverage compared to the other district while Waterberg's vaccination coverage is the least at 50.4% Table (2&3). Lephalale municipality is the sub-district with the lowest coverage 30.6% in the Waterberg district. The vaccination campaign has come to an end. A mop-up campaign will be conducted from 24 July 2023 to 31 August 2023

**Table 2.** Measles vaccination campaign district weekly performance, Limpopo Province: 27 June 2023

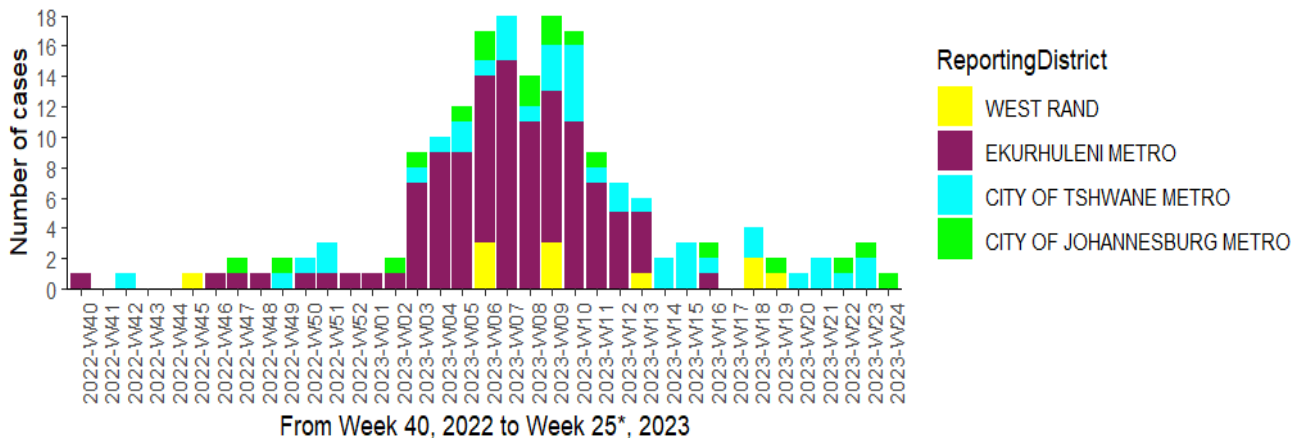
District	5 to 15 years target population	70% performance target	Weekly Targeted performance	Doses Admin. for reporting week (11-18/6/23)	Cumul. doses admin. @ 27 Jun 2023	Cumul. Campaign coverage @ 27Jun 2023
Capricorn	329 836	230 885	38 481	5 370	169 758	51.5
Mopani	301 681	211 177	35 196	6 963	193 863	64.3
Sekhukhune	321 767	225 237	37 539	9 359	183 001	56.9
Vhembe	361 313	252 919	42 153	13 747	199 311	55.2
Waterberg	166 620	116 634	19 439	3 838	83 984	50.4
<b>Province</b>	<b>1 481 217</b>	<b>1 036 852</b>	<b>172 809</b>	<b>39 277</b>	<b>829 917</b>	<b>56.0</b>

**Table 3:** Measles vaccination campaign district **Waterberg** weekly performance, Limpopo Province: 27 June 2023

Waterberg sub-District	5 to 15 years target population	70% performance target	Weekly Targeted performance	Doses Admin. for reporting week (11-18/6/23)	Cumul. doses admin. @ 27 Jun 2023	Cumul. Campaign coverage @ 27Jun 2023
Bela-Bela	16 240	11 368	1 896	10	8 765	54.0
Lephalale	26 599	18 619	3 103	356	8 133	30.6
Mogalakwena	81 011	56 708	9 451	2 544	46 003	56.8
Mookgophong/Mo dimolle	27 720	19 404	3 234	272	14 717	53.1
Thabazimbi	15 050	10 535	1 756	656	6 366	42.3
<b>District</b>	<b>166 620</b>	<b>116 634</b>	<b>19 439</b>	<b>3 838</b>	83 984	50.4

### Gauteng

A total of 178 laboratory-confirmed measles cases have been reported from epidemiological week 40, 2022 to week 25, 2023 in Gauteng Province displayed in Figure 5. The majority of cases, 109, have been reported from the City of Ekurhuleni, 40 from the City of Tshwane, 18 cases from the City of Johannesburg, and 11 cases from West Rand. Gauteng province has been reporting less than 2 cases since week 19, The last measles case was reported in week 24.



**Figure 5.** The epidemiological curve of the number of laboratory-confirmed measles cases in districts of Gauteng Province from epidemiological week 40, 2022 to week 25, 2023 by specimen collection dates.

### Conclusion

Waterberg district in Limpopo province continues to contribute a significant number of cases. Strengthening surveillance for measles cases is recommended 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 the 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