



WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 13 – 2024

(25-31 March 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 13/2024

Event Based Surveillance (EBS) Highlights:

- 8 Alerts from community:** 5 Human Deaths, 2 Human illness and 1 Dog Bite
- 6 Alerts from EIOS:**
 - Kenya: Health Ministry Attributes Increased Cases of Respiratory Infections to Influenza
 - DRC declared high-burden, epicentre of typhoid fever.
 - DRC outbreaks include cholera, measles, mpox, dengue, yellow fever in 2024.
 - Mpox cases in the US are on the rise as vaccination rates lag and new threats loom.
 - Outbreak of suspected cases of Monkeypox in the DRC: more than 220 notifications in one week
 - Uganda: Epidemic - 01-2024 - Measles Outbreak (2024-03-26)

Indicator Based Surveillance (IBS) Highlights:

- 177 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, typhoid fever, bacterial meningitis, cholera, snake bite and viral conjunctivitis
- For 8 weekly reportable diseases and health events, a thorough analysis conducted for the Epi Week 12 revealed that no disease surpassed the epidemic threshold
- A total of 82 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

- Out of the 56 samples collected in previous Epi Week, 49 tested negatives for all influenza subtypes, 4 tested positive on seasonal influenza type A, 3 tested positive on seasonal influenza type B, and 8 tested positives on COVID-19. There are no co-infection cases identified.

Outbreaks and events updates in week 13

No new outbreak identified in this week
Updates on ongoing viral conjunctivitis outbreak

Completeness and timeliness

In Epi Week 13, the overall completeness and timeliness of surveillance data reporting in Rwanda was 93% and 91% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 13

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

8 Alerts from community:

- 5 Human Deaths
- 2 Human illness
- 1 Dog Bite

6 Alerts from EIOS:

- Kenya: Health Ministry Attributes Increased Cases of Respiratory Infections to Influenza
<https://allafrica.com/stories/202403280158.html>
- DRC declared high-burden, epicentre of typhoid fever.
<https://www.theeastafrican.co.ke/tea/science-health/drc-declared-high-burden-epicentre-of-typhoid-fever-4573406>
- DRC outbreaks include cholera, measles, mpox, dengue, yellow fever in 2024.
<https://www.precisionvaccinations.com/democratic-republic-congo-disease-outbreaks-continue-deteriorating-2024-03-29>
- Mpox cases in the US are on the rise as vaccination rates lag and new threats loom.
<https://ktvz.com/health/cnn-health/2024/03/28/mpox-cases-in-the-us-are-on-the-rise-as-vaccination-rates-lag-and-new-threats-loom/>
- Outbreak of suspected cases of Monkeypox in the DRC: more than 220 notifications in one week
<https://flutrackers.com/forum/forum/africa-ac/monkeypox/984668-drc-mpox-monkeypox-outbreak-2024/page2#post987799>
- Uganda: Epidemic - 01-2024 - Measles Outbreak (2024-03-26)
<https://reliefweb.int/report/uganda/uganda-epidemic-01-2024-measles-outbreak-2024-03-26>

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 13

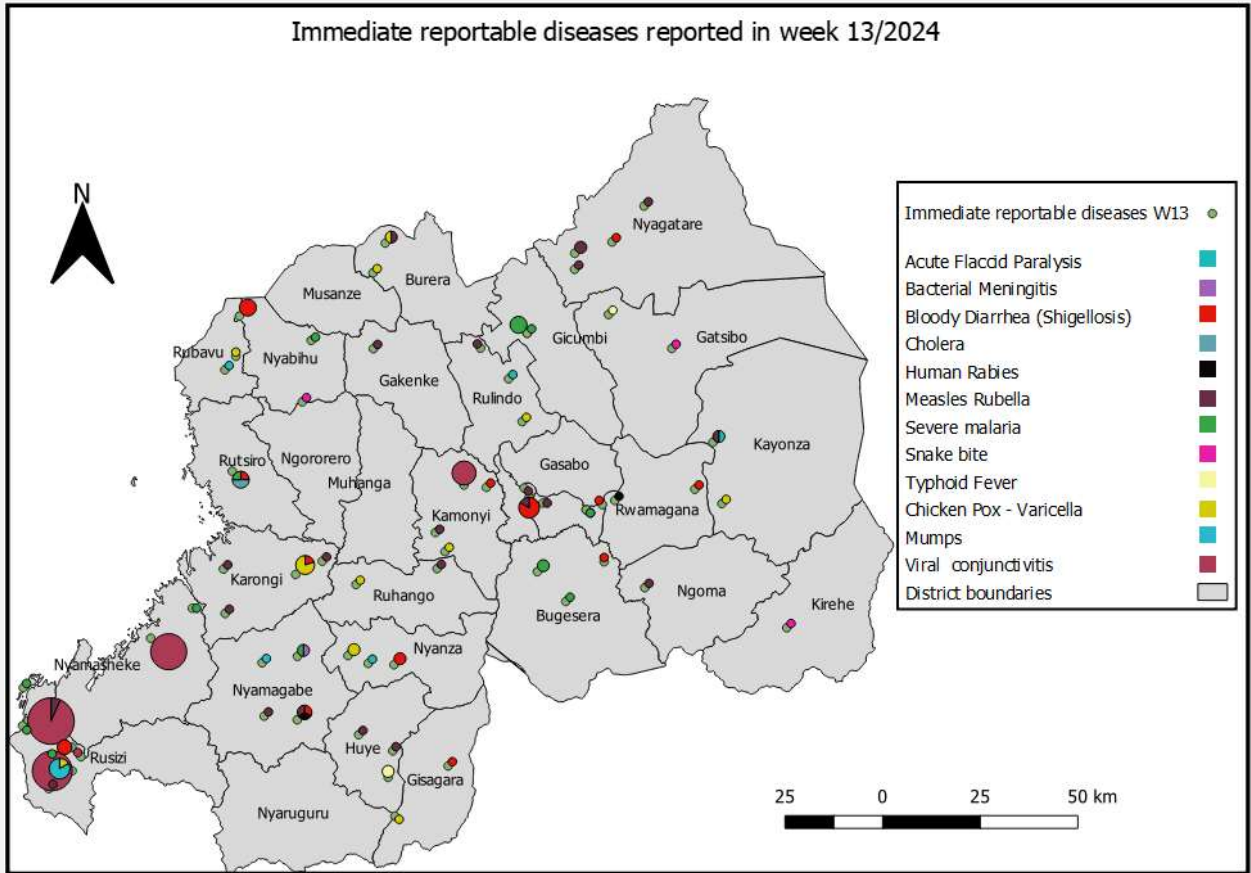
During this Epi week, 177 cases of immediate reportable diseases were notified:

