Rapid Risk Assessment-MERS-CoV, Eastern Mediterranean Region

Date and version of current assessment: 29 January 2026, v2
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Overall risk and confidence

Overall risk	
Regional	**Global**
Moderate	**Moderate**

Confidence [1] in available information	
Regional	**Global**
Moderate	High

Risk statement

The scope of this Rapid Risk Assessment is to reassess the epidemiological situation of Middle East respiratory syndrome coronavirus (MERS-CoV) following the recent exportation (in December 2025) of cases from the Arabian Peninsula to France and three healthcare-associated clusters reported by the Kingdom of Saudi Arabia (KSA) in 2024–2025. These events, together with the continued occurrence of sporadic cases in Arabian Peninsula countries, highlight the ongoing risk of international spread to non-endemic countries and reflect the persistent circulation of MERS-CoV in the Middle East.

Middle East respiratory syndrome coronavirus (MERS-CoV) is a zoonotic virus transmitted to humans through direct or indirect contact with infected dromedary camels, which are the natural host of the virus. First identified in humans in 2012 in the Kingdom of Saudi Arabia (KSA) and Jordan, MERS-CoV causes a viral respiratory infection that occurs throughout the year, with cases reported sporadically and in clusters. Clinical presentation ranges from asymptomatic or mild respiratory illness to severe acute respiratory disease, pneumonia, and death. The case fatality rate among cases reported to WHO is 37%.

Since MERS-CoV emergence in 2012, until 23 January 2026, under the International Health Regulations (IHR, 2005), 27 countries have reported human cases of MERS-CoV to the WHO: Algeria, Austria, Bahrain, China, Egypt, France, Germany, Greece, the Islamic Republic of Iran, Italy, Jordan, Kuwait, Lebanon, Malaysia, the Netherlands, Oman, the Philippines, Qatar, the Republic of Korea, the Kingdom of Saudi Arabia (KSA), Thailand, Tunisia, Türkiye, the United Arab Emirates (UAE), the United Kingdom, the United States of America, and Yemen.

However, of the 2635 MERS cases documented globally since 2012, 2418 (92%) were reported from the WHO Eastern Mediterranean Region (EMR). The majority (84%) of reported cases were notified by KSA (2224/2635) followed by other Arabian Peninsula countries: the UAE (94), Jordan (28), Qatar (28), Oman (26), Iran (6), Kuwait (4), Tunisia (3), Lebanon (2), Bahrain (1), Egypt (1) and Yemen (1). Exposure was commonly linked to direct or indirect contact with infected dromedary camels or transmission from infected individuals in healthcare settings or households. Most cases reported outside the Arabian Peninsula countries involved people likely infected there prior to travelling elsewhere.

Following the first human infection with MERS-CoV in 2012, the Director-General convened an Emergency Committee under the International Health Regulations (IHR 2005) in 2013 to assess whether the outbreaks of MERS constituted a Public Health Emergency of International Concern (PHEIC) and to provide guidance on the public health measures that should be taken.[i] The Committee has met on 10 occasions and, on each occasion, concluded that the outbreaks do not meet the criteria of a PHEIC.

The overall risk of MERS-CoV in 2023 was assessed as moderate both at the regional and global levels.

A new assessment currently confirms that this risk level remains unchanged, **moderate** both at **the regional and global levels,** taking into account the following considerations:

1. Continued reports of sporadic cases in endemic countries in the Arabian Peninsula and the occasional occurrence of traveller cases and healthcare-associated transmission, including two cases reported from France in December 2025 and three clusters reported in the Kingdom of Saudi Arabia during 2024–2025.
2. Since the last RRA in 2023, cases reported to WHO have not resulted in sustained onward human-to-human transmission, as most identified close contacts tested negative and no additional household clusters have been identified. The three healthcare-related clusters remained limited, with infection only confirmed in direct contacts with the index case.

[1] Confidence refers to the level of confidence in the data/information or the quality of the evidence available at the time the RRA is conducted. Poor quality information may increase the overall perceived risk due to the incertitude in the assessment

