



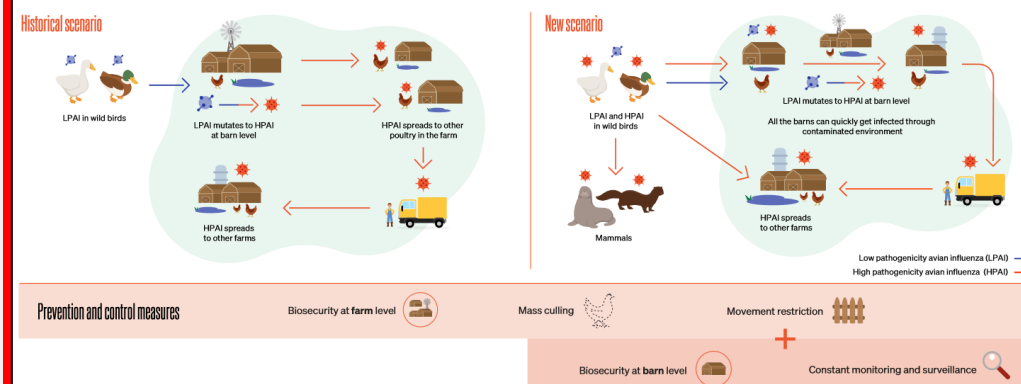
News:

- **WHO/UNICEF:** New data show promising signs of [immunization services rebounding](#) in some countries, but, particularly in low-income countries, coverage still falls short of pre-pandemic levels putting children at grave risk from disease outbreaks.
- **CDC/WHO/RKI:** launched a [Health Security Partnership](#) to Strengthen Disease Surveillance and Epidemic Intelligence in Africa. The partnership aims to strengthen Africa's health security capabilities in the areas of biosecurity, integrated disease surveillance, event-based surveillance, genomic surveillance, and epidemic intelligence.
- **WHO:** launched a [Technical guidance on interruption of transmission and elimination of leprosy disease](#) and associated tools, [Leprosy Programme and Transmission Assessment Tool \(LPTA\)](#) and [Leprosy Elimination Monitoring Tool \(LEMT\)](#). These were prepared following recommendations of the WHO Taskforce for defining cut-offs and criteria for verification of interruption of transmission and elimination of leprosy disease and a series of consultations with experts in leprosy and national programme managers.
- **WHO/WOAH:** Ongoing avian influenza outbreaks in animals pose risk to humans. See as well last MI2 report on ongoing Avian Influenza outbreak.
- **ECDC/WHO:** launched their latest [Joint ECDC-WHO regional office for Europe Mpox surveillance bulletin](#) at the 6 July. A total of 25,935 cases of mpox have been identified through IHR mechanisms, official public sources and TESSy up to 06 July 2023, 14:00, from 45 countries and areas throughout the European Region. Over the 4 weeks before, 30 cases of mpox have been identified from 8 countries and areas.
- **ECDC:** launched their last [Avian influenza overview](#) covering April – June 2023. During this time, highly pathogenic avian influenza (HPAI) A(H5N1) virus (clade 2.3.4.4b) outbreaks were reported in domestic (98) and wild (634) birds across 25 countries in Europe.
- **ECDC:** published a [new literature review](#) with had the aim to review on the currently available data on SARS-CoV-2 therapeutic mAbs and antiviral drugs authorised for use in the EU/EEA. The outcome was that antiviral drugs and monoclonal antibodies (mAbs), administered either separately or as combination therapy 'cocktails', have provided a valuable tool for fighting COVID-19. Surveillance data, coupled with data on antiviral treatment susceptibility, can guide clinical decisions on selecting the best therapy for the patient.
- **EMA/ECDC:** in 2018 cooperate in ensuring the continued [monitoring of vaccines and vaccination](#) used in EU/EEA vaccination programmes. In May 2022 they officially established and launched a platform, with the intention of bringing together public health and regulatory experts to discuss the studies needed to generate real-life evidence on the safety and effectiveness of vaccines used in EU/EEA immunisation programmes. Now they started a pilot protocol for influenza vaccine effectiveness against laboratory-confirmed influenza infections (symptomatic) using healthcare worker cohorts.
- **CDC:** to help ensure that millions of uninsured and underinsured American adults continue to have access to no-cost COVID-19 vaccinations, the CDC is launching the [Bridge Access Program for COVID-19 Vaccines](#) this fall.

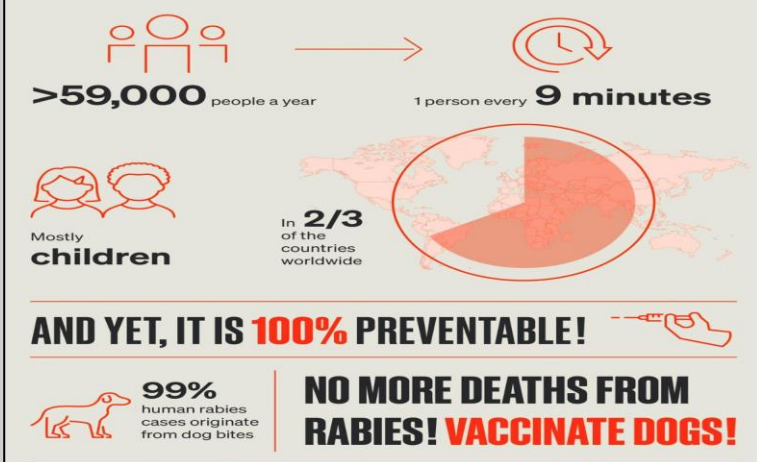
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## Avian influenza: understanding new dynamics to better combat the disease

The spread patterns of high pathogenicity avian influenza (HPAI) have recently evolved from a historically known scenario to a new one. Both scenarios coexist in the current epidemiological situation.



## RABIES STILL KILLS



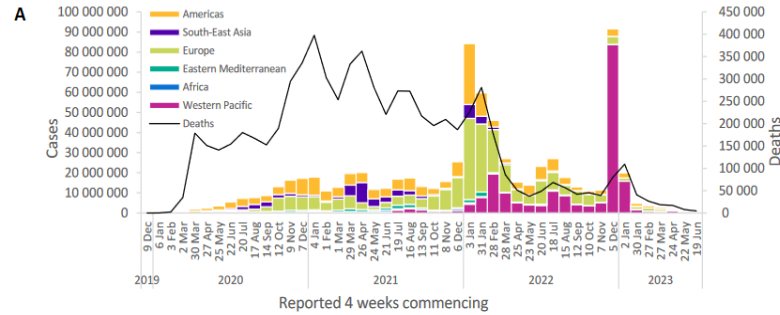
# COVID-19 Situation by WHO Region, as of 20 July

## Global epidemiological situation overview; WHO as of 16 July 2023

Globally, over 836 000 new COVID-19 cases and over 4500 deaths were reported in the last 28 days (19 June to 16 July 2023) (Figure 1). While five WHO regions have reported decreases in the number of both cases and deaths, the Western Pacific Region has reported a decline in cases but an increase in deaths. As of 16 July 2023, over 768 million confirmed cases and over 6.9 million deaths have been reported globally.

