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

South African Measles and Rubella Monthly Surveillance Situational Report

Measles-Rubella rash surveillance data from 01 January 2024 to 02 May 2025

1. Summary

From epidemiological week 1 to week 18 of 2025,182 laboratory-confirmed measles cases and 280 rubella cases were reported by the Measles Reference Laboratory at the National Institute for Communicable Diseases in South Africa, Table 1 and Figure 1. Of the 182 laboratory-confirmed measles cases reported since the beginning of the year, 104 cases were in Gauteng province and 42 were reported in Free State province. Most of the measles cases were reported in the Lejweleputswa district, Matjhabeng subdistrict, where a measles outbreak was detected in epidemiological week 10 of 2025. Meanwhile, 280 laboratory-confirmed rubella cases were reported in the country, with 107 rubella cases reported in North West province. Both measles and rubella affected mostly children aged 1-15 years, with an increase in several measles and rubella cases in the age group 15-49 years in the fever rash surveillance used to monitor measles and rubella virus circulation.

Measles Surveillance

From epidemiological week 1 to week 18 of 2025, the National Measles Laboratory Surveillance detected 182 laboratory-confirmed measles cases in the country (Table 1 and Figure 2). Gauteng province continues to report measles cases, with 104 measles confirmed cases reported from epidemiological week 1 to week 17 of 2025. Most measles cases were detected in the City of Johannesburg, with 64 cases, 26 in the City of Tshwane, and 12 in the Ekurhuleni district from week 1 to week 18 of 2025 (Figure 3). The other two measles confirmed cases in the Gauteng province were reported in the Sedibeng district in epidemiological weeks 2 and 5 of 2025.

Measles cases were also reported in other provinces, with the Eastern Cape province, KwaZulu-Natal province, and Limpopo province reporting the lowest number of measles cases (Table 1.

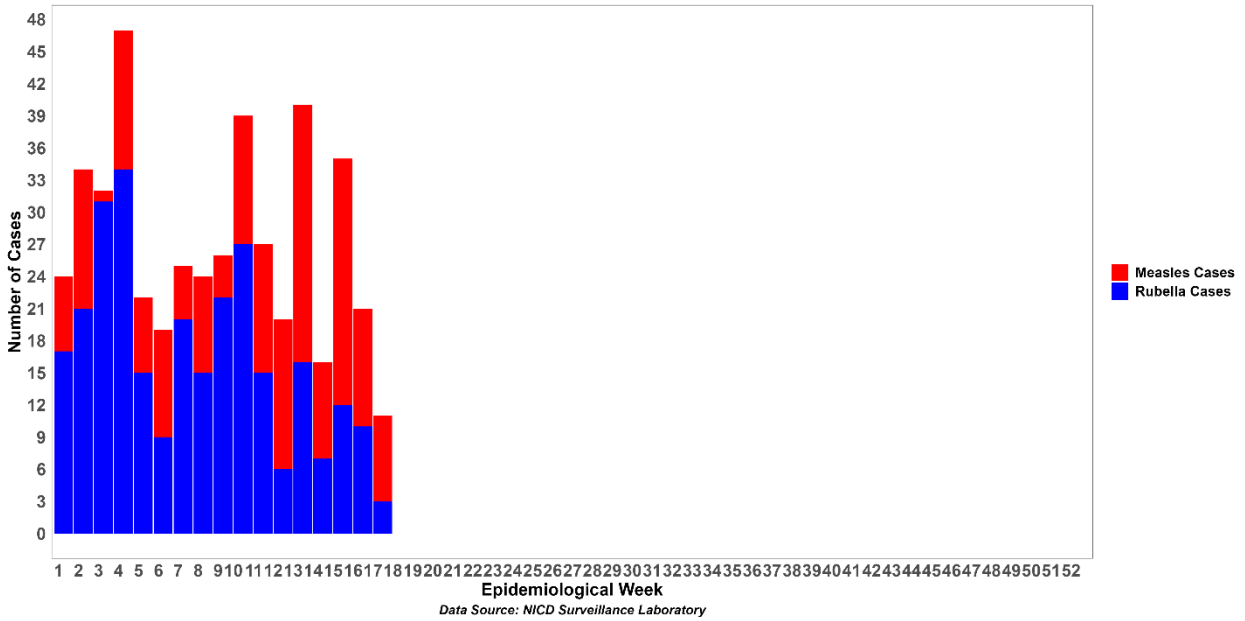

***Figure 1**. The epidemiological curve shows the number of laboratory-confirmed measles cases by Province in South Africa, from epidemiological week 1 to 18 of 2025, by specimen taken dates.*