- 15 cases of chicken pox were reported by 11 HFs. No health facility crossed the threshold.
- 6 cases of mumps were reported by 2 HCs. No HF crossed the threshold
- 23 suspected cases of bloody diarrhea (Shigellosis) were reported by 13 health facilities. The samples were taken and sent to NRL.
- 25 suspected cases of Measles/Rubella were reported by 23 HCs. The samples were taken and sent to NRL.
- 16 cases of severe malaria were reported by 12 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.
- 77 cases of viral conjunctivitis were reported by 5 health facilities.
- 1 suspected case of bacterial meningitis was reported in 1 health facility. The Laboratory sample test was negative.
- 3 cases of suspected typhoid fever were reported by 2 health facilities. The sample testing was pending on the time of this bulletin.
- 2 cases of suspected cholera were reported by 1 health facility. The samples were tested, 1 was negative while 1 was positive on shigella flexineri.
- 1 case of human rabies was reported by 1 health facility.
- 3 cases of snake bite were reported by 3 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:

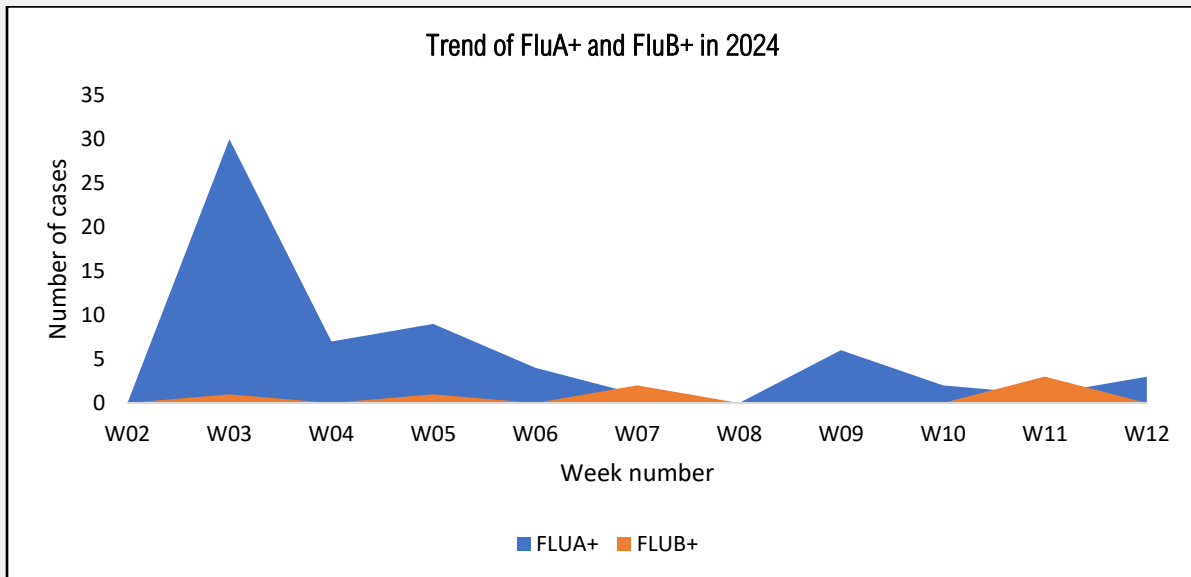


Distribution of immediate reportable diseases in Epi week 13

B. INFLUENZA SENTINEL SURVEILLANCE UPDATE

During the epi week 11, a total of 56 samples were collected from 3 sentinel sites CHUB (6), KIBUNGO RH (12) and GIHUNDWE (38). Out of the 56 samples that were received and tested by the National Reference Laboratory (NRL), 49 tested negatives for all influenza subtypes, 7 tested positive on seasonal influenza (4 on seasonal influenza type A, and 3 on seasonal influenza type B), and 8 tested positives on COVID-19. No co-infection cases were identified.

