

Continent	Country	Disease	New vs Update	Flag
MIDDLE EAST	India	Reduced air quality in the National Capital Region	New	Green
		Increase mosquito borne diseases	Update	Yellow
	Syria	Polio cases	Update	Yellow
	Oman	MERS-CoV case	New	Yellow
	Saudi Arabia	MERS-CoV	Update	Yellow
	Pakistan	Dense smog in some provinces	New	Green

Continent	Country	Disease	New vs Update	Flag
AFRICA	Uganda	Marburg outbreak	Update	RED
	Congo (DRC)	Polio cases	Update	Yellow
	Tanzania	Cholera outbreak	Update	Yellow
	Nigeria	Lassa fever outbreak	Update	Yellow
		Monkeypox outbreak	Update	Yellow
	Mozambique	Cholera outbreak in Memba	Update	Yellow
	Burkina faso	Dengue		

Continent	Country	Disease	New vs Update	Flag
ASIA	China	Poor air quality at several locations, orange alert for Beijing	Update	Yellow
	New Zealand	Mumps outbreak	Update	Yellow
	Vietnam	Dengue outbreak	Update	Yellow
	Samoa	Dengue outbreak	Update	Yellow

Continent	Country	Disease	New vs Update	Flag
EUROPE	Romania	Measles outbreak	Update	Yellow
	Italy	Chikungunya	Update	Yellow
	Portugal	Legionella outbreak	New	Yellow

Continent	Country	Disease	New vs Update	Flag
AMERICA	Anguilla (UK); Antigua and Barbuda; Bahamas; British Virgin Islands (UK); Dominica; Dominican Republic; Guadeloupe (France); Haiti; Martinique (France); Puerto Rico (US); St Martin (France); St Maarten (Netherlands); Turks and Caicos Islands; US Virgin Islands (US); Cuba; Montserrat (UK)	Hurricane aftermath health implications	Update	Yellow
	Chile	Q fever outbreak in Osorno	New	Yellow
	United States	Hepatitis A outbreak in California	Update	Yellow

Congo (DRC): Polio cases

Since May 2017, at least ten cases of polio infection with circulating vaccine-derived poliovirus type 2 (cVDPV2) have been confirmed. The most recent case in Tanganyika province had onset of paralysis on 14 September, and is related to the ongoing outbreak in Haut-Lomani province. There is a separate outbreak of cVDPV2 strain in Maniema province

The cVDPV strain can emerge in under-vaccinated populations. Cases of wild polio virus have not been recorded in the country since late 2011. Polio is a contagious viral illness that causes paralysis and death. The infection is spread through ingestion of contaminated food or water, or directly from an infected person.....

Surveillance has been increased and vaccination campaigns are being conducted to limit the spread of disease

China: Poor air quality at several locations, orange alert for Beijing

The Beijing Municipal Environmental Protection Bureau has announced an orange alert for air pollution in Beijing effective from 4 to 8 November.

China has a four-tiered air pollution response system and orange is the second highest alert level. At these levels of pollution everyone is likely to experience symptoms. Authorities respond to the situation by imposing restrictions on construction, industrial operation and movement of vehicles. The general public is advised to reduce outdoor activities.

The other areas likely to be affected are Tianjin and the northern province of Hebei

Romania: Measles outbreak

An outbreak of measles began in Romania in late September 2016 and continues to cause new infections in the undervaccinated population. By September, more than **9500 cases** and at least 34 deaths have been attributed to this outbreak. Cases have been reported from 41 of the country's 42 counties. Timis county remains the worst affected with over 1,200 cases.

Despite efforts to ramp up vaccination coverage cases continue to be reported. Most countries aim for a vaccination rate of >95% and Romanian coverage is below 90% which means that the outbreak will likely continue for some time.

Italy: Chikungunya

There has been a total of around 400 cases reported in Three clusters of locally acquired cases of chikungunya have been confirmed in the Lazio region, central Italy - in the cities

of Anzio and Rome, as well as in Latina province. It is estimated that the first cases in Anzio were probably in, or even prior to, mid-July. Investigations are underway to identify where the virus may be circulating.

Around 300 cases have been confirmed in the Lazio region. In late-September, an unrelated cluster was identified in Guardavalle Municipality in Calabria with at least 54 cases there. Several other cases, linked to the Anzio, Rome and Guardavalle clusters, have been reported from other regions in Italy, as well as from France and Germany.

Authorities have implemented measures to reduce mosquito breeding and suspended blood donations in the affected area to limit the risk of others being infected.

