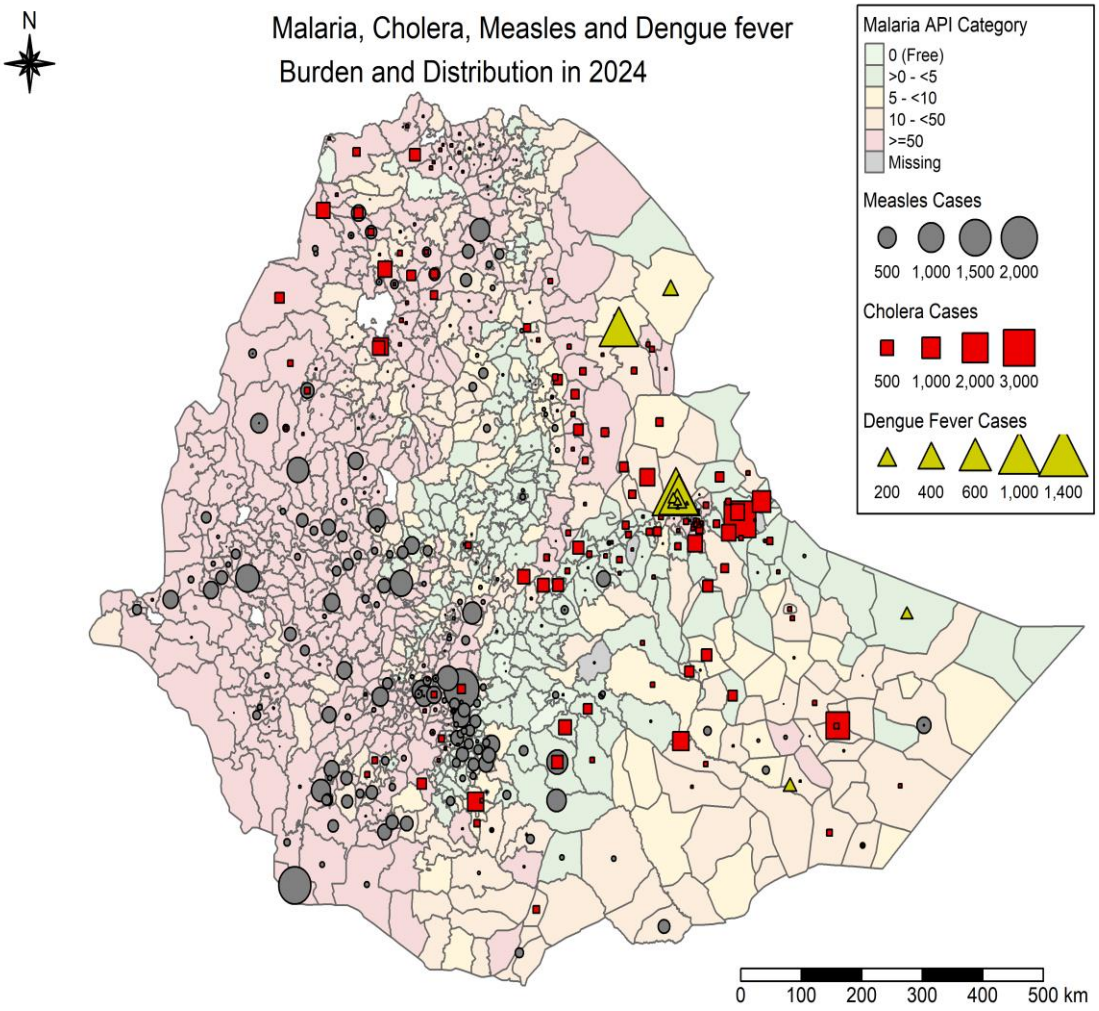
Ethiopian Public Health Emergency Management Annual Epidemiological Bulletin 2024

Public Health Emergency Management (PHEM), Ethiopian Public Health Institute

April 2025

Spatial distribution of major disease outbreaks in Ethiopia, 2024



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FOREWORD

The Ethiopian Public Health Institute's Public Health Emergency Management (PHEM) center has been engaged in, early warning, surveillance, prevention, and response of Public Health Emergencies (PHEs) in the country. The PHEM system is a strategically structured, multi-layered framework that operates from national to community levels. Recently, the national PHEM prepared this first annual PHEM epidemiological bulletin which is very crucial for monitoring and understanding public health trends, detecting outbreaks, and informing public health interventions.

The bulletin analyzes key trends, challenges, and successes in addressing public health threats, along with recommendations for actions aimed at safeguarding public health. It presents a comprehensive overview of epidemiological data from PHEM for the year 2024, offering insights into priority diseases, events, and conditions in PHEMs. The data contained in this bulletin has been collected from health facilities through disease surveillance system across the country, using both electronic and paper-based reporting format.

I hope that the evidence presented in the bulletin provides valuable insights into disease surveillance, outbreak detection, and emerging hazards, allowing for proactive measures to protect public health. I expect, it is also a crucial resource for national and sub national health authorities, policymakers, planners, non-governmental organizations, and international agencies who directly or indirectly involved in public health interventions in facilitating informed decision-making and communication.

The publication of this bulletin owes gratitude to the unwavering dedication of many individuals. I would like to express my sincere appreciation to all the EPHI experts who played an active role in the preparation of this bulletin. I would also like to acknowledge the regional health bureaus, zonal and woreda health departments, and health professionals across the country for their ongoing commitment. Their contributions of routine surveillance data have been essential, along with their primary responsibilities in delivering healthcare services.

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ACKNOWLEDGEMENT

The preparation of this first ever Annual Epidemiological Bulletin (2024) would not have been possible without the invaluable contributions and support from numerous stakeholders.

First and foremost, we extend our sincere appreciation to the bulletin preparation, reviewer and editorial team, as well as all health services providers and the broader health sector structures from national to district levels across the nation. Your dedicated efforts in compiling and submitting health data through the PHEM system have been crucial in ensuring the availability of accurate, timely and comprehensive information.

We also express our deepest gratitude to our collaborative government sector stakeholders, non-governmental organizations, and other partners who continue to support the public health emergency programs in the country.

List of Abbreviations and Acronyms

- **AEFI** – Adverse Events Following Immunization
- **AFP** – Acute Flaccid Paralysis
- **API** – Annual Parasite Incidence
- **CFR** – Case Fatality Rate
- **CTCs** -Cholera Treatment Centers
- **CTUs**- Cholera Treatment Units
- **COVID-19** – Coronavirus Disease 2019
- **DHN** – Diarrhea with Dehydration
- **DM** – Diabetes Mellitus
- **EBS** -Event-Based Surveillance
- **EPHI** – Ethiopian Public Health Institute
- **GIS** – Geographic Information System
- **HEWs**- Health Extension Workers
- **HIV** – Human Immunodeficiency Virus
- **IDP**- Internally Displaced Person
- **IDSR** – Integrated Disease Surveillance and Response
- **IEC** – Information Education and Communication
- **IHR** – International Health Regulations
- **IMS** – Incident Management System
- **IOM** – International Organization for Migration
- **IRS**- Indoor residual spraying
- **ITN**- insecticide-treated net
- **MAM** – Moderate Acute Malnutrition
- **MSF-H** – Médecins Sans Frontières - Holland
- **OCV**-Oral Cholera Vaccine
- **PHEM** – Public Health Emergency Management
- **PHEOC**-Public Health Emergency Operation Center
- **PLHIV**- Peoples living with HIV
- **PLW** – Pregnant and Lactating Women
- **RCCE**-Risk Communication and Community Engagement
- **RDT** – Rapid Diagnostic Test
- **RRT** – Rapid Response Team
- **RSV**- Respiratory Syncytial Virus
- **SAM** – Severe Acute Malnutrition
- **SARS** – severe acute respiratory syndrome
- **SARI** – Severe Acute Respiratory Infection
- **TB** – Tuberculosis
- **U5** – Under-five
- **UNICEF** – United Nations International Children's Emergency Fund
- **WHO** – World Health Organization

Operational definitions

- **Alert Threshold**: Predefined case count/rate triggering investigation
- **Annual Parasite Index (API)**: Malaria cases per 1,000 population/year.
- **Case Fatality Rate (CFR)**: The proportion of individuals diagnosed with a specific disease (cases) who die from that disease within a defined time period. Its calculated by dividing the total number of deaths by the total number of reported cases.
- **Completeness**: The proportion of expected surveillance reports received from reporting sites.
- **Confirmed Case**: An individual who meets the clinical case definition of a specific disease and/or is laboratory-confirmed through reliable diagnostic testing, regardless of the presence or absence of clinical symptoms.
- **Disease**: an illness or medical condition, irrespective of origin or source that presents or could present significant harm to humans.
- **Event:** a manifestation of disease or an occurrence that creates a potential for disease
- **IDSR (Integrated Disease Surveillance and Response**): National reporting system for priority diseases
- **Immediately Reportable Disease**: Notification of suspected outbreak from level to level within 30 minutes of identification
- **Incidence Rate**: New cases per 100,000 population.
- Incident Management System) Activated for outbreaks requiring multi-sector coordination.
- **Line Lists**: Detailed case records.
- **Morbidity**: The state of being unhealthy for a particular disease or situation.
- **Mortality**: The number of deaths that occur in a population.
- **Multi-Hazard Approach**: Any health hazard, irrespective of their origin or source, including those caused by biological (both of an infectious and non-infectious nature)
- **Outbreak**: A sudden increase in occurrences of a particular disease in a specific time and place.
- **Priority diseases**: Diseases of interest at national and international levels,(In Ethiopia 36 diseases and conditions (22 immediately and 14 weekly).
- **Rapid Response Team (RRT)**: Deployed for outbreak investigation/containment.
- **Sentinel Surveillance**: Data from designated sites
- **Surveillance**: The ongoing, systematic collection, analysis, and interpretation of health data for planning, implementation, and evaluation of public health practice.
- **Suspected Case**: A patient meets clinical criteria for a disease
- **Test Positivity Rate**: Lab-confirmed cases /total tested × 100.
- **Threshold**: are markers that indicate when something should happen or change.
- **Timeliness**: The percentage of surveillance reports submitted within the designated reporting period
- **Weekly Reportable Disease**: Reporting of the total number of cases and deaths seen within a week (Monday to Sunday).

0. Highlights

In 2024, Ethiopia's national PHEM surveillance system achieved 88.5% data completeness and 86.6% timeliness.

There were 10,467,483 malaria cases and 1,343 deaths (CFR: 0.01%), showing a 2.5-fold increase from 2023. Through cluster IMS activation, vector control, and targeted response, CFR was kept low despite the case surge.

Dengue fever cases declined by 28% to 7,144, with 4 deaths (CFR: 0.05%), following seasonal awareness and environmental control activities.

A total of 30,808 measles cases and 240 deaths were reported (CFR: 0.78%). An 18% decrease from 2023 was observed, with response supported through national IMS activation, root-cause analysis, and mass vaccination.

Cholera affected 235 woredas, resulting in 27,145 confirmed cases and 270 deaths (CFR: 1%), prompting the activation of IMS, establishment of CTCs and CTUs, vaccination campaigns, water chlorination, and public health education as key interventions.

A total of 7,338 samples were tested for Severe Acute Respiratory Infections (SARI). Among these, 4.81% (353 cases) tested positive for Influenza, 6.01% (441 cases) for RSV, and 3.19% (234 cases) for COVID-19.

In 2024, 1,168 AFP cases were detected, and 45 cVDPV2 polio cases were confirmed, with no associated deaths; two rounds of polio vaccination campaigns were conducted in five regions with over 95% administrative coverage, supported by IMS activation.

A total of 11,481 suspected meningitis cases were reported in 2024, indicating a 21.6% increase from 9,434 suspected cases in 2023, highlighting the need for enhanced surveillance and laboratory confirmation.

Suspected anthrax cases rose to 3,038 in 2024, a 61.8% increase compared to 1,877 in 2023.

Despite reductions in TB and HIV incidence, there were 69,279 newly confirmed TB cases and 21,027 newly confirmed HIV cases reported in 2024, indicating sustained burden and the need for continued prevention and care efforts.

Although neonatal tetanus is considered eliminated, 139 suspected cases were reported in 2024, leading to 80 deaths (CFR: 57.5%), stressing the need to improve maternal immunization and clean delivery practices.

Acute malnutrition remained a major challenge, with 2,329,065 reported cases of MAM and SAM among under-5 children and PLW; 410,225 were SAM cases with 642 under-5 deaths (CFR: 0.16%).

A total of 151,401 diarrhea with dehydration cases and 159,534 severe pneumonia cases were reported among under-5 children, resulting in 52 and 783 deaths respectively; severe pneumonia had a CFR of 0.4% while diarrhea had 0.03%.

Dysentery accounted for 439,589 reported cases and 11 deaths, indicating the need for strengthened WASH interventions and outbreak containment strategies.

A total of 170,506 scabies cases were reported in 2024, reflecting a 41.7% decrease compared to 2023, suggesting improved hygiene and prevention measures.

Suspected relapsing fever cases reached 9,870, a 52.1% increase from 2023, with 74 associated deaths, emphasizing the need for vector control and early diagnosis.

A total of 13,262 suspected rabies exposures were reported, with 47 related deaths in 2024, marking a 70.4% increase from 2023 and necessitating timely PEP provision and stray animal control.

Non-communicable diseases (NCDs) such as hypertension and diabetes, along with maternal and perinatal deaths, continued to significantly contribute to the national disease burden.

Overall, in 2024 malaria remained the leading cause of morbidity in Ethiopia, followed by acute malnutrition (MAM/SAM) and severe childhood illnesses like pneumonia and diarrhea. Measles and emerging non-communicable diseases such as hypertension and diabetes also contributed significantly to the national disease burden. These conditions accounted for the majority of reported cases and deaths, underscoring the need for sustained public health interventions.

1. Introduction

The Ethiopian Public Health Institute (EPHI) serves as Ethiopia's premier national institution for protecting and promoting public health through research, surveillance, laboratory services, and emergency management. It was initially established under Council of Ministers Regulation No. 301/2013 following the reorganization of the former Ethiopian Health and Nutrition Research Institute (EHNRI). Its foundational mandate focused on strengthening public health research, surveillance systems, laboratory capacity, and emergency preparedness.[1]

In light of emerging health challenges, increased public health threats, and the growing need for institutional autonomy and expanded responsibilities, EPHI was re-established under Council of Ministers Regulation No. 529/2023. This updated legal framework, enacted in accordance with Proclamation No. 1263/2021, grants EPHI full legal personality as an autonomous federal government office accountable to the Ministry of Health. The revised regulation significantly broadens EPHI's mandate, particularly in the areas of public health emergency management (PHEM), One Health coordination, advanced health research, and multisectoral health security leadership.[2]

The Public Health Emergency Management (PHEM) at EPHI spearheads national efforts to anticipate, prevent, detect, and respond to public health threats. Anchored in the principles of the International Health Regulations (IHR 2005), PHEM adopts an all-hazards, health-in-all-policies approach, aligning Ethiopia's emergency preparedness and response capacities with global standards.[3]

Since its establishment, PHEM has considerably enhanced Ethiopia's ability to manage a wide array of public health emergencies—including infectious disease outbreaks, zoonotic events, chemical hazards, and natural or human-induced disasters. This has been achieved through integrated preparedness and response mechanisms, including strengthened risk assessments, outbreak investigation protocols, and multisectoral coordination systems. Furthermore, PHEM manages surveillance of 36 priority diseases and public health events through an integrated platform combining Indicator-Based Surveillance (IBS) and Event-Based Surveillance (EBS). This system utilizes timely data collected from health facilities, sentinel sites, laboratories, and communities to ensure timely detection and rapid public health response.

In 2024, Ethiopia encountered multiple public health challenges, including recurrent outbreaks of malaria, cholera, and measles, as well as natural disasters such as floods, landslides, and droughts. These events underscored the critical importance of a resilient public health system capable of delivering evidence-based interventions. Surveillance data played an instrumental role in early warning, guiding resource mobilization, and informing timely public health actions.