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, as revealed on the following chart.



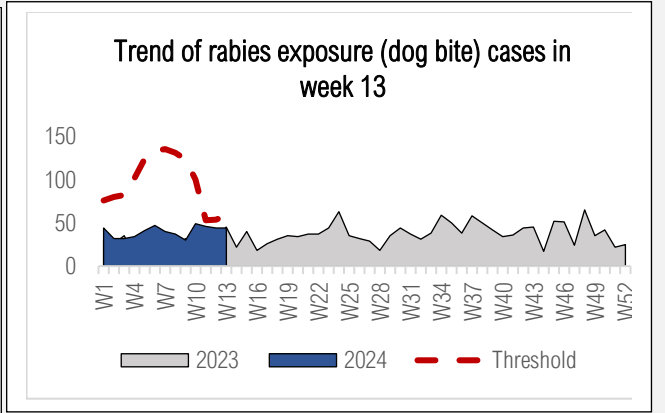
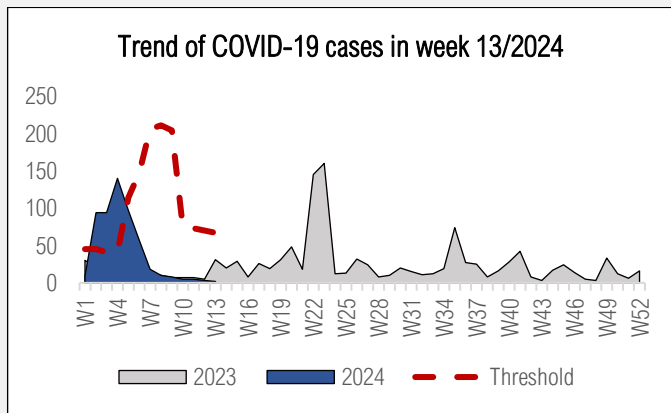
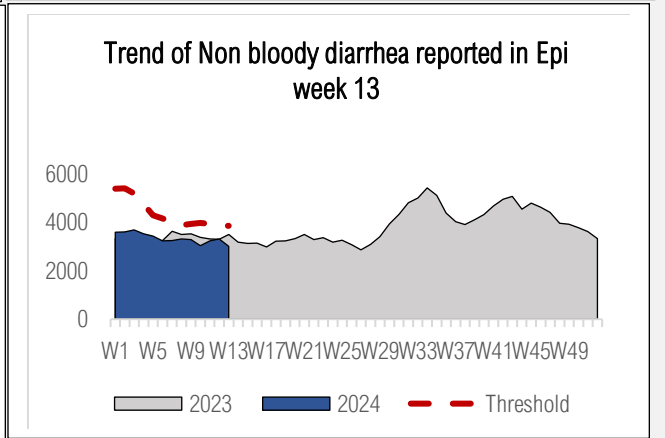
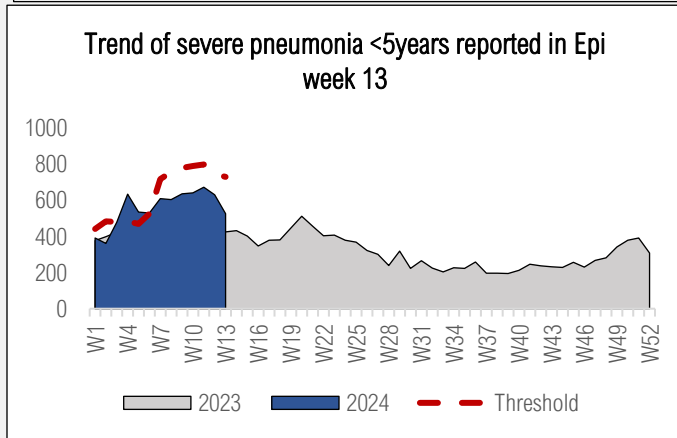
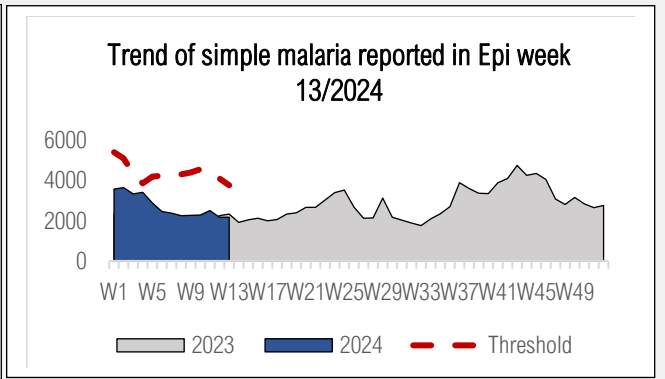
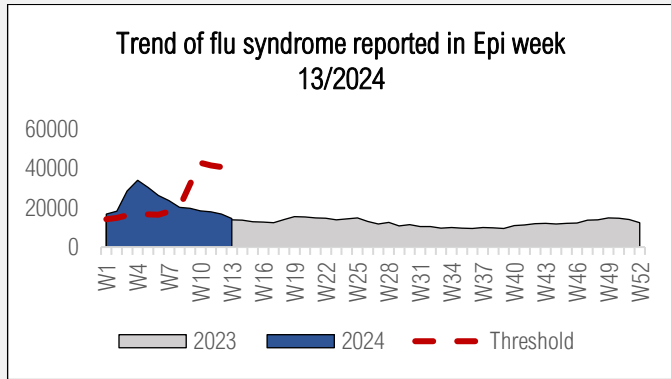
Trend of Influenza type A+ and type B+

