



# WEEKLY EPIDEMIOLOGICAL BULLETIN

## WEEK 31 – 2023

(31 July–06 August 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 31

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

- During the epidemiological week 31, two alerts were notified through the electronic Community Event Based Surveillance System (eCBS) including 2 human deaths (reported respectively in Rusizi, and Karongi districts).
- One alert was identified through the Epidemic Intelligence from Open Source (EIOS).

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

- 232 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, chicken pox, bacterial meningitis, human rabies and VHF.
- 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 31 revealed that, non-bloody diarrhea for under 5 years crossed the epidemic threshold.
- A total of 47 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.

#### Ongoing outbreaks in week 31-2023

In the Epi Week 31, there was three outbreaks in Rwanda:

- Ongoing Measles outbreak in Kirehe District
- Ongoing Cholera outbreak in Rubavu district
- Ongoing Foodborne illness in Gicumbi district

#### Completeness and timeliness

In Epi Week 31, the overall completeness and timeliness of surveillance data reporting in Rwanda was 97% and 95%, respectively.

## WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 31

**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

#### **a) Community-based mortality surveillance**

During the Epi week 31, two alerts of human deaths were received from community:

1. A 93-years-old, Female from Musasa village, Musasa cell, Gashari sector, Karongi District, passed away on 03/08/2023. The cause of death was unknown.

2. A 2-months-old, Male from Ruhimbi village, Ruganda cell, Kamembe sector, Rusizi District, passed away on 31/07/2023. The cause of death was unknown.

#### **b) Community event-based surveillance.**

During the Epi week 31, no one event was detected from the community.

### MEDIA SCAN

During the Epi week 31, one alert was received through Epidemic Intelligence from Open Source (EIOS):

#### **Africa CDC Supports South Sudan in Investigating and Responding to Suspected Viral Haemorrhagic Fever Outbreak:**

The Africa Centres for Disease Control and Prevention (Africa CDC) is working closely with the Ministry of Health in the Republic of South Sudan to manage a suspected disease outbreak, exhibiting symptoms similar to those of Viral Hemorrhagic Fever (VHF) in the remote areas of Dukubela, Pacime, and Dajo areas of Longechuck County, Upper Nile State. The outbreak was initially reported on June 16, 2023 by the Nile Initiative Development Organization (NIDO) during a supervisory visit to Dajo Primary Health Care Unit. NIDO found that the disease seemed to have originated from Dukubela, a mountainous area of Longechuk county that borders the Southern Blue Nile in Sudan and Assosa areas in Ethiopia. This area has recently seen an influx of returning residents and refugees from the ongoing conflict in Sudan.

The Africa CDC deployed technical experts to support the Ministry of Health in conducting a comprehensive risk assessment, support the development of a comprehensive national response plan, and strengthen capacity in coordination, surveillance, laboratory operations and risk communication and community engagement (RCCE). In response to the health crisis, the Ministry of Health, alongside the World Health Organization, swiftly dispatched a multidisciplinary Rapid Response Team to Longechuk.

After a thorough field investigation, the Rapid Response Team line-listed 227 suspected cases and 29 related deaths. Laboratory tests for 45 samples confirmed cases of malaria and measles, with 71% of samples testing positive for malaria, 58% for measles and a co-infection rate of 45%. Despite that all the 45 samples tested negative for viral hemorrhagic fevers, ruling it out as a potential source of the outbreak, health authorities remain on high alert by maintaining surveillance measures in place to promptly identify and respond to any disease threat. <https://africacdc.org/news-item/africa-cdc-supports-south-sudan-in-investigating-and-responding-to-suspected-viral-haemorrhagic-fever-outbreak/>

