Republic of Rwanda
Ministry of Health

Rwanda Biomedical Centre
Healthy People, Wealthy Nation

WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 47 – 2023

(20-26 November 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 47

Event Based Surveillance (EBS) Highlights:

- During the epidemiological week 47, two human deaths were notified through the electronic Community Event Based Surveillance System (eCEBS).
- Four alerts were identified through the Epidemic Intelligence from Open Source (EIOS):
  - Anthrax outbreak in Kyotera claims 14 lives
  - Antibiotic Resistance Kills 5 million People Every Year
  - Deadly mosquito species now in Kenya
  - What is the mysterious pneumonia outbreak in China?

Indicator Based Surveillance (IBS) Highlights:

- 289 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, cholera, typhoid fever and chicken pox.
- For 8 weekly reportable diseases and health events, a thorough analysis conducted for Epi Week 45 revealed that no disease surpassed the epidemic threshold.
- A total of 68 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. The majority of deaths were perinatal deaths and deaths of children under 5 years.

Outbreaks and events updates in week 47

- One ongoing outbreak:

Rubella outbreak in Karongi District, Kiziba Refugee Camp

- New outbreak:

Cholera outbreak in Nyamasheke District, Kibogora district hospital, Kanjongo Sector, Kibogora Cell, Kabuyaga and Nyarusange villages.

Completeness and timeliness

In Epi Week 47, the overall completeness and timeliness of surveillance data reporting in Rwanda was 99% and 95% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS)
EPIDEMIOLOGICAL WEEK 47

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 47, two human deaths were notified from community

- 1 death from Bugesera District
- 1 death from Rusizi District

MEDIA SCAN

Four alerts from EIOS:

1. Anthrax outbreak in Kyotera claims 14 lives

Kyotera District (in Uganda) health officials are appealing to residents to dismiss reports of witchcraft following an anthrax outbreak in the area. The outbreak has claimed 14 lives over the last three months, with victims reportedly consuming infected beef. The affected area is primarily Kabira sub-county.

A team from the D's office was dispatched to car out the preliminary investigation with the aim of Finding out what could be the cause of death and the preliminary findings were the following found out that there were some farms where animals had died and they were totaling about 22 of them. The people who were dying also were presenting with the following signs and symptoms. They had a fever, barista and swelling of the upper limb which was progressing and they were also developing difficulty in breathing and headache.

Having those signs and symptoms and the history of the death of animals, we contacted the emergency operation Masaka, ministry of health and another team was dispatched to that place. Samples have been taken off from two suspected cases who are still alive and samples have been transported to Kampala for further investigation suspecting that these people may have been dying from artic disease which is called Anthrax, we appeal to the community to become as we wait for the final results of these investigations because currently, we are just suspecting. https://www.ntv.co.ug/ug/news/national/anthrax-outbreak-in-kyotera-claims-14-lives-4441338

2. Antibiotic Resistance Kills 5 million People Every Year

According to recent data, antibiotic resistance is responsible for about 5 million fatalities each year, which is greater than the total combined mortality toll of HIV/AIDS and malaria. It is also predicted that drug-resistance-related mortality will exceed 10 million per year by 2050, surpassing cancer as the main cause of death worldwide. Antibiotic Resistance Could be the Reason for the Next Pandemic Antimicrobial resistance in agricultural animals, experts warn, might lead to the next pandemic. Everybody is vulnerable, everywhere. Antimicrobial residue contamination spreads to soils, rivers, streams, and oceans, as well as food and drinking water, and contributes to resistance. Even if they do not use these medications, everyone is exposed to

antimicrobials, particularly antibiotics. This type of contamination is exacerbated when antimicrobials are used and discarded carelessly. The global reaction must be equitable to all. Policy alternatives must be carefully studied with all parties concerned, as well as by including public and community views, without pre-determined solutions in mind.
https://www.medindia.net/news/healthwatch/antibiotic-resistance-kills-5-million-people-every-year-214275-1.htm#google_vignette

Deadly mosquito species now in Kenya

A deadly mosquito species that has the ability to transmit two parasites has landed in Kenya from Ethiopia and is likely to fuel malaria infections especially in Northern Kenya, the Centers for Disease Control and Prevention (CDC) has said. The mosquito scientifically known as Anopheles *stephensi* (An. Stephensi) transmits both Plasmodium falciparum and Plasmodium vivax malaria parasites.While Plasmodium falciparum is responsible for more deaths, Plasmodium vivax is the most widespread of all of the malaria species and can cause severe, even fatal infections, contributing to significant global morbidity and mortality, according to the World Health Organisation (WHO).
https://www.theeastafrican.co.ke/tea/science-health/deadly-mosquito-species-now-in-kenya-4441648

What is the mysterious pneumonia outbreak in China?

