



WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 38 – 2023

(18–24 September 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.

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KEY EPIDEMIOLOGICAL HIGHLIGHTS

EPIDEMIOLOGICAL WEEK 38

Event Based Surveillance (EBS) Highlights:

- During the epidemiological week 38, eight alerts were notified through the electronic Community Event Based Surveillance System (eCBS), there were 5 human deaths, 1 dog bite and 2 alerts of animal illnesses.
- One alert was identified through the Epidemic Intelligence from Open Source (EIOS):
Mysterious disease kills 7 in Ivory Coast.

Indicator Based Surveillance (IBS) Highlights:

- 192 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, typhoid fever, 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 38 revealed that malaria cases crossed the epidemic threshold.
- A total of 65 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 38

Outbreaks occurred:

Four outbreaks of foodborne illness occurred respectively in different districts:

- Rubavu district, Cyanzarwe sector, Cyanzarwe cell, Kiruhura village
- Ruhango district, Kinazi Sector, Rutabo cell, Kanka village
- Rutsiro District, Nyabirasi sector, Cyivugiza Cell, Rukomero Village
- Ngoma district, Rukumberi sector, Ntozi cell, Rwamibabi Village

Completeness and timeliness

In Epi Week 38, the overall completeness and timeliness of surveillance data reporting in Rwanda was 98% and 96% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 38

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 38, eight alerts were received from community:

- 5 human deaths:
 - 2 deaths from Nyanza District
 - 1 death from Gicumbi District
 - 1 death from Karongi district
 - 1 death from Ngororero district
- 2 alerts of animal illnesses:
 - 1 alert from Rusizi district

On 18/09/2023; two cows were reported to die unexpectedly in Rweya village, Kamanyenga cell, Nkanka sector, Rusizi district. The first cow developed symptoms of chills since 11/09/2023, and subsequently developed generalized body weakness, rendering it unable to stand. The second cow developed fever on 15/09/2023, and unexpectedly passed away three days later. The probable causes are cow liver fluke or death of unknown cause.

Actions taken:

- Nkanka veterinary services have been tasked with conducting an in-depth inquiry into the reasons behind the cattle fatalities in the Nkanka sector.

- 1 alert from Bugesera district

On 17/09/23; 12 rabbits from the household suddenly died, they developed unusual signs and died within few hours. This event took place in Karambo Village, Gihembe Cell, Ngeruka Sector, Bugesera district. In the same week, 6 other rabbits from another household within the same cell but in Kabuye village died too. The cause of death is unknown.

Action taken:

The veterinary services came to consult and prescribed medications for remaining rabbits.

- 1 alert of dog bite

- The alert was from Karongi district:

A 9 year old Male from Musasa village, Musasa cell, Gashari sector, Karongi district was bitten by a dog on 21/09/2023. He was brought to Birambo HC and was referred to Kirinda DH for anti-rabic vaccines.

MEDIA SCAN

Mysterious disease kills 7 in Ivory Coast

Seven people died on Sunday in a village in central Ivory Coast near Bouaké, where 59 others were hospitalized due to an illness of still unknown origin, hospital and local sources told AFP on Monday.

Seven people died, five at the Bouaké University Hospital and two in Niangban, a village located about thirty kilometers to the south, a hospital source said. "We have a total of 59 (people) hospitalized" at the Bouaké University Hospital, "mostly children and some adolescents", added this source, specifying that the symptoms of the disease are "vomiting" and "diarrhea".

"Those who died" are between 5 and 12 years old, confirmed the village chief of Niangban, Emmanuel Kouamé N'Guessan. He reported that "around fifty people" were "at the Bouaké University Hospital". On Sunday, a nurse's aide informed him that children were "dying," he said. A close friend of the chef, Célestin Kouadio Koffi, indicated that according to rumors, corn porridge was the cause of the contamination. Zitanick Amino Yao, the mother of the first victim, claimed to have bought porridge which she gave to her son. After an urge to go to the toilet, she said, "he started to vomit when I gave him the medicine that was given to me at the Djébonouan hospital". "We went back to the hospital and they told us to go to the Bouaké University Hospital, that's where he died at the age of three," she said. Agnès Aya Konan also lost her daughter. She refuses to accuse the seller, indicating however that her children ate the same porridge on Sunday.

