



# WEEKLY EPIDEMIOLOGICAL BULLETIN

## WEEK 15 – 2023

(10 – 16 April 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 15

### Event Based Surveillance (EBS) Highlights:

- During the epidemiological Week 15, two alerts were received through the electronic Community Event Based Surveillance System (eCBS), including one case of dog bite and one community death.
- One alert was also received from Epidemic Intelligence from Open Source (EIOS), reporting an outbreak of an Avian Influenza A(H3N8) in China.

### Indicator Based Surveillance (IBS) Highlights:

- 65 alerts for immediate reportable diseases were received from health facilities countrywide, including cases of foodborne illness and suspect cases for measles, cholera, chicken pox, bloody diarrhea, acute flaccid paralysis (AFP), mumps, bacterial meningitis and typhoid fever.
- 8 diseases and health conditions are being reported on a weekly basis, and a thorough analysis conducted for Epi Week 15 revealed that all weekly reportable diseases were below the threshold, indicating that there was no outbreak of these diseases during that Epi Week 15. The eight diseases are 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 total of 59 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. The majority of deaths were classified as perinatal and deaths of children under the age of 5.

### Ongoing outbreaks

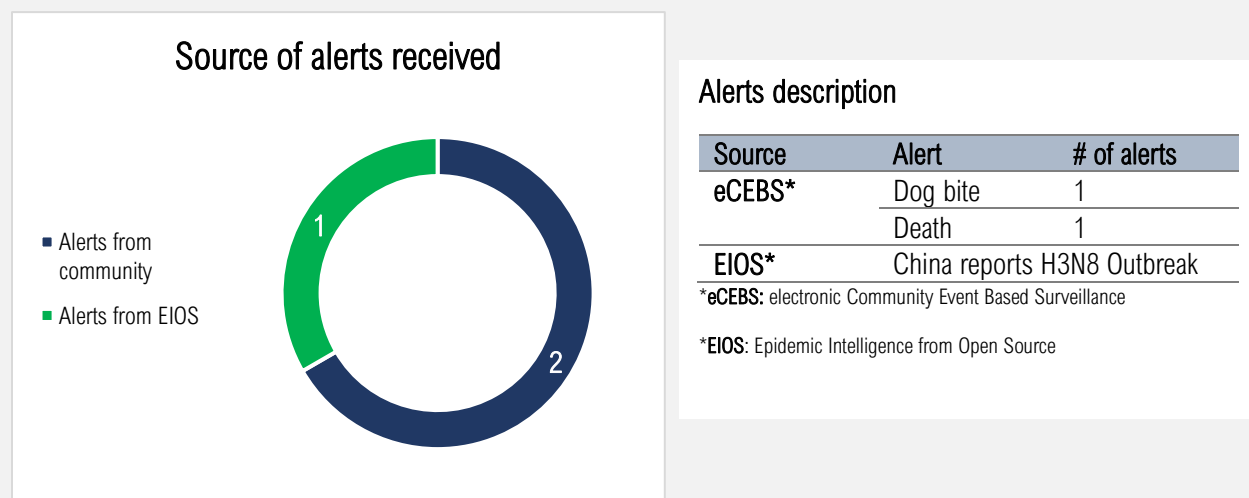
- In Epi Week 15, there were two reported outbreaks in Rwanda.
- The first was a food poisoning outbreak in Rwamagana district, where 8 people from the same family developed severe symptoms after consuming cassava leaves and maize dough together. They were all admitted in Rwamagana DH and discharged after 2 days, and no one died.
- The second outbreak was a measles outbreak in Kirehe district, with a total of 4 new cases confirmed by epidemiological link making it 47 cumulative cases reported in Kirehe district.

### Completeness and timeliness

- In Epi Week 15, the overall completeness and timeliness of reporting in Rwanda were 99% and 91%, respectively.

## WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) – EPIDEMIOLOGICAL WEEK 15

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 has taken the initiative to implement 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.



- ◆ During the Epi week 15, we only received 2 alerts from eCBS that are described below:

### *1-Dog bite*

- A 41-year-old, Female from Bugesera district, Gashora Sector, Biryogo Cell, Karutete village was bitten by a dog on 13/04/2023. He was brought to the Gashora HC for further management and was transferred to Nyamata DH for anti-rabic vaccines.

### *1-community human death*

- A 85-years-old, female from Rutsiro district, Kivumu Sector, Kabere Cell, Kabusagara Village passed away on 13/04/2023. She was known to have a high blood pressure.

