Republic of Rwanda
Ministry of Health

Rwanda Biomedical Centre
Healthy People, Wealthy Nation

WEEKLY EPIDEMIOLOGICAL BULLETIN

WEEK 52- 2024

(23_29 December 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 52/2024

Event Based Surveillance (EBS) Highlights:

- Alerts from community: 48 alerts

6 human illness, 35 human deaths, and 4 animal illness/deaths.

- Alerts from EIOS: 1 alert

Mystery disease detected in Congo is "a mixture of malaria, common respiratory viruses and acute malnutrition," WHO says.

- Indicator Based Surveillance (IBS) Highlights:
    - 238 immediate reportable diseases were notified by 91 health facilities countrywide. These include cases of acute flaccid paralysis (AFP), suspected cases of chicken pox, confirmed severe malaria; suspected cases of bloody diarrhea, suspected measles/rubella, suspected Mpox, suspected cases of typhoid fever, mumps, human rabies and snake bite.
    - 68 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.
- Outbreaks and events updates in week 52

Weekly updates on ongoing outbreaks:

- Ongoing outbreak:
    - Mpox
- New outbreak:

No new outbreak occurred

- Completeness and timeliness

In Epi Week 52, the overall completeness and timeliness of surveillance data reporting in Rwanda was 97% and 94% respectively.

WEEKLY UPDATES ON EVENT BASED SURVEILLANCE (EBS) EPIDEMIOLOGICAL WEEK 52

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.

- **Alerts from community: 48 alerts**

6 human illness reported 6 villages, 35 human deaths reported in 32 villages, and 4 animal illness/deaths reported in 4 villages, 2 dog bites reported in 2 villages.

- **Alerts from EIOS: 1 alert**

Mystery disease detected in Congo is "a mixture of malaria, common respiratory viruses and acute malnutrition," WHO says

A mysterious flu-like illness with dozens of deaths has hit the Democratic Republic of Congo. A combination of common and seasonal viral respiratory infections and falciparum malaria, aggravated by acute malnutrition, has led to an increase in severe infections and deaths. Children under five years of age are disproportionately affected: they account for 47% of cases and 54% of all deaths.
https://gphin.canada.ca/cepr/showarticle.jsp?docId=1018065247

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 52

During this Epi week, 238 cases of immediate reportable diseases were notified by 91 health facilities:

- 7 suspected cases of bloody diarrhea (Shigellosis) were reported by 6 health facilities. The samples were taken and sent to NRL.
- 23 cases of chicken pox(varicella) were reported by 12 health facilities.
- 10 suspected cases of Measles/Rubella were reported by 9 HCs. Samples were taken and sent to NRL. Among the samples tested in December 2024, the results showed 2 cases tested positive on

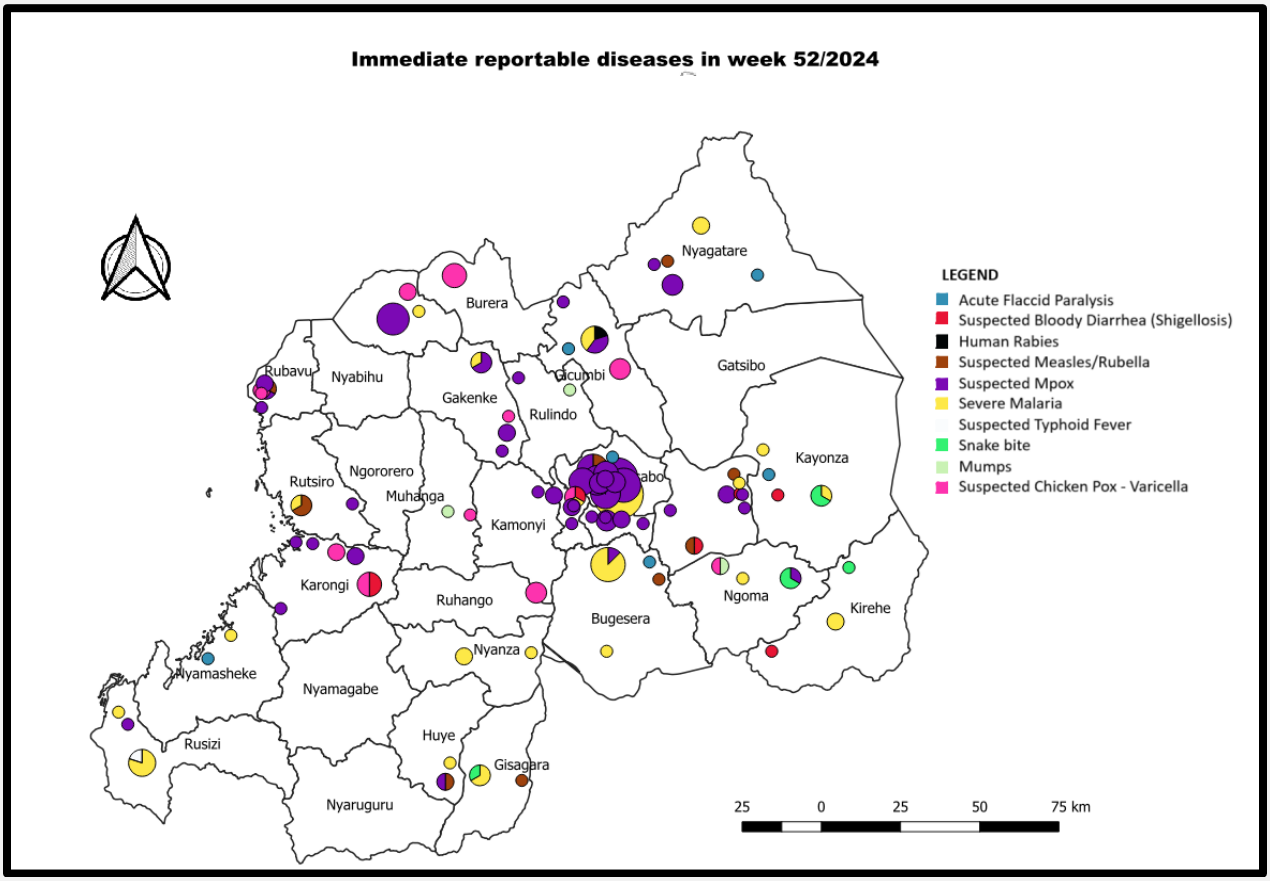
Measles/Rubella, 2 cases tested positive on Measles and 1 case tested positive on Rubella, they were reported by different districts.