C. WEEKLY REPORTABLE DISEASES – EPI WEEK 13

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 13, 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.

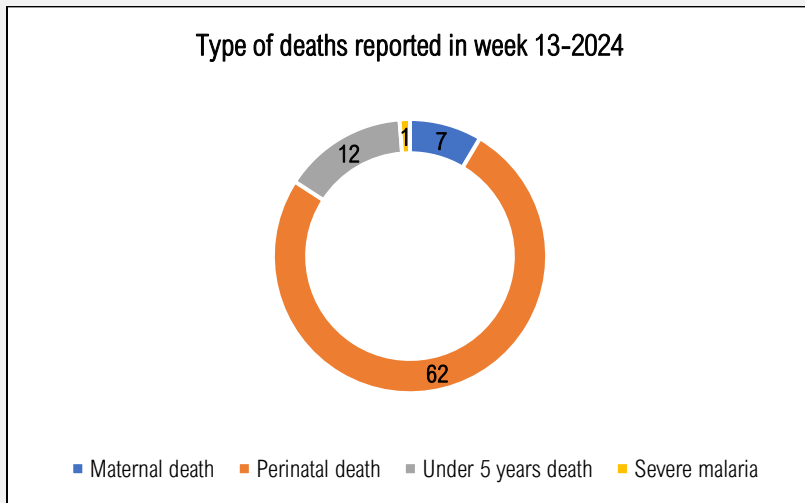
The figures below show the weekly reportable diseases trends:



DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 13

As summarized in the Pie Chart below, a total number of 82 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 62 (76%) were perinatal, 12 (15%) were the deaths of children under 5 years old (including 3 deaths due to severe pneumonia of under 5 children); 7(9%) maternal deaths and 1(1%) death due to severe malaria.