In February, in the village of Kpo-Kahankro, also close to Bouaké, two people were sentenced to five years in prison after contamination with clostridium, a bacteria which had caused 16 deaths according to an official report, 21 according to the villagers.

<https://www.africanews.com/2023/09/19/mysterious-disease-kills-7-in-ivory-coast/>

WEEKLY UPDATES ON INDICATOR BASED SURVEILLANCE (IBS) EPIDEMIOLOGICAL WEEK 38

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 38

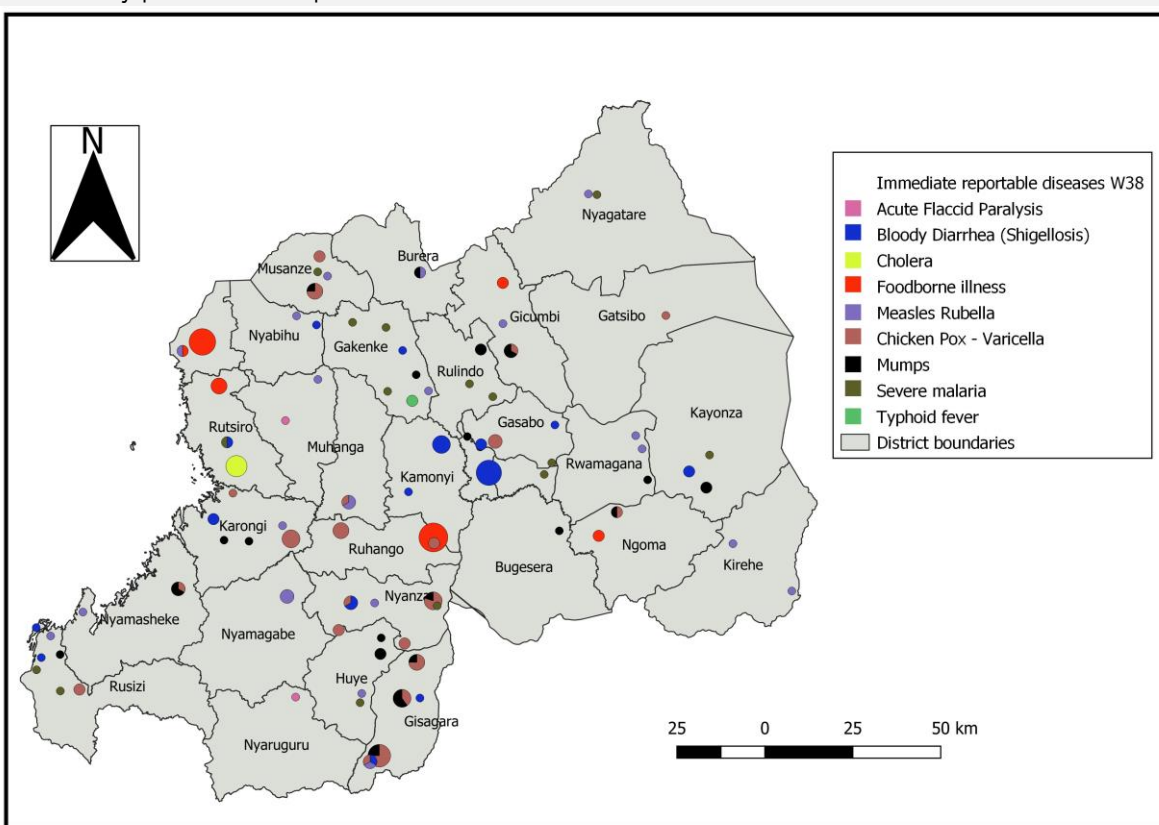
During Epi week 38; 192 cases of immediate reportable diseases were notified. They included:

- 50 cases of chicken pox were reported by 22 health facilities, no health facility crossed the threshold
- 28 cases of mumps reported by 20 HCs, no HC crossed the threshold.
- 33 cases of foodborne illness were reported by 6 health facilities: Bushara HC, Gisenyi DH, Busigari HC, Mukoma (Ruhango)HC, Nyabirasi HC and Rukumberi HC. These health facilities crossed the threshold, and those cases are described in the outbreaks and events updates section.