- 49 cases of confirmed severe malaria were reported by 22 health facilities.
- 6 cases of acute flaccid paralysis were reported by 6 health facilities, the samples were taken and sent to NRL for transportation to UVRI laboratory.
- 132 suspected cases of Mpox were reported by 46 health facilities, 4 cases were tested positive.
- 6 cases of snake bite were reported by 4 health facilities.
- 3 cases of mumps were reported by 3 health facilities.
- 1 suspected case of typhoid fever was reported by 1 health facility, the sample was taken and sent to NRL.
- 1 case of human rabies was reported by 1health facility.

Notes:

✓ The hospitals with surpassed thresholds are recommended to conduct the investigations and implement control measures accordingly

Geographical distribution of immediate reportable disease cases notified during the epi week 52/2024



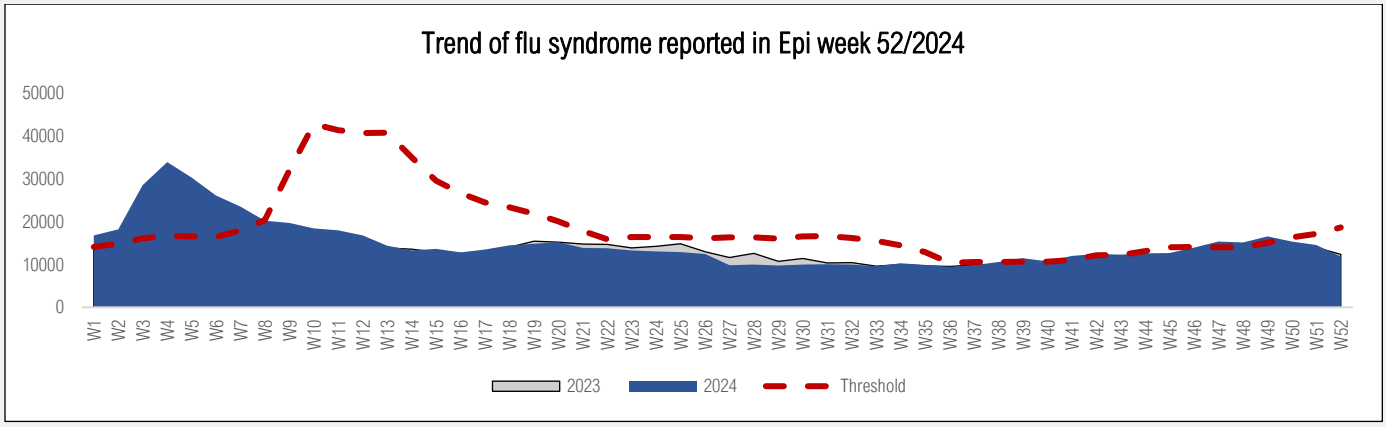
Distribution of immediate reportable diseases in Epi week 52

