



WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 16 – 2023

(17 – 23 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 16

Event Based Surveillance (EBS) Highlights:

- During the epidemiological Epi week 16, 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 Marburg virus disease (MVD) in Equatorial Guinea.

Indicator Based Surveillance (IBS) Highlights:

- 56 alerts for immediate reportable diseases were received from health facilities countrywide, including cases of foodborne illness and suspect cases for measles/rubella, bloody diarrhea, acute flaccid paralysis (AFP), mumps, bacterial meningitis, severe malaria and typhoid fever.
- 8 diseases and health conditions are being reported on a weekly basis, and a thorough analysis conducted for Epi Week 16 revealed that all weekly reportable diseases were below the threshold, indicating that there was no outbreak of these diseases during that Epi Week 16. 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 60 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

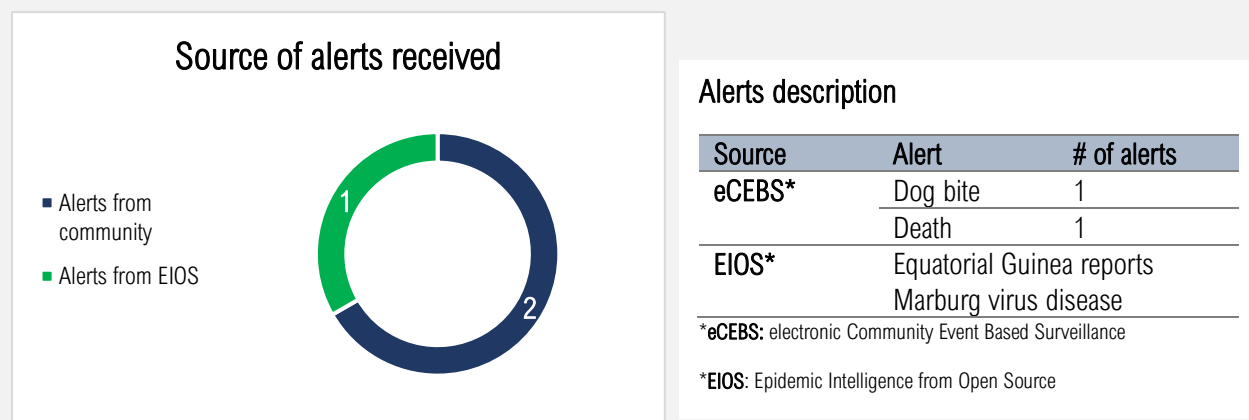
- In Epi Week 16, there were two reported outbreaks in Rwanda.
- The first was a foodborne illness outbreak in Gasabo district, where 13 people developed severe symptoms after consuming sorghum beer (Ubushera). They were all admitted in Kayanga HC and discharged after 2 days, and one person died in the community after being discharged.
- The second outbreak was a measles outbreak in Kirehe district, with a total of 3 new cases confirmed by epidemiological link making it 50 cumulative cases reported in Kirehe district.

Completeness and timeliness

- In Epi Week 16, the overall completeness and timeliness of reporting in Rwanda were 99% and 94%, respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) – EPIDEMIOLOGICAL WEEK 16

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 16, we received 2 alerts from eCBS that are described below:

1-Dog bite

- A 62-years-old, female from Huye district, Huye Sector, Rukira Cell, Agakombe village was bitten by a dog on 23/04/2023. He was brought to Kabutare DH for further management and for anti-rabic vaccines.

1-community human death

- A 74-years-old, Male from Musanze district, Gashaki Sector, Kivumu Cell, Burango Village passed away on 22/04/2023. She was known to having high diabetes.

- ◆ We have also received 1 alert from EIOS within this Epi week 16:
Marburg virus disease - Equatorial Guinea: On 13 February 2023, the Ministry of Health and Social Welfare of Equatorial Guinea declared an outbreak of Marburg virus disease (MVD) after suspected viral hemorrhagic fever deaths were reported between 7 January and 7 February 2023, and a case tested positive on 12 February for Marburg virus by real-time polymerase chain reaction (RT-PCR) at the Institute Pasteur in Dakar, Senegal. As of 11 April 2023, six additional laboratory-confirmed cases of MVD were reported in Equatorial Guinea, bringing the total of cases in the outbreak to 15 laboratory-confirmed. Additionally, 23 probable cases have been reported since the start of the outbreak. Eleven deaths were recorded among laboratory-confirmed cases (Case Fatality Ratio (CFR) among confirmed cases 78.6%), and all probable cases are dead; for one confirmed case the outcome is unknown.

