



# WEEKLY EPIDEMIOLOGICAL BULLETIN

## WEEK 39 – 2023

(25 September -01October 2023)

### 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.

**Authors:** Public Health Surveillance & Emergency Preparedness and Response Division

## KEY EPIDEMIOLOGICAL HIGHLIGHTS

### EPIDEMIOLOGICAL WEEK 39

#### Event Based Surveillance (EBS) Highlights:

- During the epidemiological week 39, four alerts were notified through the electronic Community Event Based Surveillance System (eCBS), there were 2 alerts of human illness and 2 human deaths.
- One alert was identified through the Epidemic Intelligence from Open Source (EIOS):  
Education: 44 people who were sick due to colds drank from the baptism.

#### Indicator Based Surveillance (IBS) Highlights:

- 235 immediate reportable diseases were notified by health facilities countrywide. They included the cases of acute flaccid paralysis (AFP), foodborne illness, mumps, severe malaria; bloody diarrhea, measles/rubella, cholera, bacterial meningitis and chicken pox.
- 8 weekly reportable diseases and health events are being reported on weekly basis, they 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. A thorough analysis conducted for Epi Week 39 revealed that malaria cases crossed the epidemic threshold.
- A total of 68 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. The majority of deaths were classified as perinatal deaths and deaths of children under 5 years.

#### Outbreaks updates in week 39

Outbreaks occurred:

Four outbreaks of foodborne illness occurred respectively in different districts:

- Burera district, Cyanika sector, Kamanyana Cell, Gasovu village
- Rulindo District, Burega Sector, Butangampundu Cell
- Gicumbi district, Mukarange Sector, Kiruhura Cell, Kariba village
- Ngoma district, Rukumberi sector, Ntozi cell, Rwamibabi Village

#### Completeness and timeliness

In Epi Week 39, the overall completeness and timeliness of surveillance data reporting in Rwanda was 99% and 96% respectively.

## WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 39

**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

During the Epi week 39, four signals were received from community:

- 2 human deaths:
  - 1 death from Gatsibo District, Kabarore sector, Marimba cell, Rwimbogo village: a 64 female passed away on 30/09/2023 after being killed by his son.
  - 1 death from Gicumbi District: a 20-year-old Male, passed away on 27/09/2023 after being struck by thunder.
- 2 alerts of human illnesses:
  - 1 alert from Gicumbi district, it was about the foodborne illness reported by Mukarange HC
  - 1 alert from Gatsibo district, was about the foodborne illness occurred for 2 persons from one family, they developed vomiting and diarrhea after eating cassava, they were referred to Kibondo HC for treatment and recovered.

### MEDIA SCAN

#### **44 people who were sick due to colds drank from the baptism**

44 people who had left the baptism at the Seventh Day Adventist Church in Burera District, suffered from vomiting, diarrhea, nausea, headache and fever. Those who were affected visited a neighbor on September 30, 2023 in Gasovu Village, Kamanyana Cell in Cyanika Sector, where they participated in the baptism ceremony, where they took food and drinks prepared by the Christians of the Temple.

All those who drank the sorghum drink (ubushera) were taken immediately to the health center after suffering from the illness, 36 were treated at HC, while 8 were referred to Ruhengeri RH. As of 2 October 2023; 43 persons recovered, 1 was still hospitalized in hospital with a good progress. The executive secretary of Cyanika sector asked the people to continue to improve the cleanliness of their food and various meals.

He said, "As if the people have mixed the tap water from the tank and there is a lot of dirt, they should clean their living areas and all the bathrooms, let's be clean."

<https://umuryango.rw/amakuru/mu-rwanda/ubuzima/article/burera-abantu-44-barwaye-kubera-ubushera-banyoye-bavuye-ku-mubatizo>

## WEEKLY UPDATES ON INDICATOR BASED SURVEILLANCE (IBS)

### EPIDEMIOLOGICAL WEEK 39

**Description:** *Rwanda has been implemented Indicator Based Surveillance according to the IDSR 3rd guidelines 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 a weekly basis, every Monday before midday.*

#### A. IMMEDIATE REPORTABLE DISEASES – EPI WEEK 39

During Epi week 39; 235 cases of immediate reportable diseases were notified. They included:

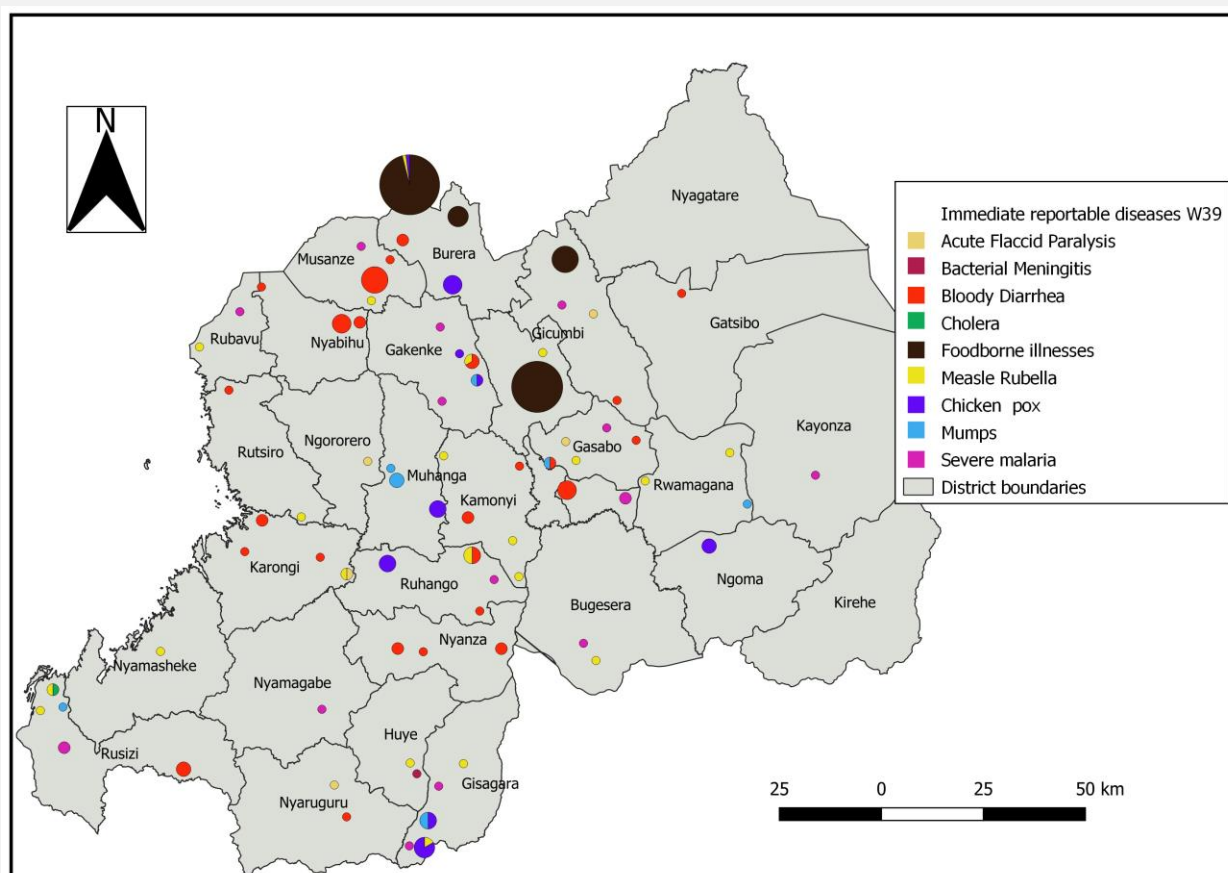
- 26 cases of chicken pox were reported by 9 health facilities, no health facility crossed the threshold
- 19 cases of mumps reported by 7 HCs, no HC crossed the threshold.
- 102 cases of foodborne illness were reported by 4 health facilities: Cyanika (Burera) HC, Kinyababa HC, Kiyanza HC and Mukarange (Gicumbi) HC. These health facilities crossed the threshold, and those cases are described in the outbreaks updates section.
- 52 suspected cases of bloody diarrhea reported by 25 HCs.
- 22 suspected cases of Measles/Rubella were reported by 21 health centers, none crossed the threshold.
- 16 confirmed cases of severe malaria reported by 14 health facilities, and they crossed the alert threshold Masaka DH, Mibilizi DH, Nemba DH, Kigeme DH, Nyange (Ruli HC), Nyange (Musanze) HC, Ruhango PH, Rwinkwavu DH, Bumbogo HC, Busasamana HC, Kigembe HC and Ngeruka HC.
- 5 suspected cases of acute flaccid paralysis reported by 5 health facilities that crossed alert threshold: Gisiza HC, Kabuye HC, Kibeho HC, Kirinda HC and Muhororo HC .
- 1 suspected case of cholera was reported by Nkanka HC
- 1 suspected bacterial meningitis was reported by CHUB

#### Notes:

For the diseases whose cases crossed the thresholds, District Hospitals are recommended to conduct the investigation.

For diseases requiring laboratory confirmation, the samples were collected and sent to the National Reference Laboratory for testing.

All confirmed cases and suspected cases had been managed at health facility level.  
(See the distribution of cases by place in the map below).

