

An investigation of possible sources of human campylobacteriosis in Lithuania

Ramonaitė, S.¹, Kudirkienė, E.¹, Ružauskas, M.², Zaborskienė, G.¹, Tamulevičienė, E.³, Malakauskas, A.⁴ and Malakauskas, M.¹, ¹Lithuanian University of Health Sciences, Department of Food safety and Quality, Lithuania, ²Lithuanian University of Health Sciences, Veterinary Institute, Lithuania, ³Lithuanian University of Health Sciences, Clinic of Children Diseases, Lithuania, ⁴Lithuanian University of Health Sciences, Department of Infectious Diseases, Lithuania; a.malakauskas@lva.lt

Poultry products are well recognized sources of human campylobacteriosis, however there is increasing evidence that wild birds and environmental water may contribute to the burden of illness as well. The occurrence of *Campylobacter* spp. in raw broiler meat is regularly monitored in Lithuania, however an incidence of this bacterium in other sources was not yet reported. To obtain more knowledge on possible sources of human campylobacteriosis the occurrence of *Campylobacter* spp. in environmental water samples, wild birds, pets, pork, beef, milk and broiler meat was investigated. Samples were collected twice a month from October of 2011 till January of 2012. Unexpectedly campylobacters were isolated from water samples from swimming places more often (64%) in comparison to broiler meat samples (52%). Interestingly, broiler marinated products were also frequently (35%) contaminated with these bacteria. We also showed that wild crows and pigeons may serve as important reservoir of *Campylobacter* spp. (35% positive samples) as fresh feces were collected in the parks and other public places in town. Samples of raw milk and pet feces were contaminated much rare, 13.6% and 6.5% of samples respectively. No campylobacters were found in fresh pork and beef meat samples including marinated products. Based on results we speculate that as well as broilers, environmental water and feces of wild birds may pose high risk for human infection with campylobacters in Lithuania as well. In progress MLST typing of selected *Campylobacter* spp. strains from various sources including humans will enable us to quantify the number of human cases attributable to each of the source examined.