



# WEEKLY EPIDEMIOLOGICAL BULLETIN

## WEEK 27 – 2023

(3-9 July 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 27

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

- During the epidemiological week 26, five alerts were notified through the electronic Community Event Based Surveillance System (eCBS) including 4 human deaths (2 death in Rutsiro district, 1 death respectively in Burera districts and Nyagatare district) ,1 alert of human illness in Gicumbi district.
- One alert was identified through Epidemic Intelligence from Open Source (EIOS): Kayunga: Family of Four die from mysterious disease.

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

- 137 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 bacterial meningitis and typhoid fever.
- 8 weekly reportable diseases and health events that 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, are being reported on a weekly basis. A thorough analysis conducted for Epi Week 26 revealed that, no disease crossed the epidemic thresholds.
- A total of 51 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 the age of 5.

#### Ongoing outbreaks

In the Epi Week 27, there was five outbreaks in Rwanda:

- Ongoing Measles outbreak in Kirehe District
- Ongoing Cholera outbreak in Rubavu district
- Foodborne illness occurred in four districts: Kamonyi, Gicumbi, Burera and Kicukiro districts

#### Completeness and timeliness

In Epi Week 27, the overall completeness and timeliness of reporting in Rwanda was 99% and 96%, respectively.

## WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 27

**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 EVENT BASED SURVEILLANCE

During the Epi week 27, five alerts were received from community:

#### Four Human Deaths:

1. A person of 21-years-old, male from Kabuga village, Nyarubuye cell, Musasa sector, Rutsiro district passed away on 04/07/2023, this death was due to drowning in lake Kivu.
2. A person of 97-years-old female, from Matyazo village, Bugamba cell, Kinyababa sector, Burera district passed away on 06/07/2023 at mid night, she was complaining of abdominal pain. The cause of death is unknown.
3. A person of 83-years-old, female from Rwamiko village, Kabungo cell, Kiyombe sector, Nyagatare district passed away on 08/07/2023. The cause of death was unknown, but it was reported that he had a chronic illness.
4. A person of 72-years-old male from Cyeshero village, ngoma cell, Nyabirasi sector, Rutsiro District, passed away on 09th/07/2023. Cause of death was unknown.

#### An event of Human Illness (HI):

On 05/07/2023 the community of Rurembo Village, Nyiravugiza Cell, Manyagiro Sector, Gicumbi District, reported the event of human illness. 10 people who shared a local sorghum beer (ubushera) on July 4, 2023, from 10: am.

### MEDIA SCAN

During the Epi week 27, one alert was received through Epidemic Intelligence from Open Source (EIOS):

#### Kayunga: Family of Four die from mysterious disease

Four members of a single family in Kayunga district, Uganda country, have succumbed to a puzzling illness. The deceased individuals were residents of Kayonjo village in Busaana Town council. According to Mr. Dominic Okumu, the village chairman of Kayonjo, two family members passed away on July 5, while the other two succumbed on July 6. Dr. Ahmed Matovu, the Health Officer of Kayunga District, expressed concern over the situation and confirmed that samples had been collected from the bodies for testing. These samples were sent to Entebbe for analysis in order to determine the cause of death for the four individuals.

Dr. Matovu permitted the relatives to proceed with the burials, but he cautioned against large gatherings and the performance of burial rituals on the bodies.

Four other children from the household were admitted in critical condition to Kayunga regional referral hospital. While some residents attributed the deaths to witchcraft, Dr. Matovu dismissed such claims and advised the community to await the test results, expected on Tuesday.

<https://examiner.co.ug/news/national/2023/07/09/kayunga-family-of-four-die-from-mysterious-disease/>

## WEEKLY UPDATES ON INDICATOR BASED SURVEILLANCE (IBS) EPIDEMIOLOGICAL WEEK 27

**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 27

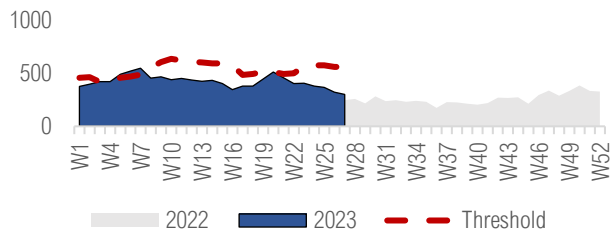
During the Epi week 27; 137 cases of immediate reportable diseases were notified, including 53 cases of foodborne illness, 33 suspect cases of measles/rubella, 8 confirmed cases of severe malaria, 26 suspected cases of bloody diarrhea, 1 suspected cases of acute flaccid paralysis, 10 cases of mumps, 3 suspected cases of typhoid fever, 1 suspected case of bacterial meningitis and 2 cases of cholera confirmed by RDT. (See figure below).

