

**Type: Poster Presentation**

Final Abstract Number: 41.001  
 Session: Epidemiology and Public Health I  
 Date: Thursday, April 3, 2014  
 Time: 12:45-14:15  
 Room: Ballroom

**Pilot programme review of human rabies prevention services in a rural district of South Africa**


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**Background:** The high burden of infectious diseases in South Africa means district clinic staff must be familiar with, and treat, many different diseases including HIV, TB and malaria. Rabies is relatively less common, but if not prevented will be fatal. There were 126 laboratory confirmed human rabies cases in South Africa between 2001 and 2010. Rabies deaths may be underestimated due to lack of awareness, limited access to, or incorrect use of post exposure prophylaxis (PEP), and diagnostic limitations. This study evaluated the human rabies prevention service in a rural district of South Africa with an estimated population of nearly one million citizens. This project was carried out as part of the work of National Institute for Communicable Disease on behalf of Provincial and District Departments of Health.

**Methods & Materials:** Structured interviews were conducted with 12 staff at local facilities (6 clinic sisters, 2 doctors and 2 nurses in emergency departments, 2 hospital pharmacists). Where necessary, education on rabies prevention was given following the interview. A discussion group with local communicable disease coordinators and state veterinary services was held. The availability of policy guidance and quality of documentation was reviewed.

**Results:** Staff knew most components of the rabies exposure risk assessment, but had limited understanding of its purpose and application, notably the categorisation of wounds. Most wound management steps were being performed, but further improvement was possible. Decisions to give rabies immunoglobulin (RIG) were being made incorrectly, raising the likelihood of RIG being given or withheld inappropriately. Availability of guidelines and maintenance of bite registers was poor. There were challenges with PEP supply and cold chain management. Staff believed limited training, drug shortages and communication challenges between stakeholders hampered service improvement.

**Conclusion:** Rabies is a health concern in this community. The recommendations for service improvement following the evaluation are being taken forward at a local level. The tools developed by this pilot can be used in other districts to assess human rabies prevention services. Whilst many of the challenges for the service were already known to individual staff, having independent evaluation, bringing together all stakeholders, allowed these challenges to be openly acknowledged, and solutions discussed in a systems improvement context.

<http://dx.doi.org/10.1016/j.ijid.2014.03.641>

**Type: Poster Presentation**

Final Abstract Number: 41.002  
 Session: Epidemiology and Public Health I  
 Date: Thursday, April 3, 2014  
 Time: 12:45-14:15  
 Room: Ballroom

**Characterization of malaria transmission during military crisis in urban area of Bouake, Central Cote d'Ivoire**


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**Background:** During the past 10 years, Cote d'Ivoire has experienced a serious military and political crisis that disrupted the environment of towns and villages. From the change of the initial environment emerge new landscapes favourable to tropical diseases vectors and pests. To investigate the real situation of malaria in a war zone, a survey was conducted from April 2008 to March 2009 in the urban area of Kennedy in Bouake, central Cote d'Ivoire.

**Methods & Materials:** Entomological data were collected from the human landing catches and parasitological data were obtained from blood smear and thick film in children aged 0 to 15 years, following a clinical examination.

**Results:** The Culicidae fauna collected is characterized by three main malaria vectors, *An. gambiae*, *A. funestus*, *An. nili*. However, *An. gambiae* and *An. funestus* transmitted *Plasmodium* with means sporozoite rates of 2.8% and 12.5%, respectively. The aggressive rates of both vectors were 29 and 0.7 b/m/n respectively. The endemicity of the study area estimated by the entomological inoculation rate (EIR) was 296 infected bites/man/year (ib/m/y) for *An. gambiae* and 33 ib/m/y for *An. funestus*. Mean prevalence of *Plasmodium falciparum* was estimated to 83% and *Plasmodium falciparum* is responsible for 100% of infections.

**Conclusion:** During the political contributed to modify transmission ecology of *Plasmodium* in urban Bouake as malaria vectors found previously in rural areas were collected in this high urbanized area of Kennedy in Bouake.

<http://dx.doi.org/10.1016/j.ijid.2014.03.642>