On November 13, China's National Health Commission reported an increase in respiratory diseases at a press conference . On Sunday, clusters of undiagnosed pneumonia in children in northern China were reported by the Program for Monitoring Emerging Diseases (ProMED), a surveillance system that conducts global reporting of infectious disease outbreaks. According to the ProMED report, infections have proliferated in Beijing and the city of Liaoning in the country's northeast, which are 800km (500 miles) apart.
On Wednesday, the WHO asked China to release information on the recent outbreak, including "additional epidemiologic and clinical information, as well as laboratory results from these reported clusters among children". Although official figures on the number of cases are not available yet, hospitals in Beijing have witnessed a surge in patients, especially in the children's wards. "One major hospital in the city has reported that on average every day, they are seeing about 1,200 patients enter their emergency room". Schools in Beijing are also reporting high levels of absenteeism, even dismissing entire classes for at least a week if some students are ill and warning parents to be extra cautious, Yu said.
Health officials are also worried that winter will exacerbate the spread of the infections after a warning from China's national weather authority that, starting on Thursday, the country's cold temperatures will plunge even further. Chinese authorities listed mycoplasma as one of the circulating pathogens along with respiratory syncytial virus (RSV) and SARS-CoV-2, the virus that causes COVID-19. The WHO has asked China for more information on the recent patterns of these microorganisms. At their press conference, Chinese authorities said there is a need to step up disease surveillance and strengthen the capacity of health systems. The WHO and medical staff in China have also advised people in the country to reinforce practices from the COVID-19 pandemic era, such as rigorous handwashing, wearing masks and social distancing.
https://www.aljazeera.com/news/2023/11/23/what-is-the-mysterious-pneumonia-outbreak-in-china

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 47

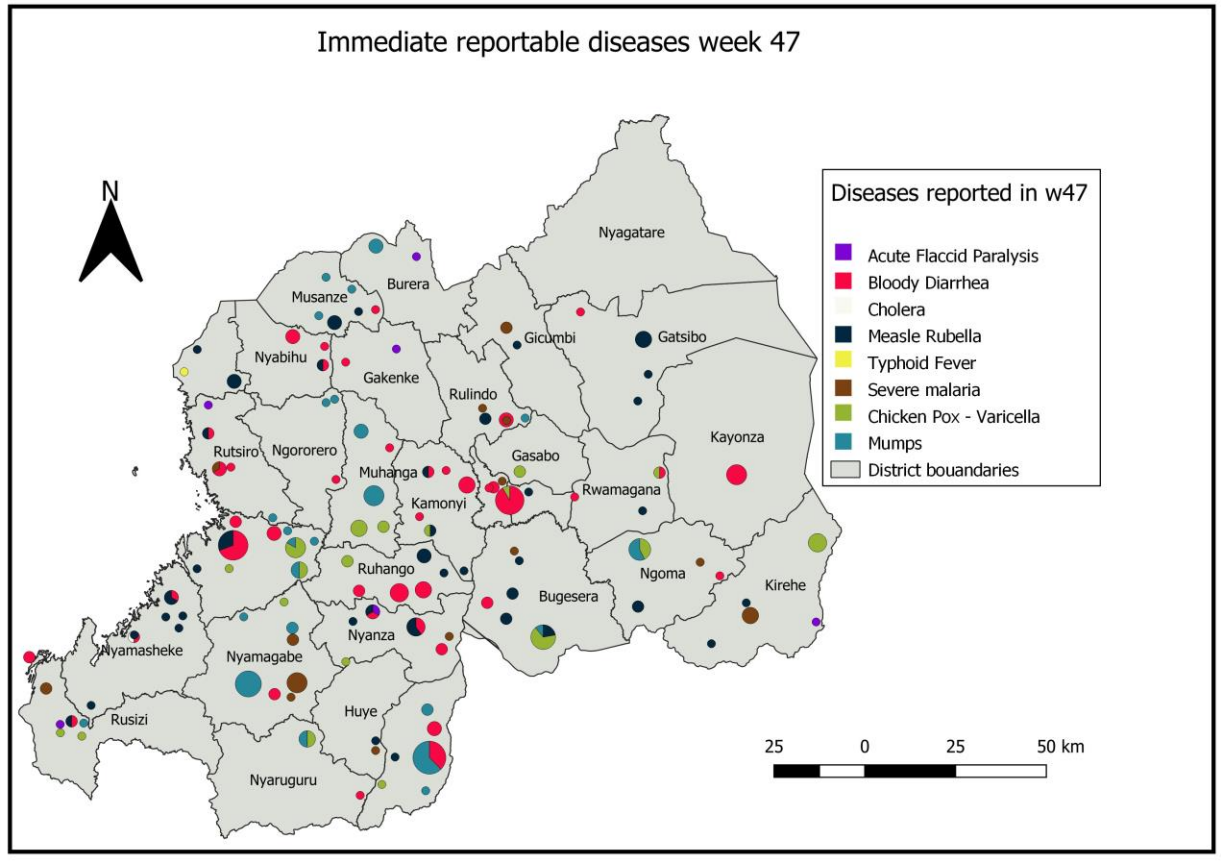
During this Epi week, 302 cases of immediate reportable diseases were notified:

- 43 cases of chicken pox were reported by 20 HFs. No HF crossed the threshold.
- 58 cases of mumps were reported by 24 HCs. Two HC crossed the threshold: Gisagara HC(in Kibilizi DH) and Musebeya HC (in Kaduha DH)
- 13 cases of foodborne illness were reported by King Faysal hospital, Bushara HC and Iramiro clinic they were occurred in week 46.
- 96 suspected cases of bloody diarrhea (Shigellosis) were reported by 41 HCs. Results of samples sent to NRL, for the previous week 46, no sample tested positive for shigella dysenteriae.
- 59 suspected cases of Measles/Rubella were reported by 39 HCs, the samples were taken and sent to NRL, results are pending.
- 25 cases of severe malaria were reported by 14 health facilities, including CHUB, Byumba DH, Gihundwe DH, Kibungo RH, Kaduha DH, Kigeme DH, Kirehe DH, Mururnda DH, Nyamata DH, Rutongo DH, Cyinzuzi HC, Gakoma HC, Iramiro clinic, Kigeme HC
- 6 cases of acute flaccid paralysis were reported by 6 health facilities: Mibilizi DH, Nemba DH, Butaro HC, Kivumu (Rutsiro HC), Gatagara(Nyanza)HC and Mahama Refugee Camp
- 1 case of cholera case was reported by Kibogora DH
- 1 suspected case of typhoid fever, reported by Polyclinic la Medicale de Rubavu

Notes:

For the diseases whose cases crossed the thresholds, District Hospitals are recommended to investigate.
All confirmed cases and suspected cases had been managed at the health facility level.

Geographical distribution of cases:



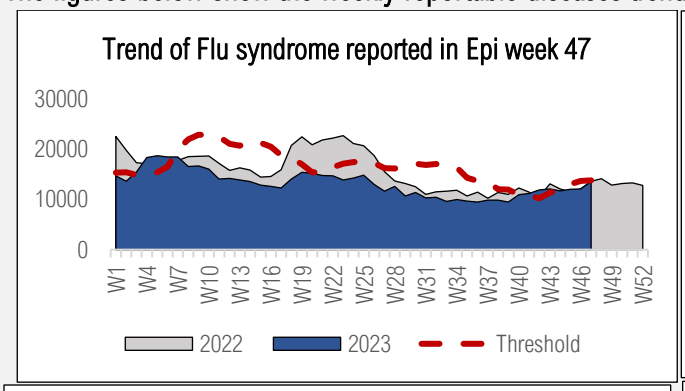
Distribution of immediate reportable diseases in Epi week 47

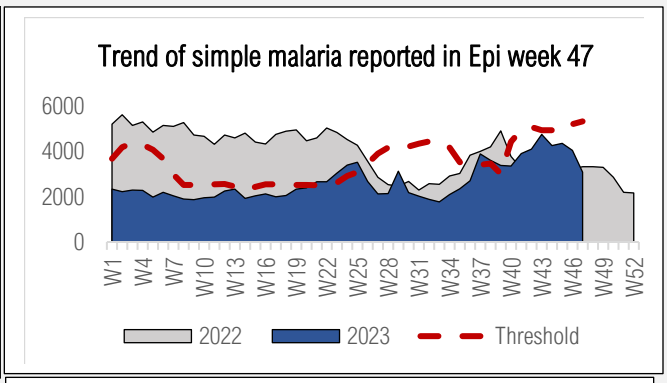
B. WEEKLY REPORTABLE DISEASES – EPI WEEK 47

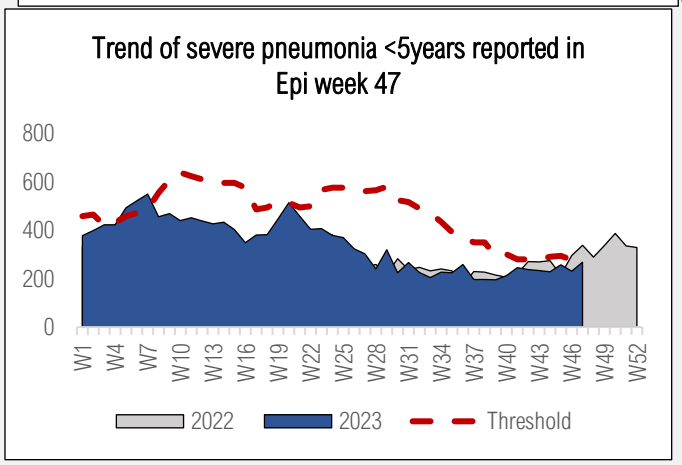
Description*: In Rwanda, after the adaptation of the IDSR guidelines 3rd edition, eight diseases & events are being reported and analyzed on a weekly basis. These include flu syndrome, simple malaria, severe pneumonia for under 5 years, non-bloody diarrhea for under 5 years, COVID-19, dog bites, brucellosis,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

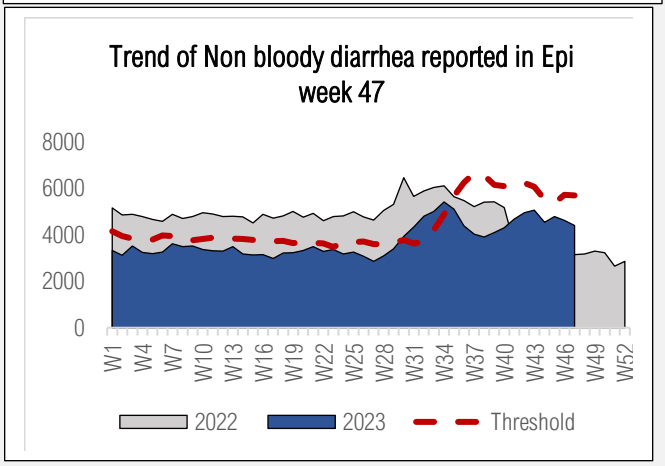
In Epi Week 47, a thorough analysis was conducted, comparing the number of reported cases of the eight diseases monitored on a weekly basis to their respective epidemic thresholds. The results of the analysis revealed that no disease surpassed the epidemic threshold.