#### Notes:

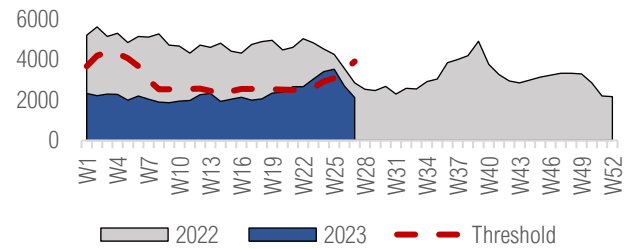
- For the diseases requiring laboratory confirmation, the samples were collected and sent to the National Reference Laboratory for testing, except for some diseases whose samples were not sent, including bloody diarrhea and typhoid fever. For 15 samples measles/rubella sent to NRL in the previous week, all were tested negative.
- Regarding the treatment, confirmed cases and suspected cases for the diseases had been managed at the health facility level. The health facilities are recommended to collect the sample and send them to NRL for confirmation as required.



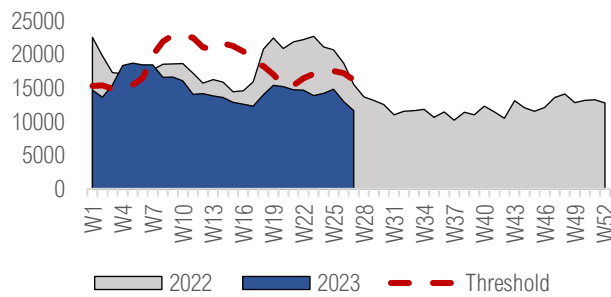
**Trend of severe pneumonia <5years reported in Epi week 27**



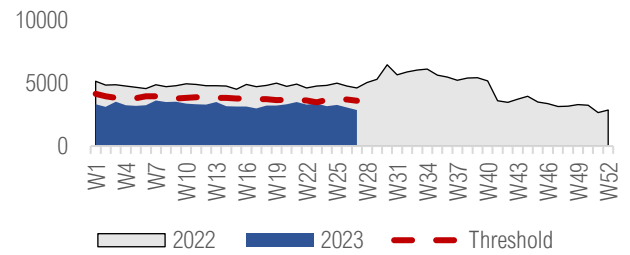
**Trend of simple malaria reported in Epi week 27**



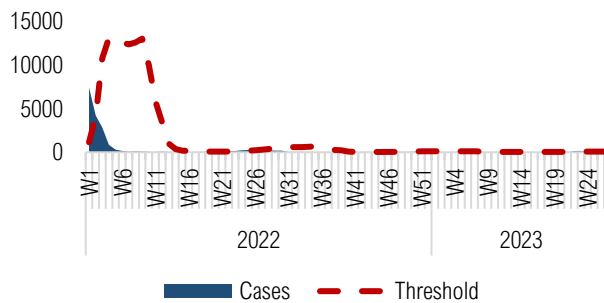
**Trend of Flu syndrome reported in Epi week 27**



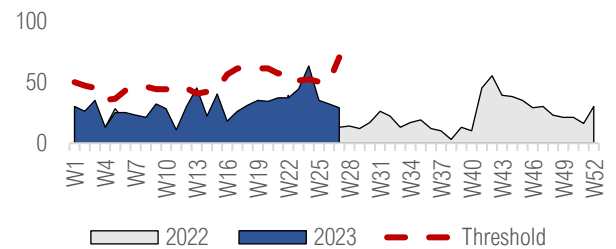
**Trend of Non bloody diarrhea reported in Epi week 27**



