



WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 10 – 2024

(04-10 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 10/2024

Event Based Surveillance (EBS) Highlights:

No alert from community was reported in week 10

Alerts identified through the Epidemic Intelligence from Open Source (EIOS):

one alert: Heterosexual transmission found in DR Congo mpox outbreak.

Indicator Based Surveillance (IBS) Highlights:

- 430 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, Mpox, Typhoid fever, foodborne illnesses, bacterial meningitis and viral conjunctivitis
- For 8 weekly reportable diseases and health events, a thorough analysis conducted for Epi Week 10 revealed that no disease surpassed the epidemic threshold
- A total of 71 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. The majority of deaths were perinatal deaths and deaths of children under 5 years.

Outbreaks and events updates in week 10

Seven outbreaks were reported:

1. Ongoing Chickenpox outbreak at ESA Birambo, in Birambo cell, Gashari sector, Karongi district.
2. Viral conjunctivitis In Mahama refugee camp, Kirehe district
3. An outbreak of conjunctivitis in Nyange sector, Musanze district
4. An ongoing outbreak of conjunctivitis at in boarding school in Gicumbi district.
5. Suspected food poisoning at EP Rwaniro, Huye District
6. Suspect food intoxication in Ruramba HC, Nyaruguru District
7. Foodborne illness at Nyundo Primary School

Completeness and timeliness

In Epi Week 10, the overall completeness and timeliness of surveillance data reporting in Rwanda was 99% and 97% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 10

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

No alert from community reported in week 10

MEDIA SCAN

Alert from EIOS: one alert was reported:

Heterosexual transmission found in DR Congo mpox outbreak.

An mpox outbreak in the Democratic Republic of the Congo has been under way since August 2023. Scientists conducting an observational cohort study in an ongoing mpox outbreak in the Democratic Republic of the Congo (DRC), which involves a different clade than the global outbreak, have identified a possible third route of mpox transmission: sexual activity involving heterosexuals.

<https://gphin.canada.ca/cepr/showarticle.jsp?docId=1015906751>

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 10

During this Epi week, 430 cases of immediate reportable diseases were notified:

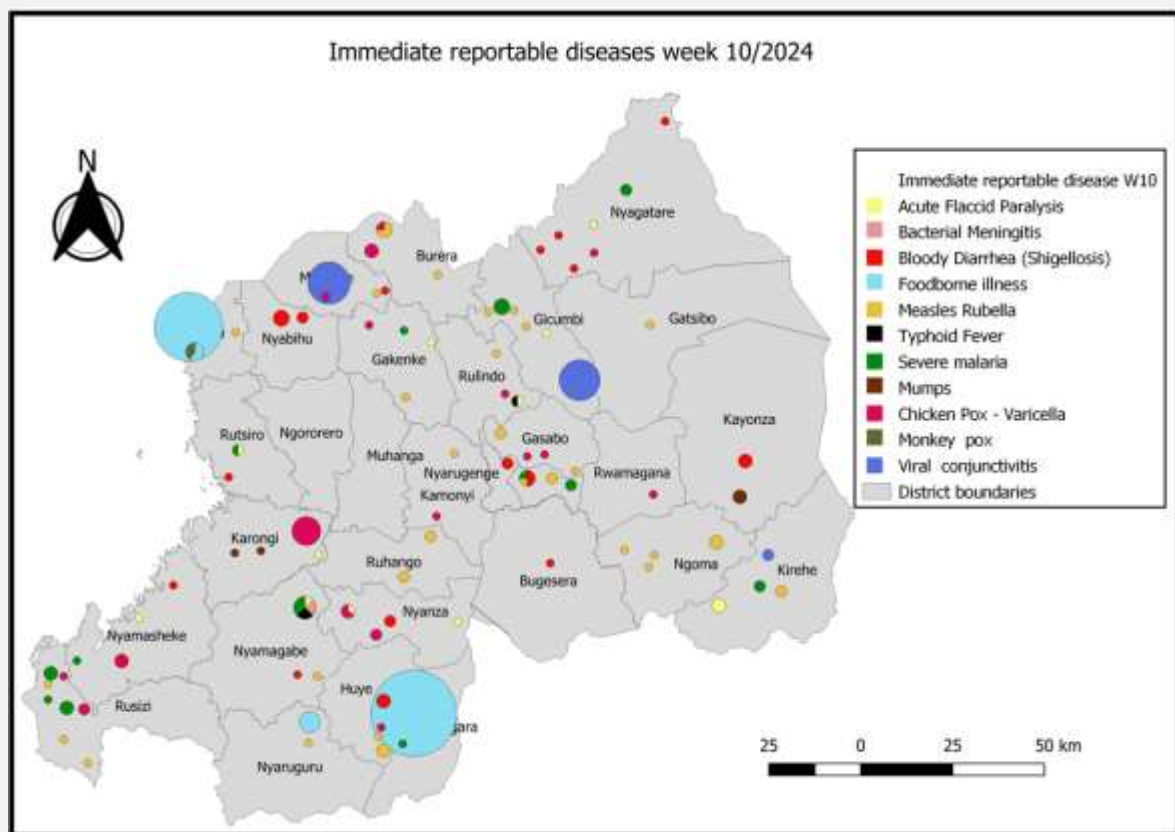
- 36 cases of chicken pox were reported by 18 HFs. Birambo HC (in Kirinda DH) crossed the threshold.
- 5 cases of mumps were reported by 3 HCs. No HF crossed the threshold
- 28 suspected cases of bloody diarrhea (Shigellosis) were reported by 17 health facilities. The samples were taken and sent NRL. For the results of the samples of the previous week, two samples from Nyagatare and Gikondo HC isolated *Shigella flexneri*, while no pathogen was isolated in the remaining samples.

