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## Impact of public health intervention on rate of Soil transmitted helminthias (STH) among indigenous village children in the Santa Maria Tepexipana region of the state of Oaxaca, Mexico

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S TH are the most prevalent Neglected Tropical Disease (NTD) in Mexico. We sought to assess the impact of an 18-month public health intervention (treatment, construction of hygenic facilities, and education) on the rate of STH among indigenous children in Mexico. The study population included 8 villages (n=2,800) in the southern Oaxaca region of Mexico. As initial treatment, single dose albendazole (200-400 mg) was administered to all villagers who consented, excluding pregnant and nursing women. A 10% random sample of children aged 2-12 years were tested for STH using a modified Kato Katz method. After 18 months of intervention, including another albendazole treatment at 9 months, a sample of children were similarly tested. STH rates were estimated for 4 village clusters (based on proximity) at initiation and follow up. Estimated total number of infected children was reduced from 960 to 603 (37% reduction overall). No side effects were observed from treatment. Pre-intervention, the Santa Maria Tepexipana and La Cienega clusters had STH infection rates of 68% (n=40) and 53% (n=47), respectively, dropping to 31% (n=39) and 26% (n=23) post-intervention, demonstrating statistically significant (p<.01) decreases of 54% and 51%, respectively. Miramar and Candelaria had lower initial infection rates at 44% (n=41) and 24% (n=21) and showed no statistically significant post-intervention decrease (6% and 10%). This multifaceted intervention was effective in reducing the burden of STH, particularly in the high risk regions. Further intervention, including treatment, additional hygenic facilities, and education is warranted (and underway) to achieve goal of a <10% STH rate.

## Biography

Hannah Elsevier is an MD and a PhD student at Stony Brook University. She has previously conducted epidemiologic studies of STH in Panama and has presented these findings at scientific conferences.

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