3. The observed decline in reported MERS cases since 2020, in particular during the COVID-19 pandemic emergency phase, is thought to be a result of pandemic-related Infection Prevention & Control measures that also limited human-to-human transmission of MERS-CoV, as well as behavioural changes during the pandemic. Any role of potential cross-reactive immunity from SARS-CoV-2 infection and/ or vaccination remains in need of further investigation. Other hypotheses—such as reduced surveillance, viral attenuation, or decreased circulation in camel populations—are not supported by current evidence.
4. Significant disparities persist globally in countries' capacities to detect and respond effectively to the disease, particularly in regions where the virus has not been previously documented. Within the EMR, six fragile, conflict-affected, and vulnerable countries are considered at greater risk.
5. Global inequalities remain in the adequacy of preparedness, infection prevention and control capacities, and response measures, particularly in the context of a cross-border outbreak or a traveller case.
6. MERS-CoV continues to circulate in dromedary camel populations without causing overt clinical signs, constituting a constant source of human exposure and a risk of zoonotic spillover, which may result in occasional onward human-to-human transmission. The recent detection of Clade B viruses in camels of African origin further highlights the risk of MERS-CoV spread from the Arabian Peninsula via camel movements and poses an additional risk to other regions, particularly given the documented increased replication competence and more efficient viral entry of Clade B compared with Clade C.
7. Preliminary data from in vitro growth kinetics and partial sequencing indicate no major attenuation in circulating Clade B strains.
8. The potential public health impact of MERS-CoV should not be underestimated given the severity of disease and its high reported case fatality rate (CFR), even though sustained global spread is currently considered unlikely.
9. MERS-CoV can cause severe disease resulting in high mortality. The current CFR of 37% is based on laboratory-confirmed cases only and may therefore overestimate of the true mortality rate.
10. Existing regional and global surveillance systems may fail to detect asymptomatic and mild cases of MERS, leading to underreporting.
11. Limited and non-sustained human-to-human transmission has been documented, mainly in healthcare and household settings. However, due to limited research, data gaps remain in understanding transmission dynamics, including the role of environmental contaminations, asymptomatic cases and specific exposure risk in healthcare settings. Further research is needed to better understand zoonotic transmission associated with dromedary camel products and excreta.
12. Due to the similarity of symptoms with other respiratory diseases that are widely circulating, like influenza or COVID-19, detection and diagnosis of MERS cases may be delayed, especially in unaffected countries, creating opportunity for local onward transmission.
13. Should MERS-CoV result in a healthcare-associated outbreak in a previously unaffected country, as occurred in the Republic of Korea in May 2015, during which 186 laboratory-confirmed cases (185 in the Republic of Korea and 1 in China) and 38 deaths were reported, the public health consequences for that country could be substantial.
14. The recent exportation of cases from the Arabian Peninsula to France demonstrates the ongoing risk of international spread.

Risk questions

Risk question		Assessment		Risk	Rationale
		Likelihood	Consequences		
Potential risk for human health?	Regional	Unlikely	Moderate	Moderate	MERS-CoV is a zoonotic virus capable of causing severe respiratory disease with high mortality. Non-sustained human-to-human transmission has also been documented, primarily in health care settings and to a lesser extent in households and communities. Although the reported CFR is 37%, this likely overestimates the true mortality, as case fatality rates are counted only among laboratory-confirmed cases reported to the WHO. According to the WHO data in 2018, 21% of the 2228 confirmed MERS-CoV cases were reported to have no or mild symptoms, asymptomatic or mildly symptomatic cases may be missed by existing surveillance systems. Since 2012, the WHO EMR has been the most affected region, accounting for 2,418 (92%) of the 2,635 globally reported cases. The majority of MERS-CoV cases (84%) were reported from the Kingdom of Saudi Arabia (KSA). Over the years, most affected countries have adequate resources and capacity within their health systems. No licensed therapeutics or vaccines currently exist for MERS, treatment remains supportive. While there is a variation of the (R0) number in different settings, the overall (R0) of MERS-CoV is < 1. The (R0) in outbreaks in healthcare settings is higher. However, early case isolation and adequate infection prevention and control (IPC) measures can reduce (R0) to < 1. (2) This variation supports the rationale for a moderate risk to human health, as MERS-CoV transmission can be higher in healthcare settings; however, prompt case isolation and adequate IPC measures are effective in limiting onward spread. Genetic surveillance is also limited. The most recent genome sequences in public databases are all derived from camels, and molecular characterisation of current circulating strains, especially in the Middle East, where human cases continue to be reported, remains incomplete. Tracking the molecular evolution of MERS-CoV is essential for assessing potential changes in virulence or transmissibility that could influence human health risk. Based on the sequence data available and preliminary data from in vitro growth kinetics no major attenuation of circulating strains is expected.
	Global	Unlikely	Moderate	Moderate	

[2] Middle East respiratory syndrome: WHO global summary and assessment of risk 16 November 2022