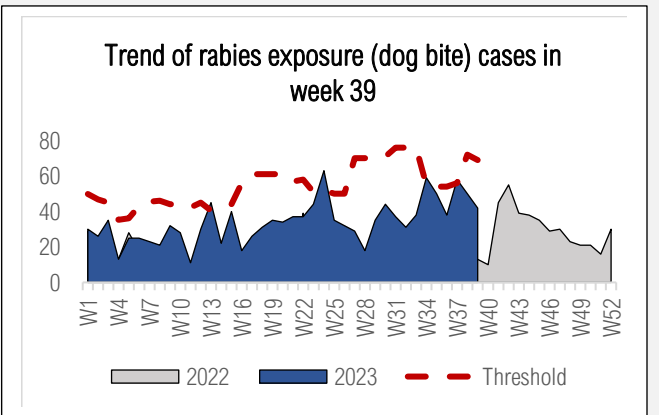
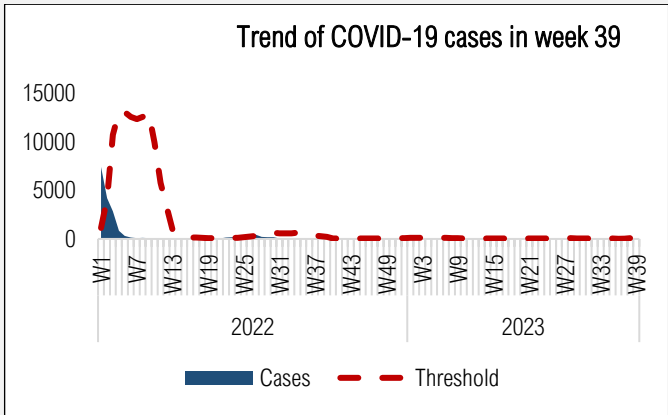
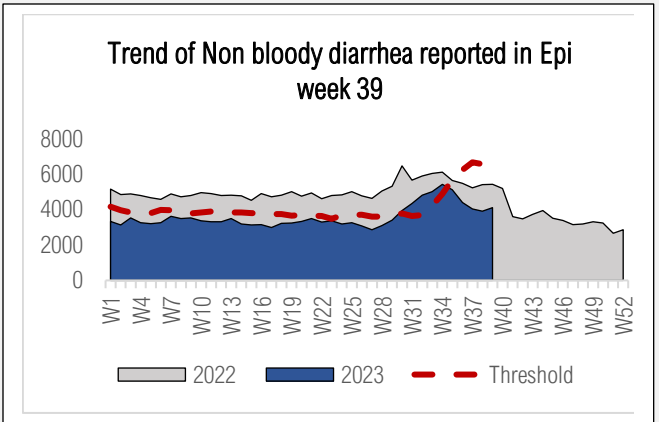
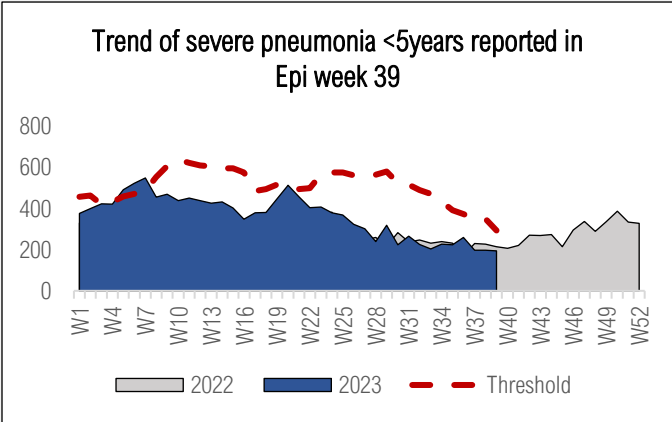
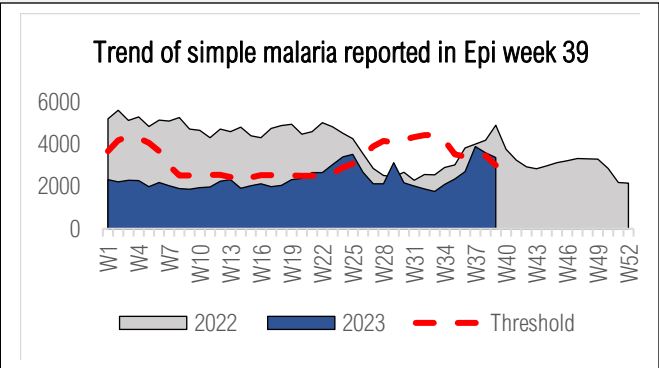
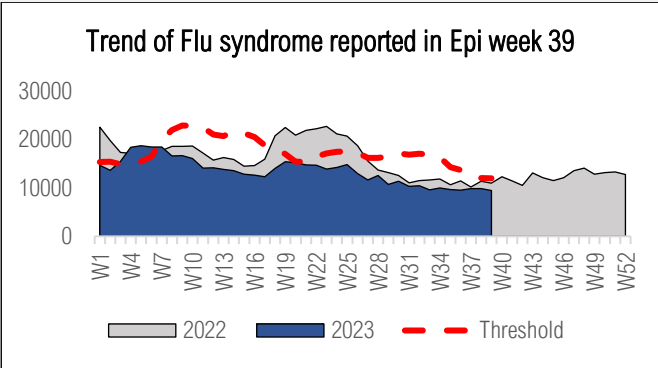