Local cases of chikungunya occurred in Italy in 2007, when there was a large outbreak in the northern region of Emilia Romagna. This is the first ever outbreak in central Italy

India: Increase in mosquito borne diseases

These mainly comprise chikungunya, dengue and malaria. An increased activity of mosquito borne illnesses has been noted in parts of the country. States worst affected with dengue include Delhi NCR, Karnataka, Kerala, Punjab, Tamil Nadu and West Bengal. Dengue cases have doubled in Kerala this year, compared to case numbers in 2016 and Tamil Nadu has also recorded the highest number of cases in four years.

Malaria outbreaks were noted in Chhattisgarh, Odisha (Orissa) and parts of Kerala (particularly Kozhikode district). Andhra Pradesh, Gujarat, Karnataka and Maharashtra have been reporting outbreaks of chikungunya.

The risk of chikungunya and malaria also persists in Delhi and cases have been reported.

Many cases go unreported and therefore the actual number of cases is expected to be much higher than the official numbers. Authorities have increased measures to control the spread of these diseases. The risk of these illnesses are consistently present in the country and outbreaks occur annually

New Zealand: Mumps outbreak

A major outbreak of mumps is underway in Auckland. Additional cases have been reported in Palmerston North, and on the South Island in Dunedin, Marlborough and Nelson. More than **740 cases** have been reported, of which the majority of infections have been locally-acquired. Most of the cases are in the age group of 10 to 29 years, with dozens of schools asking non-vaccinated students not to attend. Health authorities are urging people to be up-to-date with their measles mumps and rubella (MMR) vaccinations Around 80% of the cases are not fully vaccinated

Pakistan: Dense smog in some provinces

Dense smog has affected Punjab and Khyber Pakhtunkhwa provinces. People in Lahore, Peshawar and Islamabad have complained of breathing difficulties, allergies and eye irritation. Poor visibility has led to road-traffic accidents. Health officials have urged the public to stay indoors and use masks while outdoors. The current situation is likely to improve in the next two weeks.

Saudi Arabia: MERS-CoV

in October 2017, **over ten cases** of MERS-CoV were recorded. Affected places include **Al Bukayriyah, Hofuf, Jizan, Riyadh, Tabuk, Taif and Unaizah**. Both primary and secondary cases were recorded and some had underlying health problems. Contact tracing is underway. Some people who have tested positive for the virus have no symptoms, some have had a mild illness, while others are critically ill, and fatalities continue to be reported

Three unrelated clusters of MERS cases have been identified between April and June. One of the affected hospitals is located in Bisha city, Assir Region. The other two outbreaks are centred around hospitals in Riyadh and Wadi Aldwaser cities of Riyadh Region. Cases include healthcare workers, patients and household contacts of the "index" cases.

The risk of severe illness is higher among people with chronic diseases or a weakened immune system. Overall the risk has not changed. While the virus can be transmitted from one person to another, this has generally occurred between close contacts in households, and in healthcare facilities

Oman: MERS-CoV case

A case of Middle East respiratory syndrome coronavirus (MERS-CoV) has been reported. The person is a male and in his 20s. This is the second case detected in the country in 2017. The first case was reported in August. So far there has been no spread to any contacts. Overall the risk to travellers remains low.

Nigeria: Lassa fever outbreak

Since December 2016, over **900 cases** of Lassa fever have been reported from at least 22 states, including more than **120 fatalities**. Active transmission is currently being reported in five states: Bauchi, Edo, Lagos, Ondo, and Plateau

Lassa fever is a viral haemorrhagic fever, transmitted to humans on contact with excretions from infected rodents. Outbreaks occur through direct contact with body fluids of an infected person. Risk to the business traveller is low.

The Nigerian Centre of Disease Control (NCDC) is assisting several states in their response activities. The Ministry of Health has implemented a rapid response and raising awareness in healthcare workers to use appropriate infection control procedures

Uganda: Marburg outbreak

Ugandan officials have confirmed an outbreak of Marburg virus in Kween district, Eastern Uganda. **There are two confirmed and one probable case**, with further suspects identified. Some of the previously suspected cases have tested negative

Both the confirmed cases did not survive the illness and were siblings of the index probable case. He was a hunter and had carried out his activities in areas where bats are present. He developed symptoms and died on 25 September.

Investigations are ongoing. Many contacts including health workers have been identified in Kapchorwa and Kween districts following possible exposure to the cases at health facilities and traditional burial ceremonies. Health authorities continue to actively search for potential cases within family and community.

Marburg is a rare, but deadly viral disease. It may be transmitted to humans when they have contact with infected bats. Infected people can also spread the disease to others, as the virus is present in body fluids including blood, saliva, and urine. There is no known treatment or vaccination against the disease.