Table 1: The number of laboratory-confirmed measles and rubella cases by province in South Africa, 01 January to 02 May 2025

PROVINCE	Measles cases	Rubella cases
Eastern Cape	1	6
Free State	42	36
Gauteng	104	30
KwaZulu-Natal	2	6
Limpopo	3	9
Mpumalanga	7	23
North West	8	107
Northern Cape	7	48
Western Cape	8	15
South Africa	**182**	**280**

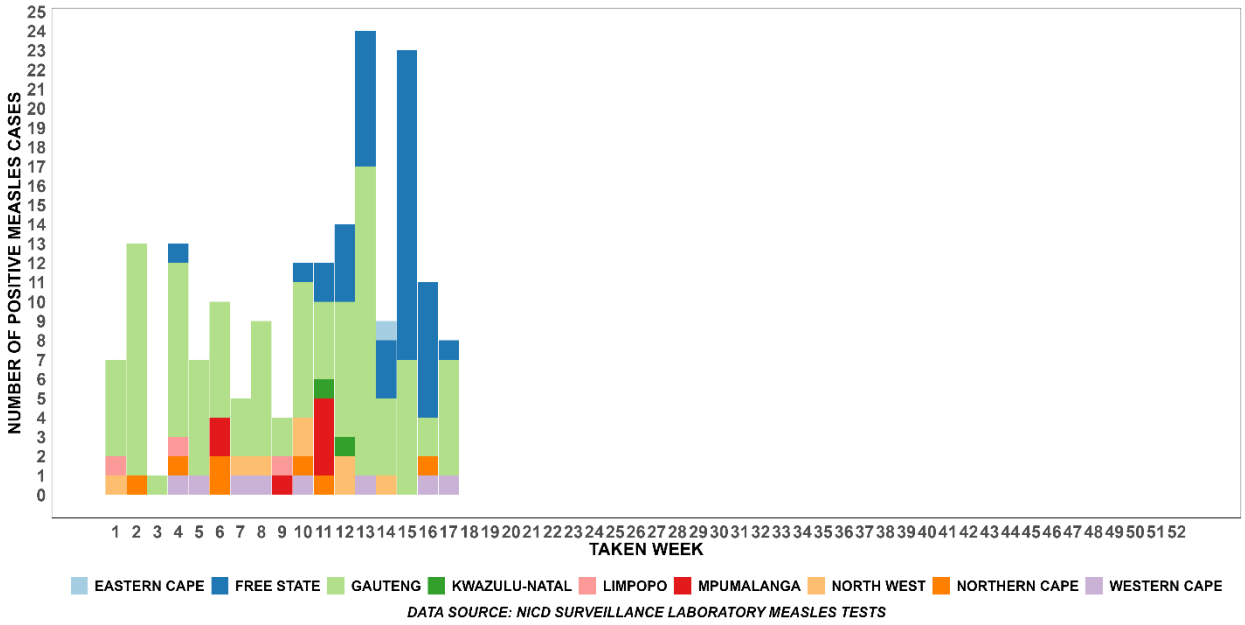

***Figure 2**. The epidemiological curve shows the number of laboratory-confirmed measles cases by Province in South Africa, from epidemiological week 1 to 18 of 2025, by specimen taken dates.*