*Distribution of immediate reportable diseases in Epi week 39*

## B. WEEKLY REPORTABLE DISEASES – EPI WEEK 39

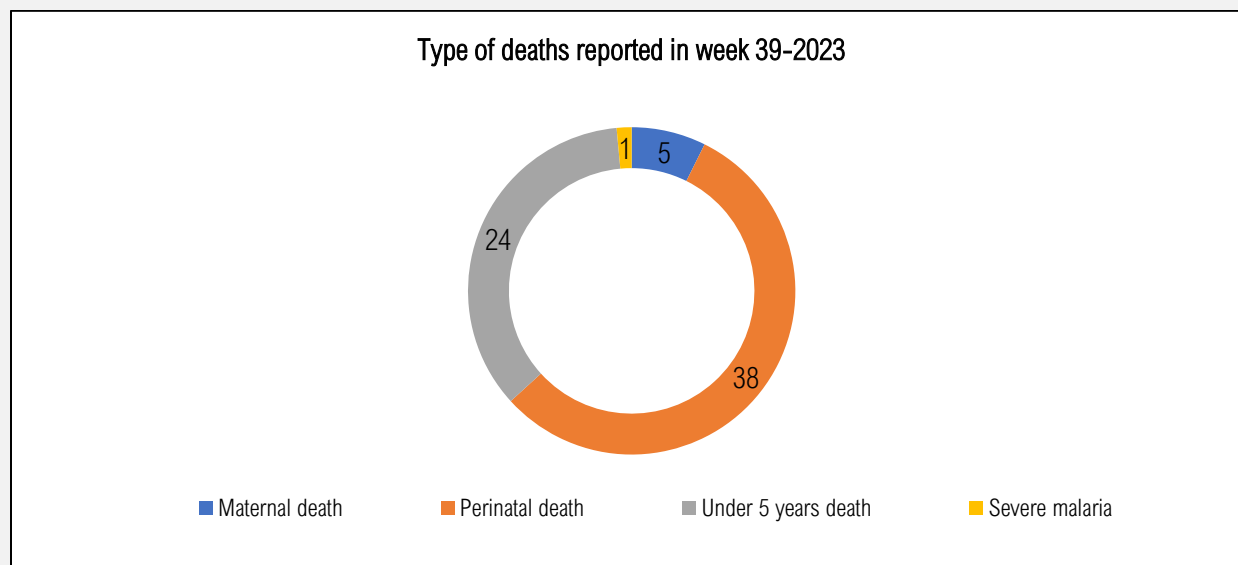
**Description:** *In Rwanda, after the adaptation of the IDSR 3rd edition, eight diseases & events are being reported and analyzed on a weekly basis. These include flu syndrome, simple malaria, severe pneumonia for under 5 years, non-bloody diarrhea for under 5 years, COVID-19, dog bites, brucellosis,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

In Epi Week 39, 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 malaria cases crossed the epidemic threshold, especially in 12 DH catchment areas including Byumba, Gakoma, Gihundwe, Gisenyi, Kabutare, Kibogora, Kigeme, Masaka, Mibilizi, Munini, Nyamata, Nyanza. (See the graphs below).



### C. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 39

In Epi week 39, as summarized in the Pie Chart below, a total number of 68 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 38(56%) were classified as perinatal, 24 (35%) were deaths of children under 5 years old (among them, 2 were due to severe malaria), 5(7%) maternal deaths and 1 (1%) death due to severe malaria.

