



WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 33– 2024

(12 - 18 August 2024)

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 33/2024

Event Based Surveillance (EBS) Highlights:

- **Alert from community:** no alert reported in this week
- **Alert from EIOS:** one alert
 - Thailand confirms first Asian case of new Mpox strain
 - What is the mpox strain spreading in Central Africa? About country: Central African Republic, Cameroon, Democratic Republic of the Congo, Congo, Kenya, Rwanda, Uganda
 - Ethiopia: Ethiopia Battles Triple Threat - Cholera, Measles, and Malaria Outbreaks

● Indicator Based Surveillance (IBS) Highlights:

- 316 immediate reportable diseases were notified by health facilities countrywide. These include the cases of acute flaccid paralysis (AFP), mumps, severe malaria, bloody diarrhea, measles/rubella, chicken pox, Mpox, typhoid fever, bacterial meningitis, snake bite and foodborne illness.
- For 8 weekly reportable diseases and health events, a thorough analysis conducted for the epi Week 33 revealed that non bloody diarrhea cases surpassed the epidemic thresholds.
- A total of 72 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Most of deaths were perinatal deaths and deaths of children under 5 years.

● Sentinel surveillance

Update on trend of influenza and VHF in Rwanda

● Outbreaks and events updates in week 33

- Foodborne illness outbreaks in Gakenke district, Nemba DH and Rulindo district, Ruli DH
- Ongoing Mpox outbreak in Rwanda

● Completeness and timeliness

In Epi Week 33, the overall completeness and timeliness of surveillance data reporting in Rwanda was 99% and 97% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 33

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

- **Alert from community:** no alert notified
- **Alert from EIOS:** three alerts

1. Thailand confirms first Asian case of new Mpox strain

Summary: The infected 66-year-old European man arrived in Bangkok from an unnamed African country on August 14. He began displaying symptoms the next day, and immediately went to the hospital. It has since been confirmed he contracted Mpox, and in particular the strain known as Clade 1b. At least 450 people have died from Mpox in an outbreak centered in the Democratic Republic of the Congo which started last year. Now a more worrying strain of Mpox has been identified in the east of the DRC, which is being spread along the border and into neighboring countries. The new strain is thought to be more deadly than previous ones - with four in 100 cases leading to death. In Thailand, the Department of Disease Control has tracked down some 43 patients who were sitting in the rows near the unidentified man. They will all be monitored for 21 days.

<https://www.the-star.co.ke/news/world/2024-08-22-thailand-confirms-first-asian-case-of-new-mpox-strain/>

2. What is the mpox strain spreading in Central Africa? About country: Central African Republic, Cameroon, Democratic Republic of the Congo, Congo, Kenya, Rwanda, Uganda

Summary: A new type of mpox called "clade 1b" appears to be deadlier and able to spread from person to person more easily than previous forms. Mortality rates are as high as 10% of infections. A total of 37,583 cases and 1,451 deaths from mpox have been reported in 15 African countries, according to data from Africa CDC.

<https://www.dw.com/en/monkeypox-clade-1b-outbreak-in-central-africa-is-high-risk/a-69880008>

3. Ethiopia: Ethiopia Battles Triple Threat - Cholera, Measles, and Malaria Outbreaks

Summary: The cholera outbreak, which began in August 2022, is the longest recorded in Ethiopia's history. Measles cases are also on the rise, fueled by low immunization coverage and a lack of awareness about vaccination among caregivers. Malaria cases have reached a seven-year high, with the OCHA report citing disruptions in mosquito breeding patterns caused by both drought and floods.

Adding to the growing concern, the Amhara Public Health Institute reported a troubling statistic two weeks ago. The data revealed that over 1.2 million people in the region contracted malaria within the past eleven months. The World Health Organization (WHO) confirms an upward trend, with the number of districts recording confirmed cases increasing from 1,397 on 28 April to 1,399 by 26 May, 2024. Data from the period between 01

January and 26 May, 2024 paints a concerning picture. Over 1.8 million new malaria cases were documented across Oromia (35%), Amhara (22%), Southwest (13%), and Southern regions, with a tragic toll of 314 fatalities. <https://allafrica.com/stories/202408090105.html>

WEEKLY UPDATES ON INDICATOR BASED SURVEILLANCE (IBS)

Description: *Rwanda had implemented Indicator Based Surveillance according to the IDSR guidelines 3rd edition 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 weekly basis every Monday before midday.*