<https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON459>

WEEKLY UPDATES ON INDICATOR BASED SURVEILLANCE (IBS) – EPIDEMIOLOGICAL WEEK 16

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 16

During Epi week 16, we received 56 alerts for immediate reportable diseases from Health Facilities countrywide:

16 alerts for cases of bloody diarrhea, 14 alerts for suspect cases of measles/rubella, 12 alerts of cases for foodborne illness, 6 alerts for cases of AFP, 2 alerts for cases of mumps, 1 alert for a suspect case of Typhoid fever, 1 alert for a suspect case of Bacterial meningitis and 4 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 had been managed at the health facility level.

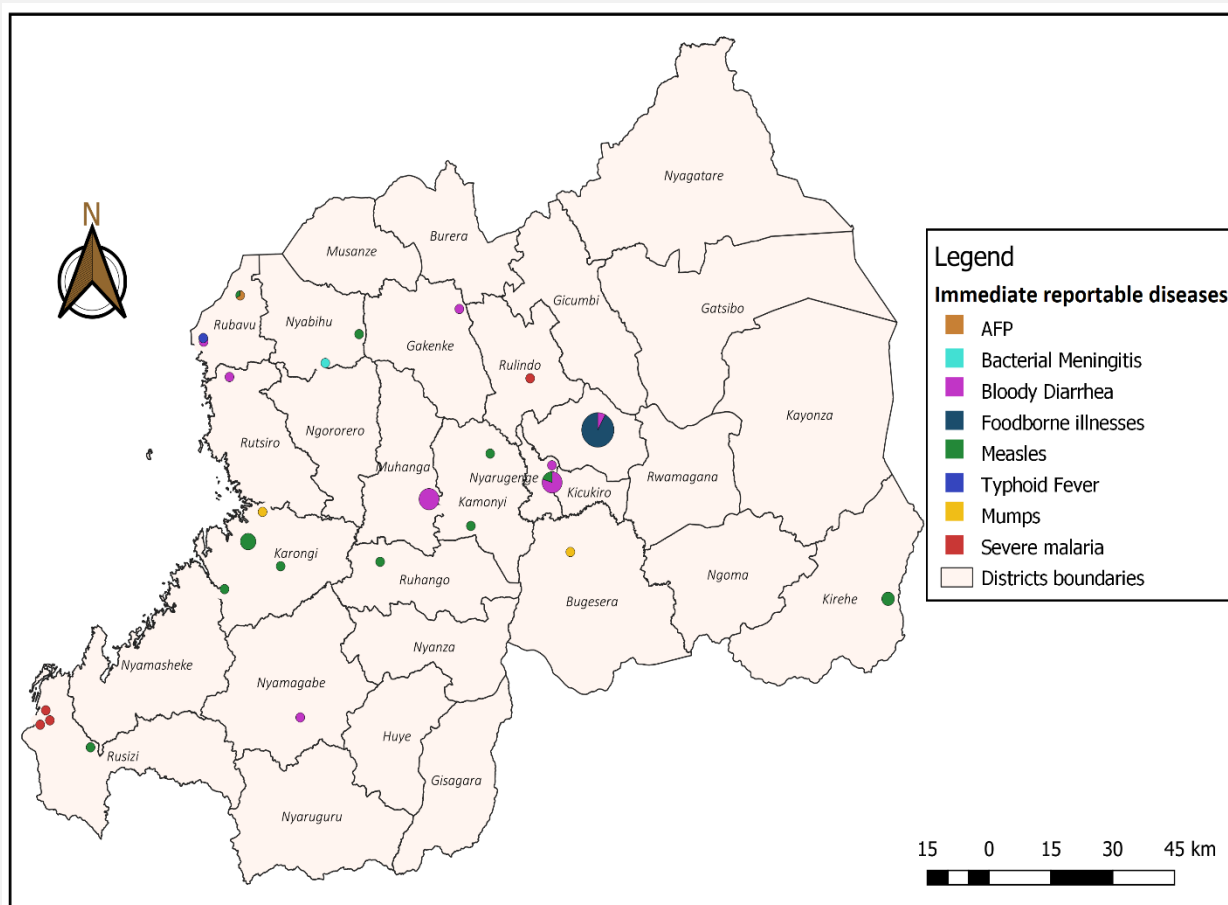
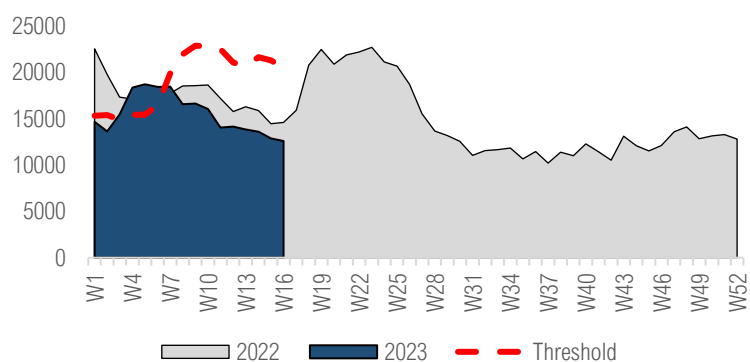