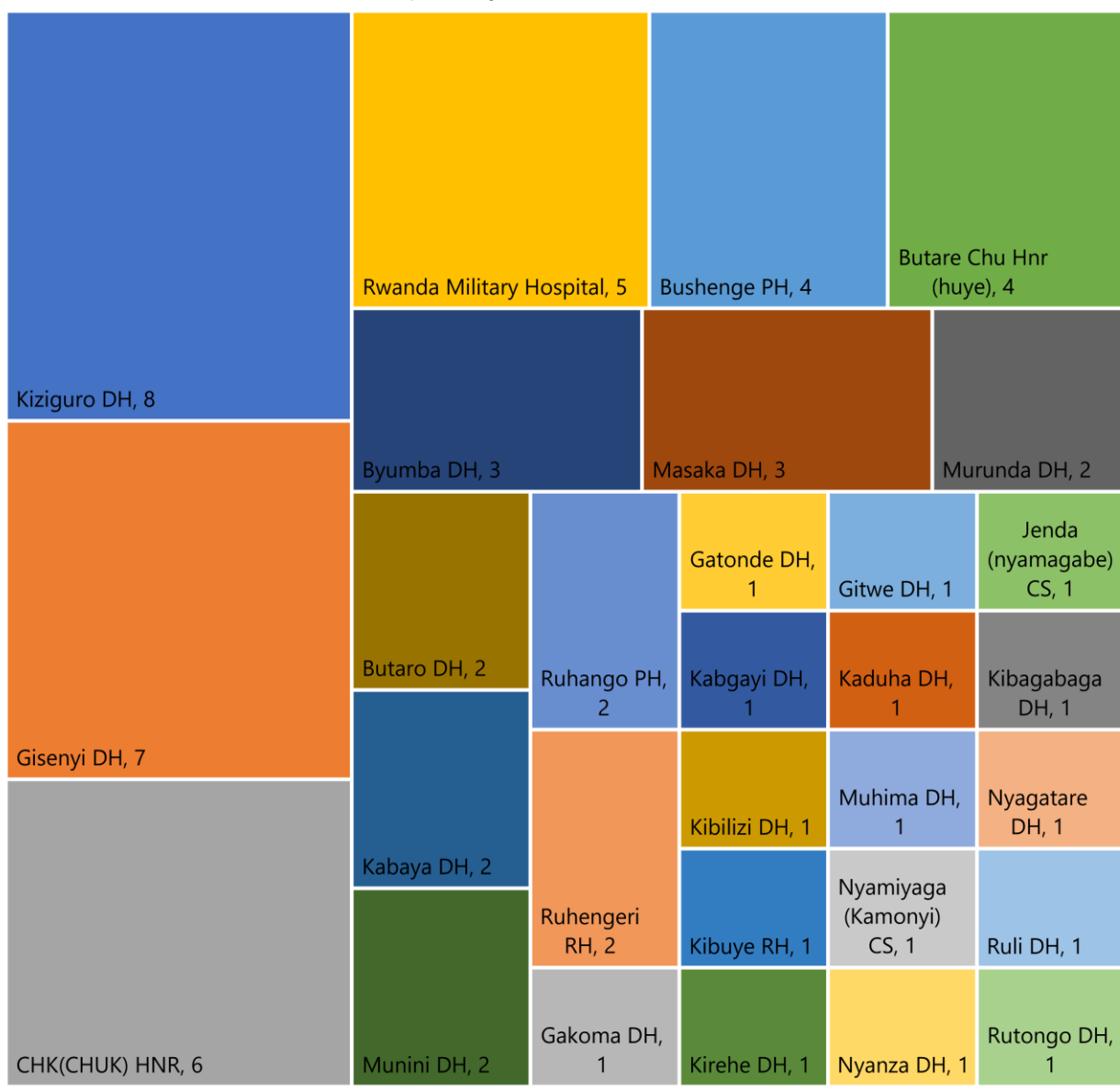


*Cause of deaths declared in epi week 39*

Deaths were reported from various catchment areas as follow:

- 8 deaths were reported by Kiziguro DH
- 7 deaths were reported by Gisenyi DH
- 6 deaths were reported by CHUK
- 5 deaths were reported by Rwanda military hospital
- 4 deaths were reported respectively by Bushenge DH, and CHUB
- 3 deaths were reported respectively by Byumba DH and Masaka DH
- 1 death was reported respectively by Gakoma DH, Gatonde DH, Gitwe DH, Kabgayi DH, Kaduha DH, Kibagabaga DH, Kibilizi DH, Kibuye RH, Kirehe DH, Muhima DH, Nyagatare DH, Nyanza DH, Ruli DH, Rutongo DH and Nyamiyaga HC (Kamonyi, Remera-Rukoma DH) .

Deaths reported by health facilities in week 39-2023



## OUTBREAK AND EVENT UPDATES EPIDEMIOLOGICAL WEEK 39

### 1. FOODBORNE ILLNESS OCCURRED IN BURERA DISTRICT, CYANIKA SECTOR, KAMANYANA CELL, GASOVU VILLAGE

Confirmed cases	0	Date reported:	September 20, 2023	Risk assessment	Low
Suspected cases	49	Source:	eIDSR		
Death(s)	0	District/HFs:	Cyanika HC/ Ruhengeri RH		
Total cases	49	Geoscope:	Low		



### Outbreak description:

On 20/09/2023, patients consulted Cyanika HC presenting abdominal pain, diarrhea, headache, and vomiting, after drinking sorghum beer (ubushera) at a baptism event in Gasovu village. A total of 49 cases have been recorded. Among them, 8 patients have been referred to Ruhengeri RH. Currently, they are treated and discharged. The possible cause is the consumption of sorghum beer.

