



WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 51 – 2023

(18-24 December 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 51

Event Based Surveillance (EBS) Highlights:

- During the epidemiological week 51, one human death was notified through the electronic Community Event Based Surveillance System (eCEBS).
- One alert was identified through the Epidemic Intelligence from Open Source (EIOS):
WHO warns mpox could spread around the world again

Indicator Based Surveillance (IBS) Highlights:

- 166 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, severe malaria, typhoid fever, cholera and chicken pox.
- For 8 weekly reportable diseases and health events, a thorough analysis conducted for Epi Week 51 revealed that severe pneumonia for under 5 years surpassed the epidemic thresholds.
- A total of 52 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 51

Foodborne outbreak in Ruhango district

Completeness and timeliness

In Epi Week 51, the overall completeness and timeliness of surveillance data reporting in Rwanda was 98% and 80% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 51

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 51, one human death was notified from community through eCBS:

1 death of a female of 76 years old, from Ngororero district, Kavumu sector, Rugeshi cell, Kabeza cell, she had an unknown disease and died at home after being discharged by hospital.

MEDIA SCAN

One alert from EIOS: **WHO warns mpox could spread around the world again**

As of 12/20/2023, seven months after the World Health Organization downgraded mpox from a global threat, an outbreak in Africa could go beyond the continent's borders. After a year in which nearly 90,000 people were infected with mpox, and 140 people died, the World Health Organization downgraded the disease in May 2023 from its status as a global health emergency. Mpox, formerly known as monkeypox, had spread rapidly in the third year of the COVID-19 pandemic when awareness of public health was at a maximum.

"Mpox continues to pose significant public health challenges that need a robust, proactive and sustainable response," said WHO chief, Tedros Adhanom Ghebreyesus, at the time. And he was right. By mid-December, the WHO was sounding the mpox alarm again. On December 15, the WHO warned that an epidemic of mpox in the Democratic Republic of Congo (DRC) could spread internationally, as a rise in sexual transmissions had been detected. Japan's health ministry reported two days earlier (December 13) that the country had seen its first fatality from mpox. There are ongoing outbreaks in Asia in Japan, Cambodia, Indonesia, Vietnam and China so, the case needn't have come from Africa. But Rosamund Lewis, the WHO's technical lead for mpox, said the organization was "concerned" about further international transmission from the DRC. There was a "rapidly expanding outbreak in the country," she explained, with more than 13,000 suspected cases of the disease more than 1,000 per month and up to or more than 600 deaths so far.

<https://www.dw.com/en/who-warns-mpox-could-spread-around-the-world-again/a-67754081>

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 51

During this Epi week, 166 cases of immediate reportable diseases were notified:

- 26 cases of chicken pox were reported by 17 HFs. No HF crossed the threshold.
- 38 cases of mumps were reported by 14 HCs. No HF crossed the threshold.
- 20 suspected cases of bloody diarrhea (Shigellosis) were reported by 14 health facilities. For samples sent to NRL in the previous week 50, no sample was tested positive for shigella dysenteriae.
- 61 suspected cases of Measles/Rubella were reported by 39 HCs, the samples were taken and sent to NRL, results are pending.
- 9 cases of severe malaria were reported by 4 health facilities, including Byumba DH, Nemba DH, Rutongo DH, Rwinkwavu DH and Kageyo I (Kayonza in Gahini DH).
- 1 suspected case of typhoid fever was reported by CHUB, the sample was sent to laboratory for testing, the result was positive, the patient was admitted in hospitalization, treated, cured and discharged.
- 4 cases of acute flaccid paralysis were reported by 3 health facilities: Huye police HC, Kabaya DH and Mushaka HC (Mibilizi DH).
- 6 cases of foodborne illnesses were reported in Ruhango HC.
- ## cholera....is missing here

Notes:

- For the diseases whose cases crossed the thresholds, District Hospitals are recommended to strengthen surveillance, investigate and reinforce control measures accordingly. Concerned hospitals include: Kabutare DH, CHUB, Kabaya DH, Mibilizi DH, Byumba DH, Nemba DH, Rutongo DH, Rwinkwavu DH
- All confirmed cases and suspected cases had been managed at the health facility level.

