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

> The National Institute for Communicable Diseases The Division of Public Health, Surveillance, and response NOTIFIABLE MEDICAL CONDITIONS SURVEILLANCE SYSTEM June 2024 report

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Introduction

Data used in this report was drawn from the NMC-SS on **18 July 2024**. The most recent report should always be viewed and can be found in NMCSS surveillance reports

The purpose of this report is to describe the number of notifications received by the Notifiable Medical Conditions Surveillance System (NMCSS). The report is publicly available and can be used by health professionals, researchers, the general public, or any other stakeholder. The purpose of disseminating this information is to inform any public health action - NMCSS data has limitations (see NMCSS interpretation.), but serves as a public health signal that may warrant further investigation.

This report also monitors some surveillance system attributes. Including average notifications by facilities, data quality and timeliness of clinical diagnosis and notifications over time. (see Appendix nos. 1 and 3).

While this information is also publicly available, we aim this section of the report at those involved in notifying. These include Infection Prevention Control practitioners at facilities, Nurses, Doctors, pathologists and laboratory staff.

Category 4 NMCs, COVID-19, and multi-system inflammatory syndrome (MIS-C) have been excluded from this report. Where weeks are presented, the Epi-week according to the CDC Epi-weeks are used.

Highlights

- A total of 8 505 cases were notified in June 2024 and most were category 2 conditions.
- Category 1 cases were reported in a median (IQR) of 0 (0, 2) days.
- There were 343 average active users of the NMC App in June 2024

NMC Reporting application

- NMC Reporting App. is available on both web and mobile platforms
- Use recommended browsers in order to access the NMC reporting App for notifications, and searching of cases and reports.
- Register if you have no NMC account and you can reset the password if you have not used the application for over 12 months.

NOTES: For any additional information contact the NMC national technical team: <u>NMCAppSupport@nicd.ac.za</u> or NMC hotline <u>072 621 3805</u>. Please refer to Appendices for NMC data flow, definitions and interpretation of epidemiology data in this report.

DATA IS CONTINUOUSLY CLEANED, DE-DUPLICATED, AND UPDATED, HENCE IS SUBJECT TO CHANGE. ALL NUMBERS REPORTED ARE PRELIMINARY UNLESS OTHERWISE STATED. DATE OF DIAGNOSIS IS USED FOR REPORTING.

Current notification trends

Trends of notifications of selected conditions are presented below. Notifications that are confirmed are shown first. Confirmed notifications are verified and confirmed by the relevant centre at the NICD and can be considered confirmed cases. All notifications are shown after and include notifications that can be considered as suspected cases. These are presented to show the sensitivity of the surveillance system in recognising disease signals.

Confirmed notifications *Epi-table*

Table 1: Number of confirmed notifications on NMCSS per Epi-week in 2024. The average weekly notifications are calculated based on notifications received in 2022 and 2023 with a confidence interval.

		verage ifications										Ep	i-week	S								
Characteristic		95% Cl ¹	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Acute flaccid paralysis	0.0297	1.0, 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cholera	0.93	1.5, 5.5	2	0	0	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Congenital rubella syndrome	0.0127	NA, NA	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Covid-19	402	24, 235	3	7	2	6	6	3	1	4	7	4	4	16	8	7	4	11	2	3	0	0
Crimean-Congo viral haemorrhagic fever (human)	0.0169	NA, NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diphtheria	0.10	1.0, 1.0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0
Enteric fever (typhoid or paratyphoid fever)	1.23	1.5, 2.0	2	3	1	3	3	0	1	1	2	0	0	4	1	1	2	0	0	0	0	0
Foodborne illness outbreak	0.0805	1.0, 3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Listeriosis	0.50	1.0, 1.5	2	2	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0
Malaria	87	67, 86	48	61	48	60	52	34	40	42	55	53	51	63	44	59	35	28	29	26	9	0
Measles	1.47	2.0, 3.0	4	0	1	2	3	0	1	2	1	2	3	3	1	1	2	9	3	3	0	0
Meningococcal disease	0.90	1.5, 2.0	2	1	2	4	0	1	3	1	2	2	2	6	2	6	5	2	1	2	0	0
Мрох	0.0720	1.0, 4.0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	2	2	6	4	0
Pertussis	10	13, 18	6	5	18	10	10	11	6	5	12	7	21	3	4	3	4	1	5	5	1	0
Rabies	0.09	NA, NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Respiratory disease caused by a novel respiratory pathogen	0.0085	NA, NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	1.54	2.5, 6.5	3	3	0	4	4	25	0	10	2	4	5	3	1	5	1	5	14	7	1	0