Risk of event spreading?	Regional	Unlikely	Minor	Low	All seven countries in the Arabian Peninsula reported human cases. However, the majority of cases have occurred in Jordan, KSA, UAE, Qatar and Oman. Outside this region, outbreaks have been very limited, with the notable exception of the Republic of Korea, in May 2015. Approximately 84% of all human cases have been reported from KSA, primarily linked to direct or indirect contact with infected dromedary camels or transmission in healthcare facilities. Since 13 September 2023, sporadic cases have been reported only in KSA (29), while two cases with exposure in the Arabian Peninsula were reported by France. Most cases reported outside the Middle East have involved people who likely acquired the disease in the region before traveling. There are a few outbreaks beyond the Middle East thus far. Due to the similarity of symptoms with other respiratory diseases that are widely circulating, like influenza or COVID-19, detection and diagnosis of MERS cases may be delayed, especially in countries that never experienced a MERS outbreak, and provide opportunity for onward transmission. The potential for exported cases and subsequent spread largely depends on the strength of national surveillance systems and the capacity for rapid public health response. Despite the low likelihood of widespread global transmission, the high case fatality rate of MERS-CoV underscores the importance of vigilance. The global MERS threat does not originate solely in the Middle East. MERS-CoV is also endemic in many camel populations in countries of Northern and Sub-Saharan Africa, Central and South Asia, with serological evidence of zoonotic transmission to humans. While Africa hosts about 80% of the global camel population, no locally acquired zoonotic human case has been officially reported to date. Studies comparing virus isolates from dromedary camels found that clade C virus (circulating in Africa) viral replication levels and transmission efficiency is lower in camelids than clade B virus (circulating in the Middle East). For the first time, clade B viruses have now been identified in camels of African origin, highlighting the risk of introduction from the Arabian Peninsula into African camel populations and further spread in light of its increased replication competence and more efficient viral entry over Clade C. Awareness of the zoonotic risk posed by camels must also be maintained in these regions. The WHO anticipates that additional MERS cases will continue to be reported from the Middle East and other countries where MERS-CoV is circulating in dromedaries. Exported cases may occur in individuals exposed to the virus through contact with dromedaries or their products (e.g., consumption of raw camel milk, urine), or through healthcare-associated transmission. Countries routinely investigate suspected MERS cases among travellers returning from regions with documented transmission. In France, enhanced surveillance and contact tracing were implemented immediately following case detection. All identified at-risk contacts, including asymptomatic co-exposed individuals, were offered a voluntary, comprehensive testing protocol (nasopharyngeal swab, sputum, rectal swab, and serology) up to 29 days after their last exposure.
	Global	Unlikely	Minor	Low	

Risk of insufficient control capacities with available resources?	Regional	Unlikely	Moderate	Moderate	The countries where MERS CoV cases have been identified have well established health systems in terms of detection, lab capacity, IPC measures, and case management. However, several factors contribute to a moderate risk of insufficient control capacity given available resources. Since 2020, a significant decrease in the number of MERS-CoV cases reported to WHO has been observed, likely due to pandemic-related IPC measures that also limited human-to-human transmission of MERS-CoV, as well as behavioral changes during the pandemic. Any role of potential cross-reactive immunity from SARS-CoV-2 infection and/ or vaccination remains in need of further investigation. As these public health and social measures are relaxed and adherence to standard and enhanced IPC measures in health care settings declines, the incidence of other respiratory diseases, such as influenza, RSV, and MERS, are rising. This adds to competing resources that may require prioritisation or strategic planning to avoid missing the detection of MERS and other respiratory diseases. Currently, there are significant disparities among countries in their ability to detect and respond effectively to the disease, particularly in regions where the virus has not previously been documented. For the EMR, there are six fragile, conflict and vulnerable countries that are at higher risk due to already constrained health system.
	Global	Unlikely	Moderate	Moderate	

Major actions recommended by the risk assessment team

	Action
☐	Refer the event for review by IHR Emergency Committee for consideration as a PHEIC by DG (Art 12, IHR)
☐	Immediate activation of WHO response mechanism as urgent public health response is required
☐	Recommend setting up WHO grading call
☐	Immediate support to response, but no WHO grading recommended at this point in time
☐	Rapidly seek further information and repeat RRA (including field risk assessment)
☒	Support Member State to undertake preparedness measures
☒	Continue to closely monitor
☐	No further risk assessment required for this event, return to routine activities

Immediate actions

WHO Eastern Mediterranean Regional Office:

- Encourage the integration of MERS-CoV testing in SARI sites within/ in the vicinity of camel-dense areas.
- Continue to support countries to build their laboratory capacity, especially for genetic sequencing.
- Encourage full genome sequencing to be conducted routinely when cases are identified in humans. Encourage the rapid sharing of genetic sequence data for human and camel viruses through publicly accessible databases.
- Continue to guide and support Member States through updating guidance materials for MERS-CoV in collaboration with international partners.
- Continue to support the development and implementation of infection prevention and control programmes in Member States, including strategies and surge capacities (incl. IPC supplies and (PPE)) for management of epidemic- and pandemic-prone respiratory pathogens.
- Ensure immediate reporting of any detected human case to WHO under the International Health Regulations and reporting of any detected animal case to the WOAH.

