



WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 14 – 2024

(01-07 April 2024)

Editorial message

Effective and efficient disease surveillance system contribute to the reduction of morbidity, disability and mortality from disease outbreaks and health emergencies.

This weekly bulletin presents the epidemiological status of the priority diseases, conditions, and events under surveillance in Rwanda. These data are useful to trigger a rapid response for rapid impact, actions and results oriented, a proactive preparedness, risk mitigation and prevention, intelligence, real-time information, and communication for decision making.

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KEY EPIDEMIOLOGICAL HIGHLIGHTS

EPIDEMIOLOGICAL WEEK 14/2024

Event Based Surveillance (EBS) Highlights:

Alerts from community: 7 Human Deaths, 1 Human illness

Alerts from EIOS: 6 alerts

- Alarming increase in cholera cases around Goma
- Outbreak of mpox caused by Monkeypox virus clade I in the Democratic Republic of the Congo
- Comoros: fifty-two cases of cholera at the end of March 2024
- Bird flu pulled the alarm Nearly 70,000 chickens were culled in Zhang Xian County/ China.
- WHO alert due to the increase in cholera cases in Africa
- Suspected dengue fever cases rise in Khartoum North

Indicator Based Surveillance (IBS) Highlights:

- 172 immediate reportable diseases were notified by health facilities countrywide. These include the cases of acute flaccid paralysis (AFP), mumps, severe malaria; bloody diarrhea, measles/rubella, chicken pox, bacterial meningitis, foodborne illness, snake bite and viral conjunctivitis
- For 8 weekly reportable diseases and health events, a thorough analysis conducted for the Epi Week 14 revealed that no disease surpassed the epidemic threshold
- A total of 66 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Most of deaths were perinatal deaths and deaths of children under 5 years.

Influenza sentinel surveillance update

In the previous 12th, 13th, 14th Epidemiological weeks a total of 45 samples were collected from 3 sentinel sites CHUB (10), KIBUNGO RH (10) and GIHUNDWE (25)). Out of the 45 samples that were received and tested by the National Reference Laboratory (NRL) 40 tested negatives for all influenza subtypes, 5 tested positive on seasonal influenza (1 on seasonal influenza type A & 4 on seasonal influenza type B), 3 co-infection cases and 6 positives case for COVID-19.

VPD update

- Out of 30 Districts, 28 met the quarterly target of the Acute Flaccid Paralysis (AFP) detection rate, and 2 (Kicukiro and Musanze) are still silent (no AFP reported yet).
- Out of 30 Districts, 22 have already met the annual target of the measles suspected detection rate, and 8 (Rubavu, Rutsiro, Gakenke, Gasabo, Bugesera, Kayonza, Nyagatare, and Rwamagana) have not yet met the target.

Outbreaks and events updates in week 14

Ongoing Adenovirus conjunctivitis in Rusizi District, Mibilizi DH

Completeness and timeliness

In Epi Week 14, the overall completeness and timeliness of surveillance data reporting in Rwanda was 99.5% and 90% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 14

Description: *Event Based Surveillance (EBS) is a type of public health surveillance system that detects and reports unusual health events or disease outbreaks in a timely manner. The system is designed to detect signals of potential public health threats and allow a rapid response to prevent or control the spread of diseases. RBC is implementing EBS through PHS&EPR Division.*

Currently, an electronic Community Event Based Surveillance System (eCBS) and Epidemic Intelligence from Open Source (EIOS) are being used to detect and report events of public health importance from the community and media. The process for establishment of other types of EBS is still being on going.

COMMUNITY BASED SURVEILLANCE

7 Alerts from community:

- 6 Human Deaths
- 1 Human illness

6 Alerts from EIOS:

- Alarming increase in cholera cases around Goma
<https://actualite.cd/2024/04/07/hausse-alarmante-des-cas-de-cholera-autour-de-goma-msf-appelle-une-reponse-humanitaire>
- Outbreak of mpox caused by Monkeypox virus clade I in the Democratic Republic of the Congo
<https://www.ecdc.europa.eu/en/news-events/outbreak-mpox-caused-monkeypox-virus-clade-i-democratic-republic-congo>
- Comoros: fifty-two cases of cholera at the end of March 2024
<https://la1ere.francetvinfo.fr/reunion/comores-cinquante-deux-cas-de-cholera-fin-mars-2024-1477148.html>

- Bird flu pulled the alarm Nearly 70,000 chickens were culled in Zhang Xian County/ China.
<https://gphin.canada.ca/cepr/showarticle.jsp?docId=1016106563>

Summary: Third bird flu outbreak in the county recently, a total of nearly 70,000 chickens were culled. 19,788 people were infected with the new H5N1 subtype highly pathogenic avian influenza virus. A large number of duck carcasses appeared on the seawall and drainage ditch in Fengcun.

- WHO alert due to the increase in cholera cases in Africa
<https://infocaleta.com/v2/alerta-de-la-oms-por-el-aumento-de-casos-de-colera-en-africa/>
- Suspected dengue fever cases rise in Khartoum North
<https://gphin.canada.ca/cepr/showarticle.jsp?docId=1016096547>

Summary: Sudan's annual rainy season routinely leaves swaths of flood damage. The resulting standing water is a breeding ground for mosquitoes that carry dengue fever and malaria. In Bahri (Khartoum North), where there are over 300 suspected cases of Dengue fever, there are no signs of the crisis abating.