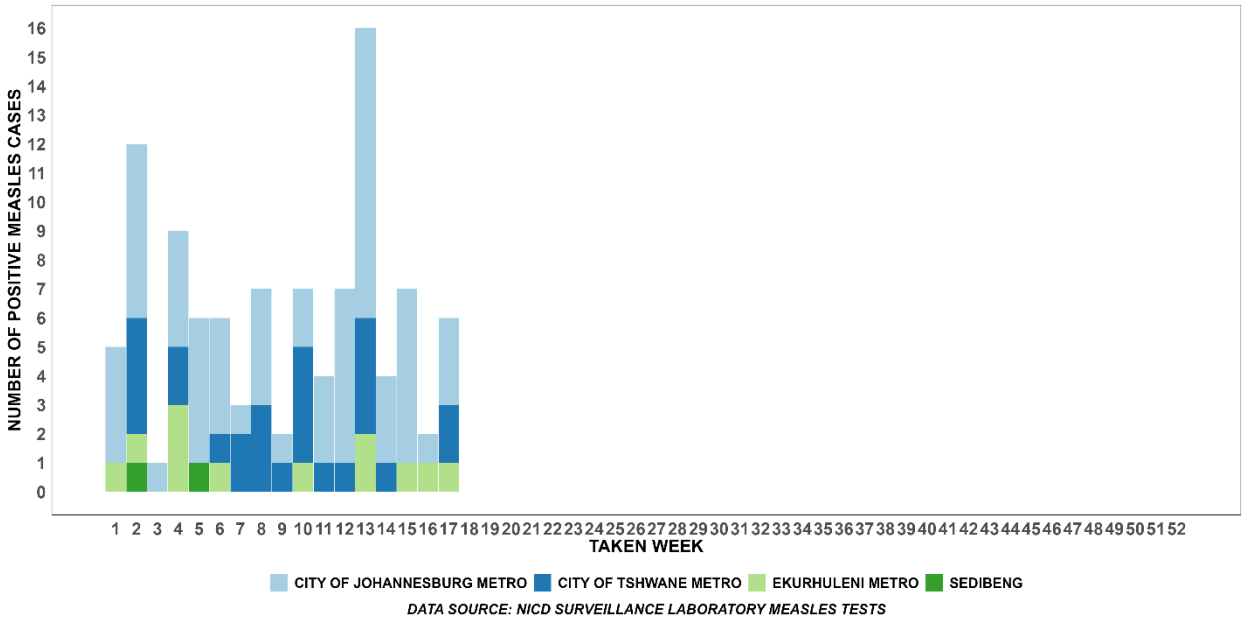

***Figure 3.** The epidemiological curve of the number of laboratory-confirmed measles cases in Gauteng province, from epidemiological week 1 to 18 of 2025, by specimen taken dates.*

NATIONAL HEALTH LABORATORY SERVICE
NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES

Measles outbreak in Lejweleputswa district, Free State province

A measles outbreak was detected in Lejeputswa district in the Free State province in epidemiological week 10 of 2025. As of 24 April 2025, 46 confirmed laboratory cases were detected, 39 laboratory confirmed cases and 7 epidemiological linkages. Three local municipalities were affected: Matjabeng, Tswelopele and Mashilonyana. The most affected population was the 5-9 year group, followed by those aged 1-4 years. Vaccination history was known in 23 measles cases; 5 measles confirmed cases were never vaccinated with the measles vaccine, and 18 were vaccinated. Of the 18 measles cases who were vaccinated with the measles vaccine, 17 had two doses of measles vaccine at 6 months and 12 months, and one measles case was partially vaccinated using the 9-month and 18-month vaccination schedule.