- Promote regular communication and collaboration between the animal, human, and environmental health sectors with implementation of a One Health approach.
- Encourage countries to develop or update the national respiratory pandemic preparedness and response plan and include MERS.

WHO Headquarters :

- Continue updating global guidance, protocols and assessment of risk for MERS-CoV based on the latest evidence and in collaboration with regional focal points, other international agencies and technical partners.
- Encourage and support countries to implement surveys in humans and camels, including genetic sequencing of MERS-CoV, to be able to monitor its genetic evolution and perform risk assessment.
- Promote and facilitate sharing of experiences and good practices between regions.
- Engage with donors to advocate for funding support.
- Engage with regions and countries under the WHO Preparedness and Resilience for Emerging Threats (PRET), Unity Study and Mosaic Respiratory Surveillance Framework, among others, to strengthen national capacities for pandemic preparedness, surveillance, detection and investigation of MERS-CoV and other respiratory pathogens.
- Coordinate with FAO and WOAH on the MERS CoP and activities targeting the animal-human-environment interface.
- Engage CoViNet laboratories in advanced laboratory analysis, risk assessment and capacity building for diagnosis and characterization of coronaviruses, including MERS-CoV.

Supporting information

Hazard assessment

Middle East respiratory syndrome (MERS) is a zoonotic disease caused by Middle East respiratory syndrome coronavirus (MERS-CoV) that was first detected in the Kingdom of Saudi Arabia (KSA) and Jordan in 2012. The virus has been identified in dromedary camels in several Member States in the Middle East, Africa and South and Central Asia, despite a limited number of human infections reported outside the Middle East. Recent seroprevalence studies in human populations with occupational exposure to dromedary camels in several Member States in Africa and in Pakistan indicate that zoonotic transmission is also occurring.

Although the precise transmission route remains unknown, studies have shown that humans contract MERS through direct or indirect contact with infected dromedary camels, their products, or secretions. Human-to-human transmission can also occur and has primarily occurred in settings with intimate contact, such as households, among family members, among health care workers, and among patients sharing the same room as a MERS case.

Fever, cough, and shortness of breath are common MERS symptoms. Although pneumonia is common, MERS patients may not always have pneumonia. Severe illness can result in respiratory failure requiring mechanical ventilation in an intensive care unit (ICU). The chance of severe illness seems to be higher among older persons, those with compromised immune systems, and those with chronic illnesses such as diabetes, cancer, hypertension, chronic lung disease, and chronic kidney disease. Diarrhoea and other gastrointestinal symptoms have also been noted in MERS patients.

The case fatality rate (CFR) is 37% for cases reported to WHO, but this may be an overestimation of the true mortality rate, as mild cases of MERS may be missed by existing surveillance systems and until more is known about the disease, the case fatality rates are counted only amongst the laboratory-confirmed cases.

Although numerous MERS-CoV-specific vaccines and therapeutics are in clinical development, none are licensed to date, and treatment remains symptomatic.

Exposure assessment

Middle East respiratory syndrome coronavirus (MERS-CoV) was first identified in a patient who died from pneumonia in Jeddah, Saudi Arabia in 2012. Since then, 12 countries out of 22 in the Eastern Mediterranean Region reported cases, however, the majority of the reported cases have occurred in countries in the Arabian Peninsula, as follows:

- KSA: reported 2224 (84%) cases and 869 (90%) related deaths (CFR: 39%).
- United Arab Emirates (UAE): reported 94 (4%) cases and 12 (1.2%) related deaths (CFR: 13%).
- Qatar: reported 28 (1%) cases and 10 (1%) related deaths (CFR: 36%).
- Oman: reported 26 (1%) cases and 8 (0.8%) related deaths (CFR: 31%).

