



## Update 154 FHP-Update 12 December 2024



### News:

- **Rwanda:** There have been 24 days **without new Marburg virus cases**, and 18 days since the last patient was discharged from the hospital. It has been over 30 days since the last confirmed case. If no further cases arise by 21-Dec-2024, [the outbreak can be officially declared to be over](#).
- **DRC:** Between 24 October and 5 December 2024, Panzi health zone in Kwango Province of Democratic Republic of the Congo recorded [416 cases including 31 death of an undiagnosed disease](#) with symptoms of fever, headache, cough, runny nose and body ache. Acute pneumonia, influenza, COVID-19, measles and malaria are being considered by WHO as potential causal factors with malnutrition as a contributing factor. At this stage, it is also possible that more than one disease is contributing to the cases and deaths. Laboratory tests are underway to determine the exact cause. [WHO director announced on Dec 10<sup>th</sup> that, of 12 samples, 10 were positive for malaria](#).
- **WHO:** has granted [prequalification to the molecular diagnostic test for tuberculosis \(TB\) called Xpert<sup>®</sup> MTB/RIF Ultra](#). It is the first test for TB diagnosis and antibiotic susceptibility testing that meets WHO's prequalification standards. It complements WHO's endorsement approach, which is grounded in emerging evidence, diagnostic accuracy, and patient outcomes alongside considerations for accessibility and equity, with prequalification requirements on quality, safety, and performance.
- **WHO:** During the [second meeting of the International Health Regulations \(2005\) \(IHR\) Emergency Committee regarding the upsurge of mpox 2024](#), the Committee noted the rising number and continuing geographic spread of mpox cases, especially those due to monkeypox virus clade Ib infection; the operational challenges in the field in need of stronger national commitments; as well as the need to mount and sustain a cohesive response across countries and partners. The Committee advised that the event continues to meet the criteria of a public health emergency of international concern (PHEIC) and provided its views regarding the proposed temporary recommendations.
- **ECDC:** published "[The European Union One Health 2023 Zoonoses report](#)", that presents the results of zoonoses monitoring and surveillance activities carried out in 2023 in 27 Member States (MSs), the United Kingdom (Northern Ireland) and 10 non-MSs. The report shows that in 2023, the first and second most reported zoonoses in humans were campylobacteriosis and salmonellosis, respectively.
- **WHO:** the [new digital platform UHC Watch](#), which is tracking progress on affordable access to health care in 45 countries, showed that up to 20% of households across Europe experience catastrophic health spending – costs driven mainly by out-of-pocket payments for medicines – restricting people from paying for other basic needs such as food, housing and heating.
- **ECDC:** The European Commission has adopted an Implementing Regulation that [designates three more European reference laboratories \(EURLs\) for public health](#), which will further strengthen the European Union's defences in the face of serious cross-border threats. The three newly designated EURLs cover the following areas: Food- and water-borne bacteria; Food- water- and vector-borne helminths and protozoa; and Food- and water-borne viruses. The three EURLs are designated for seven years, and activities will be funded under the EU4Health programme.

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*Merry Christmas  
Wishing you a healthy new year 2025*

*Your FHPB-Team*



# World Malaria Report 2024 – Wrap Up

Globally, in 2023, the number of malaria cases was estimated at **263 million**, with an **incidence of 60.4** cases per 1000 population at risk. This is an **increase of 11 million cases** from the previous year and a **rise in incidence from 58.6** cases per 1000 population at risk in 2022.

The WHO African Region continues to carry the **heaviest burden** of the disease, accounting for an estimated **94% of malaria cases worldwide** in 2023.

The WHO Eastern Mediterranean Region has experienced a **57% increase in incidence** since 2021, rising to 17.9 cases per 1000 population at risk in 2023.

The top five countries carrying the heaviest estimated burden of malaria cases in 2023 were **Nigeria (26%), the Democratic Republic of the Congo (13%), Uganda (5%), Ethiopia (4%) and Mozambique (4%)**.

Globally, in 2023, the number of deaths was estimated at **597 000**, with a **mortality rate of 13.7** per 100 000. The number of malaria deaths and the mortality rate steadily **decreased** from 622 000 and 14.9 deaths per 100 000, respectively, in 2020.

The WHO African Region continues to carry the **heaviest burden** of mortality, with 95% of estimated malaria deaths worldwide.

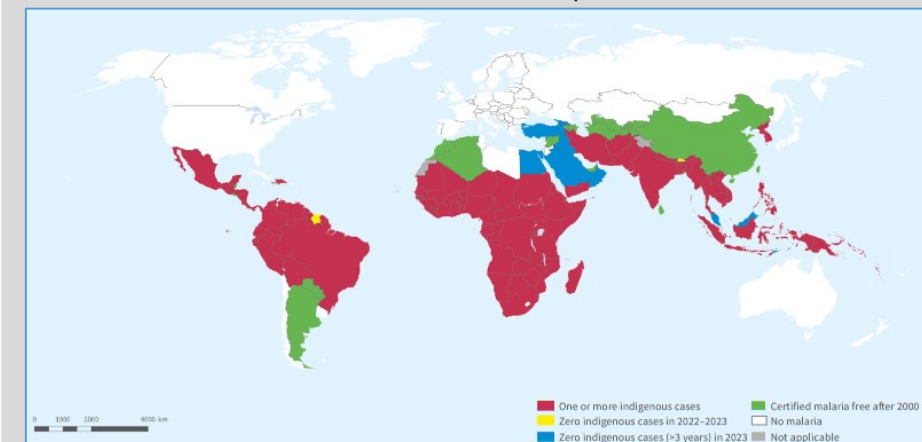
## The Global technical strategy for malaria 2016–2030 (GTS)

- The GTS calls for a reduction in malaria case incidence and mortality rate of at least **40% by 2020, 75% by 2025 and 90% by 2030**, from a 2015 baseline.
- The GTS and Sustainable Development Goal 2025 and 2030 targets for malaria morbidity and mortality are **unlikely to be met**, as the 2023 global malaria incidence is **nearly three times higher** than needed to reach the target. Although malaria mortality has decreased, it remains more than **twice the target level**.
- Of the 93 countries that were malaria endemic in 2015, **26%** (including those that are now certified malaria free) **met** the GTS morbidity milestone for 2023, **34%** made **progress in reducing malaria case incidence** but by **less than the expected** target, 15% had similar incidence to 2015 and **26% experienced an increase** in case incidence.
- Of the 93 countries that were malaria endemic in 2015, **38%** met the GTS **mortality milestone** for 2023, **40%** achieved **reductions** in mortality rate but progress was below the expected target, **4%** remained at the **same level** in 2023 as in 2015, and **rates increased in 17%** of countries.
- The WHO South-East Asia Region **met** the GTS 2020 milestones for **both mortality and morbidity** and remains on track to meet the GTS 2025 and 2030 targets.