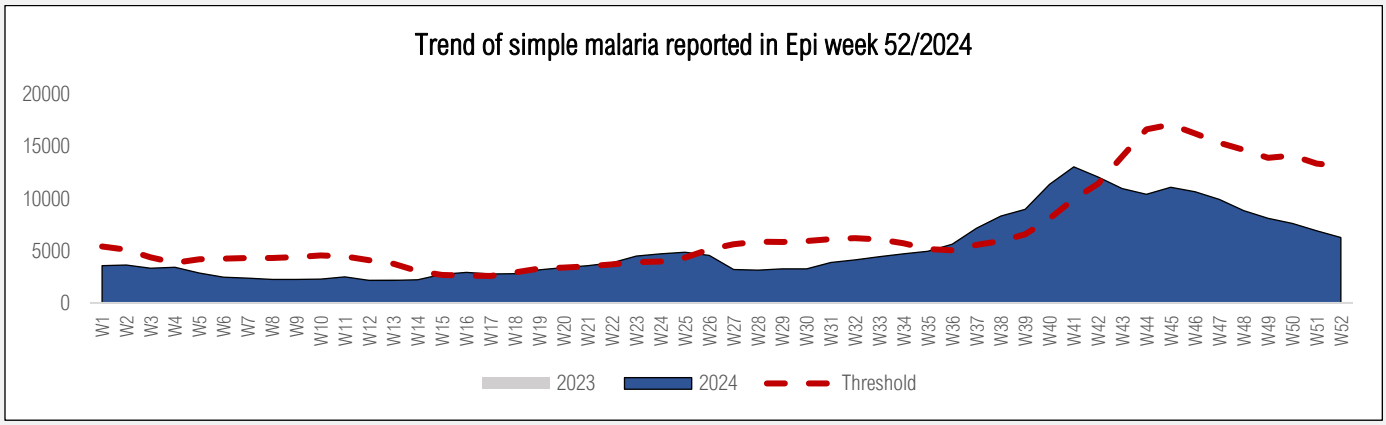
A. WEEKLY REPORTABLE DISEASES – EPI WEEK 52

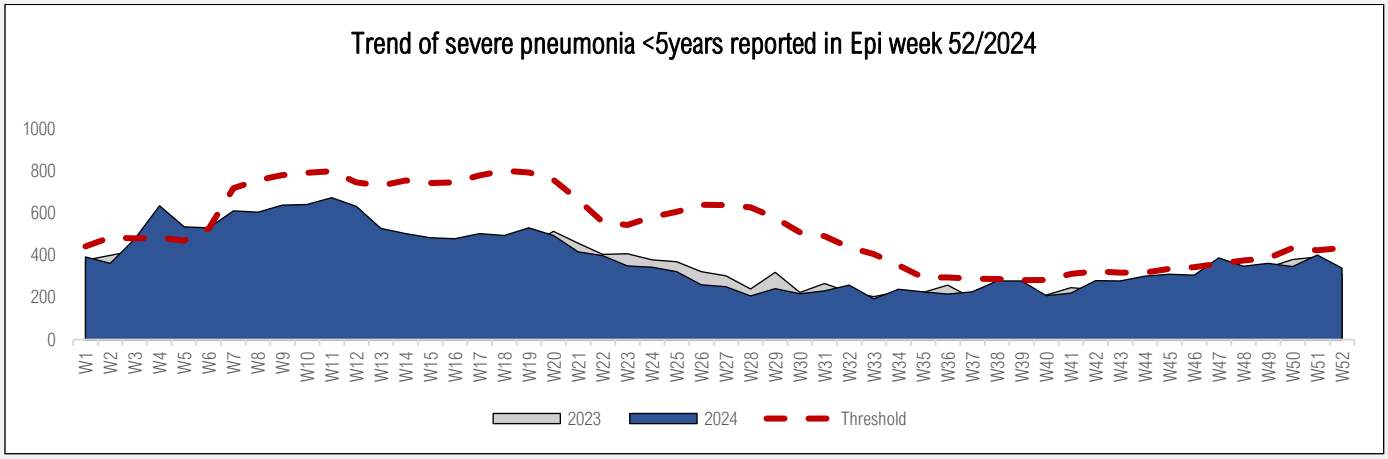
Description: *In Rwanda, after the adaptation of the IDSR guidelines 3rd edition, eight diseases events are being reported and analyzed on a weekly basis. These include flu syndrome, simple malaria, severe pneumonia for under 5 years, non-bloody diarrhea for under 5 years, COVID-19, dog bites, brucellosis,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

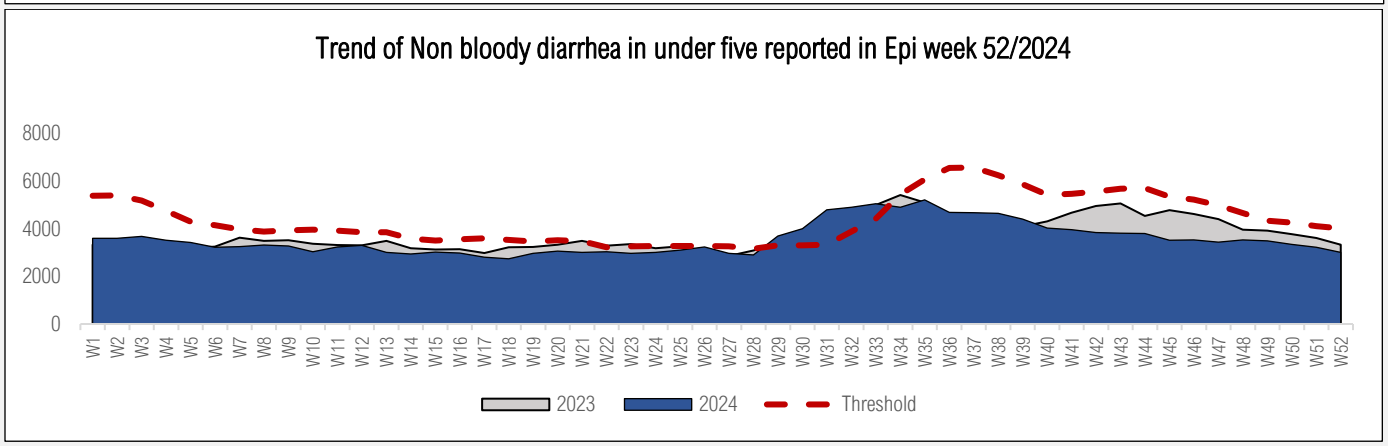
In Epi Week 52, a thorough analysis was conducted, comparing the number of reported cases of the eight diseases monitored on a weekly basis to their respective epidemic thresholds. The results of the analysis revealed that no disease surpassed the epidemic thresholds.