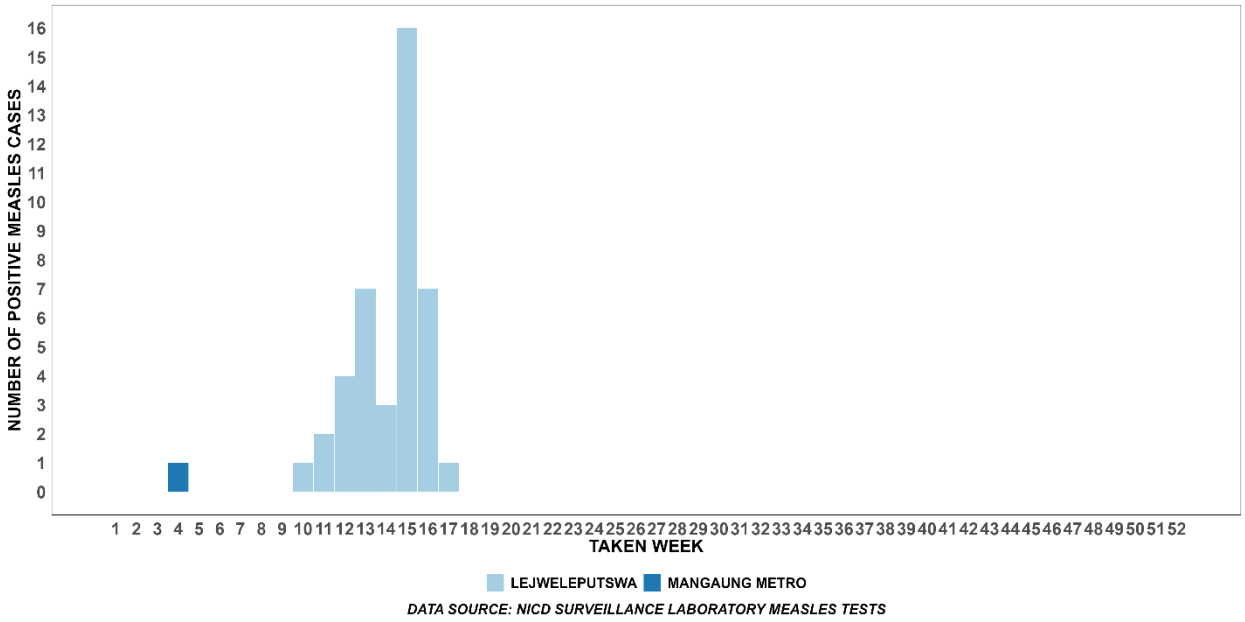

Figure 4. The epidemiological curve of the number of laboratory-confirmed measles cases in Free State province, Lejweleputswa district, measles outbreak cases from 02 March to April 2025

Measles cases affected mostly children in age groups 1-4 years and 5-9 years in 2025 (Table 2). The increase in measles transmission shows the immunity gap has increased in older age groups, with increases in those aged 15-49 years. This should be considered when public health response activities are designed in future.

Table 2: Measles cases by age group in South Africa, 01 January to 02 May 2025

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	0	0	1	0	0	0	0	1
Free State	2	0	8	24	5	3	0	0	42
Gauteng	18	6	21	31	15	13	0	0	104
KwaZulu-Natal	0	0	0	1	1	0	0	0	2
Limpopo	0	0	1	1	0	1	0	0	3
Mpumalanga	0	0	1	2	2	2	0	0	7
North West	0	0	2	5	1	0	0	0	8
Northern Cape	1	1	1	2	1	1	0	0	7
Western Cape	2	1	1	1	0	2	1	0	8
South Africa	**23**	**8**	**35**	**68**	**25**	**22**	**1**	**0**	182

2. Rubella surveillance

Rubella serology testing is conducted at several NHLS laboratories and the NICD. Rubella testing at the NICD is routinely done from fever-rash surveillance samples from patients who meet the suspected measles/rubella case definition to differentiate the infection of rubella and measles. Data reported in the situation report are for samples tested at NICD from measles and rubella rash surveillance. Rubella testing in NHLS laboratories is mostly done to determine rubella susceptibility amongst pregnant women at antenatal clinics. As the group of patients undergoing testing is different, these results are not analysed together with fever-rash surveillance data.

From week 1 to week 18 of 2025, 280 laboratory-confirmed rubella cases were reported in South Africa through measles and rubella surveillance, Table 1, Figure 1 & Figure 5. Rubella virus circulation is still Ngaka Modiri Molema District in Northwest province, Figure 6.