WEEKLY UPDATES ON INDICATOR BASED SURVEILLANCE (IBS)

Description: *Rwanda had implemented Indicator Based Surveillance according to the IDSR guidelines 3rd edition where approximately 45 priority diseases, health conditions and public health events are being monitored and reported from health facilities countrywide on a regular basis. Diseases that are prone to outbreaks are being reported immediately within 24 hours after detection while diseases that are considered as endemic are reported on weekly basis every Monday before midday.*

A. IMMEDIATE REPORTABLE DISEASES – EPI WEEK 14

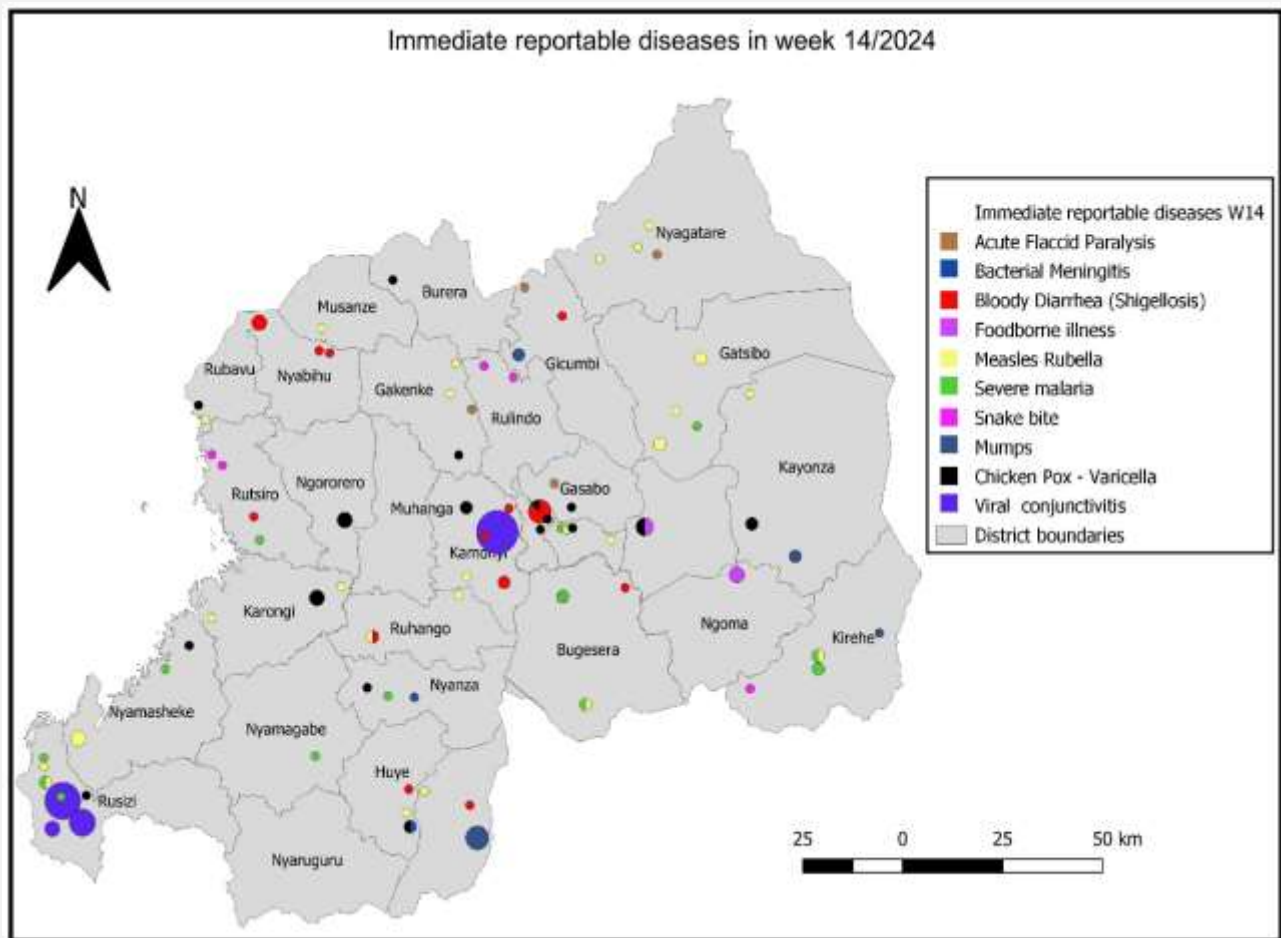
During this Epi week, 172 cases of immediate reportable diseases were notified:

- 25 cases of chicken pox were reported by 18 HFs. No health facility crossed the threshold.
- 13 cases of mumps were reported by 5 HCs. No HF crossed the threshold
- 21 suspected cases of bloody diarrhea (Shigellosis) were reported by 13 health facilities. The samples were taken and sent to NRL. For the samples of the previous week, 5 samples from Biryogo HC, 2 from Nyabihu HC, 4 samples from Murunda DH, Mbazi HC and Rukomo HC tested positive for Shigella flexneri.
- 29 suspected cases of Measles/Rubella were reported by 15 HCs. The samples were taken and sent to NRL. For the samples of the previous week, 1 sample from Biryogo tested positive for Measles, while 3 samples from Rukumberi, Muhambo, and Bushenge tested positive for Rubella
- 17 cases of severe malaria were reported by 15 health facilities
- 4 cases of acute flaccid paralysis were reported by 4 health facilities, the samples were taken and sent to NRL for transportation to UVRI laboratory.
- 52 cases of viral conjunctivitis were reported by 4 health facilities.
- 1 suspected case of bacterial meningitis was reported in 1 health facility. The Laboratory sample test was negative.
- 5 cases of snake bite were reported by 5 health facilities.
- 5 Foodborne illness cases were reported by 2 health facilities

Notes:

- ✓ All confirmed and suspected cases had been managed at the health facility level.
- ✓ The hospitals with surpassed thresholds are recommended to conduct the investigations.

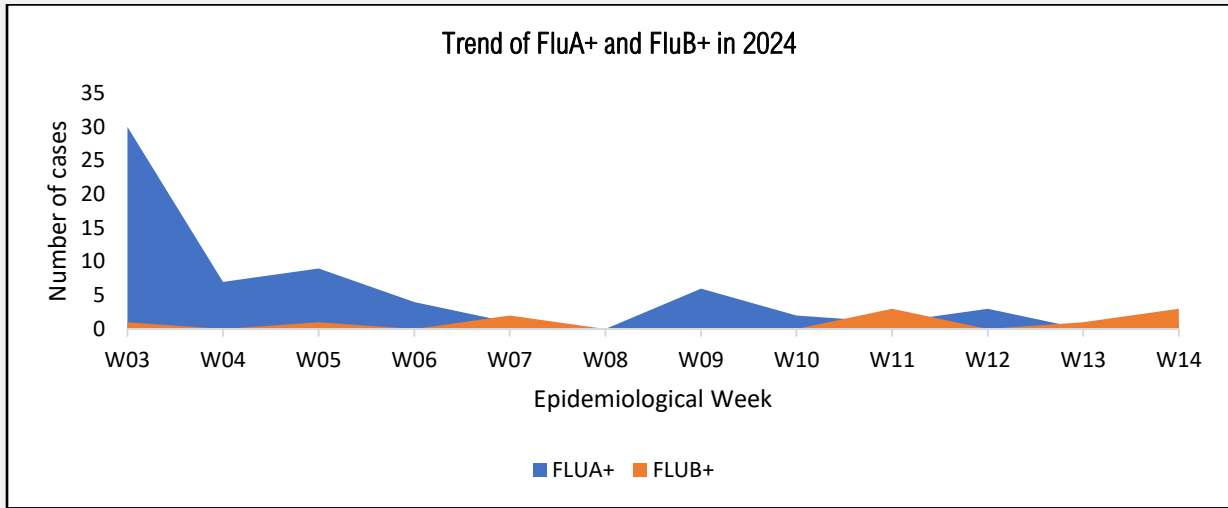
Geographical distribution of cases:



Distribution of immediate reportable diseases in Epi week 14

B. INFLUENZA SENTINEL SURVEILLANCE UPDATE

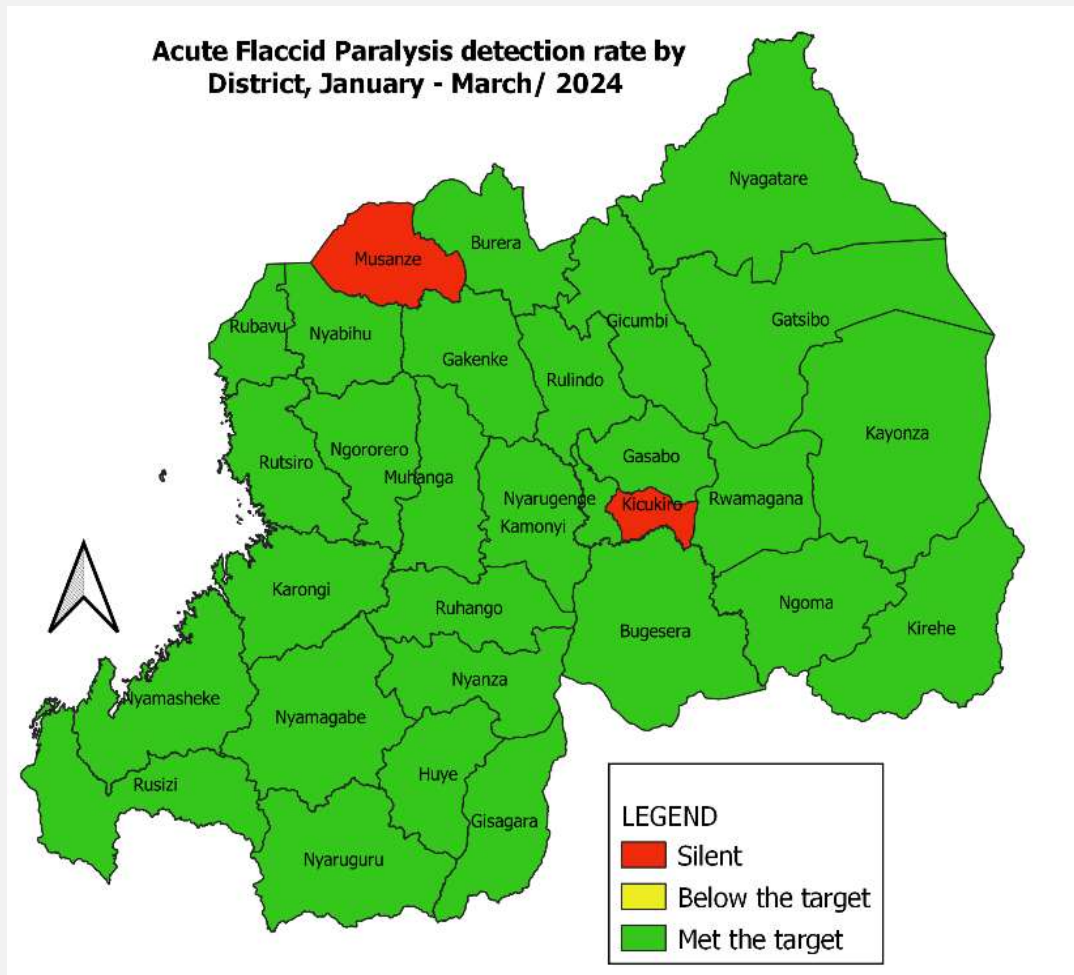
During the epi weeks from 12 to 14, a total of 45 samples were collected from 3 sentinel sites CHUB (10), KIBUNGO RH (10) and GIHUNDWE (25)). Out of the 45 samples that were received and tested by the National Reference Laboratory (NRL) 40 tested negatives for all influenza subtypes, 5 tested positive on seasonal influenza (1 on seasonal influenza type A & 4 on seasonal influenza type B), 3 co-infection cases and 6 positives case for COVID-19. Regarding the trend of influenza type A and type B, it shows that influenza type A+ was more predominant than B+, with the pick observed in week 3, but in week 14, Flu B increased as revealed on the following chart.



