

South African Measles and Rubella Monthly Surveillance Situational Report

Measles-Rubella Rash Surveillance Data Up to 31 July 2024

1. Summary

Measles-rubella rash surveillance continues to report an increase in clinical cases of suspected measles and rubella cases to the National Institute for Communicable Diseases for laboratory confirmation. Clinical cases reported were mostly in areas where rubella circulation started increasing in December 2023 and January 2024.

A total of 158 laboratory-confirmed measles cases and 1754 rubella cases were reported in South Africa from epidemiological week 1 to week 30 of 2024. Measles transmission continues in Sedibeng District with measles cases increasing to 34. Twenty-three measles cases were reported in July 2024 from five provinces, Eastern Cape had two cases, Gauteng province had 15 cases, KwaZulu-Natal province had one case, Mpumalanga province had one case and Western Cape province had four cases.

Rubella virus infections increased in the Gauteng province in West Rand, City of Johannesburg and Ekurhuleni districts and continued to circulate in Eastern Cape, Northern Cape and Western Cape provinces.

2. Measles Surveillance

A total of 158 laboratory-confirmed measles cases were reported between epidemiological week 1 to week 30 of 2024 in South Africa (Figure 1). From epidemiological week 1 to week 30, the largest number of laboratory-confirmed measles cases were reported in Gauteng and Eastern Cape provinces, at 81 and 26, respectively (Table 1).

Thirty-four laboratory-confirmed measles cases were reported in Sedibeng district in Gauteng province from week 1 to week 30. Sporadic measles cases have been reported in the City of Johannesburg, City of Tshwane, Ekurhuleni and West Rand districts from week 14 to week 30. Increases in the City of Johannesburg and Ekurhuleni were seen in epidemiological weeks 26 and 27.



Table 1: Laboratory-confirmed measles and rubella cases by Province in South Africa, 01 January to 31 July 2024

Province	Measles cases	Rubella cases
Eastern Cape	26	484
Free State	3	17
Gauteng	81	261
KwaZulu-Natal	7	85
Limpopo	1	0
Mpumalanga	11	7
North West	0	9
Northern Cape	7	187
Western Cape	22	704
South Africa	158	1754

Measles cases affected mostly children between ages 1-4 years and 5-9 years (Table 2). Gauteng and Mpumalanga provinces reported measles among age groups that should have been vaccinated during the measles vaccination campaign in 2023.

Table 2: Measles cases by age group in South Africa, 01 January to 31 July 2024

Province	0-6 months	7-11 months	1-4 years	5-9 years	10-14 years	≥15 years	Unknown	Total
Eastern Cape	0	1	5	14	3	1	2	26
Free State	1	0	1	1	0	0	0	3
Gauteng	7	4	14	30	3	8	15	81
KwaZulu-Natal	0	0	4	2	1	0	0	7
Limpopo	0	0	0	0	0	1	0	1
Mpumalanga	0	0	6	0	3	1	1	11
North West	0	0	0	0	0	0	0	0
Northern Cape	0	0	1	6	0	0	0	7
Western Cape	0	0	4	9	3	3	3	22



South Africa	8	5	35	62	13	14	21	158
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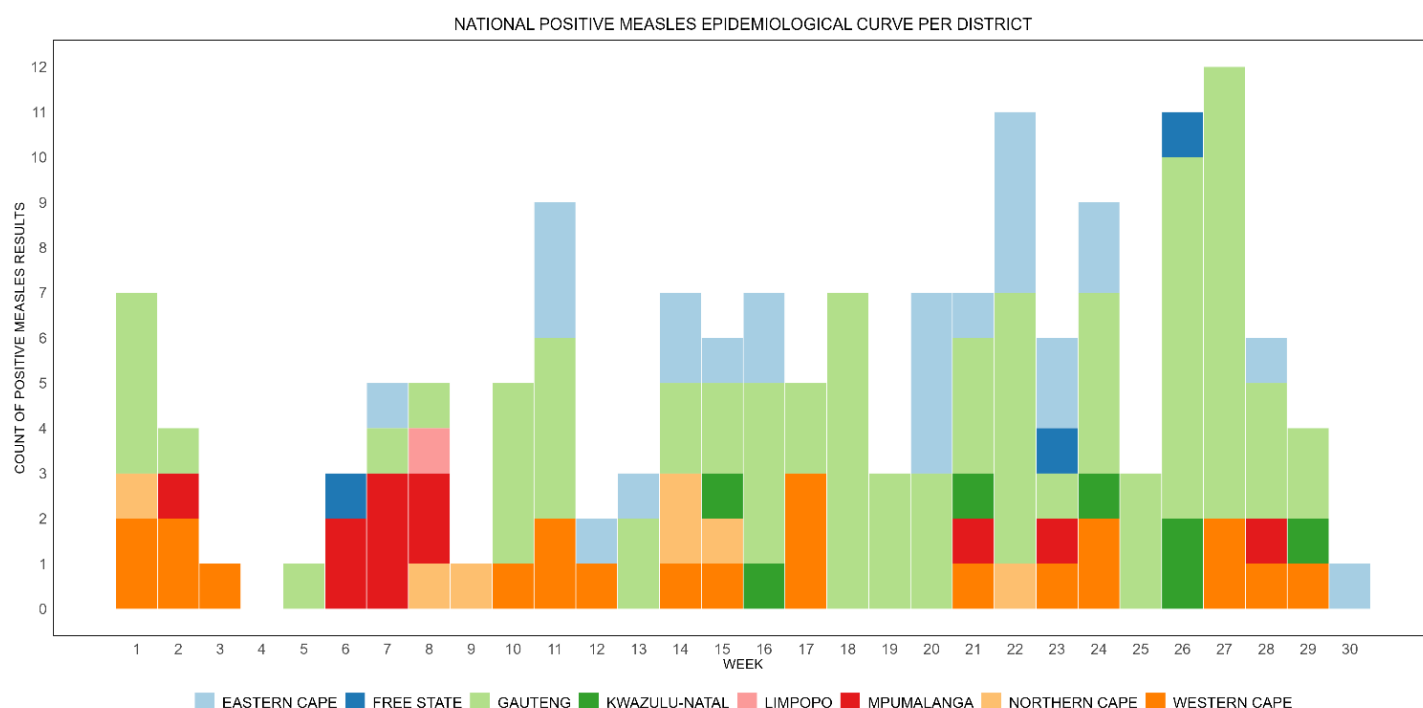


