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

South African Measles and Rubella Monthly Situational Surveillance Report
Measles-Rubella Rash Surveillance Data Up to 29 March 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 (NICD) for laboratory confirmation. Clinical cases reported were mostly in areas where rubella circulation started increasing in December 2023 and January 2024 after the measles outbreak.

A total of 45 laboratory-confirmed measles cases and 326 rubella cases were reported in South Africa from epidemiological week 1 to week 13 of 2024. No measles outbreaks have been reported since the last report in week 9 to date week 13 of 2024.

The number of rubella infections increased in the Western Cape Province districts, in the Cape Winelands, Garden Route, and West Coast with high numbers still reported in the City of Cape Town. Rubella cases increased greatly in Pixley Ka Seem district in the Northern Cape Province in March 2024, with 52 cases reported. The Eastern Cape Province reported 20 rubella cases from six (6) districts.

Sixteen (16) measles cases were reported in March 2024 from four provinces, the Eastern Cape four (4) cases, Gauteng Province seven (7) cases, Limpopo Province one (1) case and Western Cape Province four (4) cases.

2. Measles Surveillance

A total of 45 laboratory-confirmed measles cases were reported between epidemiological week 1 to week 13 of 2024 in South Africa, Figure 1. From epidemiological week 1 to week 13, Gauteng Province reported 18 measles cases, Mpumalanga Province eight (8) cases, Western Cape Province 9 cases, Eastern Cape Province 5 cases, Northern Cape Province four (4) cases, and Limpopo Province reported one case Table 1.

Seven laboratory-confirmed measles cases were reported in Sedibeng district in Gauteng province from week 8 to week 12. Six of the seven measles cases reported in Sedibeng district were in the age group 5-9 years and one case was in the 10–14-year category. Four new laboratory-confirmed measles cases were reported in Western Cape province, two cases in the West Coast district, and one case reported in the City of Cape Town and the Cape Winelands. The Eastern Cape Province reported four measles cases in weeks 11 and 12, two cases in O R Tambo District and one case in Buffalo City and Sara Bartman District.