Type of deaths reported in week 13-2024

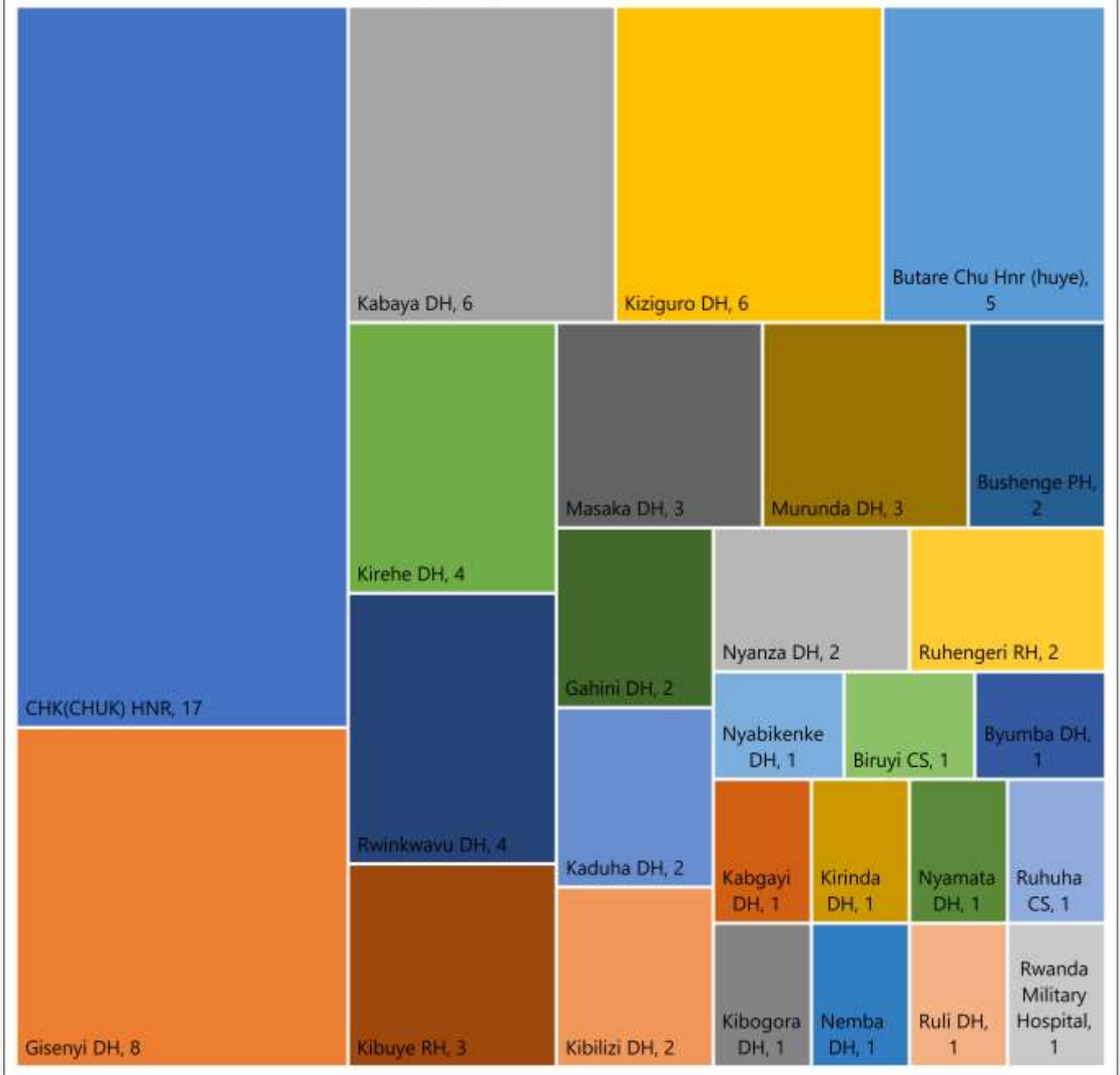


Cause of deaths declared in epi week 13

82 deaths were reported from various catchment areas as follow:

- 17 deaths were reported by CHUK (2 under 5 years deaths, 13 perinatal deaths and 2 maternal deaths)
- 8 deaths were reported by Gisenyi DH (5 perinatal deaths, 1 under 5 years death and 1 maternal death)
- 6 deaths were reported respectively by Kabaya DH (4 perinatal deaths, and 2 under 5 years death); Kiziguro DH (6 perinatal deaths)
- 5 deaths were reported by CHUB (5 perinatal deaths)
- 3 deaths were reported respectively by Kibuye RH (3 perinatal deaths), Masaka DH (2 perinatal deaths and 1 death due to severe malaria) and Murunda DH (1 perinatal death and 2 under 5 years death)
- 2 deaths were reported respectively by Bushenge PH, Kaduha DH, Gahini DH, Nyanza DH, and Ruhengeri RH (each one reported 2 perinatal deaths); Kibirizi DH reported 1 perinatal death and 1 under 5 years death
- 1 death was reported respectively by Kabgayi DH, Nyamata DH, Rwanda Military Hospital (each one reported 1 maternal death); Nyabikenke DH, Byumba DH, Biruyi HC in Murunda DH, Kirinda DH, Ruli DH (each one reported 1 perinatal death); Kibogora DH, Nemba DH, Ruhuha HC in Nyamata DH (each one reported 1 under 5 years death).