Figure 1. The epidemiological curve of the number of laboratory-confirmed measles cases by Province in South Africa, from epidemiological week 1–30, 2024 by specimen collection dates.

3. Rubella surveillance

Rubella serology testing is conducted at several NHLS laboratories and the NICD. Rubella testing at the NICD is conducted as part of fever-rash surveillance on samples from patients who meet the suspected measles/rubella case definition. Data reported in the situation report is for samples tested at NICD from measles and rubella rash surveillance.

A total of 1754 laboratory-confirmed rubella cases have been reported in South Africa from week 1 to week 30 2024 (Table 1 and Figure 2). Most laboratory-confirmed rubella cases in South Africa were reported in the Western Cape province (704 cases) and Eastern Cape provinces (484 cases), while Northern Cape and Gauteng provinces reported 187 and 261 cases respectively (Table 3).



Rubella circulation has increased in Gauteng province and Kwazulu-Natal, in recent epidemiological weeks, with sustained circulation in Western Cape, Northern Cape and Eastern Cape provinces (Figure 2). In Gauteng, Western Cape, and Eastern Cape provinces, all districts are affected. In the Northern Cape province, four districts are affected, which are Pixley Ka Seeme, Namakwa, Frances Baard and ZF Mgcawu District. In Kwazulu-Natal, one district is mostly affected, namely uThukela District, while sporadic cases have been reported among other districts.