Trend of Influenza type A+ and type B+

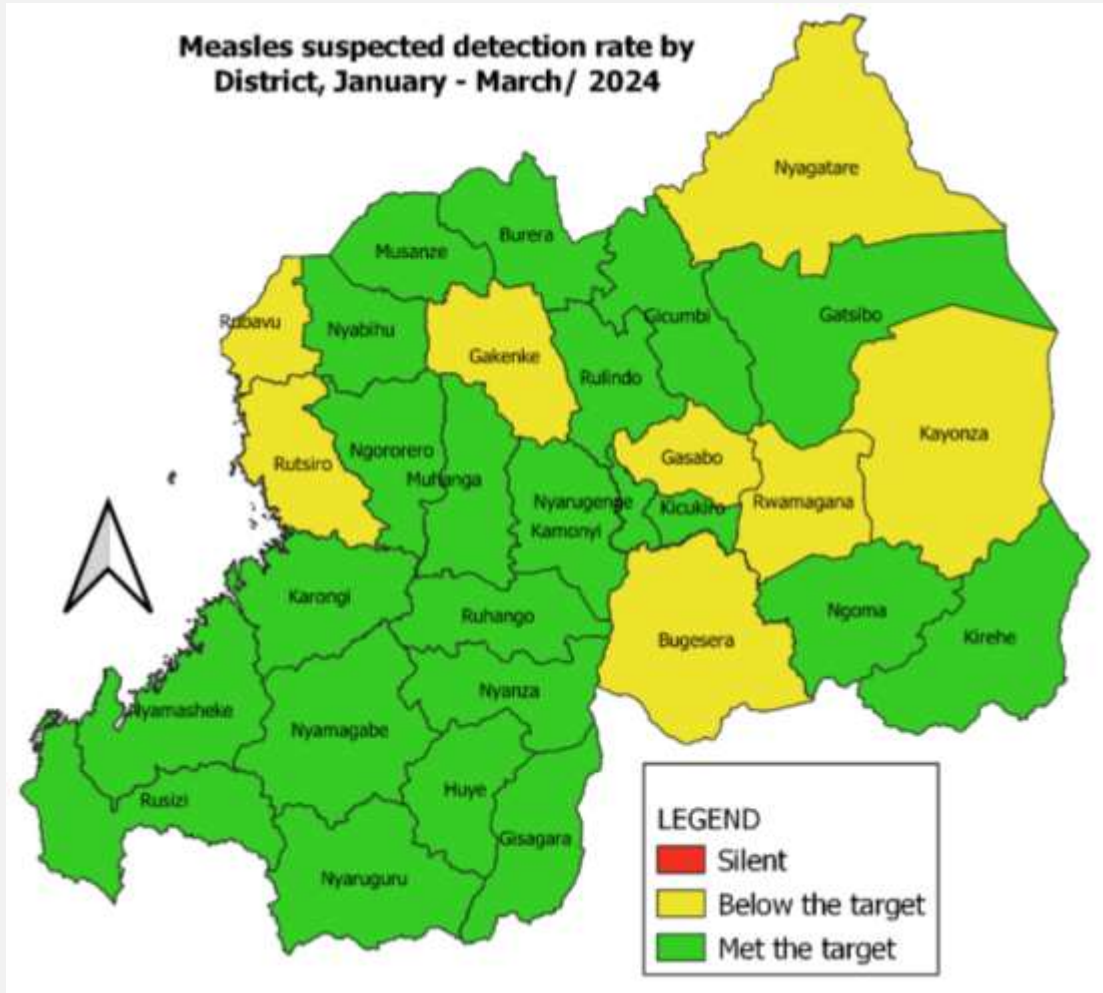
C. VPD SURVEILLANCE UPDATE

1. Polio surveillance



Out of 30 Districts, 28 met the quarterly target of the Acute Flaccid Paralysis (AFP) detection rate, and 2 (Kicukiro and Musanze) are still silent (no AFP reported yet).

2. Measles surveillance



Out of 30 Districts, 22 have already met the annual target of the measles suspected detection rate, and 8 (Rubavu, Rutsiro, Gakenke, Gasabo, Bugesera, Kayonza, Nyagatare, and Rwamagana) have not yet met the target.

3. Conducted visits for Polio surveillance: ISS and e-Surve

Legend

	Silent		Below the target		Met the target
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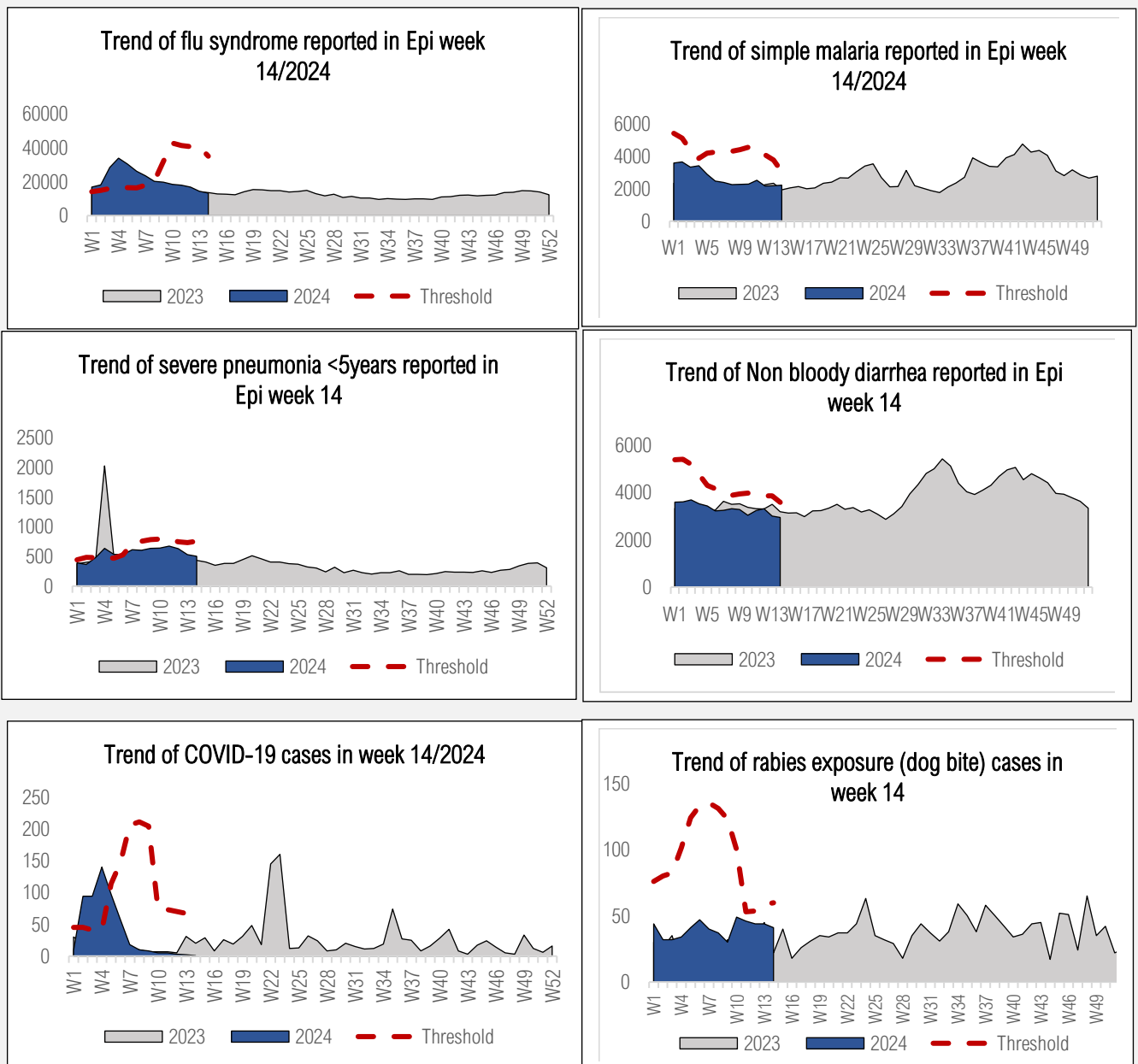
District	Expected Monthly visits					% Conducted visits in March 2024				
	Highest	High	Medium	Low	Total	Highest	High	Medium	Low	Total
Gasabo	-	48	14	4	66	NA	14.6	35.7	25.0	19.7
Kicukiro	-	56	4	-	60	NA	28.6	25.0	NA	28.3
Nyarugenge	-	44	16	2	62	NA	25.0	37.5	0.0	27.4
COK	-	148	34	6	188	NA	23.0	35.3	16.7	25.0
Burera	-	16	12	10	38	NA	37.5	25.0	0.0	23.7
Gakenke	-	32	36	2	70	NA	28.1	72.2	50.0	51.4
Gicumbi	-	16	48	1	65	NA	25.0	64.6	100.0	55.4
Musanze	-	8	34	1	43	NA	87.5	23.5	0.0	34.9
Rulindo	-	36	26	4	66	NA	36.1	42.3	0.0	36.4
North	-	108	156	18	282	NA	36.1	50.6	11.1	42.6
Bugesera	8	40	14	5	67	12.5	27.5	14.3	0.0	20.9
Gatsibo	8	36	14	8	66	12.5	36.1	21.4	62.5	33.3
Kayanza	8	44	16	7	75	0.0	22.7	25.0	14.3	20.0
Kirehe	16	32	16	3	67	18.8	37.5	25.0	0.0	28.4
Ngoma	-	40	4	7	51	NA	15.0	25.0	14.3	15.7
Nyagatare	-	52	18	2	72	NA	28.8	33.3	0.0	29.2
Rwamagana	-	40	12	4	56	NA	22.5	41.7	25.0	26.8
East	40	284	94	36	454	NA	26.8	26.6	22.2	25.1
Gisagara	8	40	12	-	60	12.5	25.0	41.7	NA	26.7
Huye	-	16	20	5	41	NA	37.5	30.0	20.0	31.7
Kamonyi	-	20	4	10	34	NA	50.0	75.0	30.0	47.1
Muhanga	-	24	22	3	49	NA	8.3	27.3	33.3	18.4
Nyamagabe	8	40	18	4	70	12.5	40.0	50.0	25.0	38.6
Nyanza	8	32	18	4	62	0.0	68.8	11.1	25.0	40.3
Nyaruguru	-	24	18	2	44	NA	70.8	55.6	100.0	65.9
Ruhango	-	44	14	4	62	NA	61.4	28.6	25.0	51.6
South	24	240	126	32	422	8.3	45.8	35.7	31.3	39.6
Karongi	8	56	24	2	90	50.0	50.0	33.3	0.0	44.4
Ngororero	-	36	16	3	55	NA	33.3	43.8	0.0	34.5
Nyabihu	8	28	14	3	53	0.0	21.4	7.1	0.0	13.2
Nyamasheke	-	40	12	8	60	NA	32.5	8.3	12.5	25.0
Rubavu	8	40	2	4	54	62.5	37.5	150.0	25.0	44.4
Rusizi	8	56	18	2	84	50.0	25.0	27.8	0.0	27.4
Rutsiro	-	12	16	7	35	NA	50.0	12.5	0.0	22.9
West	32	268	102	29	431	40.6	35.1	26.5	6.9	31.6
Total	96	1,048	512	121	1,777	20.8	33.7	36.7	19.0	32.9