Deaths reported by health facilities in week 13-2024

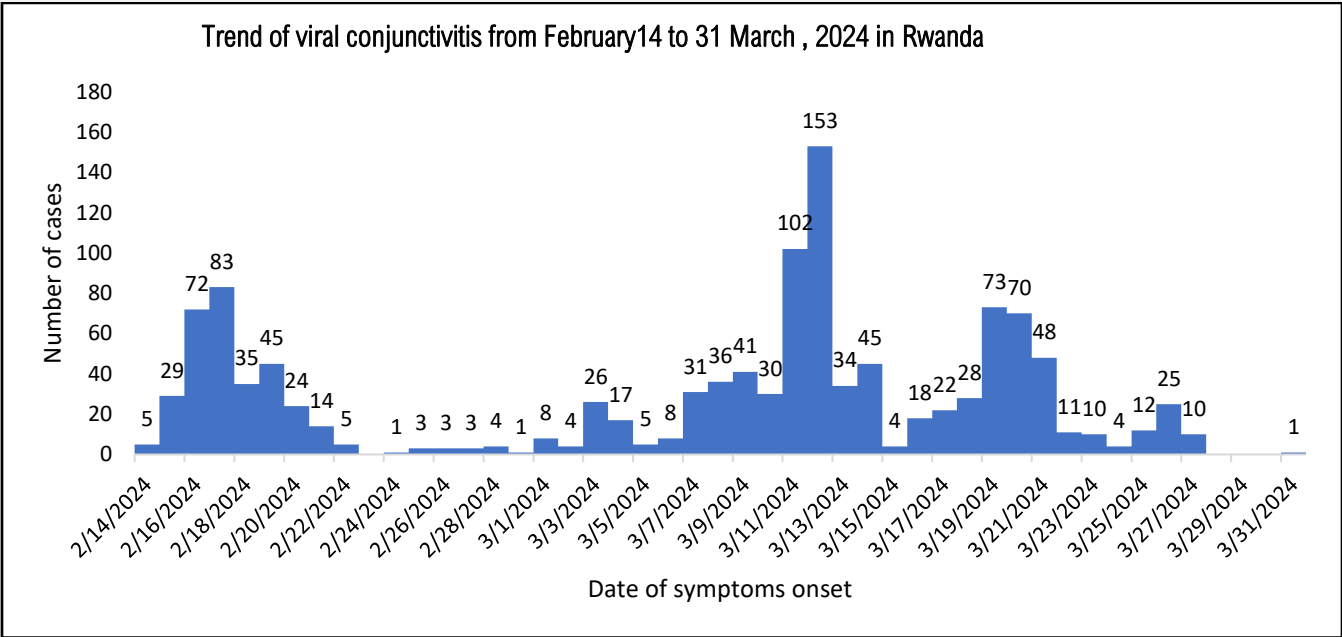


Distribution of deaths by health facilities in Epi week 13

OUTBREAK AND EVENT UPDATES IN EPIDEMIOLOGICAL WEEK 13

- **New outbreak:**
 - No outbreak was identified this week.
- **Updates on ongoing outbreak:**
 - The viral conjunctivitis outbreak: the trend of cases shows that the outbreak started from February 15th, 2024, and cases continue to occur up to date. The pick was observed on 12 March 2024 (153 cases). As of 31 March 2024, cases were reported in 10 out of 30 districts,

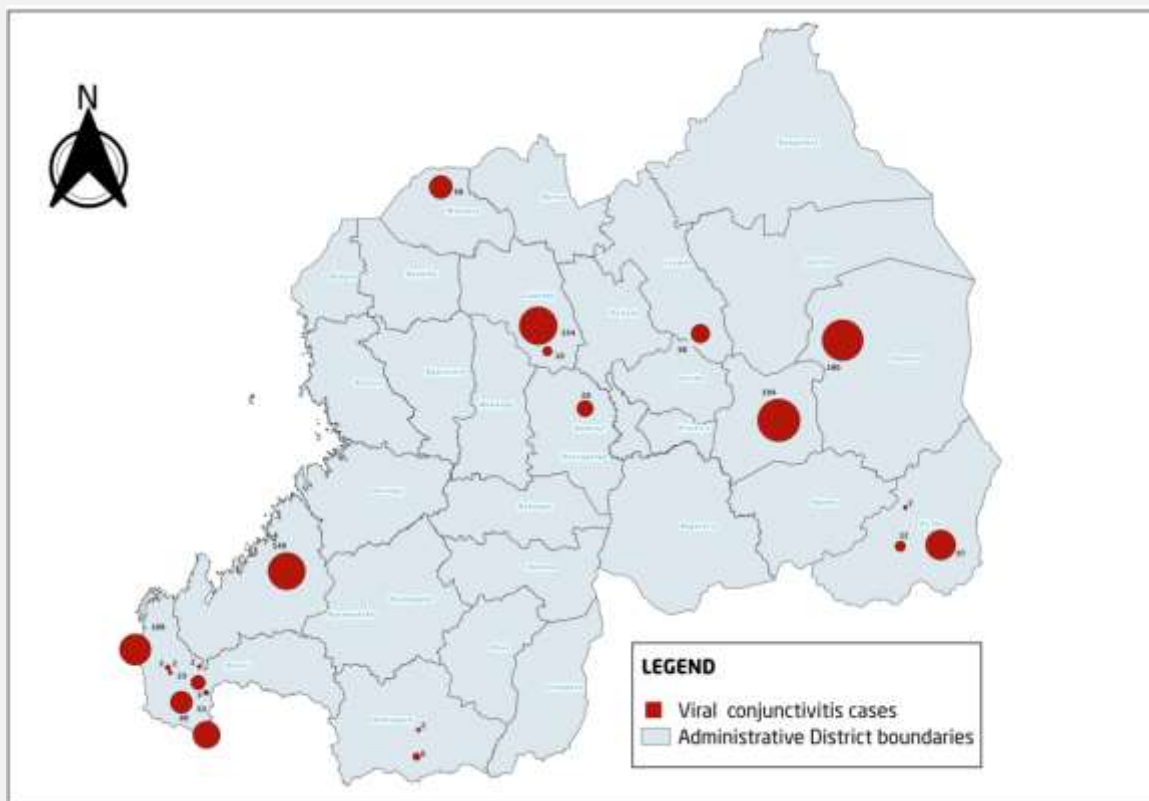
and a decrease in number of cases is observed since the epi week 12. The trend of viral conjunctivitis is shown on the following epi-curve.



Source: e-IDSR individual records downloaded on 5 April 2024

- The distribution of viral conjunctivitis cases by place shows that among 21 affected health facilities, the top five are: Musha HC (194 cases), Gahini HC (180) located in Eastern province; Rwankuba HC (154 cases) in Northern province, Hanika HC in Nyamasheke DH (149 cases) and Mont Cyangugu HC (106 cases) in Western province. In addition, among 21 affected health facilities, Western province had a highest number of affected health facilities: 9/21 (about 43%) HFs, followed by Eastern province 5/21(24%). The distribution of cases by place is shown on the following map.