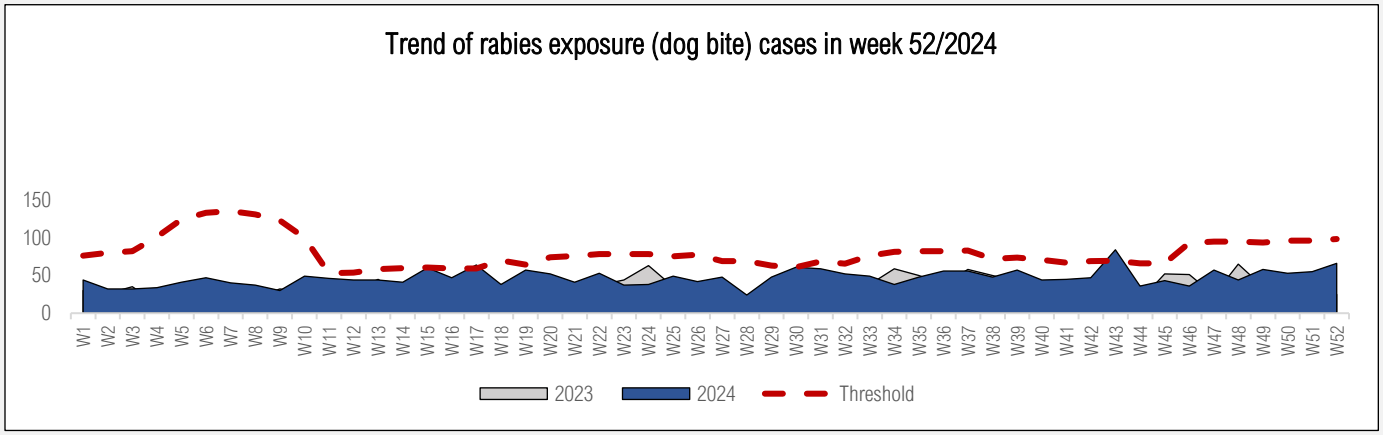
The figures below show the weekly reportable diseases trends:

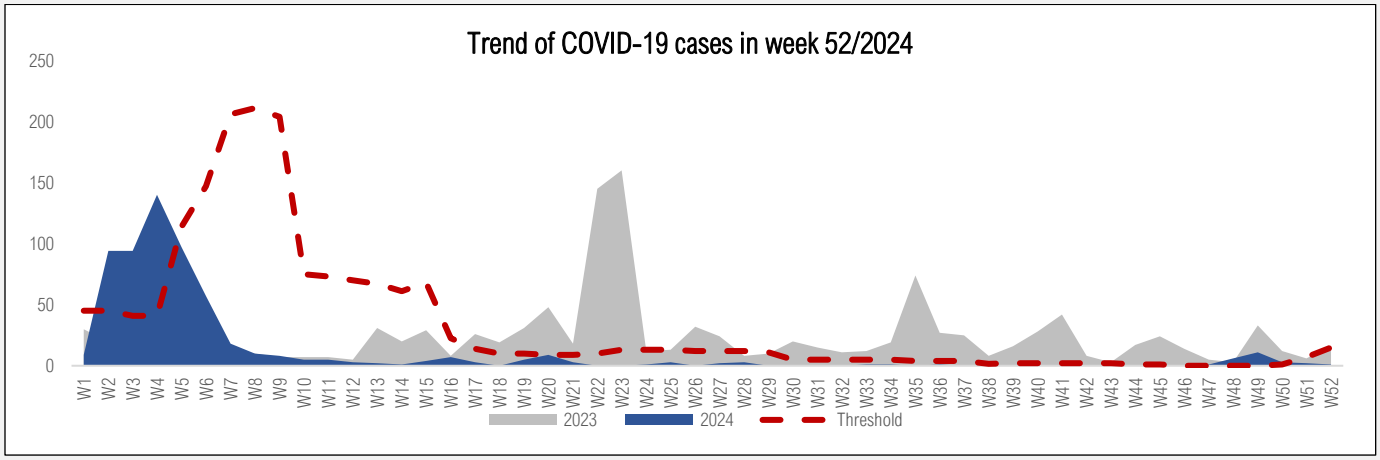





Trend of severe pneumonia <5years reported in Epi week 52/2024
1000
800
600
400
200
0
W1 W2 W3 W4 W5 W6 W7 W8 W9 W10 W11 W12 W13 W14 W15 W16 W17 W18 W19 W20 W21 W22 W23 W24 W25 W26 W27 W28 W29 W30 W31 W32 W33 W34 W35 W36 W37 W38 W39 W40 W41 W42 W43 W44 W45 W46 W47 W48 W49 W50 W51 W52
2023
2024
Threshold

