

1 **Supplemental file 1. Epidemiological data**

2 **The old focus in north-east Bulgaria**

3 Before 1960s, the presence of tularemia in Bulgaria is uncertain. In 1961, *Francisella*  
4 *tularensis* was first isolated from a dead muskrat in in the Srebarna lake reserve in  
5 north-east Bulgaria (15,22) (Figure 1). In 1962 the epizootic among muskrats  
6 continued and four patients were diagnosed with tularemia contracted in the Srebarna  
7 lake reserve (16). In field investigations *F. tularensis* was isolated from muskrats,  
8 water shrews (*Neomys fodiens*), and water (22). The results of seroprevalence  
9 investigations among people indicated that tularemia was likely present in the  
10 Srebarna region before the 1960s outbreaks (22,16). It was suggested that muskrats  
11 had a main role in spread and persistence of *F. tularensis* in this focus (16). Up to  
12 1965 additional *F. tularensis* strains were recovered within the reserve from seven  
13 rodent species (22). The last record of detection of *F. tularensis* in dead muskrats and  
14 water in the old focus was in 1969 (Mladenov, unpublished). The people of Srebarna  
15 were vaccinated, and later, the muskrats almost completely disappeared in the reserve.  
16 No more human cases of tularemia have been verified nearby the old focus but  
17 investigations of dead hares in the Prosenia region situated approximately 100 km  
18 from Srebarna resulted in the isolation of strain L2 in 2005 (Figure 1).

19 **The new focus in west Bulgaria**

20 A patient in Slivnitsa region was diagnosed with tularemia in November 1997 in a  
21 new focus in western Bulgaria. A total of 170 patients were diagnosed with tularemia  
22 from 1998 to 2000 within this region and in the adjacent Pernik region (23). The  
23 epidemic petered out in 2002 with nine diagnosed patients but peaked again with 76  
24 tularemia patients registered in 2003 (23,24). The new 1990s focus was situated 300  
25 km from the 1960s focus (Figure 1). In 2003, another epidemic with 76 diagnosed

26 patients was registered in the Pernik region with a majority in the small village  
27 Meshtitsa. In total 285 patients were recorded between November 1997 and March  
28 2005. During field investigation and clinical sampling of patients in the new focus  
29 several *F. tularensis* strains were recovered (10,20). One strain L2 was isolated in  
30 2005 from a hare in an area close to the old focus (Figure 1).  
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