Immediate reportable diseases week 51-2023

Map showing the distribution of immediate reportable diseases in Week 51-2023 across various districts. The map includes a legend for the diseases and a scale bar.

Legend:

- Immediate reportable diseases W51
- Acute Flaccid Paralysis (Blue square)
- Bloody Diarrhea (Shigellosis) (Red square)
- Cholera (Pink square)
- Foodborne illness (Dark blue square)
- Measle Rubella (Cyan square)
- Typhoid Fever (Magenta square)
- Chicken Pox - Varicella (Yellow square)
- Mumps (Green square)
- Severe malaria (Brown square)
- District boundaries (Grey outline)

Districts shown on the map: Nyagatare, Gatsibo, Kayanza, Kirehe, Ngoma, Bugesera, Ruwagana, Gasabo, Gicumbi, Rukundo, Gakenke, Burera, Musanze, Rubavu, Nyabihu, Rutsiro, Ngororero, Muhanga, Kamonyi, Karongi, Ruhango, Nyanza, Nyanzise, Nyanzige, Nyanzuru, Huye, Gisagara, Rusizi, Nyamashuke, and Nyamagabe.

Scale: 25 0 25 50 km

Distribution of immediate reportable diseases in Epi week 51

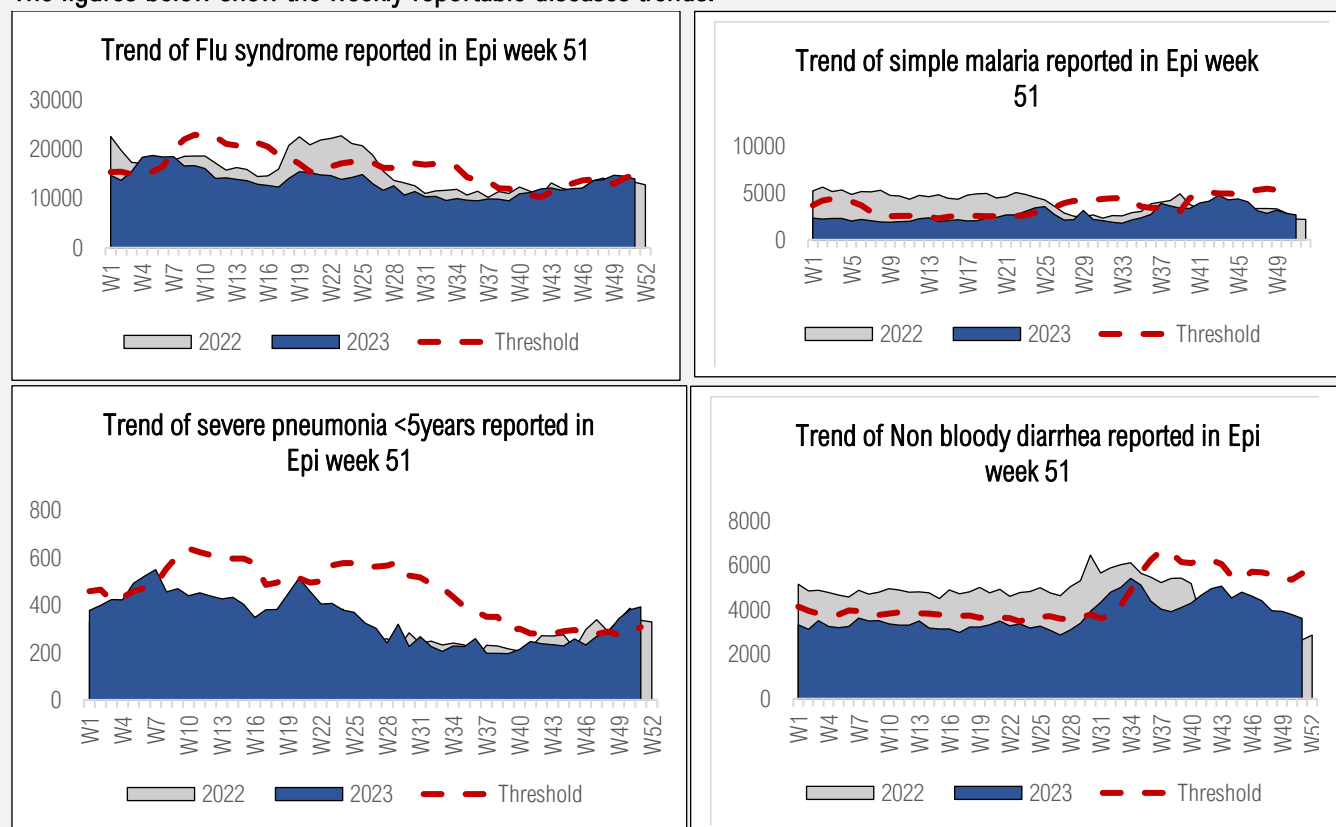
B. WEEKLY REPORTABLE DISEASES – EPI WEEK 51

