

## H07

### **Detection of Puumala Hantaviruses in environmental samples near households as a basis for targeted prevention and infection control**

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Puumala Hantavirus (PUUV) is a zoonosis with growing public health importance; the virus belongs to the list of prioritized zoonotic pathogens in Germany. Preventive measures mostly are not evidence based and their impact is not well assessed. In order to improve the prevention of PUUV disease, a better understanding of risk factors and effectiveness of preventive measures is required. We try to detect PUUV in environmental samples and rodents taken near households in highly endemic areas in order to identify possible exposure sites for human PUUV infection.

In 60 households within eight administrative districts in the State of Baden-Wuerttemberg, environmental samples are retrieved three times per season, over a period of two years. Standardized sampling takes places at defined locations in the domestic environment (i.e. garden shed, terrace, loggia, barn, wood stack, garden tools). Samples are purified by using a silica extraction and analyzed via RT-PCR. PCR-positive samples will be further typed and cultivated.

We will present the results of the first investigation year. After establishing the methods successfully, we already detected PUUV in nine samples of the first three households (9 of 46 samples). Positive samples originate from wood stacks, garden sheds and a terrace.

The findings contribute to a better understanding of PUUV epidemiology and aim to tailor Public Health intervention strategies and recommendations for the prevention of PUUV disease.