## Elimination

In 2023 and 2024, **notable progress** was made in malaria elimination. The number of malaria endemic countries decreased from 85 in 2022 to 83, as a result of Timor-Leste and Saudi Arabia maintaining zero indigenous cases for 3 consecutive years. Furthermore, by 2024, a total of **26 countries** that were malaria endemic in 2000 successfully reported **zero indigenous cases** for 3 consecutive years.

- In 2023, global **cases of *P. knowlesi*** increased by **18.9%**, totalling 3290 reported cases, with indigenous cases rising by 22% from the previous year. Malaysia remains the principal contributor, accounting for 87.4% of these cases and reporting all 14 indigenous deaths due to *P. knowlesi*.
- The **spread of *An. stephensi*** remains a threat: following its detection in Djibouti in 2012, the invasive vector has now been detected in Eritrea, Ethiopia, Ghana, Kenya, Nigeria, Somalia, Sri Lanka, the Sudan and Yemen. No new countries were identified in 2023; however, *An. stephensi* was detected in new sites in Kenya. Given rapid urbanization, the spread of this vector in African cities could **increase the risk** of malaria transmission.
- In 2023, **humanitarian emergencies due to conflict, violence and natural disasters** disproportionately **affected populations in malaria endemic countries**. Conflict and violence affected 43 endemic countries, with a total of 51.3 million internally displaced persons (IDPs) in these countries, of whom 23.5 million were in HBHI countries. Meanwhile, 51 endemic countries were affected by natural disasters, resulting in 5.8 million IDPs, including about 483 000 in HBHI countries. Additionally, **22.7 million of the 37.3 million registered refugees globally originated from malaria endemic countries**. Natural disasters, such as floods, hurricanes and droughts, drive displacement and can **disrupt malaria control efforts** by damaging infrastructure and limiting access to health services.
- The emergence and spread of **artemisinin partial resistance**, along with the threat of resistance to ACT partner drugs, remains a significant concern. In Africa, artemisinin partial resistance is now confirmed in Eritrea, Rwanda, Uganda and the United Republic of Tanzania and is suspected in Ethiopia, the Sudan, Namibia and Zambia. In malaria endemic countries, **resistance to pyrethroids** remains widespread, with resistance confirmed in 55 of the 64 countries where it was monitored between 2018 and 2023. **Resistance to neonicotinoids** has also been reported in five of the 16 countries where it was monitored.



Countries and areas with indigenous cases in 2000 and their status by 2023 Source: WHO database

# Statement of the fortieth meeting of the Polio IHR Emergency Committee



**The Emergency Committee reviewed the data on wild poliovirus (WPV1) and circulating vaccine derived polioviruses (cVDPV) in the context of the global target of interruption and certification of WPV1 eradication by 2027 and interruption and certification of cVDPV2 elimination by 2029.**

**The Committee unanimously agreed that the risk of international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC) and recommended the extension of Temporary Recommendations for a further three months.**

## **Wild Polio**

Since the last Emergency Committee meeting, 51 new WPV1 cases were reported – 17 from Afghanistan and 34 from Pakistan – bringing the total to 62 in 2024. This represents a 283% increase in paralytic cases in Afghanistan and a 550% increase in Pakistan compared to all of 2023. The number of WPV1 positive environmental samples in Pakistan in 2024 is 402 compared to 126 during all of 2023. The number of WPV1 positive environmental samples in Afghanistan in 2024 is 84 compared to 62 in all of 2023.

## **Wild poliovirus type-3 accidental exposure in France**

The Committee noted the recent incident of an accidental WPV3 exposure in a manufacturing plant in France and appreciated the immediate and effective response measures taken by the French authorities to prevent any spread.

## **Circulating vaccine derived poliovirus (cVDPV)**

In 2024, there have been 190 cVDPV cases, of which 182 are cVDPV2 and eight are cVDPV1. Additionally, 177 environmental samples were positive for cVDPV, all type 2. Of the 182 cVDPV2 cases in 2024, 85 (46%) have occurred in Nigeria. Of the eight cVDPV1 cases in 2024, seven were reported from DR Congo and one from Mozambique.

Since the last meeting of the Emergency Committee, Cameroon, Djibouti, French Guiana (France), Ghana, oPt, Spain, and Zimbabwe reported new cVDPV2 detections. The oPt (Gaza) reported 11 cVDPV2 positive environmental samples and one paralytic case between June and October 2024.

In 2024, the total number of circulating cVDPV2 emergence groups detected to date is 24, compared to 27 in 2023, 22 in 2022, 29 in 2021, 36 in 2020, and 44 in 2019. Of the 24 emergence groups circulating in 2024, eight are newly detected this year, all derived from the novel OPV2 vaccine.

## **Risk categories for international spread of Polio**

The Committee provided the Director-General with the following advice aimed at reducing the risk of international spread of WPV1 and cVDPVs, based on the risk stratification as follows:

- States infected with WPV1, cVDPV1 or cVDPV3.
- States infected with cVDPV2, with or without evidence of local transmission.
- States previously infected by WPV1 or cVDPV within the last 24 months.

