

Detection of influenza A virus in live bird markets in Kenya, 2009-2011

Abstract:

BACKGROUND: Surveillance for influenza viruses within live bird markets (LBMs) has been recognized as an effective tool for detecting circulating avian influenza viruses (AIVs). In Sub-Saharan Africa, limited data exist on AIVs in animal hosts, and in Kenya the presence of influenza virus in animal hosts has not been described. **Objectives:** This surveillance project aimed to detect influenza A virus in poultry traded in five LBMs in Kenya. **METHODS:** We visited each market monthly and collected oropharyngeal and cloacal specimens from poultry and environmental specimens for virological testing for influenza A by real time RT-PCR. On each visit, we collected information on the number and types of birds in each market, health status of the birds, and market practices. **RESULTS:** During March 24, 2009-February 28, 2011, we collected 5221 cloacal and oropharyngeal swabs. Of the 5199 (99.6%) specimens tested, influenza A virus was detected in 42 (0.8%), including 35/4166 (0.8%) specimens from chickens, 3/381 (0.8%) from turkeys, and 4/335 (1.2%) from geese. None of the 317 duck specimens were positive. Influenza was more commonly detected in oropharyngeal [33 (1.3%)] than in cloacal [9 (0.4%)] specimens. None of the 485 environmental specimens were positive. Virus was detected in all five markets during