- 32 suspected cases of bloody diarrhea reported by 15 HCs and among the sample of the previous week 37 from Biryogo HC. One case was tested positive for shigella flaxineri, thus, an investigation is recommended.
- 23 suspected cases of Measles/Rubella were reported by 20 health centers, none crossed the threshold.
- 15 confirmed cases of severe malaria reported by 15 health facilities, and they crossed the alert threshold in Busengo HC, Cyunzuzi HC, Gakoma DH, Kabuga (Kicukiro)HC, Masaka DH, Matyazo HC, Mibilizi DH, Murunda DH, Musanze HC, Nembu HC, Nyagatare DH, Nyange (Ruli HC), Rutongo DH, Rwinkwavu DH and St François HC.
- 2 suspected cases of acute flaccid paralysis reported by 2 health facilities that crossed alert threshold: Ramba HC and Nyamyumba HC.
- 7 cases of cholera in Iwawa HC were occurred in previous weeks, but reported with delay in week 38, thus, the HC is recommended to report on time for the next time.
- 2 suspected cases of typhoid fever were reported by Ruli DH

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

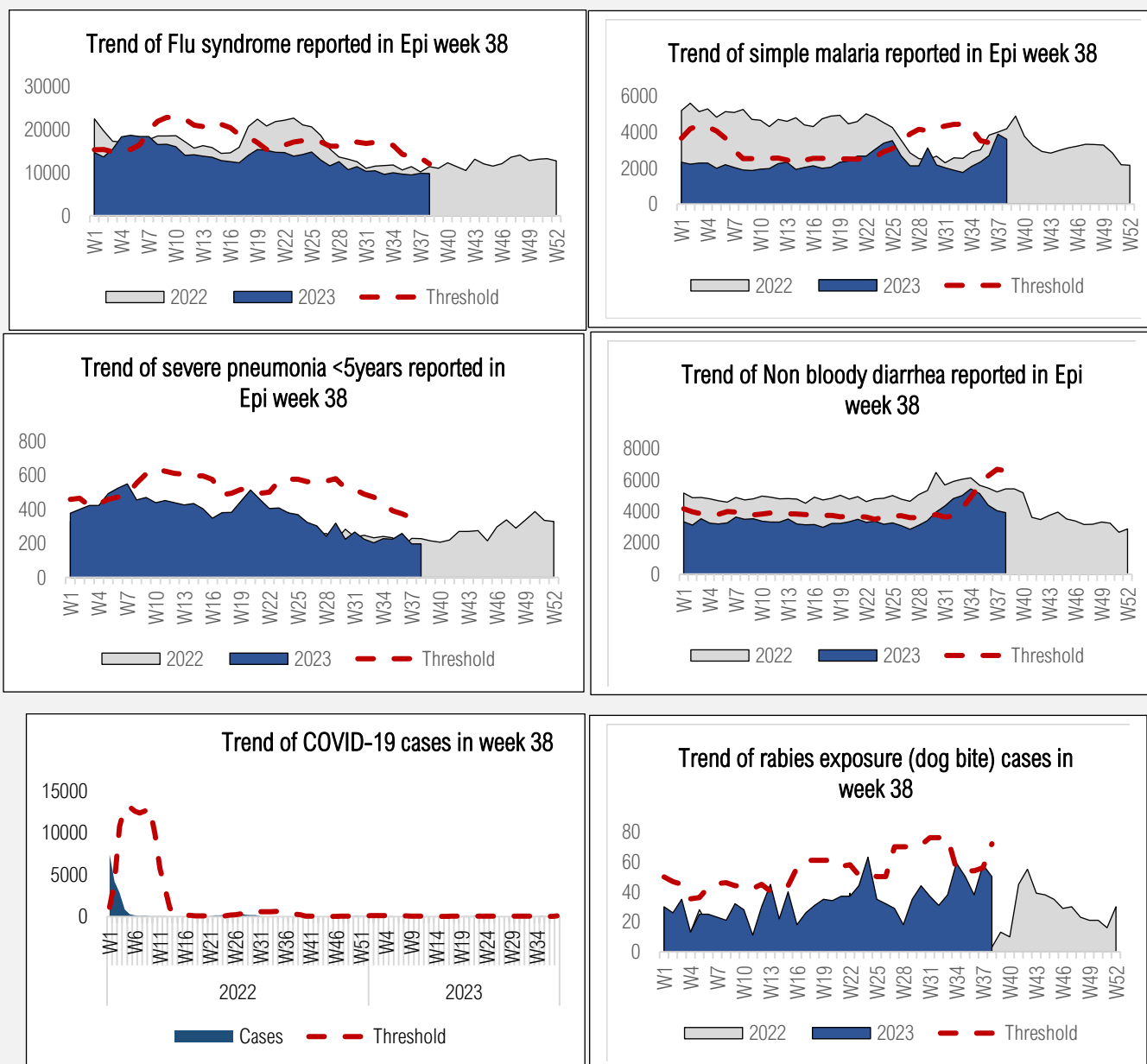


Distribution of immediate reportable diseases in Epi week 38

B. WEEKLY REPORTABLE DISEASES – EPI WEEK 38

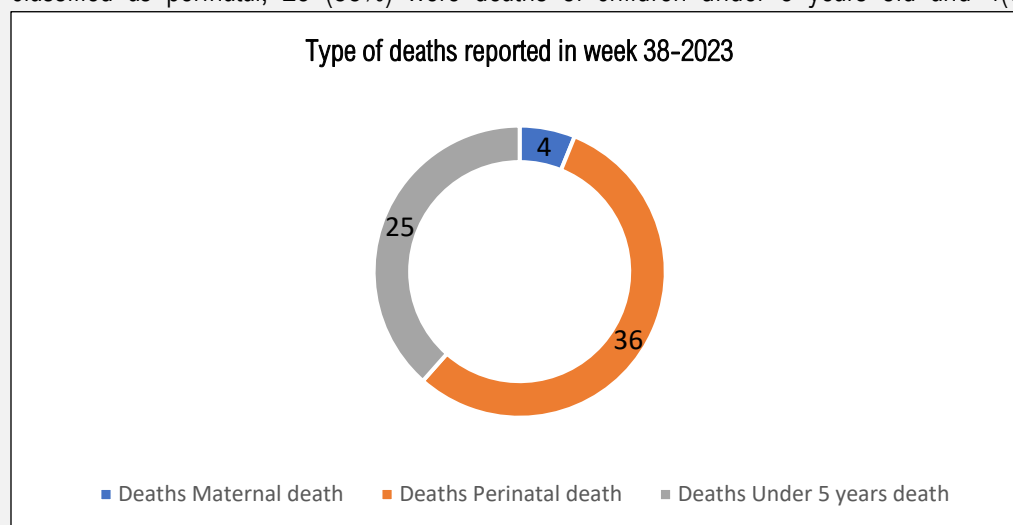
Description: In Rwanda, after the adaptation of the IDSR 3rd edition, eight diseases & events are being reported and analyzed on a weekly basis. These include flu syndrome, simple malaria, severe pneumonia for under 5 years, non-bloody diarrhea for under 5 years, COVID-19, dog bites, brucellosis, and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

In Epi Week 38, 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 Gakoma DH, Gatunda DH, Kibilizi DH, Kibogora DH, Kigeme DH, Mugonero DH, Nyamata DH, Ruhango PH. (See the graphs below).



C. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 38

In Epi week 38, 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, 36(55%) were classified as perinatal, 25 (38%) were deaths of children under 5 years old and 4(6%) maternal deaths.

