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CONGO-CRIMEAN HAEMORRHAGIC FEVER (CCHF): THE EPIDEMIOLOGICAL SITUATION IN 2026, RANGE EXPANSION AND PREVENTION STRATEGIES

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Abstract. Congo-Crimean haemorrhagic fever is one of the most widespread tick-borne viral haemorrhagic infections in humans, having been reported in more than 30 countries across Africa, Asia, the Middle East and Europe [5;7;8;11]. The primary vector and reservoir of the virus are ticks of the genus *Hyalomma*, and the geographical distribution of the disease generally follows their range [3;15;17].

Annually, **10,000–15,000 cases** are reported worldwide, with around 3 billion people living in risk areas [7;11;12;17]. However, the true burden of the disease is underestimated due to subclinical infections, inconsistent surveillance and limited laboratory diagnosis [2;7;8;12;18].

This article is based on a synthesis of 20 publications from 2006 to 2026, including reviews, systematic reviews, meta-analyses, national surveillance data and regional outbreak studies [2;10;14;15].

Keywords: Congo-Crimean haemorrhagic fever, epidemiology, prevention

By 2026, CHF remains a widespread zoonotic infection with **an expanding risk area**, particularly due to the spread of *Hyalomma ticks* in Europe and the persistently high burden in traditionally endemic regions [9;15;17].

Introduction

Congo-Crimean haemorrhagic fever is one of the most widespread tick-borne viral haemorrhagic infections in humans, having been reported in more than 30 countries across Africa, Asia, the Middle East and Europe [5;7;8;11]. The primary vector and reservoir of the virus are ticks of the genus *Hyalomma*, and the geographical distribution of the disease generally follows their range [3;15;17].

Annually, **10,000–15,000 cases** are reported worldwide, with around 3 billion people living in risk areas [7;11;12;17]. However, the true burden of the disease is underestimated due to subclinical infections, inconsistent surveillance and limited laboratory diagnosis [2;7;8;12;18].

Materials and methods

This article is based on a synthesis of 20 publications from 2006 to 2026, including reviews, systematic reviews, meta-analyses, national surveillance data and regional studies of outbreaks [2;10;14;15]. The analysis includes studies on global and European epidemiology, outbreaks in Iraq and Turkey, the expansion of the *Hyalomma* range, and prevention within the **One Health** framework [14;17;18;19].
To make a projection for 2026, the latest available data from Turkey's national surveillance programme for 2017–2024 and recent reviews covering 2025–2026 on Europe, Africa and the clinical preparedness of new regions were used [5;10;15;18].

Results

By 2026, the highest incidence rates, as most reliably documented, will persist in Turkey, Russia, Afghanistan, Iran and Iraq, with Turkey reporting the highest number of cases within the WHO European Region [10;14;17]. In Turkey, **7,776 cases** were recorded between 2017 and 2024; 63.8 per cent were men, the average age of patients was 45.3 years, and the overall case fatality rate was **4.8 per cent** [10].

In Iraq, a sharp rise in incidence occurred in 2022–2023, with the outbreak spreading to all provinces and reaching urban areas [12]. In one of Iraq's endemic provinces, confirmed cases peaked in 2023, showed seasonality from April to September, and the case fatality rate was **11.5 per cent** [9].

Global estimates of case fatality rates remain inconsistent: a meta-analysis yielded an overall case fatality rate (CFR) **of 11.7%** for acute infections (95% CI 9.1–14.5), whilst in certain settings case fatality rates of up to 30–40% have been reported [2;6;17]. In endemic countries with well-developed surveillance systems, the case fatality rate tends to be lower, a trend that is particularly evident in Turkey [10;20].

Regional updates 2026



Turkey	Iraq	Europe (alert zone)	Europe (ticks)	Europe (circulation)
7,776 cases in 2017–2024, the largest surveillance network in the region [10]	Peak in 2022–2023, Persistent Hyperendemicity [12]	16 countries have reported cases, expansion of the epidemiological alert zone [14]	Hyalomma ticks detected in 40 countries, expansion of the vector's range [15]	CCHFV/CCHF reported in 24/22 countries, confirmed circulation and disease [15]