**Trend of COVID-19 cases in week 27**

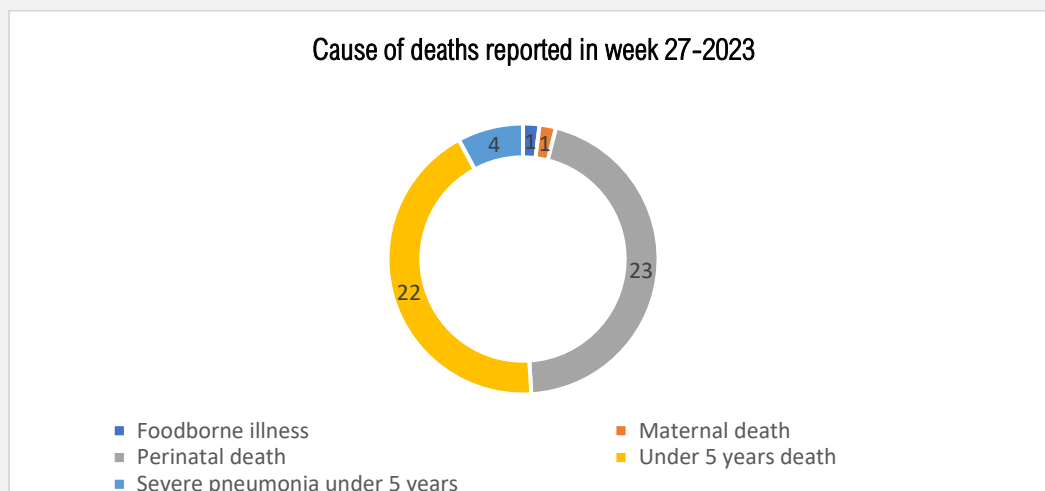


**Trend of rabies exposure (dog bite) cases in week 27**



## B. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 27

In Epi week 27, as summarized in the Pie Chart below, a total number of 51 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 23 (45%) were classified as perinatal, 22 (43%) are deaths of children under 5 years old. Among the under 5 children died, 4 deaths (8%) were due to severe pneumonia. There was also 1(2%) maternal death and 1(2%) death due to foodborne illness.