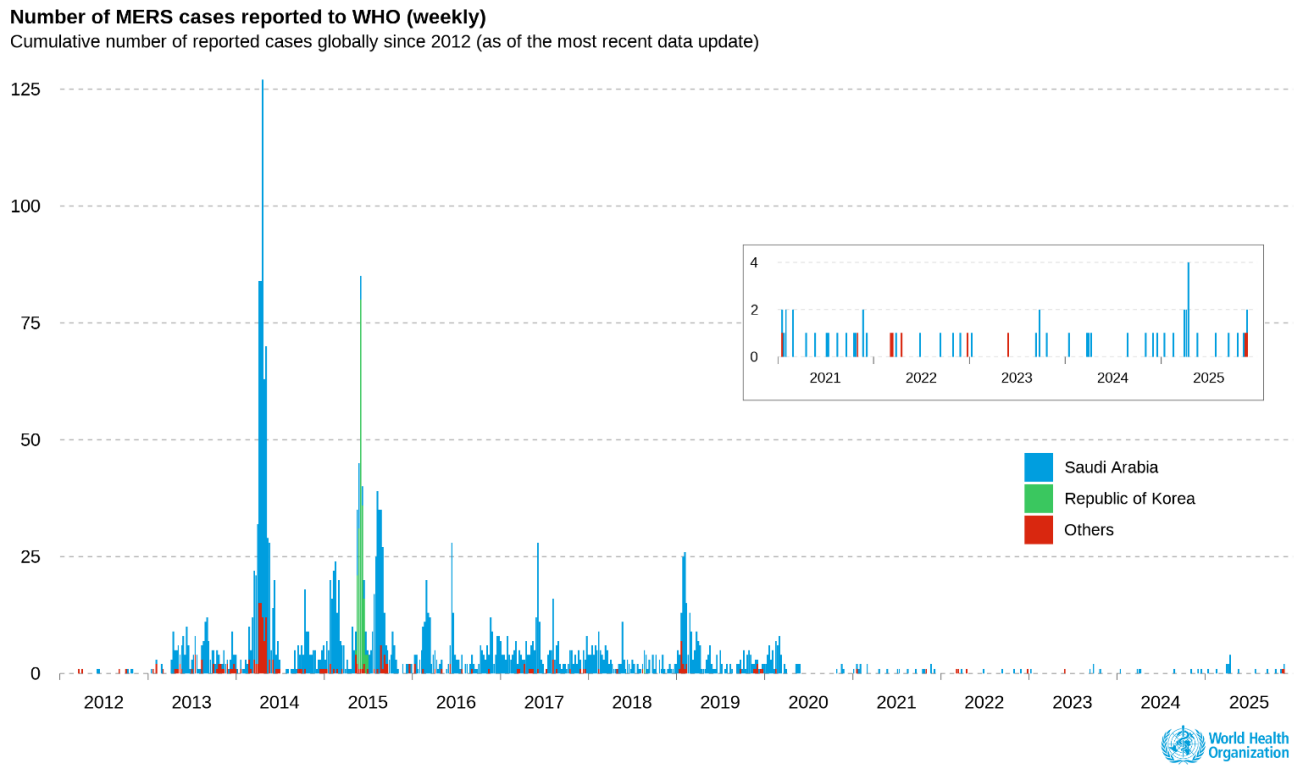
See Figure 1, for the distribution of reported MERS cases globally by week of onset, June 2012 – December 202.5

Globally, a total of 2635 laboratory-confirmed MERS-CoV infection cases from 27 countries have been reported to WHO since 2012 and as of 25 January 2026, including 964 associated deaths (CFR: 37%).

Since the onset of the COVID-19 epidemic, there has been a significant decrease in the number of MERS cases reported to WHO. This is thought to be a result of pandemic-related IPC measures that also limited human-to-human transmission of MERS-CoV, as well as behavioral changes during the pandemic. Any role of potential cross-reactive immunity from SARS-CoV-2 infection and/ or vaccination remains in need of further investigation. Other hypotheses, such as reduced surveillance, viral attenuation, or decreased circulation in camel populations, are not supported by current evidence.

In 2025, a total of 19 cases were reported from KSA (17) and France (2).

Figure 1: Distribution of reported MERS cases globally by week of onset, June 2012 – December 2025



Healthcare-Associated Clusters of MERS-CoV Since the last RRA (September 2023)

Since the last RRA in September 2023, three healthcare-associated clusters of MERS-CoV infection have been reported to WHO, all originating from Saudi Arabia (see Figure 2). Prior to these, the last health-care-associated cluster had been reported in May 2020, also in Saudi Arabia, involving six cases.

Cluster 1 – April–May 2024:

The first cluster occurred in a hospital in Riyadh and involved three male cases aged 50-65 years. The index case had a history of underlying illnesses and died. Two secondary cases were identified, both in the same age group and also fatal. All three cases were epidemiologically linked to exposures in a healthcare facility, and contact tracing did not identify any additional cases. The index case had no known exposure to camels or camel products.

Cluster 2 – November 2024:

The second cluster was identified in November 2024 at a haemodialysis facility in Riyadh and involved two male cases aged over 65 years. The index case was a regular haemodialysis patient who developed hypotension, fever, cough, and dyspnoea during a dialysis session and tested positive for MERS-CoV. He died as a result of the MERS-CoV infection. One secondary case was identified among 42 contacts, a male receiving haemodialysis at the same facility, who also died. The index case had no known exposure to camels or camel products.

