**Current status of highly pathogenic avian influenza in two states, Nigeria**

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**Background:** Highly pathogenic avian influenza (HPAI) is a major global zoonosis requiring emergency measures to detect, prevent and control outbreaks. The virus ability to affect and adapt in many animal hosts, its frequent antigenic changes and complex ecological niche has allowed continuous evolutionary strains to emerge.

**Methods & Materials:** Detailed investigations of poultry farmers’ husbandry practices and HPAI awareness, existing poultry marketing network and experts opinions on risk of HPAI introduction and spread to surveyed regions were conducted in 2012/2013 using structured questionnaires. Haemagglutination inhibition test and competitive enzyme linked immunosorbent assay detected antibodies against avian influenza H5 serotype in some sera samples tested but rapid antigen detection (RADTK) and cELISA antigen capture test were negative for the corresponding swab samples.

**Results:** Poultry was mainly managed extensively but as a major source of income to many farming communities. All farmers surveyed were HPAI aware majorly through radio and television, could report HPAI outbreaks as they occurred and to safeguard family members against infection, proper carcass disposal was practiced. Biosecurity threats detected included high level of trust placed on poultry sources and frequent application of poultry waste in backyard crop farms. Open air transportation and transaction of far and near sources of mixed bird species with highest annual activities in September to December constituted another biosecurity breach. Poultry experts believed that there was low risk of HPAI introduction into surveyed areas. Farmer’s educational levels and avian influenza awareness and zoonotic awareness were statistically significant (P < 0.005). Fowl cholera and virulent form of Newcastle disease observed in this study could affect AI early detection and rapid response

**Conclusion:** These results could affect future efforts for early detection, reporting and control of avian influenza in the regions surveyed. Farmers’ attitudes must be changed; surveillance studies and public health implications of HPAI must continue to be stressed to fit into global influenza control strategies.

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**Microbiological profiling of bank notes collected from selected areas in South Africa and Zimbabwe**

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**Background:** Bank notes are circulated and used world wide for purchase of daily services and goods. The conditions under which they are handled during circulation and storage increases their chances of being contaminated by microorganisms which may be of public health concern.

**Methods & Materials:** Banknotes of various denominations were randomly collected from the streets and markets around Tshwane (South African Rands) and Harare (US dollars), respectively, and sealed into clean envelopes and taken to the laboratory. The notes were swabbed using a sterile swab dipped in Ringer’s solution and the swabs cultured onto nutrient agar and incubated at 37°C for upto 48 hours. Thereafter the colony forming units (CFUs) were counted, and Gram staining performed.

**Results:** Of the 42 notes collected in total, 86% were contaminated with both Gram negative and gram positive bacteria. Fungal contamination was found in 14 notes. As expected, lower denomination notes showed more contamination. Notes collected from Zimbabwe were surprisingly less contaminated. Non circulated notes from each denominations used as controls had no bacterial contamination.

**Conclusion:** Contaminated bank notes may pose a serious health risk to the public especially to the immunocompromised individuals. There is need to repeat this study with a much larger sample set and also to identify the contaminants to species level.

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