



WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 12 – 2024

(18-24 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 12/2024

Event Based Surveillance (EBS) Highlights:

15 Alerts from community: 13 Human Deaths, 1 Human illness, 1 Dog Bite

4 Alerts from EIOS:

- The Mpox outbreak in the Democratic Republic of the Congo (DRC) that began in 2023 has expanded to 23 of the country's 26 provinces.
- Nyagatare: Umunyeshuri 1 yitabye Imana abandi barenga 150 bararembe
- Five dies from 'mystery disease' in Rangamati
- Alert Issued Over Multinational Outbreak of deadly disease

Indicator Based Surveillance (IBS) Highlights:

- 938 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, foodborne illnesses 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 65 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 12

1. Adenovirus conjunctivitis at GS Runyombyi, Nyaruguru District
2. Adenovirus conjunctivitis at Islamic (Rusizi) HC, Rusizi district
3. Ongoing Adenovirus Conjunctivitis Outbreak at GS Saint Pierre boarding school, Rusizi District
4. Foodborne illnesses at Cyabayaga HC, Nyagatare District

Completeness and timeliness

In Epi Week 12, the overall completeness and timeliness of surveillance data reporting in Rwanda was 99.8% and 97% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 12

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

15 Alerts from community:

- 13 Human Deaths (HD)
- 1 Human illness (HI)
- 1 Dog Bite (DB)

4 Alerts from EIOS:

- The Mpox outbreak in the Democratic Republic of the Congo (DRC) that began in 2023 has expanded to 23 of the country's 26 provinces.
<https://fundacionio.com/mpox-en-la-republica-democratica-del-congo/>
- Nyagatare: Umunyeshuri 1 yitabye Imana abandi barenga 150 bararembye
<https://www.igicumbinews.co.rw/nyagatare-umunyeshuri-1-yitabye-imana-abandi-barenga-150-bararembye/>
- Five dies from 'mystery disease' in Rangamati
<https://dailyasianage.com/news/321480/five-die-from-mystery-disease-in-rangamati>
- Alert Issued Over Multinational Outbreak of Deadly Disease
<https://dailycaller.com/2024/03/21/world-health-organization-yellow-fever-african-outbreak-alert-issues-vaccinations-spread-mosquitos/>

