Force Health Protection Branch
NATO MilMed COE Munich

Update 140

FHP-Update
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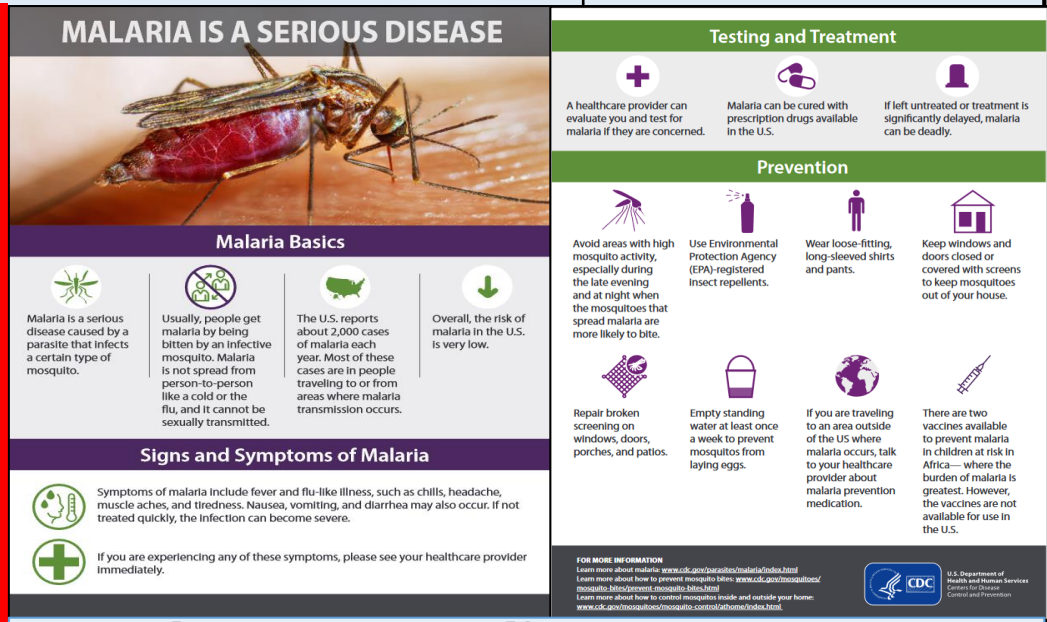
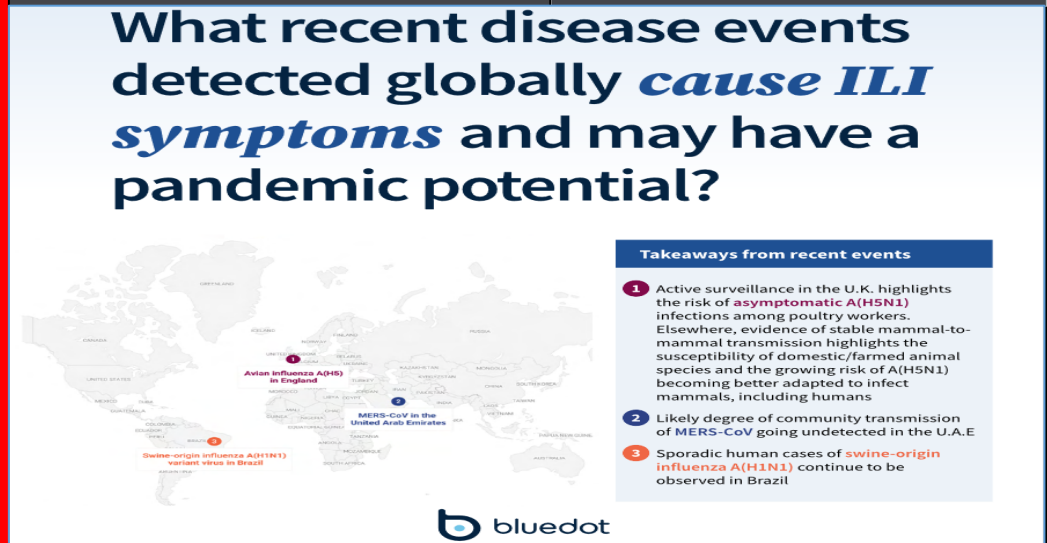
News:

- **World Humanitarian Day:** On 19 August the WHD honours those who lost lives or take risks trying to help people in need. UN already announced that this year is on track to be another deadly one for humanitarians. Since the start of 2023, 62 humanitarian workers have been killed, 84 have been wounded, and 34 kidnapped. Last year, the toll reached 116.
- **WHO:** the 2023 Model Lists of Essential Medicines, published in July 2023, features key updates to the tuberculosis (TB) section. These complement current WHO recommendations for shorter treatment of multidrug-/rifampicin-resistant TB (MDR/RR-TB) and newer options to treat drug-susceptible TB in children and adolescents. WHO's Global Tuberculosis Programme, with inputs from partners, proposed these changes to the EML based on the latest WHO recommendations and the current availability of TB medicines.
- **WHO**: launched a Report of the Meeting of the WHO Global Advisory Committee on Vaccine Safety from 15–16 May 2023 in there last Weekly epidemiological record No. 32. This iteration talks about the safety of the type 2 novel oral polio vaccine (nOPV2), of COVID-19 vaccines, of the TAK-003 dengue vaccine and safety updates on malaria vaccines.
- **ECDC:** classified XBB.1.5-like lineages with the amino acid change F456L as variants of interest following an increase in SARS-CoV-2 transmission in EU/EEA countries and abroad. Additionally there are other drivers that can contribute to the increasing transmission rates like large gatherings during seasonal holidays and lower levels of immunological protection against infection after several months of very low disease incidence. There is currently no sign of increased hospitalisations or pressures on healthcare systems.
- **ECDC/Eurofund:** launched a new joint report that concludes that adult work-life balance was significantly affected by measures such as stay-at-home orders and recommendations, closures of day-care, primary and secondary schools and national teleworking recommendations implemented in response to the COVID-19 pandemic.
- **WHO/Iraq:** The WHO congratulates Iraq for having eliminated trachoma as a public health problem. Post-elimination, Iraq and WHO will continue to closely monitor previously endemic areas to detect and if necessary, combat any resurgence of disease. Globally, Iraq joins 17 other countries that have been validated by WHO for having eliminated trachoma as a public health problem. These are Benin, Cambodia, China, Gambia, Ghana, Islamic Republic of Iran, Lao People's Democratic Republic, Malawi, Mali, Mexico, Morocco, Myanmar, Nepal, Oman, Saudi Arabia, Togo and Vanuatu. Iraq is also the 50th country to be acknowledged by WHO for eliminating at least one neglected tropical disease (NTD), globally. This major milestone is the halfway mark to the 100-country target set for 2030 in the WHO road map for neglected tropical diseases. Since the beginning of 2023, 5 other countries have successfully completed the relevant validation processes for one NTD.
- **ECDC**: classifies XBB.1.5-like lineages with the amino acid change F456L as variants of interest following an increase in SARS-CoV-2 transmission in EU/EEA countries and abroad.





COVID-19 Situation by WHO Region, as of 17 August

Global epidemiological situation overview; WHO as of 17 August 2023

In the last 28-day period (17 July to 13 August 2023), over 1.4 million new COVID-19 cases and over 2300 deaths were reported from WHO's six regions, an increase of 63% and a decrease of 56%, respectively, compared to the previous 28 days. As of 13 August 2023, over 769 million confirmed cases and over 6.9 million deaths have been reported globally. While four WHO regions have reported decreases in the number of both cases and deaths, the Western Pacific Region has reported an increase in cases and a decrease in deaths.

At the country level, the highest numbers of new cases reported within the 28-day period were from the Republic of Korea (1 209 194 new cases; +140%), Australia (30 402 new cases; -52%), Singapore (18 806 new cases; -40%), Italy (18 419 new cases; +10%) and the UK (16 938 new cases; +60%). The highest numbers of new 28-day deaths were reported from the Republic of Korea (340 new deaths; +91%), Australia (201 new deaths; -77%), the Russian Federation (182 new deaths; -54%), the Philippines (162 new deaths; +5300%) and Italy (159 new deaths; 28%).