Nigeria: Monkeypox outbreak

The first suspected case was an 11-year-old boy who sought treatment at a hospital in Yenagoa, Bayelsa state, in late September. Since then, over 100 suspected cases have been identified across these regions: Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Ekiti, Enugu, Imo, Lagos, Nasarawa, Niger, Rivers, and the Federal Capital Territory (FCT).

Thirty eight cases have been confirmed. Health officials are investigating the source of this outbreak and educating the public on ways to prevent monkeypox infection. The disease was last reported in Nigeria in the 1970's

People can contract monkeypox through contact with an infected animal, either from a bite or following contact with the animal's blood or body fluids. Infection can also occur if a person touches the rash on an infected animal's skin - which sometimes happens during food preparation. It can also be passed from person-to-person. There is no specific vaccine for monkeypox. Prevention is based on maintaining strict hygiene and avoiding contact with animals

Tanzania: Cholera

Since the outbreak began in August 2015, over **30,700 cases** including over **480 deaths** have been recorded nationwide. There was also an outbreak on Zanzibar island from May to July 2017 which is now over.

Outbreaks are currently ongoing in Dodoma, Mbeya and Songwe regions. Cholera treatment centres have been set-up in affected areas

Mozambique: Cholera outbreak in Memba

From 14 August to 30 October 2017, a total of 172 cases of cholera were notified in Memba District with a single fatality. Of the 26 bairros (towns) in Memba, all but four have reported at least one case. Mirroge, Mitequereque, Fungo and Napazo have been hardest hit

Cholera is considered an endemic threat, one which is present consistently, in Mozambique. Outbreaks frequently occur after storms where heavy rainfall can impact the local potable water supplies.

This is the second such outbreak to affect Memba District in the last five years but other areas of Mozambique report cases every year.

Cholera is spread via contaminated food and water. consider vaccination

Syria: Polio cases

At least **63 cases** (51 children) of polio have been confirmed from Deir-Al-Zour, Homs and Raqqa Governorates due to a strain of "circulating vaccine-derived poliovirus" (cVDPV), which can emerge in under-vaccinated populations. Cases of wild polio virus have not been recorded in the country since 2013-2014. Polio is a contagious viral illness that causes paralysis and death. The infection is spread through ingestion of contaminated food or water, or directly from an infected person

Surveillance has been stepped up and vaccination campaigns for children under 5 years have commenced in order to prevent the disease from spreading further

Burkina Faso: Dengue outbreak

Over **9,000 dengue fever cases** and at least **18 fatalities** have been reported since the beginning of the year. At least 12 of the country's 13 health regions have recorded cases, with a surge of cases occurring in the Central health region, including the capital city Ouagadougou. Three different strains of dengue virus have been identified in this outbreak (DENV-1, DENV-2 and DENV-3) which raises the risk of an increased number of severe cases

Anguilla (UK); Antigua and Barbuda; Bahamas; British Virgin Islands (UK); Dominica; Dominican Republic; Guadeloupe (France); Haiti; Martinique (France); Puerto Rico (US); St Martin (France); St Maarten (Netherlands); Turks and Caicos Islands; US Virgin Islands (US); Cuba; Montserrat (UK): Hurricane aftermath health implications

Hurricanes Irma and Maria have caused extensive damage to areas of the Caribbean, and many residents have been left homeless. There is an increased risk of injury, and water and food-borne diseases. Mosquito-borne and other communicable diseases may increase in the coming weeks. The ability to treat illnesses and injuries may be limited

Anguilla: There has been further restoration to hospital services following extensive damage to healthcare facilities.

Barbuda: Almost all ambulances and health facilities are extensively damaged or inoperable. There is a food shortage and water sources have been damaged and there is no local production of drinking water.

British Virgin Islands: The hospital is partially operational. However, there is a shortage of food and drinking water.

Cuba: Several health institutions have significant damages.

Dominica: Water and electrical supplies have been restored in some towns. Most of the medical facilities are operational to some extent.

Dominican Republic: Several healthcare centres are affected.

Puerto Rico: Most hospitals are operational.

St Martin: The hospital is significantly damaged, a field hospital has been set up next to the existing hospital.

St Maarten: The hospital has limited capabilities and is not functioning at full capacity.

Turks and Caicos: Serious damage of healthcare facilities has been reported. There is a shortage of food and drinking water.