- 40 suspected cases of Measles/Rubella were reported by 29 HCs. The samples were taken and sent to NRL.
- 25 cases of severe malaria were reported by 13 health facilities
- 13 cases of acute flaccid paralysis were reported by 11 health facilities, the samples were taken and sent to NRL for transportation to UVRI laboratory.
- 76 cases of viral conjunctivitis were unusually reported by 5 health facilities, the cases are described below in the section of outbreak and events update.
- 2 suspected cases of bacterial meningitis were reported in 1 DH, the samples were sent to NRL
- 200 cases of foodborne illnesses were reported by 4 health facilities, they are described below in outbreak updates section
- 2 suspected cases of Mpox were unusually reported by one health facility (Gisenyi DH)
- 3 cases of suspected typhoid fever were reported by 2 health facilities (Kaduha DH and Rutongo DH), samples were sent to NRL

Notes:

- All confirmed and suspected cases had been managed at the health facility level.
- The hospitals that had the cases which crossed the thresholds are recommended to conduct the investigation.

Geographical distribution of cases:



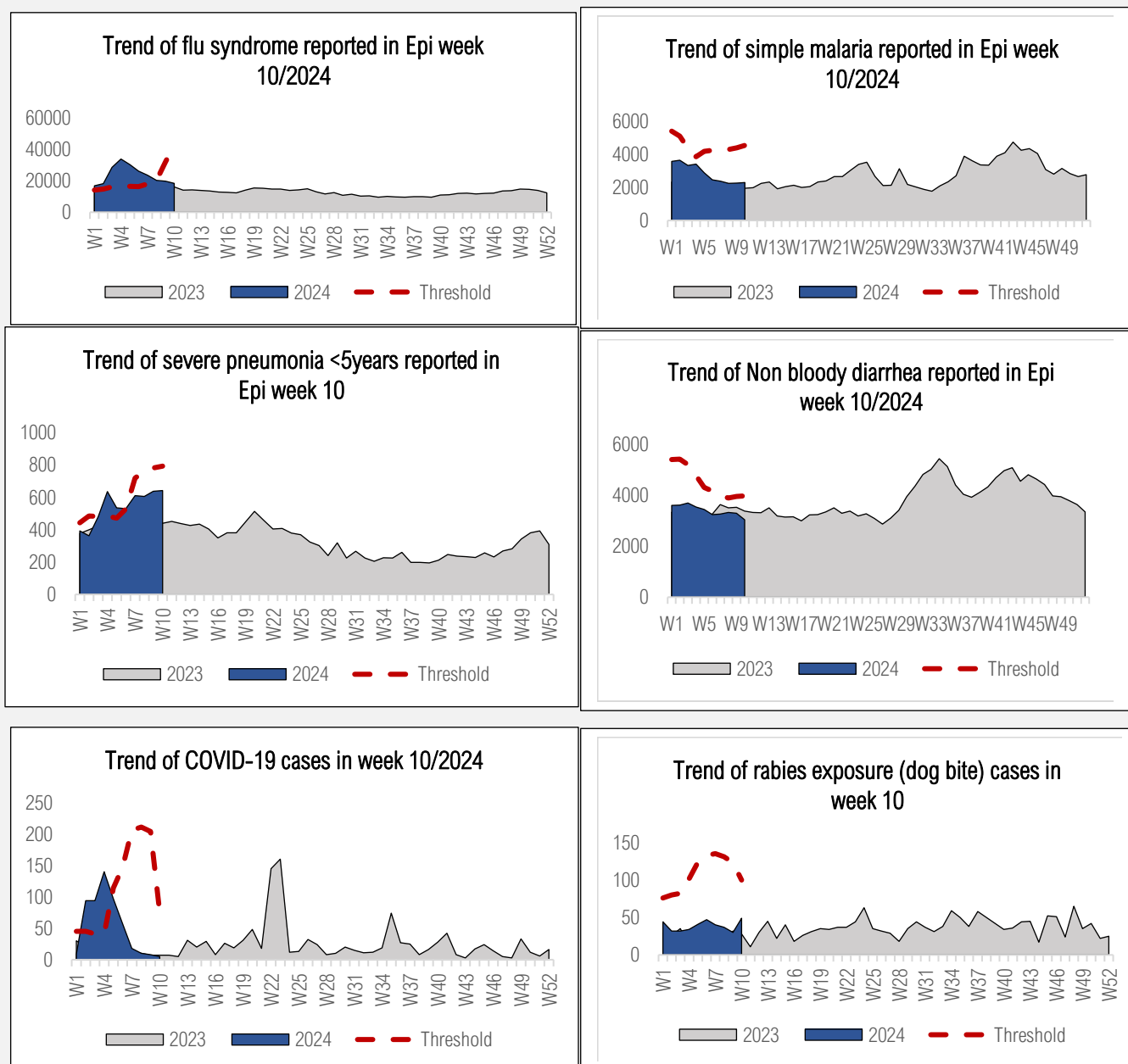
Distribution of immediate reportable diseases in Epi week 10