Figure 1. COVID-19 cases reported by WHO Region, and global deaths by 28-day intervals, as of 30 January to 13 August 2023 (B)

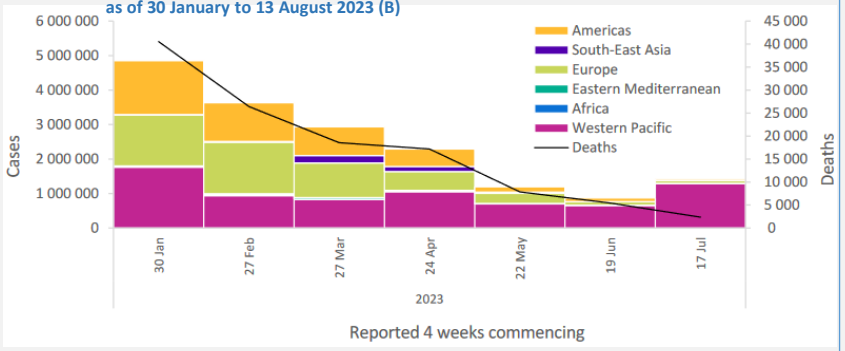
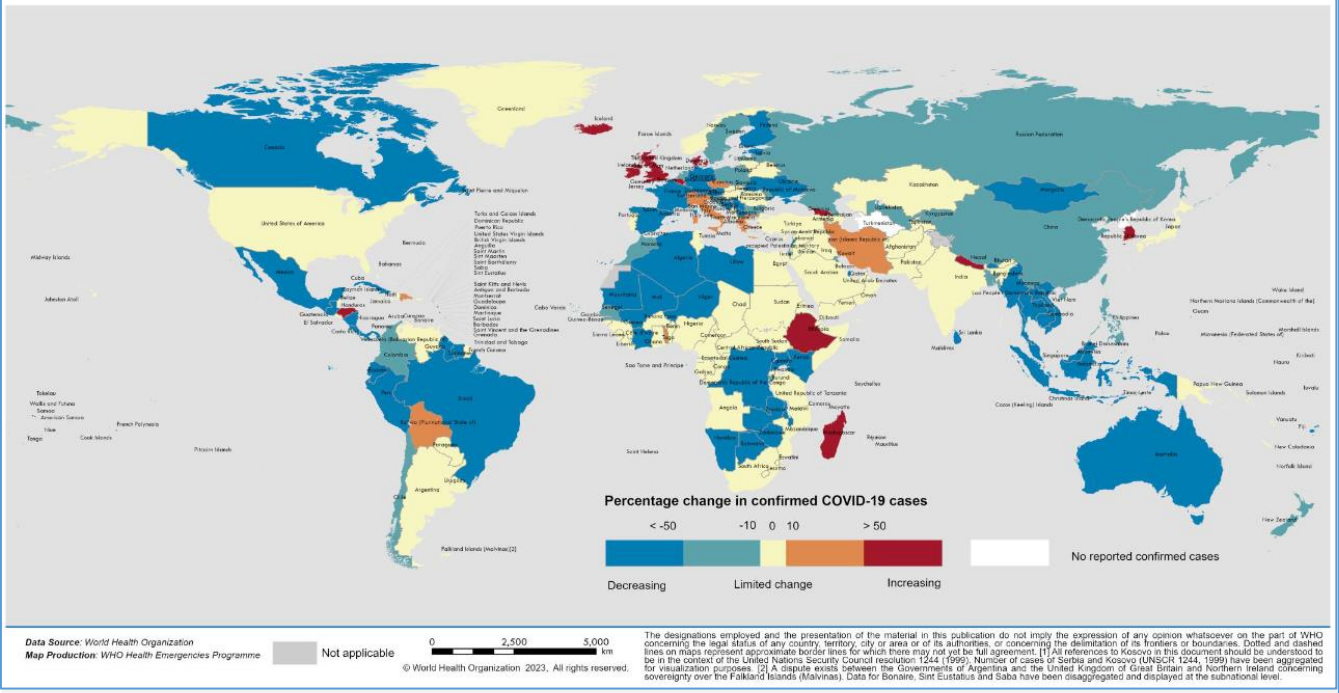


Figure 2. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 13 August 2023[**§]



Hospitalizations and ICU admissions

Table 2. New hospitalizations and ICU admissions in the last 28 days (with percent change) by WHO Region, 10 July to 6 August 2023 compared to 12 June to 9 July 2023

Region	New hospitalizations from countries that reported consistently in the last two 28-day periods			New ICU admissions from countries that reported consistently in the last two 28-day periods		
	Number of countries* (percentage)	Number of new hospitalizations	Percent change	Number of countries* (percentage)	Number of new ICU admissions	Percent change
Africa	1/50 (2%)	10	**-62%**	0/50 (<1%)	NA**	**NA**
Americas	3/56 (5%)	34 287	**26%**	2/56 (4%)	397	**-46%**
Eastern Mediterranean	0/22 (<1%)	NA	**NA**	0/22 (<1%)	NA	**NA**
European	9/61 (15%)	3453	**-16%**	6/61 (10%)	111	**-13%**
South-East Asia	2/10 (20%)	1754	**120%**	1/10 (10%)	12	**-74%**
Western Pacific	2/35 (6%)	2911	**-28%**	4/35 (11%)	113	**-50%**
Global	**17/234 (7%)**	**42 415**	**17%**	**13/234 (6%)**	**633**	**-44%**

** To be able to compare two periods, only the countries reported consistently in both the last and previous 28 days periods are included in the table*
*** NA represents not available*

SARS-CoV-2 variants of interest and variants under monitoring

Table 3. Weekly prevalence (%) of SARS-CoV-2 VOIs and VUMs, week 26 to week 30 of 2023

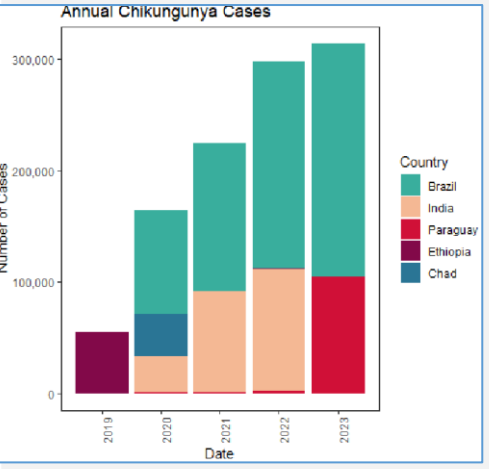
Lineage	Countries[§]	Sequences[§]	2023-26	2023-27	2023-28	2023-29	2023-30
VOIs							
XBB.1.5*	121	265 053	14.5	12.6	12.3	12.4	11.0
XBB.1.16*	101	46 752	22.1	23.1	22.6	24.0	21.1
EG.5*	50	7 988	10.2	12.6	15.5	17.7	21.1
VUMs							
BA.2.75*	125	123 414	2.7	2.4	2.3	1.6	2.1
BA.2.86[‡]	3	4					
CH.1.1*	96	42 886	0.5	0.6	0.5	0.7	0.5
XBB*	130	68 382	6.0	6.6	6.5	6.9	5.4
XBB.1.9.1*	102	55 183	15.3	13.5	12.5	11.6	14.7
XBB.1.9.2*	86	25 989	7.1	7.6	7.2	5.8	5.2
XBB.2.3*	70	9 437	4.3	4.6	4.7	5.1	4.7
Unassigned	94	152 253	6.0	4.8	4.0	3.1	2.8
Other[†]	209	6 768 445	10.8	11.2	11.3	10.6	10.9

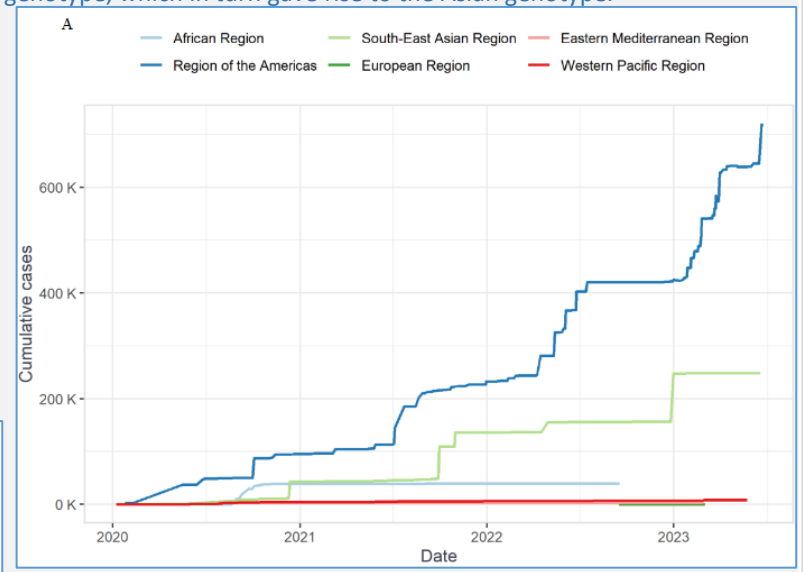
Source: https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---17-august-2023

Chikungunya – Background and recent global trends

Recently, several countries in Central America, South America, and the Caribbean have reported large outbreaks of chikungunya, with increased transmission and expansion beyond endemic areas.1
The Pan American Health Organization (PAHO) was prompted to issue an epidemiological alert calling for intensified prevention, control, and preparedness actions of health services.
CHIKV is a positive-sense single-stranded RNA virus with five structural proteins (C, E1, E2, E3, and 6 K). Based on polymorphisms on the E1 region and independent evolution in historically isolated areas, three distinct genotypes have been classified: East-Central-South-African (ECSA), West African, and Asian. The West African genotype is considered ancestral as it gave rise to ECSA genotype, which in turn gave rise to the Asian genotype.