¹Cl = Confidence Interval

Trends Plot



Figure 1: Trend of weekly number of confirmed notifications for selected category 1 conditions reported to the NMC, in South Africa; January 2022-June, 2024

All Category 1 Conditions at a glance Table 2: The number of notifications that are suspected and confirmed for category 1 conditions notified during June 2024

condition	Overall , N = 666 ¹	Confirmed , N = 159^{1}	Suspected, N = 507^1
Acute flaccid paralysis	24	0	24
Acute rheumatic fever	0	0	0
Anthrax	0	0	0
Botulism	0	0	0
Cholera	1	0	1
Congenital rubella syndrome	8	0	8
Crimean-Congo viral haemorrhagic fever (human)	1	0	1
Diphtheria	4	1	3
Ebola virus (VHF)	0	0	0
Enteric fever (typhoid or paratyphoid fever)	11	0	11
Foodborne illness outbreak	17	0	17
Haemolytic uraemic syndrome (HUS)	1	0	1
Listeriosis	4	1	3
Malaria	92	92	0
Marburg virus (VHF)	0	0	0
Measles	274	13	261
Meningococcal disease	12	4	8
Мрох	70	14	56
Pertussis	34	8	26
Plague	0	0	0
Poliomyelitis	0	0	0
Rabies	3	0	3
Respiratory disease caused by a novel respiratory pathogen	0	0	0
Rift valley fever (human)	0	0	0
Rubella	110	26	84
Smallpox	0	0	0
Yellow fever	0	0	0

¹Suspected and confirmed cases are independent and are not totalled - suspected and confirmed cases are distinct.

NMC data summary, June 2024

A total of 8 505 current and delayed cases were notified to the NMCSS during June 2024 (See Table 9 for further breakdowns and Appendix no.3 for definitions). There were 8 464 current notifications; the majority (7 689, 91%) were category 2 conditions. The provinces with the highest number of notifications were GP (2 105, 25%), KZN (2 047, 24%), and WC (1 615, 19%). The provinces with the least number of notifications were NW (289, 3.4%), and MP (299, 3.5%). There were 41 back-captured clinical notifications diagnosed between May 2024 and June 2024 and only notified during June 2024. The majority (15, 37%) of those notifications were Rubella. (See Appendix no.1).

Most of the notified cases were males (4 944, 58%). Individuals in the 35–39-year age group represented the majority (978, 13%) of notified cases. At the time of notification, 1 908 (23%) of the notified cases were hospitalised, while 43 (0.5%) were transferred to another healthcare facility. There were 106 deaths notified during the reporting period.

Category 1 notifications

Measles was the most common (274, 41%) category 1 notification (**suspected and confirmed**). The province with the highest number of notifications for Measles was GP (79,28.8%). **Malaria** was the most common (92, 58%) category 1 notification **confirmed**. The province with the highest number of confirmed notifications for Malaria was GP (30,32.6%).