Cluster 3 – April 2025:

The third cluster occurred in April 2025 and involved seven cases. The index case was male aged 50-65 years with multiple comorbidities. He underwent surgery at a private hospital in late February 2025, developed respiratory symptoms during recovery, and tested positive for rhinovirus. After discharge at the end of March 2025, he was readmitted within hours to another facility in Riyadh due

to respiratory distress, where he tested positive for MERS-CoV and died in April 2025. Extensive contact tracing and testing in the second facility identified six health and care workers (two physicians, three nurses, and one cleaner), all of whom tested positive for MERS-CoV. One nurse and one physician developed mild symptoms, while the remaining four remained asymptomatic. All household contacts tested negative. Over 400 additional contacts tested negative. The index case had no known exposure to camels or camel products.

Healthcare-associated clusters of MERS-CoV typically occur when infection prevention and control (IPC) procedures are insufficient or inconsistently applied. Delays in recognising early symptoms, slow triage of suspected cases, and delayed implementation of IPC measures have been associated with transmission in healthcare settings. Outside healthcare settings, only limited human-to-human transmission has been observed. IPC measures are critical for mitigating and controlling the spread of MERS-CoV between people in healthcare facilities and back into the community. Healthcare workers should apply standard precautions consistently with all patients, at every interaction in healthcare settings; droplet precautions should be added to the standard precautions when providing care to patients with symptoms of acute respiratory infection; contact precautions and eye protection should be added when caring for probable or confirmed cases of MERS-CoV infection and airborne precautions should be applied when performing aerosol generating procedures or in settings where aerosol generating procedures are conducted. Early identification, case management and isolation of cases, quarantine of contacts, together with appropriate IPC measures in health care setting and public health awareness can mitigate human-to-human transmission of MERS-CoV.

Populations at higher risk of MERS-CoV infection include individuals in close contact with dromedary camels, such as farmers, abattoir workers, veterinarians, shepherds, and camel owners, as well as healthcare workers caring for MERS-CoV patients.

WHO expects that additional cases of MERS-CoV infection will continue to be reported from the Middle East and that cases will continue to be exported to other countries by individuals who might acquire the infection after exposure to dromedaries, camel products (such as consumption or f raw camel milk or urine), or infected humans in healthcare settings.

Context assessment

MERS-CoV has been identified in dromedary camels in several Member States across the Middle East, Africa, and South Asia, although only a limited number of human infections have been reported outside the Middle East. Populations at higher risk of infection include those in close contact with dromedary camels (e.g., farmers, abattoir workers, veterinarians, shepherds, dromedary owners) as well as healthcare workers caring for MERS-CoV patients.

Camel husbandry is an important aspect of the region's culture and economy. In the Arabian Peninsula, camels provide both income and recreational activity. Camel racing and camel beauty contests are popular forms of entertainment, and camel ownership is associated with prestige and the preservation of cultural traditions linked to the desert environment. Beyond the Arabian Peninsula, countries such as Sudan and Somalia also have large camel populations that serve multiple purposes, including transportation, milk and meat production, and income from trading and the export of camel products.

While Africa hosts about 80% of the global camel population, no locally acquired zoonotic human case has been officially reported to date. Studies comparing virus isolates from dromedary camels found that clade C virus (circulating in Africa) viral replication levels and transmission efficiency is lower in

camelids than clade B virus (circulating in the Middle East). For the first time, clade B viruses have now been identified in camels of African origin, highlighting the risk of introduction from the Arabian Peninsula into African camel populations and further spread in light of their increased replication competence and more efficient viral entry over Clade C.

Gulf Cooperation Council (GCC) countries, where MERS-CoV human cases have been reported, have well-established health systems with strong surveillance capable of MERS case detection, lab capacity, IPC measures, and case management. Other countries in the region face greater challenges. Fragile, conflict-affected and vulnerable (FCV) countries, including Somalia and Sudan, are at greater risk because of their already strained health systems.

KSA has documented 84% of human cases reported to the WHO, primarily through direct or indirect contact with infected dromedary camels or infected people in healthcare settings. The majority of cases identified outside the Middle East typically involve individuals who appear to have contracted the disease there before travelling elsewhere. There have been only a few outbreaks outside the Middle East to date. Outside the EMR, 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 1 in China) and 38 deaths were reported.

The Director-General first convened an Emergency Committee under the International Health Regulations (2005) in 2013 to determine whether the MERS outbreaks constituted a Public Health Emergency of International Concern (PHEIC) and on the public health measures that should be implemented.
Since then, the Emergency Committee has met 10 times, each time concluding that the MERS outbreaks did not meet the criteria for PHEIC.