## **States infected with WPV1, cVDPV1 or cVDPV3 with potential risk of international spread**

*(as of data available at WHO HQ on 22 October 2024)*

### **WPV1**

Afghanistan	most recent detection 23 Sep 2024
Pakistan	most recent detection 01 Oct 2024

### **cVDPV1**

Mozambique	most recent detection 17 May 2024
DR Congo	most recent detection 27 Apr 2024

### **cVDPV3**

French Guiana (France)	most recent detection 06 Aug 2024
Guinea	most recent detection 12 Sep 2024

## **States no longer polio infected, but previously infected by WPV1 or cVDPV within the last 24 months and which remain vulnerable to re-infection by WPV or cVDPV**

*(as of data available at WHO HQ on 22 October 2024)*

### **cVDPV**

1. Country	Last virus	date
2. Botswana	cVDPV2	25 Jul 2023
3. Burundi	cVDPV2	15 Jun 2023
4. Israel	cVDPV2	13 Feb 2023
5. Madagascar	cVDPV1	16 Sep 2023
6. Malawi	cVDPV2	02 Jan 2023
7. The United Kingdom	cVDPV2	08 Nov 2022
8. Zambia	cVDPV2	06 Jun 2023

## **States infected with cVDPV2, with or without evidence of local transmission (only first 10 of 36 listed):**

*(as of data available at WHO HQ on 22 October 2024)*

1. Algeria	most recent detection 14 Aug 2024
2. Angola	most recent detection 24 Aug 2024
3. Benin	most recent detection 18 May 2024
4. Burkina Faso	most recent detection 12 Dec 2023
5. Cameroon	most recent detection 02 Aug 2024
6. Central African Republic	most recent detection 07 Oct 2023
7. Chad	most recent detection 30 Aug 2024
8. Rep. Congo	most recent detection 07 Dec 2023
9. Côte d'Ivoire	most recent detection 23 Apr 2024
10. Democratic Republic of the Congo	most recent detection 14 Jul 2024

The commission's recommendations for reducing the risk of international spread can be found under the [source](#).

# Oropouche virus disease – WHO Regions

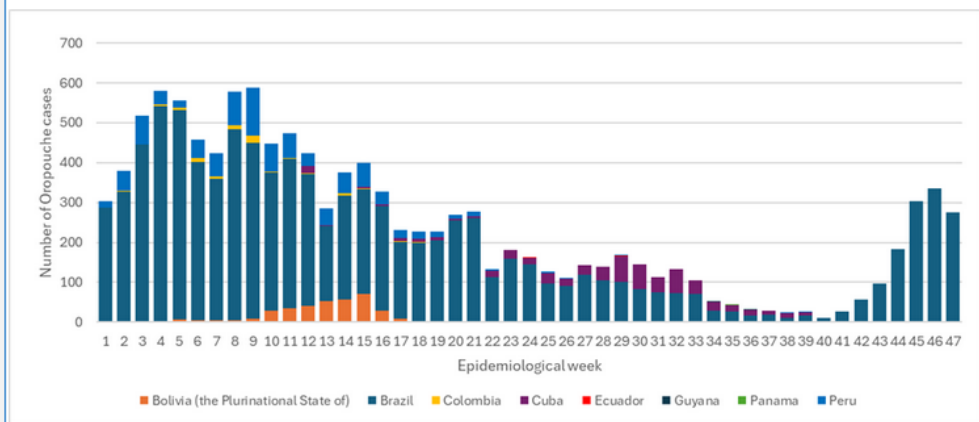


As of 06 December 2024, a total of 11 636 confirmed Oropouche cases, including two deaths, have been reported in the Region of the Americas, across ten countries and one territory: Barbados, Bolivia (Plurinational State of), Brazil, Canada, Cayman Islands, Colombia, Cuba, Ecuador, Guyana, Panama, Peru and the United States of America. Additionally, imported Oropouche cases have been reported in countries in the European Region (30 cases).

## Vertical transmission of the Virus

Cases and consequences of vertical transmission of Oropouche virus infection have been reported in **Brazil and Cuba**. Brazil has confirmed three cases of vertical transmission (two cases of fetal death and one case of congenital anomaly) and reported that under investigation are 15 fetal deaths, five spontaneous miscarriages, and three cases of congenital anomalies.<sup>[1]</sup> Additionally, in September, Cuba confirmed a case of congenital anomaly with two further cases under investigation.

Figure 1. Number of confirmed Oropouche cases in 2024 by country and epidemiological week of symptom onset Region of the Americas\*



## Imported cases in non-endemic countries and territories

**Canada:** As of 21 September 2024, Canada confirmed two Oropouche cases with a history of travel to Cuba.

**Cayman Islands:** On 16 September 2024, the Caribbean Public Health Agency (CARPHA) confirmed an imported case of Oropouche virus in an adult woman from the Cayman Islands who had travelled to Cuba. The patient developed symptoms, including fever and muscle pain, on 10 August after returning. The initial test for Oropouche virus in the Cayman Islands on 12 August was positive and confirmed at the CARPHA reference laboratory from a convalescent sample collected on 15 August.

**Barbados:** On 06-Dec-2024, the Barbados Ministry of Health and Wellness confirmed the first two cases of Oropouche virus (OROV) disease.

**United States of America:** As of 8 October 2024, 94 imported cases of Oropouche virus disease were identified in the states of Florida (90 cases), California (one case), Colorado (one case), Kentucky (one case), and New York (one case). The median age of the cases was 51 years (ranging from 6 to 94 years) and 48% were female. A total of three cases were hospitalized. Two of the cases presented with neuroinvasive disease, no deaths were reported, and all cases had a history of travel to Cuba.

**Additionally,** between 2 June and 20 July 2024, 30 imported cases of Oropouche have been identified in three countries of the WHO European Region: **Germany** (three cases), **Spain** (21 cases), and **Italy** (six cases); 20 of these cases had a history of travel to Cuba and one to Brazil, these cases are of the first cases registered in this region.

## Public Health Response

- Epidemiological alerts and updates have been issued to alert Member States and recommend actions to be implemented.
- Algorithms for laboratory testing have been developed and disseminated. As a result of regional and national efforts, molecular testing capacity is available in 23 of the 33 countries in Latin America and the Caribbean.
- The available clinical information has been reviewed to recommend interim case definitions (suspected, probable, and confirmed, vertical transmission).