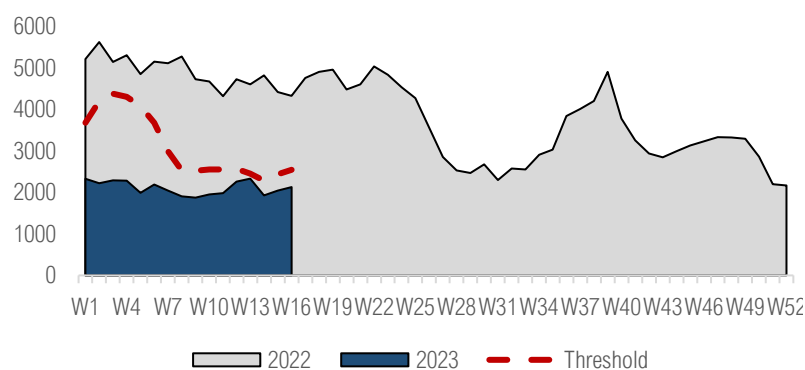
Figure: Distribution of immediate reportable diseases in Epi week 16

A. WEEKLY REPORTABLE DISEASES – EPI WEEK 16

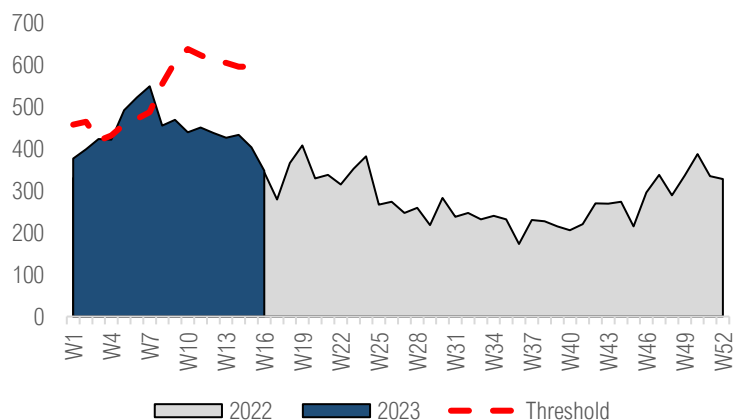
Trend of Flu syndrome reported in Epi week 16