## WEEKLY UPDATES ON INDICATOR BASED SURVEILLANCE (IBS) EPIDEMIOLOGICAL WEEK 31

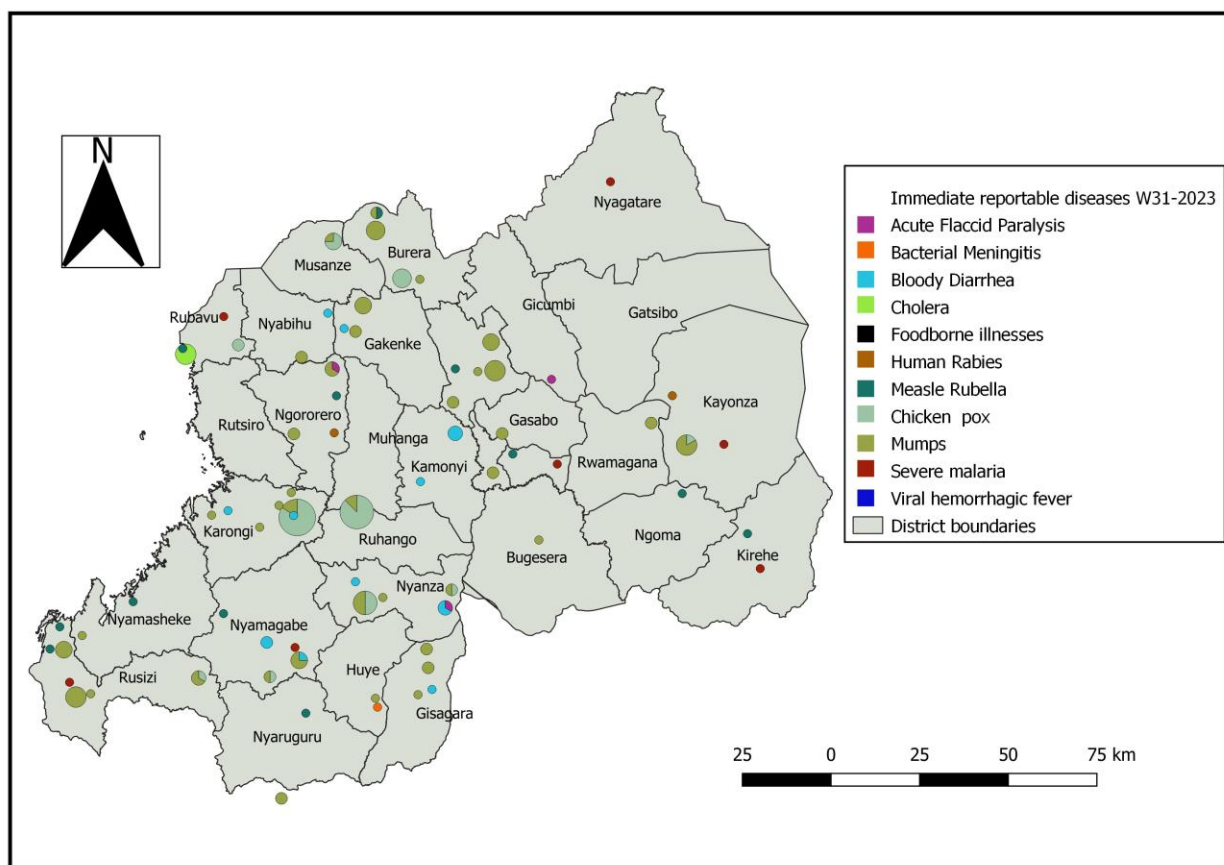
**Description:** *Rwanda has been implemented Indicator Based Surveillance according to the IDSR 3rd guidelines where approximately 45 priority diseases, health conditions and public health events are being monitored and reported from health facilities countrywide on a regular basis. Diseases that are 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 31

During Epi week 31, 232 cases of immediate reportable diseases were notified. They include 93 cases of mumps, 58 cases of chicken pox, 24 cases of foodborne illness, 18 suspected cases of bloody diarrhea, 17 suspect cases of measles/rubella, 8 confirmed cases of severe malaria, 6 cases of cholera confirmed by RDT. (See figure below), 5 suspected cases of acute flaccid paralysis, 1 case of suspected bacterial meningitis, 1 case of suspected VHF, 1 case of human rabies.

#### Notes:

- For the diseases requiring laboratory confirmation, the samples were collected and sent to the National Reference Laboratory for testing. For the samples of VHF, it was tested negative
- All confirmed cases and suspected cases have been managed at the health facility level.