This Annual Epidemiological Bulletin represents a significant milestone as epidemiological first institutionalized national report compiling evidence-based insights into public health threats and emergency responses. Covering the period from January 1 to December 31, 2024, the bulletin provides a comprehensive overview of disease trends, response efforts, and lessons learned. It consolidates surveillance data on the 36 notifiable diseases, conditions and other relevant health events, institutionalizing a critical reporting process for assessing and reinforcing preparedness efforts moving forward.

The bulletin is intended to serve as a valuable resource for government institutions, policymakers, international and non-governmental partners, researchers, and academic institutions, supporting evidence-based planning, decision-making, and public health response.

2. Methodology

2.1 Data Sources and Types

Data for this annual bulletin were taken from routine surveillance reports through the integrated disease surveillance and response system (IDSR), outbreak investigation, laboratory confirmation, and sentinel surveillance. Both aggregated and line listed data were used.

2.2 Data Management and analysis

Public health surveillance data were retrieved from various sources and compiled for analysis. The data were cleaned and checked for completeness, and duplicate cases were removed using Microsoft Excel. For line-listed data, personal identifiers were removed to maintain participant anonymity.

Descriptive analyses (frequencies, proportions, and percentages) were conducted and presented in tables and figures. Trends of cases and deaths were illustrated using line graphs. The positivity rate and case fatality rate were also calculated. Additionally, maps were used to show outbreak-affected areas and to visualize the spatial distribution of cases and deaths for selected diseases.

3. Epidemiological overview of disease and events/condition

This section provides an overview of the national disease burden in 2024. It begins with an assessment of the timeliness and completeness of the Public Health Emergency Management (PHEM) weekly data, which serve as the primary data source for monitoring disease trends and public health events.

3.1 Completeness and timeliness of the public health surveillance report

The completeness and timeliness for 2024 year were 88.5% data and 86.6% respectively. Addis Ababa achieved 99.8% completeness and 99.5 timeliness. The national target was 80%. However, significant regional disparities persist, **Table *1***.

Table 1: Annuel average completeness and timeliness of the PHEM surveillance report by region, 2024

Region	Expected annual report	Completeness %	Timeliness %
Addis Ababa	5,772	99.8	99.5
Afar	24,076	83.1	81.3
Amhara	246,324	80.6	80.6
B-Gumuz	21,112	90.7	87.2
Central Ethiopia	77,116	93.8	88.7

Dire Dawa	2,756	97	95.1
Gambella	8,216	94	92.4
Harari	2,184	99.1	99.1
Oromia	447,564	90.8	90.8
Sidama	37,284	99.5	99.5
Somalia	91,000	89	85.1
South Ethiopia	88,140	93.7	94
SWEPRS	49,920	99.7	87.8
Tigray	52,208	75.1	65.4
National	1,153,672	88.5	86.6
Note: The expected annual report is the number of health facilities per region times the number of epidemiological weeks (52).			

3.2 Disease Burden in Ethiopia

In 2024, Ethiopia continues to face substantial public health challenges, with a wide array of communicable and non-communicable diseases contributing to the national disease burden.[4] In line with the national surveillance framework, PHEM monitors 36 priority (and chemical poisoning) diseases. These diseases are categorized into weekly reportable and immediately reportable.[5]

During the year 2024, Ethiopia experienced multiple disease outbreaks, including Cholera, Malaria, Severe Acute Malnutrition (SAM), measles, Polio, and COVID-19. These outbreaks necessitated the activation of the Incident Management System (IMS) to coordinate responses effectively.

The 2024 data shows that over 10.4 million malaria cases were reported, making it the most reported disease. High burdens were also seen in MAM, SAM, dysentery, severe pneumonia in under-fives, Diarrhea, Tuberculosis and scabies. Maternal (1,310) and perinatal (15,744) deaths remained high. Non-communicable diseases like hypertension and diabetes also contributed notably to the national disease burden.

Table 2 presents a summary of all priority diseases, including the number of suspected and confirmed cases. The cases for Anthrax, Meningitis and Suspected Rabies Exposure are suspected cases and deaths.

Table 2: Summary of priority public health disease distributions

	Disease/Condition	Total Cases	Total Deaths
1	Malaria	10467483	1343
2	MAM U5C	1112062	0
3	Dysentery	439589	11
4	SAM_U5	410225	642
5	Severe Pneumonia in Children U5	194386	783
6	Scabies	170506	0
7	Diarrhea with Dehydration U5	152537	52

8	Hypertension	130896	36
9	TB (Tuberculosis)	69279	120
10	DM (Diabetes Mellitus) new cases	53596	46
11	HIV new cases	21029	50
12	Chemical Poisoning	12368	620
13	Meningitis	11481	150
14	Relapsing Fever	9870	74
15	Acute Jaundice Syndrome (within 14 Days)	4314	19
16	Measles	30808	240
17	Cholera	27145	270
18	Suspected Rabies Exposure	13262	47
19	Dengue Fever	7144	4
20	Anthrax	3038	20
21	AEFI (Adverse Events Following Immunization)	2138	5
22	Human Rabies	1353	62
23	AFP/Polio	1168	0
24	Obstetric Fistula	205	7
25	COVID-19	159	0
26	Neonatal Tetanus	139	80
27	SARS	111	0
28	Yellow Fever	0	0
29	Brucellosis	16	0
30	Chikungunya	4	0
31	Human Influenza (New Subtype)	0	0
32	Dracunculiasis/Guinea Worm	0	0
33	Smallpox	0	0
34	Viral Hemorrhagic Fever	0	0
35	Monkeypox Virus	0	0
36	Rift Valley Fever	0	0
37	Maternal Deaths	-	1310
38	Perinatal Deaths	-	15744

Note:

- Diseases listed under numbers 1 to 15 are weekly reportable, whereas diseases listed from 16 to 38 are immediately reportable.
- In this report, SARS and COVID-19 are listed as separate that makes the total list to be 38.

3.2.1 Priority public health diseases and events

This section presents an analysis of the morbidity and mortality trends of priority public health diseases, highlighting the leading causes of illness and death. It includes a detailed examination of the most frequently reported cases, a comparative year-on-year trend assessment, and insights into emerging patterns that inform disease control and prevention efforts.

Meningococcal Meningitis

Suspected meningitis remains a significant public health concern in Ethiopia, particularly within the African meningitis belt. In 2024, a total of 11,481 suspected meningococcal meningitis cases, with an average of 220 suspected cases per week were reported. This data shows an increase compared to a report of 9,434 cases in 2023. Also, suspected meningitis related deaths increased from 130 in 2023 to 150 in 2024. The incidence rate of suspected meningococcal meningitis cases per 100,000 population varied significantly across regions, ranging from 4.03 in Tigray to a high of 56.81 in Harari. Dire Dawa and Gambella reported the second and third highest incidence rates, respectively.

In terms of the absolute number of suspected cases, Oromia reported the highest count with 4,049 cases, followed by Amhara with 2,361 cases, and South Ethiopia with 840 cases. The remaining suspected cases were distributed among the other regions, as illustrated in, **Figure 1**.

Region	Meningitis Suspected Cases	Incidence rate	Suspected Meningitis Deaths
1. Addis Ababa	779	18.97	16
2. Afar	216	9.98	3
3. Amhara	2361	9.96	59
4. Benishangul -Gumuz	144	11.05	3
5. Central Ethiopia	672	10.37	12
6. Dire Dawa	146	25.11	5
7. Gambella	126	22.36	1
8. Harari	168	56.81	4
9. Oromia	4049	9.38	18
10. Sidama	612	12.55	11
11. Somali	758	10.89	0
12. South Ethiopia	840	10.60	9
13. SWE region	365	10.33	8
14. Tigray	245	4.03	1

Figure 1: Meningitis case and death distribution by region

The heatmap in **Figure 2** displays the distribution of suspected meningitis cases and associated deaths across epidemiological weeks in 2024. No clear temporal pattern was observed in the weekly distribution.

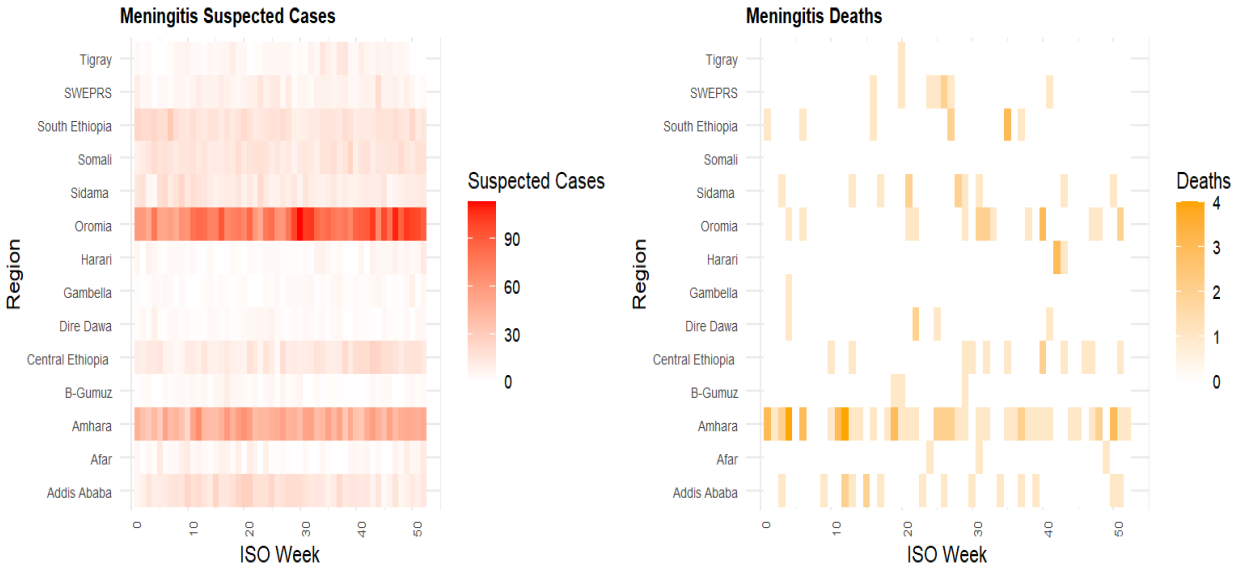

Figure 2: Heatmap plot of meningitis by region

Anthrax

Over the year, a total of 3,038 suspected anthrax cases and 20 related deaths were reported nationwide, **Figure 3**. The Tigray and Amhara regions were the most affected, together accounting for 97.1% of all reported cases—55.82% from Amhara and 41.27% from Tigray. The incidence rate of suspected anthrax cases per 100,000 population was 20.64 in Tigray and 7.16 in Amhara, while the rates in other regions were negligible. Notably, 108 districts and 14 hospitals reported the total cases. There was an increase in anthrax cases from 1,877 cases and only 7 deaths in 2023 to 3,038 cases and 20 deaths in 2024.

The case distribution by month indicates that anthrax cases peaked between May to August. The geographic spread of cases revealed clustering mostly in rural woredas (94.2%), emphasizing the need for targeted prevention strategies.

Figure 3: Regional and monthly distribution of anthrax

Region	Anthrax Cases	Anthrax Deaths
Amhara	1696	6
Tigray	1254	13
South Ethiopia	47	0
Oromia	32	1
SWEPRS	5	0
Somali	2	0
Addis Ababa	1	0
Central Ethiopia	1	0

Month	Anthrax Case
January	198
February	292
March	218
April	229
May	378
June	415
July	339
August	331
September	170
October	163

November	132
December	173

The overall case fatality rate (CFR) among Anthrax cases were 0.65%, with regional variations observed.

The top 10 districts reporting the highest anthrax cases in Ethiopia were distributed mainly from Amhara and Tigray regions. In the Amhara region, five districts reported significant anthrax cases, including Ziquala, Sahala, Telemt, Abergelie and East Telemt. Similarly, in the Tigray region, five districts experienced high anthrax cases. These districts include Seharti, Samre, Keyhe Tekli, Kola Temben and Abergelle. **Figure 4** illustrates the top 20 woredas with high anthrax case in 2024.

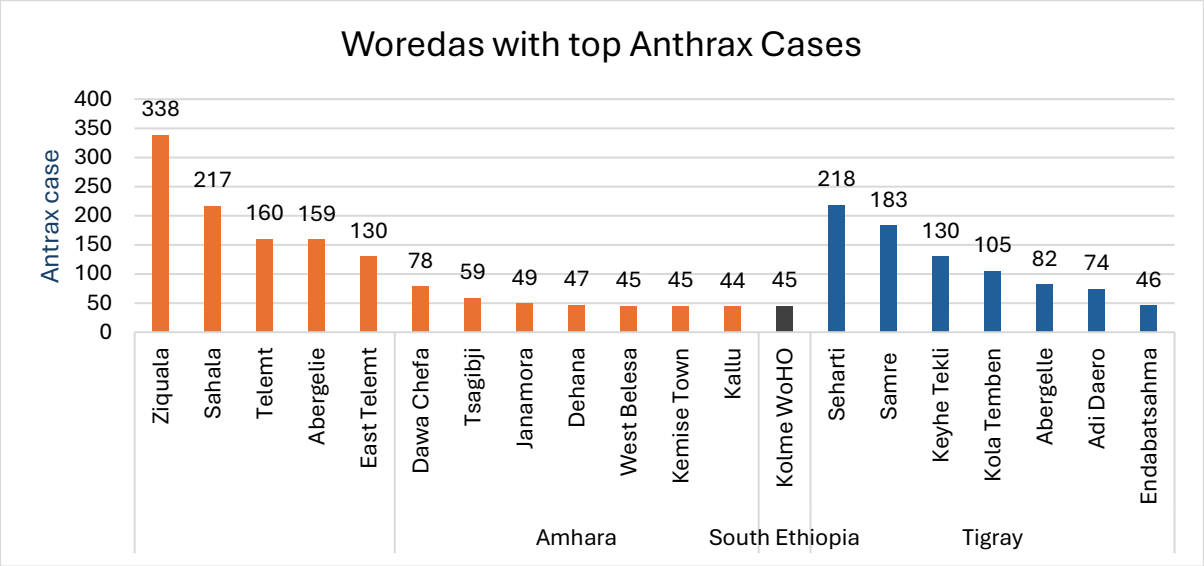

Figure 4: Top 20 woredas reported high Anthrax case, 2024

The Anthrax situation in Ethiopia during the year highlights the ongoing risk posed by the disease and the critical need for sustained surveillance, prevention, and response strategies to protect both human and animal populations.

Relapsing fever

In 2024, a total of 9,870 relapsing fever cases reported in Ethiopia, this reflects a 52.1% increment, as compared to the previous year (2023). with Addis Ababa 42.8% (4,225 cases), Oromia 22.8% (2,251 cases), and Somali 16.1% (1,589 cases) being the most affected regions. The highest Relapsing Fever caseloads per 100,000 population were observed in Addis Ababa, Somali, and Sidama ,103, 23, and 19 cases per 100,000 population respectively. Notably, 74 deaths were reported related to Relapsing fever during this period, with Addis Ababa reporting the highest at 83.8% (62 deaths). The top-

affected woredas included Arada Woreda 6 (1,310 cases) in Addis Ababa, followed by Dhunuyar (Somali, 484 cases) and Yirgalem town Health office (Sidama, 381 cases).

The epidemiological trend showed fluctuating case numbers throughout the year, peaking around epidemiological weeks 30 to 40 (Figure 5).