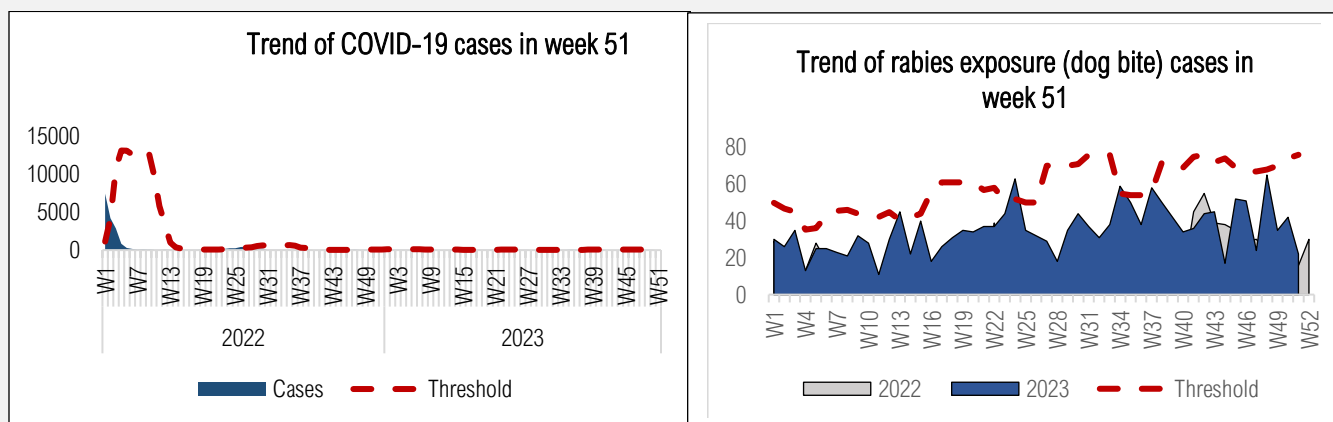
Description: In Rwanda, after the adaptation of the IDSR guidelines 3rd edition, eight diseases events are being reported and analyzed on a weekly basis. These include flu syndrome, simple malaria, severe pneumonia for under 5 years, non-bloody diarrhea for under 5 years, COVID-19, dog bites, brucellosis,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

In Epi Week 51, 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 severe pneumonia for under 5 years surpassed the epidemic threshold, especially in the following hospitals: Gihundwe DH, Gisenyi DH, Kirehe DH, Kirinda DH, Masaka DH, Mibilizi DH, Muhororo DH, Remera Rukoma DH, Ruhango PH and Rwinkwavu DH.