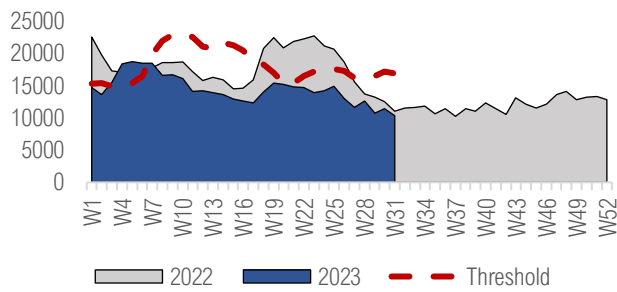
*Distribution of immediate reportable diseases in Epi week 31*

## WEEKLY REPORTABLE DISEASES – EPI WEEK 31

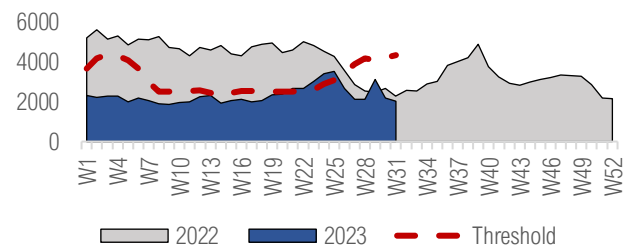
**Description:** In Rwanda, after the adaptation of the IDSR 3rd edition, eight diseases & events are being reported and analyzed on a weekly basis. These include flu syndrome, simple malaria, severe pneumonia for under 5 years, non-bloody diarrhea for under 5 years, COVID-19, dog bites, brucellosis,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

In Epi Week 31, 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 non bloody diarrhea for under 5 years cases crossed the epidemic threshold in Byumba DH, Gatunda DH, Kabaya DH, Kaduha DH, Kibungo DH, Kinihira DH, Kirehe DH, Kiziguro DH, Mugonero DH, Muhima DH, Nyamata DH, and Rwamagana DH. The deeply follow up is recommended in those areas.

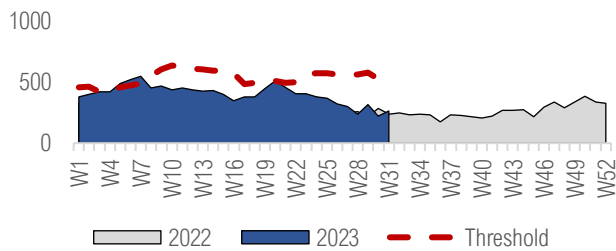
**Trend of Flu syndrome reported in Epi week 31**



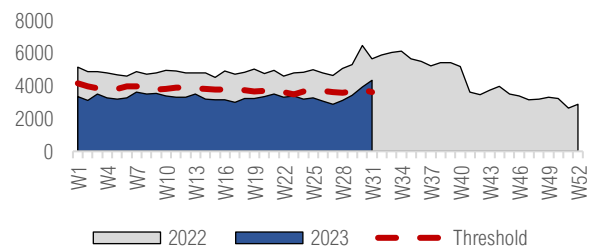
**Trend of simple malaria reported in Epi week 31**



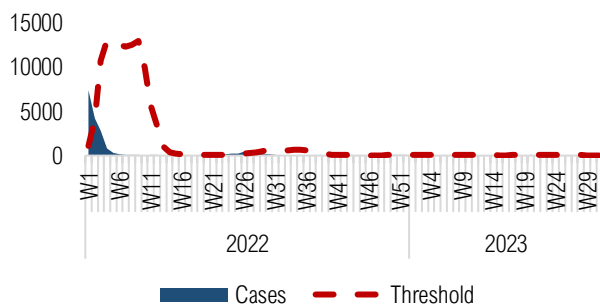
**Trend of severe pneumonia <5years reported in Epi week 31**