B. WEEKLY REPORTABLE DISEASES – EPI WEEK 10

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.

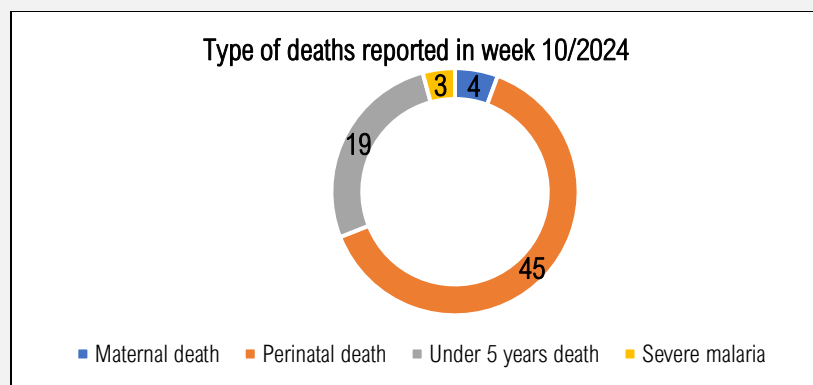
In Epi Week 10, a thorough analysis was conducted, comparing the number of reported cases of the eight diseases monitored on a weekly basis to their respective epidemic thresholds. The results of the analysis revealed that no disease crossed the epidemic thresholds.

The figures below show the weekly reportable diseases trends:



DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 10

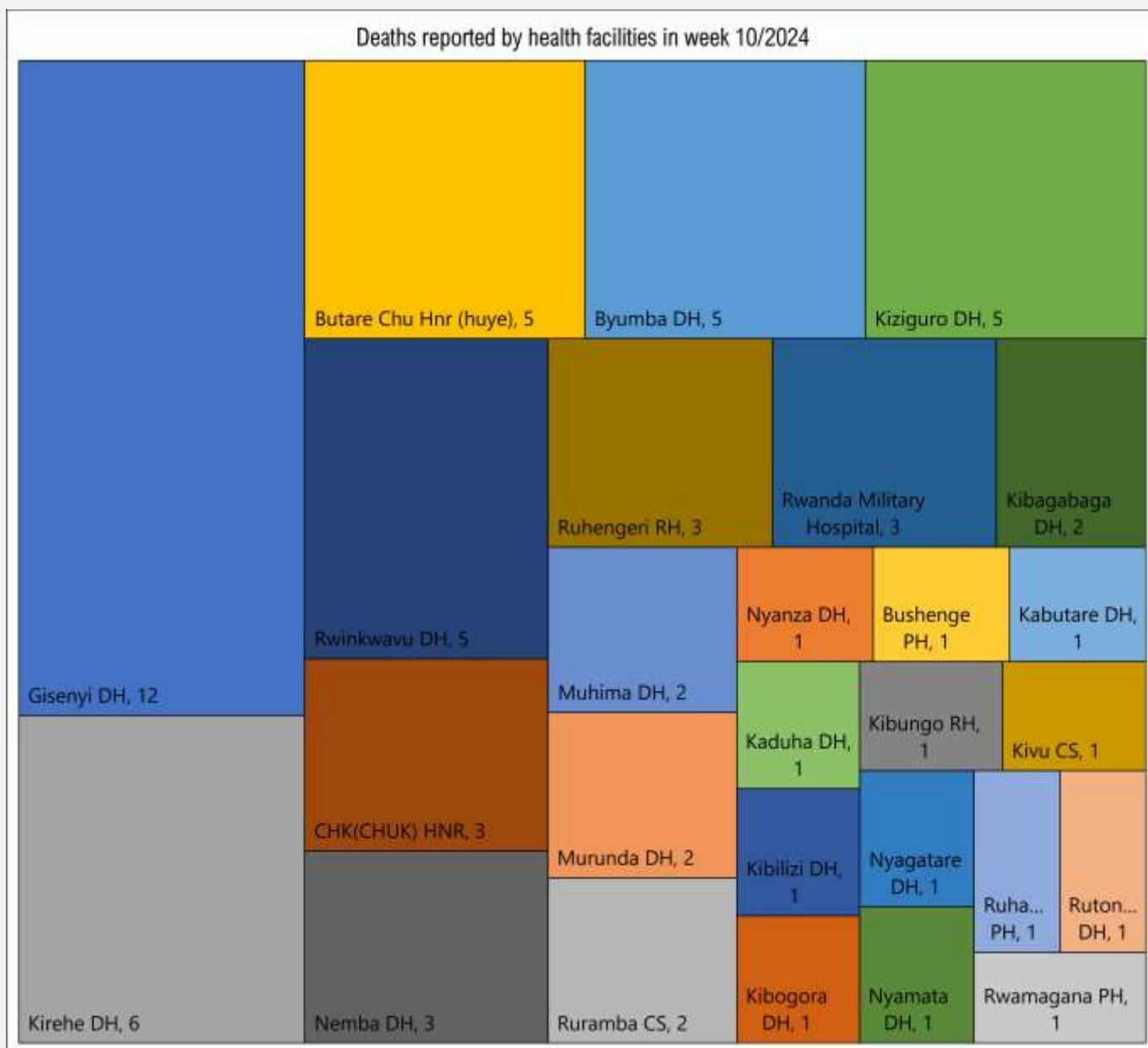
As summarized in the Pie Chart below, a total number of 71 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 45 (63%) were perinatal, 19 (27%) were the deaths of children under 5 years old (including 1 due to non-bloody diarrhea and 1 due to severe pneumonia), 3 (4%) deaths due to severe malaria, and 4 (6%) maternal deaths.



Cause of deaths declared in epi week 10

71 deaths were reported from various catchment areas as follow:

- 12 deaths were reported by Gisenyi DH (10 perinatal deaths and 2 under 5 years deaths)
- 6 deaths were reported by Kirehe DH (4 perinatal deaths and 2 deaths due to severe malaria)
- 5 deaths were reported respectively by CHUB (4 perinatal deaths and 1 maternal death); Byumba DH and Kiziguro DH reported 5 perinatal deaths; Rwinkwavu DH (4 perinatal deaths and 1 under 5 years deaths) Rwanda Military Hospital (3 perinatal deaths and 2 under 5 years deaths)
- 3 deaths were reported respectively by CHUK (1 perinatal death, 2 under 5 years deaths); Nemba DH (3 under 5 years deaths); Ruhengeri RH (2 perinatal deaths and 1 maternal death); Rwanda Military Hospital (2 perinatal death, 1 under 5 years death)
- 2 deaths were reported respectively by Kibagabaga DH and Muhima DH (all were under 5 years deaths); Murunda DH (2 perinatal deaths); Ruramba HC in Munini DH (1 perinatal death and 1 maternal death)
- 1 death was reported respectively by Bushenge PH, Kabutare DH, Kibilizi DH, Kibogora DH, Kibungo RH and Nyagatare DH (every health facility reported 1 under 5 years deaths); the following health facilities reported 1 perinatal death: Nyanza DH, Kaduha DH, Ruhango PH, Rutongo DH, and Rwamagana PH