Table 1: Key epidemiological indicators for CCHF by 2026

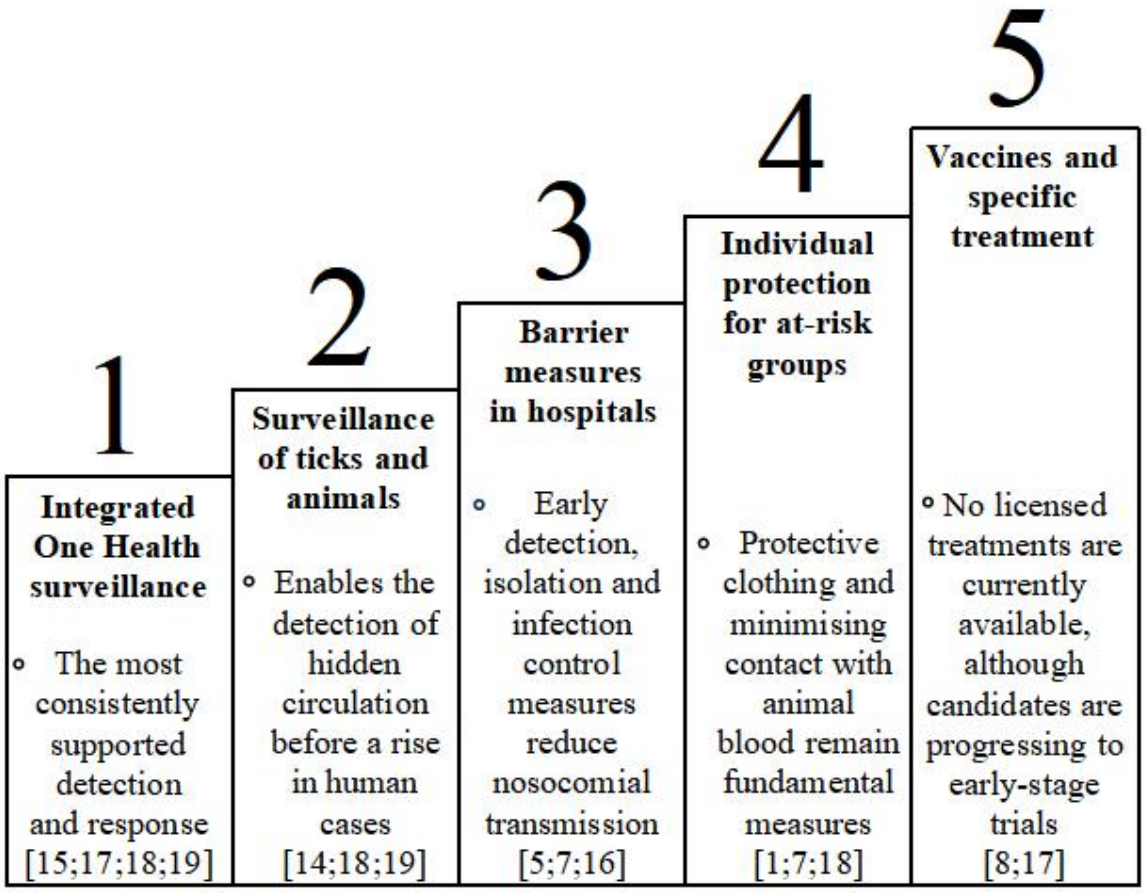
Discussion

The most consistent finding is that it is primarily the risk area that is expanding, rather than necessarily a uniformly rapid and sustained spread of clinical cases across all new regions [14;15;20]. In Europe, Hyalomma ticks are already endemic or have at least been detected once in 40 countries, whilst the virus and the disease have been recorded in 24 and 22 countries respectively [15].

This range expansion is linked to climatic shifts, changes in land use, livestock movements, bird migration and increased human contact with grassland ecosystems [4;9;13;15]. Migratory birds play a particularly important role in the long-distance transport of immature Hyalomma ticks, whilst trade and the cross-border movement of animals contribute to the introduction of infected ticks and viral lineages [3;16;18–20].

The routes of human infection remain consistent: these include tick bites, crushing attached ticks, contact with the blood and tissues of viraemic animals, and, less commonly, contact with the bodily fluids of infected people [5;6;9;16]. Farmers, livestock keepers, slaughterhouse workers, vets and healthcare workers are at the greatest risk [3;7;19].

Table 2. Key strategies for the prevention of CCHF



Conclusion

By 2026, CCHF will remain a significant cross-border zoonotic infection, with the range *of Hyalomma ticks* continuing to expand and the likelihood of new human cases increasing in previously low-risk regions, particularly in Europe [6;17]. Within the scope of this topic, the most sound prevention strategy remains **cross-sectoral surveillance**, early diagnosis, protection of at-risk occupational groups and climate-adapted vector control, as there are currently no licensed vaccines or specific treatments [4;17;19].

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