According to the World Health Organization (WHO), since 2020 and as of June 2023, most chikungunya cases have been reported in the Americas (720,742/1,019,919, 70.6%), South-East Asia (248,412/1,1019,919, 24.3%) and Africa (39,510/1,019,919, 3.8%) (Figure right). The highest number of reported cases of chikungunya detected worldwide since 2019 have been in Brazil, India, Paraguay, Ethiopia, and Chad (Figure below).

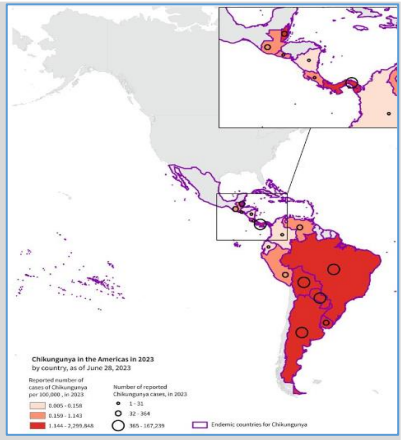




Recent explosive outbreaks in the region of the Americas

Between January 1 and June 29, 2023, a total of 296,209 cases and 291 deaths from chikungunya were reported from the Region of the Americas. This represents a **four-fold increase in deaths** compared with the same period last year (210,408 cases and 68 deaths in 2022). As of June 2023, Paraguay, Panama, Brazil, Argentina, and Peru continue to report the highest incidence of chikungunya in the Americas (Figure right site). In Argentina, the five provinces currently reporting **local transmission** have **never previously reported** autochthonous cases of chikungunya.

Of the total deaths reported in the Americas up until June of 2023, 266 (91.4%) were from Paraguay and 25 (8.5%) were from Brazil. Additionally, a concerning proportion of cases of acute meningoencephalitis associated with chikungunya (n = 294), which is considered an atypical clinical presentation, was reported from Paraguay.
Preliminary sequencing has implicated the East-Central-South-African (ECSA) genotype in Paraguay.
However, the Asian genotype could be implicated or co-circulating in some countries in the Americas, raising questions about the possibility for co-infections, recombination, and genotype replacement. Virulence, symptoms, mutations, and the ability of mosquitoes to transmit CHIKV can vary by the infecting genotype and Strain.



Reasons for the outbreaks

Chikungunya cases in both 2022 and 2023 **exceeded the averages** seen in 2018 to 2021 in the Region of the Americas. Changes driven by the COVID-19 pandemic may help explain these unprecedented increases:

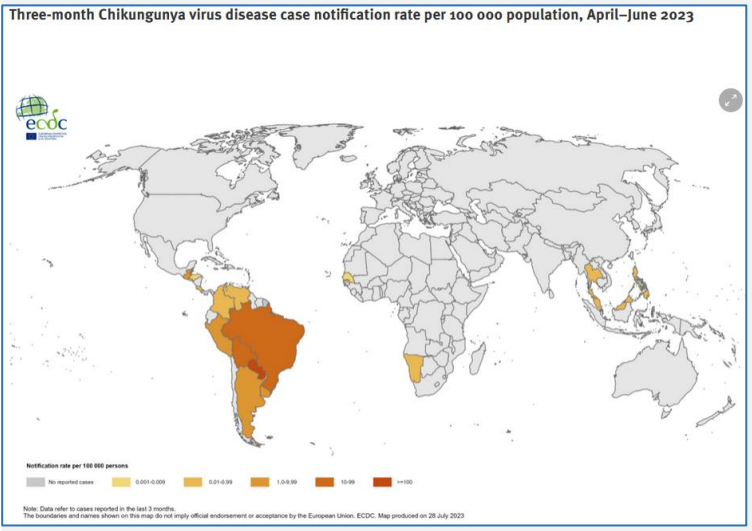
- Pandemic restrictions on travel and large gatherings, and changes in health-seeking behaviour may have reduced CHIKV exposure, transmission and reporting during earlier stages of the pandemic.
- Diagnostic and surveillance efforts were redirected towards COVID-19, limiting case detection of chikungunya.
- Similarity between symptoms of COVID-19 and chikungunya may have led to the underdiagnoses of the latter.
- Vector control activities were interrupted which likely increased Aedes mosquito densities.
- As pandemic restrictions were lifted, populations were more vulnerable to CHIKV infection and explosive outbreaks also occurred in areas where the virus is newly circulating.
- The proportion of populations that are immunologically naïve to chikungunya had increased as it has been eight years since the last major epidemic of the disease in the Americas in 2014.

Situation in other world-regions

- Chikungunya is also endemic in countries in the South-East Asian and Western Pacific Regions (SEA-WP). Recently, Thailand, Indonesia, and Malaysia have reported chikungunya cases. Similar to the Region of the Americas, increases in CHIKV infections may be seen in the SEA-WP Regions in the near future.
- Although chikungunya remains endemic on the African continent, its circulation is ill-characterized and underestimated because of limited access to healthcare, overlapping symptoms with other endemic diseases, and limited resources for diagnosis and reporting.
- Chikungunya is not commonly found in mainland EU/EEA countries. Most cases are from people who have travelled outside of the EU/EEA and were infected there. However, if the environmental conditions are suitable and the *Ae. albopictus* mosquito is present, travelers with the virus can cause local transmission of the virus, as has happened occasionally since 2007. So far, no locally-acquired cases have been reported in 2023 in the EU/EEA.

Chikungunya worldwide overview

Source: ECDC



Detailed overview

Europe

No autochthonous cases have been reported in Europe in 2023.

Americas and the Caribbean

In the Americas, in addition to Brazil, Paraguay, Argentina and Bolivia, according to PAHO as of 26 July, CHIKVD cases have also been reported from:

- Belize (197)
- Colombia (25)
- Costa Rica (27)
- El Salvador (18)
- Guatemala (199)
- Nicaragua (3)
- Peru (187)
- Uruguay (4)
- Venezuela (173).

Outside of the Americas

CHIKVD cases have also been reported in:

- Malaysia
- (131, as of 21 May)
- Philippines
- (172, as of 13 May)
- Thailand
- (598, as of 3 July)
- Senegal (1, as of 8 June)
- Namibia (1, as of 8 March)
- India (18, as of 16 July)

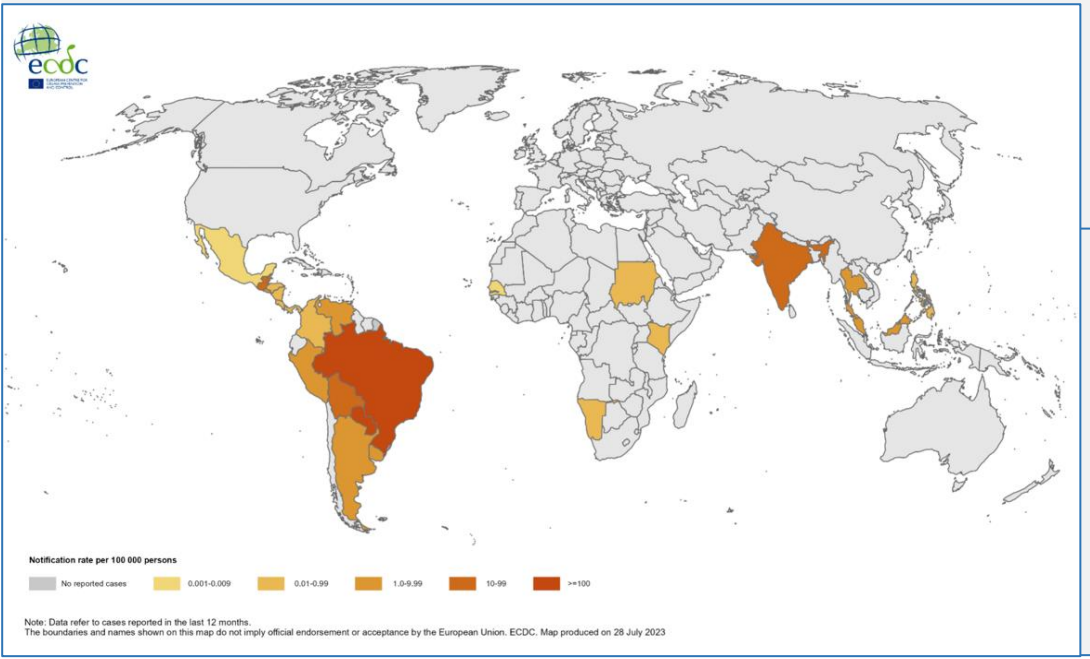
Updates from selected countries

Paraguay

continued to report a declining trend in notified cases of CHIKVD during June 2023. Paraguay has reported high circulation of CHIKVD since the end of 2022, with an increase of over 200% in notified cases in 2023 compared to the average for the previous four years. According to recent publications, the current increase in CHIKVD cases in Paraguay might be the result of continual transmission of a CHIKVD strain, denoted as Paraguay clade 2 within the CHIKVD ECSA American clade, introduced into the country in early 2022, combined with the highest mean temperatures ever recorded in the country.