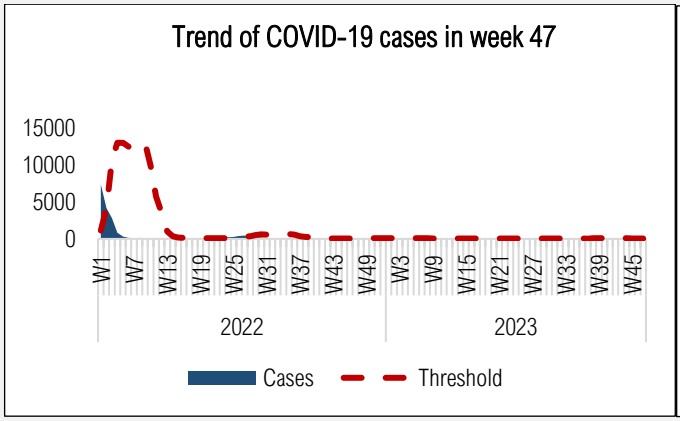
The figures below show the weekly reportable diseases trends:

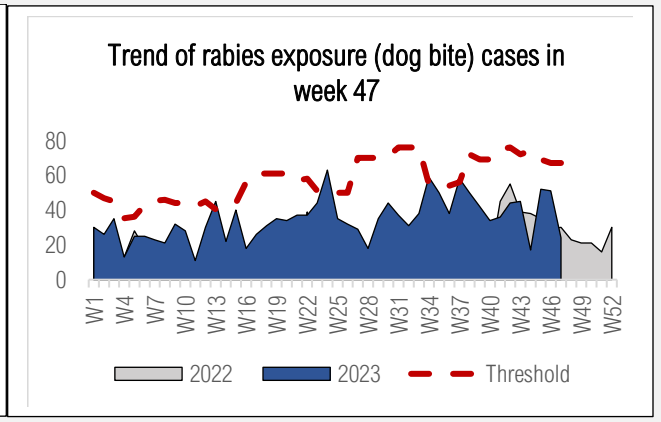






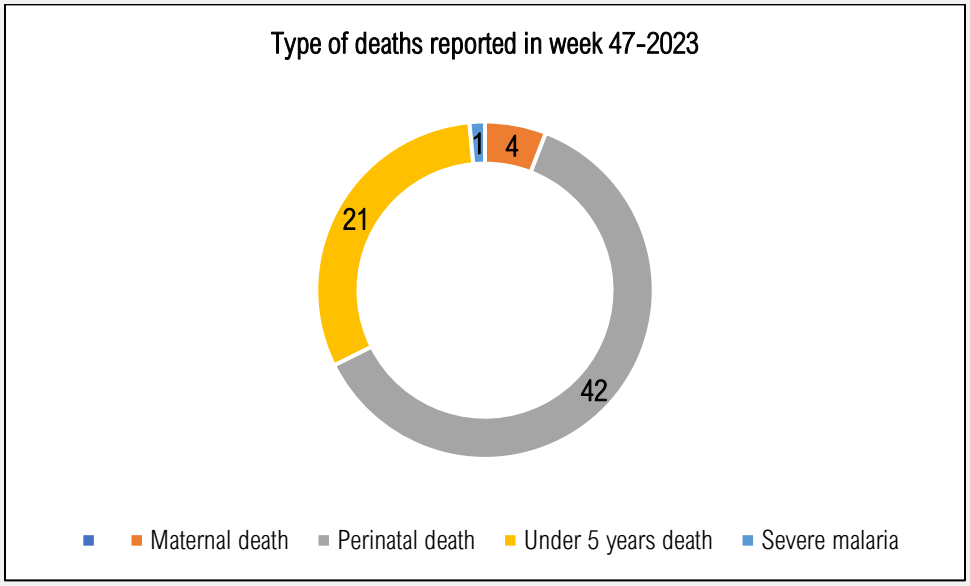






C. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 47

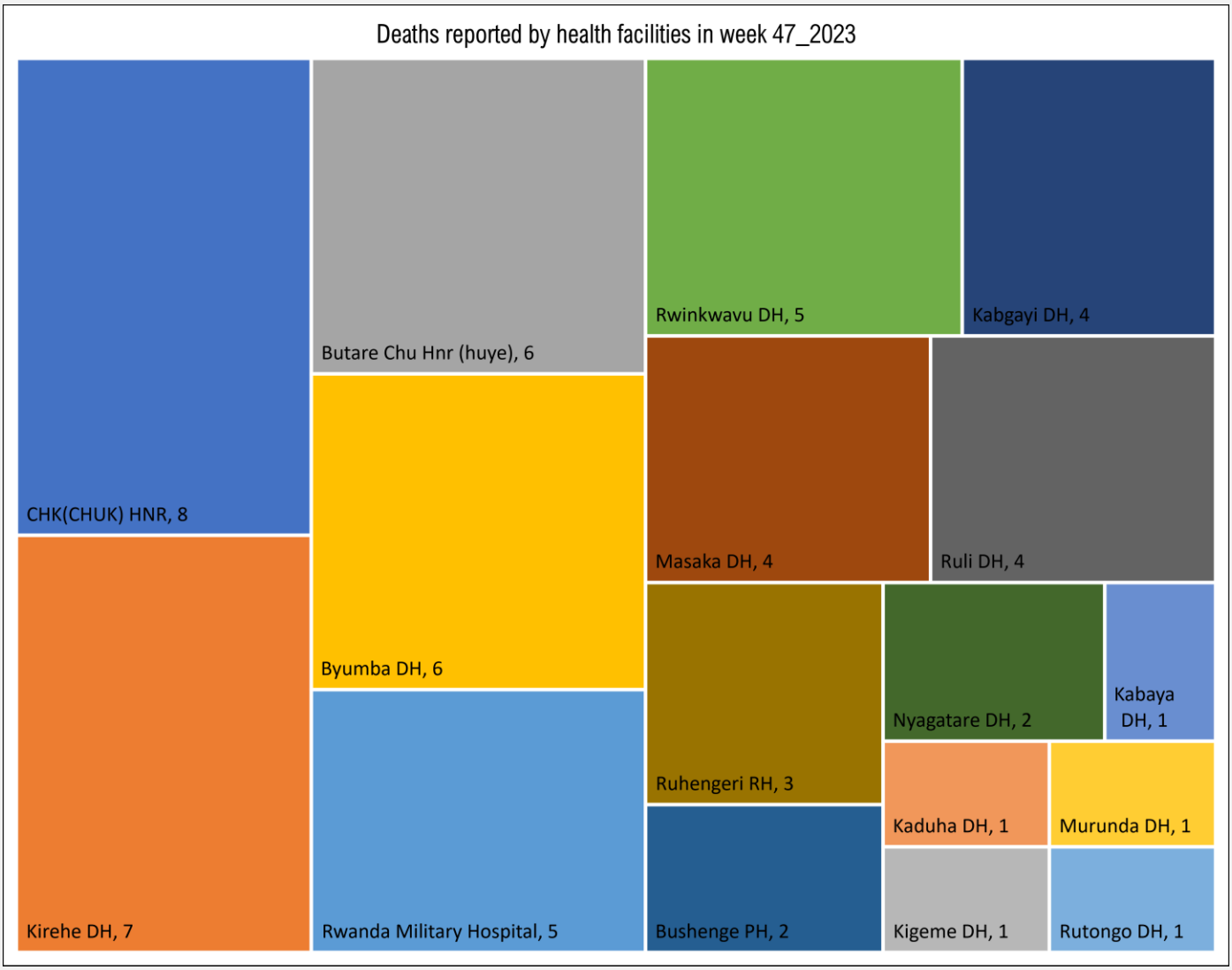
As summarized in the Pie Chart below, a total number of 68 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 42 (62%) were perinatal, 21 (31%) were deaths of children under 5 years old (including 1 death due to severe pneumonia, 4 (6%) maternal deaths, and 1 (1%) death due to severe malaria.



Cause of deaths declared in epi week 47

Deaths were reported from various catchment areas as follow:

- 8 deaths were reported by CHUK
- 7 deaths were reported by Kirehe DH
- 6 deaths were reported respectively by CHUB and Byumba DH
- 5 deaths were reported respectively by Rwanda Military Hospital and Rwinkwavu DH
- 4 deaths were reported respectively by Kabgayi DH, Masaka DH and Ruli DH
- 3 deaths were reported by Ruhengeri RH
- 2 deaths were reported respectively by Bushenge PH and Nyagatare DH
- 1 death was reported respectively by Kabaya DH, Kaduha DH, Murunda DH, Kigeme DH and Rutongo DH.



Distribution of deaths by health facilities in Epi week 47

OUTBREAK AND EVENT UPDATES IN EPIDEMIOLOGICAL WEEK 47

1. ONGOING RUBELLA OUTBREAK IN KIZIBA REFUGEE CAMP IN KARONGI DISTRICT

Confirmed cases	05	Date reported:	October 18, 2023	Risk assessment	Low
Suspected cases	23	Source:	eIDSR		
Death(s)	0	District/HFs:	Kiziba camp/ Kibuye RH		
Total cases	28	Geoscope:	Low		

Outbreak description:

On 18/10/2023, Kiziba Camp HC collected 11 suspected samples of Measles/Rubella, among them 2 were tested positive for Rubella. Following that, an active case search was conducted; and 3 additional cases tested positive

on Rubella which makes it a total of 5 cases. In the previous week, 2 suspected cases were reported, samples were taken, and results are pending.

Interventions conducted:
-Case management of patients
-Active cases search within the refugee camp.