Geographical distribution of cumulative viral conjunctivitis cases from February 14th, 2024 to March 31st, 2024:



Source: e-IDSR individual records downloaded on 5 April 2024

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 13

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 13, the overall completeness and timeliness of disease surveillance data reporting in Rwanda decreased to 93% and 91%, respectively. With regards to completeness of surveillance reports, many hospitals had a high completeness score (>80%), while there 5 hospitals that had a moderate completeness score (between 60% and 79%): Nyamata DH, Gatunda DH, Kibagabaga DH, Nyarugenge DH and Gatonde DH, and 1 hospital with a low completeness score (<60%): Muhima DH. For the timeliness, many hospitals had a high timeliness score (>80%), except 8 hospitals that had a moderate score (between 60% and 79%): Nyamata DH, Gatunda DH, Kibagabaga DH, Nyarugenge DH, Gatonde DH, Kabgayi DH, Remera Rukoma DH, Gatonde DH; and 6 hospitals that had a low score (below 60%): Kacyiru hospital, CHUB, CHUK, CARAES Ndera, Muhima and Rwinkwavu DH.

Notes: The health facilities that did not have a high score for completeness and 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.

Hospital catchment area	Completeness													catchment area	Timeliness												
	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13		W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13
Nyagatare	100	100	100	100	100	100	100	100	100	100	93	100	86	Nyagatare	93	93	100	100	100	93	100	93	100	100	93	86	86
Gatunda	100	100	100	100	100	100	100	100	100	100	89	100	67	Gatunda	100	100	100	100	100	100	100	100	100	89	89	100	67
Ngarama	100	100	100	100	100	100	100	100	100	100	100	100	100	Ngarama	100	100	100	100	100	100	100	100	100	100	100	88	100
Kiziguro	100	100	100	100	100	100	100	100	100	100	100	100	100	Kiziguro	100	100	100	100	92	100	100	100	100	100	100	100	100
Gahini	100	100	100	100	100	100	100	100	100	100	100	100	100	Gahini	100	100	100	100	100	100	100	89	100	100	100	89	100
Rwinkwavu	100	100	100	100	100	100	100	100	100	100	100	100	88	Rwinkwavu	100	88	100	100	88	100	100	100	100	100	100	100	50
Kibungo	100	100	100	100	100	100	100	100	100	100	94	100	94	Kibungo	94	100	100	100	100	100	100	100	100	94	94	94	94
Kirehe	100	100	100	100	100	100	100	100	100	100	100	100	100	Kirehe	100	100	100	100	90	100	100	100	100	100	100	95	95
Rwamagana	94	94	100	100	94	94	100	100	100	100	89	100	94	Rwamagana	83	100	100	94	89	83	94	100	100	94	89	100	83
Nyamata	100	88	100	100	94	94	100	100	100	100	94	94	76	Nyamata	100	100	100	88	94	94	94	94	88	94	94	100	71
Kinihira	100	100	100	100	100	100	100	100	100	100	100	100	100	Kinihira	100	89	89	100	100	100	100	100	100	100	100	100	89
Rutongo	100	100	100	100	100	100	100	100	100	100	100	100	100	Rutongo	100	100	87	100	100	100	100	100	100	100	100	100	100
Gatonde	100	100	100	100	100	100	100	100	100	100	100	100	71	Gatonde	100	100	100	100	100	100	86	100	100	100	100	100	71
Butaro	100	100	100	100	100	100	100	100	100	100	100	100	85	Butaro	100	95	95	100	90	100	100	100	100	90	100	90	85
Ruli	100	100	100	100	100	100	100	100	100	100	100	100	100	Ruli	100	100	100	100	100	100	100	100	100	100	100	100	100
Nemba	100	100	100	100	100	100	100	100	100	100	100	100	90	Nemba	100	100	100	100	100	90	100	100	100	80	100	100	90
Ruhengeri	100	100	100	94	89	89	100	100	100	100	89	100	94	Ruhengeri	94	94	100	94	89	89	100	100	100	100	89	100	94
Byumba	100	100	100	100	100	100	100	100	96	100	96	100	100	Byumba	100	100	100	100	100	100	100	100	96	100	96	100	100
CHUB	100	100	100	100	100	100	100	100	100	100	100	100	100	CHUB	100	100	100	100	100	100	100	100	100	100	100	100	0
Kabutare	100	100	100	100	95	100	89	100	95	100	95	100	89	Kabutare	95	100	95	100	95	100	89	100	95	100	95	100	89