Namibia

reported a CHIKVD case in early March 2023 from Onandjokwe District in Oshikoto Region, northern Namibia. Although Namibia is classified by the USA CDC as a country with no current or previous local transmission of CHIKVD, the case was detected close to the border with Angola, a country with known CHIKVD transmission. It remains unclear if this is an autochthonous or imported case of CHIKVA in Namibia.



12-month Chikungunya virus disease case notification rate per 100 000 population, July 2022–June 2023

In 2023 and as of 26 July, approximately 300 000 cases and over 300 deaths have been reported worldwide. The majority of cases have been reported in the Americas from Brazil (192 822), Paraguay (101 963), Argentina (1 593), Bolivia (1 311), and in Asia from Thailand (598). Deaths have been reported from Brazil (60) and Paraguay (256).
No autochthonous cases have been reported in Europe in 2023.

Situation update, 26 July 2023

In 2023 and as of 26 July, approximately 300 000 cases and over 300 deaths have been reported worldwide.

The majority of cases have been reported in the Americas from Brazil (192 822), Paraguay (101 963), Argentina (1593), Bolivia (1 311), and in Asia from Thailand (598).

Deaths have been reported from Brazil (60) and Paraguay (256).

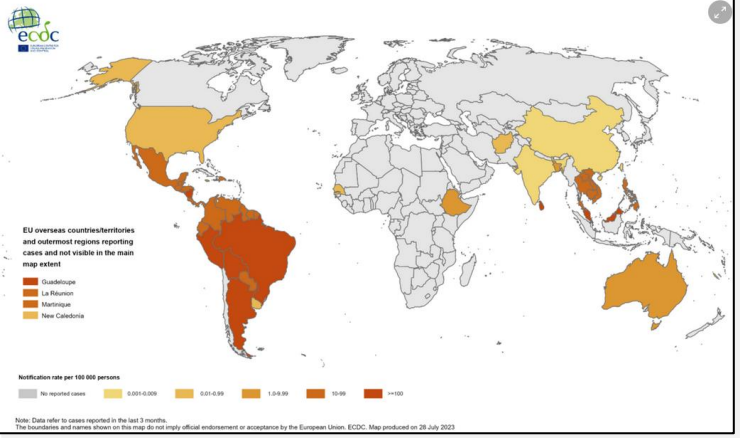
No autochthonous cases have been reported in Europe in 2023.

Countries with most cases	Brazil, Paraguay, Argentina, Bolivia, Thailand
Cases in continental Europe	No locally acquired cases in continental Europe in 2023
Very low risk of transmission in continental Europe	environmental conditions are not favourable to vector activity and virus replication

Dengue worldwide overview

Source: ECDC

Three-month dengue virus disease case notification rate per 100 000 population, April–June 2023



Detailed overview

Americas and the Caribbean

The majority of cases globally have been reported from the region of the Americas where significant outbreaks have been recorded since the beginning of 2023 (WHO Disease Outbreak News: Dengue – the Region of the Americas). According to data reported by PAHO, in 2023 and until July 2023, most cases in the region were reported from Brazil and from Peru, which is experiencing one of the largest dengue outbreaks in its history. According to the Ministry of Health of Peru, the cases reported in the country up to the beginning of July were more than four times the number of cases reported during the same week in 2022. The unusually high dengue case burden may be partially attributed to the warm and rainy weather brought by tropical cyclone Yakuand the coastal El Niño effect in April and May 2023, which created optimal conditions for the breeding of Aedes aegypti mosquitoes. Dengue cases have also been reported in La Reunion in 2023 as well as in Guadeloupe, Martinique, Saint Barthelemy and Sant Martin in the French Antilles, while increases have also been seen in French Guyana.

All four dengue virus serotypes (DENV 1, DENV 2, DENV 3, and DENV 4) are currently circulating in the Americas. The figures for each country of the Americas region can be found on the PAHO Health Information Platform.

Asia

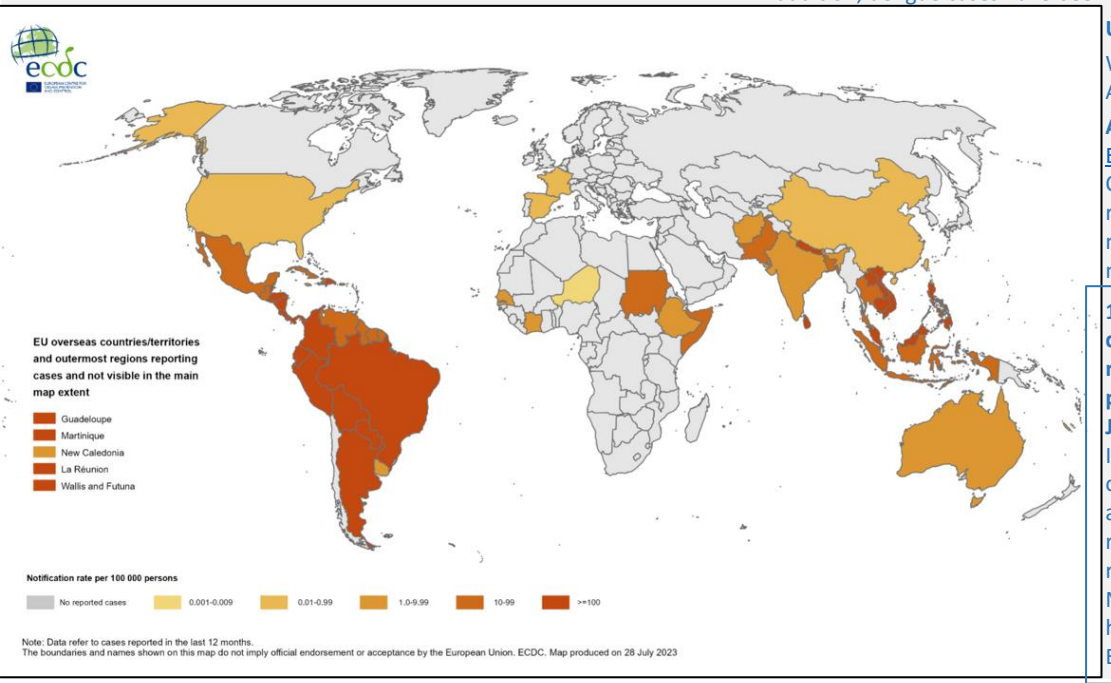
In Asia, cases were reported in Afghanistan, Bangladesh, Cambodia, China, India, Laos, Malaysia, Philippines, Singapore, Sri Lanka, Thailand and Vietnam.

Africa

In Africa, dengue cases have been reported in Egypt, Ethiopia, Sao Tome and Principe, Senegal and Sudan. In Egypt, according to mediaquoting the health authorities, an outbreak of a previously unknown disease in Qena area was later confirmed as dengue.

Australia and the Pacific

In addition, dengue cases have been reported in Australia, Fiji, the Marshal Islands, New Caledonia, Vanuatu, Wallis and Futura.



12-month dengue virus disease case notification rate per 100 000 population, July 2022–June 2023

In 2023, and as of 27 July, over three million cases and over 1500 dengue-related deaths have been reported globally.

No autochthonous cases have been reported in Europe in 2023.

Update from selected countries

While **all sub-regions of the Americas** have reported dengue cases, **most cases** have been reported from the **Southern Cone** which includes Argentina, Brazil, Chile, Uruguay and Paraguay.

Argentina is experiencing one of the largest dengue outbreaks in its history. According to the most recent data available in the National Epidemiological report, in Argentina 110 990 cases of dengue and 60 deaths (case fatality rate 0.05%) had been reported up to week 21 of 2023. Case numbers for the weeks 8 to 21 have exceeded the weekly case numbers reported in 2020 for the same period, the year with the highest recorded number of cases prior to 2023. Autochthonous cases have been reported from all jurisdictions in the central region, the north-west and north-east regions, as well as in the provinces of San Luis and Mentoza in Cuyo region (west) and in La Pampa province in the south. The high case numbers seen in recent weeks have been decreasing in all areas. DENV 1 and DENV 2 are the serotypes with higher circulation.

