

**Epidemiology of *Taenia solium* in pigs and humans in Western Kenya**

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We would like to present the results of a large cross-sectional study into the zoonotic helminth *Taenia solium* in the porcine and human hosts in the Lake Victoria Crescent region, focussing on the following aspects of this study: the prevalence and risk factors for porcine and human cysticercosis (CC) and for human taeniasis, a food chain risk assessment for the risk of human infection from pork consumed in this region and potential intervention strategies. We have carried out an extensive, community-based study into the epidemiology of this parasite and many other zoonotic and non-zoonotic diseases in Western Kenya. The research team consisted of an inter-disciplinary group of medical and veterinary professionals. Blood and stool samples were obtained from all people and livestock in 413 randomly selected homesteads as well as homestead and individual level questionnaire data. A parallel survey of slaughterhouses was carried out, with blood samples taken from pigs being slaughtered for consumption within the study area. The prevalence of *T.solium* in pork entering the food chain (57.7%, 95% C.I.52.3-63.0) is one of the highest recorded in sub-Saharan Africa and a food chain risk analysis, built utilising data from these studies, indicated an unacceptably high risk of pork consumers in this region acquiring a *T. solium* infection, and in turn becoming shedders of infective eggs. Western Kenya is a severely deprived region where pig production is becoming hugely popular and is seen as a major tool for economic development, yet the data presented here indicates the area to be hyper-endemic for *T. solium*. Control of this parasite must be addressed as a key priority for both the safe-guarding of public health and also to ensure the growth of an economically viable and safe pig production system.