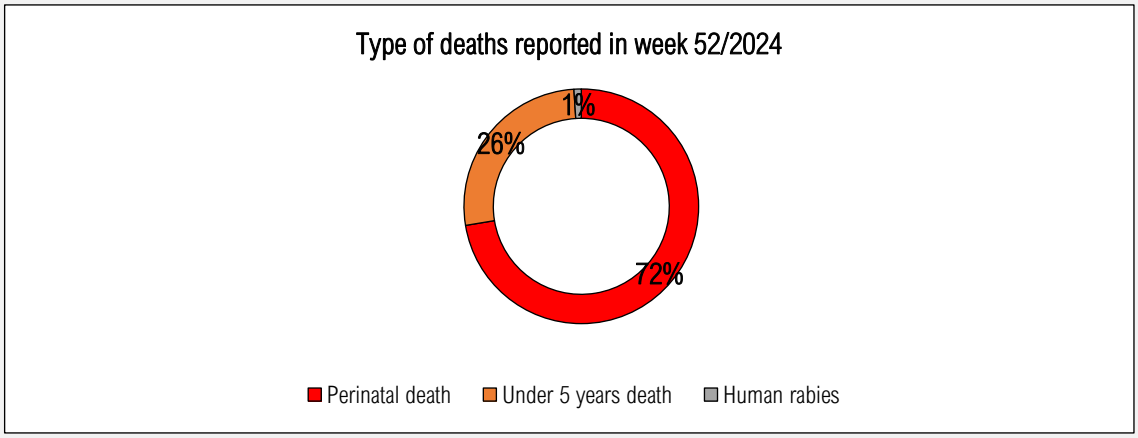

Trend of Non bloody diarrhea in under five reported in Epi week 52/2024
8000
6000
4000
2000
0
W1 W2 W3 W4 W5 W6 W7 W8 W9 W10 W11 W12 W13 W14 W15 W16 W17 W18 W19 W20 W21 W22 W23 W24 W25 W26 W27 W28 W29 W30 W31 W32 W33 W34 W35 W36 W37 W38 W39 W40 W41 W42 W43 W44 W45 W46 W47 W48 W49 W50 W51 W52
2023
2024
Threshold


Trend of rabies exposure (dog bite) cases in week 52/2024
150
100
50
0
W1 W2 W3 W4 W5 W6 W7 W8 W9 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 W52
2023
2024
Threshold



B. DISTRIBUTION OF REPORTED DEATHS IN eIDSR – EPIDEMIOLOGICAL WEEK 52

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, 49(72%) were perinatal deaths, 18(26%) were the deaths of children under 5 years old, and 1(1%) death due to human rabies.