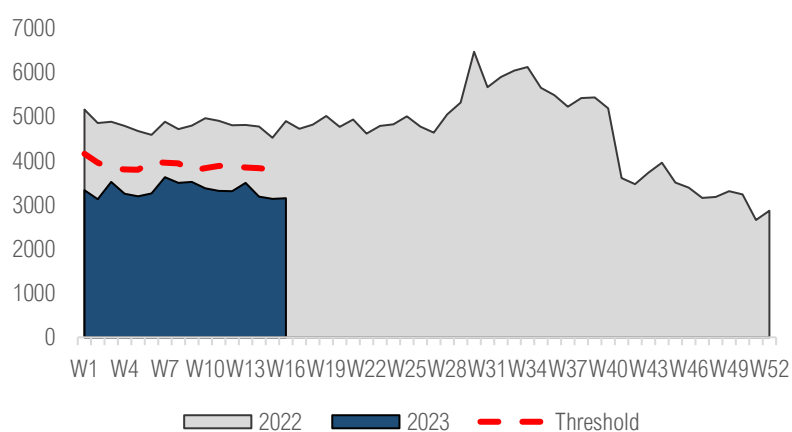
Trend of simple malaria reported in Epi week 16

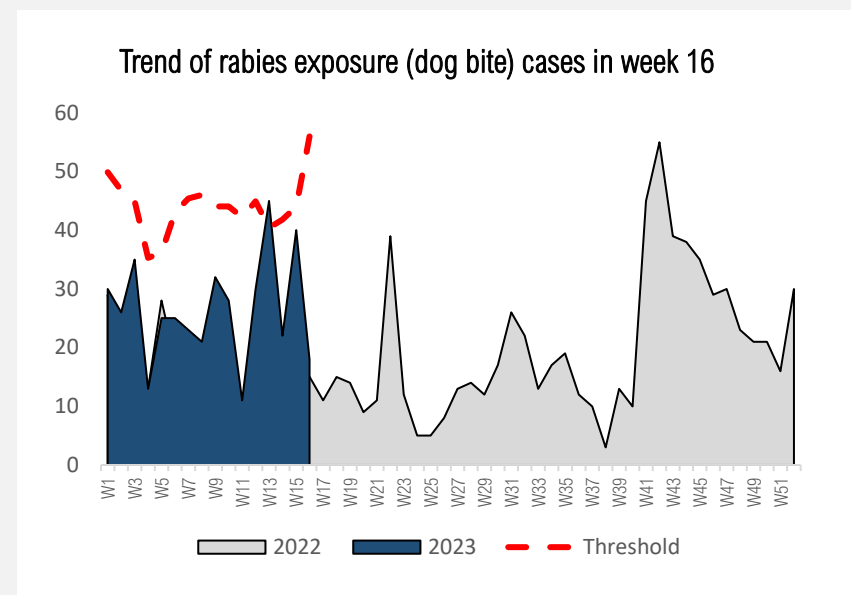
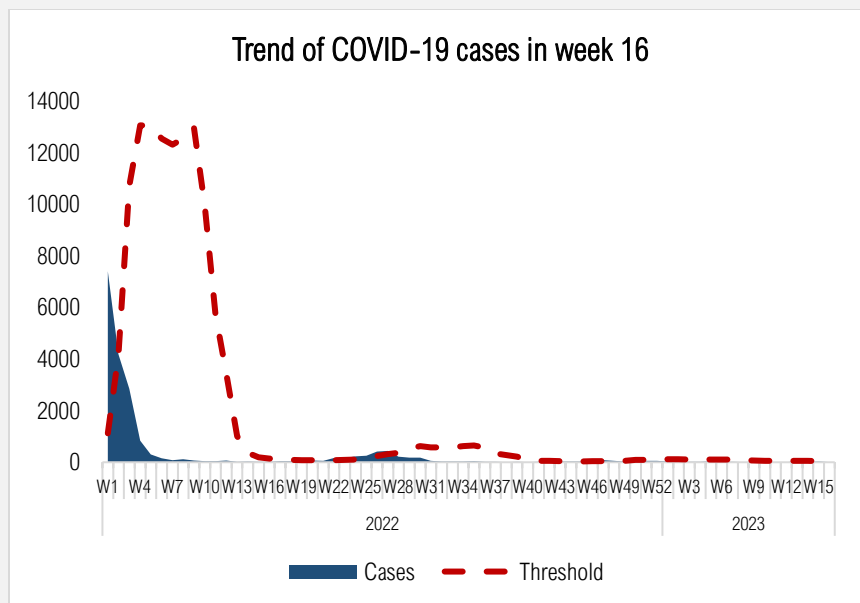


