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## An overview of progress towards Neglected Tropical Disease Control in Sierra Leone

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**ABSTRACT** Synergy exists between infectious diseases that target the poor and perpetuate poverty. Common strategies of mass drug administration (MDA) have enabled the control and possible elimination of the five previously neglected tropical diseases (NTDs) to help alleviate poverty.

Mapping of five NTDs from 2003-2009 in Sierra Leone found lymphatic filariasis (LF) endemic in all 14 districts, soil transmitted helminthiasis (STH) endemic in all 14 districts with moderate or high prevalence, onchocerciasis endemic in 12 districts and schistosomiasis in 7 (non-coastal) districts, while trachoma was below public health intervention significance (<5%).

Coordinating with MDA, a national integrated NTD program began in 2008 with funding from United States Agency for International Development and donated or procured medicines. The goal was to eliminate LF and control STH, schistosomiasis and onchocerciasis by year 2020. The program reached full geographic coverage in 2010 with effective programme coverage for all four NTDs each year. By 2016-2018, despite one round of MDA missing due to the Ebola outbreak, LF transmission had been interrupted in 9 districts as shown by LF transmission assessment surveys (TAS), STH and schistosomiasis prevalence had decreased to low or moderate levels in all endemic districts with prevalence of moderate/heavy infection of below 1% and 2% respectively. The burden of onchocerciasis had also decreased significantly, *i.e.* at baseline the microfilaridermia prevalence (in population of 1 year old and above) using the skin snip biopsy was 53%, while a recent impact assessment using OV16 rapid diagnostic tests showed an antibody prevalence of 2% in children of 5-9 years of age using the LF TAS sampling methodology.

Despite the health sectors in Sierra Leone having been severely damaged during the war (1991-2002), with adequate and consistent funding, technical support and drug supplies, Sierra Leone has made remarkable progress towards the control/elimination of four targeted NTDs.

**Keywords:** Lymphatic filariasis; Soil transmitted helminthiasis onchocerciasis; Schistosomiasis; Mass drug administration; Sierra Leone

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