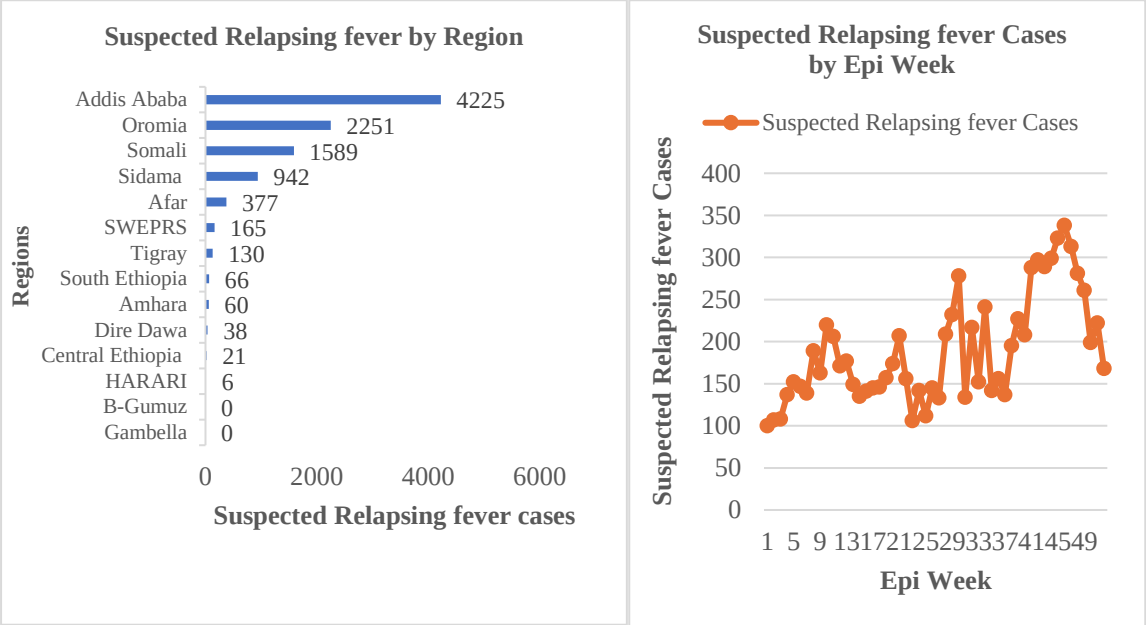

Figure 5 Summary of Relapsing fever in Ethiopia, 2024

Scabies

In 2024, a total of 170,506 scabies cases reported in Ethiopia, this reflects a 41.7% decrement, as compared to the previous year (2023). with the highest cases reported in Amhara 34.9% (59,500 cases), Oromia 25.0% (42,608 cases), and Tigray 17.9% (30,542 cases). Among woredas, EndaSelase Town (Tigray, 2,575 cases), followed by Abaya (Oromia, 2,529 cases), and Ofla (Tigray, 2,510 cases) reported the highest case numbers, Figure 6. The highest Scabies caseloads per 100,000 population were observed in Tigray, Amhara, and South West Ethiopia ,503, 251, and 225 cases per 100,000 population respectively.

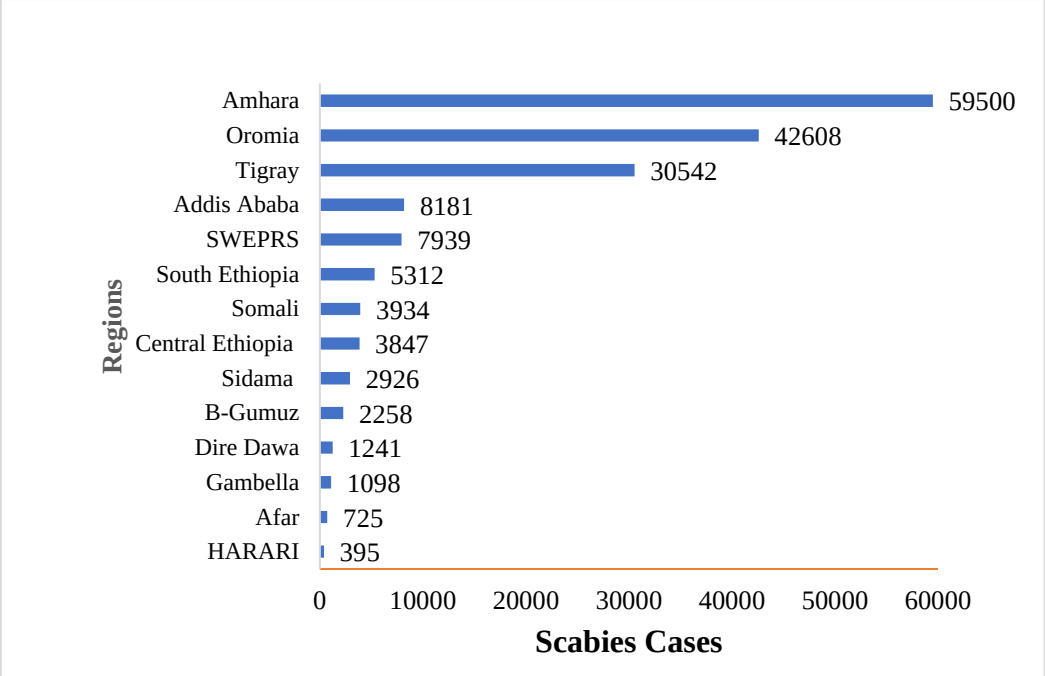

Figure 6: Summary of Suspected Scabies in Ethiopia, 2024

Rabies exposure

In 2024, a total of 132,62 Suspected rabies exposure cases reported in Ethiopia, this reflects a 70.4% increment, as compared to the previous year (2023). with the highest suspected rabies exposure cases reported in Amhara region 50.0% (6,632 cases), followed by South Ethiopia 14.3% (1,900 cases) and Oromia regions 14.2% (1,889 cases). The highest Rabies Exposure caseloads per 100,000 population were observed in Benshangu Gumuz, Amhara, and South Ethiopia ,45, 28, and 24 cases per 100,000 population respectively. Notably, 47 deaths were reported related to suspected rabies exposure cases during this period, with Oromia region reported the highest at 53.2% (25 deaths). The top-reported woredas include, Bahir Dar Town (1,340 cases), Gondar Town (875 cases), and Wolaita Soddo Christian Hospital (868 cases). The data highlights Town as key locations for suspected rabies exposure cases.

Throughout the year, the trend of suspected rabies exposure cases remained varies with periodic peaks, particularly in epidemiological weeks 35 to 39. Despite fluctuations, rabies exposure cases were reported consistent,, Figure 7.

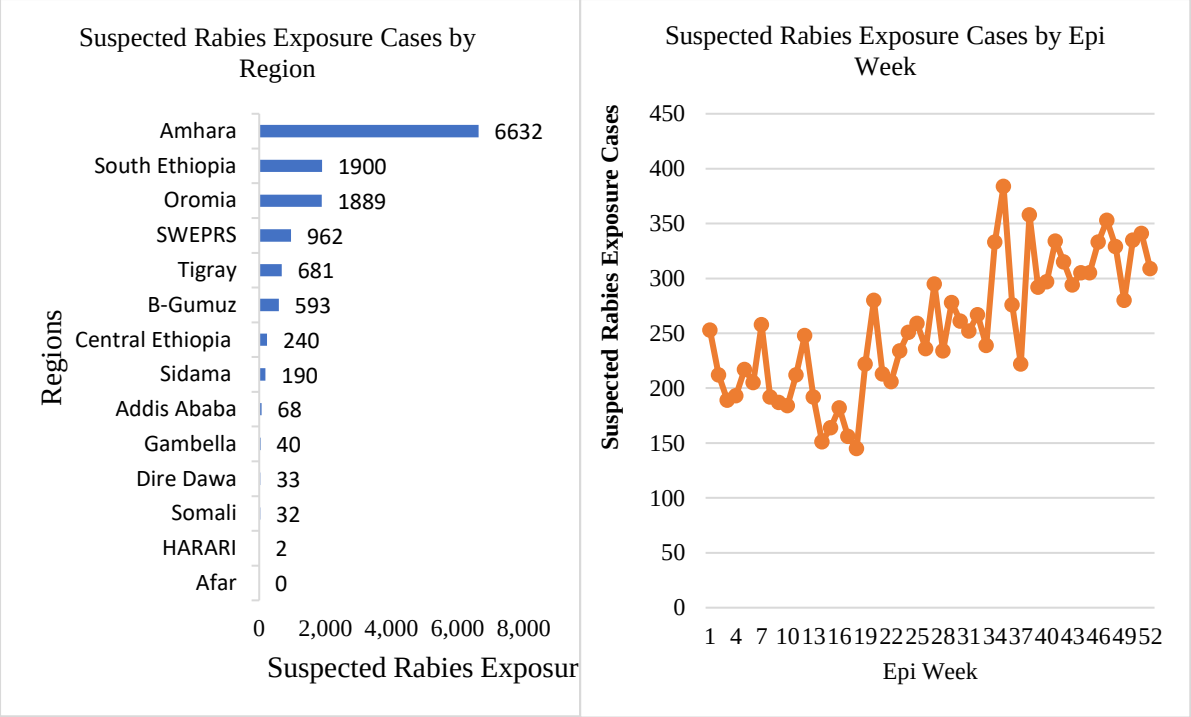

Figure 7 Summary of Suspected rabies in Ethiopia, 2024

Non-communicable Diseases (new cases of Diabetes mellitus and hypertension)

In 2024, national public health surveillance data showed that, a total of 53,596 new cases of DM and 130,896 cases of hypertension were reported. Addis Ababa has reported highest number of new cases for both new DM 16,287(30.4%) and hypertension 30,090(23%). Table 3 below highlights the distribution of new cases of diabetes mellitus (DM) and hypertension in different regions of Ethiopia for 2024.

Table 3: New case of DM and new case of hypertension

Regions	DM New Cases(%)	Hypertension New cases (%)
Addis Ababa	16287(30.4)	30090(23)
Afar	100(0.2)	227(0.2)
Amhara	10144(18.9)	28519(21.8)
Benishangul Gumuz	411(0.8)	1365(1)
Central Ethiopia	2657(5)	6490(5)
Dire Dawa	2248(4.2)	3201(2.4)
Gambella	141(0.3)	333(0.3)
Harari	1246(2.3)	2080(1.6)
Oromia	9253(17.3)	29532(22.6)
Sidama	3965(7.4)	13649(10.4)
Somalia	3020(5.6)	4675(3.6)
South Ethiopia	1742(3.3)	5661(4.3)
SWEPRS	958(1.8)	1939(1.5)
Tigray	1424(2.7)	3135(2.4)

Total	**53596(100)**	**130896(100)**

Since the data reflects only reported cases and not the total prevalence, the actual burden of these conditions may be even greater, particularly in underserved areas.

Maternal and Perinatal Death

National maternal death reports indicate an increase from 1,234 in 2023 to 1,310 in 2024, showing increase in 6.15% deaths. While there is regional disparate in maternal disparity, the provided data compares regional values between 2023 and 2024, showing a general decline across most regions, with Oromia (464 to 161) and Amhara (267 to 94) experiencing the largest decreases, Figure *8*.

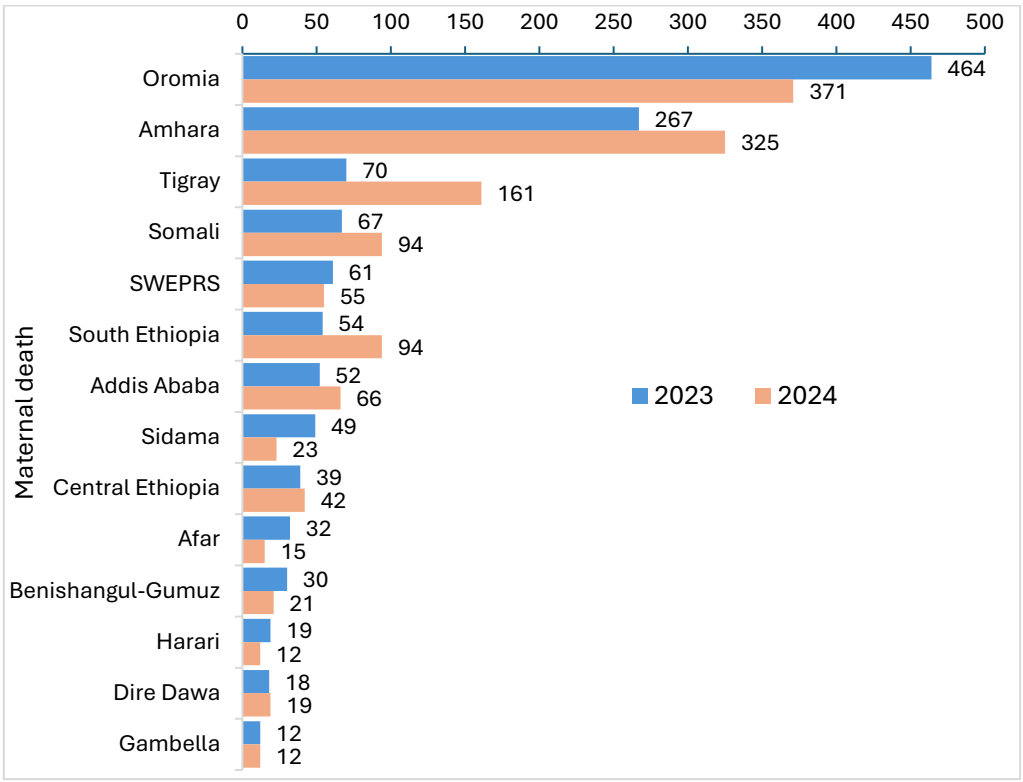

Figure 8: Maternal death in Ethiopia by region: 2023 versus 2024

The national perinatal death report highlights a concerning increase in cases, increasing from 13,069 in 2023 to 15,744 in 2024 increase in 17%. The data presents regional values with Amhara leading at 4,477, followed by Addis Ababa (2,543) and Oromia (2,663), while smaller regions like Gambella (51), Afar (56), and Dire Dawa (158) report the lowest figures, Figure 9.

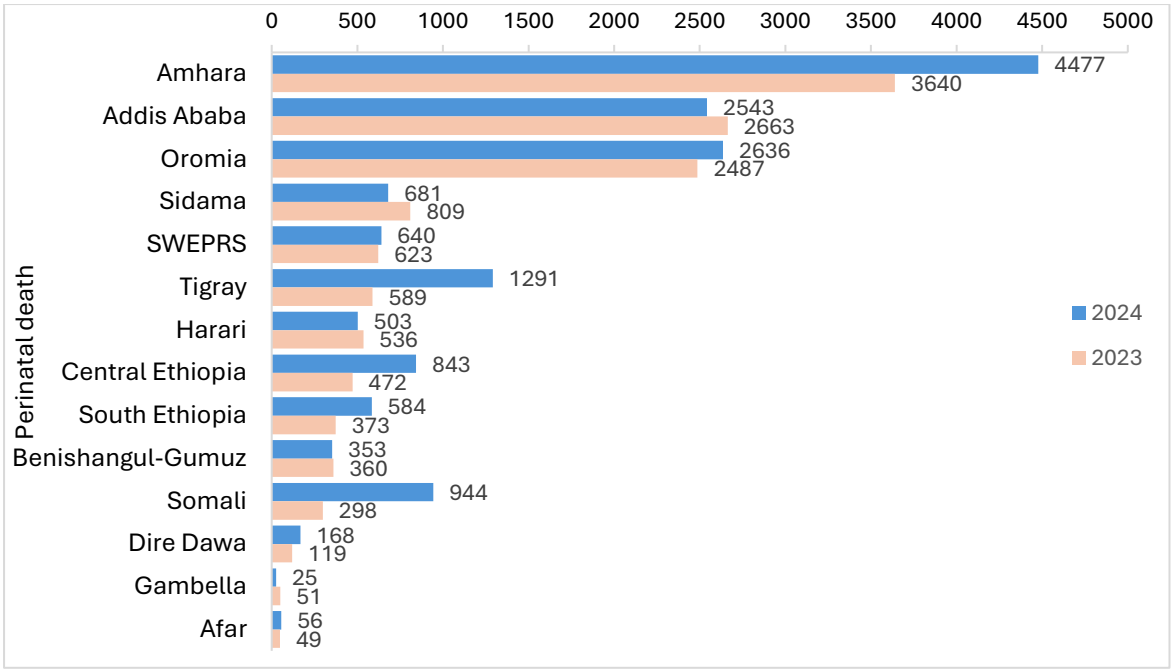

Figure 9: Perinatal death in Ethiopia by region: 2023 versus 2024

Tuberculosis and HIV new cases

In 2024, a total of 69, 279 TB cases, 65, 425 (94.4%) from outpatient and 3,854 (5.6%) from inpatient, were reported from different parts of the country. Harari, Dire Dawa, Addis Ababa, Sidama and Gambella regions were reported 470, 325, 199, 194 and 120 new TB cases per 100, 000 individuals respectively, Figure 10. The other regions reported less than 100 new TB cases with the same population denominator. According to a recent WHO report, the country has estimated 146 TB cases per 100,000 people. Regarding HIV, a total of 21, 027 new cases, 20, 472 (97.36%) from outpatients and 555 (2.63%) from inpatients were reported in the same year. Gambella, Addis Ababa, Dire Dawa and Harari were reported 144, 139, 65 and 54 new HIV case per 100,000 people, Figure 10. According to the national estimate, people living with HIV (PLHIV) that were estimated 598,888 while the new infection were 7, 255 for the 2024. One of the limitations of TB and HIV related results in this annual bulletin was the regions was not started reporting the diseases at the same epi week[1]*.