### Interventions conducted:

- Case management of admitted patients at Cyanika HC, Kamanyana HP and Ruhengeri RH.
- Food samples collected by RIB
- Active case search in the community and community education, by a multidisciplinary team (local government, RIB, RNP, and Health Staff of Cyanika HC/Butaro L2TH)

### 2. FOODBORNE ILLNESS OCCURRED IN RULINDO DISTRICT, BUREGA SECTOR, BUTANGAMPUNDU CELL

Confirmed cases	0	Date reported:	September 25, 2023	Risk assessment	Low
Suspected cases	35	Source:	eIDSR		
Death(s)	0	District/HFs:	Kiyanza HC/ Rutongo DH		
Total cases	35	Geoscope:	Low		

### Outbreak description:

On 25/09/2023; 4 patients consulted Kiyanza HC presenting abdominal pain, diarrhea, and vomiting. The following day, more people consulted the health center complaining of the same symptoms. They reported to have consumed an alcoholic sorghum beer bought at a local bar on 24/09/2023. A total of 35 cases have been recorded. Among them, 2 patients have been referred to Rutongo DH. Currently, they are treated and discharged. The possible cause is the consumption of the alcoholic Sorghum brew.

### Interventions conducted:

- Case management of the patients
- Stool samples were collected by Rutongo DH laboratory

### 3. FOODBORNE ILLNESS OCCURRED IN GICUMBI DISTRICT, MUKARANGE SECTOR, KIRUHURA CELL, KARIBA VILLAGE

Confirmed cases	0	Date reported:	September 25, 2023	Risk assessment	Low
Suspected cases	11	Source:	eIDSR		
Death(s)	0	District/HFs:	Mukarange HC/ Byumba DH		
Total cases	11	Geoscope:	Low		

### Outbreak description:

On 25/09/2023, patients started consulting Mukarange HC presenting similar symptoms of abdominal pain, diarrhea, and vomiting after sharing a non-alcoholic sorghum drink (ubushera) at a social function in Kariba

village. A total of 11 patients were recorded, among them 1 with severe dehydration was referred to Byumba Hospital. Currently, they are treated and discharged. The possible cause is the consumption of the non-alcoholic Sorghum brew.

#### Interventions conducted:

Case management of patients admitted at Mukarange HC.

#### 4. FOODBORNE ILLNESS IN NGOMA DISTRICT, RUKUMBERI SECTOR, NTOZI CELL, RWAMIBABI VILLAGE

Confirmed cases	0	Date reported:	September 29, 2023	Risk assessment	Low
Suspected cases	6	Source:	eIDSR		
Death(s)	0	District/HFs:	Kinyababa HC/ Butaro HC		
Total cases	6	Geoscope:	Low		

#### Description




On 29/09/2023; 6 people consulted at Kinyababa HC presenting similar symptoms of diarrhea, vomiting, and abdominal pain. These symptoms manifested after they consumed non-alcoholic sorghum beer (ubushera) in a ceremony with a family celebrating their newborn. Currently, they are treated and discharged. The possible cause is the consumption of the non-alcoholic sorghum beer.

#### Interventions conducted:

- Case management of admitted patients

### eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 39

*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 39, the overall completeness and timeliness of disease surveillance data reporting in Rwanda was 99% and 96%, respectively. With regards to completeness of surveillance reports, all hospitals had the high completeness (>80%), that was to be appreciated and to continue.

For the timeliness, the overall score was 96%, almost all hospitals had the high timeliness (>80%), except Kacyiru police hospital that had a low timeliness score (less than 60%).