- ◆ We have also received 1 alert from EIOS within this Epi week 15:

- On 27 March 2023, the National Health Commission of the People's Republic of China notified WHO of one confirmed case of human infection with an avian influenza A(H3N8) virus. This is the third reported case of human infection with an avian influenza A(H3N8) virus; all three cases have been reported from China.

<https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON456>

## WEEKLY UPDATES ON INDICATOR BASED SURVEILLANCE (IBS) – EPIDEMIOLOGICAL WEEK 15

Rwanda has been implemented Indicator Based Surveillance through IDSR 3rd guideline where approximately 45 priority diseases, health conditions and public health events are being monitored, where health facilities are reporting on a regular basis either immediately or weekly. Diseases that are prone to outbreaks are being reported immediately while diseases that are considered as endemic are reported on a weekly basis.

### A. IMMEDIATE REPORTABLE DISEASES – EPI WEEK 15

During Epi week 15, we received 65 alerts for immediate reportable diseases from Health Facilities countrywide:

8 alert cases of foodborne illness, 10 alerts for suspect cases of measles, 17 alerts for cases of bloody diarrhea, 1 alert for a case of AFP, 3 alerts for suspect cases of Cholera, 2 alerts for cases of Chicken pox, 12 alerts for cases of mumps, 5 alerts for suspect cases of Typhoid fever, and 7 alerts for confirmed cases of severe malaria.

**Note:** Diseases requiring laboratory confirmation, samples were taken and sent to National Reference Laboratory for testing and meanwhile suspected cases are managed at the health facility level.

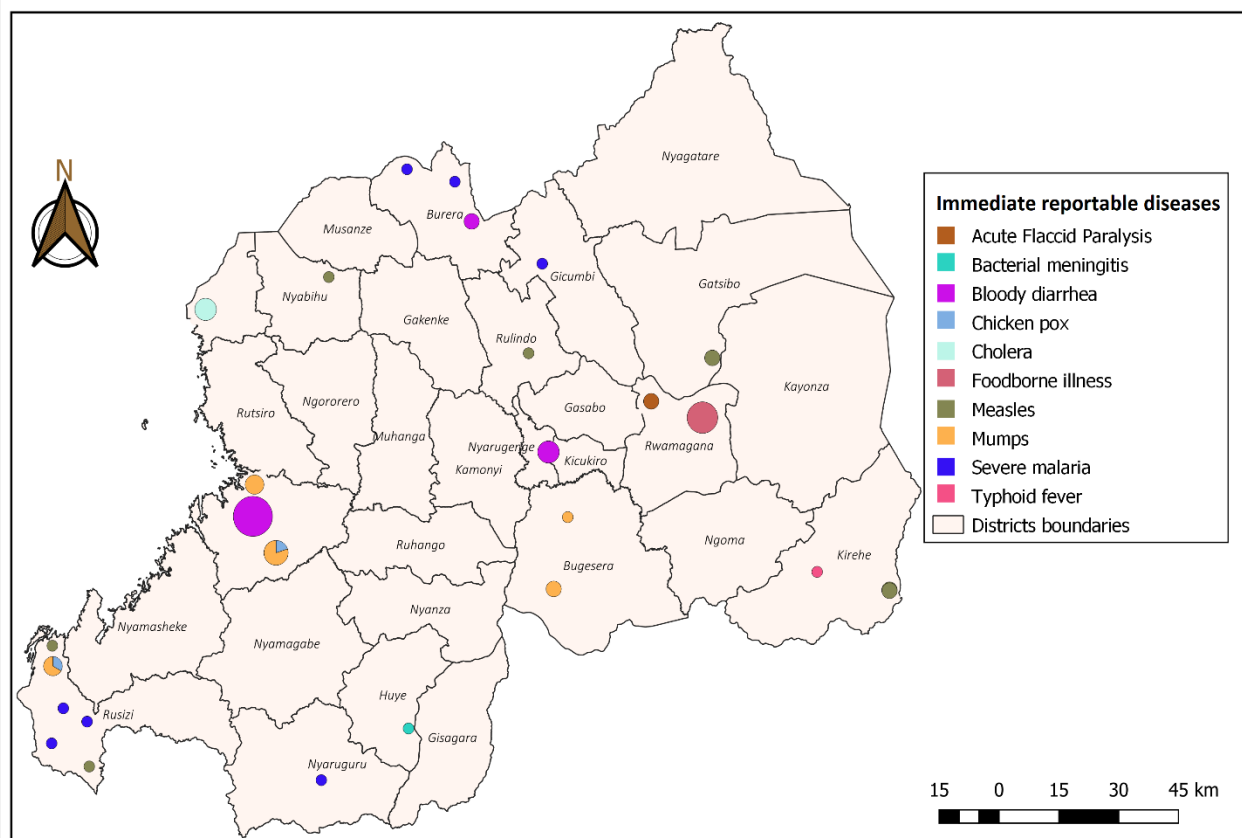
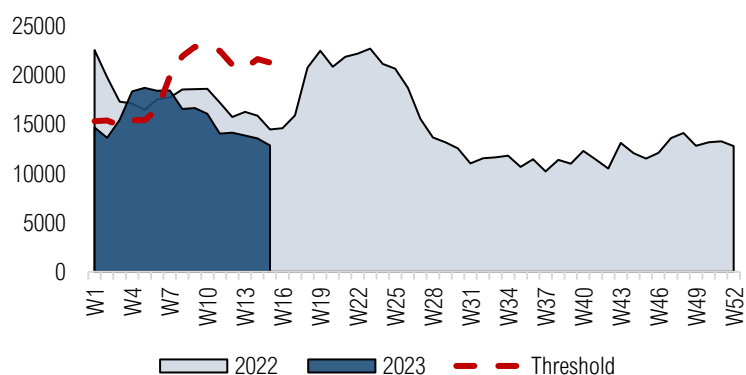