A. IMMEDIATE REPORTABLE DISEASES – EPI WEEK 33

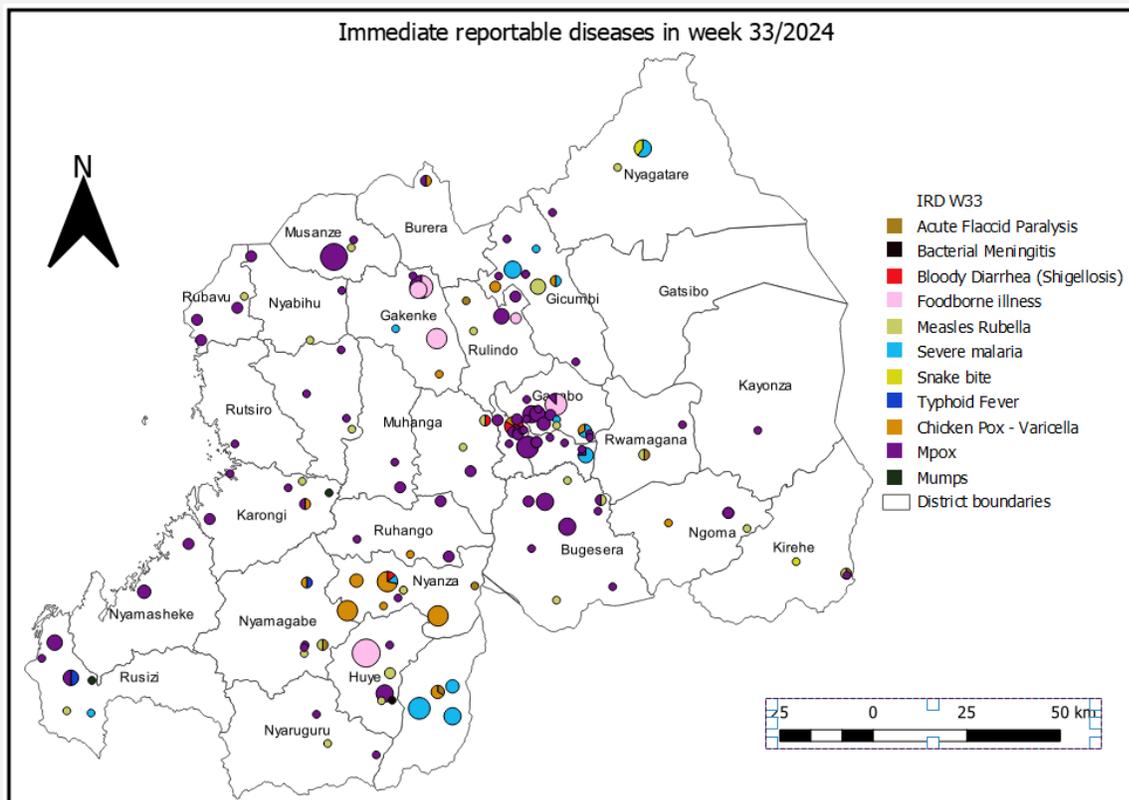
During this Epi week, 316 cases of immediate reportable diseases were notified:

- 37 cases of chicken pox were reported by 17 HFs. No HF crossed the threshold.
- 2 cases of mumps were reported by 2 HCs. No HF crossed the threshold.
- 7 suspected cases of bloody diarrhea (Shigellosis) were reported by 3 health facilities. The samples were taken and sent to NRL.
- 28 suspected cases of Measles/Rubella were reported by 24 HCs. Samples were taken and sent to NRL.
- 35 cases of severe malaria were reported by 13 health facilities.
- 6 suspected cases of acute flaccid paralysis were reported by 6 health facilities, the samples were taken and sent to NRL for transportation to UVRI laboratory.
- 3 suspected cases of typhoid fever reported by 2 health facilities. The samples were taken and sent to NRL
- 156 suspected cases of Mpox were reported by 82 health facilities they are described in outbreak section.
- 38 cases of foodborne illnesses were reported by 6 health facilities.
- 3 cases of snake bite were reported by 2 health facilities.
- 1 cases of suspected bacterial meningitis was reported by 1 health facility.

Notes:

- ✓ All confirmed and suspected cases had been managed at the health facility level.
- ✓ The hospitals with surpassed thresholds are recommended to conduct the investigations.