2. CHOLERA OUTBREAK IN NYAMASHEKE DISTRICT- KIBOGORA DISTRICT HOSPITAL CATCHMENT AREA

Confirmed cases	03	Date reported:	October 20, 2023	Risk assessment	Low
Suspected cases	06	Source:	eIDSR		
Death(s)	0	District/HFs:	Kibogora DH		
Total cases	09	Geoscope:	Low		

Outbreak description:

From 20/10/2023, a total of 5 suspect cases of Cholera were identified, samples were collected, and 3 cases were tested positive. These cases are distributed in Kanjongo Sector, Kibogora Cell, Kabuyaga and Nyarusange villages. In the previous week, 1 suspected case was identified, sample was taken, and result is pending.

Interventions conducted:

-Case management of patients
-Community awareness on WASH practices
-RBC team was deployed this week for field investigation.

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 47

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 47, the overall completeness and timeliness of disease surveillance data reporting in Rwanda was 99% and 95%, respectively. With regards to completeness of surveillance reports, all hospitals had a high completeness (>80%). For the timeliness, the overall score was 95%, and almost all hospitals had a high timeliness (>80%), except Nyarugenge DH, Muhima DH which had a moderate timeliness (between 60 and 79%) and Kacyiru police hospital that had a low score (less than 60%).
Notes: The health facilities that did not have a high score for the 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 showed 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	W34	W35	W36	W37	W38	W39	W40	W41	W42	W43	W44	W45	W46	W47
Nyagatare	100	100	100	100	100	86	93	93	100	93	100	100	86	93	100	100	100	94	86	100	86	100	100	100	100	93	100	100	100	100	100	100	93	100	100	93	100	100	100	100	100	100	100	86	100	100	100
Gatunda	100	100	100	100	100	100	100	100	100	78	100	100	89	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	100	100	100	100	100	100	100	100
Ngarama	88	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	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	92	100	100	100	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	92
Gahini	100	100	100	100	100	100	89	89	78	100	100	78	100	100	100	100	100	78	100	100	100	100	100	89	100	100	100	100	100	100	100	100	89	100	100	89	100	100	100	100	100	100	100	100	100	100	100
Rwinkwavu	100	100	100	100	100	100	100	100	100	100	100	88	100	88	88	88	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	88	100
Kibungo	94	100	94	100	100	100	100	100	100	100	100	100	100	94	100	100	100	94	100	100	100	100	100	94	100	100	100	100	100	100	94	100	100	100	100	100	100	100	100	94	100	100	100	100	100	100	100
Kirehe	100	100	100	100	100	100	100	100	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	95	95	100	100	100	100	100	100	100	95	100	95	100	100	100	100	95	100
Rwamagana	76	71	88	100	100	94	100	100	94	100	88	94	100	100	100	100	100	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	94	100	100	100	100	100	100	100	100	100
Nyamata	100	94	100	94	100	100	100	100	100	100	100	100	100	100	100	100	88	88	100	94	100	94	100	100	88	88	88	94	100	100	88	100	88	94	100	88	94	100	100	100	100	100	100	100	100	94	100
Kinihira	100	100	100	100	100	100	89	89	100	89	89	100	100	89	89	89	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
Rutongo	93	87	93	87	100	100	100	100	100	93	93	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	93	100	93	100
Gatonde	100	86	100	100	100	100	100	100	100	86	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	100	100	100	100
Butaro	80	85	95	95	75	90	95	95	95	100	95	100	95	100	100	95	100	95	100	90	100	100	100	100	95	75	100	100	100	100	85	95	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Ruli	100	100	100	100	100	100	100	100	100	100	90	90	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	100	100
Nemba	100	100	100	100	100	89	100	100	100	89	100	100	100	89	100	100	100	89	100	100	100	89	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	90	100	100	100
Ruhengeri	94	94	94	100	83	89	89	89	100	94	94	83	94	89	94	89	94	94	100	100	89	100	100	100	100	100	100	100	100	94	100	100	94	89	100	100	100	100	100	100	100	100	100	94	100	100	100
Byumba	96	100	100	96	96	96	100	100	100	96	100	96	96	92	100	100	100	96	100	96	100	100	96	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CHUB	0	100	100	100	100	100	100	100	0	0	100	100	100	0	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	84	95	100	100	95	95	95	95	89	95	95	100	100	89	100	100	89	95	100	100	100	100	89	100	100	89	100	100	100	95	100	100	100	100	95	95	95	100	100	100	100	100	100	100	95	89	100
Kabgayi	100	100	92	85	100	92	92	92	92	100	100	92	92	85	100	100	92	100	100	100	92	100	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92