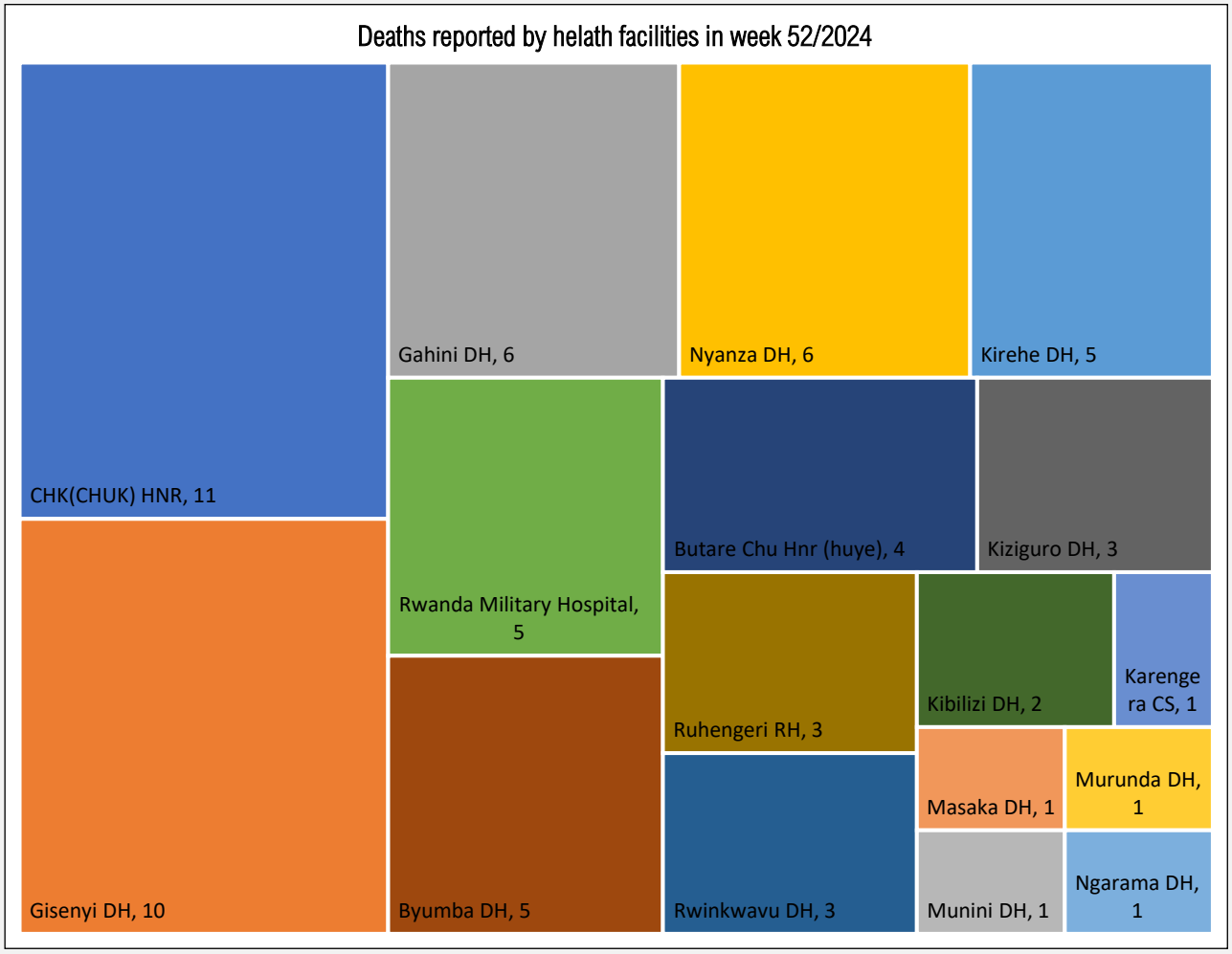
Cause of deaths declared in epi week 52

68 deaths were reported from various catchment areas as follow:

- A total of 11 deaths were reported by CHUK (5perinatal deaths and 6under 5 years deaths).
- A total of 10 deaths were reported by Gisenyi DH (8perinatal deaths and 2under 5 years deaths)
- A total of 6 deaths were reported respectively by Gahini DH (6perinatal deaths) and Nyanza DH (2 perinatal deaths and 4 under 5 years deaths)
- A total of 5 deaths were reported respectively by Kirehe DH (5perinatal deaths), Rwanda Military Hospital (4 perinatal deaths and 1 under 5 years death) and Byumba DH(3 perinatal deaths,1under five years death AND 1 death due to human rabies)
- A total of 4 deaths were reported by CHUB (3 perinatal deaths and 1under five years death).
- A total of 3 deaths were reported respectively by Kiziguro DH and Ruhengeri RH (each one reported 3 perinatal deaths) and Rwinkwavu DH reported 2perinatal deaths and1under five years death.

- A total of 2 deaths were reported by Kibilizi DH, all were perinatal deaths
- 1death was reported by 5 health facilities: Masaka DH, Murunda DH, Ngarama DH (each reported one perinatal death); while each one of two following health facilities reported one under-five death: Karengera HC in Kibogora DH and Munini DH.

Distribution of deaths by health facilities:



Distribution of deaths by health facilities in Epi week 52

OUTBREAK AND EVENT UPDATES IN EPIDEMIOLOGICAL WEEK 52

1. Ongoing Mpox outbreak in Rwanda

Rwanda confirmed its first two cases of Mpox on July 24, 2024. The current situation, as of 29th December 2024 is as following:

- Cumulative suspected cases: 5618
- New suspected cases: 132
- Total confirmed cases: 82
- New confirmed cases: 4
- Cases currently under follow-up: 18

- Total discharged cases: 64
- New discharged cases: 6

Actions taken

In response to the Mpox outbreak, several key interventions are being implemented at central and district levels, where Incident Management System for Mpox is activated to enhance preparedness and strengthen response efforts. Key interventions are being implemented, including enhanced surveillance, case management, ring vaccination, and public awareness campaigns.

2. New outbreak

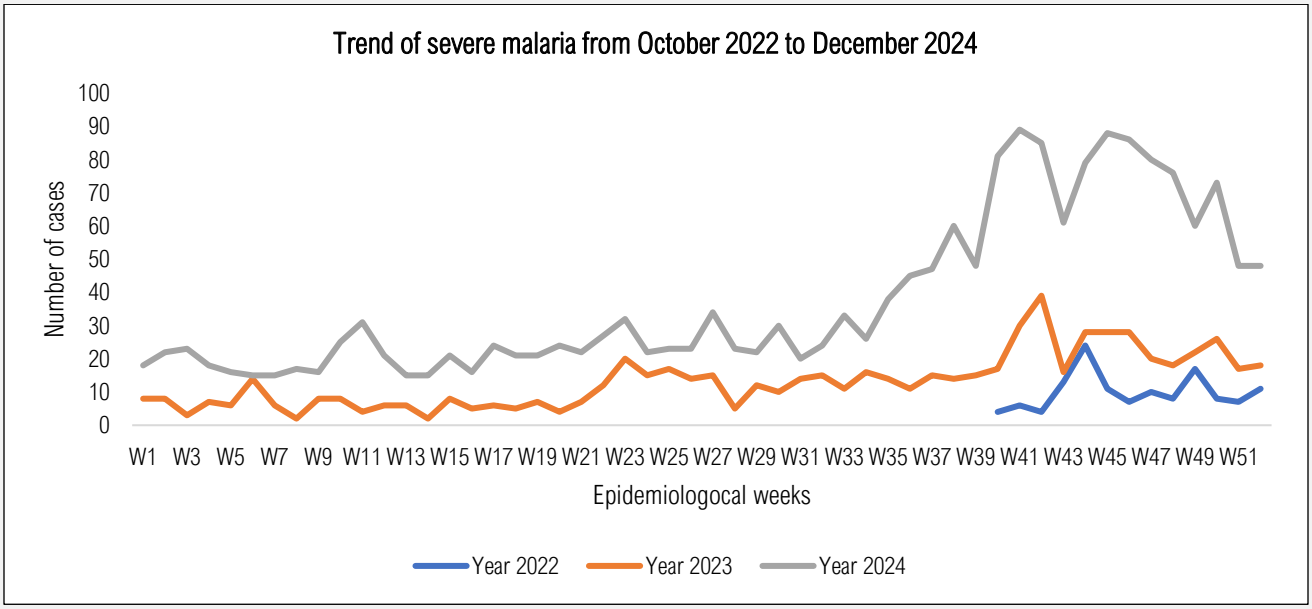
No new outbreak occurred in this week.