**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.

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

Hospital catchment area	Completeness																																								
	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27	W28	W29	W30	W31	W32	W33	W34	W35	W36	W37	W38	W39		
Nyagatare	100	100	100	100	100	86	93	93	100	93	100	100	86	93	100	100	100	94	86	100	86	100	100	100	100	93	100	100	100	100	100	93	100	100	93	100	100	100	100		
Gatunda	100	100	100	100	100	100	100	100	100	78	100	100	89	100	100	100	100	100	100	100	100	100	100	100	100	89	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Ngarara	88	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Kiziguro	100	100	100	100	100	100	100	100	100	100	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92	100	100	100	100	100	100	100	100	100	
Gahini	100	100	100	100	100	100	89	89	78	100	100	78	100	100	100	100	78	100	100	100	100	100	89	100	100	100	100	100	100	100	100	89	100	100	89	100	100	100	100	100	
Rwinkwavu	100	100	100	100	100	100	100	100	100	100	100	88	100	88	88	88	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Kibungo	94	100	94	100	100	100	100	100	100	100	100	100	100	94	100	100	100	94	100	100	100	100	100	94	100	100	100	100	100	100	94	100	100	100	100	100	100	100	100	100	
Kirehe	100	100	100	100	100	100	100	100	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	95	95	100	100	100	100	100	100	100	100	95	
Rwamagana	76	71	88	100	100	94	100	100	94	100	88	94	100	100	100	100	100	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	94	100	
Nyamata	100	94	100	94	100	100	100	100	100	100	100	100	100	100	100	100	88	88	100	94	100	94	100	100	88	88	88	94	100	100	88	100	88	94	100	88	94	100	100	100	
Kinihira	100	100	100	100	100	100	89	89	100	89	89	100	100	89	89	89	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Rutongo	93	87	93	87	100	100	100	100	100	93	93	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Gatonde	100	88	100	100	100	100	100	100	100	88	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Butaro	80	85	95	95	75	90	95	95	95	100	95	100	95	100	100	95	100	95	100	90	100	100	100	100	95	75	100	100	100	100	85	95	100	100	100	100	100	100	100	100	
Ruli	100	100	100	100	100	100	100	100	100	100	90	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Nemba	100	100	100	100	100	100	89	100	100	89	100	100	100	89	100	100	100	89	100	100	100	89	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Ruhengeri	94	94	94	100	83	89	89	89	100	94	94	83	94	89	94	89	94	94	100	89	100	89	100	100	100	100	100	100	100	94	100	100	94	89	100	100	100	100	100	100	
Byumba	96	100	100	96	96	96	100	100	100	96	100	96	96	92	100	100	100	96	100	96	100	100	96	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
CHUB	0	100	100	100	100	100	100	100	0	0	100	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Kabutare	84	95	100	100	95	95	95	95	89	95	95	100	100	89	100	100	89	95	100	100	100	100	89	100	100	89	100	100	100	95	100	100	100	100	95	95	95	100	100	100	
Kabagayi	100	100	92	85	100	92	92	92	92	100	100	92	92	85	100	100	92	100	100	92	100	100	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Kibizi	100	100	100	100	100	100	100	100	100	100	100	82	91	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	91	100	100	100	100		
Gakoma	83	100	100	100	83	100	100	100	83	100	100	100	67	100	100	100	83	83	67	100	100	100	100	100	100	83	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Gitwe	100	100	89	100	100	78	100	100	100	100	100	100	100	89	100	100	78	89	100	89	100	89	100	100	100	67	100	100	100	100	100	100	89	100	100	100	100	100	100	100	
Ruhango	88	100	100	100	88	88	75	88	88	100	100	63	75	63	63	75	60	88	75	63	88	63	100	100	100	75	100	100	88	88	100	75	88	100	100	100	100	100	100	100	
Remera	100	100	100	93	100	100	100	100	100	100	100	100	93	100	100	100	100	93	100	100	83	93	93	100	100	100	100	100	100	100	93	100	100	100	100	100	100	100	100	93	
Rukoma	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Nyanza	84	84	89	79	95	100	89	89	74	95	100	79	79	89	100	100	95	89	100	100	84	100	95	100	100	89	100	100	84	100	100	95	95	100	95	100	100	100	95		
Kigeme	77	77	100	92	100	92	100	100	100	100	92	100	92	85	100	100	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Kaduha	100	90	100	100	100	100	100	100	100	100	100	100	100	90	100	100	100	90	90	90	100	100	80	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Munini	100	94	100	100	100	94	100	100	100	100	100	100	100	100	100	100	100	94	88	94	100	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Bushenge	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	88	100	88	100	100	100	100	100	100	88	75	100	100	88	88	100	100	100	100	100	100	100	100		
Kibogora	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	93	100	100	93	100	100	100																		