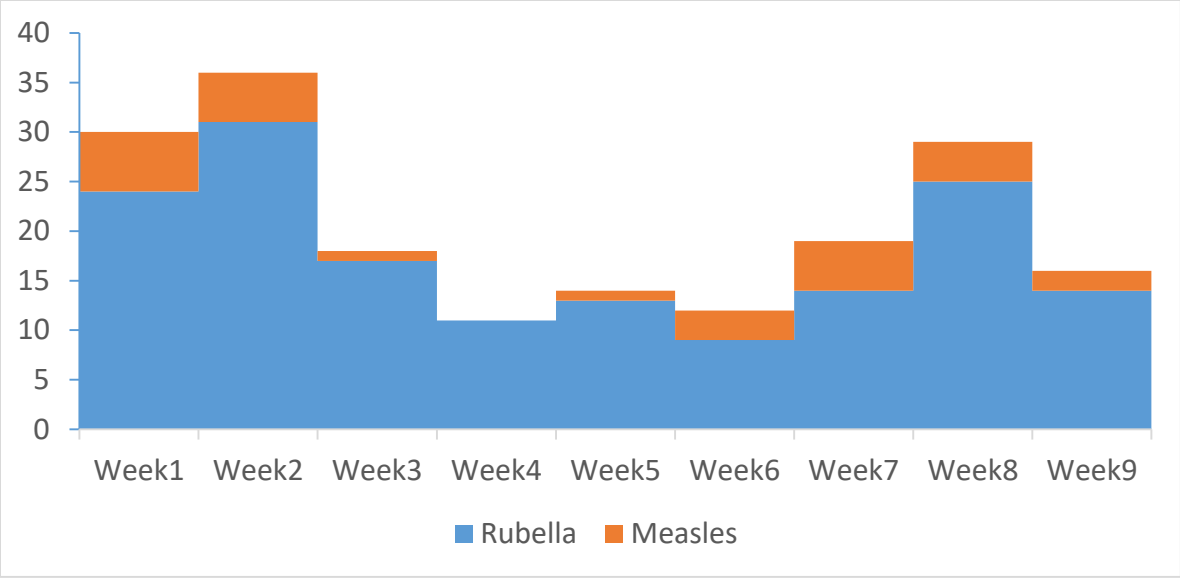

Figure 1: Measles and Rubella Cases Detected in The Rash Surveillance from Week 1 To Week 13 Of 2024 in South Africa

Table 1. Laboratory-confirmed measles and rubella cases by province in South Africa, 01 January to 29 March 2024

PROVINCE	Measles cases	Rubella cases
Eastern Cape	5	40
Free State	0	1
Gauteng	18	8
KwaZulu-Natal	0	1
Limpopo	1	0
Mpumalanga	8	2
North West	0	0
Northern Cape	4	71
Western Cape	9	203
South Africa	**45**	**326**

Measles cases affected mostly children between ages 1-4 years and 5-9 years confirmed by the laboratory, Table 2. Gauteng and Mpumalanga provinces reported measles in the ages that fall into the age group that were supposed to have been vaccinated during the measles vaccination campaign in 2023.

Table 2: Measles cases by age group in South Africa, 01 January to 30 March 2024

Province	0-6months	1-4years	5-9years	10-14 years	≥15years	Unknown	Total
EASTERN CAPE	0	1	4	0	0	0	5
FREE STATE	0	0	0	0	0	0	0
GAUTENG	1	4	8	2	2	1	18
KWAZULU-NATAL	0	0	0	0	0	0	0
LIMPOPO	0	0	0	0	1	0	1
MPUMALANGA	0	4	0	3	1	0	8
NORTH WEST	0	0	0	0	0	0	0
NORTHERN CAPE	1	1	2	0	0	0	4
WESTERN CAPE	0	4	3	0	2	0	9
South Africa	**2**	**14**	**17**	**5**	**6**	**1**	**45**