[1]* Tigray, Oromia and Afar were joined lately in the program, in epi week 20, 28 and 33 respectively.

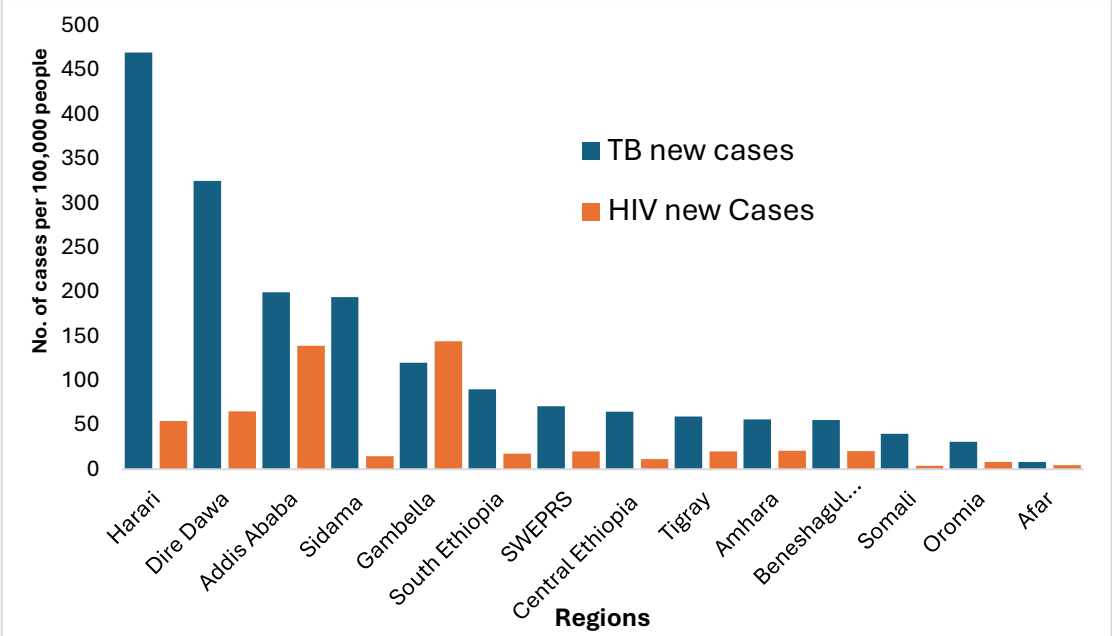

Figure 10: Number of tuberculosis and HIV new cases by region, Ethiopia, 2024

Neonatal Tetanus

In 2024, a total of 139 neonatal tetanus cases, with 80 (57.55%) of death was reported. It is one of immediately reportable disease under surveillance in the country. Based on the number of the cases and deaths (cases, death) reported from regions; Oromia (40, 25), Amhara (32, 22), South Ethiopia (25, 10) and Somalia (11,8) were reported in the same year. Other regions reported less than 10 neonatal tetanus cases with equal or less than 5 deaths.

Chemical Poisoning

A total of 12,368 chemical poisoning cases that involves purposeful or unintentional exposure to harmful substances through ingestion, inhalation, or skin absorption were reported to EPHI in 2024, with a case fatality rate of 5%. The top four regions based on the cases of chemical poisoning they reported include Harari (63 cases), Dire Dawa (59 cases), Addis Ababa (38 case) and Amhara (20 cases) per 100,000 population. However, a case fatality rate was high among chemical poisoned cases from Somali (CFR, 22.22), Harari (CFR, 17.11) and Gambella (CFR, 16.67) regions.

Acute Malnutrition

In the year 2024, there were 2,329,065 reported cases of Acute Malnutrition among Pregnant & Lactating Women (PLW) and Under-5 (U5) children. Of these, 410,225 cases (18%) were Severe Acute Malnutrition (SAM), while 1,918,840 cases (82%) were Moderate Acute Malnutrition (MAM). The highest case number was recorded in Amhara region with 855,043 cases (36.7%), followed by Oromia with 501,331 cases (21.5%) and Tigray with 314,886 cases (13.5%), the three regions collectively accounting for over 70% of total national case burden. Other regions with a significant burden include South Ethiopia with 231,915 cases (10.0%), Somali with 166,323 cases (7.1%), and Sidama with 80,148 cases (3.4%), Table *4*.

Table 4: Summary of Acute Malnutrition Burden by Region, 2024

Region	SAM Cases in U5	MAM Cases in U5	MAM Cases in PLW	Total Cases
Addis Ababa	4692	4844	565	10101
Afar	8292	2804	1357	12453
Amhara	86134	495947	272962	855043
B-Gumuz	4096	3877	2073	10046
Central Ethiopia	20711	37422	29796	87929
Dire Dawa	2904	1303	741	4948
Gambella	1797	880	97	2774
Harari	2436	709	858	4003
Oromia	109202	213422	178707	501331
SWEPRS	10377	24353	12435	47165
Sidama	16871	28890	34387	80148
Somali	81092	48691	36540	166323
South Ethiopia	34755	103698	93462	231915
Tigray	26866	145222	142798	314886
National	**410225**	**1112062**	**806778**	**2329065**

Out of the total Acute Malnutrition cases, SAM in U5 children accounted for 410,225 cases (18%), with a total of 642 reported deaths and a case fatality rate (CFR) of 0.16%, Table 5.

Table 5: Summary of Malnutrition Cases and Deaths

Case	Total Cases	Proportion of Cases	Total Deaths	Death Rate
MAM in U5 Children	1112062	48%	0	0
SAM in U5Children	410225	18%	642	0.16
MAM in PLW	806778	35%	0	0
Total	**2329065**		**642**	**0.16**

Acute Malnutrition trends showed seasonal peaks during April-June and September-November, coinciding with periods of food insecurity and disease outbreaks. These periods showed increases in both SAM cases and related deaths. Regions with high seasonal fluctuations experienced repeated spikes in malnutrition during these months, Figure 11.

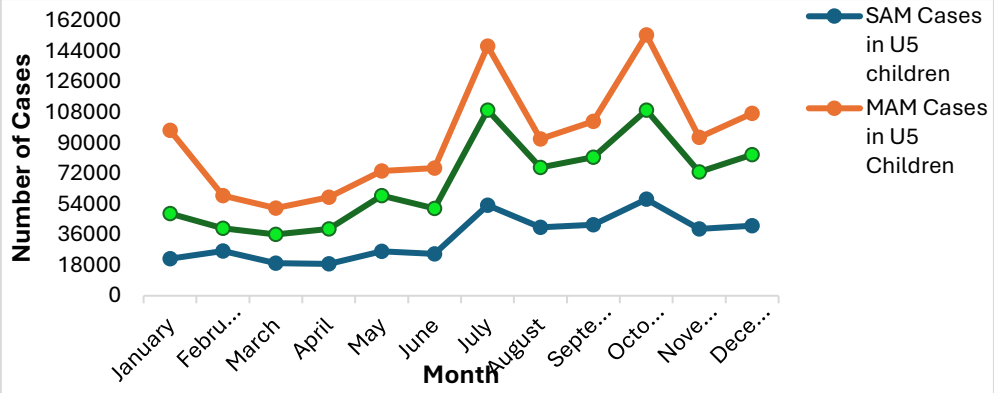

Figure 11: Malnutrition trend by Month

The Top 10 Woredas with highest U5 SAM cases were Fadis (3,883 cases), Shashemene Town (3,823 cases), and Telemt (3,615 cases). Other high-burden Woredas included Kededuma (3,003 cases), Sedie Muja (2,958 cases), and Shalla (2,923 cases), Table 6. These Woredas accounted for a significant proportion of the national U5 SAM case burden and require focused interventions.

Table 6: Top 10 Woredas with Highest U5 SAM Cases in U5 children

Region	Woredas	U5 SAM Cases
Oromia	Fadis	3883
Oromia	Shashemene Town	3823
Amhara	Telemt	3615
Oromia	Kededuma	3003
Amhara	Sedie Muja	2958
Oromia	Shalla	2923
Amhara	Raya Kobo	2619
Oromia	Moyale	2581
Oromia	Siraro	2446
Amhara	Gazgibla	2128

Severe Pneumonia, and Diarrhea with Dehydration in U5 Children

This year, there were 152,520 cases of Diarrhea with Dehydration (DHN) and 194,386 cases of Severe Pneumonia among Under-5 (U5) children, posing a significant public health concern. The highest burden of U5 Diarrhea with Dehydration was reported from Oromia with 57,940 cases (38.3%), followed by Amhara with 20,698 cases (13.7%) and Somali with 15,605 cases (10.3%). Similarly, U5 Severe Pneumonia cases were highest in Oromia with 52,900 cases (33.2%), followed by South Ethiopia with 19,081 cases (12.0%) and Sidama with 16,793 cases (10.5%), Figure 12.

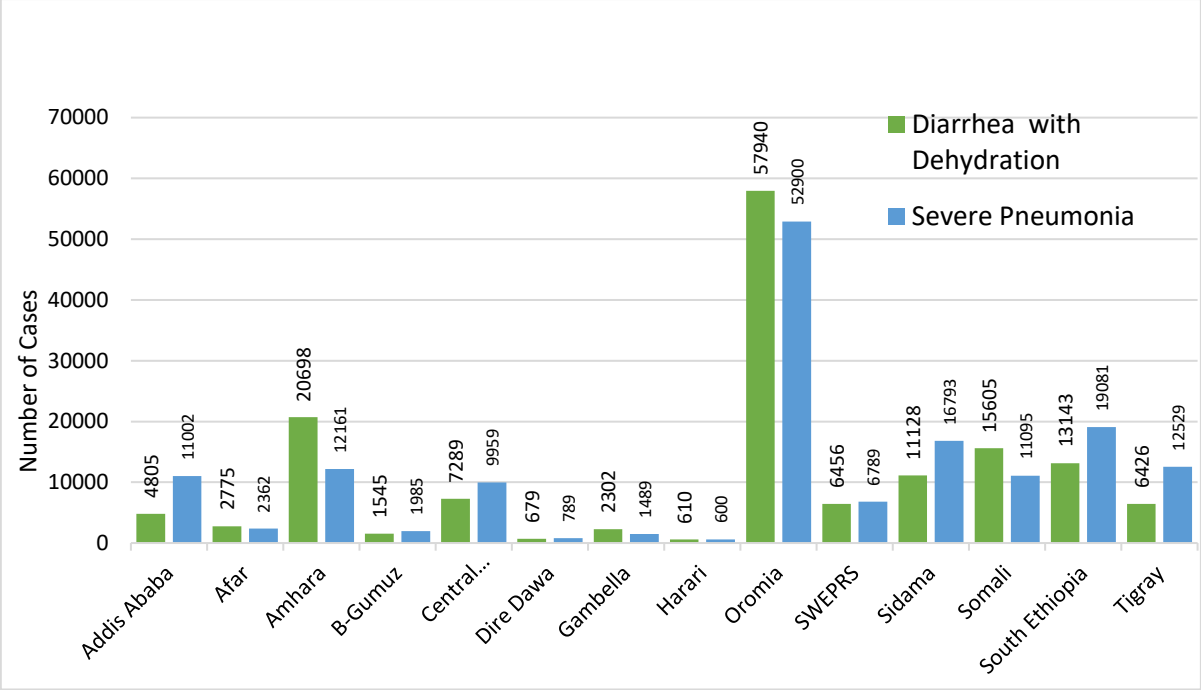

Figure 12: Proportion of cases and deaths of disease by region

In terms of death statistics, severe pneumonia accounted for more deaths (783 deaths, CFR 0.4%) compared to diarrhea with dehydration (52 deaths, CFR 0.03%).

In 2024, a total of 757,131 cases were reported among under-five children for Severe Acute Malnutrition (SAM), Severe Pneumonia, and Diarrhea with Dehydration collectively. Of these, 226,708 (30%) were admitted as inpatients. Severe Pneumonia accounted for the highest proportion of inpatient admissions at 83%, contributing 71% of the total admissions among the three conditions. SAM followed with 12.7% inpatient cases, contributing 23% to total admissions. Diarrhea with Dehydration had relatively the lowest inpatient admission rate at 8.7%, representing 6% of total admissions.

Overall, these three conditions led to 1,477 deaths in under-five children, with Severe Pneumonia being the most common cause of hospitalization and death, followed by SAM, Table 7.

Table 7: Summary of burden of Inpatient Admission and Mortality from SAM, Diarrhea with DHN and Severe Pneumonia in U5 Children, 2024

Cases/Disease in U5 Children	Total Number of Cases	Inpatient Cases (%)	Proportion of Inpatient Admission[2]	Death	CFR (%)
SAM U5	410225	52082 (12.7%)	23%	642	0.156
Severe Pneumonia	194386	161293 (83%)	71%	783	0.04
Diarrhea with Dehydration	152520	13333 (8.7%)	6%	52	0.034
Total	**757131**	**226708 (30%)**		**1477**	

[2] Contribution of each case for the total Inpatient Admission from the three cases.

Dysentery

In the year 2024, total of 439,589 Dysentery Cases and 11 Dysentery related Deaths were reported, Table 8. Oromia Region reported the highest number of dysentery cases with 152,336 cases and 6 deaths, followed by Amhara Region with 133,327 cases and 2 deaths. Other regions, such as Tigray and Addis Ababa, also reported cases, but with varying levels of impact. These figures show the critical need for improved sanitation, hygiene, and access to clean water to help reduce dysentery in these regions.

Table 8: Total Cases, Total Deaths and Case fatality of Dysentery by region, 2024

Region	Total Cases	Total Deaths
Addis Ababa	6106	0
Afar	16858	0
Amhara	133327	2
B-Gumuz	9877	0
Central Ethiopia	7677	0
Dire Dawa	444	0
Gambella	1211	0
Harari	1305	0
Oromia	152336	6
SWEPRS	6435	2
Sidama	11328	0
Somali	20605	0
South Ethiopia	12165	1
Tigray	59915	0
Total	**439589**	**11**

Figure 13 presents the top 10 woredas that reported the highest cases.