At the country level, the highest numbers of new cases reported within the 28-day period were reported from the Republic of Korea (501 931 new cases; +38%), Brazil (54 182 new cases; -37%), Australia (48 248 new cases; -65%), Singapore (26 445 new cases; -52%), and New Zealand (24 112 new cases; -45%). The highest numbers of new 28-day deaths were reported from Brazil (921 new deaths; -6%), Australia (690 new deaths; +108%), Peru (410 new deaths; +77%), the Russian Federation (402 new deaths; -30%), and Italy (206 new deaths; -54%).

Figure 1. COVID-19 cases reported by WHO Region, and global deaths by 28-day intervals, as of 16 July 2023 (A); and last six reporting periods, 30 January to 16 July 2023 (B)\*\*



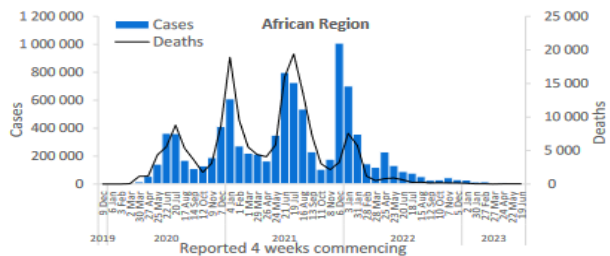
## WHO regional overviews

Data for 19 June to 16 July 2023

### African Region

The African Region reported over 4400 new cases, a 36% decrease as compared to the previous 28-day period. Three (6%) of the 50 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Malawi (117 vs 36 new cases; +225%), Côte d'Ivoire (six vs two new cases; +200%), and Cabo Verde (176 vs 138 new cases; +28%). The highest numbers of new cases were reported from Zambia (1061 new cases; 5.8 new cases per 100 000; -46%), Namibia (688 new cases; 27.1 new cases per 100 000; no cases reported the previous 28-day period), and Mauritius (665 new cases; 52.3 new cases per 100 000; -72%).

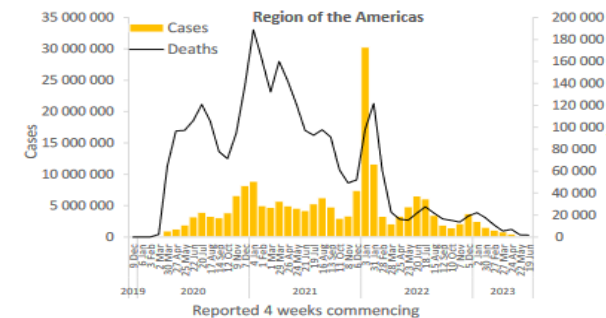
The number of new deaths in the Region decreased by 14% as compared to the previous 28-day period, with 19 new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (nine new deaths; <1 new death per 100 000; -18%), Namibia (seven new deaths; <1 new death per 100 000; no deaths reported the previous 28-day period), and Zambia (two new deaths; <1 new death per 100 000; similar to the previous 28-day period).



### Region of the Americas

The Region of the Americas reported over 99 000 new cases, a 36% decrease as compared to the previous 28-day period. Seven (12%) of the 56 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Curaçao (66 vs five new cases; +1220%), the Dominican Republic (2524 vs 420 new cases; +501%), and Nicaragua (177 vs 54 new cases; +228%). The highest numbers of new cases were reported from Brazil (54 182 new cases; 25.5 new cases per 100 000; -37%), Guatemala (9684 new cases; 54.1 new cases per 100 000; +57%), and Peru (6579 new cases; 20.0 new cases per 100 000; +193%).

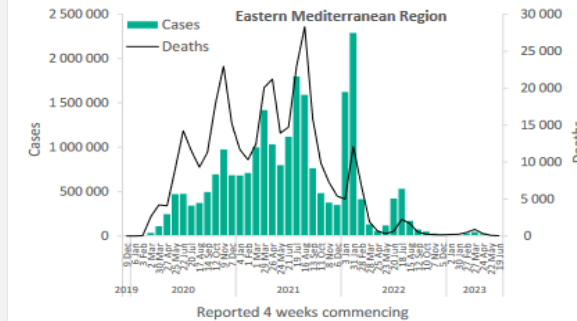
The number of new deaths reported in the Region decreased by 13% as compared to the previous 28-day period, with 1750 new deaths reported. The highest numbers of new deaths were reported from Brazil (921 new deaths; <1 new death per 100 000; -6%), Peru (410 new deaths; 1.2 new deaths per 100 000; +77%), and Canada (147 new deaths; <1 new death per 100 000; -62%).



### Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 1700 new cases, a 79% decrease as compared to the previous 28-day period. No country has reported increases in new cases of 20% or greater compared to the previous 28-day period. The highest numbers of new cases were reported from Afghanistan (825 new cases; 2.1 new cases per 100 000; -70%), the Islamic Republic of Iran (448 new cases; <1 new case per 100 000; -61%), and Qatar (188 new cases; 6.5 new cases per 100 000; -92%).

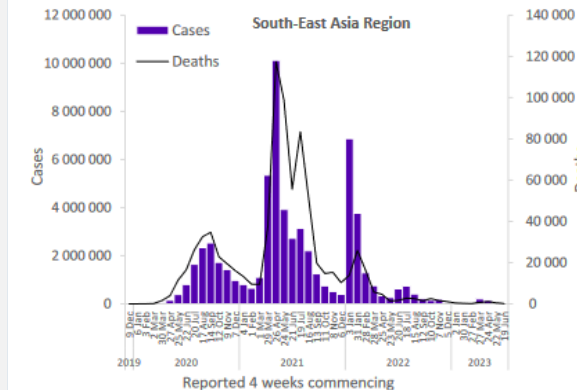
The number of new deaths in the Region decreased by 72% as compared to the previous 28-day period, with 27 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (13 new deaths; <1 new death per 100 000; -78%), Afghanistan (10 new deaths; <1 new death per 100 000; +11%), and Lebanon (four new deaths; <1 new death per 100 000; -78%).



### South-East Asia Region

The South-East Asia Region reported over 9700 new cases, a 70% decrease as compared to the previous 28-day period. One (10%) of the 10 countries for which data are available reported increases in new cases of 20% or greater: Bhutan (18 vs two new cases; +800%). The highest numbers of new cases were reported from Thailand (4318 new cases; 6.2 new cases per 100 000; -60%), Bangladesh (2107 new cases; 1.3 new cases per 100 000; -26%), and India (1398 new cases; <1 new case per 100 000; -80%).