Note: for severe pneumonia of under 5 years which had the cases that crossed the thresholds, the concerned hospitals are recommended to investigate.

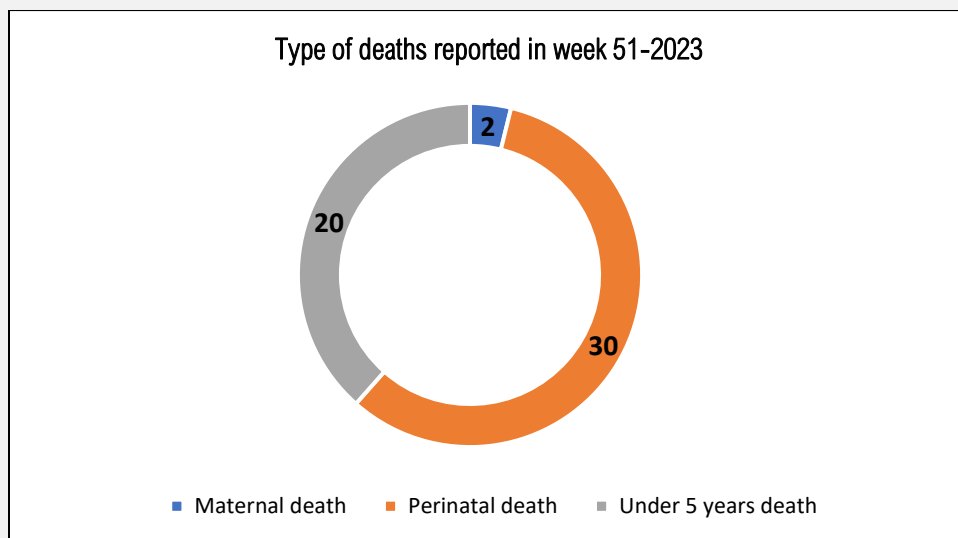
The figures below show the weekly reportable diseases trends:





C. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 51

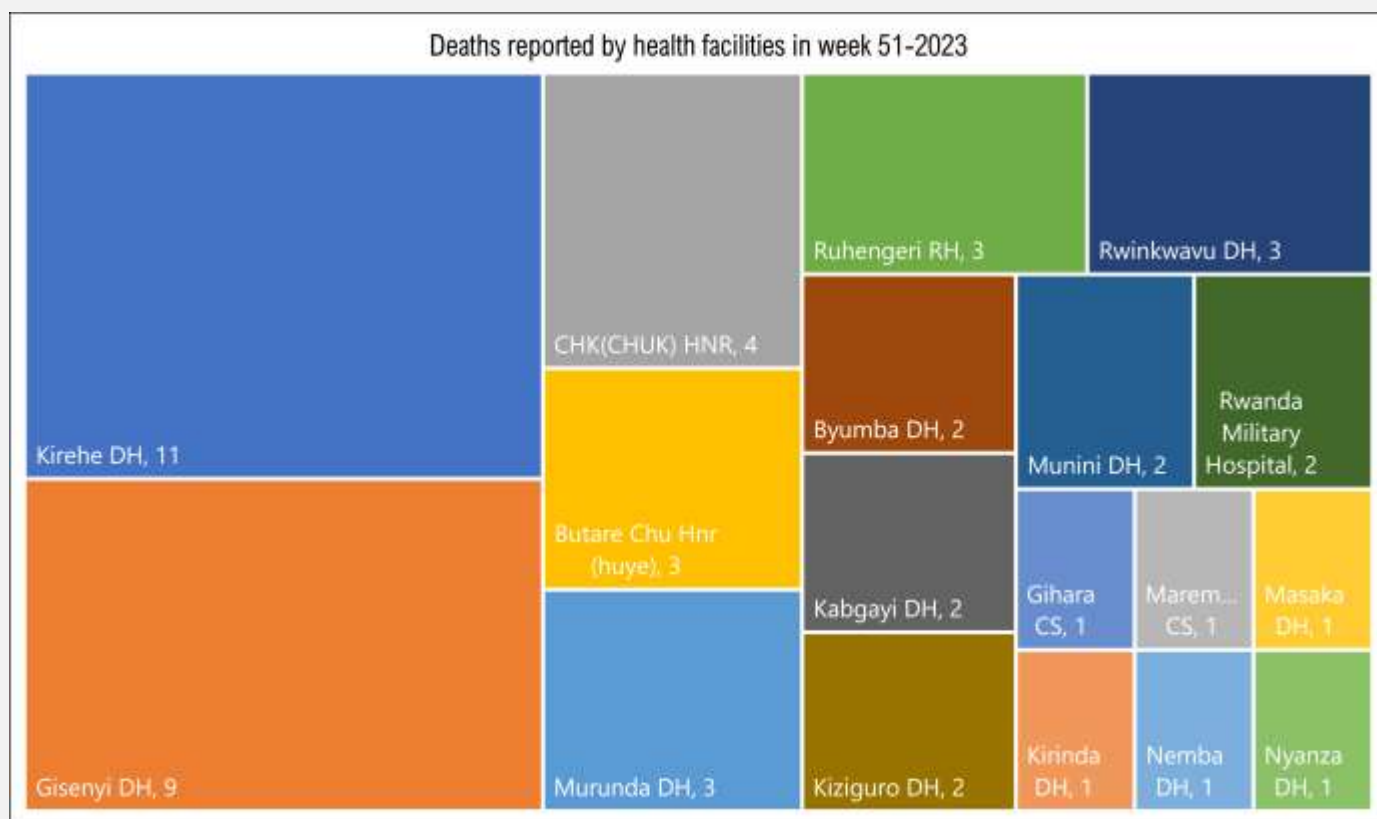
As summarized in the Pie Chart below, a total number of 52 deaths were reported through the electronic Integrated Disease Surveillance and Response (eIDSR) system. Among these deaths, 30 (58%) were perinatal, 20 (38%) were deaths of children under 5 years old (included 2 deaths due to severe pneumonia of under 5 children, and 2 (4%) maternal deaths.



Cause of deaths declared in epi week 51

52 deaths were reported from various catchment areas as follow:

- 11 deaths were reported by Kirehe DH; including 8 perinatal deaths, and 3 deaths of under 5 years.
- 9 deaths were reported by Gisenyi DH; including 5 perinatal and 4 deaths of under 5 years (including 1 death due to severe pneumonia)
- 3 deaths were reported respectively by CHUB, Ruhengeri RH, Rwinkwavu DH and Murunda DH
- 2 deaths were reported respectively by Byumba DH, Munini DH, Kabgayi DH, Rwanda Military Hospital and Kiziguro DH
- 1 death was reported respectively by Kirinda DH, Masaka DH, Nemba DH, Nyanza DH, Gihara HC, Marembo HC



Distribution of deaths by health facilities in Epi week 51

OUTBREAK AND EVENT UPDATES IN EPIDEMIOLOGICAL WEEK 51

FOODBORNE OUTBREAK IN RUHANGO DISTRICT RUHANGO SECTOR, NYANGONA CELL, NGURUKIZI VILLAGE

Confirmed cases	0	Date reported:	December 23, 2023	Risk assessment	Low
Suspected cases	6	Source:	eIDSR		
Death(s)	0	District/HFs:	Ruhango HC/ Ruhango PH		
Total cases	6	Geoscope:	Low		

Outbreak description:




On 23th Dec, 2023, 6 cases of the same family from Ngurukizi Village, Nyangona cell, Ruhango sector consulted Ruhango HC with abdominal pain, nausea, vomiting and diarrhoea after eating spoiled potatoes, pumpkin (Ibirayi n'inyungu bigaze) and beans (cooked in the last 3 days) at their home.

