Session: **Helminths: Epidemiology & Fieldwork**

*Elimination within reach: lymphatic filariasis persists in rural Ghana due to sub-optimal intervention coverage and adherence*

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**Discussion**

Despite the progress achieved in scaling-up mass drug administration (MDA) for lymphatic filariasis (LF) in Ghana, communities with persistent LF still exist despite over 10 years of community treatment. To assess the status of disease elimination and understand the adherence to interventions including MDA and insecticide treated nets, we conducted a parasitological and epidemiological study in people 16y of age and older from eight villages still under MDA in the Northern and Western Regions. We used a stochastic model (TRANSFIL) to assess the expected microfilaria prevalence under different MDA coverage scenarios using available historical data on one community. Prevalence of filarial antigen ranged 0 to 29.2% and the prevalence of night blood microfilaria (mf) was estimated to range from 0 to 5.5%. Median mf density was 67 mf/ml (range: 10-3,560). Antigen positivity was positively associated with male sex but negatively associated with participating in MDA the previous year. Male sex was also associated with a decreased probability of participating to MDA and both owning and using a bed net. Using one community as an example, the model simulations suggested that the MDA coverage was slightly lower than reported. There is a need for an integrated quantitative and qualitative research approach to identify the variations in prevalence, associated risk factors and intervention coverage and use levels between and within regions and districts. Such knowledge will help target resources and enhance surveillance to the communities most at risk and to reach the 2020 LF elimination goals in Ghana.