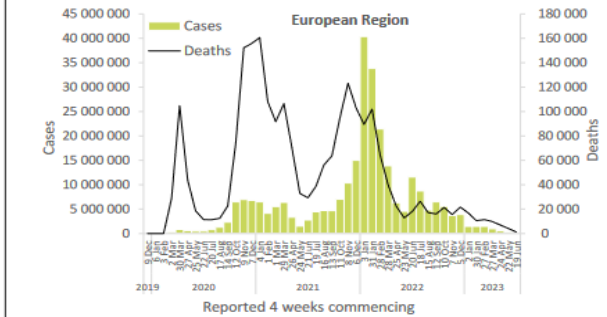
The number of new deaths in the Region decreased by 63% as compared to the previous 28-day period, with 183 new deaths reported. The highest numbers of new deaths were reported from Thailand (118 new deaths; <1 new death per 100 000; -51%), Indonesia (35 new deaths; <1 new death per 100 000; -79%), and India (20 new deaths; <1 new death per 100 000; -68%).



### European Region

The European Region reported over 86 000 new cases, a 71% decrease as compared to the previous 28-day period. No country has reported increases in new cases of 20% or greater compared to the previous 28-day period. The highest numbers of new cases were reported from the Russian Federation (20 854 new cases; 14.3 new cases per 100 000; -55%), Italy (15 725 new cases; 26.4 new cases per 100 000; -63%), and France (7982 new cases; 12.3 new cases per 100 000; -89%).

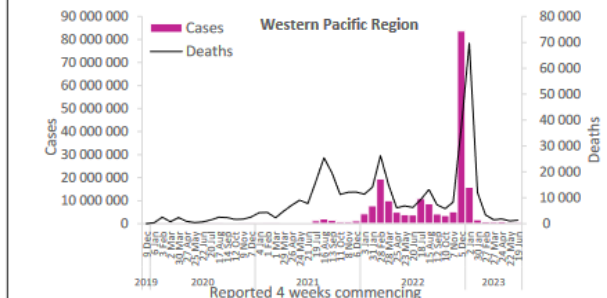
The number of new deaths in the Region decreased by 70% as compared to the previous 28-day period, with 1230 new deaths reported. The highest numbers of new deaths were reported from the Russian Federation (402 new deaths; <1 new death per 100 000; -30%), Italy (206 new deaths; <1 new death per 100 000; -54%), and Portugal (81 new deaths; <1 new death per 100 000; -50%).



### Western Pacific Region

The Western Pacific Region reported over 634 000 new cases, a 9% decrease as compared to the previous 28-day period. Seven (20%) of the 35 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Samoa (11 vs one new cases; +1000%), Palau (19 vs four new cases; +375%), and Kiribati (45 vs 10 new cases; +350%). The highest numbers of new cases were reported from the Republic of Korea (501 931 new cases; 979.0 new cases per 100 000; +38%), Australia (48 248 new cases; 189.2 new cases per 100 000; -65%), and Singapore (26 445 new cases; 452.0 new cases per 100 000; -52%).

The number of new deaths in the Region increased by 30% as compared to the previous 28-day period, with 1351 new deaths reported. The highest numbers of new deaths were reported from Australia (690 new deaths; 2.7 new deaths per 100 000; +108%), the Republic of Korea (178 new deaths; <1 new death per 100 000; -14%), and Mongolia (148 new deaths; 4.5 new deaths per 100 000; no deaths reported the previous 28-day period).





# Botulism - Spain

## Middle East Respiratory Syndrome (MERS-CoV) - United Arab Emirates

Source: [WHO](#)

### Background

On 11 July 2023, Italian health authorities notified Spanish health authorities about two Italian cases of botulism with reported consumption of packaged potato omelette in Spain. On 14 July 2023, two Spanish Autonomous Communities (Madrid and Valencia) reported two probable cases of botulism with reported consumption of the same product. A national alert was sent to all Spanish Autonomous Communities and the Spanish authorities have been contacted for assessing the possible risk outside Spain.

As of 20 July 2023, five confirmed and two probable cases of botulism have been reported with reported consumption of packaged potato omelettes from different brands and supermarkets in different Spanish Autonomous Communities. Three of the confirmed cases required medical attention in intensive care units and, so far, no deaths have been reported. Probable cases are defined as cases with symptoms compatible for botulism and an epidemiological link. Confirmed cases are laboratory-confirmed. Disease onset dates range from 21 June to 10 July 2023. Ages range from 23 to 61 years.

According to AESAN, in four of the cases, the manufacturer of these products is the same. However, the pathogen or its toxins have not been found in the suspected products or their production processes. The investigations are ongoing. As a precautionary measure, the company has voluntarily recalled the products, stopped production, and informed consumers to return all the suspected products they might have bought.

### ECDC assessment:

This is a small outbreak of seven cases of botulism (five confirmed, two probable) with potato omelette as a suspected vehicle. The product has been produced in Spain and the producer and the authorities have initiated recalls and informing the general public. Investigation is ongoing to identify the source of the outbreak.

Based on information available, the risk for EU/EEA citizens is low.

Source: [EU](#), [MediaNews](#)

The screenshot shows the RASFF Window notification for a suspected botulism case in Spain. The notification is dated 2023.4941 and is titled "Suspected botulism due to fresh potato tortilla from Spain". It was notified on 24 July 2023 by Spain and last updated on 29 July 2023. The notification is classified as an alert notification and is serious. The product is fresh potato omelette packaged in a protective atmosphere, and the product category is prepared dishes and snacks. The notification is for Spain. The risk decision is "Services". The hazards observed are "Not defined". The number of persons affected is 9. The symptoms/illness are "Botulism: 5 confirmed cases, and 4 probable cases. Relationship established by epidemiological survey". The measures taken are listed in the table below.

Country	Action	Product name
Spain	Withdrawal from the market	Fresh potato omelette packaged in a protective atmosphere
Spain	Public warning - press release	Fresh potato omelette packaged in a protective atmosphere
Spain	Public warning - press release	Fresh potato omelette packaged in a protective atmosphere
Spain	Public warning - press release	Fresh potato omelette packaged in a protective atmosphere
Spain	Public warning - press release	Fresh potato omelette packaged in a protective atmosphere
Spain	Withdrawal from recipient(s)	Fresh potato omelette packaged in a protective atmosphere

On 10 July 2023, the United Arab Emirates (UAE), notified WHO of a case of MERS-CoV in a 28-year-old male from Al Ain city in Abu Dhabi. The case had **no history of direct or indirect contact with dromedaries, goats, or sheep**. All 108 identified contacts were monitored for 14 days from the last date of exposure to the MERS-CoV patient. **No secondary cases** have been detected to date.

Since July 2013, when the **UAE** reported the first case of MERS-CoV, **94 confirmed cases** (including this new case) and **12 deaths** have been reported. **Globally**, the total number of confirmed MERS-CoV cases reported to WHO since 2012 is **2605**, including **936 associated deaths** as of July 2023.

### WHO risk assessment

Cases of MERS-CoV infection are **rare** in the UAE.

The majority of the globally reported cases have occurred in countries in the **Arabian Peninsula**. Outside of this region, there has been one large outbreak in the **Republic of Korea**, in May 2015, during which 186 laboratory-confirmed cases (185 in the Republic of Korea and one in China) and 38 deaths were reported.