Situation update, 27 July 2023

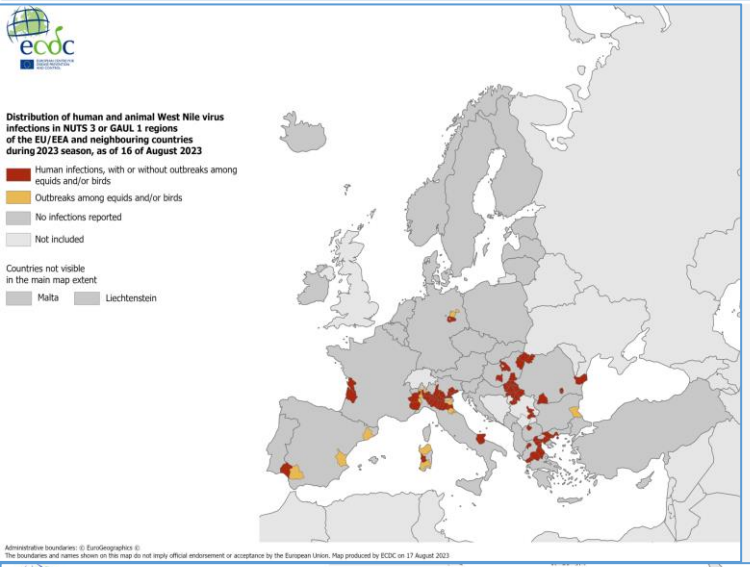
In 2023, and as of 27 July, over three million cases and over 1500 dengue-related deaths have been reported globally.

No autochthonous cases have been reported in Europe in 2023.

Countries with most cases	Brazil, Bolivia, Peru and Argentina
Locally acquired cases in continental Europe	No autochthonous cases have been reported in 2023.
High likelihood of transmission in receptive areas of Europe	environmental conditions are favourable to vector activity and virus replication

West Nile Fever European overview

Source: ECDC



Detailed overview recent human cases

Since last week, and as of 16 August 2023, European Union (EU) and European Economic Area (EEA) countries reported 36 human cases of West Nile virus (WNV) infection and 3 deaths related to WNV infections. Cases were reported by Greece (26), France (4), Germany (2), Hungary (2), Spain (1) and Romania (1). Deaths were reported by Greece (2) and Romania (1). EU-neighbouring countries reported 15 human cases of WNV infection. Cases were reported by Serbia (14) and North Macedonia (1). No deaths related to WNV infections were reported by EU-neighbouring countries.

This week, among the reporting countries, the following NUTS 3 regions have reported autochthonous human cases of WNV infection for the first time: Huelva in Spain and Charente-Maritime in France.

This week, among the reporting countries, the following NUTS 3 or GAUL1 regions have reported autochthonous human cases of WNV infection for the first time since the start of this season: Anhalt-Bitterfeld and Wittenberg in Germany, Pieria and Arta Preveza in Greece, Huelva in Spain, Charente-Maritime in France, Szabolcs-Szatmár-Bereg and Pest in Hungary, Skopski in North Macedonia, Satu Mare in Romania, Grad Beograd, Kolubarski and Nisavski and Srednje-banatski in Serbia.

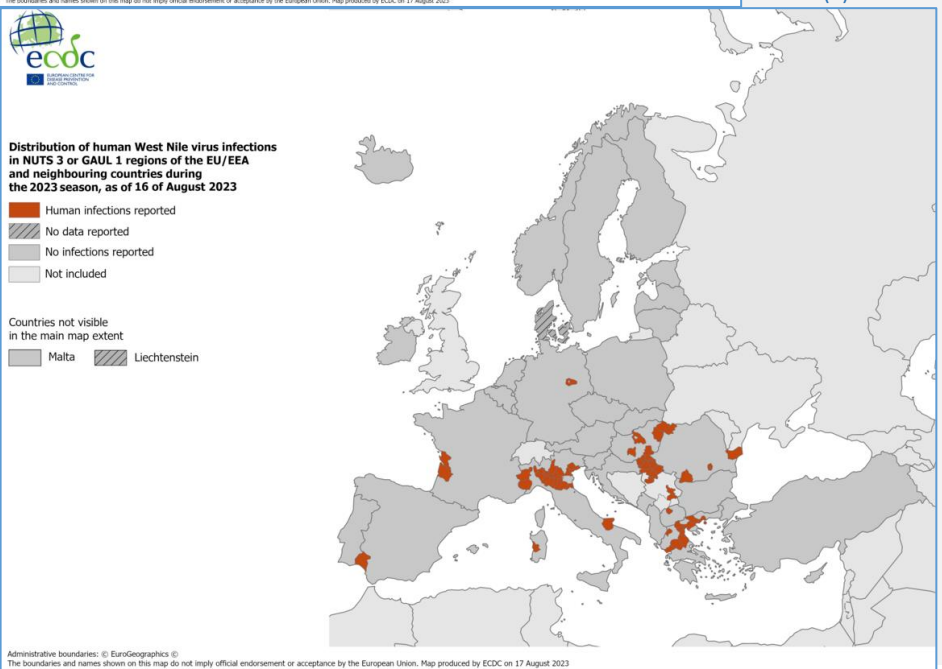
West Nile virus - infections among humans and outbreaks among equids and/or birds

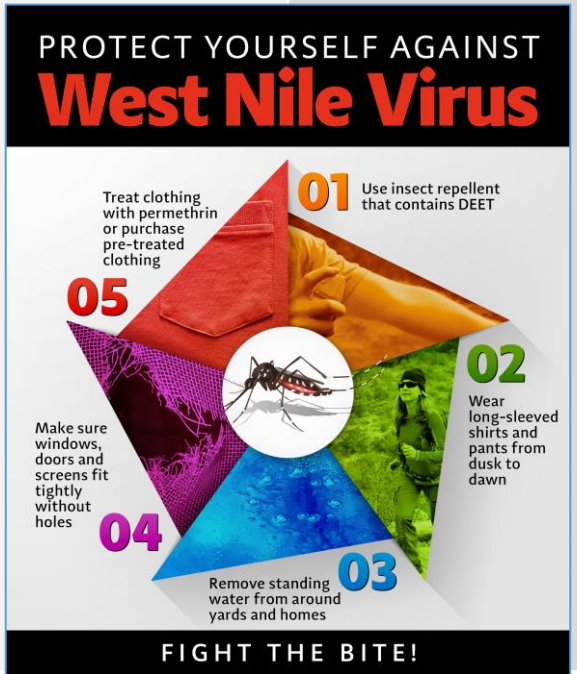
Human cases:

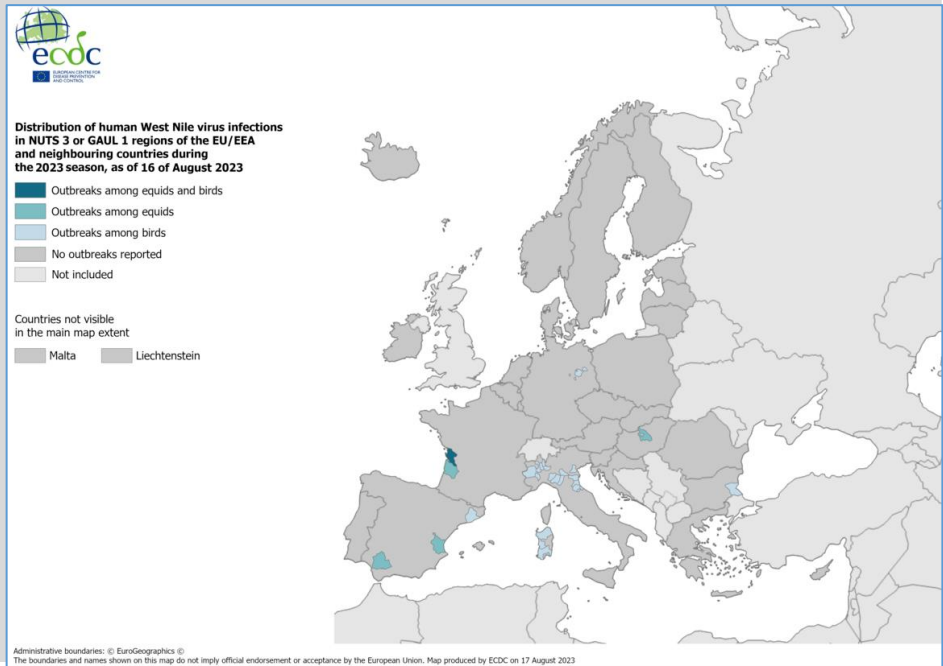
Since the beginning of the 2023 transmission season and as of 16 August 2023, EU/EEA countries have reported 125 human cases of WNV infection in Italy (56), Greece (48), France (7), Romania (6), Hungary (5), Germany (2) and Spain (1). EU/EEA countries have reported 9 deaths in Greece (5), Italy (3) and Romania (1). EU-neighbouring countries have reported 24 human cases of WNV infection in Serbia (23) and North Macedonia (1). No deaths related to WNV infections have been reported by EU-neighbouring countries.