## WHO Risk Assessment and Awareness

- Based on available information, WHO assesses the **overall public health risk** posed by this virus to be **high** at the **regional level** and **low** at the **global level**.
- As the arbovirus season is starting in the region, WHO urges countries at risk to **strengthen epidemiological and entomological surveillance** and to reinforce **preventive measures** in the population. This is crucial due to the geographical expansion of the virus and the possible new vectors and transmission routes, including vertical transmission, that could affect both the general population and vulnerable groups, such as pregnant women, their fetuses, and newborns.
- Personal protection measures rely on the prevention of midge bites using mechanical barriers (mosquito nets), insect repellent devices, repellent-treated clothing and mosquito repellents. Chemical insecticides such as deltamethrin and N,N-Diethyl-meta-toluamide (DEET) have been demonstrated to be effective in providing protection against bites from *Culicoides* and *Culex* species.
- Since it is an emerging and poorly identified arbovirus in the Americas, the detection of a positive sample and confirmation of a case requires the use of Annex 2 of the IHR and its consequent notification through the established channels of the IHR.
- WHO advises against applying any travel or trade restrictions based on the current information available on this event.

## Haiti Humanitarian Crisis - Grade 3



For several years, Haiti has been engulfed in a socioeconomic, political and humanitarian crisis that has reached critical levels since mid-September 2022 due to escalating armed violence and gang control of territory. Widespread insecurity and political instability have drastically affected the country's access to essential goods and services, such as food, water and sanitation, and health care, and forced hundreds of thousands of people to flee their homes.

Meanwhile, a cholera epidemic resurged in October 2022, after 3 years without cases, and spread rapidly across the country. While the cholera outbreak seems under control, conditions remain in place for a heightened risk of further spread of the disease, as well as other diseases such as dengue, TB, measles, and polio, notably in Internally Displaced Populations (IDP) sites.

### **Current Situation & Health Impact**

Since November 11, 2024, Haiti has seen an escalation to its humanitarian situation due to **renewed violence** linked to gang activities in Port-au-Prince and nearby areas.

The population of Haiti is grappling with an unprecedented **lack of access to medical services**, particularly in the Port-au-Prince metropolitan area (PaP), **less than half of the health facilities are operating** at their normal capacity, placing immense pressure on local healthcare systems. Difficulties in accessing services are adversely affecting patients with chronic illnesses and pregnant women, leading to an increase in critical medical and obstetric emergencies.

### **Cholera Situation**

After more than 3 years with no cases, on 1 October 2022 Haiti national authorities reported two confirmed cases of cholera in the greater Port-au-Prince area. As of 26 October 2024 (latest official report), the MSPP reported **87,616 total suspected cases, 4,858 confirmed cases, 85,071 hospitalized cases, 1005 institutional deaths and 314 community deaths.**

Recent months have seen a steady reduction in the number of reported cholera cases, however localized outbreaks are monitored in the commune of Dessalines (Artibonite) and in Cité Soleil (Ouest). PAHO is working with the MSPP and other partners (MSF) to strengthen the local cholera response team and to provide essential drugs and supplies for treatment despite the security situation, which is severely hampering the response, especially in Cité Soleil.

Risk factors for cholera spread remain present and are heightened by the crisis as **water supply could become scarce and sanitary conditions deteriorate**, which could result in a resurgence of new cholera cases. Continued support to surveillance, early detection and rapid response are essential conditions for maintaining the control of the outbreak and breaking the transmission chain in a sustainable way.

Overcrowded living conditions in IDPs sites poses risks of disease spreading. According to the International Organization for Migration (IOM), the recent upsurge in violence has displaced an additional 40 000 people. Over 700,000 people, more than half of whom are children, are now internally displaced across Haiti.

Source: [WHO](#)

## Lebanon: a conflict particularly destructive to health care

Source: [WHO](#)

***More health workers and patients have been killed proportionally in Lebanon than in Ukraine and Gaza.***

Since 7 October 2023, 47% of attacks on health care – 65 out of 137 – have proven fatal to at least one health worker or patient in Lebanon, as of 21 November 2024.

This is a higher percentage than in any active conflict today across the globe – with nearly half of all attacks on health causing the death of a health worker.

In comparison, the global average is 13.3%, based on the SSA's figures from 13 countries or territories that reported attacks in the same period, 7 October 2023–18 November 2024 – among them Ukraine, Sudan and the occupied Palestinian territory (oPt). In the case of oPt, 9.6% of the total number of incidents has resulted in the death of at least one medical professional or patient.

According to the Surveillance System for Attacks on Health Care ([SSA](#)), **226 health workers and patients were killed in Lebanon and 199 injured** between 7 October 2023 and 18 November 2024.

In the same period, the SSA registered a combined total of **1401 attacks on health in oPt**, Lebanon and Israel – 1196 in oPt, 137 in Lebanon and 68 in Israel.

### **Civilian health care has special protection**

*International humanitarian law states* that health workers and facilities should always be protected in armed conflicts and never attacked. Health facilities must not be used for military purposes, and there should be accountability for the misuse of health facilities.

### **The majority of incidents in Lebanon impact health workers**

The majority (68%) of incidents in Lebanon registered by the SSA impacted health personnel, a pattern seen repeatedly in the last few years, including in Gaza in the past year. In Lebanon, roughly 63% affected health transport and 26% affected health facilities.

Attacks on health care hit twice. First, when health workers lose their lives or when a health centre is obliterated, and again in the following weeks and months when the injured can't be treated, those who are dependent on regular care don't receive it and when children can't be immunized.

1 in 10 hospitals in Lebanon directly impacted

The greater the blow to the health workforce, the weaker the longer-term ability of a country to recover from a crisis and deliver health care in a post-conflict setting

Lebanon is a lower middle-income country with a fairly advanced health system that's been hit hard by multiple crises in recent years. After hostilities in Lebanon escalated in September 2024, the growing number of attacks on health have caused further strain on an already over-burdened system.

Today, the country's health system is under extreme duress, with 15 out of 153 hospitals having ceased to operate, or only partially functioning. Nabatieh, as an example, one of Lebanon's 8 governorates, has lost 40% of its hospital bed capacity.

**So far this year, between 1 January 2024 and 18 November 2024, a total of 1246 attacks on health care were registered globally, in 13 countries or territories, killing 730 health workers and patients and injuring 1255.**

## Detection of HPAI A(H5N1) virus in raw milk in California



On 24-Nov-2024, the California Department of Public Health (CDPH) released a statement informing the public of a voluntary recall at the state's request of a batch of cream top whole raw milk from Raw Farm, LLC of Fresno County due to a detection of HPAI A(H5N1) virus.