The notification of this case does **not change the overall risk assessment**.

WHO expects that **additional cases** of MERS-CoV infection **will be reported** from the Middle East and/or other countries where MERS-CoV is circulating in dromedaries, and that cases will **continue to be exported** to other countries by individuals who were exposed to the virus through contact with dromedaries or their products (for example, consumption of camel's raw milk), or in a healthcare setting.

### WHO advice

Based on the current situation and available information, WHO re-emphasizes the **importance of strong surveillance** by all Member States for acute respiratory infections, including MERS-CoV, and to carefully review any unusual patterns.

Given that this latest case presents with severe disease but has no comorbidities and no exposure history to camels, camel raw products or MERS-CoV human case, it will be important to **sequence the virus** and conduct genomic analysis to screen for any unusual patterns.

As a **general precaution**, anyone visiting farms, markets, barns or other places where dromedaries are present should practice **general hygiene measures**, including regular hand washing after touching animals, avoiding touching eyes, nose or mouth with hands, and avoiding contact with sick animals. People may also consider wearing protective gowns and gloves while professionally handling animals.

The **consumption of raw or undercooked animal products**, including milk, meat, blood and urine, carries a **high risk** of infection from a variety of organisms that might cause disease in humans. Animal products processed appropriately through proper cooking or pasteurization are safe for consumption but should also be handled carefully to avoid cross-contamination with uncooked foods.

**Human-to-human** transmission of MERS-CoV in healthcare settings has been associated with **delays in recognizing the early symptoms** of MERS-CoV infection. **IPC measures** are therefore critical to prevent the possible spread of MERS-CoV between people in health-care facilities.

WHO does not advise special screening at points of entry with regard to this event, **nor** does it currently recommend the **application of any travel or trade restrictions**.

# Childhood immunization begins recovery after COVID-19 backslide

Source: [WHO](#)

**New WHO and UNICEF data show promising signs of immunization services rebounding in some countries, but, particularly in low-income countries, coverage still falls short of pre-pandemic levels putting children at grave risk from disease outbreaks.**

Global immunization services reached 4 million more children in 2022 compared to the previous year, as countries stepped up efforts to address the historic backsliding in immunization caused by the COVID-19 pandemic.

According to data published today by the World Health Organization (WHO) and UNICEF, in 2022, 20.5 million children missed out on one or more vaccines delivered through routine immunization services, compared to 24.4 million children in 2021. In spite of this improvement, the number remains higher than the 18.4 million children who missed out in 2019 before pandemic-related disruptions, underscoring the need for ongoing catch-up, recovery and system strengthening efforts.

The vaccine against diphtheria, tetanus and pertussis (DTP) is used as the global marker for immunization coverage. Of the 20.5 million children who missed out on one or more doses of their DTP vaccines in 2022, 14.3 million did not receive a single dose, so-called zero-dose children. The figure represents an improvement from the 18.1 million zero-dose children in 2021 but remains higher than the 12.9 million children in 2019.

“These data are encouraging, and a tribute to those who have worked so hard to restore life-saving immunization services after two years of sustained decline in immunization coverage,” said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. “But global and regional averages don’t tell the whole story and mask severe and persistent inequities. When countries and regions lag, children pay the price.”

The early stages of recovery in global immunization have not occurred equally, with the improvement concentrated in a few countries. Progress in well-resourced countries with large infant populations, such as India and Indonesia, masks slower recovery or even continued declines in most low-income countries, especially for measles vaccination.

Of the 73 countries that recorded substantial declines\* in coverage during the pandemic, 15 recovered to pre-pandemic levels, 24 are on route to recovery and, most concerning, 34 have stagnated or continued declining. These concerning trends echo patterns seen in other health metrics. Countries must ensure they are accelerating catch-up, recovery, and strengthening efforts, to reach every child with the vaccines they need and – because routine immunization is a fundamental pillar of primary healthcare – take the opportunity to make progress in other, related health sectors.

Vaccination against measles - one of the most infectious pathogens - has not recovered as well as other vaccines, putting an additional 35.2 million children at risk of measles infection. First dose measles coverage increased to 83% in 2022 from 81% in 2021 but remained lower than the 86% achieved in 2019. As a result, last year, 21.9 million children missed the routine measles vaccination in their first year of life – 2.7 million more than in 2019 – while an additional 13.3 million did not receive their second dose, placing children in under-vaccinated communities at risk of outbreaks.

“Beneath the positive trend lies a grave warning,” said UNICEF Executive Director Catherine Russell. “Until more countries mend the gaps in routine immunization coverage, children everywhere will remain at risk of contracting and dying from diseases we can prevent. Viruses like measles do not recognize borders. Efforts must urgently be strengthened to catch up children who missed their vaccination, while restoring and further improving immunization services from pre-pandemic levels.”

Countries with steady, sustained coverage in the years before the pandemic have been better able to stabilize immunization services since, the data indicates. For example, South Asia, which reported gradual, ongoing increases in coverage in the decade prior to the pandemic, has demonstrated a more rapid and robust recovery than regions that suffered longstanding declines, such as Latin America and the Caribbean. The African region, which is lagging behind in its recovery, faces an extra challenge. With an increasing child population, countries must scale up routine immunization services every year in order to maintain coverage levels.

DTP3 vaccine coverage in the 57 lower-income countries supported by Gavi, the Vaccine Alliance increased to 81% in 2022 – a considerable increase from 78% in 2021 – with the number of zero-dose children who receive no basic vaccines also dropping by 2 million in these countries. However, the increase in DTP3 coverage in Gavi-implementing countries was concentrated in lower-middle income countries, with low-income countries not yet increasing coverage – indicating the work remaining to help the most vulnerable health systems rebuild.

“It is incredibly reassuring, after the massive disruption wrought by the pandemic, to see routine immunization making such a strong recovery in Gavi-supported countries, especially in terms of reducing the number of zero-dose children,” said Dr Seth Berkley, CEO of Gavi, the Vaccine Alliance. “However, it is also clear from this important study that we need to find ways of helping every country protect their people, otherwise we run the risk of two tracks emerging, with larger, lower middle income countries outpacing the rest.”

For the first time, HPV vaccination coverage surpassed pre-pandemic levels. HPV vaccination programmes that began pre-pandemic reached the same number of girls in 2022 than 2019. However, coverage in 2019 was well below the 90% target, and this has remained true in 2022, with mean coverages in HPV programmes reaching 67% in high income countries and 55% in low- and middle-income countries. The newly launched HPV revitalization, led by the Gavi Alliance, aims to strengthen existing programme delivery and facilitate more introductions.