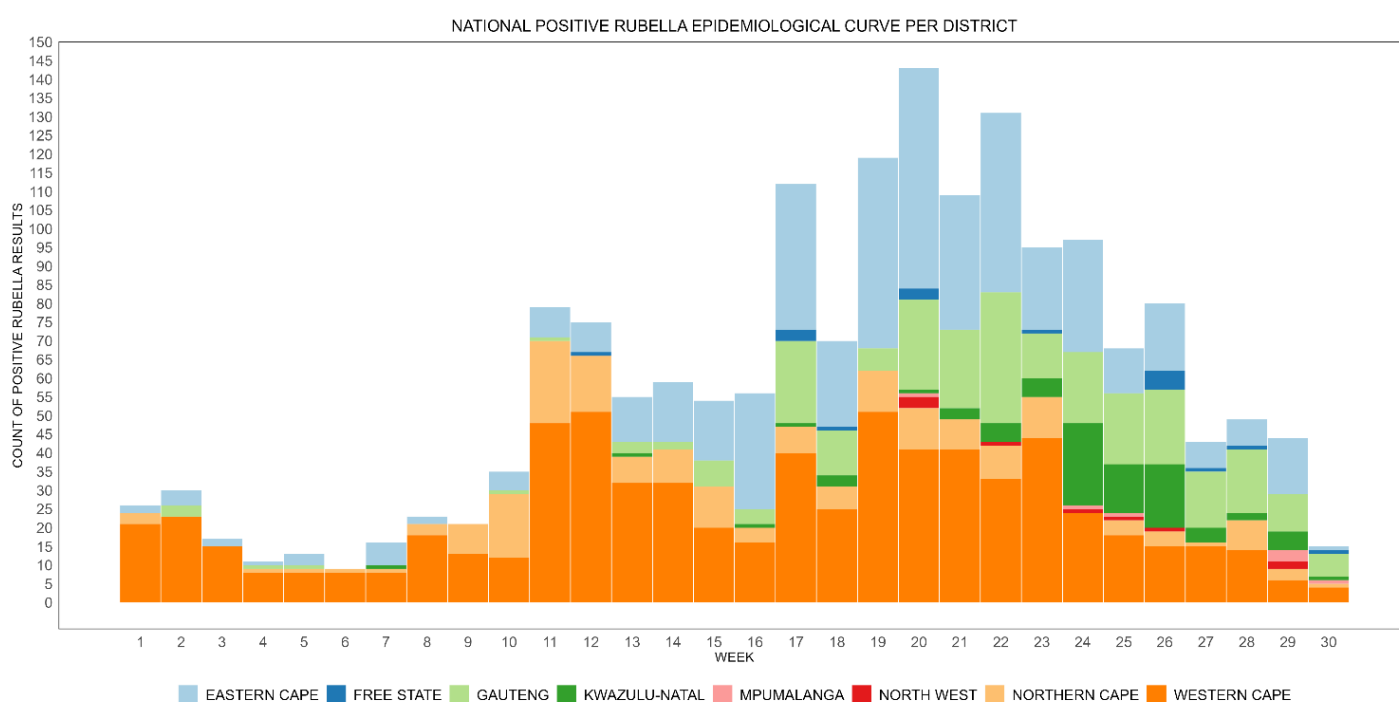


Figure 2. The epidemiological curve of the number of laboratory-confirmed rubella cases by Province in South Africa, from epidemiological week 1- 30, 2024 by specimen collection dates.

Rubella infection affects mostly children from 1 year to 12 years. It is reported that 53 individuals were aged between 15 to 49 years of which 32 patients were females of childbearing age (Table 3). Rubella infection poses a risk of women having congenital rubella syndrome if they are infected in the first trimester of the pregnancy. The largest number of rubella cases are in the age group 5-9 years.



Table 3: Rubella laboratory-confirmed cases by age group, epidemiological week 1-30, 2024

Province	0-6 Months	7-11 Months	1-4 Years	5-9 Years	10-14 Years	15-49 Years	>= 50 Years	Unknown	Total
Eastern Cape	0	2	98	259	66	6	0	53	484
Free State	0	0	5	7	1	0	0	4	17
Gauteng	0	0	29	125	23	5	2	77	261
KwaZulu-Natal	0	0	10	34	5	1	0	35	85
Mpumalanga	0	0	0	3	2	0	0	2	7
North West	0	0	0	3	2	0	0	4	9
Northern Cape	0	0	26	97	30	14	0	20	187
Western Cape	1	4	203	322	75	27	0	72	704
South Africa	1	6	371	850	204	53	2	267	1754

Conclusion

Measles circulation continues in Sedibeng district with some areas continuing with vaccination of measles contacts and schools where measles cases are detected. Routine measles vaccination should be strengthened and measles catch-up doses continue in healthcare facilities for the children who missed their scheduled doses. Vaccinating children with the measles vaccine protects them from severe illness caused by measles virus infection, including severe pneumonia, encephalitis, blindness, deafness, and death.

Rubella cases have increased in Gauteng, Western Cape and Northern Cape provinces. Health awareness is recommended in the areas where rubella cases are circulating to inform the population how to prevent rubella infection risk. Although rubella infections cause mild disease in adults and children, pregnant women in their first trimester of pregnancy who acquire rubella for



the first time are at risk of passing rubella onto their foetus, with consequential congenital rubella syndrome.

Healthcare workers should collect urine, throat swabs, and blood sample specimens for diagnostic testing (serology and PCR detection) on infants with suspected CRS. A good clinical history should be obtained from their mothers regarding fever/rash illness during pregnancy.

A completed case investigation form for congenital rubella syndrome should be completed along with the submission of clinical samples to the NICD for testing.

Measles, acute rubella, and congenital rubella syndrome are notifiable medical conditions. Strengthening surveillance for measles and rubella is recommended to increase the chance of detecting outbreaks, and for monitoring the effectiveness of routine vaccination programs.

Clinicians are encouraged to be on the lookout for measles and rubella cases. Samples should be collected from clinically suspected measles and rubella patients and sent to the NICD as part of the measles and rubella elimination surveillance for laboratory confirmation.

Diagnostic testing for fever-rash surveillance includes a completed measles-rubella case investigation form (found at <https://www.nicd.ac.za/wp-content/uploads/2023/10/Measles-Rubella-CIF.pdf>) and blood for serological testing together with a throat swab or urine for PCR testing.

Measles and rubella suspected cases samples should be sent to the NICD for laboratory confirmation. Based on details in the case investigation form, PCR for measles or rubella will be done.