Table

Table 3: The number of notifications by province and number of notifications that are suspected and confirmed by vital status, June 2024

				Ρ	rovir	nces				Co	ase	De	aths
Condition	EC ¹	FS ¹	GP ¹	KZN ¹	LP ¹	MP ¹	NC1	NW ¹	\mathbf{WC}^1	Confirmed	Suspected ¹		Suspected ¹
Acute flaccid paralysis	3	1	7	8	2	1	0	0	2	0	24	0	1
Acute rheumatic fever	0	0	0	0	0	0	0	0	0	0	0	0	0
Anthrax	0	0	0	0	0	0	0	0	0	0	0	0	0
Botulism	0	0	0	0	0	0	0	0	0	0	0	0	0
Cholera §	0	0	1	0	0	0	0	0	0	0	1	0	0
Congenital rubella syndrome	4	0	1	0	0	0	0	0	3	0	8	0	0
Diphtheria *	0	0	1	0	0	0	0	0	3	1	3	0	0
Enteric fever (typhoid or paratyphoid fever)	0	1	3	2	0	0	0	0	5	0	11	0	0
Foodborne illness outbreak	0	2	8	2	0	3	0	2	0	0	17	0	0
Haemolytic uraemic syndrome (HUS)	0	0	0	0	0	0	0	1	0	0	1	0	0
Listeriosis	0	0	1	0	0	0	0	0	3	1	3	0	0
Malaria	2	3	30	18	12	7	3	3	14	92	0	0	0
Ebola virus (VHF)	0	0	0	0	0	0	0	0	0	0	0	0	0
Marburg virus (VHF)	0	0	0	0	0	0	0	0	0	0	0	0	0
Measles	40	3	79	51	1	3	20	1	76	13	261	0	0
Meningococcal disease	2	1	1	1	0	1	2	0	4	4	8	0	2
Мрох	2	0	25	27	1	10	0	0	5	14	56	2	0
Pertussis	1	2	10	5	2	1	3	1	9	8	26	0	0
Plague	0	0	0	0	0	0	Õ	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	Ō	0	0	0	0	0	0	0
Rabies	1	0	1	0	1	Ō	0	0	0	0	3	0	1
Respiratory disease caused by a novel respiratory pathogen	0	0	0	Õ	0	0	Õ	0	Õ	0	0	0	0
Rift Valley fever (human)	0	0	0	0	0	Õ	0	0	Õ	0 0	0	0	0
Rubella	20	2	14	12	Ő	Ő	14	Ő	48	26	84	ĩ	õ
Smallpox	0	Õ	0	0	õ	Ő	0	Ő	0	0	0	0	õ
Crimean-Congo viral haemorrhagic fever (human)	0 0	õ	Ő	0	Ő	ĩ	Ő	Ő	Ő	Õ	1	õ	1
Yellow fever	0 0	õ	Ő	õ	Ő	Ö	Ő	Ő	Ő	Õ	0	õ	0
iotal	75	15	182	126	19	27	42	8	172	159	507	3	5

¹n (%);

* Toxin-producing results not available on NMC;

§ Serotype information not available on NMC;

** Merged case represents a clinical and laboratory notification of the same person and was successfully linked and made into a single notification



Figure 2: Distribution of all Category 1 NMCs notifications by province notified during June 2024. *All notifications include both suspected and confirmed cases

Category 2 notifications

Category 2 conditions must be notified within 7 days of diagnosis. They are important to monitor disease burden trends.

Table

Pulmonary* TB was the most common (4 500, 59%) category 2 notification. The province with the highest number of notifications for Pulmonary* TB was GP (1149, 14.9%).

Table 4: The number of notifications by province and number of notifications that are suspected and confirmed by vital status.