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 12

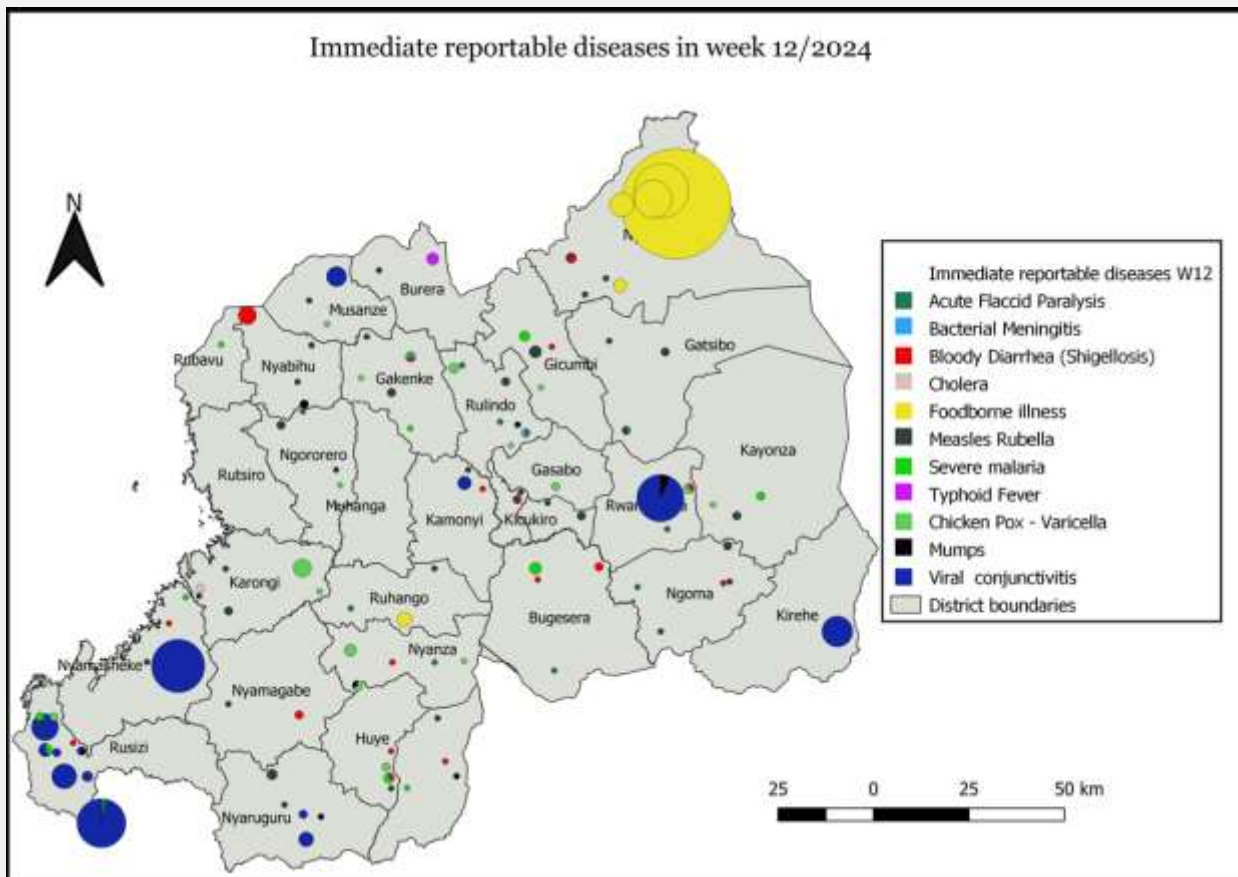
During this Epi week, 938 cases of immediate reportable diseases were notified:

- 34 cases of chicken pox were reported by 16 HFs. No health facility crossed the threshold.
- 11 cases of mumps were reported by 7 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 to NRL. For the results of the samples of the previous week, 1 sample from Nyarurama HC and 3 samples from Kabatwa HC isolated shigella flexneri pathogens. No pathogens were isolated from the remaining samples.
- 49 suspected cases of Measles/Rubella were reported by 36 HCs. The samples were taken and sent to NRL. For the results of samples tested in epi week 11, there were 2 positives detected for measles and rubella, one from Muhondo (Kageyo) HC and Rususa HC. The remaining samples tested negative.
- 21 cases of severe malaria were reported by 12 health facilities
- 11 cases of acute flaccid paralysis were reported by 11 health facilities, the samples were taken and sent to NRL for transportation to UVRI laboratory.
- 295 cases of viral conjunctivitis were unusually reported by 14 health facilities. These events are described in the section of outbreak and events update.
- 2 suspected cases of bacterial meningitis were reported in 2 health facilities. The Laboratory sample test revealed cryptococcal meningitis for one case.
- 4 cases of suspected typhoid fever were reported by 1 health facility. 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 negatives.
- 481 cases of suspected foodborne illnesses were unusually reported by 6 health facilities. These events are described in the section of outbreak and events update.