Geographical distribution of cases notified during the epi week 33/2024



Distribution of immediate reportable diseases in Epi week 33

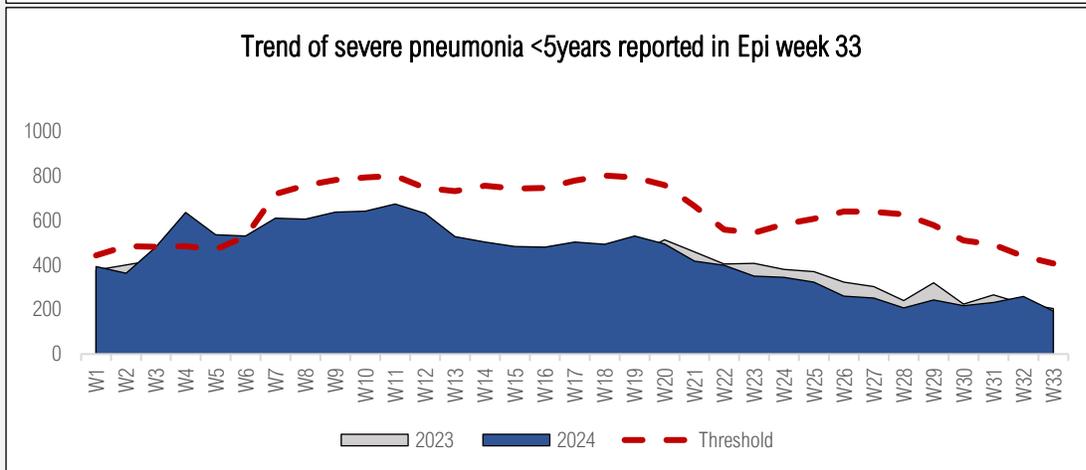
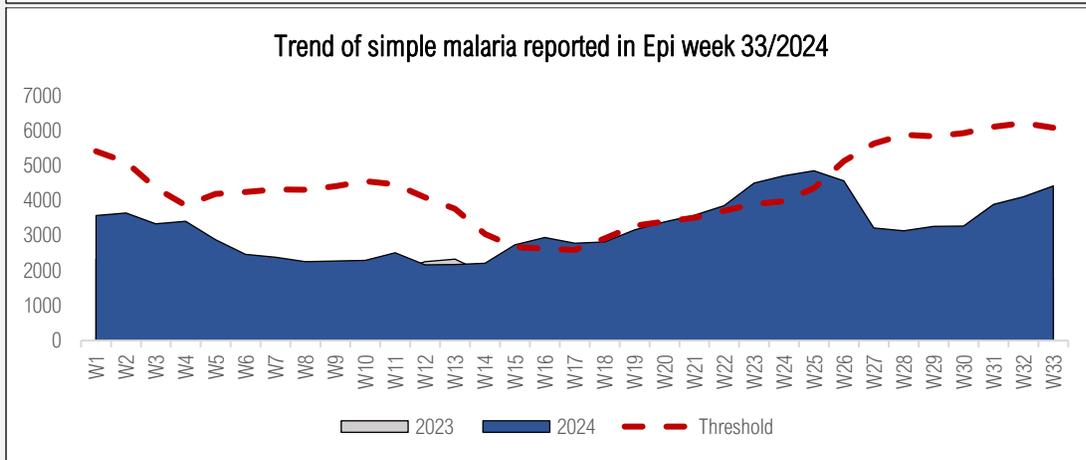
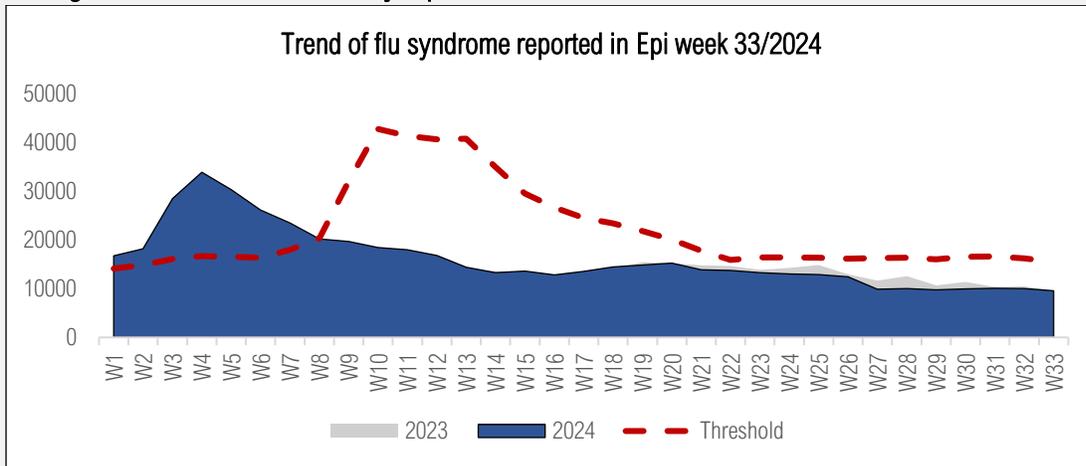
B. WEEKLY REPORTABLE DISEASES – EPI WEEK 33

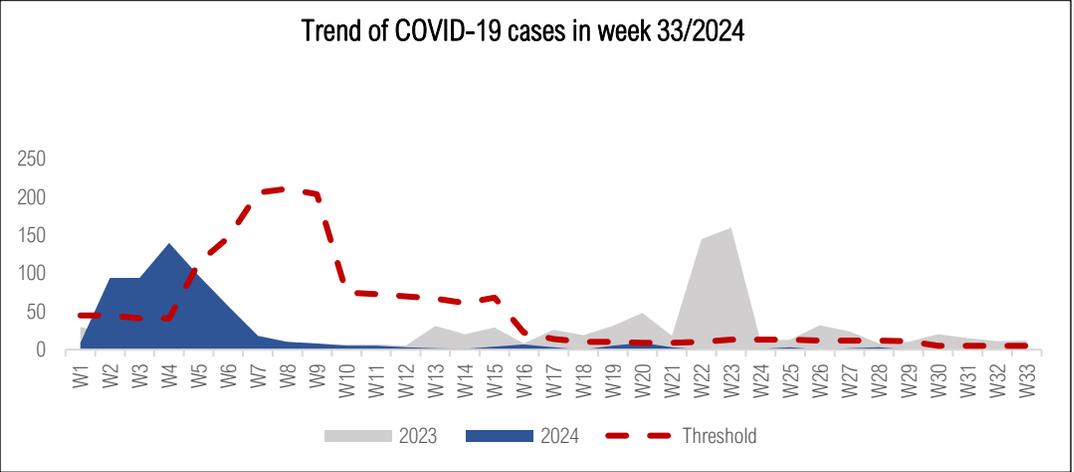
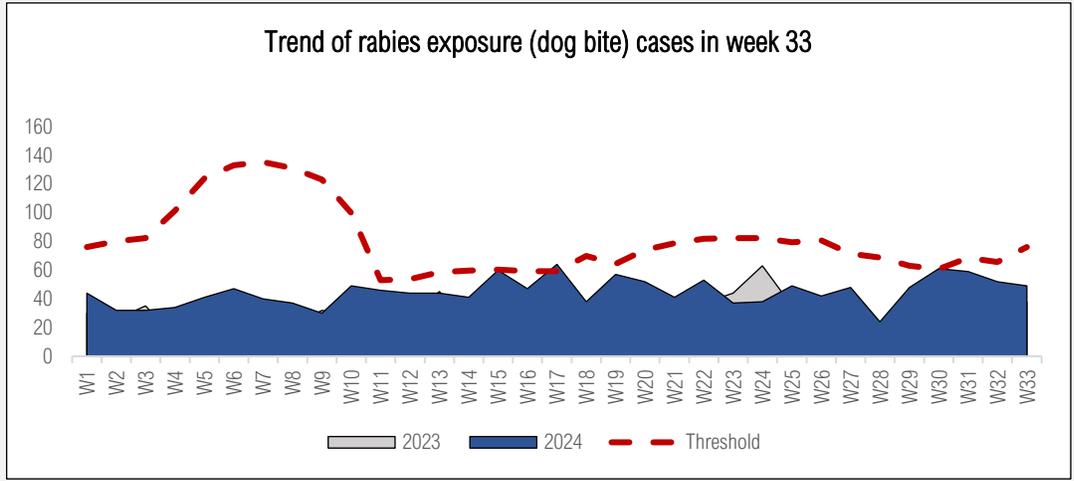
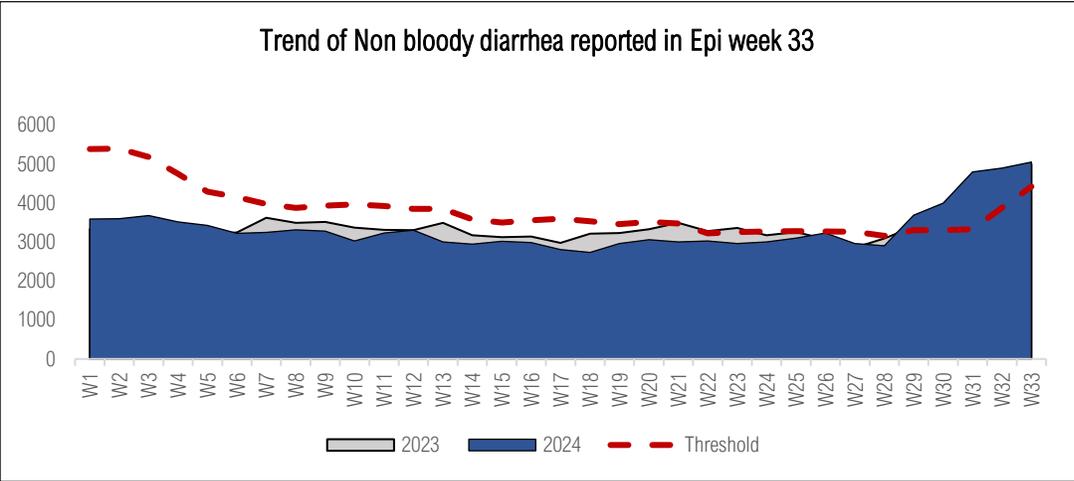
Description: *In Rwanda, after the adaptation of the IDSR guidelines 3rd edition, eight diseases events are being reported and analyzed on a weekly basis. These include flu syndrome, simple malaria, severe pneumonia for under 5 years, non-bloody diarrhea for under 5 years, COVID-19, dog bites, brucellosis,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