Kibilizi	100	100	100	100	100	100	100	100	100	100	100	82	91	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	91	100	100	100	100	100	100	100	100	91	100	100	100
Gakoma	83	100	100	100	83	100	100	100	83	100	100	100	67	100	100	100	83	83	67	100	100	100	100	100	100	83	100	100	100	100	100	100	100	100	100	100	100	100	100	100	83	100	100	100	100	100	100
Gitwe	100	100	89	100	100	78	100	100	100	100	100	100	100	89	100	100	78	89	100	100	89	100	89	100	100	67	100	100	100	100	100	100	89	100	100	100	100	100	100	100	100	100	100	67	100	100	100
Ruhango	88	100	100	100	88	88	75	88	88	100	100	63	75	63	63	75	50	88	75	63	88	63	100	100	100	75	100	100	88	88	100	75	88	100	100	100	100	100	100	88	100	100	100	100	100	100	88
Remera Rukoma	100	100	100	93	100	100	100	100	100	100	100	100	93	100	100	100	100	100	93	100	100	93	93	93	100	100	100	100	100	100	93	100	100	100	100	100	100	100	93	100	100	100	100	100	100	100	100
Nyanza	84	84	89	79	95	100	89	89	74	95	100	79	79	89	100	100	95	89	100	100	84	100	95	100	100	89	100	100	84	100	100	95	95	100	95	100	100	100	95	100	100	100	100	95	100	100	100
Kigeme	77	77	100	92	100	92	100	100	100	100	92	100	92	85	100	100	100	100	100	92	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
Kaduha	100	90	100	100	100	100	100	100	100	100	100	100	90	100	100	100	90	90	90	90	90	100	100	80	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Munini	100	94	100	100	100	94	100	100	100	100	100	100	100	100	100	100	94	88	94	100	94	100	100	94	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	100	100	100	100	100	100	100	100	100	100	100	100	88	100	88	100	100	100	100	100	100	100	88	75	100	100	88	88	100	100	100	100	100	100	100	100	100	88	100	100	100	100	100
Kibogora	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	93	100	100	93	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
Kibuye	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92	92	100	100	100	100	100	100	100	100	100	100	92	100	100	100	100	92	100	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	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	100	100	100
Mugonero	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	86	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
Shyira	100	100	100	100	100	88	100	100	100	100	100	100	94	94	100	100	94	100	76	100	94	100	76	88	100	100	100	94	82	94	88	94	100	100	100	100	100	94	100	100	100	100	100	100	100	100	100
Muhororo	100	100	100	100	100	100	100	100	100	100	100	100	100	90	100	100	100	80	100	100	90	100	100	100	100	90	100	100	100	100	100	100	100	100	100	90	100	100	100	100	100	100	100	100	100	100	100
Kabaya	86	100	100	100	100	100	100	100	86	100	100	100	100	100	100	100	100	86	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	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	90	90	100	80	100	90	100	90
Mibilizi	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	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Gisenyi	100	100	100	100	100	100	100	100	100	94	100	100	100	100	100	100	94	100	100	100	100	100	94	100	100	100	100	100	88	88	100	88	100	100	100	100	100	100	100	100	100	100	100	100	100	100	94
Murunda	89	100	100	100	100	95	100	100	100	100	100	100	95	95	100	100	95	89	89	95	100	100	100	100	100	100	100	100	100	89	100	100	100	100	100	100	100	95	100	100	100	100	95	100	95	89	89
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	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nyarugenge	100	100	89	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	100	100	100	100	100	100	100	100	100	100	89	100	100	100	89
Muhima	100	100	100	100	100	100	100	100	100	75	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	75	100	100	100	100	100	100	100	100	75	100	100	100	100	100	100	100	100	100	100	100	100
RMH	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100	100	0	0	100	100	100	0	100	0	100	100	100	100	100	100	100	100	100	100	100	0	100	100
Masaka	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	100	92	100	100	100	100	100	100	100	100	92	92	100	100	100	92	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Kigababaga	90	86	95	95	90	95	100	100	90	100	100	100	95	95	100	95	100	100	90	100	95	95	86	95	95	81	100	100	95	100	95	81	81	86	100	95	95	95	100	100	100	81	95	95	85	95	95
Kacyiru	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	100	0	100	100	100	100	100	100	100	100	100
KFH	0	0	100	100	100	100	100	100	0	100	100	100	100	100	100	100	100	100	0	0	100	0	100	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Caraes Ndera	100	100	100	100	100	100	100	100	100	100	100	100	100	100	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	0	100	100	100	100	100
Nyabikenke	80	80	80	60	80	80	80	80	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	100	100	100	100	100	100
Rwanda	90	95	98	97	98	97	98	98	94	96	99	97	97	94	99	99	94	96	93	94	98	97	98	98	98	95	99	99	98	99	97	98	97	99	99	99	99	98	99	99	99	99	99	98	98	99	99