Interventions conducted:

- All cases were treated at HC and discharged
- Health education related to food safety
- Case notification via IDSR system

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 51

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 51, the overall completeness and timeliness of disease surveillance data reporting in Rwanda was 98% and 80%, respectively. With regards to completeness of surveillance reports, many hospitals had a high completeness (>80%). However, one hospital had a moderate completeness (Kibagabaga DH) and two hospitals had a low completeness (Rwanda Military Hospital and King Faysal Hospital). For the timeliness, the overall score was 80%. However, ten hospitals had a moderate timeliness score (Kirehe DH, Ngarama DH, Gatunda DH, Rwinkwavu DH, Gatonde DH, Kinihira PH, Ruhengeri RH, Nyanza DH, Kibogora DH, Muhima DH), while eight hospitals had a low timeliness score (Gahini DH, Butaro DH, Gitwe DH, Kabgayi DH, Kabutare DH, Bushenge PH, Kibagabaga DH, Nyarugenge DH, Rwanda Military Hospital, King Faysal Hospital, Kacyiru DH and CARAES Ndera). **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 showed in the figures 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	W28	W29	W30	W31	W32	W33	W34	W35	W36	W37	W38	W39	W40	W41	W42	W43	W44	W45	W46	W47	W48	W49	W50	W51	
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	100	93	100	100	100	100	100	93	100	100	93	100	100	100	100	100	100	86	100	100	100	93	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	100	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	
Ngarara	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	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	100	92	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92	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	100	89	100	100	100	100	100	100	100	89	100	89	100	89	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Rwinkwavu	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	100	88	100	100	100	100	100	
Kibungo	94	100	94	100	100	100	100	100	100	100	100	100	94	100	100	100	94	100	100	100	100	100	100	94	100	100	100	100	100	100	94	100	100	100	100	100	100	100	100	100	100	94	100	100	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	95	100	100	100	95			
Rwamagana	76	71	88	100	100	94	100	100	94	100	88	94	100	100	100	100	100	94	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	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	88	88	88	94	100	88	100	88	94	100	88	94	100	100	100	100	100	100	100	94	100	100	100	100	100	100	100		
Kinithira	100	100	100	100	100	100	89	89	100	89	89	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	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	93	100	93	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	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	95	100	95	100	90	100	100	100	100	100	100	95	75	100	100	100	85	95	100	100	100	100	100	100	100	100	100	100	100	100	100	100	90	100	90	90		
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	100	100	100	100	
Nemba	100	100	100	100	100	89	100	100	100	89	100	100	89	100	100	89	100	89	100	100	89	100	89	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	90	100	100	90	90	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	94	89	100	100	100	100	100	100	100	100	100	100	94	100	100	94	100	94	94		
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	100	100	100		
CHUB	0	100	100	100	100	100	100	100	0	0	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	100	100	100	100		
Kabutare	84	95	100	100	95	95	95	95	89	95	95	100	89	100	100	89	95	100	100	100	89	100	100	100	89	100	100	100	100	95	100	100	100	95	95	95	100	100	100	100	100	100	100	95	89	100	100	100	100	100		
Kabagayi	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	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92	100	100	100	100	
Kibizi	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	100	91	100	100	100	100	100	100	100	100	91	100	100	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	100	100	83	100	100	100	100	100	100	100		
Gilwe	100	100	89	100	100	78	100	100	100	100	100	100	89	100	100	78	89	100	89	100	89	100	89	100	67	100	100	100	100	100	89	100	89	100	100	100	100	100	100	100	100	100	100	67	100	100	100	100	89	100		
Ruhango	88	100	100	100	88	88	75	88	88	100	100	63	75	63	63	75	80	88	75	63	88	63	100	100	100	75	100	100																								

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