In Epi Week 33, 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 cases surpassed the thresholds in some health facilities, including Gakoma DH (Gikonko HC, Save HC), Gahini (Mukarange HC), Gitwe (Byimana HC, Gitwe HC), Kabgayi DH (Gasovu HC, Gitarama HC), Kabaya DH (Ramaba HC), (Kabutare DH (Karama HC, Medilab clinic, Sangwa polyclinic) Kaduha DH (Kaduha DH, Kaduha HC, Buruhukiro HC, Mugano HC), Kibagabaga DH (Nyacyonga HC), Kibogora DH (Kibogora DH, Karengera HC, Yove HC), Kibungo RH (Jarama HC, Nkanga HP, Kibungo RH), Kibuye RH (Mukungu HC), Kigeme DH (Kigeme DH, Nyamagabe HC), Kinihira PH (Tumba HC) Kirehe DH (Kirehe HC), Kirinda DH (Birambo HC), Kiziguro DH, Masaka (Dream Medical Center Hospital), Munini DH(Kivu HC), Murunda DH (Mukura HC), Ngarama DH (Gituza HC, Camp Nyabiheke HC), Nyamata DH (Nyarugenge HC), Nyanza DH (Kirambi HC, Nyamiyaga HC), Rwamagana (Nyagasambu HC), Ruli DH (Rwankuba HC), Ruhango PH (Ruhango PH), Remera Rukoma (Rapha clinic, Musambira HC).

NB: Those district hospitals are recommended to conduct the investigation and reinforce preventive measures.

The figures below show the weekly reportable diseases trends:

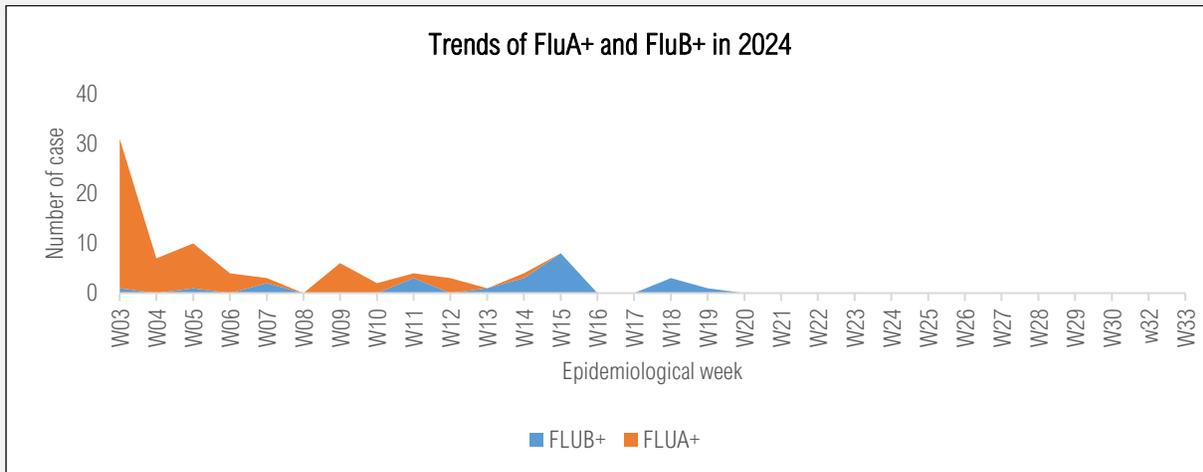




● Sentinel surveillance

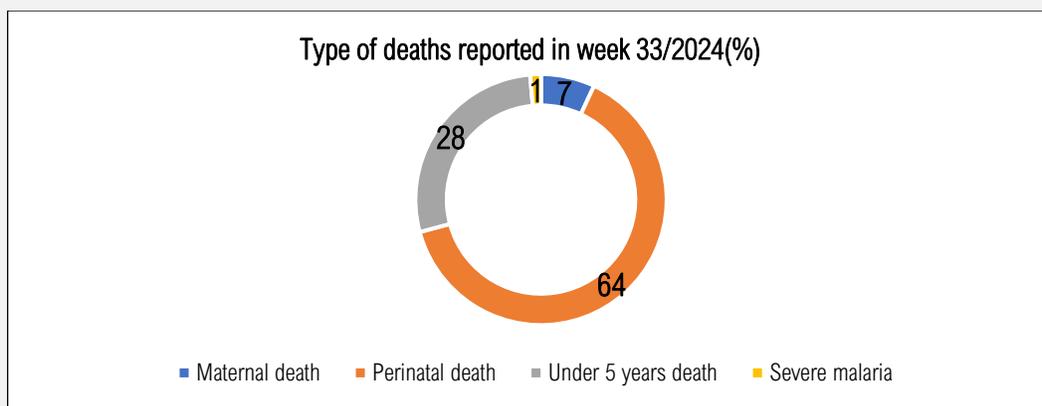
Update on trend of influenza in Rwanda

During the 33rd Epidemiological week, 19 samples were collected from sentinel site sites. (13) from GIHUNDWE RH , and (6) RUHENGELI RH. Out of the 19 samples received and tested by the National Reference Laboratory (NRL), all tested negative for all influenza subtypes with 0 co-infection cases, and 0 positive cases for COVID-19.



C. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 33

As summarized in the Pie Chart below, a total number of 72 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 33(62%) were perinatal deaths, 16 (30%) were the deaths of children under 5 years old (including 3 deaths due severe pneumonia), 3(6%) maternal death and 1 (2%) death due to severe malaria.



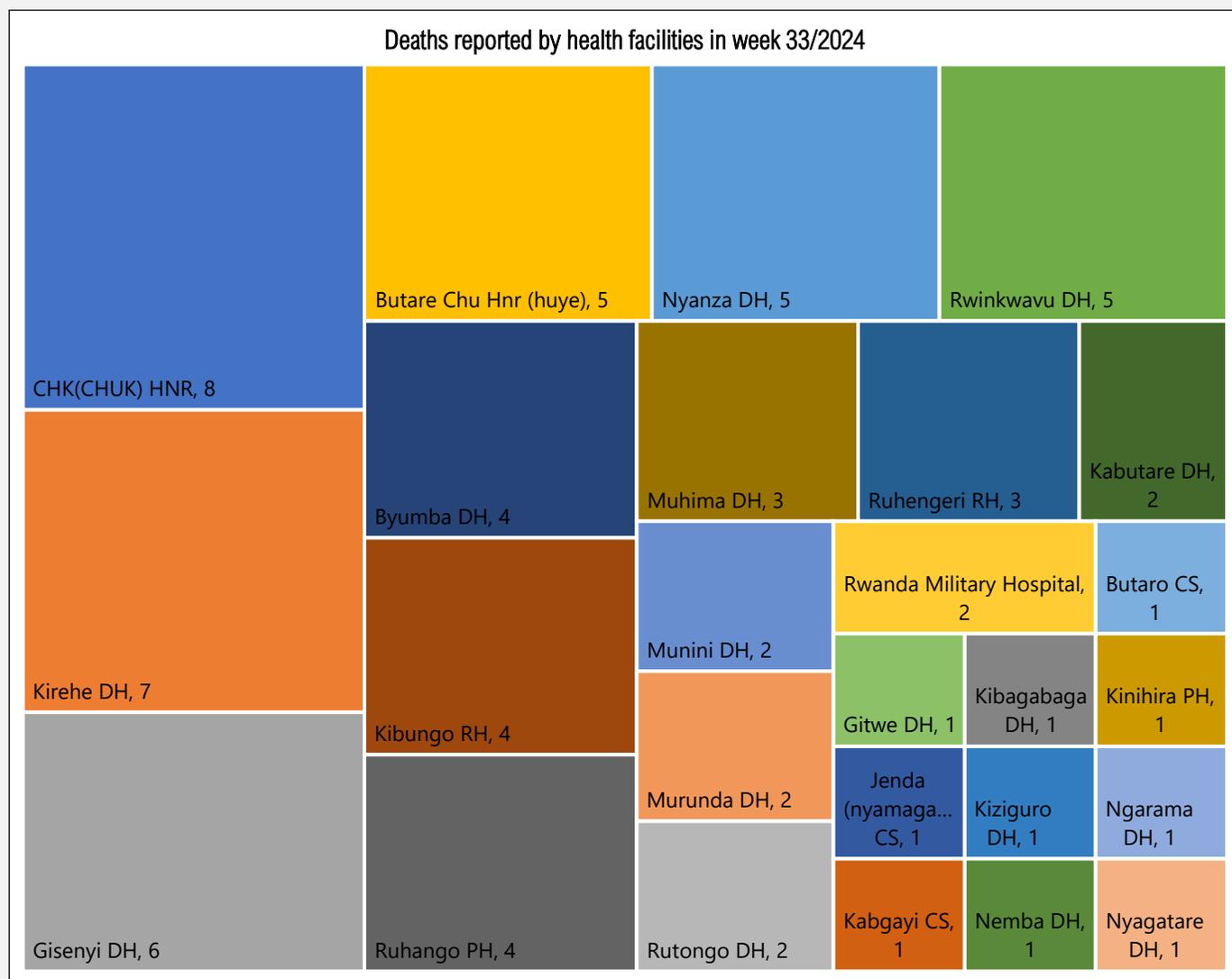
Cause of deaths declared in epi week 33

72 deaths were reported from various catchment areas as follow:

- 8 deaths were reported by CHUK (2maternal death 3 perinatal deaths and 3 under 5 years deaths)
- 7 deaths were reported by Kirehe DH (all were perinatal deaths, 2 under 5 years deaths)
- 6 deaths were reported by Gisenyi DH (4perinatal deaths and 2 under 5 years deaths)
- 5 deaths were reported respectively by CHUB (1 maternal death, 3 perinatal deaths and 1death due to severe malaria); Nyanza DH (3perinatal deaths, 2 under 5 years deaths) and Rwinkwavu DH(all were perinatal deaths)
- 4 deaths were reported respectively by Byumba DH and Ruhango PH (each one reported 4perinatal deaths)
- 3 deaths were reported respectively by Kibungo RH (3 under 5 years deaths); Ruhengeri RH (2 perinatal deaths and 1 under 5 years death)

- 2 deaths were reported respectively by Kabutare DH, Murunda DH, Rutongo DH (each one reported 2 perinatal deaths); Rwinkwavu DH (all were perinatal deaths); Munini DH (1perinatal death and 1 under 5 years death); Muhima DH (2 under 5 years deaths); Rwanada Military hospital; ()
- 2 deaths were reported respectively by Kaduha DH and Kibungo RH (each one reported 1perinatal death and 1 under 5 years death), Kibilizi DH (1maternal death, 1perinatal death), Kirehe DH, Ruhango PH, Rwanda Military Hospital (maternal death and 1 under 5 years death) Kacyiru Police hospital and
- 1death was reported respectively by Ngarama DH (1 maternal death); Butaro DH, Jenda HC in Kaduha DH, Kabgayi DH, Nemba DH (each one reported 1perinatal death), Gitwe DH, Kibagabaga DH, Kinihira PH, Kiziguro DH, Nyagatare DH (each one reported 1 under 5 years death).

Distribution of deaths by health facilities:



Distribution of deaths by health facilities in Epi week 33

OUTBREAK AND EVENT UPDATES IN EPIDEMIOLOGICAL WEEK 33

1. Foodborne illnesses outbreak in Gakenke District, Nemba DH

Confirmed cases	0	Date reported:	August 15, 2024	Risk assessment	Low
Suspected cases	13	Source:	eIDSR		
Death(s)	0	District/HFs:	Nemba HC /Nemba DH		
Total cases	13	Geoscope:	Low		

Description

On 15th August, 2024, Nemba HC received 13 patients complaining of abdominal pain, vomiting, and diarrhea after sharing sorghum beer (ikigage). The attack rate is 9/13 (69.32%). 5/9 (55.55%) have been admitted at Nemba DH for severe dehydration, and became clinically stable. No deaths have been recorded.

Action taken:

- Case management
- Active case search

2. Foodborne illnesses outbreak in Gakenke District, Nemba DH

Confirmed cases	0	Date reported:	August 16, 2024	Risk assessment	Low
Suspected cases	17	Source:	eIDSR		
Death(s)	0	District/HFs:	Rwankuba HC /Ruli DH		
Total cases	17	Geoscope:	Low		

Description

In the night of August 16th-17th, 2024, Rwankuba HC received 7 patients complaining of abdominal pain, vomiting, and diarrhea after sharing sorghum beer (ikigage) in a religious ceremony. On the same day Bumba Health post received 4 patients and Muhondo HC received 2 from the same event. 4 other people fell sick but went for treatment in Rulindo. In total 17 people had the illness. The attack rate was 17/50 (34.%). All cases were managed and became stable and no deaths have been recorded.

Action taken:

- Cases management
- Active case search

2. Ongoing Mpox outbreak reported in Rwanda

Rwanda confirmed its first two cases of Mpox on July 24, 2024. Since then, a total of four Mpox cases have been confirmed, with the most recent case reported on July 28, 2024. All confirmed cases had a history of international travel prior to the onset of symptoms. Two of the patients have been treated, cured, and discharged, while the remaining two are still undergoing treatment. Since the Mpox outbreak was confirmed in Rwanda, 539

suspected cases have been reported, including 156 new suspected cases in week 33, with no new confirmed cases.

Actions taken

- Case management
- Community sensitization on Mpox prevention
- Active case searching in community

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 33

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 33, the overall completeness and timeliness of disease surveillance data reporting in Rwanda, was scored to 99% and 97%, respectively. Almost all hospitals had the high score (>80%) for the completeness, and timeliness, except Kinihira PH which had a moderate score for both.