Hospital catchment area	Timeliness																																							
	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27	W28	W29	W30	W31	W32	W33	W34	W35	W36	W37	W38	W39	
Nyagatare	100	100	100	100	100	86	93	93	93	93	100	100	86	79	86	94	79	94	94	86	79	93	86	93	100	79	100	100	93	100	100	93	100	93	100	93	93	100	100	100
Gatunda	100	100	100	100	100	100	100	100	100	100	78	89	100	89	100	100	100	78	100	100	100	89	100	100	100	67	100	100	100	89	100	100	100	100	100	100	100	100	100	89
Ngarama	88	100	100	100	100	100	88	100	100	100	100	100	100	100	100	100	75	100	100	100	100	100	100	100	100	88	100	100	100	88	100	100	100	100	100	100	100	88	100	88
Kiziguro	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Gahini	100	100	100	100	100	89	89	89	78	100	100	78	100	100	100	100	100	78	78	100	100	100	100	89	100	67	78	100	89	100	89	100	78	100	100	89	100	89	89	89
Rwinkwavu	100	88	100	100	100	100	100	100	88	88	88	100	63	75	100	88	100	100	100	100	100	100	100	100	100	88	88	88	100	100	100	100	100	100	100	100	100	100	100	100
Kibungo	94	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100	94	94	100	100	100	100	100	100	100	100	100	100	94	100	94	100	100	100	100	100	100	94	
Kirehe	100	100	100	100	95	95	100	100	100	90	95	100	100	100	90	100	85	95	95	100	100	100	100	100	95	100	85	100	100	95	95	85	100	100	100	100	100	100	100	90
Rwamagana	76	65	53	82	76	88	100	100	94	100	100	94	94	94	100	88	71	94	94	100	100	94	88	88	88	89	100	94	100	100	94	94	100	100	100	94	100	100	89	100
Nyamata	100	88	76	94	88	94	94	100	88	100	88	100	94	76	100	100	76	100	100	82	94	89	100	94	88	47	76	94	82	76	82	94	88	88	94	82	88	94	88	
Kinshira	100	100	100	100	89	100	89	67	100	89	78	89	100	89	89	89	89	89	89	100	100	100	100	67	100	89	100	100	89	78	100	89	100	100	100	100	100	100	100	100
Rutongo	93	87	93	73	100	100	100	100	100	93	93	100	93	100	100	100	100	100	100	100	100	100	93	100	93	93	100	100	93	100	100	100	100	100	100	100	100	93	100	100
Gatonde	100	86	100	100	100	100	100	100	100	86	100	100	86	100	100	100	71	100	100	100	100	100	100	100	71	100	100	100	100	100	100	100	86	100	100	100	100	100	100	100
Butaro	80	85	80	75	65	90	85	95	90	95	90	90	85	75	85	95	75	85	85	85	90	85	85	90	95	60	100	95	90	100	85	90	100	100	90	100	90	90	90	
Ruli	100	100	100	100	100	100	90	100	100	100	100	90	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nemba	100	100	89	100	100	89	100	100	100	89	78	100	100	78	100	100	67	89	89	100	100	89	89	89	89	89	89	100	100	100	100	100	100	78	100	100	100	89	100	89
Ruhengeri	94	89	89	100	83	89	83	72	94	94	94	78	94	83	89	89	89	89	100	100	94	89	89	100	100	89	100	94	89	94	94	100	89	89	100	100	100	100	94	100
Byumba	96	100	96	96	88	96	100	100	100	96	96	96	96	81	96	96	96	96	96	96	96	96	100	96	96	100	96	100	100	100	100	100	100	100	96	100	96	100	96	
CHUB	0	100	100	100	100	100	100	0	0	0	0	100	100	0	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Kabutare	84	89	89	95	84	89	89	89	84	95	74	100	100	79	100	100	53	95	95	100	100	100	100	84	89	95	79	95	100	95	95	100	100	100	89	95	95	95	100	100
Kabagayi	100	92	92	85	92	77	92	85	85	100	92	92	92	69	92	92	69	92	92	100	100	92	92	92	92	100	92	100	100	92	100	92	100	100	100	100	100	100	100	100
Kibitizi	100	100	100	100	100	100	82	100	100	100	100	82	91	82	91	91	91	100	100	100	100	100	100	100	100	100	91	100	100	100	100	100	100	100	100	91	100	100	100	
Gakoma	83	100	100	100	83	67	83	100	83	100	100	100	67	50	83	67	50	83	83	83	67	100	83	50	100	83	100	100	100	100	100	100	83	100	100	83	100	100	100	100
Gitwe	100	100	89	89	89	78	100	78	100	100	89	89	100	67	100	78	84	89	89	100	89	89	89	89	89	100	89	100	89	100	89	100	89	89	89	100	100	100	100	100
Ruhango	88	88	88	100	88	88	75	88	88	88	100	63	75	50	63	50	88	75	75	63	75	63	100	63	100	63	100	75	100	100	75	88	100	63	88	88	100	100	100	100
Remera	100	100	100	93	100	100	100	100	100	100	93	100	93	93	93	100	93	93	93	100	93	93	100	93	93	100	93	100	93	100	93	100	93	100	93	100	93	87	87	
Nyanza	84	84	89	79	74	100	89	84	63	89	84	74	68	47	89	95	47	89	89	89	84	95	89	95	95	74	84	95	79	95	95	95	95	95	95	89	100	89	95	
Kigeme	77	69	92	92	100	92	100	92	100	92	100	92	100	92	46	100	85	46	100	100	92	92	100	92	100	92	100	100	100	100	85	100	100	100	100	100	92	100	92	
Kaduha	100	90	90	100	100	100	100	100	90	100	90	90	90	80	90	100	60	90	90	90	90	90	90	90	80	100	70	90	100	100	100	100	100	100	100	100	100	100	90	
Munini	100	94	100	100	100	94	94	100	100	94	88	94	100	82	100	100	88	82	82	88	94	88	100	88	100	100	100	94	100	94	94	100	100	100	100	94	100	94	100	
Bushenge	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	63	100	100	100	100	100	100	100	88	88	88	75	100	100	88	88	100	100	100	100	100	100	
Kibogora	100	100	100	100	100	100	93	100	100	100	100	100	100	100	100	93	93	86	100	100	93	100	100	100	100	93	100	100	93	100	100	100	100	100	100	100	100	100	100	
Kibuye	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92	92	100	92	85	100	92	100	100	100	100	92	100	92	100	92	100	100	92	92	92	92	
Kirinda	100	100	100	100	100	100	100	100	100	100	100	100	100	83	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100				