On 27-Nov-2024, a second voluntary recall at the state's request was reported by CDPH due to a **second detection of avian influenza** in a different batch of the same product from the same company. The public is advised to not consume and immediately return any remaining product to the store where it was purchased. This stands for affected milk lot code 20241109 with a Best By date of 11/27/2024 and milk lot code number 20241119 with a Best By date of 12/07/2024.

To date **no human infections associated** with the affected product have been detected. However, given affected dairy cattle are known to shed a high viral load through milk, the public is advised to not consume, avoid accidentally inhaling, and wash hands after handling raw milk and raw milk products.

**Pasteurization remains key** to inactivating viruses and bacteria in order to prevent illness due to pathogens such as avian influenza, Salmonella, Listeria monocytogenes, and toxin producing E. coli.

Early in the 2024 outbreak, consumption of infected raw milk products by cats and mice on affected dairy farms showed high lethality in these mammals. Furthermore, during the summer of 2024 researchers showed that HPAI A(H5N1) infected raw milk **refrigerated for five weeks experienced** a small decline in viral levels. This indicates that raw milk can remain infectious when refrigerated and consumption by humans or animals (including companion animals) should be avoided.

Confirmed human case summary during the 2024 outbreak, by state and exposure source

### Exposure Source

State	Cattle	Poultry	Unknown	State Total
California	31	0	1	32
Colorado	1	9	0	10
Michigan	2	0	0	2
Missouri	0	0	1	1
Oregon	0	1	0	1
Texas	1	0	0	1
Washington	0	11	0	11
Source Total	35	21	2	58

Proper disposal of affected products is also imperative.

Between 10-Nov-2024 to 16-Nov-2024 all wastewater sampling sites with H5 detections were located in California.

Although source of avian influenza viruses cannot be pinpointed to human, animal, or animal products through wastewater surveillance, this shows that there is a high amount of virus circulating in the environment.

Source: [CDC](#), [CDC2](#)

## Zoonotic diseases on the rise in EU: listeriosis cases hit highest level since 2007



Source: [ECDC](#)

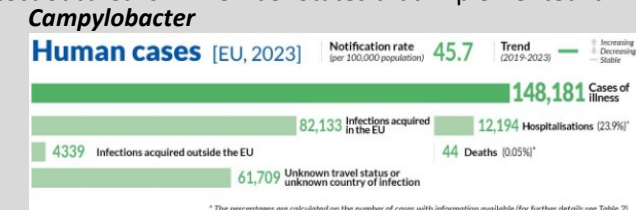
**In 2023, listeriosis cases reached their highest level since 2007, while campylobacteriosis and salmonellosis remained the most frequently reported zoonotic diseases in the EU. Overall, reported cases of zoonotic diseases in humans increased, but foodborne outbreaks saw a slight decline. These are the main findings of [the annual EU One Health Zoonoses Report](#) by EFSA and ECDC.**

The number of reported human cases of listeriosis (2 952) showed a consistent rise over the 2019–2023 period, hitting their highest levels since 2007. This might be linked to Europe's ageing population — 21.3% of Europeans are now over 65 years old — which, in connection with the growing prevalence of chronic age-related diseases, raises the risk of severe symptoms in older age groups. Contaminated ready-to-eat (RTE) foods, such as cold smoked salmon, meat products and dairy products, are the most common source of infections. The latest data show that the proportion of samples from RTE food categories that exceed food safety contamination limits for Listeria monocytogenes ranged from 0.11% to 0.78%, with the highest level reported for fermented sausages.

Campylobacteriosis and salmonellosis were the most frequently reported zoonotic diseases in humans in the EU. In 2023, 148 181 campylobacteriosis cases were reported, marking an increase from 139,225 in 2022.

After campylobacteriosis, salmonellosis was the second most reported gastrointestinal infection in humans, with 77 486 cases, compared to 65 478 cases in 2022. Only 15 Member States and the United Kingdom (Northern Ireland) successfully met all established targets for the reduction of Salmonella in poultry. This represents a decrease compared to 2022, when 19 Member States reached full compliance.

A total of 5 691 foodborne outbreaks were reported in 2023, registering a slight decrease compared to the previous year. However, the number of human cases, hospitalisations, and deaths increased, with fatalities reaching their highest level in a decade. Salmonella remained the leading cause of foodborne outbreaks, cases, hospitalisations and deaths. The most frequent sources of salmonellosis outbreaks were eggs/egg products, mixed food and broiler meat. The increased use of whole genome sequencing improved the sensitivity of surveillance, enhancing the ability to detect outbreaks in Member States that implemented it.



# Other Infectious Disease Outbreaks - Africa

## **Undiagnosed disease - Democratic Republic of the Congo**

Between 24 October and 5 December 2024, Panzi health zone in Kwango Province of Democratic Republic of the Congo recorded 406 cases of an undiagnosed disease with symptoms of fever, headache, cough, runny nose and body ache. All severe cases were reported to be severely malnourished. Among the cases, 31 deaths have been registered. The majority of cases reported are among children, particularly those under five years of age. The area is rural and remote, with access further hindered by the ongoing rainy season. Reaching it from Kinshasa by road takes an estimated 48 hours. These challenges, coupled with limited diagnostics in the region, have delayed the identification of the underlying cause. Rapid response teams have been deployed to identify the cause of the outbreak and strengthen the response. Given the clinical presentation and symptoms reported, and a number of associated deaths, acute pneumonia, influenza, COVID-19, measles and malaria are being considered as potential causal factors with malnutrition as a contributing factor.

Source: [WHO](#)

## **Mpox- Kenya**

The country has so far recorded 17 mpox cases, with one death out of the 270 reported suspected cases since 31 July 2024. Of the confirmed cases, 13 fully recovered, while three received treatment. Genomic sequencing of 13 confirmed cases identified the circulating strain as a Clade 1b virus, a more severe and transmissible virus variant. The cases were reported from 11 counties: Nakuru (3), Bungoma (2), Kericho Kajiado (2), Nairobi (2), Mombasa (2), Taitaveta (1), Busia (1), Makueni (1), (1), Kilifi (1), Uasin Gishu (1). The majority, seven (41.0%) of the cases are truck drivers. The 35-39 age group has been most affected.

Source: [WHO](#)

## **Rift Valley Fever – Senegal/Mauretania/Niger**

**SEN:** One RVF case was confirmed by serology (IgM positive) on 4 November 2024 at Institut Pasteur of Dakar in a 28-year-old male herder resident of Pikine Department with date of symptom onset on 26 October 2024. The patient is alive and further investigations are ongoing.