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 12

B. INFLUENZA SENTINEL SURVEILLANCE UPDATE

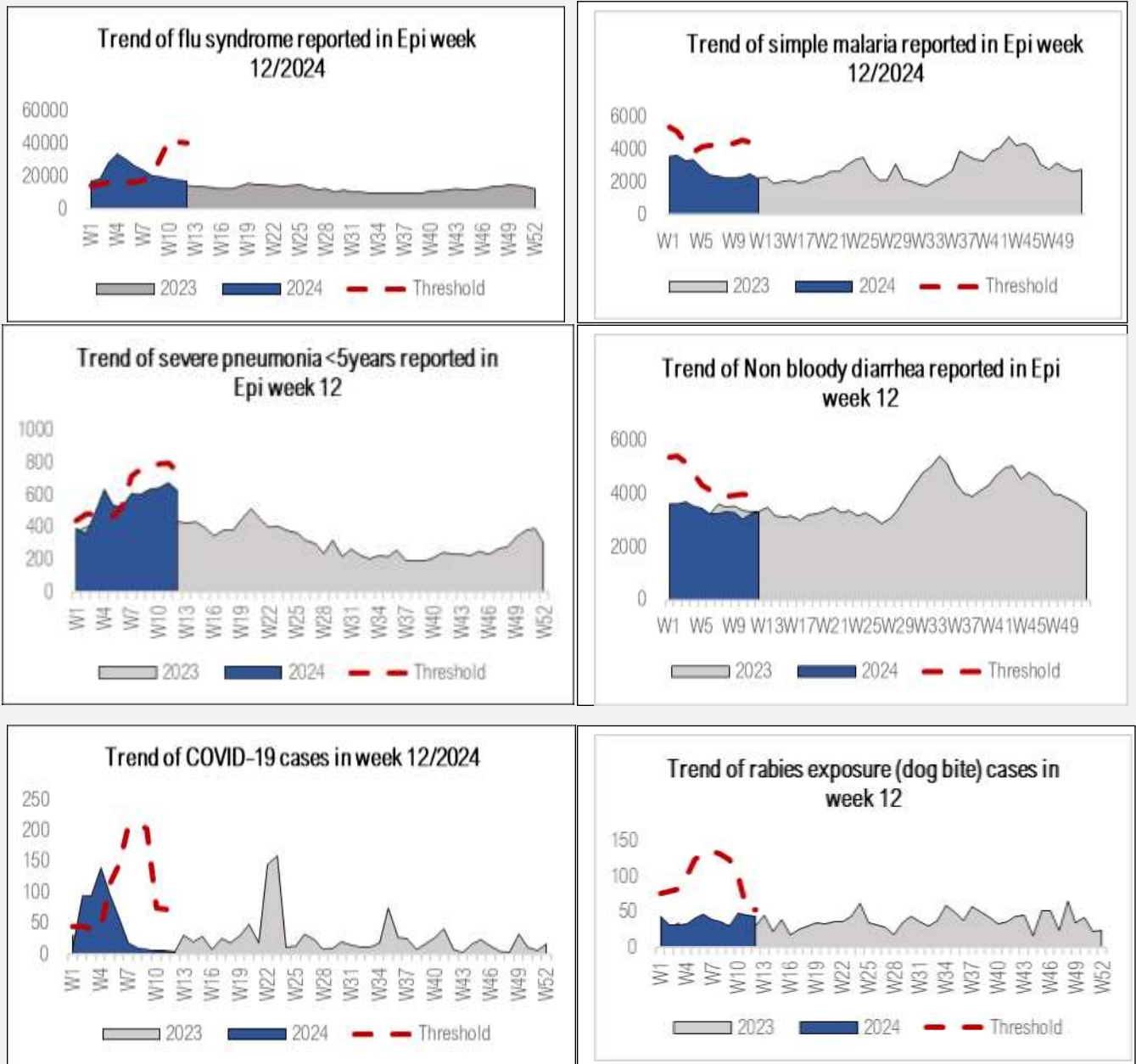
During the epi week 11, a total of 56 samples were collected from 3 sentinel sites CHUB (6), KIBUNGO RH (12) and GIHUNDWE (38). Out of the 56 samples that were received and tested by the National Reference Laboratory (NRL), 49 tested negatives for all influenza subtypes, 7 tested positive on seasonal 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

C. WEEKLY REPORTABLE DISEASES – EPI WEEK 12

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.