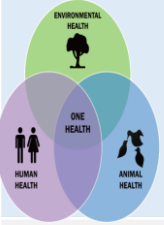
Animal cases:

Since the beginning of the 2023 transmission season and as of 16 August 2023, 8 outbreaks among equids and 47 outbreaks among birds have been reported by EU/EEA countries. Outbreaks among equids have been reported by Spain (5), France (2) and Hungary (1). Outbreaks among birds have been reported by Italy (37), Germany (7), Bulgaria (1), Spain (1) and France (1).









What recent disease events detected globally cause ILI symptoms and may have a pandemic potential?

Situation analysis and advice to countries from FAO, WHO, WOA

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 WOAH 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 WOAH, 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 WOAH 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 WOAH.

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 WOAH—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. WOAH 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 WOAH 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 WOAH 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

Source´: WHO

Other Infectious Disease Outbreaks

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Swine Influenza H1N2 - United States

On 4-Aug-2023, the National Focal Point for the International Health Regulations of the United States informed PAHO/WHO of one human infection with a new variant of the influenza A (H1N2) virus in the state of Michigan. This is the first influenza A (H1N2) virus infection identified in a human in the United States this year.

Case details:

- *Age and demographics*: Patient is under 18 years of age with no comorbidities and is a resident of Michigan.
- *Exposure details*: Exposure to swine at an agricultural fair (between 23-Jul-2023 and 29-Jul-2023) in an unspecified location in the state of Michigan.
- *Symptoms*: Developed a respiratory illness on 29-Jul-2023 with fever, cough, sore throat, muscle aches, headache, lack of energy, shortness of breath, diarrhea, nausea, dizziness, and lethargy. The patient went to the emergency department on the same day.
- *Management*: An upper respiratory tract sample was collected on 30-Jul-2023, which tested positive for influenza A. Patient was given oseltamivir (anti-influenza treatment), and was not hospitalized.
- *Confirmation of results*: Specimen was sent to the Michigan Department of Health and Human Services on 31-Jul-2023 and RT-PCR results were positive for influenza A virus but lacked reactivity to (H1)pdm09 or H3 subtypes. Therefore, the sample was sent to CDC for further testing and was received on 2-Aug-2023. RT-PCR analysis indicated a new variant of the H1N2 virus. The virus has been isolated and further analysis, including genome sequencing, is pending.
- *Close contacts*: No symptoms were identified among close contacts or family members and no additional cases related to this agricultural fair were identified.
- *No further spread:* No person-to-person transmission identified, and no additional cases of human infection with the virus have been identified as of 10-Aug-2023.

Latest known measures:

- Officials have enhanced surveillance for cases.
- The county health department conducted active case finding by reaching out to fair exhibitors and their families to ascertain additional illnesses.
- Local health providers were notified to watch for respiratory illness in individuals who have attended the fair or had recent contact with swine.

WHO risk assessment:

To date, only **sporadic human infections** caused by influenza A(H3N2), A(H1N1) and A(H1N2) variant viruses have been reported in the United States, and there has been **no evidence of sustained human-to-human transmission**. Human infections with influenza variant viruses tend to result in mild clinical illness, although some cases have been hospitalized with more severe disease. Given the potential impact on public health, human infections with these viruses need to be monitored closely. In this event, there was no reported evidence of sustained human-to-human transmission, the **illness was mild** and no further influenza variant virus transmission in the community has been identified.

There has been some limited, non-sustained human-to-human transmission of variant influenza A viruses, although ongoing community transmission has not been identified. Current evidence suggests that these viruses have **not acquired the ability of sustained transmission among humans**.

This case does not change the current WHO recommendations on public health measures and surveillance of seasonal influenza.

WHO does not advise special traveller screening at points of entry or restrictions with regards to the current situation of influenza viruses at the human-animal interface.

Source: WHO

Echarate Virus Infection - Peru

An emerging (**new**) phlebovirus variant has been isolated from an acute febrile patient in the province of Chanchamayo, in the northern Junin region, central Peru.

Surveillance case description findings: The information provided has been obtained from an early case study journal release:

- *Background*: The case was identified as part of passive clinic-based surveillance for acute febrile illnesses (AFI) in Peru approved by Peru's Ministry of Health and the US Naval Medical Research Unit South Institutional Review Board.
- *Demographic information*: The affected was a 20-year-old man who worked in civil construction and was admitted to Hospital Regional Docente de Medicina Tropical Julio César Demarini Caro, located in the city of Chanchamayo in the northern region of Junín Department in central Peru, on 25-June-2019.
- *Symptoms description*: He had a two day history of fever, malaise, chills, systemic muscle pain, arthralgia, generalized head pain, drowsiness, photophobia, retro-ocular pain, and anorexia. He had conjunctival injection and an axillary temperature of 39.0°C, and the tourniquet test (to investigate dengue fever) was negative.
- *Genomic information*: Through genomic characterization of the sample and elimination of other pathogens, it was revealed that the virus is probably a natural reassortant of the Echarate (ECH) virus with a yet-unidentified phlebovirus.

Pathogen Information:

- The genus Phlebovirus (order Bunyavirales, family Phenuiviridae) consists of 66 species according to the International Committee on Taxonomy of Viruses.
- Phleboviruses are globally distributed and can be transmitted by phlebotomine sandflies, mosquitoes, or ticks.
- Sandfly-associated phlebovirus can cause unspecific symptoms in humans and often is misdiagnosed as dengue fever, malaria, or influenza; however, its clinical symptoms can range from high fever, severe headache, muscle pain, and aseptic meningitis to mild or severe meningoencephalitis.
- In Peru, at least three out of nine phleboviruses that cause febrile illness in Central and South America have been identified: ECHV, Maldonado virus, and Candiru virus.
- ECHV was first identified in Cusco, Peru in 1998.

CONCERN LEVEL: **MEDIUM CONCERN** due to;

1. This event is notable since it further highlights the growing list of emerging (novel) pathogens that may go under-diagnosed given similarities in symptoms with many other pathogens that can cause AFI in the country and the region (i.e., dengue, malaria)
2. Given this is an emerging pathogen, there is **limited scientific evidence of transmission modes and clinical implications**, and there are no targeted treatments nor vaccines among naïve populations, making it difficult to fully assess the potential for public health disruptions.
3. Furthermore, ecologic studies are necessary to determine how widespread the new variant is within this region, to identify potential vectors and reservoirs involved in its transmission.
4. During the last decade, isolates characterized by whole-genome sequencing have contributed to increased detection of novel and recombinant pathogenic and nonpathogenic phleboviruses worldwide demonstrating a high viral diversity within this genus. This indicates an increased need of laboratory capacity for timely and accurate diagnosis and to mitigate underreporting.
5. Continuous public health surveillance, including genome characterization, is critical to identifying novel and emerging viruses of clinical relevance in the Americas, and worldwide.

Source: ProMedMail

Other Infectious Disease Outbreaks

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Dengue - Abeche, Ouadai, Chad

A local media report has highlighted an ongoing outbreak of dengue fever in the health district of Abéché, province of Ouaddaï, in the southeast region of Chad. There is limited information around the number of cases but the media quotes that as of 7-Aug-2023, laboratory sample analyzed by the National Laboratory for Biosecurity and Epidemics (LaBiEp) in N'Djamena province has confirmed dengue fever. The presence of disease and high prevalence of antibody to dengue virus in limited serologic surveys suggests dengue virus infection **may be endemic in all or many parts of Africa**, however, there is minimal recorded data of its incidence in the continent. Dengue fever is likely **under recognized and underreported in Africa** due to multiple factors including low awareness by health care providers, other prevalent febrile illnesses, and lack of diagnostic testing and systematic surveillance. Other hypotheses to explain low reported case numbers include cross-protection from other endemic flavivirus infections, genetic host factors protecting against infection or disease, and low vector competence and transmission efficiency. Population-based studies of febrile illness are needed to determine the epidemiology and true incidence of dengue in Africa.

Source: NewsMedia

West Nile Fever – Europe

Since the beginning of the 2023 transmission season and as of 9 August 2023, 4 outbreaks among equids and 32 outbreaks among birds have been reported by EU/EEA countries. Outbreaks among equids have been reported by Spain (4). Outbreaks among birds have been reported by Italy (26), Germany (5) and Bulgaria (1).

Source: ECDC

Crimean-Congo hemorrhagic fever – North Macedonia

On the 14 August the Institute of Public Health of the Republic of North Macedonia reported Monday on the third human case of the viral disease in the country: The 1st case of CCHF was confirmed in a 27-year-old woman from Kuchica village, Shtip, who died. She was bitten by a tick. The 2nd infected case is a nurse who was in contact with the woman from Shtipsko during her stay at the Clinic for Infectious Diseases in Skopje. The 3rd case was a 42-year-old man from Veles, with elevated temperature up to 38°C, headache, body pain, malaise and profuse sweating, in the 5 days before the examination at the General Hospital in Veles. In the context of the One health approach, the Food and Veterinary Agency was contacted for additional research in the field.

