

# Crimean Congo Haemorrhagic Fever in Bulgaria

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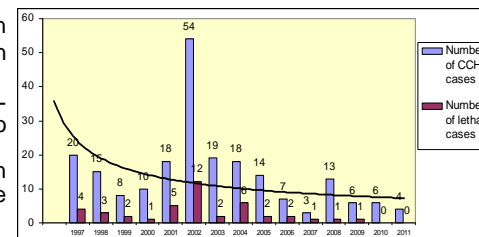
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## Introduction and Purpose

Crimean Congo hemorrhagic fever (CCHF) is a severe viral disease transmitted by ticks. CCHF is endemic in Southeast Europe, Africa, Middle East and Southwest Asia (1). The incidence and spread of the disease increased in recent years.

In Bulgaria, CCHF was first described in 1952 (2). A total of 32 CCHF cases were reported in the last 5 years (2007-2011). The cases originated mainly from southeast Bulgaria. In 2008, a new focus in southwest Bulgaria became also active (3).

To estimate the current situation on CCHF distribution, a seroprevalence study of healthy people was organized in endemic and non-endemic areas in Bulgaria. In addition, livestock in endemic areas was investigated for infection with the CCHF virus.



## Material and Methods

## Results

## Conclusions

- Obviously, CCHF can often appear as undifferentiated febrile illness or even go asymptotically. This might explain presence of IgG antibodies in people from the endemic foci.
- Our data suggest that mainly Southeast but also Southwest Bulgarian regions are areas of active CCHF virus transmission. This is of great importance for risk assessment.
- Due to increasing spread of CCHF virus in new foci, public health awareness is essential.

## References

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Distribution of CCHF sero-positive findings in healthy people from various districts in Bulgaria



IgG antibodies to CCHF virus were detected in 28 (2,8%) healthy persons. According to the findings, the investigated districts could be divided to 4 different groups:

- 1) High endemic district – Burgas, East Bulgaria (7,6% seroprevalence);
- 2) Moderate endemic districts – districts of Kardjali, Pazardjik and Haskovo, Southeast and Southcentral Bulgaria (seroprevalence 6,0%; 5,8%; and 4,6% resp.);
- 3) Low endemic districts – district of Sliven, Southeast Bulgaria (2% seroprevalence), district of Blagoevgrad, Southwest Bulgaria (1% seroprevalence), and district of Ruse, North Bulgaria (1% seroprevalence).
- 4) No anti-CCHF virus antibodies were found in people from districts of Sofia, Stara Zagora, Yambol, Shumen, and Pleven.

A total of 109/150 (72,67%) IgG sero-positive animals were found in the highly endemic district of Burgas. Among cattle, the level of seropositivity was 70% (44/63), and among goats was even higher – 75% (65/87).