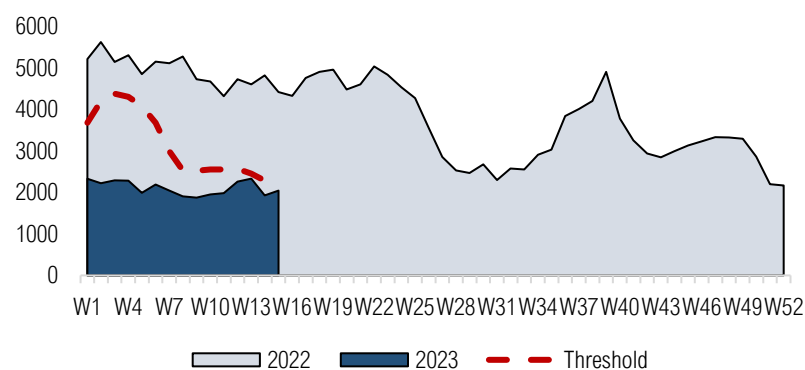
Figure: Distribution of immediate reportable diseases in Epi week 15

## A. WEEKLY REPORTABLE DISEASES – EPI WEEK 15

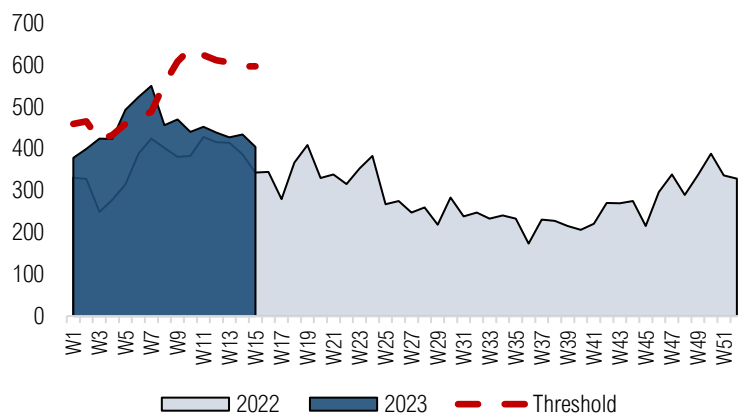
Trend of Flu syndrome reported in Epi week 15



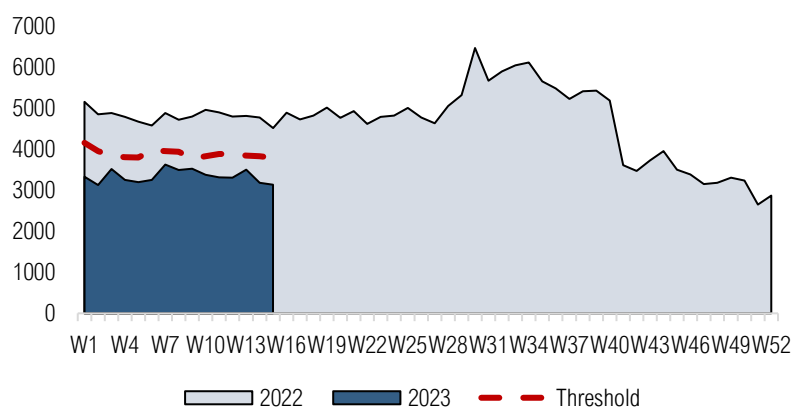
Trend of simple malaria reported in Epi week 15