**MRT:** One RVF case confirmed in a 20-year-old male herder, living in a nomadic camp located 6 km from the Amedrame village and 80 km northwest of Tidjikja commune, Tagant region.

**NER:** On 30 October 2024, WHO was notified of a confirmed Rift Valley fever case in a 25-year-old male farmer admitted on 14 October 2024 at the N'wagar health center of Tchintabaraden health district in southwest Niger with fever, jaundice, epistaxis and hematemesis. Several deaths and abortions have also been reported in the same farmer's livestock (especially among goats and camelids).

Source: [WHO](#)

## **Malaria – South Sudan**

In South Sudan, malaria is endemic, however this year upsurges in cases and deaths are observed in most states. Disaggregation of data by state level, shows that the number of malaria cases in Upper Nile, Central Equatoria, Western Equatoria, Northern Bahr el Ghazal, and Unity states, consistently exceeded the state-specific alert and epidemic thresholds for most of the periods examined from week 1 to week 39 of 2024. In week 42 of 2024, Malaria maintained its position as the primary cause of illness, reporting 121 364 cases and 51 suspected fatalities, representing 48% of the overall morbidity.

Source: [WHO](#)

## **Humanitarian crisis - Burundi**

Burundi remains one of the most vulnerable countries in the world, facing recurrent crises that result in humanitarian situations. The country's vulnerabilities are linked to climatic shocks and high levels of chronic and acute malnutrition. The economic situation is marked by worsening inflation and recurrent fuel shortages. The price of food commodities continues to rise, preventing vulnerable households' access to nutritious and sufficient food. Meanwhile, multiple infectious disease outbreaks, including mpox, cholera, measles, continue to affect the country alongside the displacement caused by natural disasters, including floods.

Source: [WHO](#)

## **Cholera - Togo**

The ongoing cholera outbreak in Togo remains a challenge, particularly as deaths are still occurring in the community, and efforts to strengthen early detection and healthcare facility referral are critical. The outbreak that started in early August has spread across multiple districts. Continued efforts by national authorities and partners are needed to bring this outbreak under control. As of 27 October 2024, the cumulative incidence rate was 7.47 per 100 000 inhabitants. The majority of suspected cases 92 (89.3%) were reported from four districts; Lacs (47 cases) and Golfe (45 cases), followed by Bas-Mono (6 cases) and Agoè-Nyivé (5 cases).

Source: [WHOAFRICA](#)

## **Measles – Kenya**

Measles outbreaks in Kenya pose a major public health concern, with cases recorded annually. The current outbreak which began in January 2024 is concerning with 17 counties affected, and with 11 still reporting active transmission. The spread is majorly driven by low vaccination rates, and community engagement challenges. The Ministry of Health is focusing on targeted vaccination campaigns in areas with low immunization coverage and strengthening surveillance efforts. Improved vaccination rates and better coordination of health interventions are crucial to prevent further spread of this outbreak.

Cumulatively, 2 714 cases have been recorded since the beginning of the outbreak in the first week of January 2024 to 3 November 2024, with 294 confirmed through laboratory testing and 18 deaths (CFR = 0.7%). In the week ending 3 November 2024, the situation highlights ongoing transmission within several counties, with 69 cases reported from hotspots: Kajiado Central (50 cases), Westlands (6), Kamukunji (4), Embakasi Central (3), Laikipia North (3), and Narok Central (3).

Source: [WHOAfrica](#)

## **Vaccine-derived Poliomyelitis - Senegal**

One cVDPV2 case was reported in Kédougou commune of South-eastern Kédougou region of Senegal with date of acute flaccid paralysis onset on 20 September 2024 and laboratory confirmation on 29 October 2024. cVDPV2 was also isolated from an environmental sample from Tambacounda city in Eastern Senegal on 22 October 2024. Investigations are ongoing.

Source: [WHOAfrica](#)

# Other Infectious Disease Outbreaks - Americas



## **Rabies – United States**

On 26-Nov-2024, the Californian County of Fresno Department of Public Health confirmed the death of a Fresno County resident due to rabies. This case marks the first confirmed human rabies death in Fresno County since 1992. The Merced County Department of Public Health confirmed an exposure incident at the end of November. News media detailed that exposure to a bat occurred in a classroom in mid-October and the individual experienced illness and presented to a health facility on 18-Nov-2024. No details have been provided detailing if the individual was able to begin post-exposure prophylaxis (PEP). The only information available from the Fresno Department of Public Health confirmed the death on 26-Nov-2024 and that the California Department of Public Health tested bodily samples and confirmed evidence of rabies.

Source: [CDPH](#), [CountyNews](#), [countyofmerced](#), [NewsMedia](#)

## **Highly Pathogenic Avian Influenza A H5N1 - United States (animal update)**

As of 06-Dec-2024 HPAI A(H5N1) has been identified in 15 states with 721 affected **livestock herds** associated with the B3.13 genotype. Only one state, California, continues to report detections in the last 30 days. Since the last update on 20-Nov-2024, 104 new livestock detections have been reported, including the addition of more than 30 detections to the previous reporting period.

Since early November, California has been the only state reporting new livestock detections. In the current biweekly period, between 22-Nov and 05-Dec-2024, California reported 92 new livestock detections. This is a decrease (39%) in the number of biweekly detections compared to the previous reporting period, likely influenced by surveillance and reporting delays during the United States Thanksgiving holidays. Recently the state reported the largest weekly increase in livestock detections in the entire outbreak (101 new detections for the week of 17-Nov-2024).

Since the last assessment on 22-Nov-2024, 36 new outbreaks have been reported in **poultry flocks** across 12 states between 20-Nov and 04-Dec-2024. The affected locations include Alaska, Arizona, California, Kansas, Minnesota, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, and Utah. Three states reported their first poultry outbreaks for the year; North Dakota (commercial and noncommercial), Oklahoma (commercial and noncommercial), Tennessee (commercial), and Kansas reported their first outbreak for the season in a backyard farm. Following the **first ever report** of HPAI A(H5N1) in **Hawaii**, news media highlights a third affected location related to the initial outbreak at the Duck Sanctuary in Wahiawa.