D. WEEKLY REPORTABLE DISEASES – EPI WEEK 14

Description: In Rwanda, after the adaptation of the IDSR guidelines 3rd edition, eight diseases events are being reported and analyzed on a weekly basis. These include flu syndrome, simple malaria, severe pneumonia for under 5 years, non-bloody diarrhea for under 5 years, COVID-19, dog bites, brucellosis, and trypanosomiasis. The monitoring trends of these weekly reportable diseases or health events helps to detect an unusual increase early.

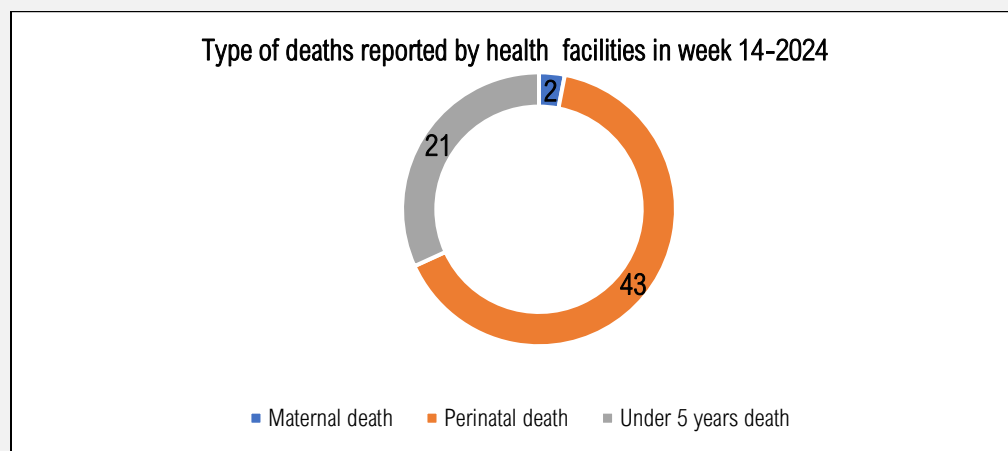
In Epi Week 14, a thorough analysis was conducted, comparing the number of reported cases of the eight diseases monitored on a weekly basis to their respective epidemic thresholds. The results of the analysis revealed that no disease crossed the epidemic thresholds.