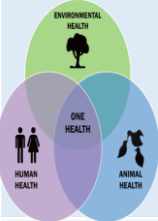
Many stakeholders are working to expedite recovery in all regions and across all vaccine platforms. Earlier in 2023, WHO and UNICEF, along with Gavi, The Bill & Melinda Gates Foundation and other IA2030 partners launched ‘The Big Catch-Up’, a global communications and advocacy push, calling on governments to catch up the children who missed vaccinations during the pandemic, restore immunization services to pre-pandemic levels, and strengthen these going forward by:

- doubling-down on their commitment to increase financing for immunization and to work with stakeholders to unlock available resources, including COVID-19 funds, to urgently restore disrupted and overstretched services and implement catch-up efforts;
- developing new policies that enable immunizers to reach children who were born just before or during the pandemic and who are moving past the age when they would be vaccinated by routine immunization services;
- strengthening immunization and primary health care services – including community health systems – and addressing systemic immunization challenges to correct longer-term stagnation in vaccination and reach the most marginalized children; and
- building and sustaining vaccine confidence and acceptance through engagement with communities and health providers.

	2019	2020	2021	2022
<b>DTP3 coverage</b>	86%	83%	81%	84%
<b>No. of under-vaccinated children</b>	18.4m	22.3m	24.5m	20.5m
<b>DTP1 coverage</b>	90%	88%	86%	89%
<b>No. of ‘zero dose’ children</b>	12.9m	16.1m	18.1m	14.3m

A substantial decline is considered a decline of 5 percentage points or more in 2020 and/or 2021 compared to 2019. Smaller fluctuations in coverage were not unusual before the pandemic.

The data indicates how many children in the target age group for routine immunization services were reached in 2022. It is not structured to capture catch-up of those who were missed during the pandemic, as many of these children will have ‘aged out’ of local immunisation services. However, some catch-up may have been recorded as “routine” services and reflected in the data.



# Ongoing avian influenza outbreaks in animals pose risk to humans

## Situation analysis and advice to countries from FAO, WHO, WOAHP

The current outbreaks of avian influenza (also called “bird flu”) have caused devastation in animal populations, including poultry, wild birds, and some mammals, and harmed farmers’ livelihoods and the food trade. Although largely affecting animals, these outbreaks pose ongoing risks to humans.

The FAO, WHO, and the WOAHP are urging countries to work together across sectors to save as many animals as possible and to protect people.

Avian influenza viruses normally spread among birds, but the increasing number of H5N1 avian influenza detections among mammals—which are biologically closer to humans than birds are—raises concern that the virus might adapt to infect humans more easily. In addition, some mammals may act as mixing vessels for influenza viruses, leading to the emergence of new viruses that could be more harmful to animals and humans.

The goose/Guangdong-lineage of H5N1 avian influenza viruses first emerged in 1996 and have been causing outbreaks in birds since then. Since 2020, a variant of these viruses belonging to the H5 clade 2.3.4.4b has led to an unprecedented number of deaths in wild birds and poultry in many countries in Africa, Asia and Europe. In 2021, the virus spread to North America, and in 2022, to Central and South America.

In 2022, 67 countries in five continents reported H5N1 high pathogenicity avian influenza outbreaks in poultry and wild birds to WOAHP, with more than 131 million domestic poultry lost due to death or culling in affected farms and villages. In 2023, another 14 countries reported outbreaks, mainly in the Americas, as the disease continues to spread. Several mass death events have been reported in wild birds, caused by influenza A(H5N1) clade 2.3.4.4b viruses.

## Monitoring the recent surge in outbreaks among mammals

Recently, there have been *increasing reports of deadly outbreaks among mammals* also caused by influenza A(H5)—including influenza A(H5N1)—viruses. 10 countries across three continents have reported outbreaks in mammals to WOAHP since 2022. There are likely to be more countries where outbreaks have not yet been detected or reported. Both *land and sea mammals* have been affected, including outbreaks in farmed mink in Spain, seals in the United States of America, and sea lions in Peru and Chile, with at least 26 species known to have been affected. H5N1 viruses have also been detected in domestic animals such as cats and dogs in several countries, with recent detections of H5N1 in cats announced by authorities in Poland.

“There is a recent paradigm change in the ecology and epidemiology of avian influenza which has heightened global concern as the disease spread to new geographical regions and caused unusual wild bird die-offs, and alarming rise in mammalian cases,” said Dr Gregorio Torres, Head of the Science Department at WOAHP.

## Assessing the risk to humans

*Sporadic influenza A(H5N1) clade 2.3.4.4b virus detections in humans* have also been reported, but remain *very rare, with 8 cases reported* since December 2021. Infections in humans can cause severe disease with a high mortality rate. The human cases detected thus far are mostly linked to *close contact with infected birds* and contaminated environments.

Studies are underway to identify any changes in the virus that may help the virus to spread more easily among mammals, including humans.

## Curbing the spread of avian influenza

Given the unprecedented spread of the A(H5N1) avian influenza virus among birds and mammals, and the potential risk to human health, the tripartite partners—FAO, WHO and WOAHP—urge countries to take the following actions:

- **Prevent avian influenza at its source**, mainly through enhanced biosecurity measures in farms and in poultry value chains, and apply good hygiene practices. WOAHP members, in consultation with the poultry sector, may consider the [vaccination of poultry](#) as a complementary disease control tool based on sound surveillance and taking into account local factors such as circulating virus strains, risk assessment and vaccination implementation conditions.
- **Rapidly detect, report and respond to animal outbreaks** as the first line of defence. When an infection is detected in animals, countries are encouraged to implement control strategies as described in [WOAHP standards](#).
- **Strengthen influenza surveillance in animals and humans**. To allow for early response, risk-based surveillance **in animals** should be enhanced before and during high-risk periods. Animal cases of avian influenza should be reported to WOAHP in a timely manner. Genetic sequencing should be conducted periodically to detect any changes in the viruses already present in the area or the introduction of new viruses. **In humans**, the following should be prioritized: (i) surveillance for severe acute respiratory infections and influenza-like illnesses, (ii) careful review of any unusual epidemiological patterns, (iii) reporting of human infections under the International Health Regulations, and (iv) sharing of influenza viruses with WHO Global Influenza Surveillance and Response System (GISRS) Collaborating Centres for Reference and Research on Influenza.
- **Conduct epidemiological and virological investigations around animal outbreaks and human infections**. Surveillance should be enhanced to rapidly detect and investigate further suspected animal and human cases.
- **Share the genetic sequence data** of viruses from humans, animals or their environments in publicly accessible databases rapidly, even before peer-reviewed publication.
- **Encourage collaboration between the animal and human health sectors**, especially in the areas of information sharing, joint risk assessment and response.
- **Communicate the risk**. Alert and train healthcare workers and occupationally-exposed persons on ways to protect themselves. The general public as well as animal workers should be advised to avoid contact with sick and dead animals, and to report these to animal health authorities. They should also be advised to seek medical care if unwell and to report any exposure to animals to their healthcare provider.
- **Ensure influenza pandemic preparedness at all levels**.

See as well the FHPB MI2 report on Avian Influenza as of 26/07/2023



# Other Infectious Disease Outbreaks – Avian Influenza

## Avian Influenza in fur farms – Finland

As of 19 July 2023 and since 13 July 2023, avian influenza A(H5N1) has been detected in 10 fur farms in Finland, according to [updates by the Finnish Food Authority](#). The farms are in the areas of Evijärvi, Halsua, Kauhava, and Kaustinen in Ostrobothnia and host foxes (blue and silver) and mink. According to the [Finnish Food Authority](#), this is the first time avian influenza has been detected in farmed fur animals in Finland. However, two infections were previously detected in wild foxes in Finland.