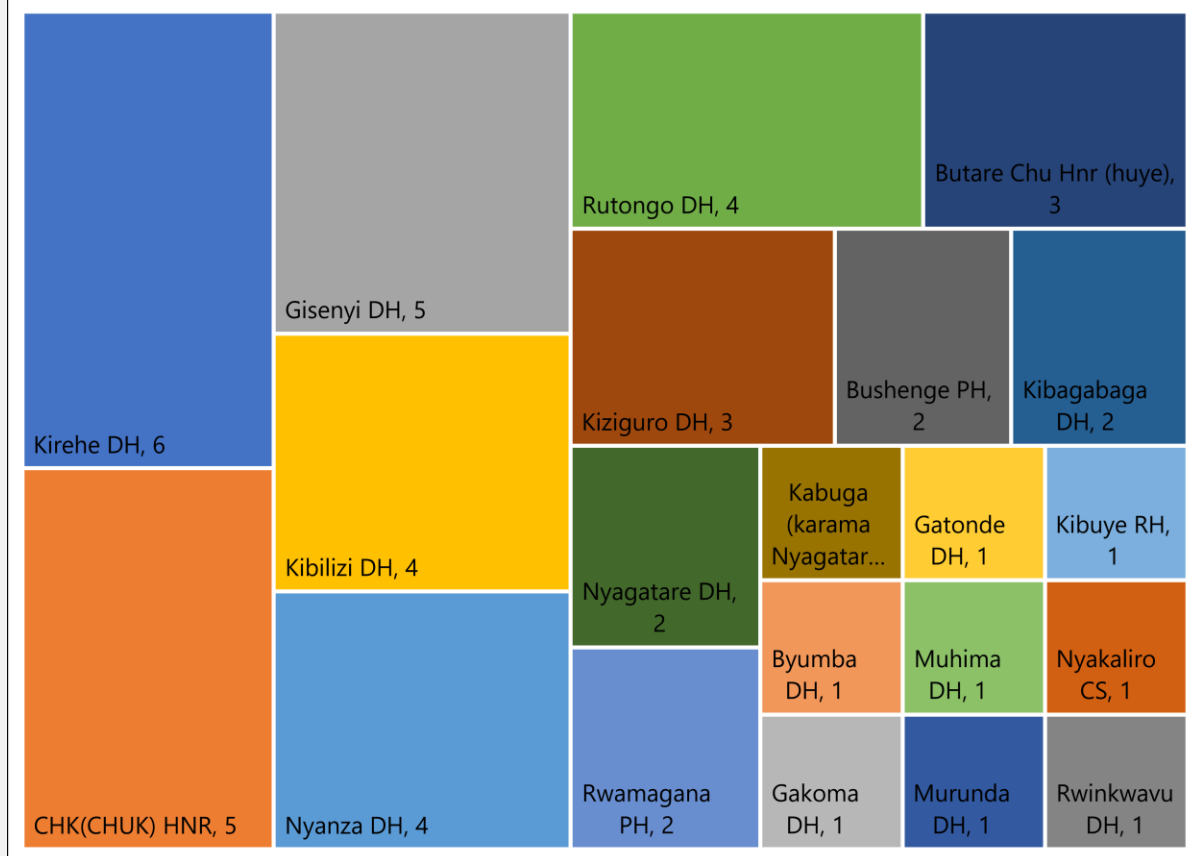


*Cause of deaths declared in epi week 27*

Deaths were reported from various catchment areas as follow:

- 6 deaths were reported in Kirehe DH
- 5 deaths were reported respectively in Chuk and Gisenyi DH.
- 4 deaths were reported respectively in Nyanza DH, Kibirizi DH and Rutongo DH
- 3 deaths were reported respectively in Kiziguro DH and CHUButare
- 2 deaths were reported respectively in Rwamagana PH, Nyagatare DH, Kibagabaga DH
- 1 death was reported respectively in Byumba DH, Gakoma DH, Muhima DH, Murunda DH, Rwinkwavu DH, Gatonde DH, Kibuye RH, Kabuga HC (in Gatunda DH), Nyakaliro HC in Rwamagana PH). (See figure below).

Deaths reported in week 27-2023



## OUTBREAK AND EVENT UPDATES EPIDEMIOLOGICAL WEEK 27

### 1. MEASLES ONGOING OUTBREAK

Confirmed cases	20	Date reported:	February 27, 2023	Risk assessment	Low
Epi link cases	65	Source:	NRL, eIDSR		
Death(s)	0	District/HFs:	Kirehe/Mahama Refugee Camp		
Total cases	85	Geoscope:	Low		

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

During Epi Week 27; no additional confirmed cases were found in Mahama Refugee camp by laboratory confirmation in the previous week, however, eight suspected cases had been identified, the samples were sent at laboratory; then, that makes the total laboratory confirmed 20 and 65 cases confirmed by epidemiological link.

#### Ongoing interventions

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



## 2. CHOLERA ONGOING OUTBREAK IN RUBAVU DISTRICT

Confirmed cases	37	Date reported:	June 14, 2023	Risk assessment	Low
Suspected cases	0	Source:	eIDSR		
Death(s)	1	District/HFs:	Rubavu/ Kigufi HC,		
Total cases	37	Geoscope:	Low		

### Outbreak description:

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

As of 11th July, 37 cases meeting cholera case definition have been recorded with 3 confirmed by stool culture and 34 confirmed by RDTs. For the outcome of patients, 36 were cured, 1 died (a female aged of 14), and 2 cases are still hospitalized in Kigufi HC. Additionally, 36 cases originate from Nyambyumba sector, and 1 case from Murara sector. The source of infection was the use of unsafe water, poor hygiene and sanitation.

### Interventions:

- From 21st to 25th June 2023, PHS&EPR Division in collaboration with Gisenyi DH conducted a 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
- Improve the reporting mechanisms and the effective communication and provide interim reports (update on daily basis including the line list)
- To reinforce community surveillance for early detection and active search of new cases

## 3. FOODBORNE ILLNESS IN KAMONYI DISTRICT

Confirmed cases	5	Date reported:	July 03, 2023	Risk assessment	Low
Suspected cases	12	Source:	eIDSR		
Death(s)	0	District/HFs:	Kamonyi/ Remera Rukoma DH,		
Total cases	17	Geoscope:	Low		

**Outbreak description:** On 3rd July 2023 during a night /23h30, Remera Rukoma DH received 16 patients presenting headache, vomiting, diarrhea, and abdominal pain after consuming banana Juice on 1st July 2023 in

a baptism ceremony in Gahungeri Village, Gisheshe Cell, Rukoma Sector, Kamonyi District. 7 were Males and 10 were Females, 9 were from same household, and 8 cases were their neighbors. The patients were treated by the district hospital.