Notes: The health facility that did not have a high score for the completeness and 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 shown 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	
Nyagatare	100	100	100	100	100	100	100	100	100	100	93	100	86	100	93	100	100	100	100	93	100	93	100	93	100	100	100	100	93	100	100	100	100	100
Gatunda	100	100	100	100	100	100	100	100	100	100	89	100	67	100	100	100	100	89	100	100	100	100	89	100	100	100	100	100	100	100	100	100	100	
Ngarara	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	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	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	89	100	100	100	100	100	100	
Rwinkwavu	100	100	100	100	100	100	100	100	100	100	100	100	88	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	70	100	90	100	100	
Kibungo	100	100	100	100	100	100	100	100	100	100	94	100	94	100	100	100	100	100	94	100	100	100	100	100	100	100	94	100	100	100	100	100	94	
Kirehe	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	95	100	100	100	100	100	100	100	
Rwamagana	94	94	100	100	94	94	100	100	100	100	89	100	94	100	100	100	100	100	100	100	100	100	94	100	100	100	100	100	100	100	100	100	100	
Nyamata	100	88	100	100	94	94	100	100	100	100	94	94	76	94	88	100	100	94	88	88	88	94	88	82	88	94	100	94	100	100	100	100	100	
Kinshira	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	89	100	100	100	89	100	89	100	100	100	100	78	
Rutongo	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	
Gatonde	100	100	100	100	100	100	100	100	100	100	100	100	71	100	100	100	100	100	100	100	100	86	100	100	100	100	100	100	100	100	100	100	100	
Butaro	100	100	100	100	100	100	100	100	100	100	100	100	85	100	100	100	100	100	100	100	100	95	100	100	100	95	100	100	85	100	100	100	100	
Ruli	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	
Nemba	100	100	100	100	100	100	100	100	100	100	100	90	100	100	100	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Ruhengeri	100	100	100	94	89	89	100	100	100	100	89	100	94	100	100	100	100	100	100	94	94	100	100	94	100	100	100	100	94	100	100	100	94	
Byumba	100	100	100	100	100	100	100	100	96	100	96	100	100	96	100	96	100	96	100	96	96	100	100	100	100	96	85	96	92	96	96	96	100	
CHUB	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	
Kabutare	100	100	100	100	95	100	89	100	95	100	95	100	89	100	100	100	100	100	100	100	100	100	100	100	95	100	100	100	95	100	100	100	100	
Kabgayi	100	100	100	100	100	100	100	100	100	100	100	100	85	100	100	100	100	100	100	100	100	100	100	100	92	100	100	100	92	100	100	100	100	
Kibilizi	100	100	100	100	100	100	100	100	100	100	91	100	100	100	100	91	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Gakoma	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	
Gitwe	100	100	100	100	100	100	100	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	
Ruhango	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	88	100	100	100	100	100	88	
Remera																																		
Rukoma	100	100	100	100	100	100	100	93	93	100	93	100	80	100	93	100	100	100	100	100	100	100	100	93	100	100	100	100	100	100	100	100	100	
Nyanza	100	95	95	95	100	100	100	100	100	100	100	100	100	100	100	100	100	95	100	100	95	100	89	100	100	100	100	100	100	100	100	100	100	
Kigeme	100	100	100	100	100	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92	100	100	100	92	100	100	100	100	100	
Kaduha	100	100	100	100	100	100	100	100	100	100	80	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Munini	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	
Bushenge	100	100	100	100	88	100	100	88	100	100	88	100	88	100	88	100	100	88	100	100	100	100	100	100	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	100	93	100	100	100	100	100	100	100	100	100	100	93	100	100	100	100	
Kibuye	100	100	100	100	100	100	100	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	92	100	100	100	100	100	100	100	100	
Kirinda	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	
Mugonero	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	71	100	100	100	100	
Shyira	88	100	100	100	88	100	100	100	100	100	100	94	88	100	100	100	100	94	100	100	100	94	94	100	100	100	100	100	100	88	100	100	94	
Muhororo	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	
Kabaya	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	
Gihundwe	100	100	100	100	80	100	100	90	100	100	100	100	100	100	90	100	100	100	90	100	100	100	100	100	100	100	100	100	90	100	100	100	100	
Mibilizi	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	
Gisenyi	100	100	100	100	100	88	100	100	100	100	94	100	100	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Murunda	95	100	100	100	100	95	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	95	100	100	95	100	100	100	100	95	89	100	100	
CHUK	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	
Nyarugenge	89	100	100	100	100	100	100	100	100	100	100	100	78	100	100	100	100	10																