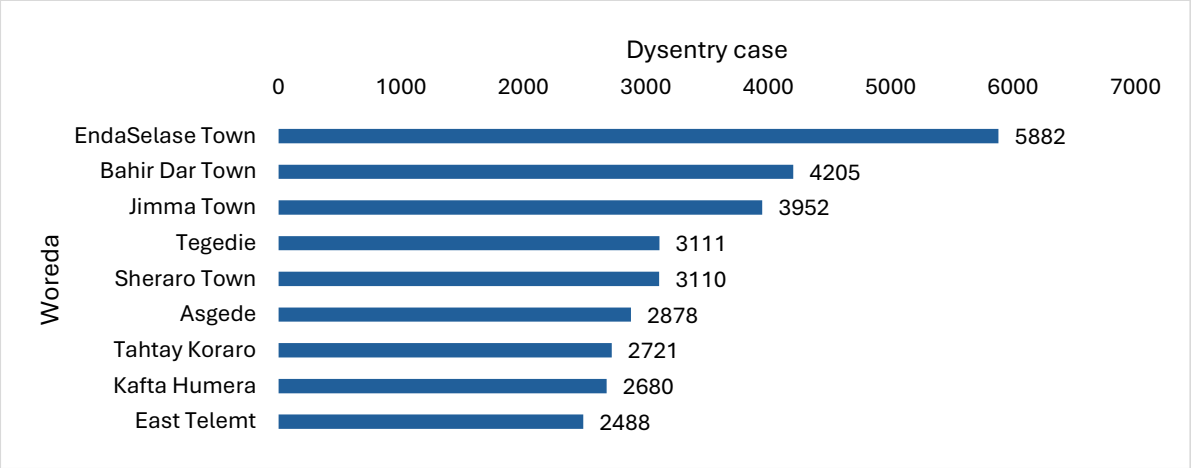

Figure 13: Top 10 woredas affected by dysentery

Other Public Health Priority Disease/Events

There were 4,324 cases of Acute Jaundice within 14 days of illness, 2,138 cases of Adverse Events Following Immunization (AEFI), and 205 cases of Obstetric Fistula this year, There was no reported case or death for Human Influenza new subtype, Mpox, Small Pox, Rift Valley Fever, Viral Hemorrhagic Fever, Yellow Fever, and Dracunculiasis (Guinea Worm) in the Year 2024.

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There was no reported case or death for Human Influenza new subtype, Mpox, Small Pox, Rift Valley Fever, Viral Hemorrhagic Fever, Yellow Fever, and Dracunculiasis (Guinea Worm) in the Year 2024.

Table 9: Summary table showing cases and deaths of other priority disease/events

	Disease/Condition	Total Cases	Total Deaths	CFR
1	Acute Jaundice within 14 days of illness	4324	19	0.44
2	AEFI (Adverse Events Following Immunization)	2138	5	0.24
3	Obstetric Fistula	205	7	3.4
4	Brucellosis	16	0	0
5	Chikungunya	4	0	0

3.2.2 Incident management system (IMS) activated diseases

Malaria

In 2024, a total of 10,467,483 cases and 1343 deaths were reported in a year, reflecting a 2.55-fold case increment compared to 2023 report, Figure 14. Plasmodium falciparum was responsible for most of the cases (59.1%), while plasmodium vivax constitutes 36.1% of the cases. While malaria surge (outbreak) was reported from 993 woredas nationwide, Oromia, Amhara and South West Ethiopia regions lead by 43%, 20% and 10% respectively.

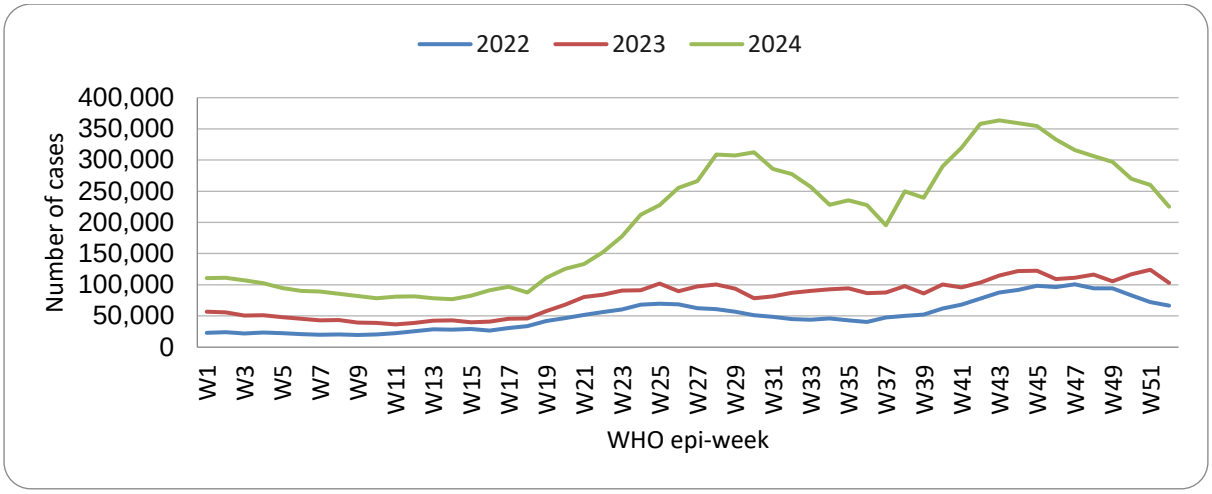

Figure 14: Malaria Case Report by Epi Week in Ethiopia, 2024

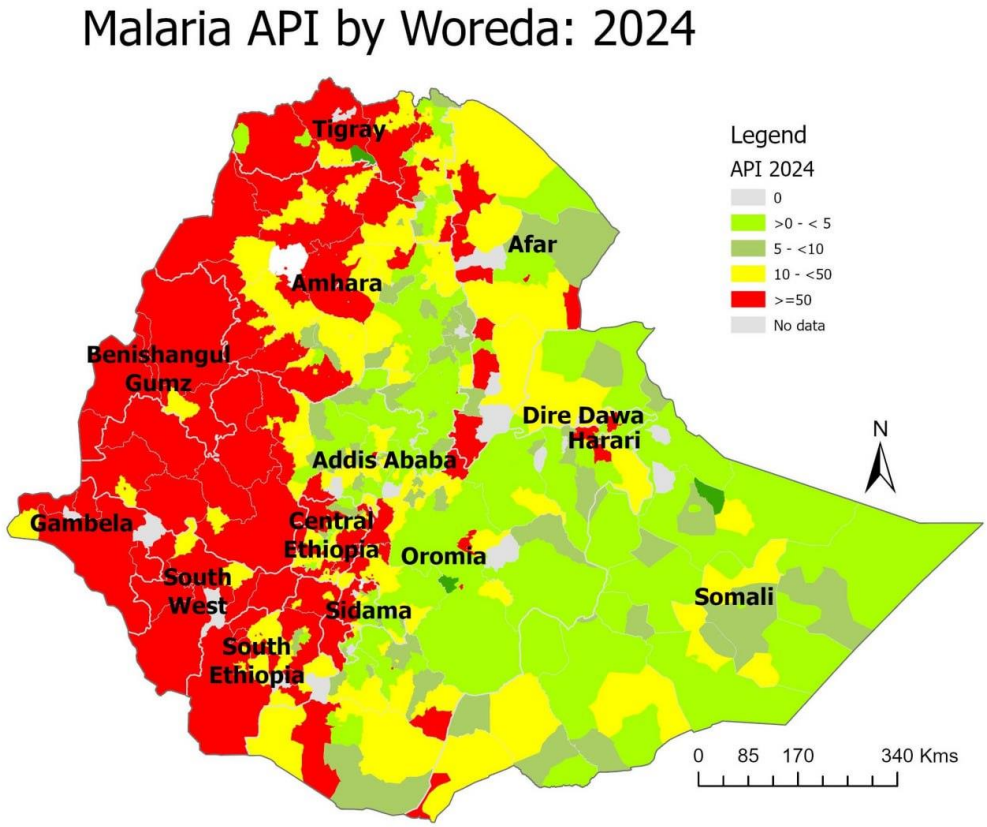

Figure 15: Malaria API distribution in Ethiopia, 2024

During recent years, malaria showed wide spread geographical distribution, with increasing number of affected districts, Figure 15. Number of woredas with high malaria burden (API≥50) shows increasing trend since 2022, Figure 16.

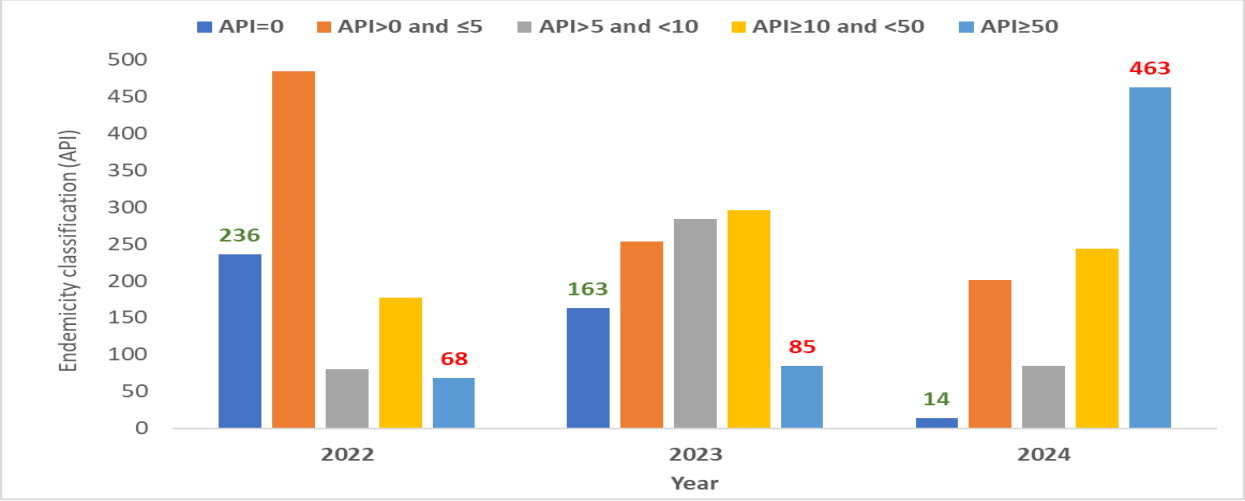

Figure 16: Malaria Endemicity Comparison for The Year 2022-2024, Ethiopia

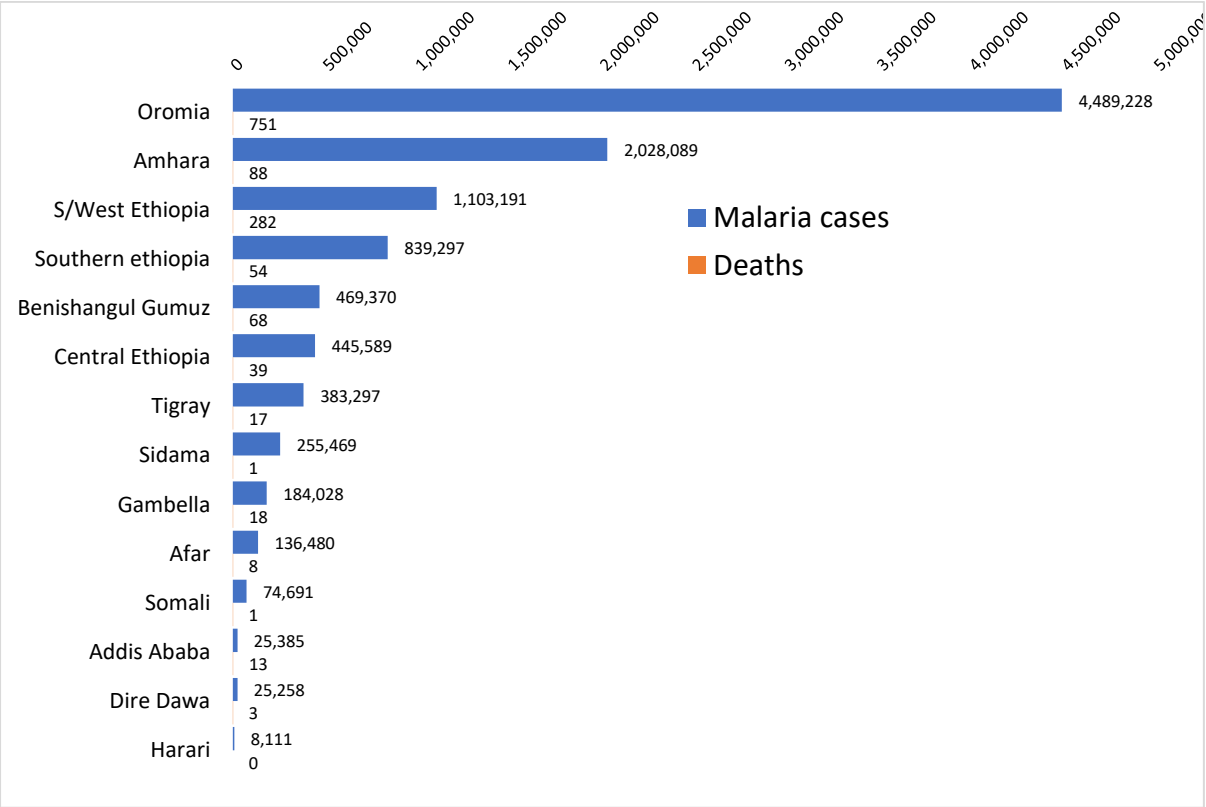

Figure 17: Malaria Case and death Report by Regions in Ethiopia, 2024

In 2024, among 1343 malaria deaths, most of them 751(55%) are reported from Oromia region. In addition, among top 10 woredas reporting malaria deaths, 6 (60%) are from Oromia region. Through intensive response via IMS, CFR at national level has been kept at 0.013, Figure 17.

Chewaka woreda is the leads among the top ten woredas with confirmed malaria cases of 159,515 reported in 2024. Bahir Dar City is the second leading top 10 woreda with a

total of 122,729 malaria cases reported in 2024, Figure 18. Also top woredas by death due to malaria is presented in Figure 19.

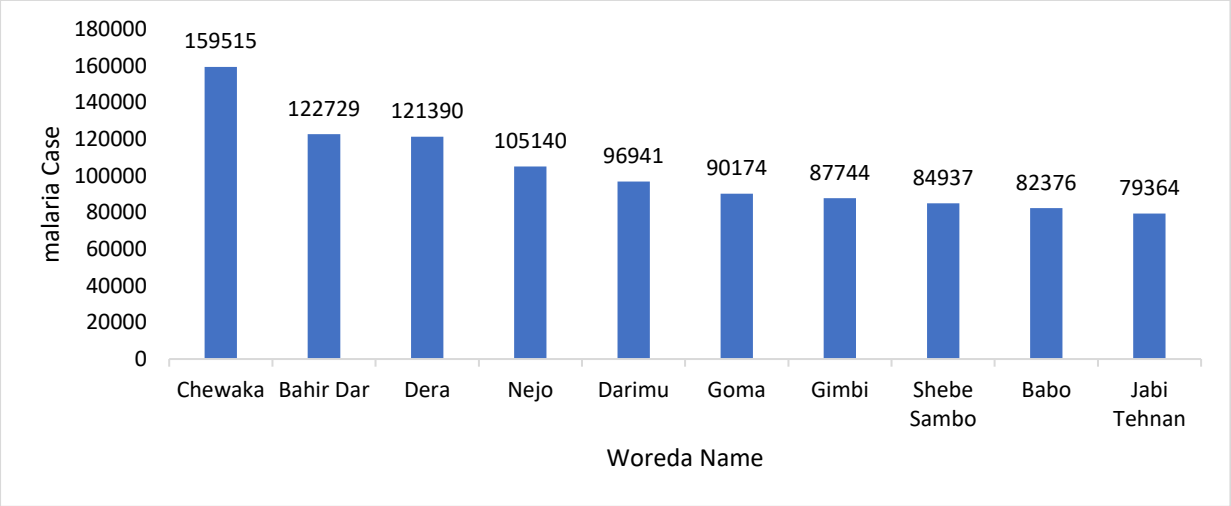

Figure 18: Top 10 Woredas by Malaria Case, 2024

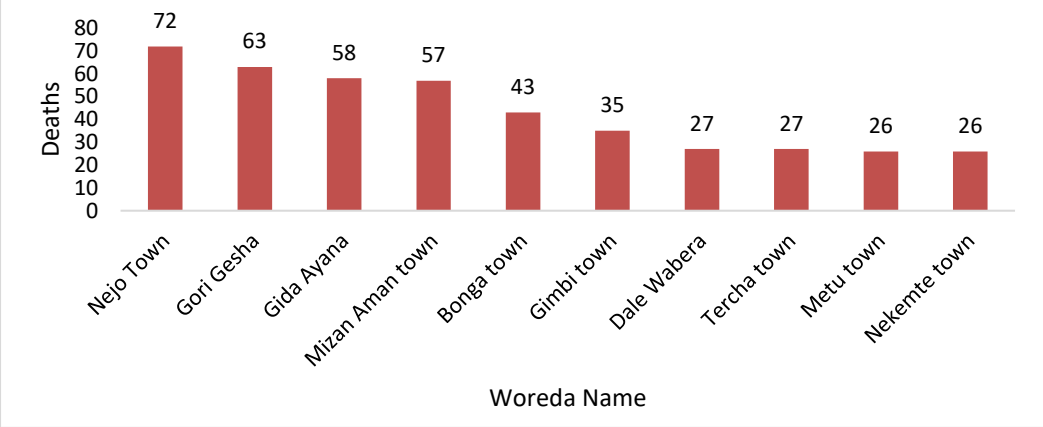

Figure 19: Top 10 Woredas by Malaria Death, 2024

Dengue Fever

In 2024, a total of 7144 cases and 4 deaths were reported in a year, reflecting 28% case decrement compared to 2023 report, Figure 21. Most of the cases are reported from Dire Dawa City Administration and Afar Regions while all the deaths are reported from Afar region, Table 10, Figure 20.