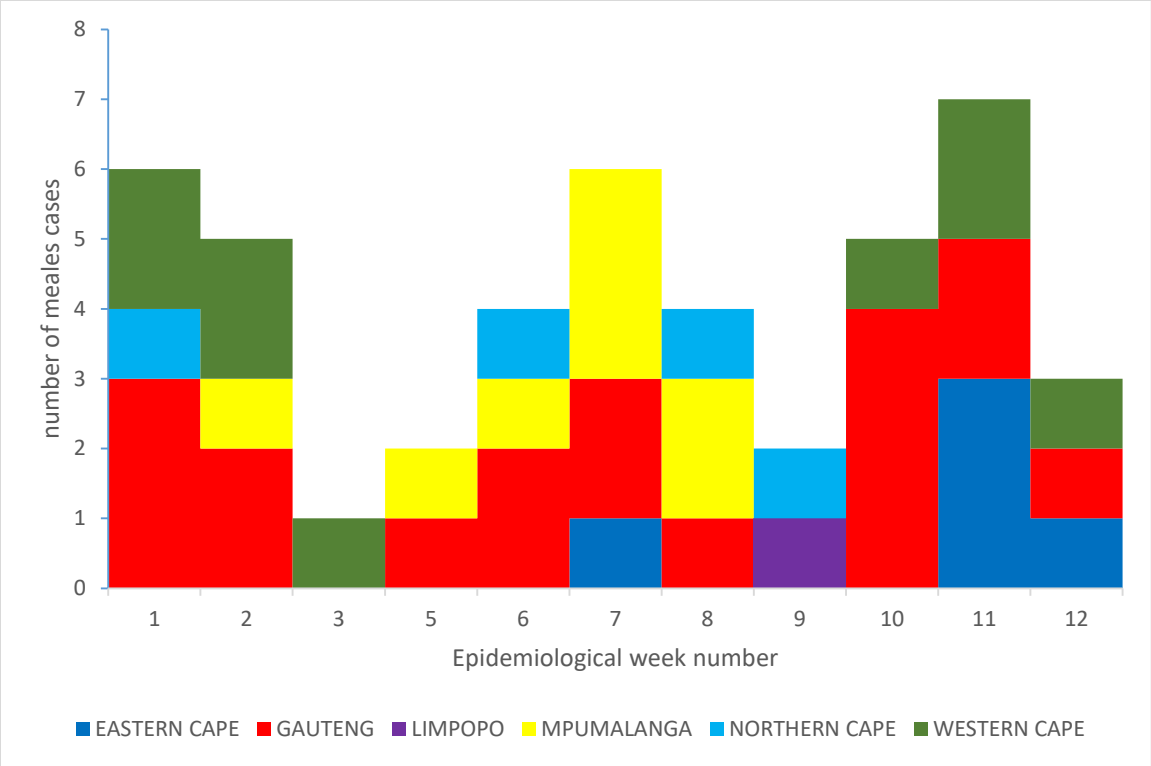

Figure 1. The epidemiological curve of the number of laboratory-confirmed measles cases by Province in South Africa, from epidemiological week 1–13, 2024 by specimen collection dates.

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 326 laboratory-confirmed rubella cases have been reported in South Africa from week 1 to week 13 2024, Table 1 and Figure 2. Most laboratory-confirmed rubella cases in South Africa were reported in the Western Cape province (203 cases), while Northern Cape provinces and Eastern Cape provinces reported 71 and 40 cases respectively, Table 3.

Rubella cases have shown to increase in March 2024 in the Cape Winelands, which reported 15 cases, and in Garden Route and West Coast districts reporting 10 and 29 cases respectively.
The number of laboratory-confirmed rubella cases remained high in the City of Cape Town with 36 cases in March 2024 alone bringing the number of rubella cases to 122 reported from week 1 to week 13 of 2024. In Northern Cape province, there was an increase in rubella cases reported in Pixley Ka Seeme district with an increase of 53 cases in March 2024 compared to 11 cases reported in February 2024. Twenty (20) rubella cases were reported from six districts in Eastern Cape province with O R Tambo and Chris Hani districts reporting seven (7) and five (5) cases each.