Source: OutbreakNewsToday

Crimean-Congo hemorrhagic fever – Afghanistan

Since the beginning of 2023 Afghanistan is fighting a CCHF outbreak with 897 officially confirmed cases from 32 provinces until Cw 32. This week a additional 91 cases have been reported. The total number of CCHF associated deaths was 91 (CFR=10.1%) from the beginning of 2023 until 12 August. The CCHF associated deaths were reported from 16 provinces (Kabul (19), Balkh (6), Takhar (5), Parwan (3), Jawzjan (2), Kandahar (2), and 1 from each of the following provinces: Badakhshan, Baghlan, Faryab, Ghazni, Kapisa, Khost, Kunduz, Paktya, Sar-e-pul and Wardak provinces). More than half of death were reported from 2 provinces; Kabul (45, 49.5%) and Balkh (11, 12.1%). Main case load over the past 2 months was from South (Kandahar and Helmand), North (Balkh) and Central (Kabul) regions.

Source: ReliefWeb

Ebola – Democratic Republic of the Congo

There is limited information about a case of Ebola virus under investigation in the Democratic Republic of the Congo (DRC). Local media has indicated that the affected individual is a man in his fifties who is a resident of the town of Bafwasende, in the province of Tshopo, north-central DRC. He was admitted on 17-August-2023 to a local health centre in Bole-Bole, in the territory of Wamba, in the province of Haut-Uéle, north-east DRC and located 187 kms approximately from the town of Bafwasende (a 3 hour drive). There is no official confirmation on this issue as of 21-August-2023. If confirmed, this will be the first historical case of Ebola virus at Bafwasende; previously, Ebola outbreaks in the DRC have been confirmed at greater Equateur, North Kivu and other regions in Tshopo provinces. According to a local media, laboratory samples are being analyzed at the National Institute for Biomedical Research (INRB) in Kinshasa.

Source: ReliefWeb

Avian influenza A(H5N6) – Multi country – Monitoring human cases

- As of August 17, 2023, one new human case with avian influenza A(H5N6) virus infection has been reported in Chongqing municipality, China.
- Overall, 87 cases, including 33 deaths (CFR: 38%) have been reported in China (86) and Laos (1).
- To date, no human-to-human transmission has been reported.
- The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be very low.

Avian influenza A(H9N2) - Multi-country (World) - Monitoring human cases

- One new human case of avian influenza A(H9) has been reported in China, bringing the overall number of human cases since 1998 to 127, including two deaths.
- Most of the cases reported to date have been in China (114).
- No human cases have been reported in the EU/EEA and related A(H9N2) viruses are not present in poultry populations in the EU/EEA.
- The risk of zoonotic influenza A(H9N2) transmission to the general public in EU/EEA countries is considered to be very low.

West Nile virus One Health seasonal surveillance – 2023 - Europe

- Thirty-six human cases of West Nile virus (WNV) infection have been reported by EU/EEA countries and nine by EU-neighbouring countries since the last update and as of 16 August 2023.
- Since the beginning of the 2023 transmission season, 125 human cases of WNV infection have been reported by EU/EEA countries and 24 by EU-neighbouring countries.
- Eight outbreaks among equids and 47 outbreaks among birds have been reported by EU/EEA countries since the beginning of the 2023 WNV transmission season, and as of 16 August 2023.

Poliomyelitis – Multi-country (World) – Monitoring global outbreaks

- On 3 May 2023, the Polio International Health Regulations (IHR) Emergency Committee stated 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.
- Since the last update, in 2023, one new case of acute flaccid paralysis (AFP) caused by WPV1 has been reported in Pakistan.
- Since the last update, two new countries have reported cases of AFP caused by cVDPV2: Burundi (1) and Guinea (1).
- In 2023, and as of 15 August 2023, eleven new cases of AFP caused by cVDPV1 have been reported from the DRC (11).

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

Source: ECDC

Other Infectious Disease Outbreaks

Circulating vaccine-derived poliovirus type 2 (cVDPV2) – Kenya

On 11 July 2023, WHO received an official report regarding the detection of a circulating vaccine-derived poliovirus type 2 (cVDPV2) in two acute flaccid paralysis (AFP) cases and two asymptomatic healthy children community contacts from Hagadera refugee camp, in Kenya, the second largest refugee camp in the world with over 100 000 refugees.

The genetic sequencing analyses showed that all **four isolates are genetically linked to the cVDPV2 circulating in Banadir, Somalia.**

According to the WHO UNICEF estimates of national immunization coverage, oral polio vaccine third dose (OPV3) and inactivated poliovirus vaccine first dose (IPV) was 91% in Kenya in 2021. However, the coverage in Hagadera camp is 77% for both OPV3 and IPV as of May 2023.

WHO risk assessment

- WHO assesses the **overall risk** at the **national level to be high** due to the overcrowded living conditions in the refugee camp, high rate of malnutrition, poor water and sanitation facilities, and frequent population movements with Somalia.
- WHO considers the risk of **international spread and/or emergence of cVDPV2 of this strain to be high**, particularly across other areas of the Horn of Africa, due to the low population immunity, the use of trivalent OPV (tOPV) in Somalia, suboptimal surveillance, and inadequate routine immunization levels in some areas, and large-scale population movements.

WHO's International Travel and Health recommends that all travelers to polio-affected areas be fully vaccinated against polio. Residents (and visitors for more than 4 weeks) from infected areas should receive an additional dose of OPV or IPV within 4 weeks to 12 months of travel.

The latest epidemiological information on cVDPVs is updated on a weekly basis.

Source: WHO, AFRO

Circulating vaccine-derived poliovirus type 2 (cVDPV2) - United Republic of Tanzania **Source: WHO, AFRO**

On 4 July 2023, the Ministry of Health of the United Republic of Tanzania notified WHO of the detection of circulating vaccine-derived poliovirus type 2 (cVDPV2) in the country. The virus was isolated from a case of acute flaccid paralysis (AFP) in the Rukwa region, southwestern Tanzania bordering Lake Tanganyika to the west and Zambia to the south.

Gene sequencing of the isolated virus has indicated close linkage with the cVDPV2 circulating in South Kivu, Demographic Republic of the Congo (DRC).

The public health authorities of the Ministry of Health are conducting further field investigations including strengthening the AFP surveillance for the detection of additional AFP cases and subnational level immunity gap analysis to identify potential un- or under-immunized populations and/or areas to guide public health response activities.

The last recorded case of indigenous wild poliovirus (WPV) in Tanzania was in 1996, and the cVPDV2 case in 2023 is the first case detected in the country.

According to the WHO-UNICEF estimates of national immunization coverage, the oral polio vaccine third dose (OPV3) and the inactivated polio vaccine first dose (IPV1) was 88% in 2022 in Tanzania.

WHO risk assessment

- WHO assesses the **overall risk at the national level to be high** due to the sub-optimal surveillance performance in some districts, sub-optimal vaccination coverage resulting in low population immunity and the ongoing population movement across neighbouring countries.#
- WHO considers this event to be of **high risk of international spread** and/or emergence of cVDPV2 of this strain across the region, particularly across other areas of central and south-east Africa, due to the low population immunity and inadequate routine immunization levels in some areas, and large-scale population movements.

Dengue – Bangladesh

Increasing trends of dengue have been reported in Bangladesh this year. Dengue is endemic in the country with the June-September monsoon period reporting the most cases and Bangladesh is considered a high-risk nation for mosquito-borne diseases.

The outbreak, which has escalated rapidly since late June, has seen a total of 82,506 reported cases and 387 dengue-related deaths, with a case-fatality ratio of 0.47%. This is the **highest number of deaths reported in Bangladesh in the last 22 years**. The sharp increase in numbers is unprecedented compared to numbers seen in the past five years, emphasizing the gravity of the ongoing outbreak. The WHO believes the higher incidence of dengue is taking place in the context of an **unusual episodic amount of rainfall, combined with high temperatures and high humidity**, which have resulted in an increased mosquito population throughout the country.

In order to fight the rising number of dengue cases, health officials have established a dedicated dengue control room to collect data and coordinate at the national level, with additional control rooms in all districts and medical college hospitals. Six hospitals assigned for the management of COVID-19 patients in the capital, Dhaka, have been repurposed for dengue case management, and dedicated dengue wards and dengue corners have been established in medical college hospitals. Authorities have also provided additional training to healthcare staff, supplying intravenous saline and other supportive medicines to health facilities, and stepping up surveillance, risk communication, community engagement, and laboratory testing. In addition, they have strengthened measures to check the breeding of mosquitos and conduct anti-larval operations.