Table 10:Table: Dengue fever cases and deaths by region, Ethiopia, 2024

Name of Reporting Region	Total Dengue Fever Cases	Total Deaths
Afar	2598	4
Dire Dawa	4058	0
HARARI	1	0
Oromia	1	0
Somali	486	0
Grand Total	**7144**	**4**

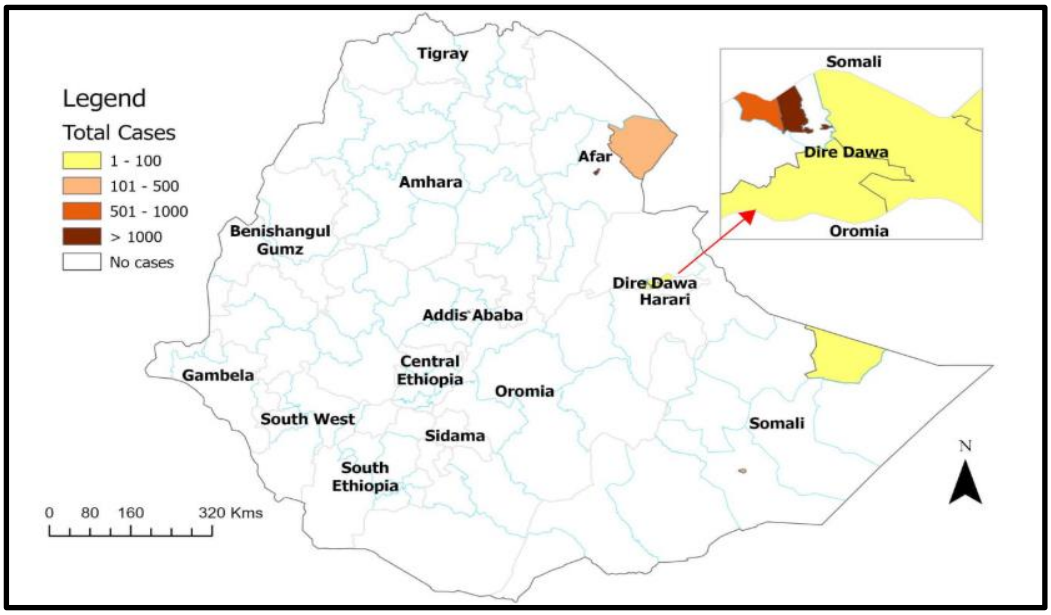

Figure 20: Dengue Fever Case Distribution Map, 2024

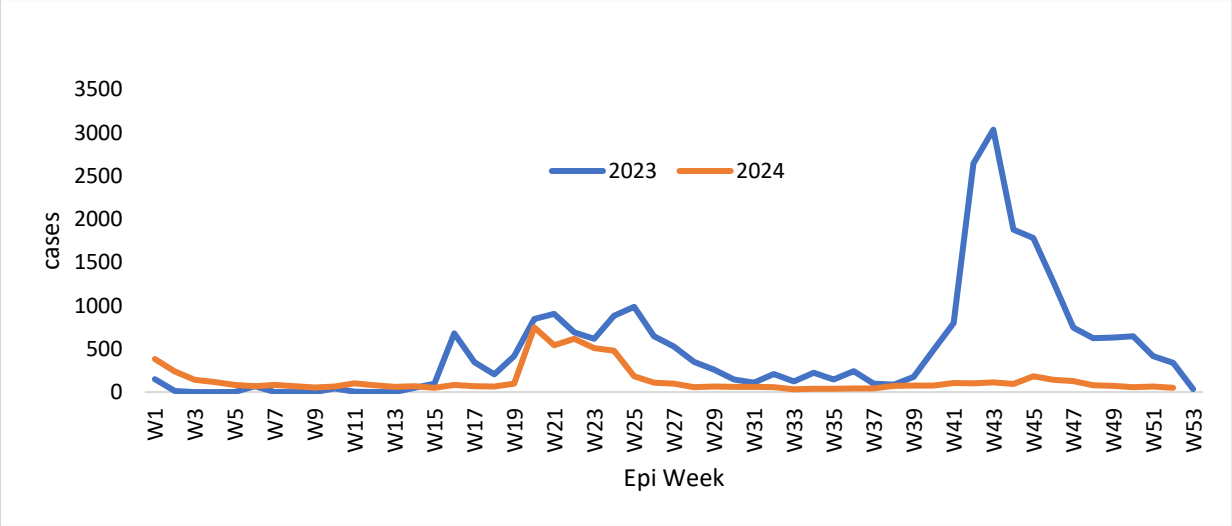

Figure 21:Dengue fever case report by Epi Week in Ethiopia, 2023-2024

Measles

Epidemiological Overview of Measles

There were 30808 cases and 240 deaths reported in 2024, which is an 18% decrease in cases over 2023 figures. Oromia, South Ethiopia, Amhara, Sidama, and Benishangul Gumuz led by 44.5%, 15.6%, 10.4%, 9.14%, and 6.0%, respectively, even though the increase in cases was observed in over 256 woredas across 12 regions. The highest case fatality rate was reported from the Afar region, with a CFR of 7.1% (10/141), followed by Gambella at 3.3% (17/513) and Benishangul Gumuz at 3.0% (55/1850), Table 11.

Table 11: Epidemiological Overview of Measles, 2024

Region	Total cases	Total deaths	CFR%	Total Affected Woredas	Proportion
Oromia	13697	57	0.4%	91	44.5%
South Ethiopia	4797	14	0.3%	26	15.6%
Amhara	3204	30	0.9%	43	10.4%
Sidama	2816	10	0.4%	27	9.1%
B/Gumuz	1850	55	3.0%	7	6.0%
Central Ethiopia	1580	23	1.5%	18	5.1%
Somali	1220	15	1.2%	20	4.0%
SWEPR	963	9	0.9%	11	3.1%
Gambella	513	17	3.3%	4	1.7%
Afar	141	10	7.1%	3	0.5%
Diredawa	18	0	0.0%	1	0.1%
Harari	9	0	0.0%	5	0.0%
Total	**30808**	**240**	**0.8%**	**256**	**100.0%**

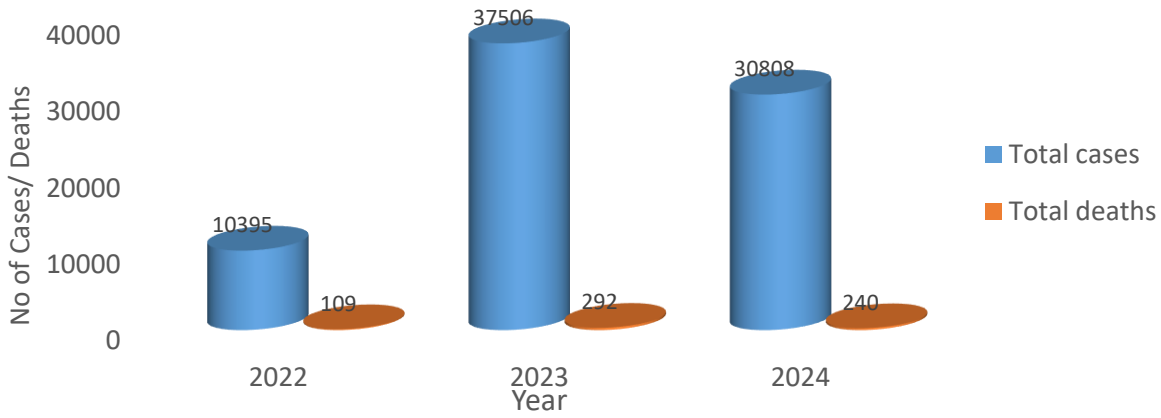

Figure 22: Measles Cases and Deaths By Years: 2022 - 2024

Compared to 2023, the number of cases and deaths in 2024 decreased by almost 18% and 17.8%, respectively, but they were still much higher than in 2022. However, the CFR was the same about 0.8% in 2023 and 2024, Figure 22.

Table 12: Vaccination Status of Measles Cases by Region, 2024

Region	Vaccination Dose Administered among cases N(%)				Grand Total
	0	1	2+	Unknown	
Oromia	7643 (55.8%)	3788 (27.7%)	1314 (9.6%)	952 (7.0%)	13697
South Ethiopia	1729 (36.0%)	1857 (38.7%)	405 (8.4%)	806 (16.8%)	4797
B/Gumuz	1595 (86.2%)	223 (12.1%)	1 (0.1%)	31 (1.7%)	1850
Amhara	1226 (38.2%)	585 (18.3%)	451 (14.1%)	942 (29.4%)	3204
Sidama	1125 (40.0%)	980 (34.8)	345 (12.3%)	366 (29.4%)	2816
Central Ethiopia	788 (49.9%)	409 (25.9%)	73 (4.6%)	310 (19.6%)	1580
Somali	640 (52.5%)	320 (26.2%)	27 (2.2%)	233 (19.1%)	1220
Gambella	418 (81.5%)	52 (10.1%)	40 (7.8%)	3 (0.6%)	513

SWEPR	298 (30.9%)	341 (35.4%)	13 (1.3%)	311 (32.3%)	963
Afar	135 (95.7%)	4 (2.8%)	2 (1.4%)		141
Diredawa	3 (16.7%)	15 (83.3%)			18
Harari		9 (100.0%)			9
Total	**15600 (50.6%)**	**8583 (27.9%)**	**2671 (8.7%)**	**3954 (12.8%)**	**30808**

Among the measles cases reported in 2024, nearly half, 50.6% (15600/30808), did not receive a vaccination, followed by 27.9% (8583/30808) who received a single dose, and 12.8% (3954/30808) whose vaccination status was Unknown. Just 8.7% (2671/30808) of the cases received two or more doses of the vaccination, Compared to 2023, the number of cases and deaths in 2024 decreased by almost 18% and 17.8%, respectively, but they were still much higher than in 2022. However, the CFR was the same about 0.8% in 2023 and 2024, Figure *22*.

Table *12*.

The majority of non-vaccinated cases are from Oromia, South Ethiopia, B/Gumuz, Amhara, Sidama Regions, with 7643, 1729, 1595, 1226, and 1125, respectively. Largest cases with a single dose of vaccine were reported from Oromia, South Ethiopia, Sidama, Amhara, and Central Ethiopia, with cases 3788, 1857, 980, 585, and 409, respectively.

Table 13: Vaccination Status of Measles by Age Group, 2024

Age Group	Vaccination Status of Cases				Grand Total
	0	1	2+	Unknown	
0-4	10705	5076	1312	1007	18100
5-14	3268	2904	1079	1383	8634
15-30	1293	529	224	1164	3210
31-45	291	63	36	345	735
>45	43	11	20	55	129
Total	**15600**	**8583**	**2671**	**3954**	**30808**

The majority (78.5%) of the cases are either unvaccinated or 1-dose vaccinated, and among these, 65.3% are children in the range of 0-4 years. Moreover, 8.7% of cases have been reported among those who had 2+ doses of vaccine, which in turn might show the low efficacy of the vaccine, The majority of non-vaccinated cases are from Oromia, South Ethiopia, B/Gumuz, Amhara, Sidama Regions, with 7643, 1729, 1595, 1226, and 1125, respectively. Largest cases with a single dose of vaccine were reported from Oromia,

South Ethiopia, Sidama, Amhara, and Central Ethiopia, with cases 3788, 1857, 980, 585, and 409, respectively.

Table 13.

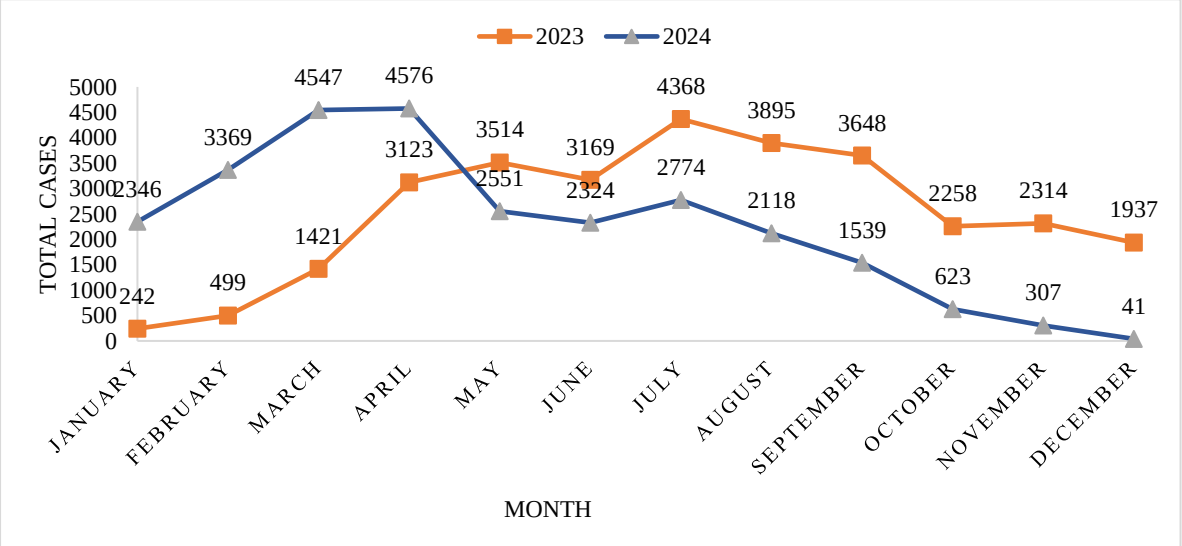

Figure 23: Trends of Measles Cases by Year 2022 – 2024

Measles cases increased sharply in early 2024, reaching a peak in April, and then gradually decreased for the remaining months of the year, as shown in Figure 23.

The peak number of measles cases in 2024 was roughly 4.5% higher than the 2023 reported cases. However, the number of measles cases in 2024 decreased by almost 84.2% in the last few months of the year.

Cholera

In 2024, there were 270 cholera deaths out of 27,145 documented cases, yielding a 1% case fatality rate (CFR). Nationally, 235 districts were affected by cholera, Table *14*.