		Provinces									se	De	aths
Condition	EC ¹	FS ¹	GP ¹	KZN ¹	LP1	MP ¹	NC1	NW1	WC1	Confirmed	Suspected ¹	Confirmed	Suspected ¹
Agricultural or stock remedy	1	4	26	0	10	4	0	1	9	0	55	0	3
poisoning													
Bilharzia (schistosomiasis)	29	0	26	216	127	93	0	3	10	22	482	0	0
Brucellosis	0	0	0	0	0	0	0	0	1	0	1	0	0
Congenital syphilis	63	16	53	150	7	12	11	4	49	48	317	1	3
Haemophilus influenzae type B	0	7	0	0	0	0	0	0	0	0	7	0	0
Hepatitis A	27	19	113	102	21	31	7	8	71	66	333	0	0
Hepatitis B	68	33	77	465	5	13	10	40	18	17	712	0	2
Hepatitis C	0	2	15	2	0	0	0	0	0	0	19	0	0
Hepatitis E	0	0	0	0	0	0	0	0	0	0	0	0	0
Lead poisoning	0	0	0	0	0	2	0	0	0	0	2	0	0
Legionellosis	1	0	2	0	0	0	0	0	5	7	1	0	0
Leprosy	0	0	0	0	0	0	0	0	0	0	0	0	0
Maternal death (pregnancy,	1	0	5	0	3	1	0	0	0	0	10	0	10
childbirth and puerperium)													
Mercury poisoning	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil-transmitted helminths	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetanus	0	0	0	1	0	0	1	0	0	0	2	0	0
Tuberculosis: extensively drug- resistant (XDR -TB) *	0	0	4	2	0	0	1	0	0		C		0
Tuberculosis: multidrug- resistant	22	8	26	28	3	0	3	3	29		C		0
(MDR -TB) *													
Tuberculosis: extra-pulmonary*	87	55	404	155	24	25	30	35	144		C		0
Tuberculosis: pulmonary*	473	244	1 1 4 9	795	216	91	282	187	1 063		C		0
Total	772	388	1 900	1916	416	272	345	281	1 399	160	7 529	1	96

۱n;

* TB module is under development to align with laboratory-confirmed TB cases. Only TB cases that are manually notified (no laboratory surveillance) are reported.



Figure 3: Distribution of all Category 2 NMCs notifications by province notified during June 2024. *All notifications include both suspected and confirmed cases

Plot

The NMC App usage statistics Table 5: Description of the NMC notifications by case source

NMC Category	Overall , N = 8 464	Clinical notifications , n = 6 434	Laboratory notifications, n = 1 793	Merged Cases , n = 237
Category 1	666 (7.9%)	471 (7.3%)	123 (6.9%)	72 (30%)
Category 2	7 689 (91%)	5 963 (93%)	1 572 (88%)	154 (65%)
Category 3	109 (1.3%)	0 (0%)	98 (5.5%)	11 (4.6%)

Notification types and merging



Figure 4: Distribution of Category 1 notification type by the province during June 2024

There were 555 (8.3%) clinical notifications from the private sector (i.e. private hospitals, private practice and mining industry) compared to 6 097 (91%) in the public sector. Clinical notifications using the NMC Reporting Application is made up of 6513 (77%) (more details in Table 6).

Table 6: Clinical notifications notified by provinces, reporting platform, and sector

Province	Overall , N = 6 652	App - Private , n = 544	App - Public , n = 5 969	Paper-based - Private , n = 11	Paper-based - Public, n = 128
GP	1 905	182 (9.6%)	1 718 (90%)	1 (<0.1%)	4 (0.2%)
WC	1 478	93 (6.3%)	1 332 (90%)	2 (0.1%)	51 (3.5%)
KZN	1 204	108 (9.0%)	1 084 (90%)	2 (0.2%)	10 (0.8%)
EC	669	47 (7.0%)	574 (86%)	5 (0.7%)	43 (6.4%)
NC	354	10 (2.8%)	341 (96%)	0 (0%)	3 (0.8%)
FS	350	42 (12%)	307 (88%)	0 (0%)	1 (0.3%)
LP	298	6 (2.0%)	290 (97%)	1 (0.3%)	1 (0.3%)
NW	231	32 (14%)	185 (80%)	0 (0%)	14 (6.1%)
MP	163	24 (15%)	138 (85%)	0 (0%)	1 (0.6%)

The average active users on the NMC App

There were 343 average active users of the NMC App in June 2024



Figure 5: Authorised users and average active users of the NMC Reporting App by month of notification, December 2020-June 2024

Newly registered users Figure 5 shows the trends of newly registered users and their occupations.