United States Virgin Islands: A hospital in St Thomas has been closed

United States: Hepatitis A outbreak in California

The outbreak began in San Diego county in late 2016. Since then, over **600 cases** have been reported there, including at least **20 deaths**. Santa Cruz, Los Angeles and Orange counties are now affected. Investigations indicate the outbreak is being transmitted person-to person through close contact or through a contaminated environment. Most affected individuals are homeless and/or illicit drug users, as well as those that live in dense living conditions with shared restrooms. However, around a third of those infected are neither homeless nor illicit drug users. To date, there is no suggestion of a food-borne outbreak and no common source of infection has been identified

Local health authorities are conducting immunisation campaigns, and are providing free immunisations at designated clinics. A California-wide state of emergency was declared on 13 October, in order to increase the supply of vaccinations to control the outbreak. Vaccination is recommended for "homeless individuals, illicit drug users, patients with chronic liver diseases, men who have sex with men (MSM), other at-risk people who are not already immunised, and to any individual who desires immunity to Hepatitis A".

India: Reduced air quality in the National Capital Region

The United States Mission in New Delhi has recorded "Hazardous" levels of air pollution in the first week of November with the air quality index (AQI) measuring as high as 700 on some days. This AQI is more than the highest levels that is recorded on the SAFAR scale. Fine particulate matter (PM2.5) concentration is very high reducing visibility to less than 200 metres.

The NCR which includes cities of Delhi, Ghaziabad, Gurugram, Noida and Faridabad has been experiencing poor air quality since October. In November the AQI deteriorated further. The current levels of AQI prevailing in the NCR will cause serious health effects in everyone, the healthy and in people from the high-risk groups. Schools have been closed temporarily. Authorities have implemented several restriction measures to curb pollution. These include ban on entry of heavy vehicles to the city and construction and industrial activities. Odd even scheme on private vehicles may also be implemented in the week of 13 November. The public are advised to stay indoors, restrict outdoor activities and use a mask when stepping out. The Indian Medical Association (IMA) have requested for cancellation of all sporting events and restriction on all outdoor activities in schools. Several flights and trains have been affected.

Air quality begins to decline around early October due to agricultural burning in the neighbouring states of Punjab, Haryana and Uttar Pradesh. This adds to the existing air pollution caused by vehicular and industrial emissions. Additionally, the AQI deteriorates further during "Diwali" festival which was celebrated on 19 October this year. Extensive use of fireworks impacts air quality annually. Haze is likely to persist throughout the winter which typically starts in mid-November and lasts until late February.

Samoa: Dengue outbreak

There has been an increase in cases of dengue fever, including **some fatalities**. The disease is spread by mosquitoes, and is present in both rural and urban areas. While dengue outbreaks are common in Samoa, previous outbreaks have been caused by strains 3 or 4 (DENV-3 or DENV-4). There are four strains of dengue, and infection with one kind does not make a patient immune to the other three kinds. In this outbreak, dengue virus strain 2 (DENV-2) has been confirmed, which raises the risk of an increased number of severe cases

Vietnam: Dengue outbreak

Dengue activity this year is significantly higher than usual, however since mid-August new cases have been declining. Over **160,000 cases** and at least **30 fatalities** have

been reported since the start of the year. Although the majority of cases have occurred in the south, northern Vietnam is also experiencing a surge, with Hanoi particularly affected.

The World Health Organization is supporting the Ministry of Health in their response. Measures to control mosquito breeding and hospital capacity to detect and treat the disease have been increased

Chile: Q fever outbreak in Osorno

An outbreak of Q fever has been reported in Osorno province of Los Lagos region, mainly in livestock workers. The health ministry has issued sanitary alert for the affected and the surrounding La Araucanía and Los Ríos regions to enforce preventive and control measures for the outbreak.

Q fever is a highly infectious bacterial illness that is transmitted from animals to humans. Cattle, sheep, goat, dogs, cats, birds, rodents and ticks can become infected and shed the bacteria in their faeces, urine, milk and birth-related tissues (such as the uterus, placenta) and birth fluids. Inhaling infected droplets (usually barn dust) and consuming unpasteurised milk or raw milk products causes illness.

Symptoms include fever, sweating, headache, muscle pain and weakness. Serious illness can occur if other organs are affected.

Q fever can be treated with antibiotics. There is a vaccine for Q fever but it is not widely available

Portugal: Legionnaires' disease

An outbreak of Legionnaires' disease in a large Lisbon hospital has killed two people and made at least another 32 sick since it was first detected a week ago,

Five people were in intensive care after contracting the severe form of pneumonia while interned at the São Francisco Xavier hospital in Lisbon's western Restelo area.

Most of the 34 confirmed cases involved elderly people with other chronic conditions. The authorities said experts were working to establish the source of the bacteria and it was still too early to say whether it was inside the hospital itself.