In November, 52 HPAI A(H5) detections in **wild birds** were identified across 10 states. This includes confirmations in the current biweekly period from Oregon, California, Washington, Texas, South Dakota, Utah, Hawaii, Kansas, Nevada, and Iowa. Notably, news media highlighted several dead wild birds found across **Kansas** in the current season, with an estimate of one in 100 bird deaths. Avian influenza is suspected in some of the deaths.

Source: [USDA](#), [USDA2](#), [USDA3](#), [CDC](#), [DepAgricultureHI](#), [DepHealthHI](#)

## **Avian Influenza A - United States**

On 06-Dec-2024, the Arizona Department of Health Services (AZDHS) reported two human cases of influenza A(H5Nx, subtype pending) in poultry farm workers at a commercial facility in Pinal County. According to the AZDHS press release, both affected individuals were exposed to infected poultry while working at a commercial facility in Pinal County. No details have been provided about where in Pinal County the facility is located or if other cases are under investigation. Both individuals are reported to have experienced mild symptoms, received treatment, and have recovered.

On 13-Nov-2024, the USDA confirmed Arizona state's first outbreak in poultry since 2022. Over 790,000 birds are affected at this commercial table egg layer facility. Strain information involved in the outbreak has not been specified. Any links between the commercial poultry outbreak and the newly reported human cases have not been described as investigations are ongoing.

Unrelated, on 21-Nov-2024, a non-commercial outbreak affecting 490 birds was confirmed. To date the state has not reported any outbreaks affecting livestock herds.

Source: [AZDHS](#), [USDA](#)

## **Oropouche - Barbados**

On 06-Dec-2024, the Barbados Ministry of Health and Wellness confirmed the first two cases of Oropouche virus (OROV) disease in the country, highlighting the growing regional concern surrounding increasing prevalence of vector-borne diseases. No details have been provided in regard to if one or both cases had a history of recent travel to an affected region, nor if there is any concern for local transmission. Health officials have called on the public to reduce standing water especially during periods of heavy rain, use insect repellents, and wear long-sleeved shirts and pants particularly if outside from dusk to dawn.

Source: [HealthMinistry](#), [WHO](#)

## **Chikungunya – Brazil (update)**

Fiocruz (Fundação Oswaldo Cruz) reported a significant rise in chikungunya-related deaths in Brazil since the beginning of 2024 based on data from the Ministry of Health. As of 16-Nov-2024, there have been over 400,000 chikungunya cases, which is doubled from what was reported throughout 2023, with Minas Gerais bearing the highest burden (160,000 cases, representing 40% of the country's total). Notably, by August 2024, 159 deaths were confirmed, surpassing the total of 122 deaths recorded in 2023. As of 14-Nov-2024, the confirmed death toll due to chikungunya reached 201, according to PAHO data, emphasizing a significant upward trend.

Source: [ProMed](#), [MinistryofHealth](#)



# Other Infectious Disease Outbreaks and disasters – Europe/North America



## Vaccine-derived Poliomyelitis - Germany

On 28-Nov-2024, the Robert Koch Institute (RKI) in Germany reported positive environmental samples of circulating vaccine-derived poliovirus type 2 (cVDPV2) through routine wastewater surveillance detected in at least three distant locations across the country. The affected locations include four cities with samples testing positive between the weeks ending on 03-Nov-2024 and 17-Nov-2024: Munich, Bavaria (southeast Germany); Bonn and Cologne, North Rhine-Westphalia (western Germany); and Hamburg (northern Germany)

No confirmed human cases of cVDPV2 have been reported as of this update. The samples were obtained as part of routine wastewater surveillance against several pathogens including poliovirus.

Source: [RKI](#), [NewsMedia](#), [WHO](#)

## Mpox Clade I – United Kingdom

On 29-Nov-2024, the UK Health Security Agency (UKHSA) confirmed a new imported case of mpox clade Ib in Leeds City, West Yorkshire, England. The individual recently returned from Uganda, a country experiencing community transmission of Clade Ib Mpox. This is the fifth mpox clade Ib case reported in recent weeks, with no epidemiological links to the previously reported household cluster of four cases.

The UKHSA maintains that the **risk to the general UK population remains low** at this time.

Source: [GOV.UK](#), [UKHSA](#), [NewsMedia](#)

## Vaccine-derived Poliomyelitis - Finland

On 09-Dec-2024, news media reported that the Finnish Institute for Health and Welfare (THL) identified a positive environmental sample of circulating vaccine-derived poliovirus type 2 (cVDPV2) through routine wastewater surveillance in the Tampere region, collected last month in November. No confirmed human cases of cVDPV2 have been reported as of this update. The samples were obtained as part of routine wastewater surveillance for several pathogens including poliovirus, however, no details have been provided as to when in November the environmental sample was collected or if there are any genetic linkages to strains currently circulating in other parts of the world. According to the Finnish Wastewater Monitoring as a Pandemic Contingency Tool (WastPa portal), the wastewater treatment plant in Tampere covers an approximate population of 200,000 across the southern municipalities of Kangasala, Lempäälä, Pirkkala, and Tampere.

THL states that polio vaccination coverage among children in Finland exceeds 98%. The WHO Global Health Observatory shows that an estimated 91% of 1-year-olds in Finland had received three doses of polio containing vaccine in 2023. For adults entering the country who may have incomplete vaccination, a booster dose is recommended.

Since September 2024, cVDPV2 has been detected in three other countries within Europe: **Spain** (September 2024), **Poland** (November 2024), and **Germany** (November 2024).

Source: [NewsMedia](#), [WastPan](#), [HealthMinistryFIN](#), [theLancet](#)

## Measles - Canada

Canada is experiencing a substantial rise in measles cases, particularly in New Brunswick (44 cases) and Ontario (49 cases), after a period of low activity since the end of May. Including the 53 cases in Quebec of June 2024 a total of 149 cases have been reported in 2024 until Nov 27. All 46 recently reported cases were locally acquired (i.e., linked to a previous case within the country). Cumulatively, 71% of national cases reported a source of exposure within Canada and the majority of individuals were partially or fully unvaccinated.