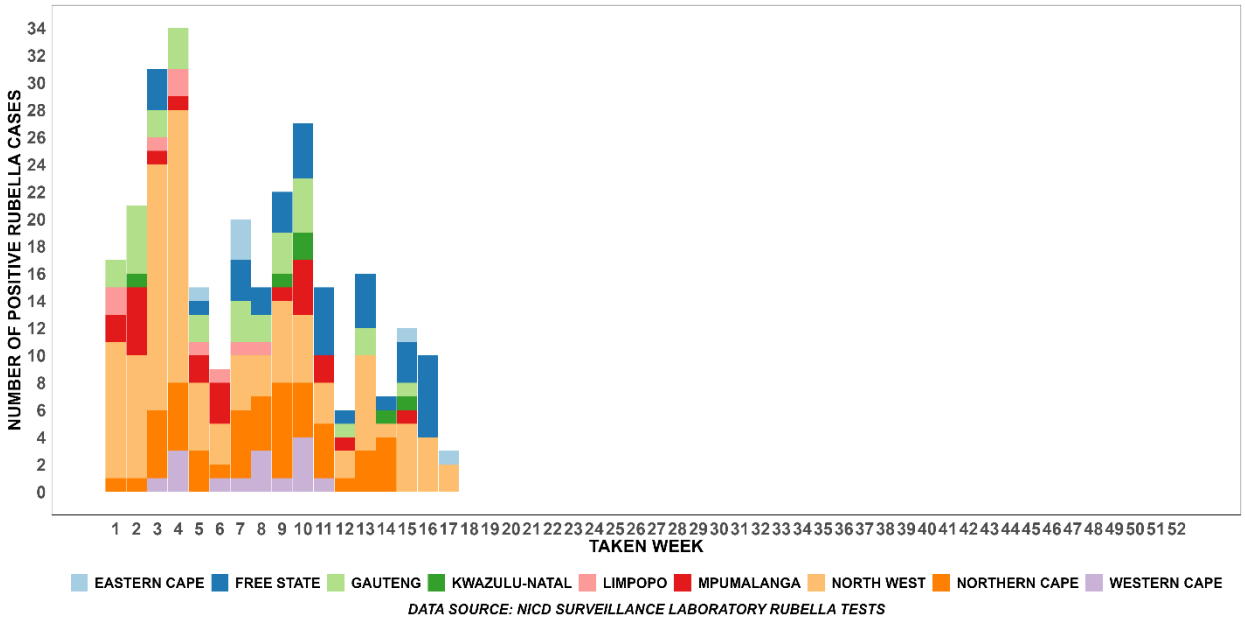

Figure 5. *The epidemiological curves of the number of laboratory-confirmed rubella cases by Province in South Africa from NICD diagnostic data, from epidemiological week 1 to 18 of 2025, by specimen taken dates.*

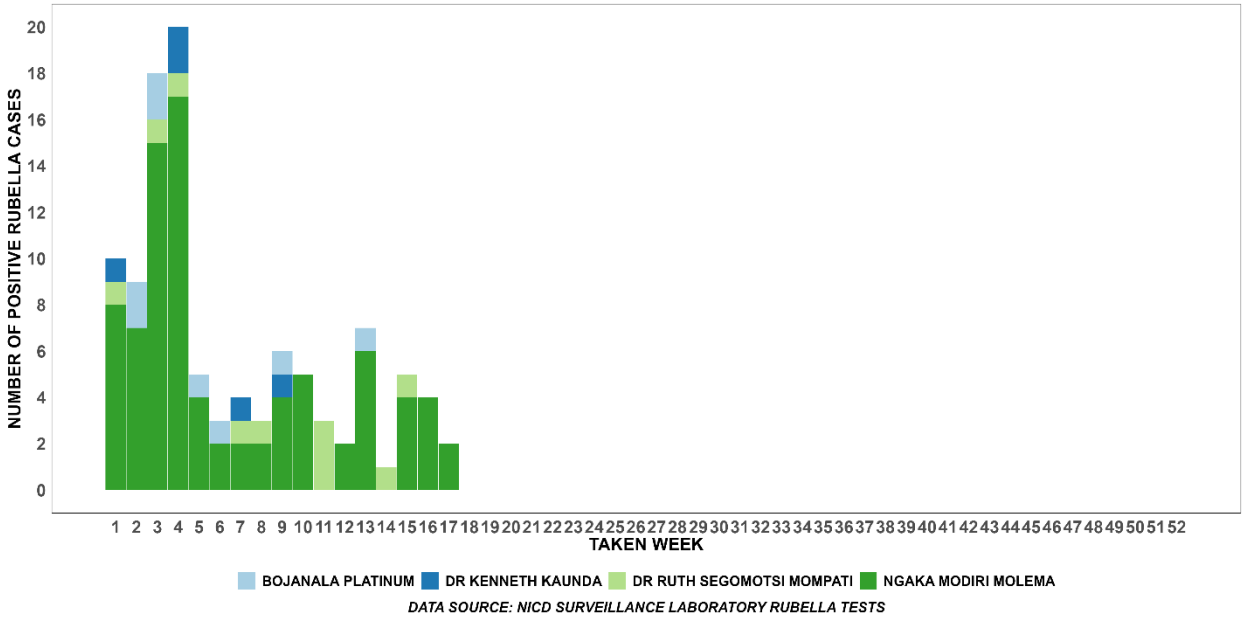

Figure 6. *The epidemiological curves of the number of laboratory-confirmed rubella cases by district in North West province from NICD diagnostic data, from epidemiological week 1 to 18 of 2025, by specimen taken dates.*

Rubella infection affected mostly children from 1 to 14 years of age, with the population affected mostly being those aged 5 to 9 years (Table 3). Fourteen(14) rubella cases were reported in persons aged 15-49 years. Rubella infection poses a risk of pregnant women giving birth to a child with congenital rubella syndrome if infected in the first trimester of pregnancy.