Table 14: Cholera case summary

Total Cases	Total Deaths	Woreda Affected	Case Fatality Rate
27,145	*270*	*235*	*1.0%*

As depicted in Figure 24, Somali region had the highest case count with 11,103 cases and a CFR of 0.4%. Oromia followed with 6,808 cases and a CFR of 1.3%, while Amhara reported 4,656 cases with a CFR of 1.4%. Afar experienced 1,843 cases and a CFR of

1.8%. Other regions, such as Dire Dawa (956 cases, 0.5% CFR), Tigray (553 cases, 2.0% CFR), and Harari (487 cases, 0.8% CFR), also reported cases. B-Gumuz and SER had CFRs of 2.3% and 2.2%, respectively, with 303 and 229 cases. Sidama reported 195 cases with no fatalities, while CER had the fewest cases (12) but a high CFR of 8.3%.

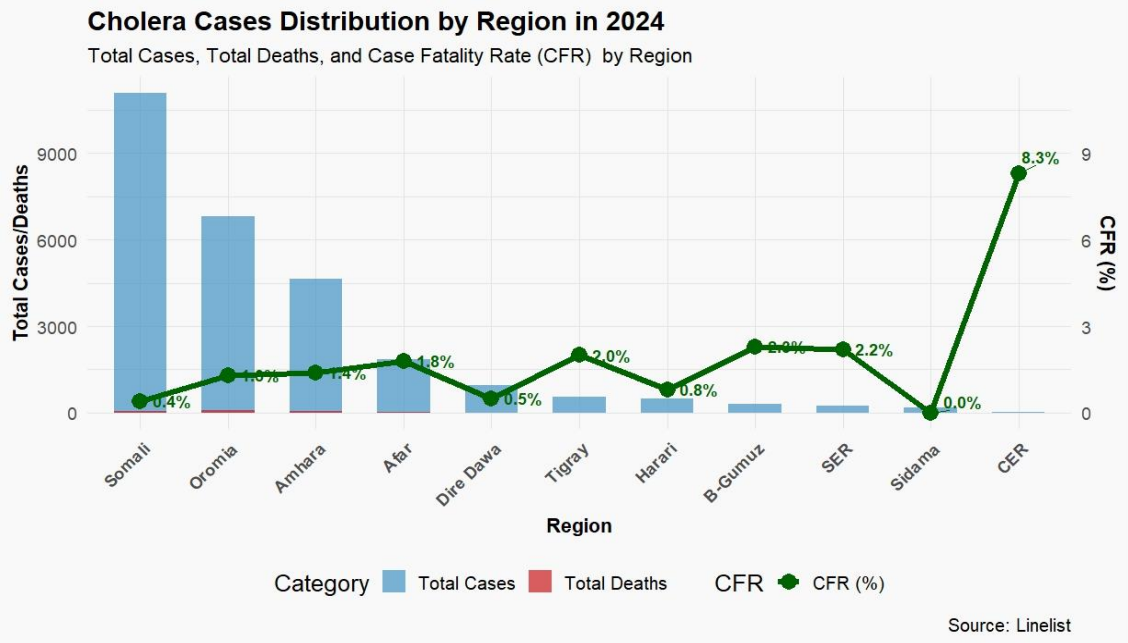

Figure 24: Cholera Cases Distribution by Region, 2024

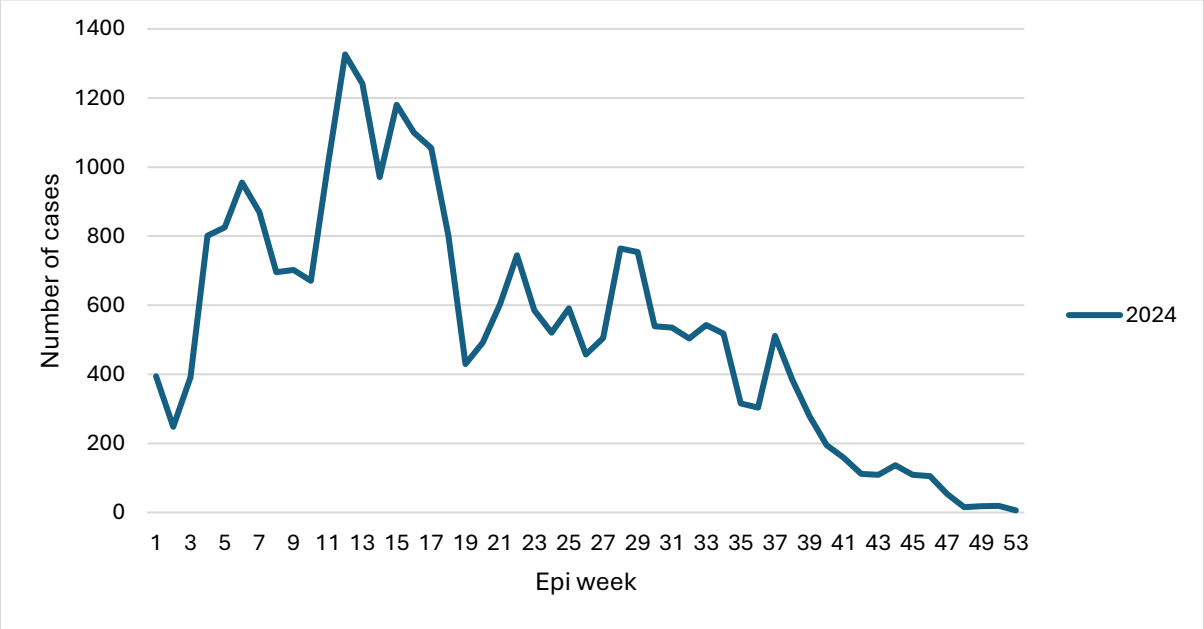

Figure 25: National level trend of Cholera case in 2024

Out of total cases, 10,372 cases (38.2% of the national total) were concentrated in 10 woredas. The Somali region accounted for the majority, **Error! Reference source not found.**Figure 26, with Fafan's Jigjiga City reporting 3,000 cases, Korahey's Kabridahar

City 1,646, and other woredas like Awbare and Gursum contributing 1,005 and 604 cases, respectively. Oromia's Odo Shakiso and Fedis reported 784 and 638 cases, while Amhara's Bahir Dar City and Gondar City had 708 and 553 cases, respectively.

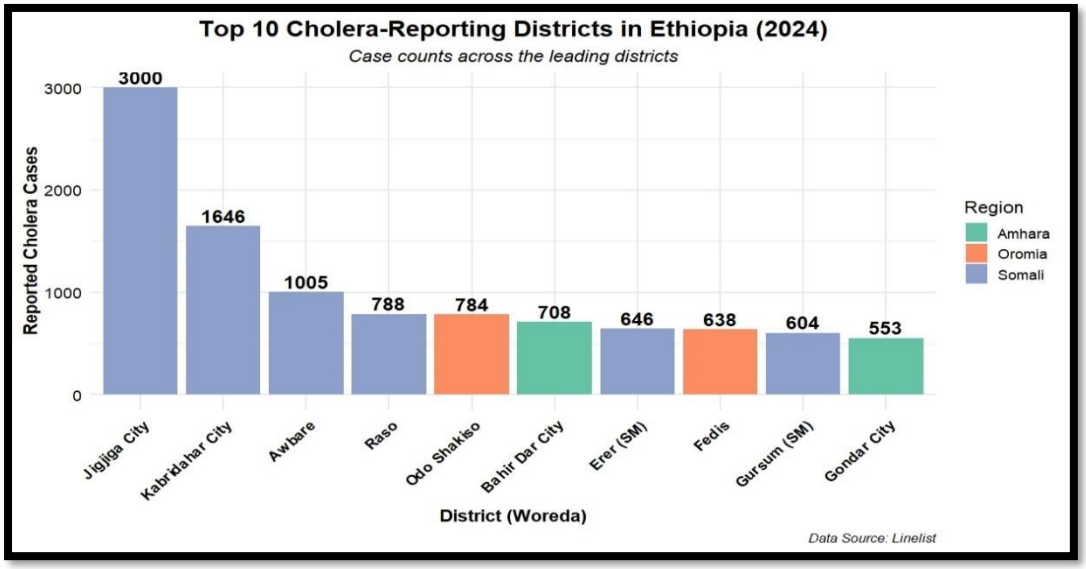

Figure 26: Top 10 Cholera Reporting Districts, 2024

As shown in Figure 27, cholera woredas with a case fatality rate (CFR) greater than 1% were most prevalent in Oromia (50 woredas), Amhara (25 woredas), and Somali (18 woredas). Afar and South Ethiopia Regions had 14 and 13 woredas, respectively, while Tigray reported 10. Sidama, CER, Harari, B-Gumuz, and Dire Dawa had fewer affected woredas with CFRs less than 1%, reporting 8, 6, 4, 3, and 2 woredas, respectively.

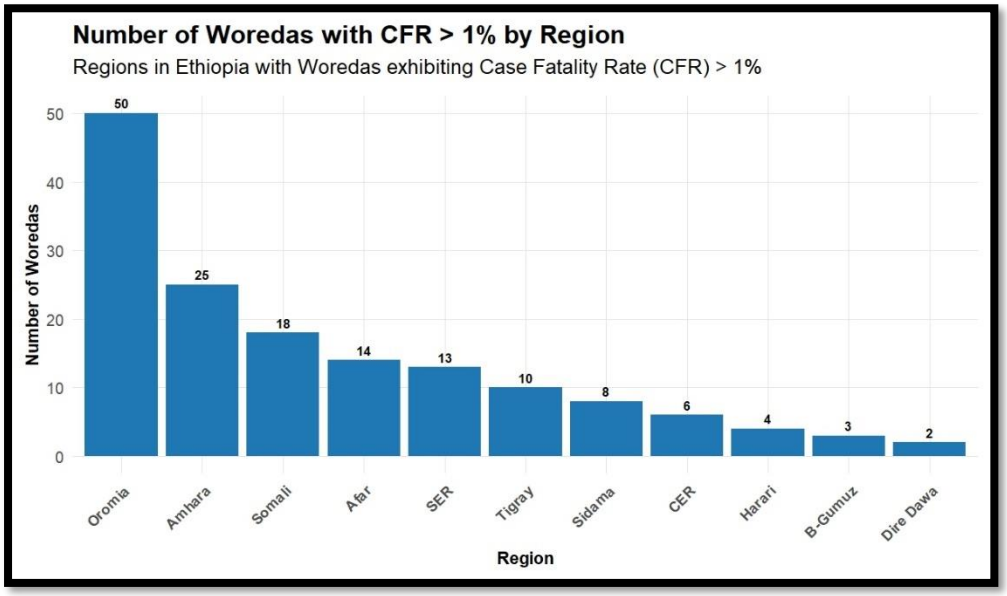

Figure 27: Distribution of Cholera Cases with CFR >1% by Regions, 2024

As shown in Figure 28, in 2022, Ethiopia reported 847 cholera cases and 27 deaths, resulting in a case fatality rate (CFR) of 3.19%. The following year, 2023, saw a significant increase in cases to 30,388, with 446 deaths and a reduced CFR of 1.47%. In 2024, while the number of cases slightly decreased to 27,115, the fatality rate further dropped to 0.99%, indicating improvements in managing the outbreak.

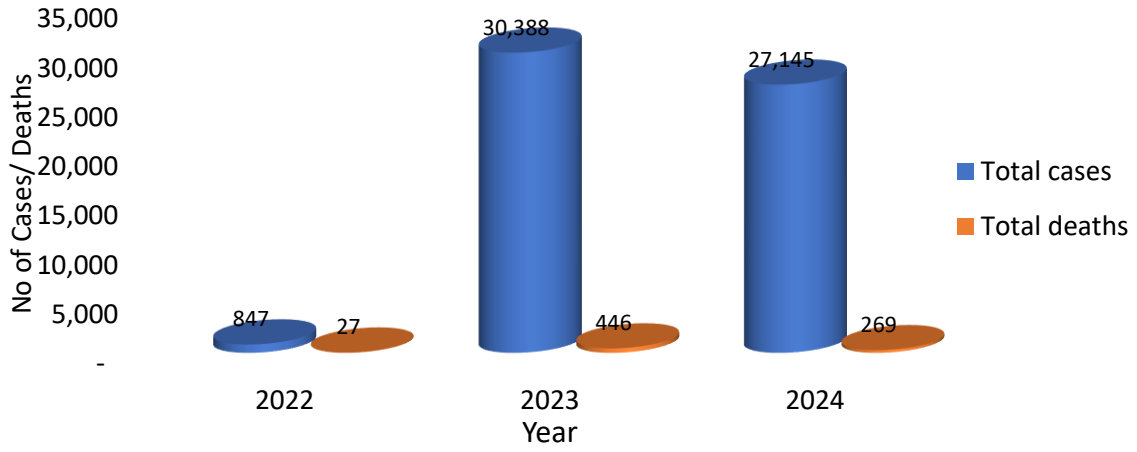

Figure 28: *Trends of Cholera Cases, Deaths: 2022-2024*

SARI /ILI

A total of 7,309 samples were collected and tested from 21 sentinel sites for severe acute respiratory infections (SARI) and influenza-like illness (ILI) established across the country. Of the samples tested, 353 (4.8%) were positive for influenza, 456 (6.2%) for respiratory syncytial virus (RSV), and 238 (3.2%) for COVID-19. Among the positive cases of influenza, 65% were influenza type A (AH3 and AH1) and 35% were influenza B.

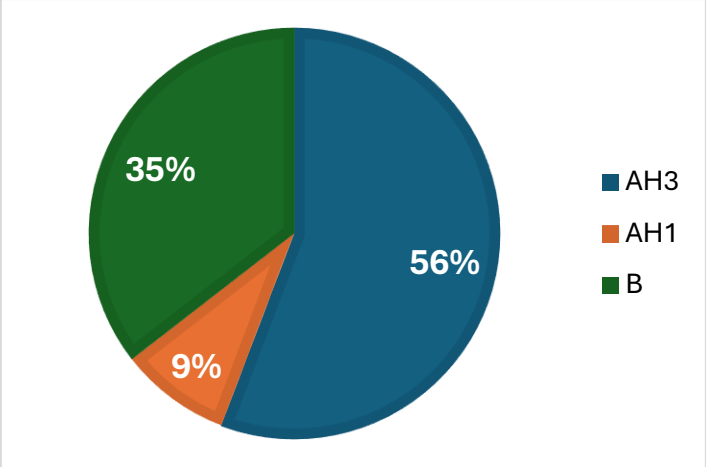

Figure 29: Summary of influenza positive cases by influenza type/subtype

The highest influenza positivity rate (8.8%) was recorded among patients aged 15–49 years, while the highest RSV positivity rate (9.1%) was observed among children under 2 years old, Table 15.