Kabgayi	100	100	100	100	100	100	100	100	100	100	100	100	85	Kabgayi	100	100	92	100	100	100	85	92	100	92	100	77	77
Kibilizi	100	100	100	100	100	100	100	100	100	100	91	100	100	Kibilizi	100	91	100	100	91	100	100	100	100	100	91	91	100
Gakoma	100	100	100	100	100	100	100	100	100	100	100	100	100	Gakoma	83	100	100	100	83	100	100	100	100	100	100	100	100
Gitwe	100	100	100	100	100	100	100	100	100	100	100	100	100	Gitwe	100	100	89	100	78	78	100	100	78	100	100	100	89
Ruhango	100	100	100	100	100	100	100	100	100	100	100	100	100	Ruhango	100	88	100	100	100	100	100	100	100	100	100	100	100
Remera Rukoma	100	100	100	100	100	100	100	93	93	100	93	100	80	Remera Rukoma	100	100	100	93	93	93	100	93	100	100	93	100	73
Nyanza	100	95	95	95	100	100	100	100	100	100	100	100	100	Nyanza	95	95	100	100	89	95	95	95	95	95	89	100	100
Kigeme	100	100	100	100	100	100	100	100	92	100	100	100	100	Kigeme	100	100	100	100	100	100	100	100	92	100	100	100	92
Kaduha	100	100	100	100	100	100	100	100	100	100	80	100	100	Kaduha	100	90	100	100	100	100	100	90	90	100	80	91	100
Munini	100	100	100	100	100	100	100	100	100	100	100	100	100	Munini	100	100	100	100	100	88	94	100	100	100	100	100	100
Bushenge	100	100	100	100	88	100	100	88	100	88	100	100	100	Bushenge	100	100	88	100	88	100	88	88	100	100	88	100	100
Kibogora	100	100	100	100	100	100	100	100	100	100	100	100	100	Kibogora	100	100	100	93	100	100	100	100	100	100	100	100	100
Kibuye	100	100	100	100	100	100	100	100	100	100	92	100	100	Kibuye	100	100	100	100	100	92	92	100	100	100	92	100	100
Kirinda	100	100	100	100	100	100	100	100	100	100	100	100	100	Kirinda	100	100	100	100	100	83	100	100	100	100	100	100	100
Mugonero	100	100	100	100	100	100	100	100	100	100	100	100	100	Mugonero	100	100	100	100	86	100	100	100	86	100	100	100	100
Shyira	88	100	100	100	88	100	100	100	100	100	100	94	88	Shyira	88	100	100	100	88	100	100	100	100	100	100	94	88
Muhororo	100	100	100	100	100	100	100	100	100	100	100	100	100	Muhororo	100	100	90	100	100	100	100	100	100	80	100	100	100
Kabaya	100	100	100	100	100	100	100	100	100	100	100	100	100	Kabaya	100	100	86	100	100	86	100	86	100	100	100	71	100
Gihundwe	100	100	100	100	80	100	100	90	100	100	100	100	100	Gihundwe	100	100	100	100	70	100	100	90	100	100	100	100	100
Mibilizi	100	100	100	100	100	100	100	100	100	100	100	100	100	Mibilizi	100	100	100	100	100	100	100	100	100	100	100	100	100
Gisenyi	100	100	100	100	100	88	100	100	100	100	94	100	100	Gisenyi	94	100	100	94	100	88	100	100	100	100	94	100	100
Murunda	95	100	100	100	100	95	100	100	100	100	100	100	100	Murunda	95	100	100	100	100	95	100	100	95	95	100	100	100
CHUK	100	100	100	100	100	100	100	100	100	100	100	100	100	CHUK	100	0	100	100	100	100	100	100	100	100	100	100	0
Nyarugenge	89	100	100	100	100	100	100	100	100	100	100	100	78	Nyarugenge	89	89	89	100	100	100	100	100	100	100	100	89	67
Muhima	100	100	100	100	100	100	100	100	100	100	100	100	50	Muhima	100	100	100	100	100	100	100	100	100	75	100	100	50
RMH	0	100	100	100	100	100	100	100	100	100	100	100	100	RMH	0	100	100	100	0	100	100	100	100	100	100	100	100
Masaka	92	100	100	100	100	100	100	100	100	100	100	100	100	Masaka	92	100	100	100	100	100	100	100	100	100	100	100	100
Kigababaga	95	100	100	90	95	90	95	95	95	85	90	100	75	Kigababaga	80	95	100	85	100	70	90	95	80	85	90	85	70
Kacyiru	100	100	100	0	100	100	100	100	100	100	100	100	100	Kacyiru	100	0	100	0	0	0	0	100	0	100	100	0	100
KFH	0	100	100	100	100	0	100	100	100	0	100	100	100	KFH	0	100	100	100	0	0	100	100	0	0	100	100	100
Caraes Ndera	100	100	100	0	0	100	0	0	0	0	0	100	100	Caraes Ndera	0	100	100	0	0	0	0	0	0	0	0	0	0
Nyabikenke	100	100	100	100	100	100	100	100	100	100	100	100	83	Nyabikenke	100	100	100	100	100	100	100	100	100	100	100	100	83
Rwanda	99	99	100	99	98	98	99	99	99	99	99	100	93	Rwanda	97	98	98	98	95	95	98	98	97	97	97	97	91