The figures below show the weekly reportable diseases trends:



DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 14

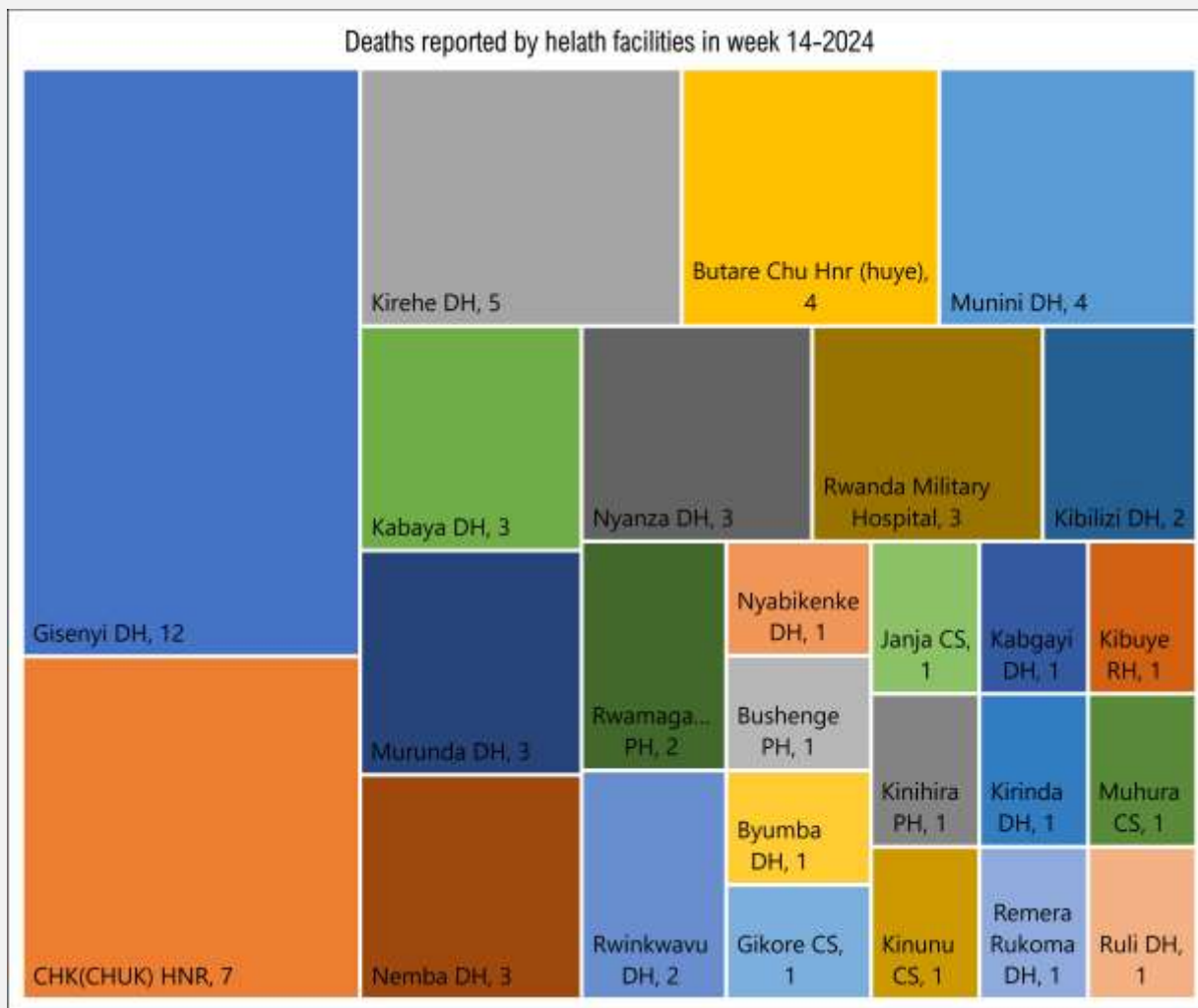
As summarized in the Pie Chart below, a total number of 66 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 43 (65%) were perinatal, 21 (32%) were the deaths of children under 5 years old and 2(3%) maternal deaths.