Stool and blood samples have been taken as follows: 14 stool samples for culture by NRL, the result of stool culture availed salmonella species among 5 samples. Samples of juice consumed during the ceremony have been collected for investigation by the Rwanda forensic laboratory for testing.

#### Interventions:

- Provide health education and raise awareness about the importance of seeking healthcare.
- Management of cases

### 4. FOOD POISONING IN GICUMBI & BURERA DISTRICT

Confirmed cases	0	Date reported:	July 05, 2023	Risk assessment	Low
Suspected cases	46	Source:	eIDSR		
Death(s)	0	District/HFs:	Gicumbi/ Kigogo HC; Burera/Kivuye HC		
Total cases	46	Geoscope:	Low		

**Outbreak description:** On July 5, 2023, patients presented to Kigogo HC and Kivuye HC complaining vomiting, diarrhea, abdominal pain, and fever. They all shared a local sorghum brew (ubushera) on July 4, 2023, in the house of one neighbour, in Rurembo Village, Nyiravugiza Cell, Manyagiro Sector, Gicumbi District, during a social function. The function was also attended by 19 people who came from Mushunga Village, Nyirataba Cell, Kivuye Sector, Burera District.

Around 50 people are estimated to have drunk the ubushera, 19 of them were visitors from Burera. 10 have consulted Kigogo HC, 19 consulted Kivuye HC, 17 persons had signs but did not seek care at health facility, while only 4 persons did not have signs. The attack rate was 92%. No deaths have been recorded (CFR:0%). All patients have been treated and discharged. No stool sample taken.

#### Interventions:

- Treatment of patients who consulted the HC
- Active case search
- Community education on hygienic practices

### 5. FOOD POISONING IN MASAKA DH

Confirmed cases	0	Date reported:	July 05, 2023	Risk assessment	Low
Suspected cases	9	Source:	eIDSR		
Death(s)	1	District/HFs:	Kicukiro/ Masaka DH Rwamagana/Nyakaliro HC		
Total cases	9	Geoscope:	Low		




**Outbreak description:** on 05th July 2023, afternoon, total of 9 patients presented to Nyakariro HC complaining frequent watery Diarrhea, abdominal pain, headache, mild dehydration, and some with vomiting. They all shared a local sorghum beer (ubushera) on July 4, 2023. 1 boy of 13 years old died that night due to severe diarrhea and vomiting. On 06/07/2023, early morning, Nyakariro HC transferred 8 patients to Masaka DH for further management of the cases. Stool samples were taken and sent to NRL; the results showed that there was no isolation of pathogenic bacterium.

**Interventions:**

- Treatment of patients
- 4 stool samples were collected to send to NRL.
- Advised Nyakariro HC to work with local leaders and CHWs for case search.
- Rwamagana PH is recommended for active event follow-up.
- Taking a sample of sorghum beer for testing

## eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 27

*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 27, the overall completeness and timeliness of reporting in Rwanda were 99% and 96%, respectively. With regards to completeness of surveillance reports, almost all hospitals had the high completeness (>80%), except one hospital that had a low score (less than 60%): Rwanda Military Hospital.

The overall timeliness score was 96%. almost all hospitals had the high timeliness (>80%), except two hospital that had a moderate score: Gahini DH and Nyamata DH; and one hospital that had a low score (less than 60%): Rwanda Military Hospital.

**Notes:** To achieve the effective surveillance and early detection of outbreaks, few health facilities that had not a high score are recommended to improve their reporting indicators (timeliness and completeness), submit the report not later than Monday before 12:00.

Details, on completeness and timeliness for all health facilities are showed in the figure below.

	Completeness																														
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
Nyamata	100	94	100	94	100	100	100	100	100	100	100	100	100	100	100	88	88	100	94	100	94	100	100	100	88	88	88				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
Kabgayi	100	100	92	85	100	92	92	92	92	100	100	92	92	85	100	100	92	100	100	92	100	100	100	100	92	100	100				
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				
Kakoma	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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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				
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	0	0	0				
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				
Kigababaga	90	86	95	95	90	95	100	100	90	100	100	100	95	95	100	95	100	90	100	90	95	95	86	95	95	81	100				
Kacyiru	0	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				
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				
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				
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				
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	98	99				



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