Distribution of deaths by health facilities in Epi week 10

OUTBREAK AND EVENT UPDATES IN EPIDEMIOLOGICAL WEEK 10

1. VIRAL CONJUNCTIVITIS OUTBREAK IN MUSANZE DISTRICT, NYANGE SECTOR, CBS SCHOOL

Confirmed cases	0	Date reported:	March 04, 2024	Risk assessment	Low
Suspected cases	36	Source:	eIDSR		
Death(s)	0	District/HFs:	Nyange HC/Ruhengeri RH		
Total cases	36	Geoscope:	Low		

Outbreak description:

Since March 4th, 2024, Nyange Health Center, located in the catchment area of Ruhengeri L2 Teaching Hospital, has received patients complaining of acute red eye, pain, and discharge. In total, 36 patients have consulted, with 17 (48%) of them being students at CBS, a boarding school in Nyange Sector. The age of the cases ranges between 8 months and 61 years. The potential index case for school infections is a 17-year-old male who returned from home (Rubavu) on February 28th, 2024, with red eyes, and his sister had similar symptoms. The diagnosis is Viral conjunctivitis.

Actions taken:

- Investigation conducted by Rapid Response Team (RRT) of Ruhengeri L2 Teaching Hospital
- Community education on hygiene and the clinical course of conjunctivitis.
- Cases were initially treated at the health Center
- The school was requested to report daily and refer all cases to the health Center
- Setting up an isolation

2. VIRAL CONJUNCTIVITIS OUTBREAK IN KIREHE DISTRICT, MAHAMA REFUGEE CAMP

Confirmed cases	0	Date reported:	March 08, 2024	Risk assessment	Low
Suspected cases	12	Source:	eIDSR		
Death(s)	0	District/HFs:	Mahama RC HC/Kirehe DH		
Total cases	12	Geoscope:	Low		

Outbreak description

On Friday, March 8th, 2024, Kirehe DH received notifications of a suspected case of adenovirus conjunctivitis from Mahama Refugee Camp and dispatched its Rapid Response Team (RRT) along with Ophthalmic Clinical Officers (OCO) for screening and active case finding within the camp. A total of 12 individuals (7 males and 5 females) were found presenting symptoms of red eye, eye discharge, and itching, ranging from 5 to 46 years of age. The first cases presented symptoms on March 4th, 2024. No new cases.

Actions taken

- Case management
- Isolating suspected cases,
- Implementing infection prevention and control (IPC) measures.

3. ONGOING OUTBREAK OF CONJUNCTIVITIS AT GICUMBI DISTRICT, RUVUNE SECTOR, ES SANCTA MARIA KARAMBO

Confirmed cases	0	Date reported:	March 17, 2024	Risk assessment	Low
Suspected cases	32	Source:	eIDSR		
Death(s)	0	District/HFs:	Rwesero HC/Byumaba DH		
Total cases	32	Geoscope:	Low		

Outbreak description:

Since March 7th, 2024, Rwesero Health Center has received students from ES Sancta Maria Karambo, a boarding school in Ruvune Sector, Gicumbi district. All cases presented with acute red and itchy eyes, as well as discharge. A total of 32 students have consulted, including 3 boys and 29 girls. The diagnosis is Viral conjunctivitis. The index case is a student who returned from home (Kigali) on March 4th, 2024, with red eyes and discharge.

Actions Taken:

- Investigation by the Rapid Response Team (RRT) of Byumba DH.
- Isolation of cases within the school,
- Conducting a risk assessment,
- Active case search,
- Education about hand hygiene and avoiding handshaking
- Symptomatic treatment by Byumba DH ophthalmology team

4. ONGOING OUTBREAK OF CHICKEN POX AT KARONGI DISTRICT, GASHARI SECTOR, ESA BIRAMBO

Confirmed cases	0	Date reported:	February 20, 2024	Risk assessment	Low
Suspected cases	39	Source:	eIDSR		
Death(s)	0	District/HFs:	Birambo HC/Kirinda DH		
Total cases	39	Geoscope:	Low		

Outbreak description:

Since epi week 7_2024 (issued on February 20, 2024), a significant increase in chickenpox (varicella) cases has been reported by Birambo Health Center, located in the catchment area of Kirinda District Hospital subdistrict, in Karongi district. In response, the Rapid Response Team (RRT) from Kirinda Hospital investigated to verify this surge in cases. The initial field investigation was carried out at Birambo HC on March 1, 2024, and control measures were implemented by Kirinda District Hospital's RRT.

