



Image: Pikist

HIGHLIGHTS

- Dense network of European organisations built.
- Development of a protocol on best biosecurity practice for limitation of *Salmonella* and HEV prevalence in European pig farms and abattoirs.
- Improved data modelling of disease transmission.
- Cost-effectiveness of biosecurity measures on the reduction of *Salmonella* and HEV prevalence.
- Benchmark of biosecurity practice across all pork production stages.
- Comprehensive dissemination activities for education and knowledge exchange.

BIOPIGEE: Effective and economical biosecurity measures to limit prevalence of *Salmonella* and hepatitis E virus in pigs.

Salmonella frequently causes gastrointestinal infections in humans via the food chain. Infections with hepatitis E virus (HEV) can be fatal for humans and are an emerging zoonotic problem in the EU.

The BIOPIGEE project has built a dense network of European research organisations including public health from all European regions, joining expertise in veterinary epidemiology, microbiology, veterinary and human medicine, agronomy, animal health economics, and bacteriology.

A biosecurity protocol for the primary production will be developed. Applying this protocol, herds in the project partners' countries identified as being at high or low pathogen risk will be assessed for their biosecurity to find best practice at different production stages. Field and intervention studies will be completed in areas where current evidence is weak. A protocol for slaughterhouse biosecurity will also be developed and applied in partner countries. The persistence of *Salmonella* and HEV in reservoirs (biofilms) will be evaluated in depth together with studies of disinfection effectiveness.

The consortium partners' disease transmission models (stochastic, network trade, quantitative microbial risk assessment) will be improved by newly gained empirical data. Scenarios on country-specific biosecurity measures and on the measures' impact on human infection rate will be run. Results will be used to assess the economic profitability of the implementation of standard and specific intervention measures along the pig supply chain and to assess projected future pork-product derived human salmonellosis cases.

A catalogue of biosecurity measures will be continuously filled with the findings on the measures' effectiveness and costs for *Salmonella* and HEV. This catalogue will be supplemented with a systematic review and by expert opinion. A benchmark of biosecurity practice will be developed which considers different production stages and European regions. The research will be comprehensively disseminated with on-line material, a support tool to calculate cost effective measures and workshops to connect researchers and stakeholders for knowledge exchange, with special focus on primary production.

For further information contact [Elke Burow](#)

One Health EJP has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 773830.

“
We will identify (cost-) effective biosecurity measures to limit the load of *Salmonella* and hepatitis E virus along the pig production chain. Dissemination of these measures will contribute to more safe and healthy animal-derived food.”

Dr Elke Burow

Follow Us!



@OneHealthEJP



ONE Health EJP

#OneHealthEJP #OneHealth