	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	W32	W33	W34	W35	W36	W37	W38	W39	W40	W41	W42	W43	W44	W45	W46	W47
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	100	93	100	93	93	100	100	100	93	100	86	93	86	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	100	100	100	100	100	100	100	89	100	100	100	100	100	100	100	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	100	100	100	100	100	88	100	88	88	100	100	100	100	88	100	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	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	100	78	100	100	89	100	89	89	100	89	100	100	100	100	89	100
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	100	100	100	100	100	100	100	100	100	100	100	100	100	100	75	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	100	94	100	94	100	100	100	100	100	100	94	100	94	100	100	100	100	100	100	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	100	100	100	100	100	100	100	90	100	95	100	100	100	95	95	100
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	94	94	100	100	100	94	100	89	100	100	100	100	94	100	100	94	94
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	94	88	88	94	82	88	94	88	100	65	100	100	100	100	94	100
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	100	100	100	100	100	100	100	100	100	89	100	100	100	100	89	100
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	100	100	100	100	100	93	100	100	100	100	100	100	93	100	93	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	100	86	100	100	100	100	100	100	100	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	90	100	100	90	100	90	90	90	90	95	95	95	95	95	100	95
Ruli	100	100	100	100	100	100	90	100	100	100	90	90	100	100	100	90	100	100	100	100	100	100	100	100	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	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	100	100	78	100	100	100	89	100	100	100	100	100	70	100	100	100
Ruhengeri	94	89	89	100	83	89	83	72	94	94	94	78	94	83	89	89	89	100	100	94	89	89	100	100	100	89	100	94	89	94	94	100	89	89	100	100	100	94	100	100	100	100	94	94	100	94	100
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	100	100	100	96	100	96	100	96	100	100	100	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	100	100	100	100	100	100	100	100	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	100	100	100	89	95	95	95	100	100	100	95	89	89	95	89	95
Kabgayi	100	92	92	85	92	77	92	85	85	100	92	92	92	69	92	92	69	100	100	100	92	100	92	92	100	92	100	100	92	100	92	100	100	100	100	100	100	100	100	85	92	100	100	100	100	100	92
Kibilizi	100	100	100	100	100	100	82	100	100	100	100	82	91	82	91	91	91	100	100	100	100	100	100	100	100	91	100	100	100	100	100	100	100	100	91	100	100	100	100	100	91	100	100	91	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	100	83	100	100	83	100	100	100	100	83	100	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	100	89	89	100	100	100	100	100	100	100	67	100	56	100	100	100
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	63	88	88	100	100	100	100	100	75	88	88	100	100	100	100	88
Remera 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	100	93	100	100	93	100	93	87	93	100	93	100	100	100	93	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	95	95	95	95	89	100	89	95	89	100	100	100	84	95	95	100
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	100	100	100	100	100	92	100	92	92	92	100	92	100	100	100	92
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	100	100	100	100	100	100	100	90	100	100	100	100	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	100	100	100	100	94	100	94	100	100	94	100	100	100	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	88	88	88	75	100	100	88	88	100	100	100	100	100	100	100	100	100	88	100	100	100	100	100
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	100	100	100	100	100	100	100	100	100	100	100	100	100	100	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	100	92	100	100	100	92	92	92	100	100	85	100	100	100	100	100
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	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	100	100	100	100	100	100	86	100	100	100	100	86	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	94	100	100	100	94	100	94	100	100	100	97	100	100	100	100	100
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	100	100	100	100	90	100	100	80	100	90	100	100	100	90	90	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	86	100	86	100	100	100	100	100	100	100	86	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	100	100	100	100	100	100	100	100	90	90	100	80	90	90	100	90
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	100	92	92	100	100	92	100	100	100	100	100	100	100	100	100	100
Gisenyi	100	100	94	100	100	100	100	100	100	94	94	100	100	100	88	100	88	100	100	94	100	94	88	100	94	94	100	100	81	100	100	88	100	100	88	100	100	100	100	100	100	100	100	94	94	100	94
Murunda	89	100	95	100	100	95	100	95	100	95	95	100	84	95	100	89	95	89	89	95	100	95	89	100	95	95	100	89	95	89	100	100	95	95	95	100	100	95	96	100	95	100	95	100	95	89	89
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	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nyarugenge	100	100	100	100	100	100	100	89	100	100	100	100	100	100	100	100	78	100	100	100	100	100	100	100	100	89	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	89	100	100	100	78
Muhima	100	100	100	100	100	100	100	100	100	75	100	100	100	100	100	90	75	100	100	100	100	100	100	100	100	75	100	100	100	100	100	100	100	100	75	100	100	100	100	100	75	100	100	100	75	100	75
RMH	100	100	0	100	100	0	100	100	100	100	100	100	100	0	0	100	0	100	100	100	100	100	0	100	0	0	0	100	100	100	0	100	0	100	100	0	0	0	100	100	100	100	100	0	100	100	100
Masaka	100	100	100	92	100	92	100	100	100	92	100	100	92	92	92	100	92	100	100	100	100	100	92	100	100	92	92	100	100	100	92	100	92	100	100	100	92	92	100	100	100	100	100	92	92	100	100
Kigababaga	90	81	100	90	90	95	90	100	86	100	90	90	95	76	95	90	57	100	100	100	95	95	81	95	100	67	90	100	95	95	90	81	71	76	86	100	86	86	95	100	90	81	95	95	80	90	85
Kacyiru	0	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	100	100	0	100	100	100	100	100	0	100	100	100	100	100	0	100	0	100	100	0	0	0	100	100	100	100	100	0	0	0
KFH	0	0	100	100	100	100	0	100	0	100	100	100	100	0	100	100	0	100	100	0	100	0	0	0	100	0	100	100	100	100	0	100	0	100	0	100	0	0	100	100	100	100	100	100	0	100	100
Caraes Ndera	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100	0	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	100
Nyabikenke	80	80	80	60	80	80	80	80	100	100	100	100	100	60	100	100	80	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	100	83	100	100
Rwanda	90	93	93	96	95	93	93	94	92	94	91	94	95	78	91	94	71	94	91	93	96	94	94	94	97	85	96	97	94	97	95	97	95	97	97	97	97	96	96	98	97	97	98	96	96	96	95