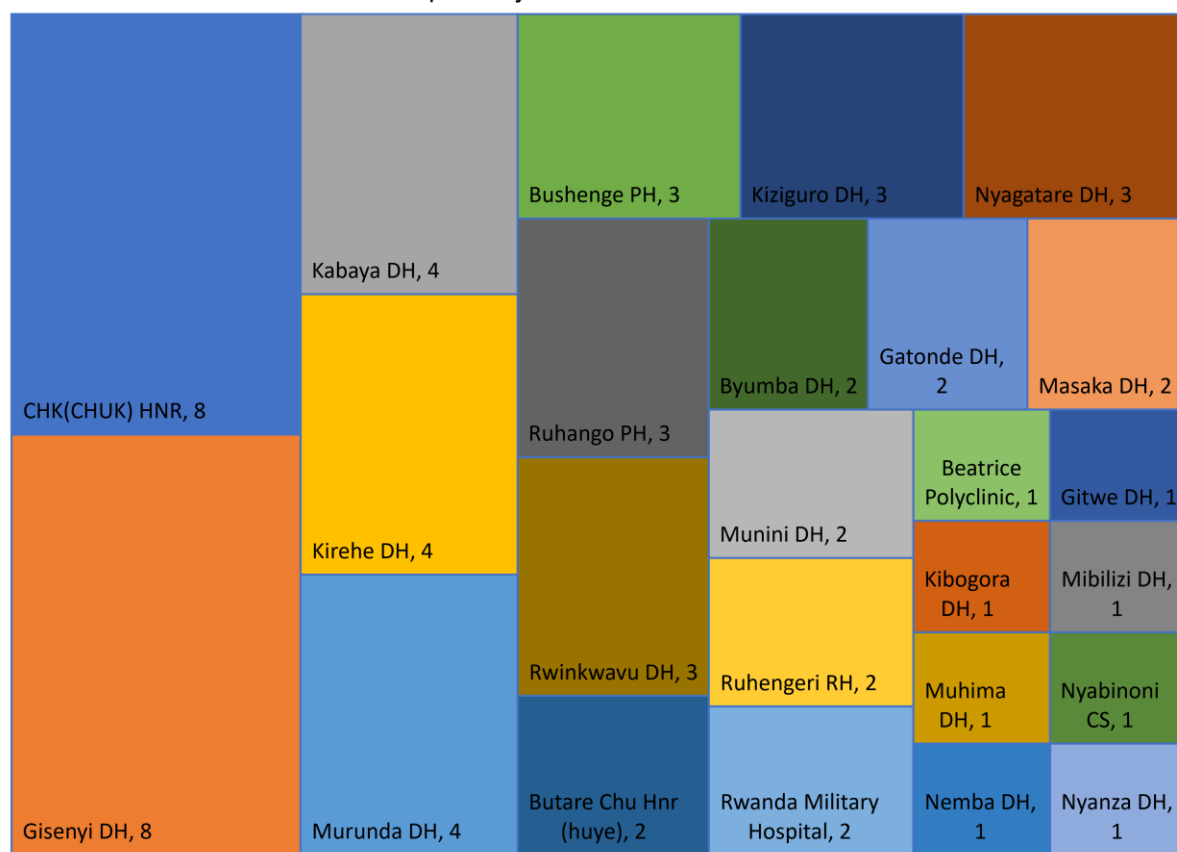


Cause of deaths declared in epi week 38

Deaths were reported from various catchment areas as follow:

- 8 deaths were reported respectively in CHUK and Gisenyi DH
- 4 deaths were reported respectively in Kabaya DH, Kirehe DH and Murunda DH
- 3 deaths were reported respectively in Bushenge DH, Kiziguro DH, Nyagatare DH, Ruhango PH and Rwinkwavu DH
- 2 deaths were reported respectively in CHUB, Byumba DH, Gatonde DH, Masaka DH, Munini DH, Ruhengeri RH and Rwanda military hospital.
- 1 death was reported respectively in Gitwe DH, Kibogora DH, Mibilizi DH, Muhima DH, Nemba DH, Nyanza DH, Beatrice polyclinic (in Kibagabaga DH), and Nyabinoni HC (in Nyabikenke DH).

Deaths reported by health facilities in week 38-2023



OUTBREAK AND EVENT UPDATES EPIDEMIOLOGICAL WEEK 38

1. FOODBORNE ILLNESS OCCURRED IN RUBAVU DISTRICT, CYANZARWE SECTOR, CYANZARWE CELL, KIRUHURA VILLAGE

| | | | | | |
|-----------------|----|----------------|-------------------------|-----------------|-----|
| Confirmed cases | 0 | Date reported: | September 18, 2023 | Risk assessment | Low |
| Suspected cases | 12 | Source: | eIDSR | | |
| Death(s) | 1 | District/HFs: | Busigari HC/ Gisenyi DH | | |
| Total cases | 12 | Geoscope: | Low | | |

Outbreak description:

On 14/09/2023, 20 people consumed cassava ugali made from cassava flour. On 18/09/2023, 12 among them developed symptoms of abdominal pain, vomiting, headache, and dizziness and consulted Busigari HC the following day after, one death of an 8-year-old girl occurred. Of the 12 cases recorded, 11 were transferred to Gisenyi DH for further medical care. Currently, they are treated and discharged. The possible cause is the consumption cassava flour that was tainted or polluted.