Table 15: SARI/ILI sample volume and influenza, RSV and COVID 19 test result by age group, 2024

Age group (years)	Test	Influenza	RSV	COVID-19
Less than 2 years	3,328	103 (3.1%)	304(9.1%)	90(2.7%)
2- 4 years	1,277	69(5.4%)	79(6.2%)	31(2.4%)
5 - 14 years	759	48(6.3%)	27(3.6%)	14(1.8%)
15 - 49 years	1,237	109(8.8%)	35(2.8%)	58(4.7%)
50 - 64 years	379	12(3.2%)	7(1.8%)	22(5.8%)
65 years and above	295	12(4.1%)	2(0.7%)	23(7.8%)
Unknown	34	0(0.0%)	2(5.9%)	0(0.0%)
Total	7,309	353(4.8%)	456(6.2%)	238(3.3%

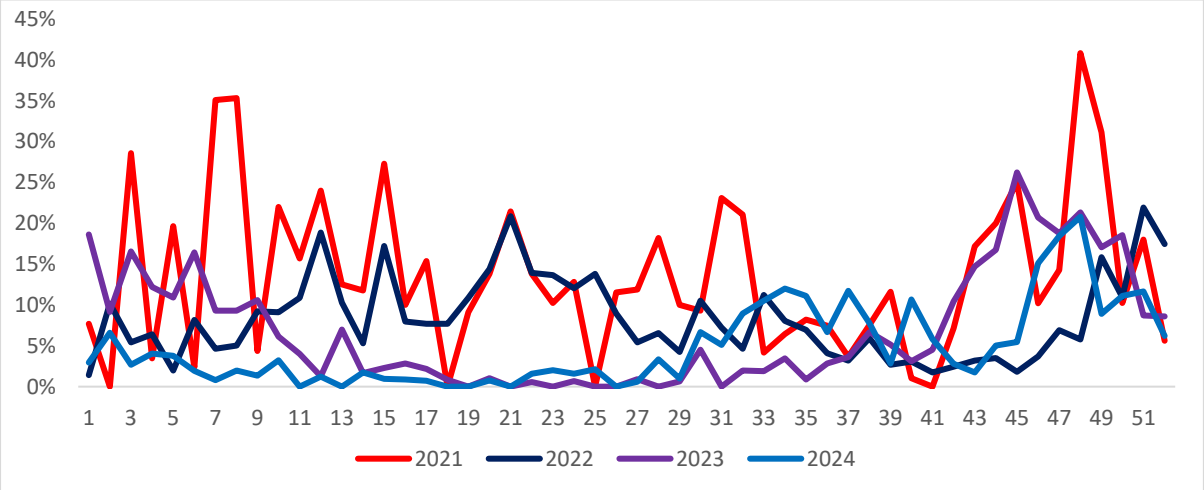

Figure 30: Trends of weekly influenza positivity rate for 2021- 2024

AFP/Polio

A total number of 1,168 AFP/Polio cases were reported by different regions of the country in 2024. From these cases reported, Oromia and Amhara regions contributed the most with 447(38.3 %) and 225 (19.3%) AFP/Polio cases respectively. There were no deaths reported by these regions in the same year, Table 16.

Table 16: AFP/Polio case by region, 2024

Region	AFP/Polio Cases	AFP/Polio Cases by %
Addis Ababa	81	6.90%
Afar	14	1.20%
Amhara	225	19.30%
Benishangul-Gumuz	16	1.40%
Central Ethiopia	45	3.90%
Dire Dawa	6	0.50%
Gambella	5	0.40%
Harari	16	1.40%
Oromia	447	38.30%
Sidama	86	7.40%
Somali	76	6.50%
South Ethiopia	39	3.30%
SWEPRS	62	5.30%
Tigray	50	4.30%
Grand Total	1168	100%

A total of 45 circulating vaccine derived polio virus type2 (cVDPV2) Polio cases were identified in 2024 a significant increase in number of Polio cases from 2023 which was 1 cVDPV2 case, *Figure 31*. Oromia region contributed 21 (46.6%) of cVDPV2 Polio cases in 2024, *Figure 32*.

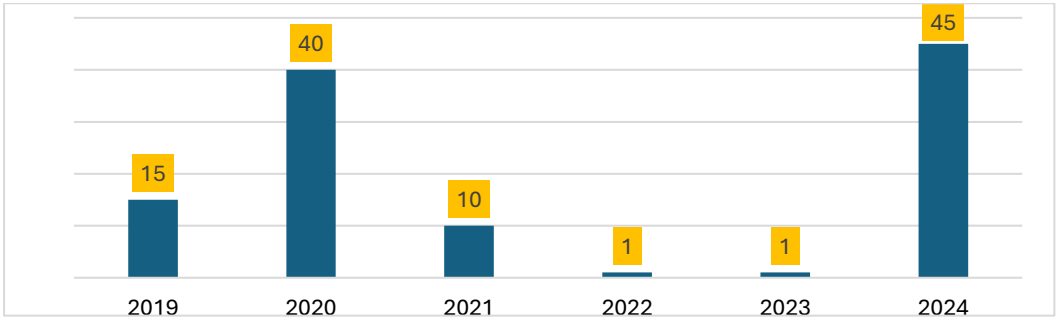

Figure 31: cVDPV2 Polio cases since 2019

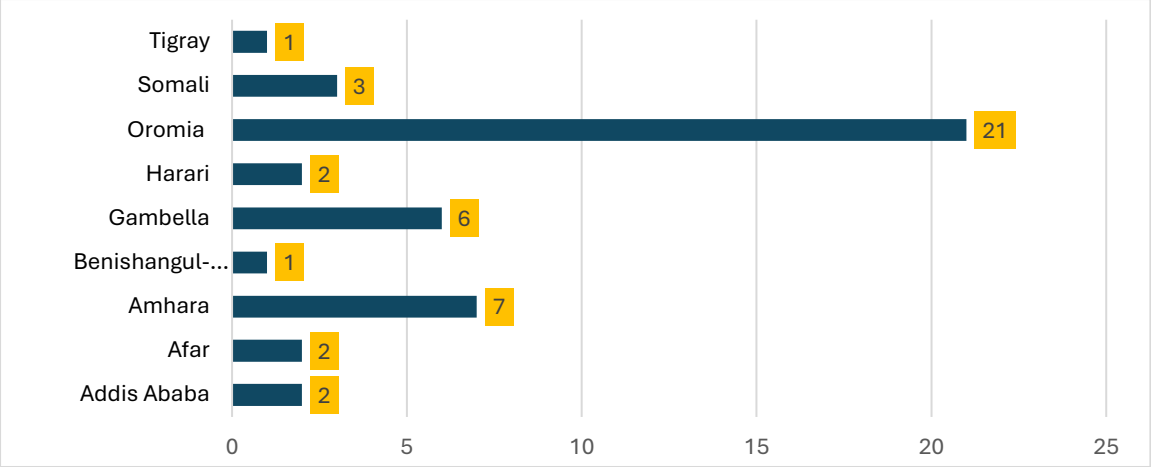

Figure 32: cVDPV2 Polio cases by regions, 2024

4. Major public health actions taken

Coordination and Leadership

- The National Public Health Emergency Operations Center (PHEOC) has been in activated response mode since March 23, 2023, ensuring a coordinated response to multiple outbreaks of measles, cholera, polio, SAM, COVID 19 and IDP.
- National Malaria Incident Management System (IMS) was activated under the leadership of the Deputy Director General and chaired by the state minister at the Ministry of Health. Consequently, sub-regional PHEOCs have also been activated.
- Different government organizations and partners were engaged in the activated IMS.
- IMS morning briefings were conducted every other day at the national PHEOC level, involving core IMS staff and key partners.
- Weekly joint meetings were held between national, regional PHEOCs, and partners to evaluate the multi-outbreak response, assess challenges, and determine the way forward.
- Launched the "Stop Cholera Together" campaign with participation from regional health officials, international organizations, communities, and partners.
- The East Africa Cholera Task Force was established to enhance regional cooperation.
- Cross-border regional collaborations and meetings were conducted for cholera outbreak response.
- Different governmental sectors, National and international partners have contributed significantly to the technical and logistical aspects of the outbreak response. Support includes provision of treatment kits, vehicles, surge teams, and specialized training for healthcare workers in affected areas.

Surveillance

- Surveillance and response data were collected and analysed to facilitate timely evidence-based decision or intervention.
- Active case surveillance was conducted by health extension workers and deployed RRT.
- Root-cause analyses were conducted for measles
- Weekly feedback provided to regions based on surveillance reports.
- Dengue Fever community and facility death audits conducted.
- Cholera and measles case definitions were distributed for case detection.
- Samples were collected from cholera, measles and polio suspected cases for confirmation.

Capacity Building and Exercise

- Training on public health surveillance, laboratory diagnostics, case management, and vector control were provided for health care workers from all regions.
- Training was provided for health extension workers (HEWs) on outbreak response control and prevention.
- Global Emergency Operations Center Simulation Exercise (GEOCX) was conducted by EPHI in collaboration with WHO to test the readiness and response coordination capabilities of Public Health Emergency Operations Centers (PHEOCs) worldwide.

Case Management and Logistics

- Cholera Treatment Centers (CTCs) and Treatment Units (CTUs) were established
- Mapping of hard-to-reach and conflict-affected woredas, linking them to humanitarian organizations and innovative delivery mechanisms for last-mile healthcare services.
- Diagnostic supplies (RDT kits), Treatment supplies (Cholera, measle and malaria drugs), nutrients kits were mobilized and distributed.
- Transportation for supplies and response team were facilitated.

Risk Communication and Community Engagement

- High-level advocacy was conducted with government officials, regional health bureau/public health institutes, universities, partners, and community representatives.
- Public education campaigns, community awareness and community engagement were conducted to control and prevent outbreaks
- Distribution of IEC materials, including leaflets, posters, and banners, to affected communities.

Environmental Management and Vector Control for Malaria and Dengue fever

- Vector breeding site identification and larval source reduction and mitigation were conducted in targeted areas
- Distribution and promotion of insecticide-treated net (ITN) utilization were conducted.
- Indoor residual spraying (IRS) operations in selected high-risk areas were made.

Water, Sanitation, and Hygiene for Cholera outbreak response

- Mass chlorination of water sources and latrine construction were done.
- Water treatment chemicals were distributed
- Water access points were established.
- Maintenance of water schemes and water trucking operations were done.
- Hygiene education and installation of hand-washing facilities to prevent disease transmission.

Vaccination Campaign

- Nationwide cholera, polio, and measles vaccination campaigns were conducted
- More than 3.8 million people were vaccinated with the Oral Cholera vaccine in 43 woredas across six regions, achieving an average administration coverage of 96.3%
- Mealse vaccination was conducted in two rounds in 2024 . In The first round, it conducted in 8 Regions, 58 Woredas and reached 2,155,389 under 10 children with 105% coverage and in second round , 44 Woredas were targeted and reached 1,655,389 under 10 children with more than 90% coverage and total of 3,810,778 Measles doses were administrated with average 95 % coverage .
- Two rounds of nOPV2 Vaccine campaign conducted against the circulating polio virus detected four regions (Addis Ababa, Afar, Amhara, Gambella) and one city administration of Oromia region. Administrative coverage in both rounds was above 95% in all of these regions

Response Team Deployment

- Rapid Response Teams (RRTs) were deployed to regions to support outbreak response efforts.
- Supportive supervision, assessment and follow-up communication with high-burden zones and districts were conducted.

5. Challenge and Recommendations

5.1 Challenges

Various systemic and contextual challenges are affecting public health emergency management in Ethiopia in 2024.

i) Data Quality and Reporting Challenges

- Inconsistent reporting timeliness and completeness in regions affected by conflict (e.g., Tigray, Afar, Amhara)
- Persistent regional disparities in data completeness and timeliness
- Delayed reporting (due to infrastructure disruptions, remoteness, or weak communication channels.)
- Gaps in real-time data analysis which hinder early outbreak detection and rapid response.
- Delayed reporting start for TB and HIV in regions like Tigray, Oromia, and Afar, affecting surveillance continuity.

ii) Outbreak Management Issues

- Recurrent outbreaks of malaria, cholera, measles, and anthrax due to limited preventive measures.
- Shortage of skilled health personnel for timely investigation and response.
- Geographic expansion of diseases such as dengue fever increases outbreak risks in new areas.
- Underreporting of cases weakens response effectiveness.??

iii) Systemic, structural, Resource and Workforce Challenges

- Inadequate supply chain management leading to delays in delivery of drugs, diagnostics, and protective materials.
- Limited laboratory capacity for confirmation of diseases like meningitis, dengue, or SARI.
- Supply chain issues, including shortages of vaccines, case management supplies, and WaSH materials, impede outbreak control.
- Lack of integrated response systems for multiple hazards and emergencies.
- Inadequate integration between disease surveillance systems and noncommunicable disease (NCD) reporting (e.g., hypertension, DM).
- Gaps in maternal and perinatal health services in high-burden regions such as Tigray and Somali due to system fragility and conflict.
- Shortage of trained field personnel in vector control, surveillance, and laboratory services
- Funding constraints limit scale-up of interventions in hard-to-reach areas.
- Limited access to cholera treatment centers and essential medical supplies

iv) Sociopolitical, Environmental and Behavioral Risk Factors

- Security challenges and population displacements hindering outreach and case tracking.

- Seasonal food insecurity contributing to malnutrition and disease outbreaks.
- Climate-related factors (e.g., drought, flooding) affecting public health service delivery and disease patterns.
- Recurring vector-borne diseases due to poor environmental sanitation and ineffective vector control.
- Lack of community adherence to health education and hygiene practices in disease hotspots, especially for cholera and dengue
- Field response disruptions due to insecurity and network challenges

5.2 Recommendations

i) Strengthen Disease Surveillance and Early Warning Strengthen Systems

- Enhance event-based and community-based surveillance for early detection of outbreaks.
- Scale up use of digital reporting tools and mobile data collection at all levels.
- Improve data timeliness, completeness, and accuracy, especially in underperforming regions.
- Expand sentinel site coverage for high-burden diseases like meningitis and SARI.
- Enhance better integration of NCDs into routine surveillance to capture growing burden of hypertension and diabetes.
- Ensure continuous reporting and system harmonization across all regions

ii) Capacity Building

- Conduct regular training and simulation exercises for health workers and emergency responders.
- Deploy mobile health teams and surge personnel to high-burden or hard-to-reach areas.
- Build and rehabilitate primary healthcare units in conflict-affected and underserved regions
- Invest in mobile clinic systems and remote medical support mechanisms for hard-to-reach populations.
- Strengthen cold chain management and stockpiling for OCV, measles, and other emergency vaccines.
- Develop real-time logistics dashboards to monitor and ensure last-mile delivery of essential supplies.

iii) Improve Outbreak Preparedness and Response

- Strengthen the Incident Management System (IMS) and ensure regular coordination between national and regional PHEOCs.
- Ensure adequate prepositioning of emergency supplies including diagnostics, medications, vaccines, and PPE.
- Expand laboratory capacity and sentinel site coverage for disease confirmation.

iv) Policy and Structural Interventions

- Develop and enforce standard operating procedures (SOPs) and updated guidelines for surveillance, investigation, and response.

- Align public health emergency preparedness efforts with national health system strengthening plans and the National Disaster Risk Management Policy.

v) Increase Community-Centered Public Health Interventions

- Enhance community-level awareness and behavior change communication on priority health risks.
- Foster collaborative engagement with community leaders, schools, and media for promoting public health practices.
- Promote community ownership of outbreak prevention through participatory training and engagement programs.
- Leverage schools, youth, and religious institutions to sustain hygiene and immunization efforts.

vi) Strengthen Integration and Multisectoral Collaboration

- Promote multisectoral response coordination, especially for zoonotic and climate-sensitive diseases.
- Improve collaboration with One Health platforms, humanitarian partners, and other stakeholders in outbreak and disaster response.

vii) Monitor and Address Equity Gaps

- Launch equity audits of service access and health outcomes to guide targeted interventions in high-risk regions (e.g., Tigray, Somali, Amhara).
- Tailor surveillance and intervention strategies to refugee, IDP, and nomadic communities.
- Strengthen partnerships to improve healthcare delivery and outbreak response in high-risk areas.
- Increase funding for training, capacity-building, and disease surveillance.
- Enhance last-mile logistics to ensure timely delivery of medical supplies and vaccines.
- Improve drug use monitoring and conduct continuous training on proper treatment administration.
- Expand vector control initiatives and environmental management for diseases like dengue, malaria
- Strengthen case reporting mechanisms to improve data accuracy and timeliness.
- Invest in WaSH infrastructure and secure additional oral cholera vaccine (OCV) stockpiles for rapid deployment.
- Enhance information-sharing systems to minimize reporting delays and optimize outbreak response efforts.

Note: All stakeholders including Federal MoH, EPHI, Regional and sub regional Health Bureaus/offices and institutions, and implementing partners are advised to take action on the above recommendations based on their mandates.

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