Trend of severe pneumonia <5yrs reported in Epi week 16



Trend of Non bloody diarrhea reported in Epi week 16





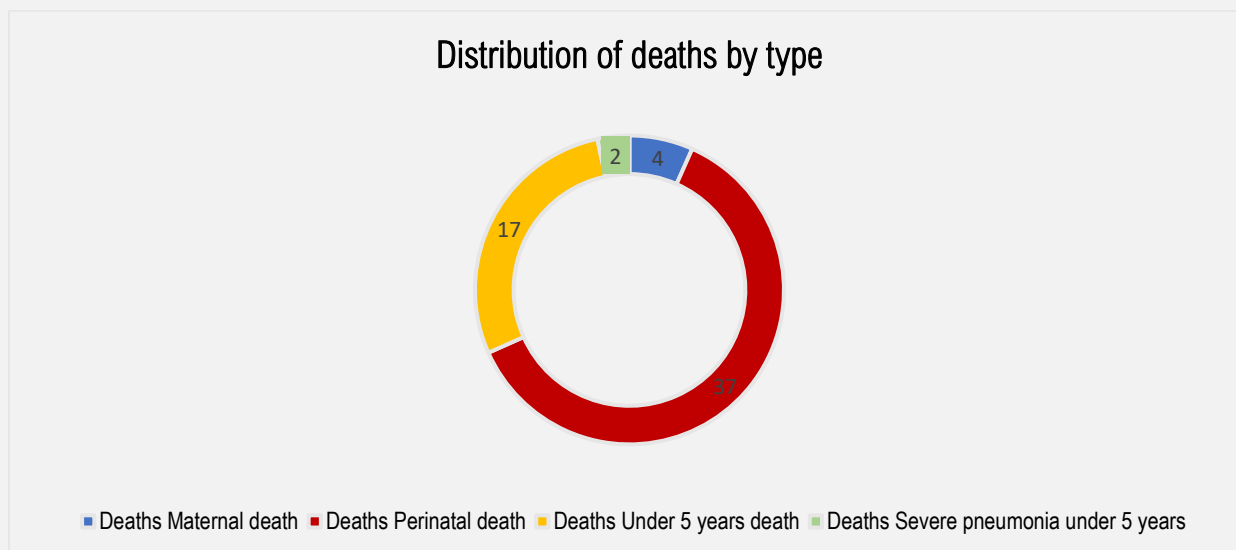
Description

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.

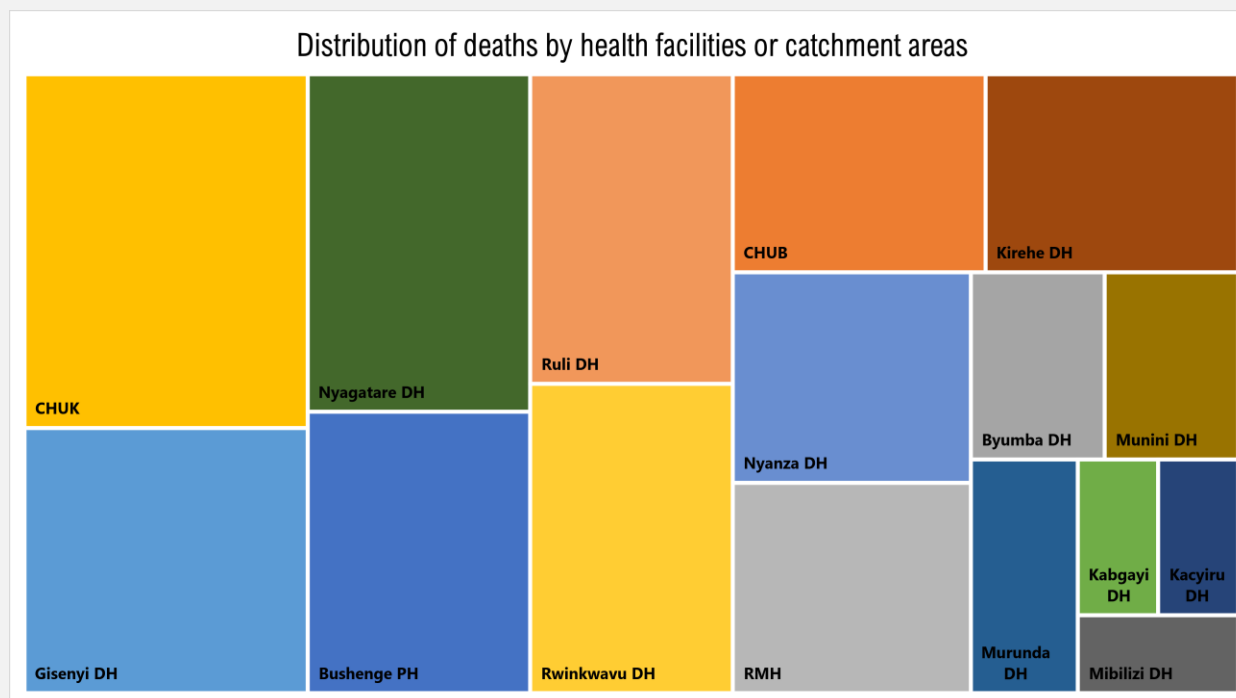
In Epi Week 16, a thorough analysis was conducted, comparing the number of reported cases of the eight diseases monitored on a weekly basis to the established threshold. The results of the analysis revealed that all weekly reportable diseases were below the threshold. This indicates that there were no outbreaks of these diseases during that week.

B. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 16

In Epi week 16, as summarized in the chart below, a total of 60 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 37 (62%) were classified as perinatal, 17 (28%) were deaths of children under 5 years old, 4 (7%) were maternal deaths, 2 (3%) was due to severe pneumonia in children under 5 years old.



The deaths were reported from various catchment areas as follow: 8 deaths reported in CHUK, 6 deaths in Gisenyi DH and Nyagatare DH, 5 deaths reported in Bushenge PH, Rwinkwavu DH and Ruli DH, 4 deaths reported in CHUB, Kirehe DH, DHNyanza and Rwanda Military Hospital, 2 deaths reported in Byumba DH, Munini DH and Murunda DH, 1 death reported in Kacyiru police hospital, Mibilizi DH, Kabgayi DH. (See figure below)



ONGOING OUTBREAK – EPIDEMIOLOGICAL WEEK 16

1. FOODBORNE ILLNESS OUTBREAK

Confirmed cases:	13	Date reported:	April 17, 2023	Risk assessment	Low
Suspect cases:	13	Source:	Rwamagana PH		
Death(s):	1	District:	Rwamagana		
Total cases:	13	Geoscope:	Low		

Event description

On April 17, 2023, thirteen(13) cases from Gasabo district, Rutunga sector, Kabanza cell, Nyamise village have been admitted at Kayanga Health Center, presenting Diarrhea, vomiting, and abdominal pain starting from April 16, 2023 after consuming sorghum beer (Ubushera). All patients have been improved and have been discharged after two days of hospitalization on April 19, 2023. However, on April 23, 2023, a 40-years-old male who was among those 13 patients discharged was reported dead.

2. MEASLES OUTBREAK

Confirmed cases	8	Date reported:	February 27, 2023	Risk assessment	Low
Epi link cases	42 (3 new)	Source:	NRL, eIDSR		
Death(s)	0	District:	Kirehe		
Total cases	50	Geoscope:	Low		

Event description

The measles outbreak is still ongoing in Kirehe district since on 27th February 2023. During the Epi Week 16; three additional cases were identified in Mahama Refugee camp by epidemiological link making it a total of 8 laboratory confirmed cases and 42 cases confirmed by epidemiological link. Among the 3 new cases, one was vaccinated for the first dose of Measle-Rubella vaccine.

Ongoing interventions

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

eIDSR REPORTS COMPLETENESS & TIMELINESS - EPIDEMIOLOGICAL WEEK 16

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 16, the overall completeness and timeliness of reporting in Rwanda were 99% and 94%, respectively. With regards to report completeness, only Ruhango PH had a moderate score of 75%.

As for timeliness, two district hospitals catchment areas scored a moderate timeliness (between 60 and 79%) including Gitwe DH and Gakoma DH, 2 scored a low timeliness (<60%): Ruhango PH and Kacyiru DH.

Note: 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 confined in the figure below.

