Prevalence of *Salmonella* and *Shigella* species in chicken eggs from different poultry farms in Owerri, Imo state, Nigeria

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*Salmonella* and *Shigella* contamination of eggs and egg shells has been identified as a public health concern worldwide. A recent shift in consumer preferences has impacted on the egg industry, with a push for cage-free egg production methods. There has also been an increased desire from consumers for raw unprocessed foods, potentially increasing the risk of salmonellosis and shigellosis. The present study was conducted to determine the prevalence of *Salmonella* and *Shigella* in chicken eggs from different poultry farms in Owerri, Imo state. Based on expected prevalence of salmonellosis and shigellosis in Nigeria at 75% confidence interval and 5% absolute precision, egg shell and egg contents of 360 eggs were examined for *Salmonella* and *Shigella* using cultural method. The overall prevalence of *Salmonella* in egg shells and contents was 37 (10.28%) while that of *Shigella* in egg shells and contents was 21 (5.83%). The results of this study indicated that egg shell contamination with fecal material was significantly higher than that of egg contents. The present study reports that contamination of eggs by *Salmonella* and *Shigella* species can cause an outbreak of food-borne disease due to eating raw eggs or the products having such eggs in the study area.

Benchmarking of healthcare-associated infections in Gulf Cooperation Council (GCC) states

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Statement of the Problem: Although there are few international benchmarks for the Healthcare-Associated Infections (HAI), several methodological and logistic issues make the use of such benchmarks unfair. It has been long suggested to establish a local benchmark for Gulf Cooperation Council (GCC) states that consider the challenges of the newly established regional surveillance programs. The purpose of this project was to set a GCC benchmark to promote standardized surveillance in the hospitals of the GCC countries.

Methodology: The GCC Center for Infection Control located in Riyadh (Saudi Arabia) did several activities to promote standard surveillance methodology for the GCC countries. This included publishing a surveillance manual, creating unique data collection forms, organizing multiple educational and training activities, and data auditing and validation on-site visits. Aggregate HAI surveillance data were pooled from 6 hospitals in three GCC countries; Saudi Arabia, Oman, and Bahrain. Standardized infection ratio (SIR) of HAIs in GCC hospitals were calculated using published reports of the US National Healthcare Safety Network (NHSN) and International Nosocomial Infection Control Consortium (INICC).

Findings: We have published major benchmarking reports on ventilator associated pneumonia (VAP) and catheter-associated urinary tract infections (CAUTIs) in the *American Journal of Infection Control*. A third report about central line-associated bloodstream infections (CLABSI) is in the process of publication. A common finding from the three reports confirm that the risk of HAIs including VAP, CAUTI, and CLABSI in GCC countries is higher than pooled U.S. VAP rates but lower than pooled rates from developing countries participating in the INICC.

Conclusion & Significance: Although we have accomplished a distinguished step towards setting a regional benchmark, more efforts are still needed to improve regional collaboration in HAI surveillance activities. We are currently working on recruiting more facilities to submit data for future larger-scale benchmarking reports on HAIs and antimicrobial resistance.