200 - 150 - 100 - 50 - 0 -					Nurse
90 - 60 - 30 - 0 - 80 -					Doctor
80 - 60 - 40 - 20 - 0 -					Nurse-Clinician
75 - 50 - 25 - 0 -		ALA AMAA			Data clerk
30 - 20 - 10 -					Operational Manager
Notifications (n)					Facility Manager
Notifica 0 - 0+ 0 - 0+					Environmental Health Practitioner
40 - 30 - 20 - 10 - 0 -					Other
10 - 5 - 0 - 20 -					Nurse-Admin
20 - 15 - 10 - 5 - 0 - 12 -					CDC Manager
8 - 4 - 0 - 8 -					Clinical Associate
6 - 4 - 2 - 0 -	a a' a' e a a' a' e' a' e'				Epidemiologist
	2021	2022 Epiweek of I	2023 Notification	2024	

Figure 5: Trends of new users registered by occupation in South Africa, Jan 2022- May 2024

Data quality Completeness ID number completeness

Length of ID number	Android , N = 1 725 ¹	MicroStrategy/SDW, N = 2 0041	Paper-based , $N = 144^{1}$	Web , N = 4 168 ¹	iOS , N = 423 ¹
Not complete	670 (39%)	1 959 (98%)	91 (63%)	1 233 (30%)	183 (43%)
5	0 (0%)	0 (0%)	0 (0%)	2 (<0.1%)	0 (0%)
6	3 (0.2%)	1 (<0.1%)	1 (0.7%)	442 (11%)	44 (10%)
7	0 (0%)	0 (0%)	0 (0%)	3 (<0.1%)	1 (0.2%)
8	0 (0%)	0 (0%)	0 (0%)	97 (2.3%)	1 (0.2%)
9	0 (0%)	0 (0%)	0 (0%)	5 (0.1%)	0 (0%)
10	0 (0%)	0 (0%)	0 (0%)	60 (1.4%)	5 (1.2%)
11	0 (0%)	0 (0%)	0 (0%)	1 (<0.1%)	3 (0.7%)
12	0 (0%)	0 (0%)	0 (0%)	46 (1.1%)	2 (0.5%)
13	1 052 (61%)	44 (2.2%)	52 (36%)	2 279 (55%)	184 (43%)

Table 7: Length of ID numbers inputted on the NMC system during June 2024

'n (%)

Hospital Form Completeness Table 8: Completion of hospitalisation form for notifications reported as inpatients with category 1 conditions. June 2024 \ Complete refers to >80% of variables completed.

lospital Form Completed	Complete , n = 25 (15%)	Incomplete , n = 31 (19%)	Not Attempted , n = 61 (37%)	Only Symptoms completed, n = 49 (30%)
Acute flaccid paralysis	2 (8.3%)	4 (13%)	3 (4.9%)	12 (24%)
Acute rheumatic fever	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Anthrax	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Botulism	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Cholera §	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Congenital rubella syndrome	0 (0%)	0 (0%)	1 (1.6%)	0 (0%)
Diphtheria *	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Enteric fever (typhoid or paratyphoid fever)	1 (4.2%)	1 (3.3%)	0 (0%)	1 (2.0%)
Foodborne illness outbreak	1 (4.2%)	1 (3.3%)	3 (4.9%)	4 (8.2%)
Haemolytic uraemic syndrome (HUS)	0 (0%)	0 (0%)	0 (0%)	1 (2.0%)
Listeriosis	0 (0%)	2 (6.7%)	1 (1.6%)	0 (0%)
Malaria	4 (17%)	8 (27%)	7 (11%)	13 (27%)
Ebola virus (VHF)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Marburg virus (VHF)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Measles	6 (25%)	3 (10%)	3 (4.9%)	6 (12%)
Meningococcal disease	3 (13%)	2 (6.7%)	2 (3.3%)	3 (6.1%)
Мрох	2 (8.3%)	1 (3.3%)	30 (49%)	0 (0%)
Pertussis	3 (13%)	5 (17%)	6 (9.8%)	9 (18%)
Plague	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Poliomyelitis	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Rabies	0 (0%)	1 (3.3%)	0 (0%)	0 (0%)
Respiratory disease caused by a novel respiratory pathogen	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Rift Valley fever (human)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Rubella	2 (8.3%)	2 (6.7%)	4 (6.6%)	0 (0%)