Table 3: Number of rubella laboratory-confirmed cases by age group, epidemiological week 1 to 18 of 2025

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	0	1	2	2	1	0	0	6
Free State	1	0	4	28	2	1	0	0	36
Gauteng	1	2	11	10	1	5	0	0	30
KwaZulu-Natal	1	0	1	4	0	0	0	0	6
Limpopo	0	0	3	4	2	0	0	0	9
Mpumalanga	0	0	3	13	6	1	0	0	23
North West	0	0	17	64	26	0	0	0	107
Northern Cape	0	0	5	29	8	6	0	0	48
Western Cape	2	0	5	4	4	0	0	0	15
South Africa	**5**	**2**	**50**	**158**	**51**	**14**	**0**	**0**	280

Contents of the Cipla Measles Rubella vaccine

There has been concern expressed about the contents of the measles-rubella vaccine. The tender for the measles rubella vaccine used by the EPI programme was awarded to Cipla. The package insert for the vaccine which describes the vaccine vial contents may be found on the South African Health Products Regulatory Authority website[1] and Cipla has been approached to provide additional details on the origin of these substances. According to the package insert, the vaccine vial contains the live attenuated measles and rubella vaccine strains and additional purified substances to ensure that the vaccine strains remain stable despite storage. These include '*partially hydrolysed gelatin and sorbitol'* (both are stabilisers to maintain the osmotic pressure of the vaccine vial), *'l-histidine, l-alanin, tricine, l-arginine hydrochloride'* (amino acids or proteins), *'lactalbumin hydrosylate, minimum essential medium'* (both contain nutrients to support vaccine strain viability when the diluent is added to the vial). Please find further detailed and helpful explanations of vaccine vial contents at https://www.chop.edu/vaccine-education-center/vaccine-safety/vaccine-ingredients/types-of-vaccine-ingredients

[1] https://pi-pil-repository.sahpra.org.za/wp-content/uploads/2023/07/Final_PIL_Measles-Rubella-Cipla_Applicant.pdf

Conclusion

Since the beginning of 2025, the number of fever rash samples submitted to the National Measles reference laboratory at NICD for measles and rubella surveillance, the rubella virus has still been detected more than the measles virus. The rubella virus transmission has decreased nationally, with sustained rubella transmission seen in the Ngaka Modiri Molema District, North West province and Namakwa District in the Northern Cape province from week 1 to week 18 of 2025.

The measles transmission still continues in areas with low measles immunity in the community with measles transmission continuing in Gauteng province and a measles outbreak detected in Lejweleputswa district in the Free State province. Routine measles vaccination should be strengthened, and measles catch-up doses should 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 the measles virus infection, including severe pneumonia, encephalitis, blindness, deafness, and death. For all measles-positive cases, the public health response should be done as per the EPI(SA) Surveillance Manual (https://knowledgehub.health.gov.za/elibrary/vaccinators-manual-expanded-programme-immunisation-south-africa-epi) and Vaccinator's Manual guideline (https://knowledgehub.health.gov.za/elibrary/vaccinators-manual-expanded-programme-immunisation-south-africa-epi). Measles contacts of persons aged 15 years and above should be followed up and vaccinated if the evidence of previous vaccination cannot be established.

Health awareness is recommended in areas where rubella cases are circulating. Although rubella infections cause mild disease in adults and children, 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 (CRS). Healthcare workers should collect urine, throat swabs, and blood sample specimens for diagnostic testing (serology and PCR detection) on infants with suspected CRS and pregnant women in their first trimester of pregnancy, who are either exposed to a case/s of confirmed or suspected rubella. 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 and targeted for elimination. Strengthening surveillance for measles and rubella is recommended to

increase the chance of detecting outbreaks and 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. Clinicians are urged to be mindful of the clinical context of febrile patients who present with a rash. If rubella is circulating in communities, or if the suspected case has a history of contact with a laboratory-confirmed case of rubella, it is not necessary to submit samples for clinical testing. However, ALL cases should be notified as epidemiologically linked rubella cases.

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 and results of serological testing, PCR for measles and/or rubella will be done.