**ECDC assessment:** Introduction of avian influenza into fur farms is **not unexplained** if infected wild birds have been observed in the area, and measures to prevent contact between infected birds or their droppings and the farmed animals are not in place. A previous event was observed at a mink farm in Spain. It is crucial to perform **virus analyses** and **share sequence data** for analysis of markers relevant for mammalian adaptation. **Transmission between foxes, or other infected mammals, and humans has not been observed to date.** Nevertheless, it is crucial to **identify infected mammals** and exposed people to be able to monitor them for 10–14 days, and initiate testing if symptoms occur.

Source: [ECDC](#)

## Avian influenza in domestic cats – Poland

According to a [communication](#) posted by the Chief Veterinary Inspectorate of Poland, as of 17 July 2023, 61 samples from 60 cats and one caracal were tested for influenza A(H5N1) in Poland, and 34 were found positive.

Previously, on 16 July 2023, the World Health Organization (WHO) published a [Disease Outbreak News \(DON\)](#) reporting that as of 11 July 2023, 47 samples from 46 cats and one captive caracal were tested for influenza A(H5N1) in Poland, and 29 (62%) of them were found positive. The positive samples were from 13 geographical areas in Poland. According to the same source, some of the cats developed severe symptoms with rapid deterioration. Overall, 14 cats were euthanised and 11 died. The last death was reported on 30 June. As of 12 July, the surveillance period for all contacts has been completed with no symptoms reported among the human contacts of the positive cats.

According to the genomic analysis of 19 viruses that were sequenced from this outbreak, all are highly related, belonging to the H5 clade 2.3.4.4b and are similar to viruses already circulating in wild birds. These viruses also caused recent outbreaks in poultry in Poland.

The source of exposure is currently unknown, according to the DON published by WHO, and investigations are ongoing.

**ECDC assessment:** ECDC assesses the **current risk to the general public as low**, and the risk of infection to people who are **occupationally** or otherwise exposed to avian influenza-infected birds or mammals (wild or domesticated) as **low- to-moderate**. There are still a number of uncertainties related to the specific event of cat infections in Poland in terms of the source of infection, and the potential of feline-to-feline and feline-to-human transmission of the particular A(H5N1) influenza virus strain.

Source: [ECDC](#)

## Avian influenza A(H5N1) - United Kingdom

On 14 July 2023, the [United Kingdom Health Security Agency \(UKHSA\)](#) reported that influenza A (H5N1) has been identified in two additional asymptomatic individuals. This brings the total to four detections in people involved in avian influenza outbreaks in the UK, identified through an enhanced surveillance programme of poultry workers. As of 10 July 2023, 144 individuals from eight infected premises have been tested through the enhanced surveillance of poultry workers.

According to the [UKHSA](#), the viral genome sequence isolated from the birds on the premises where the first two human detections occurred, has been genotyped as influenza A(H5N1) clade 2.3.4.4b, with the complete genome classified as UK genotype AIV48, also known as the A/gull/France/22P015977/2022-like genotype.

The [UKHSA](#) has not found any evidence of human-to-human transmission of influenza A(H5) virus. As part of the asymptomatic surveillance programme, poultry workers are tested in the 10 days following exposure.

Avian influenza clade 2.3.4.4.b has been circulating in [Europe](#) for the last few years among wild and domestic birds causing a lot of outbreaks. Outbreaks continue to be reported as of May 2023.

Globally, as of 14 July 2023, there have been 878 human cases\*, including 458 deaths (case-fatality rate: 52.2%), of human infection with avian influenza A(H5N1) reported in 23 countries since 2004. To date, no human-to-human transmission has been detected.

**ECDC assessment:** ECDC assessed the **risk of infection of humans** with avian influenza viruses of the currently circulating clade 2.3.4.4b A(H5) virus in Europe for the **general public** in EU/EEA countries as **low**. The risk to **occupationally** or otherwise exposed groups to avian influenza-infected birds or mammals including infected cats is currently assessed as **low-to-moderate**.

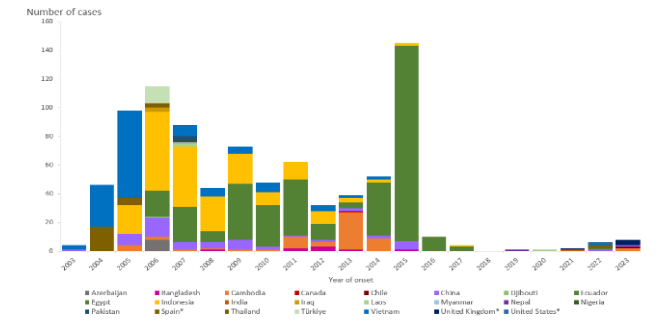
With ongoing outbreaks in wild birds, at poultry farms and in other settings, exposed individuals are recommended to wear appropriate **personal protective equipment**. Health authorities should continue to **follow up** on those exposed and test people with respiratory symptoms or other atypically severe symptoms following exposure to potentially infected animals for 10–14 days.

More data, such as results from serological investigations, are needed to better understand if these were real infections or contaminations related to exposure to highly contaminated environments where culling takes place.

Source: [ECDC](#)

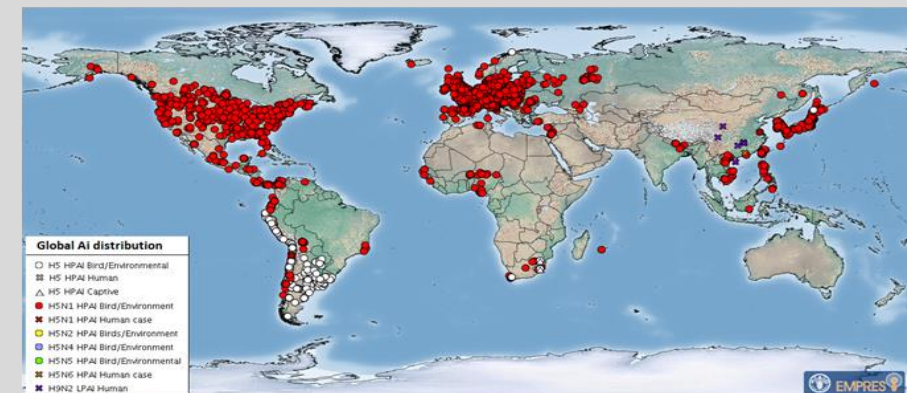
[See as well the latest FHPB MI2 report on Avian Influenza.](#)

**Figure 1. Distribution of confirmed human cases of avian influenza A(H5N1) virus infection by year of onset and country, 2003–2023 (updated on 17 July 2023, n=878\*)**



\*Includes five detections due to suspected environmental contamination and no evidence of infection reported in 2022 from Spain and the United States and in 2023 from the United Kingdom.