3. Key highlights in week 52

Trend of malaria cases in health facilities from 2022 to 2024

3.1 Trend of severe malaria from October 2022 to December 2024

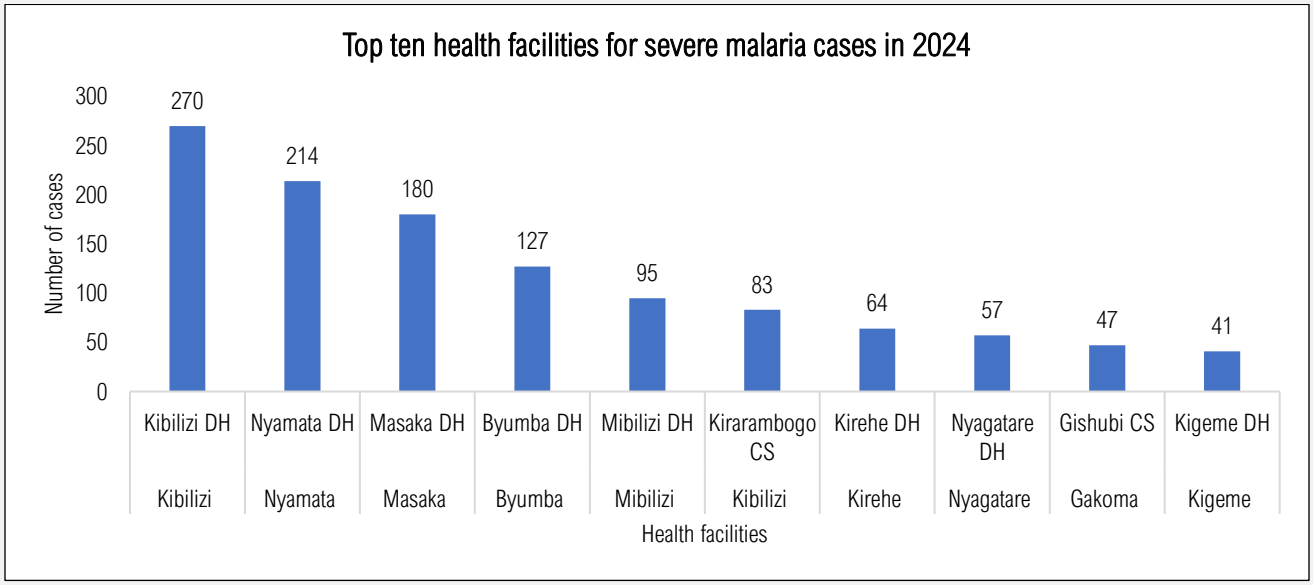
This trend shows an increase in severe malaria cases every year, especially in 2024 compared with 2023, mostly from week 35 to week 49.