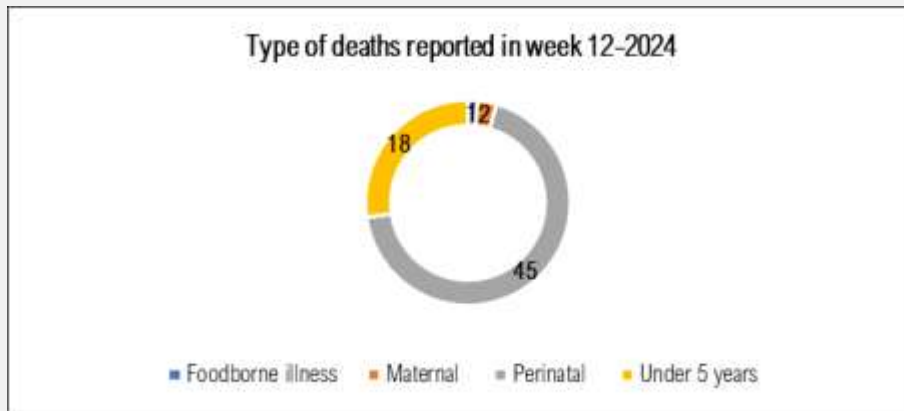
In Epi Week 12, a thorough analysis was conducted, comparing the number of reported cases of the eight diseases monitored on a weekly basis to their respective epidemic thresholds. The results of the analysis revealed that no disease crossed the epidemic thresholds.

The figures below show the weekly reportable diseases trends:



DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 12

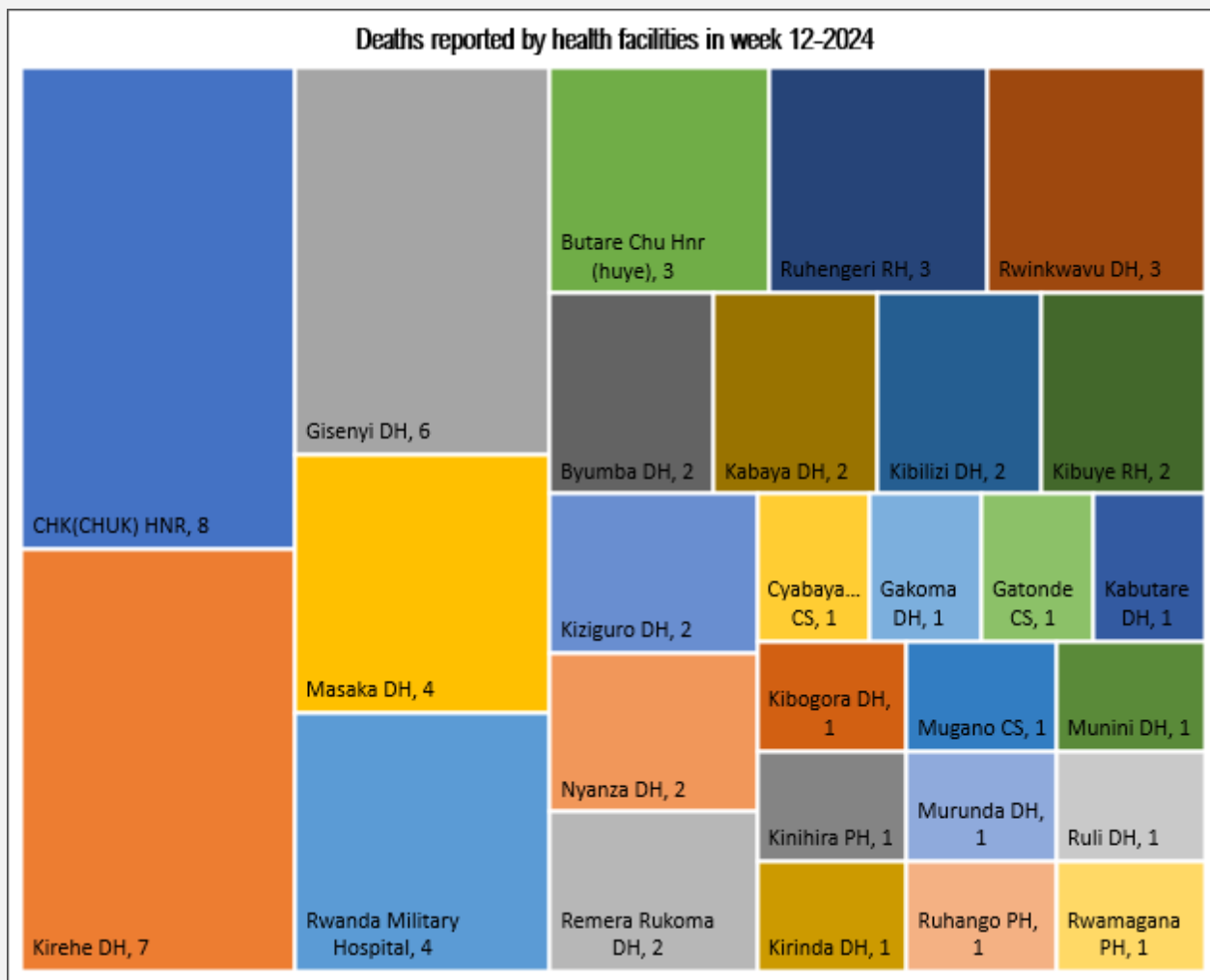
As summarized in the Pie Chart below, a total number of 65 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 45 (68%) were perinatal, 18 (28%) were the deaths of children under 5 years old (including 1 due to severe pneumonia and 4 caused by non-bloody diarrhea); 2(3%) maternal deaths and 1(2%) death due to foodborne illness.



