transcriptomics and *Eimeria*-mouse model to characterize host determinants of parasite development.

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Type: Oral Presentation

Final Abstract Number: 07.010
Session: Tropical Infectious Diseases
Date: Thursday, April 3, 2014
Time: 10:15-12:15
Room: Room Roof Terrace

Serological survey of leptospira infection in domestic and wild animals in Katavi ecosystem, Tanzania

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Background: Leptospirosis is a worldwide zoonotic disease and serious underreported public health problem. In Katavi humans, livestock and wildlife live in close proximity which exposes them to a number of zoonotic infections

Methods & Materials: A cross sectional epidemiological survey was carried out in Katavi region, Tanzania to determine the seroprevalence of *Leptospira spp* infection in humans, domestic and wild animals. A total of 1351 domestic ruminants were randomly selected from 138 Agro-pastoral households. Opportunistic sampling of wild animals was also carried out. Blood samples was collected from jugular veins of apparently healthy cattle (n = 1,103), goats (n = 248) and, immobilized buffaloes (n = 38), zebra (n = 2) and lions (n = 2). Sera was eluted and tested for *leptospira spp* using Microscopic Agglutination Test (MAT). Laboratory testing was performed for antibodies against live cultures of six serovars belonging to the species *Leptospira interrogans.* Theseserovars includes: *sokoine, lora, kenya, hebdomadis, grippotyphosa* and *hardjo*. MAT titre $\geq$ 1:160 was considered positive.

Results: Preliminary results show the overall seroprevalence of 26.35% and 28.57% in domestic animals and wildlife, respectively. Whereas specific prevalence was 30.37% cattle, 8.47% goats, 28.95% buffaloes and 50% lions. Six serovars of *Leptospira Interrogans* were detected in cattle as follow: *hardjo* (17.6%), *hebdomadis* (7.7%), *grippotyphosa* (4.8%), sokoine (4.7%) and lora (0.82%). While in goat the prevalence was *sokoine* (3.2%), *hardjo* (2.8%), *grippotyphosa* (1.6%), *hebdomadis* (0.8%) and lora (0.4%). In buffaloes the prevalence were *hardjo* (7.89%), *hebdomadis* (7.89%) *sokoine* (5.26%), *lora* (5.26%) and *grippotyphosa* (5.26%). In lion serovars: *hardjo* (50%) and *grippotyphosa* (50%) were detected. Mixed infection was observed as follows: - 5.71% in cattle and 0.81% in goats.

Conclusion: These results demonstrated high prevalence of leptospira infection both in livestock and wildlife species in Katavi. This is probably the first report of leptospirosis infection in Katavi ecosystem and only report of the disease in goats and wildlife hosts in the country. These findings suggest that leptospira is a serious public and animal health problem in the Katavi and therefore highlight the urgent need to increase awareness among potential stake holders so as to be able to reduce the number of current infections and also prevent further spread.

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Type: Invited Presentation

Final Abstract Number: 08.001
Session: Plenary 2: Neglected Tropical Diseases
Date: Thursday, April 3, 2014
Time: 14:30-15:15
Room: Auditorium 1

Community-directed treatment of NTDs: Research to community action

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Community-directed treatment (CDT), a product of research has improved access of poor populations in remote villages to health interventions. The introduction of CDT, a health intervention in which community members themselves lead the process of drug delivery and treatment brought dramatic improvements in the coverage of endemic communities and affected persons receiving donated medicines annually. In 1997, the number of eligible persons in Africa receiving ivermectin from health services was less than 1.5 million. By 2011, a network of 556,000 community-directed distributors (CDDs) - selected from among their trusted peers and trained by health workers and non-governmental development organizations, administered ivermectin to 80 million people in 16 African countries, preventing more than 1 million people from going blind. Recent results which show that onchocerciasis might have been eliminated in certain foci in Africa, giving optimism to move from control to elimination of disease, demonstrate that the poor have successfully applied a research-based strategy on a regional scale, in partnership with development partners. This low-cost, community ownership approach is now widely used to administer anti-lymphatic filarial and other medicines for the control and elimination of neglected tropical diseases (NTDs). Lessons from implementation research, community action, future promise and challenges of CDT are discussed.

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Final Abstract Number: 09.001
Session: Childhood and Adult Pneumonia in the Era of Conjugate Vaccines
Date: Thursday, April 3, 2014
Time: 15:45-17:45
Room: Auditorium 2

New diagnostics for childhood pneumonia

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Identifying the microbial aetiology of pneumonia is challenging in children. The routine laboratory evaluation of patients with pneumonia continues to rely on methods that have been used for decades. While there have been refinements in these traditional laboratory tools, they have led to only modest improvements in overall diagnostic capability. Recent advances in pneumonia diagnostics have most notably occurred in nucleic acid detection. Nucleic acid detection methods, such as PCR, have greatly improved the ability of diagnostic laboratories to identify pneu-