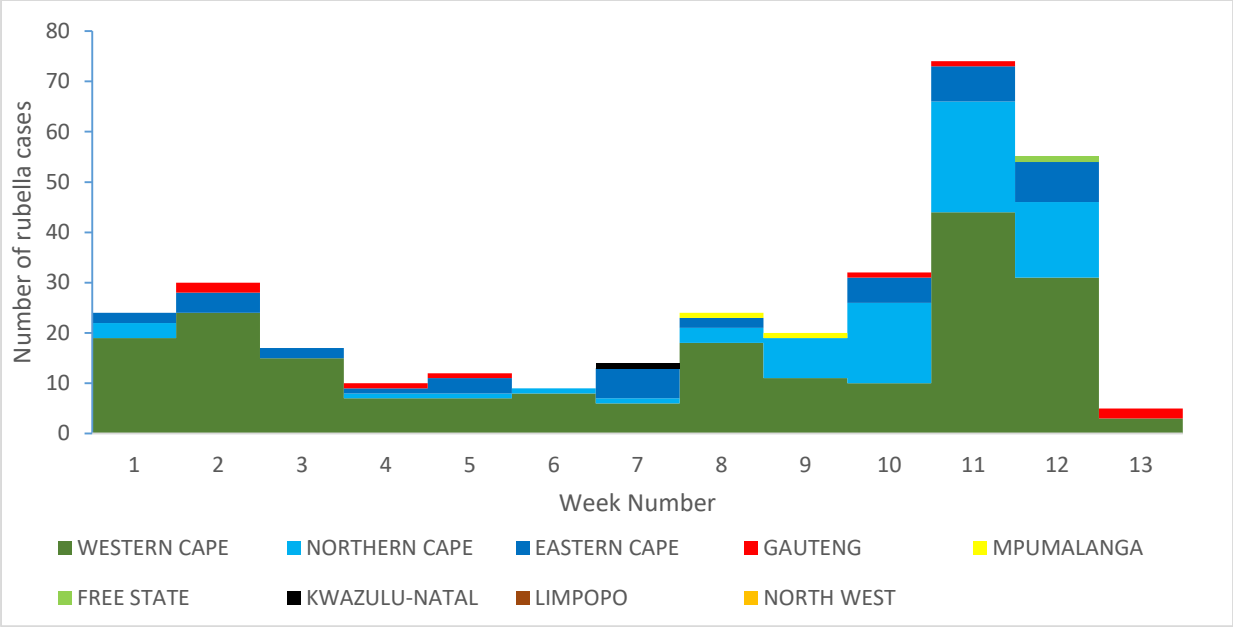

Figure 2. The epidemiological curve of the number of laboratory-confirmed rubella cases by Province in South Africa, from epidemiological week 1- 13, 2024 by specimen collection dates.

Table 3: Cases of laboratory-confirmed rubella from all provinces in South Africa from epidemiological week 1 to 13, 2024 (FS=Free State; GP=Gauteng; KZN=KwaZulu-Natal; LP=Limpopo; MP=Mpumalanga NW=North West; NC=Northern Cape, WC = Western Cape).

Epidemiological Week	WC	NC	EC	GP	MP	FS	KZN	LP	NW	Total
1	19	3	2	0	0	0	0	0	0	24
2	24	0	4	2	0	0	0	0	0	30
3	15	0	2	0	0	0	0	0	0	17
4	7	1	1	1	0	0	0	0	0	10
5	7	1	3	1	0	0	0	0	0	12
6	8	1	0	0	0	0	0	0	0	9
7	6	1	6	0	0	0	1	0	0	14
8	18	3	2	0	1	0	0	0	0	24
9	11	8	0	0	1	0	0	0	0	20
10	10	16	5	1	0	0	0	0	0	32
11	44	22	7	1	0	0	0	0	0	74
12	31	15	8	0	0	1	0	0	0	55
13	3	0	0	2	0	0	0	0	0	5
Total	**203**	**71**	**40**	**8**	**2**	**1**	**1**	0	0	**326**

Rubella infection affects mostly children below 12 years with 21 people above 12 years reported in Western Cape and Northern provinces, Table 4. Rubella infection poses a risk of women having congenital rubella if they are infected in the first trimester.

Table 4: Rubella laboratory-confirmed cases by age group, epidemiological week 1-13, 2024

Province	0-11Months	1-4years	5-11years	12-49 years	Unknown	Total
Eastern Cape	0	10	30	0	0	40
Free State	0	0	1	0	0	1
Gauteng	0	2	4	1	1	8
KwaZulu-Natal	0	0	1	0	0	1
Limpopo	0	0	0	0	0	0
Mpumalanga	0	1	1	0	0	2
North West	0	0	0	0	0	0
Northern Cape	0	11	52	7	1	71
Western Cape	1	79	109	14	0	203
South Africa	**1**	**103**	**198**	**22**	**2**	**326**

Conclusion

The increase in measles cases in Sedibeng Districts and sporadic cases in other provinces shows there is still an immunity gap in the communities after the measles vaccination campaign done in 2023. Routine measles vaccination should be strengthened and measles catchup doses continue in healthcare facilities for the children who missed their scheduled doses. Vaccinating children with the measles vaccine protects children from severe illness caused by measles virus infection, including severe pneumonia, encephalitis, blindness, deafness, and death.

Rubella cases have increased in the 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.