Hospital Form Completed	Complete , n = 25 (15%)	Incomplete , n = 31 (19%)	Not Attempted , n = 61 (37%)	Only Symptoms completed, n = 49 (30%)
Smallpox	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Crimean-Congo viral haemorrhagic fever (human)	0 (0%)	0 (0%)	1 (1.6%)	0 (0%)
Yellow fever	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Unknown	1	1	0	0

Timeliness

Time to notification is measured by the number of days from the time of diagnosis of the NMC to the time of notification. Overall, it took a median (IQR) of 0 (0, 3) days to report category 1 NMCs.

Table 9: Symptoms of patients clinically notified and merged with lab notifications to the NMC, notified during June 2024

Characteristic	Category 1 ,	Category 2 ,	Category 3 ,
	n = 707	n = 7 689	n = 109
Time to Notification Unknown Back Capture Classification	0 (0, 3) 42	3 (0, 11) 716	5 (3, 9) 0
Back capture	41 (6%)	0 (0%)	0 (0%)
Current	531 (75%)	5 542 (72%)	77 (71%)
Delayed	135 (19%)	2 147 (28%)	32 (29%)

Conclusion

The majority of notifications were clinical notifications. Patients who are hospitalised with a category 1 condition and notified still have poor completeness of the hospital form with the majority of notifications only having symptoms completed. ID numbers are poorly completed in notifications from SDW.

Recommendations

- We recommend clinicians complete all patient clinical and demographic details to improve hospital form completeness.
- We strongly recommend complete ID number capture in the SDW system to improve data quality and the ability for the NMCSS to merge clinical and laboratory notifications.
- We welcome stakeholders to send feedback and suggestions for the report. We also encourage reaching out for ingestion of data from data from data sources that existed before the launch of the NMCSS. Feel free to reach out to brianb@nicd.ac.za and mmakhubele@nicd.ac.za.

Appendices

Appendix No. 1: Back-captured clinical notifications Table 10: Back captured notifications by reporting province notified during June *Back captured notifications use the diagnosis date, and the recommended time to notification depending on the NMC category. See Appendix No. 3 for details

Condition	Overall Province							Case Source								
	Overall, (41)	ЕС , (9)	GP , (13)	KZN , (6)	MP , (1)	NC , (1)	WC , (11)	Android, (5) ¹	Paper-based, (1) ¹	SDW , (18) ¹	Web , (15) ¹	iOS, (2)1				
Rubella	15 (37%)	3	3	2	0	0	7	1	0	5	9	0				
Measles	11 (27%)	4	3	1	0	1	2	2	0	7	2	0				
Pertussis	4 (9.8%)	2	0	1	1	0	0	0	1	3	0	0				
Acute flaccid paralysis	3 (7.3%)	0	2	0	0	0	1	1	0	0	2	0				
Malaria	3 (7.3%)	0	3	0	0	0	0	1	0	1	1	0				
Congenital rubella syndrome	1 (2.4%)	0	0	0	0	0	1	0	0	1	0	0				
Diphtheria	1 (2.4%)	0	0	1	0	0	0	0	0	1	0	0				
Haemolytic uraemic syndrome (HUS)	1 (2.4%)	0	1	0	0	0	0	0	0	0	0	1				
Meningococcal disease	1 (2.4%)	0	1	0	0	0	0	0	0	0	0	1				
Mpox	1 (2.4%)	0	0	1	0	0	0	0	0	0	1	0				

¹SDW – Surveillance data warehouse/ MicroStrategy

Appendix No.2: Summary of NMCSS Data Flow



Appendix No.3: NMC Categories, and Case Classification Definitions NMC categories

Category 1: NMCs are notified by the most rapid means available upon diagnosis, followed by a written or electronic notification to the Department of Health within 24 hours of diagnosis by healthcare providers, private health laboratories or public health laboratories. These conditions must be notified based on clinical suspicion irrespective of laboratory confirmation.