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	
Nyagatare	93	93	100	100	100	93	100	93	100	100	93	86	86	86	86	100	100	79	93	86	100	93	100	71	100	100	93	86	93	93	100	100	100	
Gatunda	100	100	100	100	100	100	100	100	100	89	89	100	67	89	100	89	100	89	100	100	100	89	89	100	100	100	100	100	100	100	100	89	89	100
Ngarama	100	100	100	100	100	100	100	100	100	100	100	88	100	100	100	88	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Kiziguro	100	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	92	100	100	100	100	85	100	100	100	100	100	100	100	100	100	100	
Gahini	100	100	100	100	100	100	100	89	100	100	100	89	100	100	100	89	89	100	100	100	100	100	100	78	100	100	100	71	100	86	100	100	86	
Rwinkwavu	100	88	100	100	88	100	100	100	100	100	100	100	50	88	88	63	100	100	100	63	100	100	100	75	88	88	100	60	100	90	100	100	90	
Kibungo	94	100	100	100	100	100	100	100	100	94	94	94	94	100	94	94	94	100	94	100	94	88	100	100	100	100	100	94	94	100	100	94	94	100
Kirehe	100	100	100	100	90	100	100	100	100	100	100	95	95	90	100	100	95	100	100	95	100	100	95	100	100	95	100	90	95	95	100	95	95	95
Rwamagana	83	100	100	94	89	83	94	100	100	94	89	100	83	83	83	100	100	100	83	83	94	100	94	89	94	94	89	61	100	100	78	94	100	
Nyamata	100	100	100	88	94	94	94	94	88	94	94	100	71	94	76	100	100	88	82	82	88	88	88	65	76	76	76	65	94	94	94	82	82	
Kinshira	100	89	89	100	100	100	100	100	100	100	100	100	89	89	89	100	78	100	100	100	89	100	100	100	89	89	100	89	100	100	100	100	78	
Rutongo	100	100	87	100	100	100	100	100	100	100	100	100	100	100	100	100	100	93	100	93	100	100	100	100	100	100	100	100	100	100	100	100	100	
Gatonde	100	100	100	100	100	86	100	100	100	100	100	100	71	100	100	100	100	100	100	100	100	86	86	86	86	86	75	100	100	100	86	86		
Butaro	100	95	95	100	90	100	100	100	100	100	90	100	90	85	90	80	85	95	95	95	90	100	100	100	80	95	95	90	100	90	95	100	80	85
Ruli	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	89	100	100	100	100	89	100	100	100	100	100	100	100	100	100	
Nemba	100	100	100	100	100	90	100	100	100	80	100	100	90	100	100	100	90	90	100	100	100	100	100	80	100	100	100	100	100	100	100	100	100	
Ruhengeri	94	94	100	94	89	89	100	100	100	100	89	100	94	100	100	94	100	94	100	94	94	100	83	83	100	100	100	94	94	100	94	94	89	
Byumba	100	100	100	100	100	100	100	100	96	100	96	100	100	100	100	96	96	96	100	100	96	100	92	100	100	100	95	96	88	92	96	92	100	
CHUB	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Kabutare	95	100	95	100	95	100	89	100	95	100	95	100	89	95	100	95	100	95	95	95	100	89	100	95	95	100	95	95	95	89	100	100	100	
Kabgayi	100	100	92	100	100	100	85	92	100	92	100	77	77	92	100	100	85	100	100	100	100	92	92	92	92	100	92	85	100	100	100	85	100	
Kibilizi	100	91	100	100	91	100	100	100	100	100	91	91	100	100	100	91	100	100	91	82	100	91	100	100	100	100	100	100	100	91	100	100	100	
Gakoma	83	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	100	100	100	83	83	100	
Gitwe	100	100	89	100	78	78	100	100	78	100	100	100	89	89	100	100	100	89	100	67	100	100	100	89	100	100	100	89	100	100	100	100	100	
Ruhango	100	88	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	88	100	100	100	88	100	100	100	88	100	100	100	88	100	
Remera	100	100	100	93	93	93	100	93	100	100	93	100	73	100	93	100	100	100	93	100	100	80	87	100	100	100	100	93	100	100	100	100	93	
Nyanza	95	95	100	100	89	95	95	95	95	89	100	100	100	100	89	100	100	89	100	100	95	95	89	79	95	95	100	100	100	95	100	100	100	
Kigeme	100	100	100	100	100	100	100	100	92	100	100	100	92	100	100	100	100	100	100	92	92	100	100	85	100	100	100	92	100	92	92	100	85	
Kaduha	100	90	100	100	100	100	100	90	90	100	80	91	100	100	100	90	100	100	100	100	90	90	100	90	90	100	100	100	100	100	90	100	100	
Munini	100	100	100	100	100	88	94	100	100	100	100	100	100	100	94	88	100	100	100	100	100	100	88	100	100	100	100	100	100	100	100	100	100	
Bushenge	100	100	88	100	88	100	88	88	100	88	100	100	75	100	100	100	88	100	88	100	75	100	100	100	100	100	100	100	88	88	100	100	100	
Kibogora	100	100	100	93	100	100	100	100	100	100	100	100	100	100	100	100	100	100	93	100	100	100	100	100	100	100	100	100	86	93	100	100	100	
Kibuye	100	100	100	100	100	92	92	100	100	100	92	100	100	85	100	92	100	100	100	100	100	100	85	100	100	100	100	100	100	100	100	100	100	100
Kirinda	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	100	100	100	83	100	
Mugonero	100	100	100	100	86	100	100	100	86	100	100	100	100	100	100	100	100	100	100	86	100	100	100	100	100	100	100	100	100	71	100	100	100	
Shyira	88	100	100	100	88	100	100	100	100	100	100	94	88	94	100	88	94	94	94	100	100	88	94	94	100	100	88	100	82	100	88	88		
Muhororo	100	100	90	100	100	100	100	100	100	80	100	100	100	90	90	100	100	90	100	100	100	100	100	90	100	100	90	80	100	90	90	90	100	
Kabaya	100	100	86	100	100	86	100	100	100	100	71	100	100	86	100	100	100	100	100	100	100	100	100	100	100	100	71	100	100	100	100	86	100	
Gihundwe	100	100	100	100	70	100	100	90	100	100	100	100	100	90	80	100	90	90	90	90	100	90	90	100	90	90	100	90	100	100	100	90	100	
Mibilizi	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	
Gisenyi	94	100	100	94	100	88	100	100	100	100	94	100	100	100	88	100	100	94	100	94	100	100	88	94	100	100	88	94	88	100	100	94	100	
Murunda	95	100	100	100	100	95	100	100	95	95	100	100	100	95	100	100	100	100	100	100	95	100	84	95	95	95	100	100	100	95	95	89	100	
CHUK	100	0	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Nyarugenge	89	89	89	100	100	100	100	100	100	100	100	89	67	100	100	100	100	100	100	89	100	100	100	100	100	100	100	67	100	100	100	89	100	
Muhima	100	100	100	100	100	100	100	75	100	100	100	50	100	100	75	100	100	100	100	100	100	100	75	75	100	100	75	100	100	100	75	100	100	
RMH	0	100	100																															