

**The role of domestic ducks in the endemicity of highly pathogenic avian influenza H5N1 virus in Indonesia**

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In some countries domestic ducks play an important role in endemicity of highly pathogenic avian influenza (HPAI), however, for Indonesia the role of domestic ducks in HPAI is not yet well understood. A cross-sectional survey was conducted to determine the prevalence of HPAI H5 in unvaccinated duck flocks in two H5N1-endemic provinces in western Java. Samples were obtained from 194 farms and were tested using hemagglutination inhibition and PCR. The flock seroprevalence was 31.4% (95% CI 24.9-38.5%). Within positive flocks the prevalence was 7% (95% CI 3.3-23.3%). The overall bird-level seroprevalence was 2.2%. Out of 194 farms surveyed, 29 farms (14.9%) tested PCR positive for influenza type A but only 4 farms (2.1%) tested PCR positive for H5 subtype influenza. The within-farm virus prevalence in positive farms was low for both influenza A and H5 PCR. The flock prevalence for influenza A tended to be higher in nomadic flocks compared to stationary flocks. Farmers of positive duck flocks did not report any illness in the past indicating that apparently healthy ducks do seroconvert and shed virus. The survey shows that ducks can be a reservoir for H5 virus but shedding seems to be low. Low prevalence of HPAI in the ducks showed by this study was consistent with recent study in other part in Indonesia. Although the role of the ducks is not yet clear, it could be that they are rather indicators for the virus pressure in the area than that they play an active role in driving the endemicity of the disease in Indonesia.