Category 2: NMCs notified through a written or electronic notification to the Department of Health of clinical or laboratory diagnosis within 7 days by healthcare providers, private health laboratories or public health laboratories.

Category 3: NMCs are notified through a written or electronic notification to the Department of Health within 7 days of diagnosis by public and private health laboratories.

Category 4: NMCs are notified through a written or electronic notification to the Department of Health within 1 month of diagnosis by public and private health laboratories.

Case Classification definitions

Clinical cases: are cases reported to the NMC by health care providers at facilities, either through completion of a paper form that is faxed, emailed to the National Institute of Communicable Diseases (NICD), or by direct data entry into the NMC application on a PC, laptop or mobile device. The diagnosis is made by the clinician based on case definitions published on the NICD website.

Laboratory cases: are cases that are downloaded into the NMC database directly from the National Health Laboratory Services (NHLS) laboratory information system. The NMC application applies the case definitions that are published on the NICD website. Private sector data is being sourced.

Merged cases: are cases where a case was notified by a health care provider at the facility (a 'clinical case') AND the laboratory issued a report with a positive result for the same case (a 'laboratory case). The NMC App is set up to automatically detect and link clinical and laboratory case notifications. The NICD specialist Centres and NMC data team review all cases and manually link any remaining clinical and laboratory cases

Notification capture times definitions

Current notification: Category 1 conditions notified within 2 days of diagnosis date. Category 2 and 3 conditions are notified within 7 days of diagnosis. All lab notifications without diagnosis date are classified as current.

Delayed notification: Category 1 conditions are notified within between 3 and 7 days of diagnosis date. Category 2 and 3 conditions are notified between 8 and 30 days of diagnosis.

Back capture notification: Category 1 conditions are notified more than 7 days after the diagnosis date. Category 2 and 3 conditions were notified more than 30 days after diagnosis date.

Epi-weeks: Epi-weeks used the CDC definition of a week starting on a Sunday and ending on a Saturday. The first epi-week of the year is the week that contains the first Saturday of January. Epi-week 1 of 2024 started on 31 December 2023 and ended on 6 January 2024.

Appendix No.4: IDSR reporting template for IDSR conditions existing on NMC by under-five and five-and-over years and vital status. Table 11: The number of IDSR conditions the laboratory notified the NMC using the IDSR reporting template of under five-and-above five years by vital status.

		Notified/Suspected									
Condition	Under 5 A , N = 287 ¹	5 & over A , N = 208 ¹	5 & over D , N = 1 ¹	Under 5 D , N = 4 ¹	N = 159 ¹						
Acute flaccid paralysis	17	6	1	0	0						
Acute rheumatic fever	0	0	0	0	0						
Anthrax	0	0	0	0	0						
Botulism	0	0	0	0	0						
Cholera	0	1	0	0	0						
Congenital rubella syndrome	7	1	0	0	0						
Diphtheria	2	0	0	0	1						
Enteric fever (typhoid or paratyphoid fever)	7	3	0	0	0						
Foodborne illness outbreak	13	4	0	0	0						
Haemolytic uraemic syndrome (HUS)	1	0	0	0	0						
Listeriosis	1	2	0	0	1						
Malaria	0	0	0	0	92						
Ebola virus (VHF)	0	0	0	0	0						
Marburg virus (VHF)	0	0	0	0	0						
Measles	124	137	0	0	13						
Meningococcal disease	6	0	0	2	4						
Мрох	49	7	0	0	14						
Pertussis	20	1	0	0	8						
Plague	0	0	0	0	0						
Poliomyelitis	0	0	0	0	0						
Rabies	0	2	0	1	0						
Respiratory disease caused by a novel respiratory pathogen	0	0	0	0	0						
Rift Valley fever (human)	0	0	0	0	0						
Rubella	40	44	0	0	26						
Smallpox	0	0	0	0	0						
Crimean-Congo viral haemorrhagic fever (human)	0	0	0	1	0						
Yellow fever	0	0	0	0	0						

 $^{1}A = Cases$ who are alive.