Interventions conducted:

- Close cooperation with local authorities to raise awareness about the situation and conduct thorough investigations.
- Coordination with the Rwanda Forensic Laboratory to conduct testing on the cassava flour for potential contaminants.
- The burial of the deceased child is scheduled for today following the release of expert examination results conducted at Gisenyi Hospital.

2. FOODBORNE ILLNESS OCCURRED IN RUHANGO DISTRICT, KINAZI SECTOR, RUTABO CELL, KANKA VILLAGE,

| | | | | | |
|-----------------|----|----------------|-----------------------|-----------------|-----|
| Confirmed cases | 0 | Date reported: | September 18, 2023 | Risk assessment | Low |
| Suspected cases | 12 | Source: | eIDSR | | |
| Death(s) | 0 | District/HFs: | Mukoma HC/ Ruhango PH | | |
| Total cases | 12 | Geoscope: | Low | | |

Outbreak description:

On 18/09/2023, 12 patients consulted in Mukoma HC with similar symptoms of abdominal pain, diarrhea, and vomiting following the consumption of sorghum beer (ubushera) in a baptsim ceremony held on 17/09/2023. Among the 14 patients, 4 were transferred to Ruhango PH. No critical case was recorded. Currently, they are treated and discharged. The possible cause is the consumption of non-alcoholic Sorghum brew (Ubushera).

Interventions conducted:

- Case management of the patients
- Stool samples were collected and sent to NRL

3. FOODBORNE ILLNESS OCCURRED IN RUTSIRO DISTRICT, NYABIRASI SECTOR, CYIVUGIZA CELL, RUKOMERO VILLAGE

| | | | | | |
|-----------------|---|----------------|--------------------------|-----------------|-----|
| Confirmed cases | 0 | Date reported: | September 23, 2023 | Risk assessment | Low |
| Suspected cases | 4 | Source: | eIDSR | | |
| Death(s) | 2 | District/HFs: | Nyabirasi HC/ Murunda DH | | |
| Total cases | 4 | Geoscope: | Low | | |

Outbreak description:

On 23/09/2023, 12 individuals, including a family, their relatives, and a neighbor's child, consumed a meal consisting of cassava and sweet potatoes. Later in the evening, one of the relatives experienced nausea. As the night progressed, two children complained of abdominal pain, vomiting, fever, and convulsions and the first child, a 7-year-old, passed away. The 2nd child, 6-year-old was brought to the health facility and passed away on the way to the health facility.

Additionally, another person presented with similar symptoms and was in a coma-like state when he was referred to Gisenyi for further medical care. Currently, two cases remain hospitalized one in Gisenyi DH and another in Nyabirasi HC. The possible cause was the consumption cassava flour that was tainted or polluted.

Interventions conducted:

- Four Stool samples have been collected and will be sent to NRL tomorrow
- Cases with mild symptoms have been treated at Nyabirasi HC as OPD
- Autopsy has been conducted waiting on autopsy report
- The rapid response team has initiated communication with the neighbors and the village to provide reassurance.

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

| | | | | | |
|-----------------|---|----------------|--------------------------|-----------------|-----|
| Confirmed cases | 0 | Date reported: | September 19, 2023 | Risk assessment | Low |
| Suspected cases | 3 | Source: | eIDSR | | |
| Death(s) | 0 | District/HFs: | Rukumberi HC/ Kibungo RH | | |
| Total cases | 3 | Geoscope: | Low | | |

Description

On 19/09/2023; three individuals from the same family consulted at Rukumberi HC due to symptoms including diarrhea, vomiting, and abdominal pain. These symptoms manifested after they consumed sorghum porridge (known as "igikoma cy'amasaka") at their residence. One individual was referred to Kibungo RH for further treatment due to severe dehydration. The probable cause was the consumption of contaminated porridge. All three individuals were recovered and discharged.

Interventions conducted:

- Case management
- The health Center team visited the family for investigations.

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 38

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 38, the overall completeness and timeliness of disease surveillance data reporting in Rwanda was 98% and 96%, respectively. With regards to completeness of surveillance reports, almost all hospitals had the high completeness (>80%), except Kacyiru police hospital that had a low completeness (less than 60%).