**Map 1. Global distribution of AIV with zoonotic potential\* observed since 1 October 2022 (i.e. current wave)**



Note: Symbols may overlap for events in similar geographic locations.

\* includes H5Nx HPAI viruses.

# Other Infectious Disease Outbreaks

## [Dengue – Kousa, Qena, Egypt](#)

In a follow up to the unknown febrile illness outbreak affecting villagers in Al-Aleqat, Qena governorate located in the south of Egypt, the Egyptian Ministry of Health and Population has released a statement confirming that the unknown febrile illness outbreak is due to dengue virus. The ministry indicated that blood samples of the affected individuals were laboratory confirmed to be positive for dengue virus. Field investigations and environmental samples indicated the presence of *Aedes aegypti*, a mosquito species known transmit dengue fever. Furthermore, the ministry confirmed that there have been no deaths and the affected individuals were able to receive treatment at home. Preventive and precautionary measures to limit the spread of the mosquito vector were said to have been implemented; however, the details of these measures have not been described.

Source: [MediaNews](#)

## [Dengue and Unknown diarrhoea – Peru](#)

Still struggling to respond to a large dengue outbreak, Peru's embattled healthcare system is facing a surge of other diseases. The government has now had to declare a health emergency due to the unusual increase of Guillain-Barré syndrome cases across the country. At least 31 children have died and a further 45,900 children have been infected with the deadly dengue virus, in the worst epidemic of the illness in Peru in over a decade. The country has seen over 150,294 cases since January 2023, a number substantially higher than the previous peak of 74,000 cases for the entire year in 2017. The death toll from the viral outbreak has risen to 252 nationwide. The country normally averages around 28,000 cases per year, with peaks during El Niño weather events. The post-flood dengue epidemic, compounded by a major heat wave, has reached a record 161,471 cases and 287 deaths - the highest dengue fever death rate per capita in the Americas. MINSA reports that the epidemiological curve has decreased for the fifth consecutive week, even in the most affected regions along the northern coast.

Meanwhile, in the north, the spread of an undiagnosed diarrhoeal disease that has already killed five people is also worrying local authorities.

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

## [Dengue – Saudi Arabia](#)

According to a local media source in Saudi Arabia, the Directorate of Health has reported an unspecified increase in confirmed cases of dengue fever in several health facilities. Contributing factors highlighted by the source indicated that there have been heavy rains and an accumulation of rainwater pools which favour mosquito breeding sites. As part of vector control efforts, health authorities have indicated that at least 7,222 mosquito breeding sites have been sterilized and cleaned. Historically in Saudi Arabia, most dengue cases have been reported across the Red Sea region in western part of the country. With climate change and a longer dry season, cases have gradually expanded to interior areas, including the two holy cities of Makkah and Almadinah Almounorah, where dengue is particularly prevalent. The peak of cases is usually during the rainy seasons of April and September. Saudi Arabia is one of the world's biggest hubs for religious tourism, and authorities in the country consider efforts to bring dengue under control to be of paramount importance. However in 2019, Saudi Arabia was amongst the countries that recorded some of the highest rates of the disease in the region. In 2018 alone, 6,345 dengue cases were confirmed, mostly in Jeddah. Despite the challenges posed by the COVID-19 pandemic, studies show there was a steep reduction in dengue cases in Saudi Arabia over the past two years. This was attributed to a collaborative effort by government agencies involved in vector surveillance and control.

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

## [Crimean Kongo haemorrhagic fever - Iraq and Georgia](#)

The [Iraqi Ministry of Health](#) reported that more than 250 cases of Crimean Congo haemorrhagic fever (CCHF) and more than 35 deaths have been recorded in all governorates of the country, since the beginning of 2023. The highest number of haemorrhagic fever infections was recorded in Dhi Qar Governorate, with 67 cases, including 10 deaths, followed by Basra, Maysan, Al-Rusafa side of Baghdad, Al-Muthanna, Wasit, Babil, and Al-Karkh side of Baghdad.

Until end of May, 8 cases of Crimean-Congo hemorrhagic fever (CCHF) have been recorded in [Georgia](#), mainly in the regions of Samtskhe-Javakheti and Shida Kartli. 6 patients have already been discharged, and 2 are continuing treatment.

With the hot season now in Georgia, the spread of the CCHF becomes more important in Georgia.

Source: [OutbreakNewsToday](#), [2](#)

## [West Nile virus One Health seasonal surveillance – 2023 Europe](#)

This is the eighth weekly update of the 2023 West Nile Virus (WNV) monitoring season.

Since the last update and the beginning of the 2023 WNV monitoring season, and as of 19 July 2023, EU and EEA countries reported three human cases of WNV infection. Cases were reported by Greece (1), Hungary (1) and Italy (1). The following regions reported cases: Serres in Greece, Hajdú-Bihar in Hungary and Parma in Italy. No deaths related to WNV infection were reported from EU/EEA countries. EU-neighbouring countries have not reported any human cases of WNV infection.

Since the beginning of the 2023 transmission season, 10 outbreaks among birds have been reported by Italy.

Please refer to the [West Nile virus infection webpage](#) for maps and a dashboard.

**ECDC assessment:** This is the first week when **human cases were reported** during the 2023 West Nile Virus (WNV) monitoring season. During the current transmission season, human cases of WNV infection have been reported from countries that had reported WNV infections in previous years. Considering the weather conditions, further cases are expected to be reported from these countries.

Source: [ECDC](#)

## [Poliovirus – Multi-country \(World\)](#)

**Wild poliovirus (WPV1):** Since 27 June 2023 and as of 18 July 2023, with the date of onset of symptoms in 2023, no new cases of acute flaccid paralysis (AFP) caused by WPV1 have been reported.

**Circulating vaccine-derived poliovirus (cVDPV):** Since the previous update, the following cases of polio due to cVDPV have been reported with the date of onset of symptoms in 2023:

- Eight new cases of AFP caused by cVDPV1 have been reported from the DRC (8).
- Three new countries have reported cases of AFP caused by cVDPV2: Burkina Faso (1), Kenya (2), and Tanzania (1).
- Thirty-four new cases of AFP caused by cVDPV2 have been reported from seven countries: Burkina Faso (1), Central African Republic (CAR) (3), Chad (7), DRC (14), Kenya (2), Nigeria (6), and Tanzania (1).
- No cases of AFP due to cVDPV3 have been reported.

**ECDC assessment:** The WHO European Region, including the EU/EEA, has remained polio-free since 2002. Inactivated polio vaccines are used in all EU/EEA countries. As long as there are non-vaccinated or under-vaccinated population groups in European countries and poliomyelitis is not eradicated globally, the **risk** of the virus being **reintroduced** in Europe remains. One EU/EEA country (Romania) and three neighbouring countries (Bosnia and Herzegovina, Montenegro, and Ukraine) remain at **high risk of a sustained polio outbreak** following wild poliovirus importation or the emergence of cVDPV, due to sub-optimal programme performance and **low population immunity**, according to the [European Regional Certification Commission for Poliomyelitis Eradication \(RCC\) report](#) published in February 2023, referring to data from 2021. According to the same report, **eight** EU/EEA countries are at **intermediate risk of sustained polio outbreaks**.