Cause of deaths declared in epi week 14

66 deaths were reported from various catchment areas as follow:

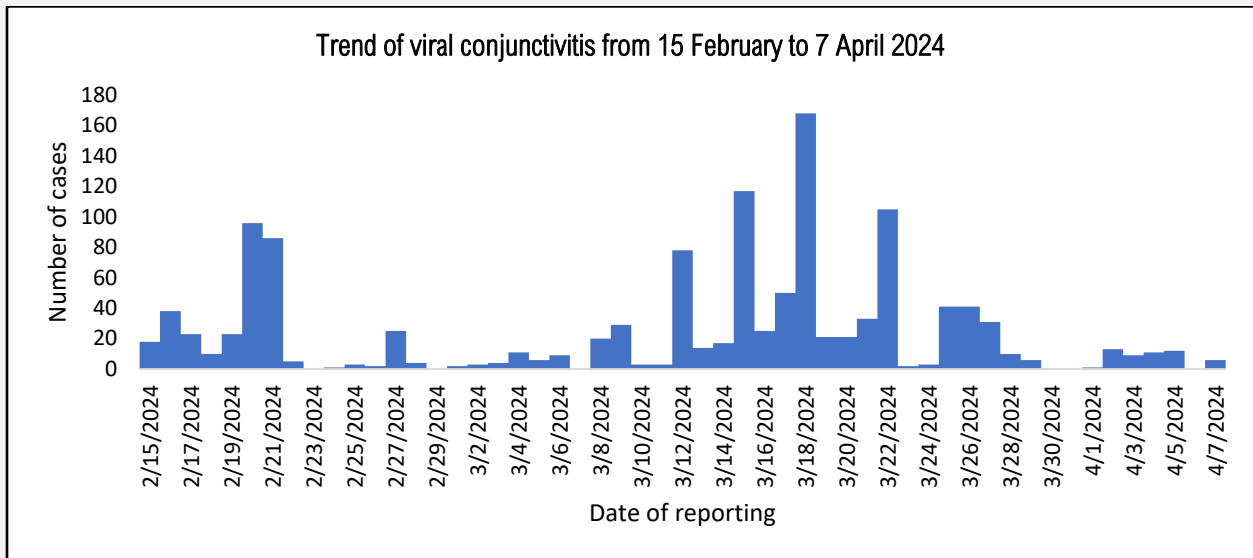
- 12 deaths were reported by Gisenyi DH (10 perinatal deaths, 2 under 5 years death)
- 7 deaths were reported by CHUK (3 perinatal deaths and 4 under 5 years deaths)
- 5 deaths were reported by Kirehe DH (all were perinatal deaths)
- 4 deaths were reported respectively by CHUB (3 perinatal deaths, and 1 maternal death); Munini DH (3 perinatal deaths and 1 under 5 years deaths)
- 3 deaths were reported respectively by Kabaya DH (1 maternal death ,1 perinatal death and 1 under 5 years death), Murunda DH (3 under 5 years deaths), Nemba DH and Nyanza DH reported each one 2 perinatal deaths and 2 under 5 years deaths) and Rwanda Military Hospital reported (1 perinatal death and 2 under 5 years deaths)
- 2 deaths were reported respectively by Kibilizi DH (1 perinatal death and 1 under 5 years death); Rwamagana PH reported 2 under 5 years deaths and Rwinkwavu DH reported 2 perinatal deaths.
- 1 death was reported respectively by Nyabikenke DH, Bushenge PH, Byumba DH, Kibuye RH, Kinunu HC (in Murunda DH), Kirinda DH, Muhura HC (in Kiziguro DH), Remera Rukoma DH, Ruli DH (each one reported 1 perinatal death); Janja HC (in Gatonde DH), Kabgayi DH, Kinihira PH, (each one reported 1 under 5 years death).



Distribution of deaths by health facilities in Epi week 14

OUTBREAK AND EVENT UPDATES IN EPIDEMIOLOGICAL WEEK 14

- **New outbreak:**
 - No outbreak was identified this week.
 - **Updates on ongoing outbreak of Adenovirus conjunctivitis in Rusizi District, Mibilizi DH**
- ❖ This outbreak has been identified in the Bugarama Health Center (HC), Mashsha HC, and Rwinkwazi HC zones. The cumulative number of cases thus far is 385 since the onset of the first case. Common symptoms observed include eye redness and eye discharge, and all affected individuals have received treatment. The same containment measures are in place.
- ❖ For the trend of viral conjunctivitis cases, the outbreak started from February 15th, 2024, and cases continue to occur up to date. The pick was observed on 13 March 2024 (168 cases) and a decrease in number of cases is observed since the epi week 12. As of 8 April 2024, the number of cases reported in immediate reportable diseases were 1259. The trend of viral conjunctivitis is shown on the following epi-curve.



Source: e-IDSR individual records downloaded on 12 April 2024

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 14

In Rwanda, eIDSR reports completeness and timeliness are scored as follow:

- + **Greater or equal to 80%: High,**
- + **Between 60% and 79%: Moderate,**
- + **Less than 60%: Low.**

In the Epi Week 14, the overall completeness and timeliness of disease surveillance data reporting in Rwanda decreased to 99.5% and 90%, respectively. With regards to completeness of surveillance reports, all hospitals had a high completeness score (>80%). For the timeliness, many hospitals had a high timeliness score (>80%), except 2 hospitals that had a moderate score (between 60% and 79%): Bushenge PH, Kibagabaga DH and 3 hospitals that had a low score (below 60%): Kacyiru hospital, CARAES Ndera and King Faysal hospital.

Notes: The health facilities that did not have a high score for the timeliness had been recommended to improve the reporting by submitting weekly surveillance reports not later than Monday before 12:00 even if the Monday coincide with the holiday.

Details on completeness and timeliness for all health facilities are showed in the figures below.