The investigation revealed that cases began to emerge since epi week 7, with the majority originating from ESA Birambo, a boarding school with 430 students located in Birambo cell, Gashari sector, Karongi district. Common symptoms include skin rashes, fever, and headaches in some cases. A total of 39 cases have been recorded so far, with females being the most affected (34/39). The attack rate stands at 9%, with cases ranging in age from 5

to 18 years, and a mean age of 13.7 years. No fatalities have been reported, and there are currently 13 active cases. Current Status as of Monday 11/03/2024; 13 active cases remained isolated within the school premises.

Actions taken:

- Field investigation conducted by Kirinda RRT on March 1, 2024, at Birambo HC
- Cases have been treated and isolated within the school premises (an isolation area was set up)
- Students have been briefed on infection prevention and control (IPC) measures
- Case searching for new cases
- Community awareness efforts.

5. FOODBORNE ILLNESS OUTBREAK IN HUYE DISTRICT AT EP RWANIRO

Confirmed cases	0	Date reported:	March 08, 2024	Risk assessment	Low
Suspected cases	116	Source:	eIDSR		
Death(s)	0	District/HFs:	Rwaniro HC/Kabutare DH		
Total cases	116	Geoscope:	Low		

Outbreak description:

On March 8th, 2024, 557 school children had the same lunch at E.P Rwaniro. The food served included Kawunga, vegetables, and beans. One hour later, 116 children developed abdominal pain, and 22 of them experienced vomiting. Rwaniro Health Center Rapid Response Team (RRT) immediately intervened. The hospital RRT arrived and found the school children clinically stable. Only 22 school children remained at the health center with mild abdominal pain, nausea, and/or vomiting. Ninety-four children were at school, normal, and playful. The probable cause was contaminated maize flour (which smelled badly). All cases had been treated, and everyone was stable. There were no active cases.

Actions taken

- Filed investigation by Rwaniro HC and Kabutare DH RRT
- Case management
- The ill children had been sent back home for observation after their parents received education.
- Education about food safety and hygiene.

6. FOODBORNE ILLNESS OUTBREAK IN NYARUGURU DISTRICT AT RURAMBA SECTOR

Confirmed cases	0	Date reported:	March 05, 2024	Risk assessment	Low
Suspected cases	6	Source:	eIDSR		
Death(s)	0	District/HFs:	Ruramba HC/Munini DH		
Total cases	6	Geoscope:	Low		

Outbreak description:

On March 5, 2024, Ruramba Health Center received 6 male patients aged 20 to 25 years who complained of abdominal pain, headache, and diarrhoea after consuming boiled cow meat at a bar located in Uruyange village,

Nyarugano cell, Ruramba sector, Nyaruguru district. The incident occurred after a one-month-old cow had died on Sunday, March 3, 2024. This cow was illegally sold at the bar, and its meat was served from March 3rd to March 5th. The first six cases were consulted at Ruramba HC on March 5th. All cases were stable as of Monday 11/03/2024

Actions taken

Case management, patients were transferred to Munini District Hospital, and the remaining three cases were monitored at Ruramba HC.

7. FOODBORNE ILLNESS OUTBREAK IN RUBAVU DISTRICT, NYUNDO PRIMARY SCHOOL

Confirmed cases	0	Date reported:	March 06, 2024	Risk assessment	Low
Suspected cases	213	Source:	eIDSR		
Death(s)	0	District/HFs:	Nyundo HC/Gisenyi DH		
Total cases	213	Geoscope:	Low		

Outbreak description:




On March 6, 2024, PHEOC West received a report of a foodborne illness outbreak at Nyundo Primary School. This event occurred after sharing a meal composed of maize grain and beans. A total of 213 children were affected. Of these, 197 were treated by Nyundo Health Center, while 16 were referred to Gisenyi District Hospital. All were presenting with abdominal pain and received various medications based on their conditions. All cases are stable now.

Actions taken

Case management at Nyundo HC and Gisenyi DH

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 10

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 10, the overall completeness and timeliness of disease surveillance data reporting in Rwanda was 99% and 97%, respectively. With regards to completeness of surveillance reports, almost all hospitals had a high completeness (>80%), except two hospital that had a low score: CARAES Ndera and King Faysal Hospital. For the timeliness, many hospitals had a high timeliness (>80%), except two hospitals that had a low score (below 60%): CARAES Ndera hospital and King Faysal RH.

Notes: The health facility that did not have a high score for the completeness and timeliness had been recommended to improve the reporting by submitting weekly surveillance reports not later than Monday before 12:00.

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

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