Cause of deaths declared in epi week 12

65 deaths were reported from various catchment areas as follow:

- 8 deaths were reported by CHUK (3 under 5 years deaths, 4 perinatal deaths and 2 maternal deaths)
- 7 deaths were reported respectively by Kirehe DH (all were perinatal deaths)
- 6 deaths were reported by Gisenyi DH (5 perinatal deaths, 1 under 5 years death)
- 4 deaths were reported respectively by RMH (2 perinatal deaths, 1 maternal death and 1 under 5 years death); Masaka DH (3 perinatal deaths, 1 under 5 years deaths)
- 3 deaths were reported respectively by CHUB, Ruhengeri RH and Rwinkwavu DH (each one reported 2 perinatal deaths, 1 under 5 years death)
- 2 deaths were reported respectively by Byumba DH, Kabaya DH, Kiziguro DH and Remera Rukoma (each one reported 1 perinatal death and 1 under 5 years death); Kibirizi DH reported 2 perinatal deaths; Kibuye RH and Nyanza DH reported 2 perinatal deaths
- 1 death was reported respectively by Cyabayaga HC in Nyagatare DH (1 death due to suspected foodborne illness); Gakoma DH, Kabutare DH, Kibogora DH, Kinyihira PH, Kirinda DH and Rwamagana PH (every health facility reported 1 perinatal death) Gatonde HC in Gatonde DH, Mugano HC in Kaduha DH, Munini DH, reported each one reported 1 under 5 years death.



Distribution of deaths by health facilities in Epi week 12

OUTBREAK AND EVENT UPDATES IN EPIDEMIOLOGICAL WEEK 12

1. ADENOVIRUS CONJUNCTIVITIS IN NYARUGURU DISTRICT, GROUPE SCOLAIRE RUNYOMBYI

Confirmed cases	0	Date reported:	March 21, 2024	Risk assessment	Low
Suspected cases	6	Source:	eIDSR		
Death(s)	0	District/HFs:	Runyombyi HC/Munini DH		
Total cases	6	Geoscope:	Low		

Outbreak description:

On 21 March 2024; 6 male students from GS Runyombyi consulted Runyombyi Health Center with symptoms of headache, eye pain, and eye redness. GS Runyombyi is a boarding school with a total of 498 students (279 females and 219 males). 2 cases were referred to Munini District Hospital as outpatients for further treatment.

The mean age of affected students is 19 years, the attack rate is 1.2%, the index case was not identified. Most ill students (5 out of 6) are from the same class, Senior 5 level. No new cases were observed at the school during the active case search.