D = Cases who are deceased.

Appendix No.5: Trends and epi-table of all Category 1 notifications from 2022 to June 2024. All Notifications Epi-Table

Table 12: Number of notifications on NMCSS per Epi-week in 2024. The Average notifications are calculated based on notifications received in 2022 and 2023 with a confidence interval.

		verage fications	Epi-week																			
Characteristic		95% CI ¹	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Acute flaccid paralysis	3.65	3.5, 4.5	4	6	10	7	5	1	6	4	8	3	7	9	5	4	6	8	7	9	3	0
Acute rheumatic fever	0.25	1.0, 1.5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anthrax	0.0085	NA, NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botulism	0.0466	1.0, 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cholera	6.4	3.0, 7.5	11	14	5	8	6	3	2	2	2	0	3	0	0	1	0	0	0	1	0	0
Congenital rubella syndrome	1.94	2.0, 2.5	6	2	4	6	2	4	1	2	2	2	3	1	5	4	2	3	3	3	0	0
Covid-19	1 175	537,858	143	133	110	123	101	99	102	148	218	251	250	385	356	364	251	196	208	194	143	0
Crimean-Congo viral haemorrhagic fever (human)	0.12	1.0, 1.0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
Diphtheria	0.56	1.0, 1.5	1	2	2	0	1	0	0	0	0	2	0	0	1	1	0	1	0	4	0	0
Ebola virus (VHF)	0.0042	NA, NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enteric fever (typhoid or paratyphoid fever)	3.47	3.5, 4.5	4	3	1	5	6	1	8	4	11	2	4	7	4	5	4	2	5	2	2	0
Foodborne illness outbreak	9	6.0, 9.0	48	11	19	4	31	4	15	9	13	3	12	7	21	6	4	3	1	8	5	0
Haemolytic uraemic syndrome (HUS)	0.06	1.0, 1.0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	0
Listeriosis	1.60	2.0, 2.5	6	4	0	1	2	0	0	0	0	0	1	2	1	1	1	1	0	2	0	0
Malaria	87	67,86	48	61	48	60	52	34	40	42	55	53	51	63	44	59	35	28	29	26	9	0
Marburg virus (VHF)	0.0042	NA, NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Measles	26	21, 34	61	48	72	71	52	46	44	41	64	91	60	70	80	82	63	75	85	79	46	0
Meningococcal disease	2.09	2.5, 3.0	2	3	2	6	3	3	5	3	2	3	2	6	3	6	6	4	4	4	1	0
Мрох	0.3136	1.5, 20	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2	10	29	29	0
Pertussis	18	18, 27	18	19	21	15	16	13	14	17	17	16	33	18	10	19	13	11	10	11	6	0
Plague	0.0042	NA, NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poliomyelitis	0.0085	NA, NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabies	0.61	1.5, 2.0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	1	0	0
Respiratory disease caused by a novel respiratory pathogen	9	3.0, 9.0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Rubella	10	4.5, 6.5	18	12	38	45	32	49	12	23	12	29	26	27	31	50	16	49	37	32	7	0
Smallpox	0.0424	1.0, 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waterborne illness outbreak - undefined	0.21	1.0, 1.5	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0
Yellow fever	0.0466	1.0, 1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

¹CI = Confidence Interval

Trends Plot



Figure 6: Trend of weekly number of all notifications for selected conditions reported to the NMC, in South Africa, January, 2022-June

END