EMRO MERS CoV recent activities

The EMRO-developed operational Framework for integrated respiratory disease surveillance, which prioritises MERS-CoV alongside other high-threat respiratory viruses within existing influenza sentinel surveillance systems, is being implemented in select countries, including Saudi Arabia and Qatar. Implementation is planned for Somalia and Pakistan, with preparations underway in coordination with national authorities. Additionally, the WHO Regional Office for Africa (AFRO) is assessing the applicability of this framework to countries with large camel populations and trade routes to support targeted MERS-CoV surveillance and early detection.

In May 2024, WHO conducted a regional workshop in Jordan under the Mosaic (Multi-pathogen Optimization of Surveillance, Analytics, and Infrastructure Coordination) initiative. The workshop convened stakeholders from national public health institutions, influenza surveillance networks, and technical partners to advance implementation of an integrated respiratory surveillance framework. Emphasis was placed on leveraging existing systems, such as e-GISRS, to incorporate multiple respiratory pathogens, including MERS-CoV, into routine surveillance. This activity aimed to enhance regional capacities for early detection, coordinated response, and evidence-based risk assessment of respiratory threats with epidemic and pandemic potential.

In August 2024, WHO officials from headquarters and EMRO, and the WHO collaborating centre for infectious disease modelling at Imperial College London, conducted a technical mission to the Kingdom of Saudi Arabia to meet with senior officials from the Ministry of Health (MOH) and the Public Health Authority (PHA) responsible for MERS-CoV surveillance, case management, IPC, data collection and analysis, database management and training. The aims of the mission were to synchronize the MERS database, discuss a minimum dataset for MERS case reporting under the IHR and enhance surveillance and response coordination.

In September 2024, the WHO, in collaboration with the PHA, conducted a National Simulation Exercise Workshop on Multisectoral Coordination for MERS-CoV Preparedness, Prevention, and Control in Riyadh, Saudi Arabia. The exercise aimed to strengthen preparedness, enhance coordination among sectors, and refine strategies for addressing zoonotic diseases such as MERS. The workshop highlighted the necessity of multisectoral coordination in addressing zoonotic diseases such as MERS. Through a collaborative One Health approach, stakeholders across human, animal, and environmental health sectors must work together to strengthen surveillance, enhance laboratory capacity and data sharing, and implement targeted interventions. The key issues evidenced by the simulation exercise are being used by MoH and PHA to review and update national MERS-CoV preparedness and surveillance plans and will serve as a model for other countries confronting similar emerging threats.

HQ MERS CoV recent activities

The Quadripartite (the Food and Agriculture Organization of the United Nations (FAO), World Organisation for Animal Health, UN Environmental programme, and WHO), in partnership with the PHA and the Ministry of Health, Saudi Arabia, held a Quadripartite Global Technical Meeting on MERS-CoV and Other Emerging Zoonotic Coronaviruses in Riyadh on 27-29 November 2023. The meeting was attended by public health officials, researchers and resource partners and industrial partners across the global community. The aims were to share the latest efforts from implementing the MERS-CoV public health research agenda and research and development roadmap, with a strong emphasis on a One Health approach. At the end of the meeting participants agreed on priority research gaps and engaged in a marketplace activity designed to identify and kickstart multi-disciplinary collaborations to start addressing these gaps. Details can be found in the meeting report https://www.who.int/publications/i/item/9789240105812

Following a meeting in December 2023, the Global Influenza Surveillance and Response System (GISRS) has been expanded to also collect surveillance data for other respiratory viruses such as SARS-CoV-2, Respiratory Syncytial Virus (RSV) and MERS-CoV. e-GISRS monitors the co-circulation of respiratory viruses and provides training, technical, and logistical support to resource-limited countries to conduct testing.

A working group between the technical MERS Team and the Community Protection and Resilience Unit, including the Risk Communication and Community Engagement (RCCE) team, and the Behavioural Insights (BI) team at WHO HQ and EMRO has been set up in March 2024 to meet every 6 weeks to discuss strategic and technically sound approaches to strengthening community protection and resilience outcomes.

On 27 March 2024, WHO officially launched the Coronavirus Network (CoViNet), bringing together laboratories from the human, animal, and environmental health sectors to support integrated surveillance, enhanced virological assessment, and risk assessment of SARS-CoV-2, MERS-CoV and novel coronaviruses of public health importance. The network, being expanded from 34 laboratories in 23 countries in 2024 to 60 laboratories in 40 countries in 2026, aims to strengthen early detection, inform public health responses, build capacity and support pandemic preparedness efforts under a One Health approach. The first CoViNet newsletter was published on 24 March 2025.

An External Quality Assessment Programme (EQAP) coordinated jointly by the WHO's Global Influenza Programme and CoViNet has incorporated SARS-CoV-2 and MERS-CoV, as targets to be tested by GISRS labs in 2025 to evaluate their performance.

WHO updated its MERS-CoV investigation protocols which were published in 2024 as part of WHO's Respiratory Investigations and Studies (Unity Studies).