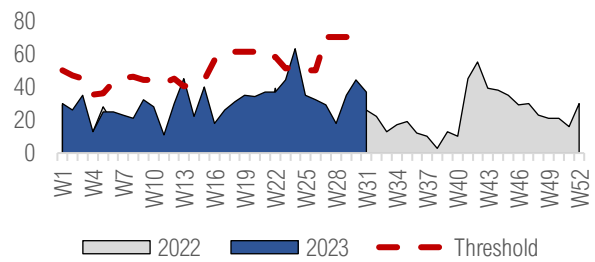
**Trend of Non bloody diarrhea reported in Epi week 31**



**Trend of COVID-19 cases in week 31**

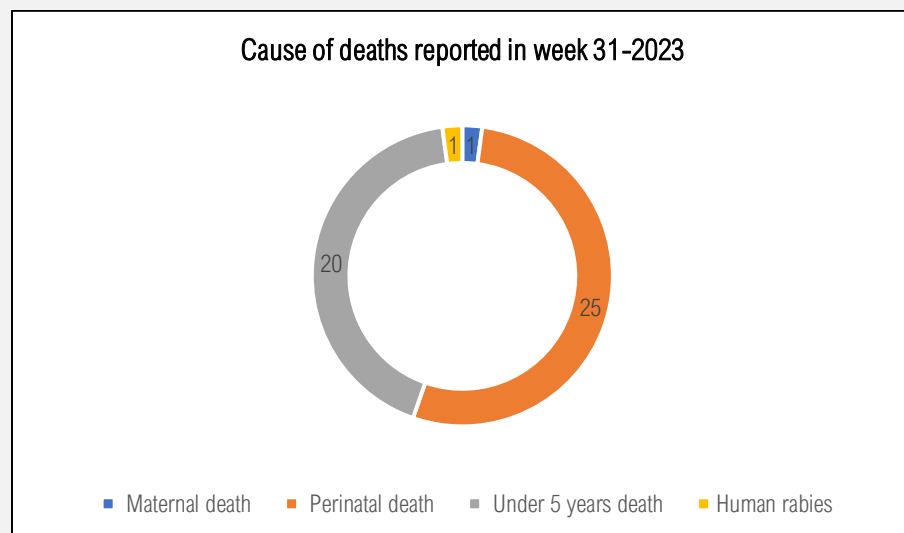


**Trend of rabies exposure (dog bite) cases in week 31**



## B. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 31

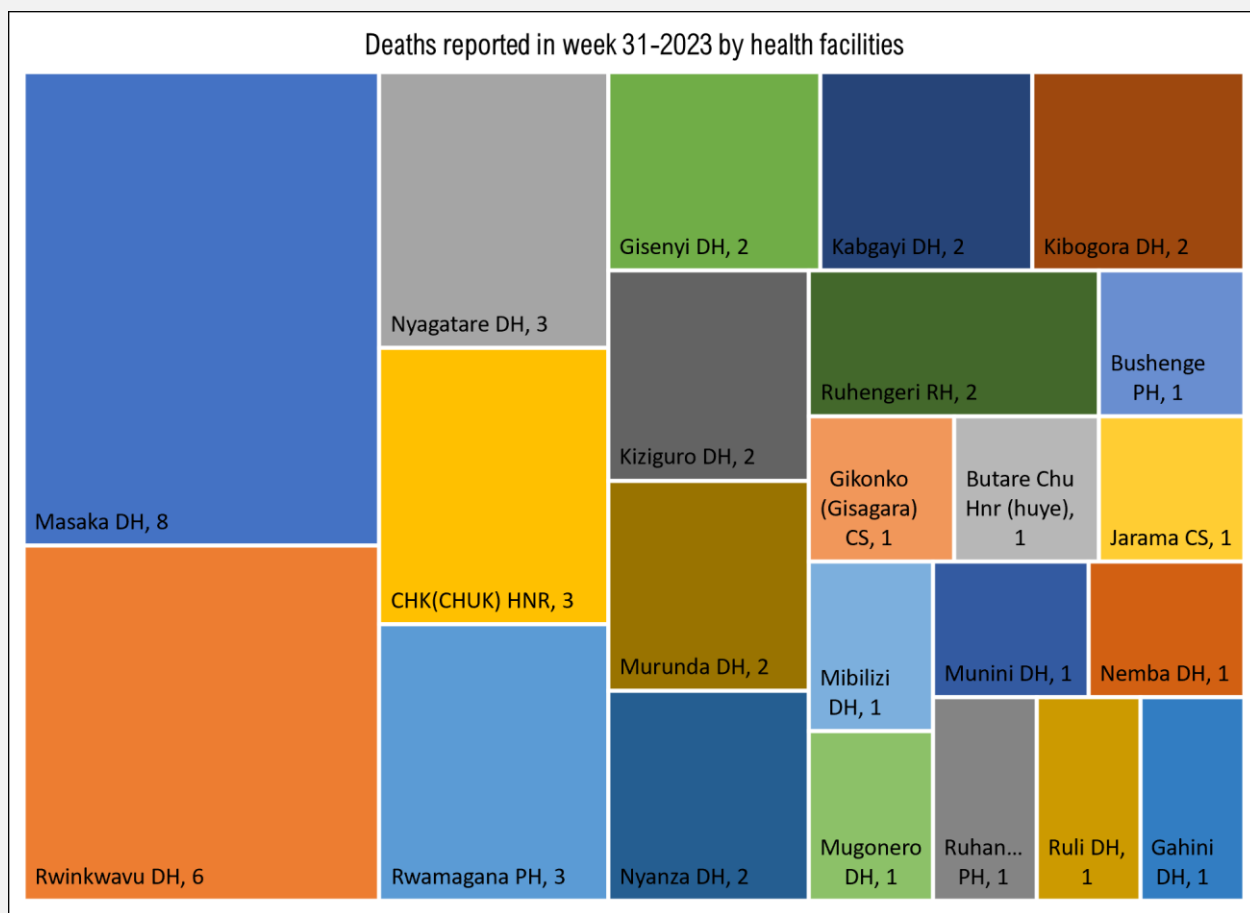
In Epi week 31, as summarized in the Pie Chart below, a total number of 47 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 25 (53%) were classified as perinatal, 20 (43%) were deaths of children under 5 years old (included 1 death due to non-bloody diarrhea), 1(2%) maternal death and 1(2%) death due to human rabies.



*Cause of deaths declared in epi week 31*

Deaths were reported from various catchment areas as follow:

- 8 deaths were reported in Masaka DH
- 6 deaths were reported in Rwinkwavu DH
- 3 deaths were reported respectively in CHUK, Nyagatare DH and Rwamagana DH
- 2 deaths were reported respectively in Gisenyi DH, Kabgayi DH, Kibogora DH, Kiziguro DH, Murunda DH, Nyanza DH, Ruhengeri RH
- 1 death was reported respectively in Bushenge PH, Gikonko HC (in Gakoma DH), CHUB, Munini DH, Jarama HC (in Kibungo RH), Mibilizi DH, Mugonero DH, Nemba DH, Gahini DH, Ruhango PH and Ruli DH.



## OUTBREAK AND EVENT UPDATES EPIDEMIOLOGICAL WEEK 31

### 1. ONGOING MEASLES OUTBREAK IN MAHAMA REFUGEE CAMP, KIREHE DISTRICT

Confirmed cases	30	Date reported:	February 27, 2023	Risk assessment	Low
Epi link cases	64	Source:	NRL, eIDSR		
Death(s)	0	District/HFs:	Kirehe/Mahama Refugee Camp		
Total cases	94	Geoscope:	Low		

**Outbreak description:** The measles outbreak is still ongoing in Kirehe district since 27<sup>th</sup> February 2023.

As of August 7, 2023, no additional cases were identified in Mahama Refugee camp by laboratory confirmation, which makes it a total of 30 laboratory confirmed cases and 59 cases confirmed by epidemiological link. However, 5 suspect cases were reported in the previous week, samples were taken and sent to NRL, results are pending.