Source: e-IDSR on 9th January 2025

3.2 Top ten health facilities for severe malaria cases in 2024

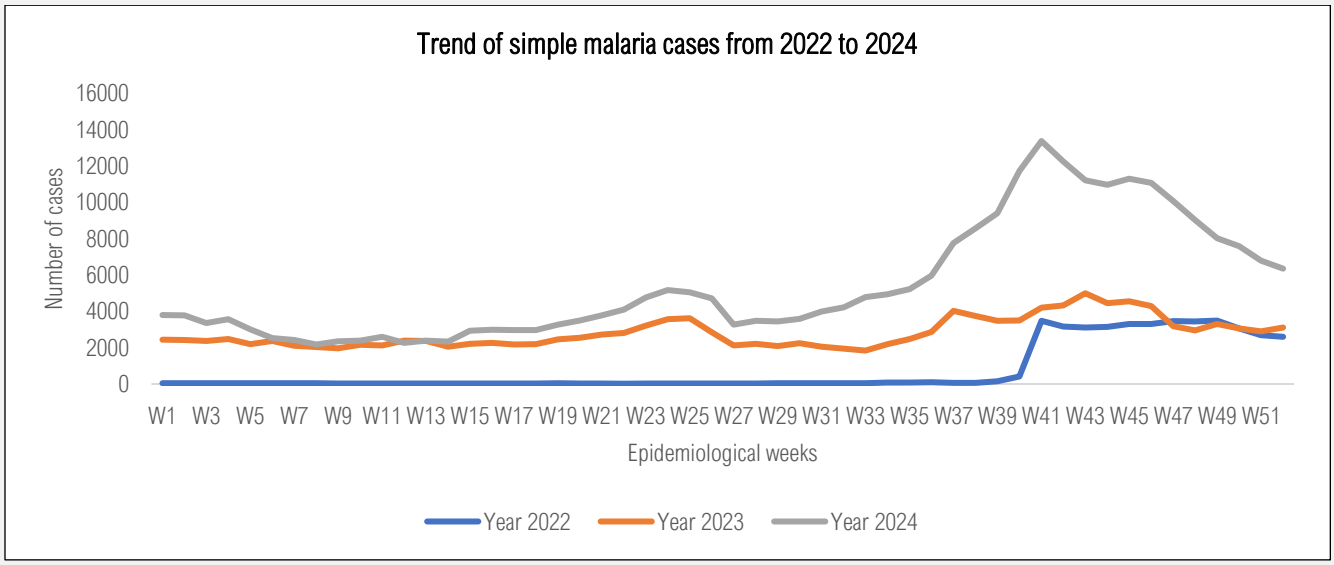
Among the top ten health facilities, four are located in Southern province (Kibilizi DH, Kirarambogo HC, Gishubi HC, Kigeme DH, while three health facilities are located in Eastern province (Nyamata DH, Kirehe DH, Nyagatare DH) and other three HFs are located in different provinces.



Source: e-IDSR on 9th January 2025

3.3 Trend of simple malaria cases from 2022 to 2024

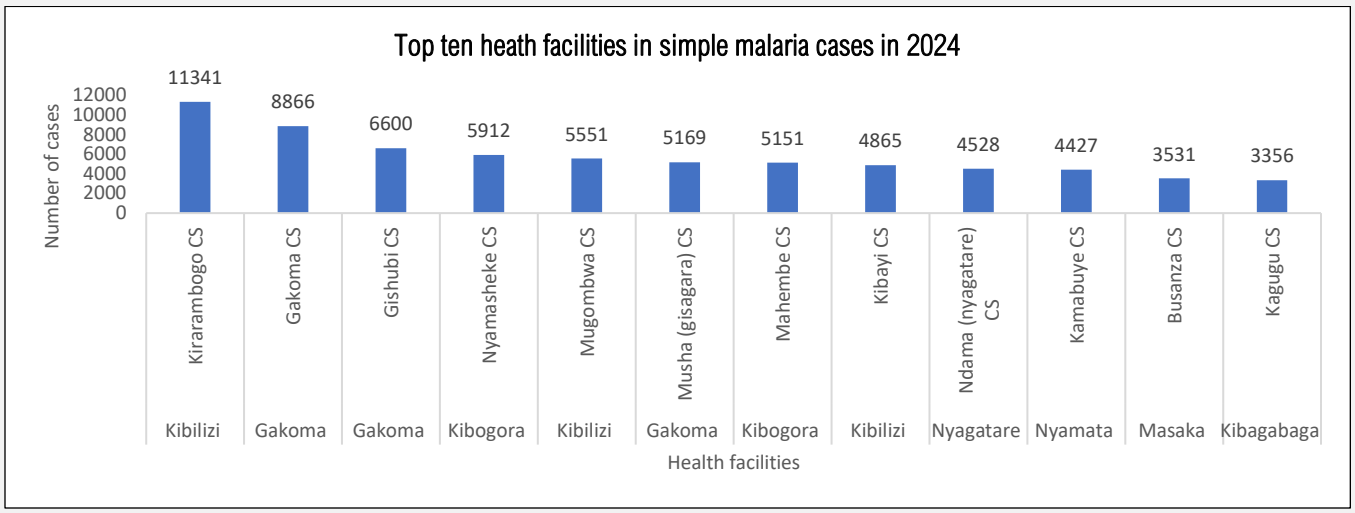
This trend shows an increase in simple malaria cases every year, from 2022 to 2024; especially from week 37 to week 40.



Source: e-IDSR on 9th January 2025

3.4 Top ten heath facilities in simple malaria cases in 2024

Among the top ten health facilities, six are located in Southern province (Kirarambogo HC, Gakoma HC, Gishubi HC, Mugombwa HC, Musha HC, Kibayi HC).



Source: e-IDSR on 9th January 2025

eIDSR REPORTS COMPLETENESS & TIMELINESS EPIDEMIOLOGICAL WEEK 52

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 52, the overall completeness and timeliness of disease surveillance data reporting in Rwanda, was scored to 97% and 94%, respectively. Almost all hospitals had a high completeness score above 80%, except two that had a moderate score: Rwamagana PH, Nemba DH and one hospital that had a low timeliness score: Kacyiru police hospital. For the timeliness, almost all hospitals had high scores (>80%) except three hospitals that had a moderate score: Rwamagana PH, Gatunda DH, Nemba DH; and one hospital that had a low timeliness score: Kacyiru police hospital.

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.

| | Completeness | | |

| | Timeliness | | |

| | Timeliness | | |