

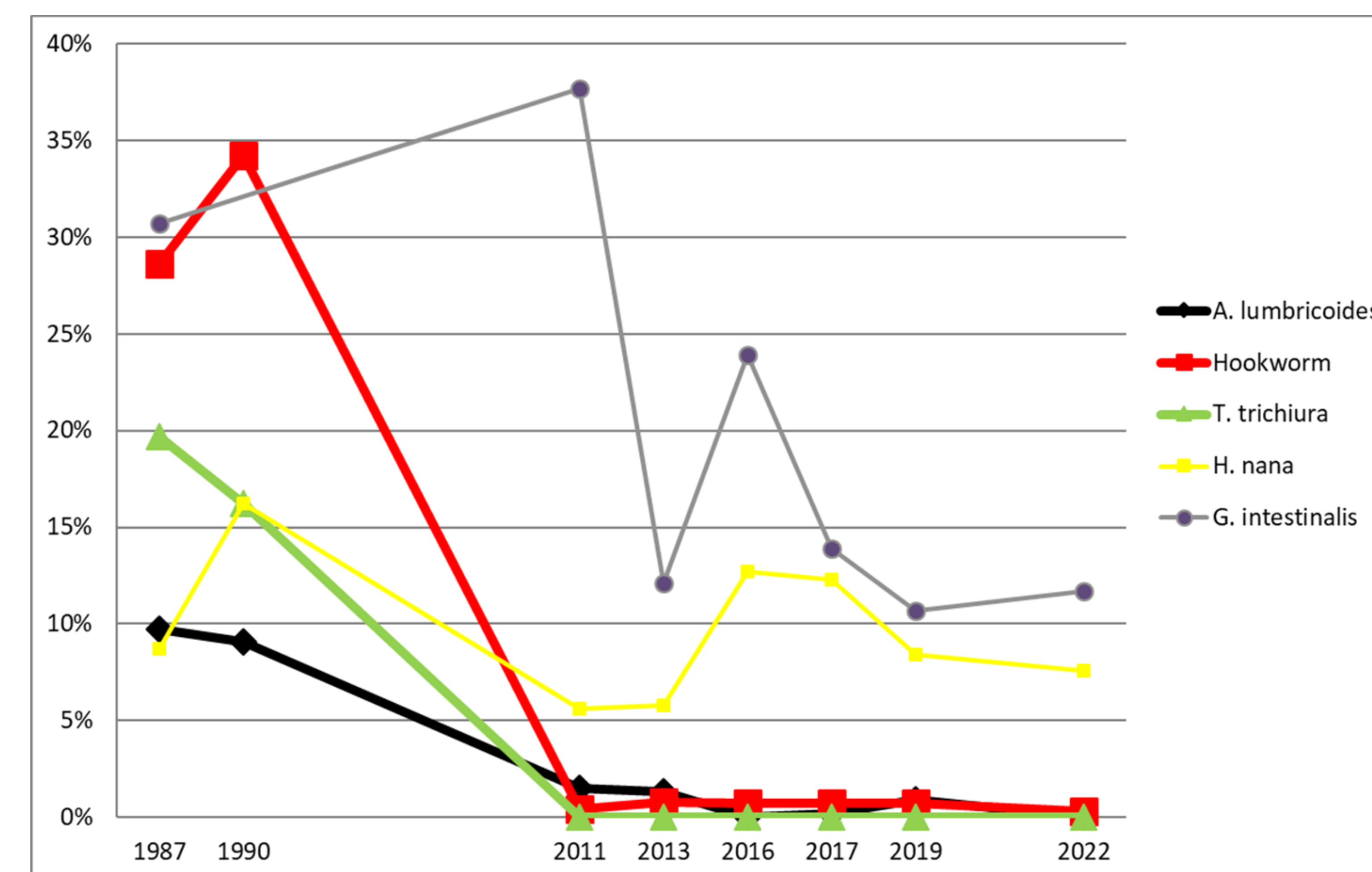
Impact of COVID-19 pandemic on soil-transmitted helminthiasis and other intestinal parasite infections prevalence among school-aged children living in the Bolivian Chaco

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INTRODUCTION. In the Bolivian Chaco, 25 years of preventive chemotherapy (PC) distribution produced an impressive decrease of soil-transmitted helminthiasis (STH) prevalence, from up to 50% to less than 2%. In virtue of those results, from 2016 PC was halted, accompanied by annual cross-sectional intestinal parasite infections (IPIs) monitoring – which was interrupted during September 2019 –September 2022 due to the COVID-19 pandemic.

METHODS. We conducted two cross-sectional parasitology surveys 36 months apart in 2019-2022 among school-age children (SAC) living in 9 communities where PC delivery had been halted in 2016. Study design, methods of sampling, and sample analysis (direct microscopy, Kato-Katz technique) followed WHO recommendations.



RESULTS. We collected 430 samples in 2019 and 370 in 2022. STH prevalence remained low between 2019 (7/430, 1.6%) and 2022 (1/370, 0.3%). Likewise, no variations were observed in prevalence of tapeworms (8.6% and 8.1%, in 2019 and 2022, respectively), and protozoan infections (overall prevalence 46.6% and 44.3%), including Giardia intestinalis (10.7% and 11.7%) and Blastocystis spp. (28.4% and 26.5%). Strongyloides stercoralis infections were detected in 2019 (2/430, 0.5%) but not in 2022.

CONCLUSIONS. The Bolivian Chaco remains a low-endemic area for STH, even after 6-year interruption of PC delivery. Prevalence of IPIs among SAC remained stable throughout the region between 2019 and 2022. The role of behavioural change (hand hygiene, social distancing) and extensive use of ivermectin during the COVID-19 pandemic remains to be clarified.