Actions taken:

- School hygiene education was provided
- Handwashing practices were reinforced
- Case management (tetracycline ophthalmic, pain relief medication) was provided

2. OUTBREAK OF ADENOVIRUS CONJUNCTIVITIS IN RUSIZI DISTRICT, BUGARAMA SECTOR

Confirmed cases	0	Date reported:	March 18, 2024	Risk assessment	Low
Suspected cases	75	Source:	eIDSR		
Death(s)	0	District/HFs:	Bugarama HC/Gihundwe DH		
Total cases	75	Geoscope:	Low		

Outbreak description

On 18 March 2024, Islamic Health Center in Rusizi District reported suspected cases of adenoviral conjunctivitis. Between 13-18 March 2024, a total of 26 individuals sought medical consultation, including 10 students and 16 farmers residing in Bugarama Sector of Rusizi District. These cases originated from multiple villages such as Murambi, Rubumba, Misufi, Mihabura, Cite, and Munini.

The common symptoms observed were eye redness and eye discharge. All affected individuals received treatment at the Islamic Health Center. Among the cases, there were 17 females and 9 males, with age ranging from 9 to 67 years and a mean age of 28 years. The total cases registered were 75 (31 males and 44 females)

Actions Taken:

- Field investigation was conducted at the Islamic HC on March 19, 2024 by Mibilizi District Hospital's Rapid Response Team
- Daily follow-up of new cases conducted
- Case management
- Education on infection prevention and control measures was provided

3. ONGOING ADENOVIRUS CONJUNCTIVITIS OUTBREAK IN RUSIZI DISTRICT, GS SAINT PIERRE

Confirmed cases	0	Date reported:	March 10, 2024	Risk assessment	Low
Suspected cases	207	Source:	eIDSR		
Death(s)	0	District/HFs:	Nkombo HC/Gihundwe DH		
Total cases	207	Geoscope:	Low		

Outbreak description:

Suspected cases of adenoviral conjunctivitis emerged on 10 March 2024, at GS Saint Pierre Nkombo, a boarding school located in Nyankumbira village, Bugarura cell, Nkombo sector, Rusizi district. The school has a total enrollment of 656 students. Affected students sought treatment at Nkombo Health Center and were referred to Gihundwe District Hospital for further assessment. Following an increase in similar symptoms among students, a field investigation and response measures were implemented at GS Saint Pierre Nkombo by Gihundwe District Hospital Rapid Response Team and Nkombo Health Center staff from 11 -12 March 2024. The total of cases registered was 207 cases (135 males and 72 females); the attack rate was 31.5%. Males were most affected.

Actions Taken:

- Investigation by the Rapid Response Team (RRT) from Gihundwe DH
- Risk assessment,
- Active case search,
- Health education on hand hygiene and avoiding handshaking
- Case management

4. FOODBORNE ILLNESSES IN NYAGATARE DISTRICT, CYABAYAGA HC

Confirmed cases	5	Date reported:	March 21, 2024	Risk assessment	Low
Suspected cases	129	Source:	eIDSR		
Death(s)	0	District/HFs:	Cyabayaga HC/Nyagatare DH		
Total cases	134	Geoscope:	Low		

Outbreak description:

On 21 March 2024, Cyabayaga HC received 21 students from four different schools complaining of symptoms such as headache, fever, stomach pain, vomiting, and diarrhea. The probable cause suspected was the milk consumed by the students the same day, at their respective schools. The milk was supplied by ISANGANO Milk Collection Center and was delivered in metallic milk jars. It is important to note that ISANGANO Milk Collection Center also supplied milk to 39 schools on 21 March 2024.

134 students consulted Cyabayaga Health Center with similar symptoms, students with severe symptoms were transferred to Nyagatare District Hospital for further management. Among the 7 stool samples that Nyagatare DH sent to NRL, result availed Salmonella enterica arizonde for 5 cases.

Actions taken:

- Field investigation to Cyabayaga HC by Nyagatare District Hospital Rapid Response Team
- Case management
- Active case search
- Laboratory sample testing

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 12

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 12, the overall completeness and timeliness of disease surveillance data reporting in Rwanda was 99.8% and 97%, respectively. With regards to completeness of surveillance reports, all hospitals had a high completeness (>80%), this was to be appreciated and to be continued. For the timeliness, many hospitals had a high timeliness (>80%), except two hospitals that had a moderate score (between 60% and 79%): Kabgayi DH and Kabaya DH) and one hospital that had a low score (below 60%): Kacyiru hospital.

Notes: The health facility 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.

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

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