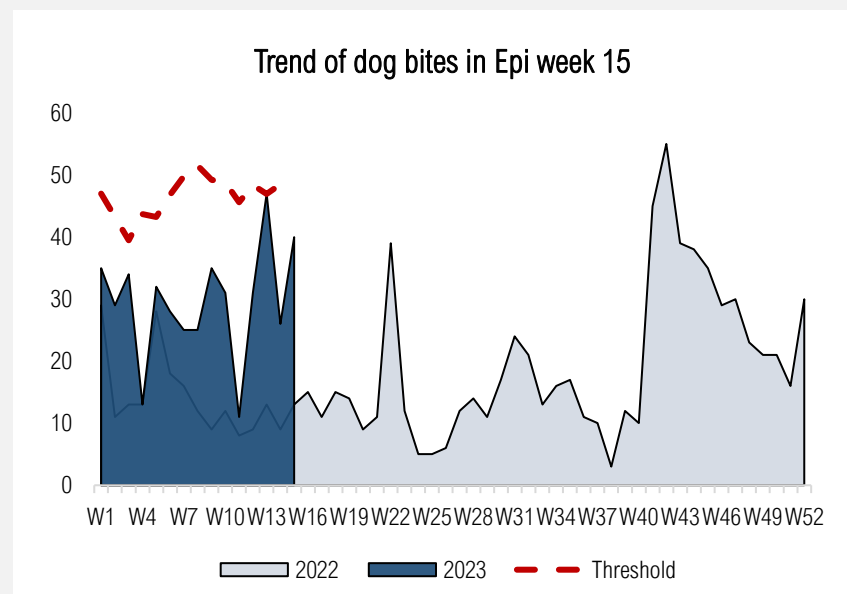
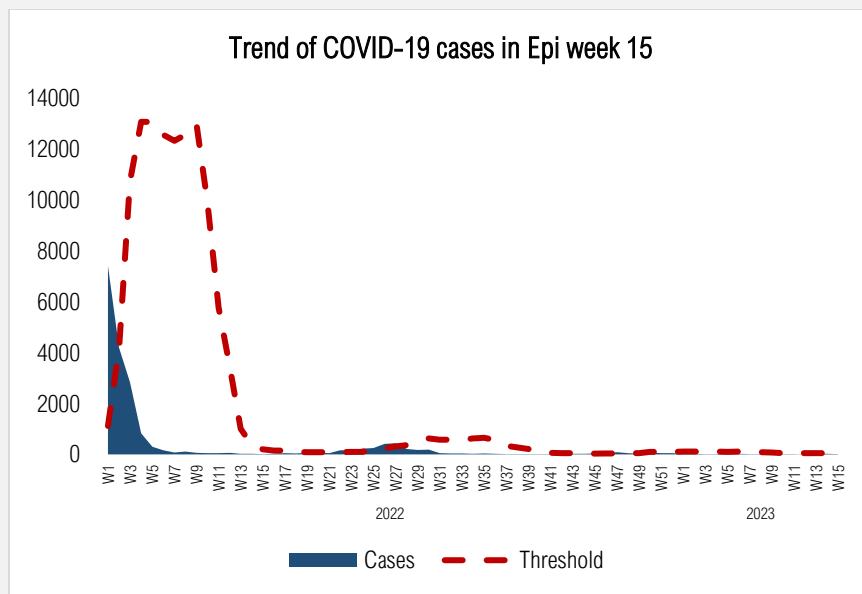