The continuing circulation of wild poliovirus type 1 (WPV1) in Pakistan and Afghanistan and the detection of WPV1 cases in Mozambique in 2022, which are genetically linked to a strain from Pakistan, shows that there is still a **risk** of the disease being **imported into the EU/EEA**. Furthermore, the worrying outbreaks of cVDPV, which emerges and circulates due to lack of polio immunity in the population, illustrate the potential risk for further international spread.

Source: [ECDC](#)

# Other Infectious Disease Outbreaks



## Multidrug-resistant Shigella - Europe

Since April 2023, over 300 shigellosis cases, many with multidrug-resistant *Shigella sonnei* infections, have been reported to the ECDC.

The cases are linked to seven national and international distinct microbiological clusters, with chains of transmission largely, but not exclusively, among gay, bisexual and other men who have sex with men (gbMSM). Cases have been reported in Belgium (26), Denmark (13), Germany (33), Ireland (50), the Netherlands (21), Spain (> 60), and the United States (106). Most cases have been recorded during the period 2022–2023, but some date back to 2016.

An increase in extensively drug-resistant *Shigella sonnei* infections among gbMSM was already noted during the period 2020–2022 ([see ECDC's Rapid Risk Assessment dated 23 February 2022](#)).

All strains in these seven clusters show resistance to first and second-line antibiotics, such as third-generation cephalosporins, fluoroquinolones, sulfamethoxazole, and trimethoprim. Of particular concern is resistance to azithromycin in some of the strains related to these clusters, as this limits the options for effective treatment.

Source: [ECDC](#)

## Legionella - Europe

Legionnaires' disease, a severe form of pneumonia caused by the *Legionella* bacteria, has shown a significant surge within the EU/EEA in 2021, with over 10 700 cases reported and 704 known fatalities.

According to [ECDC's latest report on this topic](#), in 2021, the EU/EEA witnessed the highest annual notification rate of Legionnaires' disease to date, with 2.4 cases per 100,000 population, with four countries – Italy, France, Spain, and Germany accounting for 75% of all reported cases. Males aged 65 years and above were the most affected group, with a rate of 8.9 cases per 100,000 population.

In 2021, there were also 895 cases of travel-associated Legionnaire's disease infections, which represents a 38% increase in cases compared to 2020. This was possibly associated with the lifting of COVID-19 restrictions, as travel-associated infections decreased notably in 2020 compared to years before the COVID-19 pandemic.

The cause of the increased notification rate recently observed in Europe remains unknown. Factors that may explain these increases include changes in national testing policies and surveillance systems. Changes in climate and weather patterns across Europe and worldwide can also impact both the ecology of *Legionella* in the environment and the exposure to water aerosols containing the bacteria.

Source: [ECDC](#)

## Cholera - Arbus, Sardegna, Italy

In a follow up to the reported cholera case with no travel history, in Sardinia, Italy, further testing by the Istituto Superiore di Sanità indicated that the 71-year-old patient was infected with a non-cholera *Vibrio cholerae* strain. These strains typically produce mild symptoms and do not cause large epidemics. Only two serogroups (O1 and O139) of the bacterium can produce the enterotoxins that cause cholera.

Source: [MediaNews](#)

## Cholera - Burundi and Zimbabwe

Cholera remains a major public health problem in the African region. Burundi and Zimbabwe are among two of the sub-Saharan countries currently experiencing an outbreak of cholera with epicentres in densely-populated informal settlements, where there are inadequate water, sanitation and hygiene infrastructures and services. In Zimbabwe the situation looks worrisome, with a spike in cases in the past week and the spread of the outbreaks in known hotspot areas in the Harare Province. Robust response measures, particularly for strengthening surveillance, risk communication, case management, and provision of clean water, sanitation, and hygiene services are urgently needed to swiftly control the outbreaks.

Source: [AFRO](#)

## Cholera - Kenya and Mozambique

The cholera outbreak in Kenya and Mozambique, two of the countries in sub-Saharan Africa which have been highly affected, show signs of improvement with a sustained reduction in new cases over several weeks. No new deaths have been reported for several weeks. However, inadequate water sanitation and hygiene infrastructures including risk factors which can fuel continued transmission persists in these countries. The low-lying transmission could potentially result in a resurgence if response efforts are relaxed. The governments and partners need to sustain the momentum for controlling these outbreaks before the next rainy season through targeted and well-thought response strategies tailored to the local context.

Source: [AFRO](#)

## National crisis - Mali

Mali is in its lean season, a period when the climate-induced conditions associated with low rainfall and reduced water availability complicate the already dire humanitarian crisis faced by millions in the country due to the long-standing armed conflict. Attacks by armed groups persist, and population displacement continues, with limited access to basic needs, including healthcare, food, and adequate shelter. Resources are scarce and it is critical that the international community and humanitarian actors continue to support the people of Mali through this perilous time.

Source: [AFRO](#)

## Malaria – Germany, Frankfurt

A likely case of airport-associated malaria tropical (*P. falciparum*) has been identified in Frankfurt, Germany. The patient developed symptomatic disease 16 Jul 2023 and is employed at Frankfurt Airport as an operator for passenger bridges. He was hospitalized on 20 Jul [2023], and a diagnosis of malaria was made on 22 Jul 2023. His last journey abroad was to Dubai and Italy (Amalfi coast) in 2022. He had traveled to the Caribbean in 2009 but likely not to a malaria-endemic area there. He had never received blood transfusions. We regard the possibility that he had acquired the infection at Frankfurt airport as very likely. Almost exactly one year ago, a cluster of 3 airport-acquired malaria infections was described in Frankfurt. All 3 patients survived; one was critically ill. Another cluster was described in Frankfurt in October 2019. Both patients survived, but one was critically ill. Autochthonous cases of malaria that were associated with airports were recently also described in Brussels, Belgium, in 2020, where 2 patients living within 5 km [3 mi] had died and plasmodia were found to be inherited from the same ancestor. This would be the 2nd consecutive summer with airport-associated malaria cases in Frankfurt. Source: [ProMedMail](#)

## West Nile Virus - Europe

Since the beginning of the 2023 West Nile Virus monitoring season, and as of 19 July 2023, European Union and European Economic Area countries reported 3 human cases of WNV infection. This is the first week when human cases were reported during the 2023 WNV monitoring season. No deaths related to WNV infection were reported from EU/EEA countries. Cases were reported by Greece (1), Hungary (1) and Italy (1). The following regions reported cases: Serres in Greece, Hajdú-Bihar in Hungary and Parma in Italy. EU-neighbouring countries have not reported any human cases of WNV infection.

Since the beginning of the 2023 transmission season and as of 19 July 2023, 10 outbreaks among birds were reported in Italy. Source: [ECDC](#)