In November 2024 WHO launched the MERS Tracker dashboard in collaboration with the University of Calgary SeroTracker team and FAO. The dashboard provides users with centralised access to

serological and virological MERS-CoV field studies. Results from these studies can fill important gaps in our knowledge of the distribution of MERS-CoV. In March 2025, WHO, in collaboration with FAO and WOAH, launched the Global MERS Community of Practice (CoP) through the WHO HIVE platform in order to provide a collaborative platform for Member States, technical experts, and partners. The MERS CoP enables regular information exchange, peer-to-peer learning, discussion of emerging evidence, and alignment of approaches for surveillance, preparedness, and response to MERS-CoV, under the One Health framework. Several technical discussions and webinars have already been held on the platform.

WHO launched an online MERS-CoV introductory training course in two modules, accessible from OpenWHO

On 4 June 2025, WHO launched its first ever MERS-CoV data dashboard, providing public access to WHO's global MERS case data, enabling real-time visualizations of key epidemiological variables, geographic distribution, and trends over time. The dashboard enhances transparency, supports evidence-based decision-making, and facilitates rapid risk assessment and response at global, regional, and national levels. There is also a dashboard for serological studies in both humans and animals.

WHO has updated its infographics on MERS-CoV, available on the WHO MERS-CoV health topics webpage under 'Infographics', and the fact sheet.

Capacities	Vulnerabilities
Coordination: - FAO-WHO-WOAH global technical coordination on MERS-CoV and other emerging zoonotic coronaviruses. - CoViNet expansion to 60 laboratories in 40 countries - Strong coordination between WHO and MOHs in affected countries in terms of detection, notification, and technical support. **Surveillance:** - Enhanced lab-based surveillance capacities in affected countries that are efficient to detect MERS-CoV cases. - Strengthened surveillance with immediate notification of all suspected and confirmed cases in KSA. Cases linked to camel exposure are notified to the National Center for Prevention and Control of Plants, Pests, and Animal Diseases (Weqaa) to investigate potential camel sources. - Camels identified as a presumed source are quarantined and tested for MERS-CoV. If a live virus is detected, the quarantine period is extended until the live virus is no longer detected in the camel. **Risk Communication and Community Engagement (RCCE):** - There is support to identify all potential community contacts and to conduct active follow-up to monitor symptoms for 14 days.	**Coordination:** - Sub-optimal coordination between human and animal health sectors in many EMR countries. **Surveillance:** - Surveillance systems are unlikely to discover mild cases of MERS-CoV. - Co-circulation of respiratory diseases like influenza and COVID-19 may delay detection and diagnosis of MERS. **Risk Communication and Community Engagement (RCCE):** - Sub-optimal RCCE activities for high-risk groups (individuals who might acquire the infection after exposure to dromedaries, animal products), for example, farmers, abattoir workers, shepherds, and dromedary owners in affected countries. **Infection Prevention and Control (IPC)** - Suboptimal implementation of IPC protocols at the health care facility level in some EMR countries. - Strong need for enhancement of infection prevention and control practices, and awareness for health care facilities in the affected countries to understand their role in preventing health care-associated infections from the risk of overwhelming health facilities and/or amplifying community transmission risks. **Case Management and Laboratories**

- There is support to investigate community-acquired cases for potential direct or indirect camel contact. **Infection Prevention and Control (IPC)** - Strong national infection prevention and control (IPC) policies are in place in affected countries. - Strict implementation of IPC measures in healthcare facilities, including droplet precautions for stable patients and airborne precautions for critically ill patients, given the increased likelihood of aerosol-generating procedures in KSA. - Identification of healthcare worker contacts and performance of exposure risk assessments, taking into account appropriate use of personal protective equipment (PPE), proximity to the patient, and the presence of symptoms. **Case Management and Laboratories** - Strong lab capacities and well-established health system (for case management) in countries known for MERS-CoV circulation.	- No vaccine is available, nor is a specific treatment currently present. - Varying capacities of countries that were never affected by MERS, especially the FCV countries with poor health systems.

Reference documents used for risk assessment

- WHO MERS Fact sheet link
- WHO-EMRO MERS monthly bulletin link
- WHO MERS-CoV dashboard link
- WHO: Middle East respiratory syndrome: global summary and assessment of risk – as of 5 January 2026 link
- DON: Middle East respiratory syndrome coronavirus - Global update 24 December 2025 link
- WHO: Standard precautions for the prevention and control of infections: aide-memoire link
- WHO: Transmission-based precautions for the prevention and control of infections: aide-memoire link
- WHO: Risk evaluation of circulating Middle East respiratory syndrome coronavirus (MERS-CoV) clades and lineages link
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