Trend of severe pneumonia <5yrs reported in Epi week 15



Trend of Non bloody diarrhea reported in Epi week 15





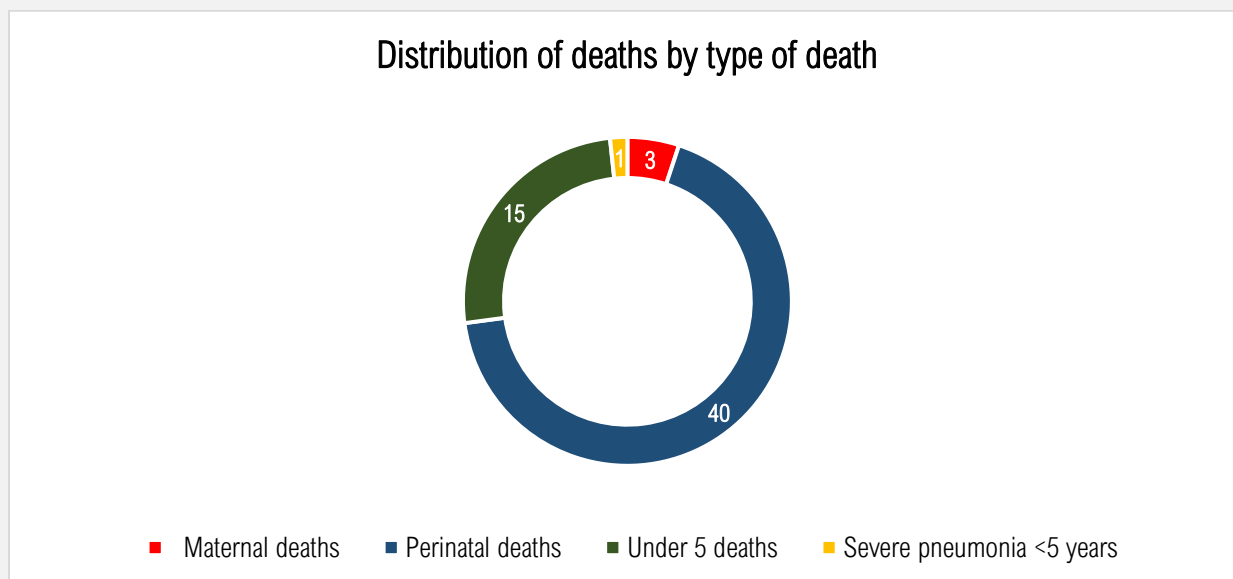
## Description

Weekly reporting provides data for monitoring trends of diseases or conditions to early detect outbreaks. In Rwanda, after the adaptation of the 3rd edition of IDSR, eight diseases are being reported 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.

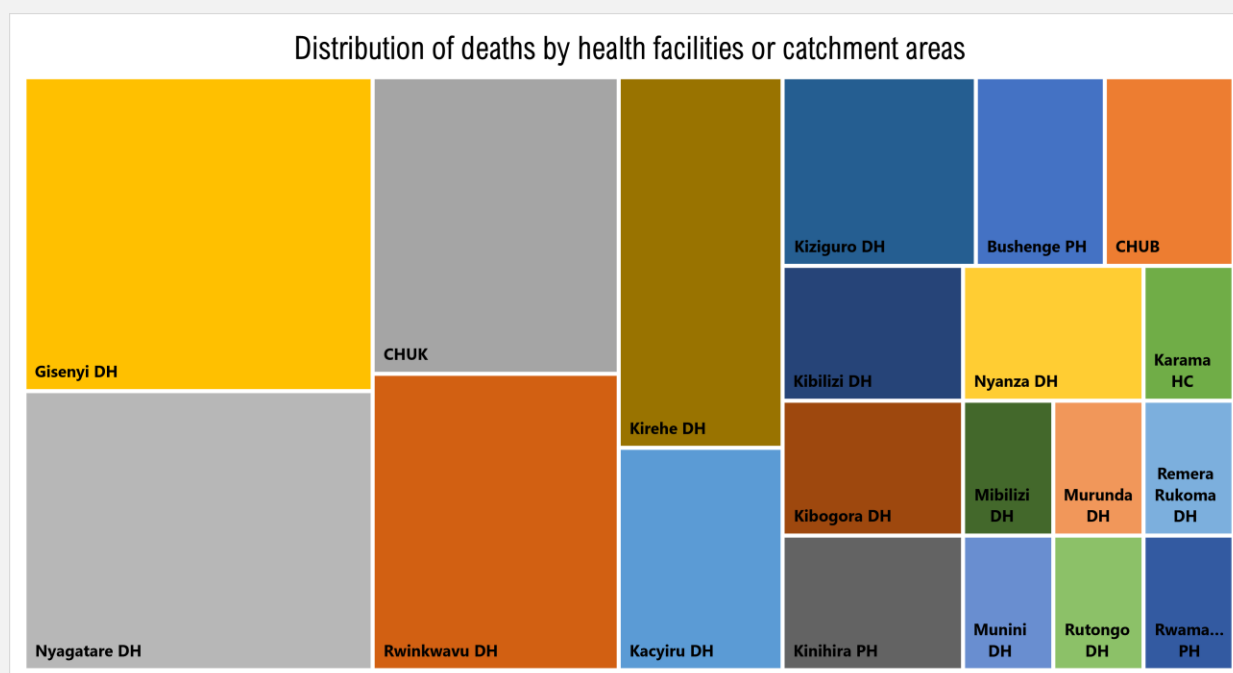
In Epi Week 15, a thorough analysis was conducted, comparing the number of reported cases of the eight diseases monitored on a weekly basis to the established threshold. The results of the analysis revealed that all weekly reportable diseases were below the threshold. This indicates that there were no outbreaks of these diseases during that week.