Source: WHO

Coccidioidomycosis - USA

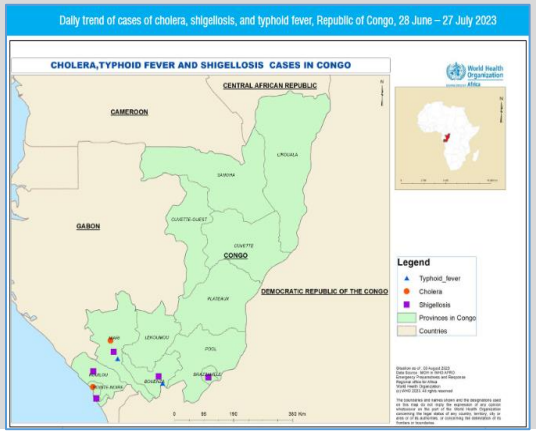
The CDC has issued a warning about upward trends and the potential for more widespread infections of Coccidioidomycosis, also known as Valley Fever (named since 97% of cases have been found in Arizona and California). The disease is caused by inhalation of fungal spores. The fungus *Coccidioides spp* releases spores in the air when soil is disturbed by humans, animals (digging), or weather (wind); the spores can then be inhaled by humans. The infection kills one in 100 who fall ill and is commonly misdiagnosed, often mistaken for pneumonia; consequently, only a small number of cases are reported to the CDC. Symptoms include fatigue, cough, fever, aching muscles, and breathlessness. Official data indicates that cases of the disease have been growing since 2014. In addition, the report indicates that there were 20,971 cases in 2021, which is the most on record for a single year since cases last peaked in 2011.

Source: CDC

Cholera – Republic of the Congo

On July 17, 2023, the Republic of Congo declared a **cholera epidemic** in the city of Dolisie in the Niari Department. The MoH stated that the initial case could be dated to June 30. Since then, most cases have been found in Dolisie (roughly 95%) and have now spread to Pointe-Noire, Kouillou, Bouenza, and other areas in the department. In addition to cholera, there were also reports of shigellosis, salmonellosis and typhoid fever from these locations. This is raising concerns about a potential common source of contamination or underlying public health issues. The high number of cases with intestinal perforation and the associated high case fatality rate is alarming, necessitating accelerated efforts for early detection and management of cases.

Source: ReliefWeb, AFRO



Other Infectious Disease Outbreaks

Malaria – USA

SUBLOCATIONS AFFECTED: Florida (Sarasota County), Maryland, Texas (Cameron County)

FOLLOW-UP #1: A new autochthonous (locally-acquired) malaria case has been confirmed in the United States. This new case has been confirmed on 18-August-2023 in the National Capital Region, in the state of Maryland by the Department of Health. This marks the first local-malaria case in the state of Maryland over at least 40 years and is due to *Plasmodium falciparum*, which can cause a more severe illness than the strain previously identified among the local cases in the states of Florida and Texas (i.e. *Plasmodium vivax*).

Surveillance data of locally-acquired cases as 19-August-2023, as per official sources:

- Laboratory-confirmed: nine cases, no deaths.
- All individuals have been treated and have recovered.
- Breakdown location of confirmed cases:
- Sarasota County, near Tampa, Florida state: seven cases (most recent case 10-July-2023).
- Cameron County, along the southern border with Mexico, Texas state: one case (23-June-2023).
- National Capital Region, Maryland state: one case (18-August-2023).

Maryland's state case details:

- There is limited epidemiological information about the affected individual.
- No age, gender nor specific locations have been disclosed by the official source to protect individual's confidentiality.
- The Maryland Department of Health has confirmed that the individual was hospitalized last week for a short period, and is now recovering at home.
- The official release has also highlighted that the affected individual has not travelled recently outside of the U.S. or to other states with recent locally acquired confirmed malaria cases.

Latest known measures:

- The Maryland Department of Health has issued a statewide mosquito-borne illness advisory following the confirmed local cases of malaria.
- Health authorities are advising the public to protect themselves from mosquito bites by using an EPA-registered insect repellent, wearing long sleeves and pants, and draining standing water to limit mosquito breeding habitat.
- Health authorities are also raising awareness among healthcare workers to consider malaria among individuals with fever or other compatible symptoms without a history of travel since timely diagnosis and treatment are gold-standard to prevent severe illness.

CONCERN LEVEL: **MEDIUM CONCERN at the local level, while it is low for regional and global level**s, given:

1. Similar to the previous statement in the states of Florida and Texas, the state of Maryland could also be particularly vulnerable to outbreaks of malaria due to: a) having densely populated cities, b) the increasing number of international travel ports which increase the risk of further transmission after the introduction of an imported case, and c) favourable environmental and climatic conditions for parasite development and survival, and well established Anopheles populations.
2. Despite the relative unlikelihood of locally transmitted malaria occurring in the U.S., the potential threat of the re-introduction and re-establishment of local malaria transmission remains a public health concern, specifically for the states with environmentally suitable conditions but also those that are known to carry the highest burden of yearly malaria imported cases. The top ten states with the highest numbers of imported malaria cases are New York, Maryland, California, Texas, New Jersey, Georgia, Virginia, Florida, Massachusetts, and Pennsylvania.

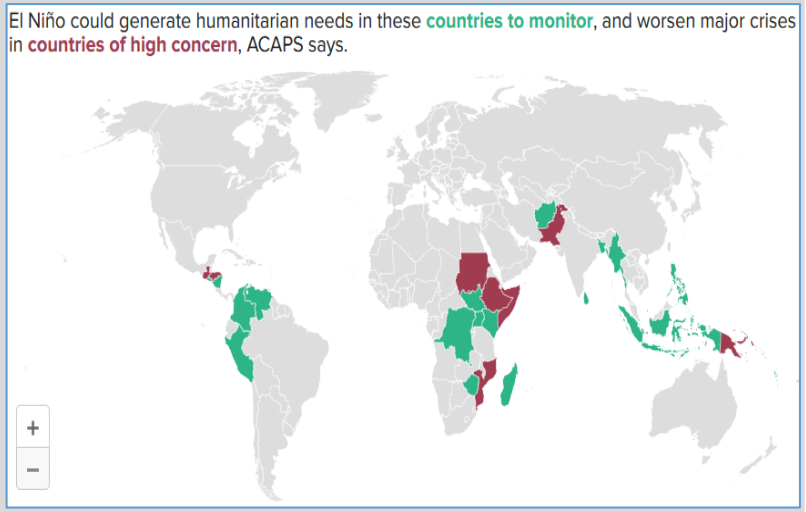
Source: DoH Maryland; NewsMedia

Climate Change - Hawaii wildfires and El Nino's looming effect

Wildfires in Hawaii killed at least 55 people in the historic town of **Lahaina on Maui**, an island in the Hawaiian archipelago. More than 1,000 people are still missing from the blaze, which began 8 August and could become one of the worst disasters in Hawaii's history since 1960, when 61 were killed in a tsunami. Several fires are still burning on the island, where 1,700 buildings have been destroyed and hundreds of families displaced. The **cause of the fire** is still unknown, but the combination of drought conditions and winds from Hurricane Dora helped it spread. The US National Weather Service said Dora's wind gusts of more than 60 mph (96 km/h) knocked out power and forced firefighting helicopters to stay grounded. Meanwhile, the International Federation of Red Cross Red Crescent Societies (IFCR) has **warned** that governments and humanitarian agencies need to prepare for simultaneous disasters across the Asia Pacific region as the **El Niño phenomenon** intensifies. Although the full impact is expected from September to March, countries in the region have already experienced climate-related events in **Bangladesh,** Nepal, Sri Lanka, Mongolia, **Pakistan**, and **Afghanistan**.

More displacement, more pressure on food security, and new health risks from disease outbreaks and extreme heat: With El Niño **under way**, analysts are sorting through the forecasts to anticipate how the climate phenomenon will affect already strained humanitarian emergencies. ACAPS, the Geneva-based analysis outfit, has **a new briefing** that tries to spot where El Niño's impacts might be most severe. The group has compiled a list of 27 countries where the typically higher temperatures and more volatile weather brought on by El Niño could lead to – or significantly worsen – humanitarian needs. The calculation factors in forecasts from various agencies, risk indexes, and current conflicts and emergencies.

Source: TheNewHumanitarian



Healthcare system - Afghanistan

WHO has issued **a stark warning** about the need to ramp up investment in healthcare in AFG, where 28.8 million people now need urgent assistance, compared to 18.4 million in 2021, when the Taliban returned to power. Last month, the International Committee of the Red Cross **announced** it would have to stop funding more than two dozen hospitals across the country due to budgetary shortfalls. Diogo Alcantara, the ICRC spokesperson for Afghanistan, **told Reuters** the phase-out would have to begin at the end of August unless alternatives are found. Such warnings come as the country continues to suffer economic fallout due to a lack of investment, banking restrictions, and international sanctions. With further cutbacks in aid incoming from **Washington** and **London**, and only **23%** of the funds for this year's humanitarian response plan received, the fear is that a health system that was already struggling under the former Western-backed Republic could now become overwhelmed. For a look at how even power cuts can prove deadly, read **our report from January**.

Source: TheNewHumanitarian