Source: [PHOntario](#), [NewsMedia](#)

## Mpox Clade I - Canada

On 23-Nov-2024, Manitoba Health, Seniors and Long-Term Care department confirmed the **first human case** of mpox clade Ib in the province, marking the first detection of this strain in Canada. The individual, who recently returned from travel to an affected region, was assessed, diagnosed, and is currently isolating.

Source: [CIDRAP](#), [NewsMedia](#)

## Highly Pathogenic Avian Influenza A H5N1 in Canada – update -

Follow-up on the first human case of influenza H5N1 of avian origin in British Columbia, Canada, further information on genome sequencing has been provided, where key mutational changes in the virus have been identified that may enhance its ability to infect humans. Genetic sequencing has revealed mutations in the hemagglutinin protein of the virus that could allow it to attach to human upper airway receptors (alpha 2-6), a critical adaptation for potential human-to-human transmission. The source of infection remains unknown but is suspected to be a wild bird variant (given identified genotype D1.1), distinct from the B3.13 genotype associated with dairy cattle outbreaks in the U.S.

*The current infection demonstrates the virus's ongoing evolution in response to genetic shifts, specifically in hemagglutinin and neuraminidase.*

Source: [CIDREP](#), [GovCAN](#)

Province	Number of infected premises (current IPs)	Number of previously infected premises (released IPs)	Estimated number of birds impacted (as of 2024-12-06)
Alberta	4	82	2,019,000
British Columbia	71	158	7,624,000
Manitoba	1	23	400,000
New Brunswick	0	2	Under 100
Newfoundland and Labrador	0	2	400
Nova Scotia	0	8	12,000
Ontario	0	49	899,000
Quebec	4	54	1,438,000
Saskatchewan	1	44	751,000
<b>Total</b>	<b>81</b>	<b>422</b>	<b>13,145,000</b>

This table lists the estimated number of birds in flocks impacted by avian influenza subtype H5 by province.

# Other Infectious Disease Outbreaks – Americas/Middle East/Europe

## Highly Pathogenic Avian Influenza A H5N1 - Vietnam

On 04-Dec-2024, the Center for Disease Control (CDC) of Long An province, southern Vietnam, reported a confirmed case of human influenza A (H5N1) of avian origin. This is the first reported case in the province. The affected individual is an 18-year-old who resides in Tan An City, Long An Province and presented with symptoms including fever, headache, and muscle pain, progressing to respiratory failure, pneumonia, and sepsis. Avian influenza A(H5N1) was confirmed through testing conducted at the Pasteur Institute in Ho Chi Minh City.

Epidemiological investigations found hundreds of dead poultry at the patient's family home. The poultry deaths have been linked to avian influenza, and relevant authorities have taken measures to address the situation.

Source: [CIDRAP](#), [CIDRAP2](#)

## Japanese Encephalitis - India

A case of Japanese Encephalitis (JE) has been confirmed in Delhi, India. This is the first case of JE reported in Delhi since 2011. The affected individual is a 72-year-old man from Bindapur, West Delhi who is afflicted with chronic conditions including diabetes and coronary artery disease. He was admitted on November 3 due to complaints of chest pain and discharged on November 15.

District health officers and epidemiologists have been directed to intensify vector control measures, including larval source reduction, and implement community-based initiatives such as awareness campaigns for the prevention and control of JE.

Source: [NewsMedia](#), [NewsMedia](#)

## Dengue - Nepal

Nepal continues to report significant upward trends of dengue fever. This outbreak, which began in 2022 has overall been attributed to climate change, urbanization, and recent widespread flooding. Notably, dengue cases have been reported now at **high altitudes** (i.e., Solukhumbu district, home to Mount Everest) and at elevations previously considered unsuitable for mosquito survival.

Over 28,000 infections and at least 12 confirmed deaths have been reported in Nepal since the beginning of 2024. However, these are likely underestimates. The capital city, Kathmandu, has recorded over 4,000 cases, overwhelming hospitals as outpatient and inpatient capacities reached critical levels. Similar surges are observed in other urban centers such as Biratnagar, Chitwan, and Pokhara.

In addition, there has been geographical expansion and dengue cases have been reported locally for the first time in high altitude regions including the foothills of the Himalayas.

Source: [NewsMedia](#), [NewsMedia](#)

## Dengue - Peru

On 22-Nov-2024, the National CDC in Peru provided a precautionary alert to local health officials for an increase in dengue cases from the DENV-3 serotype due to potential concerns for severe clinical outcomes. As of 16-Nov-2024, there have been 273,847 cumulative cases including 259 deaths this year. This is 10% greater than cumulative cases reported last year and remains elevated compared to the average for the previous five years (+191% increase), over a similar reporting period. In the current year, an upward trend in dengue cases has been observed since epidemiologic week 40 (starting on 09-Sep-2024). The departments showing upwards trends are Loreto, San Martín, Piura, Tumbes, Ucayali, Huánuco, Junín, Cusco, Cajamarca, Madre de Dios, Pasco, Amazonas, and Ayacucho.

Source: [PAHO](#), [MinistryofHealth](#)

## Highly Pathogenic Avian Influenza A H5N1 - Australia (update)

On 04-Dec-2024, a peer-reviewed scientific publication in the Emerging Infectious Diseases journal provided further details on the first human infection with avian influenza A(H5N1) in a 2.5-year-old child who had recently returned from Kolkata, India. According to this review, genome sequencing has identified a reassortant virus\* (previously unreported) consisting of clade 2.3.2.1a, 2.3.4.4b, and wild bird low pathogenicity avian influenza gene segments. Genome sequencing showed avian-adaptive traits without evidence of mammalian adaptation or enhanced transmissibility. No known contact with poultry or raw poultry products was reported for the patient, and no illness was identified in family members.

Although clade 2.3.4.4b is globally dominant, a diversity of HPAI H5N1 clades is present in poultry in Asia today. Clade 2.3.2.1a is detected sporadically in South Asia (notably in India and Bangladesh) and primarily affects poultry and wild birds. Human infections with clade 2.3.2.1a are rare, with two previous cases reported in India (2021) and Nepal (2019). **This case marks the first historical detection of this specific reassortant virus in a human.**

*\*Reassortment is a type of recombination when two or more viruses with segmented genomes exchange genetic material and infect the same cell. Reassortment can lead to new viral subtypes and can indicate viral diversity, adaptation, and immune escape.*

Source: [CDC](#)