## B. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 15

In Epi week 15, as summarized in the chart below, a total of 59 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 40 (68%) were classified as perinatal, 15 (25%) were deaths of children under the age of 5, 3 (5%) were maternal deaths, 1 (2%) was due to severe pneumonia in children under 5 years old.



The deaths were reported from various catchment areas as follow: 9 deaths reported in Gisenyi DH, 8 deaths reported in Nyagatare DH, 6 deaths reported respectively by CHUK and Rwinkwavu DH, 5 deaths reported in Kirehe DH, 3 deaths reported in Kacyiru DH and Kiziguro DH, 2 deaths were reported respectively in Bushenge PH, CHUB, Kinyihira PH, Nyanza DH, Kibogora DH and Kibilizi DH, 1 death reported in Murunda DH, Karama HC, Mibilizi DH, Remera-Rukoma DH, Munini DH, Rwamagana PH and Rutongo DH. (See figure below)



## ONGOING OUTBREAK – EPIDEMIOLOGICAL WEEK 15

### 1. FOODBORNE ILLNESS OUTBREAK

Confirmed cases:	8	Date reported:	April 11, 2023	Risk assessment	Low
Suspect cases:	8	Source:	Rwamagana PH		
Death(s):	0	District:	Rwamagana		
Total cases:	8	Geoscope:	Low		

#### Event description

On 11th April 2023, eight (8) people from the same family located in Rwamagana district, Gishari sector, Ruhimbi cell, Abakiwa village have been admitted at Rwamagana District Hospital presenting Diarrhea, vomiting, and abdominal pain starting from 9/04/2023 after consuming cassava leaves and maize dough together. Stool samples were collected and sent at the National Reference Laboratory (NRL) but no food sample was found to be tested. All the eight patients had been cured and have been discharged after two days of hospitalization.

### 2. MEASLES OUTBREAK

Confirmed cases	8	Date reported:	February 27, 2023	Risk assessment	Low
Epi link cases	37 (4 new)	Source:	NRL, eIDSR		
Death(s)	0	District:	Kirehe		
Total cases	37	Geoscope:	Low		

#### Event description

The measles outbreak is still ongoing in Kirehe district, during the Epi Week 15, 4 additional cases were identified in Mahama Refugee camp by epidemiological link making it a total of 8 laboratory confirmed cases and 39 cases confirmed by epidemiological link. Among the 4 new cases, none was vaccinated for measles.

#### Ongoing interventions

- Continuous active cases search
- Case management (treatment, isolation)
- Vaccination campaign



## eIDSR REPORTS COMPLETENESS & TIMELINESS - EPIDEMIOLOGICAL WEEK 15

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 Epi Week 15, the overall completeness and timeliness of reporting in Rwanda were 99% and 91%, respectively. With regards to report completeness, only Ruhango DH had a moderate score of 63%.

As for timeliness, 3 catchment areas scored moderate timeliness (between 60 and 79%) including, Rwinkwavu DH, Muhororo DH and Ruhango PH, scored moderate, while 2 hospitals: RMH and Kacyiru DH scored a low timeliness.

Note: Even if there was an improvement in the overall completeness and timeliness in Epi week 15 compared with the previous Epi weeks, it is important to note the health facilities that did not performed are recommended to improve their reporting by providing complete reports on time in order to achieve effective surveillance and early detection of outbreaks. Details, on completeness and timeliness for all health facilities are enclosed in the figure below.

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