**Ongoing interventions:**



Field investigation conducted in the previous week, here are the findings:

- A high proportion of children under MR vaccination age who are contracting measles pose a significant challenge to the management of the outbreak.
- Relocation and daily circulation of individuals inside the camp may hinder the containment of the outbreak
- Significant number of unvaccinated adults inside the camp
- Unreached cases due to the above-mentioned relocations

#### Recommendations:

- Maintain High Vaccination Coverage: Strengthen routine immunization programs and ensure high vaccination coverage across all age groups to prevent future outbreaks.
- Timely Case Identification and Reporting: Enhance surveillance systems and healthcare provider awareness to promptly identify and report suspected measles cases.
- Public Health Education: Continue public awareness campaigns emphasizing the importance of vaccination, measles symptoms recognition, and seeking medical care promptly.
- Continuous active cases search
- Case management of patients (treatment, isolation)

## 2. ONGOING CHOLERA OUTBREAK IN RUBAVU DISTRICT

Confirmed cases	50	Date reported:	June 14, 2023	Risk assessment	Low
Suspected cases	0	Source:	eIDSR		
Death(s)	1	District/HFs:	Rubavu/ Kigufi HC,		
Total cases	50	Geoscope:	Low		

**Outbreak description:** On 13/06/2023, Kigufi health center, in Rubavu district recorded 2 suspected cases of cholera. This was followed by notification of other 2 cases on June 14 and 15, 2023, respectively. Six stool samples were taken for culture, and all tested positive by pre-culture rapid test. Of them, three were tested positive for *Vibrio Cholerae*/ Inaba on 18/06/2023.

As of 07/08/2023; 50 cases meeting cholera case definition have been recorded with 4 confirmed by stool culture and 47 confirmed by RDTs, (including 3 new cases registered on 06/08/2023). For the outcome of patients, 46 were cured, 1 died (a female aged of 14) and 3 case were still hospitalized in Kigufi HC. The source of infection was the use of unsafe water, poor hygiene and sanitation.

#### Interventions:

- Field investigation.
- Case management
- Enhance risk communication and community engagement on prevention and control measures
- Reinforce community awareness on IPC, hygiene and sanitation and wash strategies toward cholera prevention
- Reinforce community surveillance for early detection and active search of new cases

### 3. ONGOING FOODBORNE ILLNESS IN GICUMBI DISTRICT, MUKONO HC

Confirmed cases	0	Date reported:	July 28, 2023	Risk assessment	Low
Suspected cases	27	Source:	eIDSR		
Death(s)	1	District/HFs:	Mukono HC/ Byumba DH		
Total cases	27	Geoscope:	Low		

#### Outbreak description:




On July 28, 2023, a resident of Rwondo Village Bwisige Sector, Gicumbi district reported to Mukono HC that 5 patients in her village were in a critical condition and 1 death occurred. They developed symptoms of vomiting, abdominal pain, diarrhea, and fever. On July 27, 2023; they shared a homemade sorghum drink (ubushera). As of 07/08/2023, for the reported cases in the previous week, 21 more cases were identified. They all had similar symptoms of abdominal pain, vomiting and diarrhea. No more death case occurred. Currently, all cases are treated and discharged.

#### Interventions conducted:

- Community outreach for awareness on safe food preparation and handling practices
- Case management of patients.

### eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 31

*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 31, the overall completeness and timeliness of disease surveillance data reporting in Rwanda were 97% and 95%, respectively.

With regards to completeness of surveillance reports, almost all hospitals had the high completeness (>80%), except one hospital that had the low score (Rwanda Military Hospital). For the timeliness, the overall score was 95%, almost all hospitals had the high timeliness (>80%), except two hospitals that had a low score: RMH and King Faysal hospital.

**Notes:** The health facilities that had not a high score 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 figure below.



Timeliness																																		
Hospital catchment area																																		
	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			
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			
Gatunda	100	100	100	100	100	100	100	100	100	78	89	100	89	100	100	100	78	100	100	100	89	89	100	100	100	67	100	100	100	89	100			
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			
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			
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			
Rwinkwavu	100	88	100	100	100	100	100	100	100	88	88	88	100	63	75	100	88	100	100	100	100	100	100	100	100	88	88	88	100	100	100			
Kibungo	94	100	94	100	100	100	100	100	100	100	100	100	100	94	100	100	100	94	94	100	100	100	100	94	100	100	100	94	100	94	100			
Kirehe	100	100	100	100	95	95	100	100	100	90	95	100	100	90	100	100	85	95	95	100	100	100	100	95	100	85	100	100	95	95	85			
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	82			
Nyamata	100	88	76	94	88	94	94	100	88	100	88	100	94	76	100	100	76	100	100	82	94	88	100	94	88	47	76	94	82	76	82			
Kinihira	100	100	100	100	89	100	89	67	100	89	78	89	100	89	89	89	89	89	89	100	100	100	67	100	89	100	100	89	78	100	89			
Rutongo	93	87	93	73	100	100	100	100	100	93	93	100	93	100	100	100	100	100	100	93	100	93	93	93	100	100	100	93	100	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	71	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			
Ruli	100	100	100	100	100	100	90	100	100	100	100	90	90	100	100	90	100	100	100	100	100	100	100	100	100	90	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	100	89	89	89	89	100	100	100	100			
Ruhengeri	94	89	89	100	83	89	83	72	94	94	94	78	94	83	89	89	89	89	100	94	89	89	100	100	100	89	100	94	89	94	94			
Byumba	96	100	96	96	88	96	100	100	100	96	96	96	96	81	96	96	96	96	96	96	100	96	96	100	96	96	100	100	100	100	100			
CHUB	0	100	100	100	100	100	100	0	0	0	0	100	100	0	100	100	0	100	100	100	100	100	0	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	84	89	95	79	95	100	95	95	100			
Kabgayi	100	92	92	85	92	77	92	85	85	100	92	92	92	69	92	92	69	92	100	100	100	92	100	92	92	100	92	100	92	100	92			
Kibilizi	100	100	100	100	100	100	100	100	100	100	100	82	91	82	91	91	91	100	100	100	100	100	100	100	100	91	100	100	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			
Gitwe	100	100	89	89	89	78	100	78	100	100	89	89	100	67	100	78	44	89	89	100	89	89	89	100	100	56	89	100	89	100	89			
Ruhango	88	88	88	100	88	88	75	88	88	88	100	63	75	50	63	50	38	75	75	63	75	63	100	63	100	75	100	100	75	88	100			
Remera	100	100	100	93	100	100	100	100	100	100	93	100	93	93	93	100	93	93	93	100	100	93	93	87	100	93	100	100	93	100	93			
Rukoma	100	100	100	93	100	100	100	100	100	100	93	100	93	93	93	100	93	93	93	100	100	93	93	87	100	93	100	100	93	100	93			
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			
Kigeme	77	69	92	92	100	92	100	92	100	100	92	100	92	46	100	85	46	100	100	92	92	100	92	100	100	92	100	100	100	100	85			
Kaduha	100	90	90	100	100	100	100	100	90	100	100	90	90	80	90	100	60	90	90	90	90	100	90	80	100	70	90	100	100	100	100			
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			
Bushenge	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	63	100	100	100	100	100	100	100	100	88	88	88	75	100	88			
Kibogora	100	100	100	100	100	100	93	100	100	100	100	100	100	100	93	93	86	100	100	93	100	100	100	100	100	93	100	100	93	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			
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			
Mugonero	100	100	100	100	86	100	100	100	100	100	86	100	100	86	100	100	86	100	100	100	100	86	100	86	86	86	100	100	100	100	100	100		
Shyira	100	100	100	100	100	88	100	100	100	100	100	100	94	88	94	100	79	100	100	100	94	94	76	88	100	82	100	94	82	94	88			
Muhororo	100	100	90	100	100	100	100	90	100	100	100	100	100	80	70	100	30	80	80	100	90	90	90	70	80	70	100	100	80	70	80			
Kabaya	86	100	100	86	100	100	71	100	71	100	100	100	100	71	100	86	100	86	86	100	100	100	100	100	100	100	100	100	100	100	100			
Gihundwe	100	100	90	100	80	100	90	90	90	100	100	100	100	90	90	100	70	100	100	100	100	100	100	100	100	70	100	100	100	100	100			
Mibilizi	100	100	100	100	100	100	100	100	100	83	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100			
Gisenyi	100	100	94	100	100	100	100	100	100																									