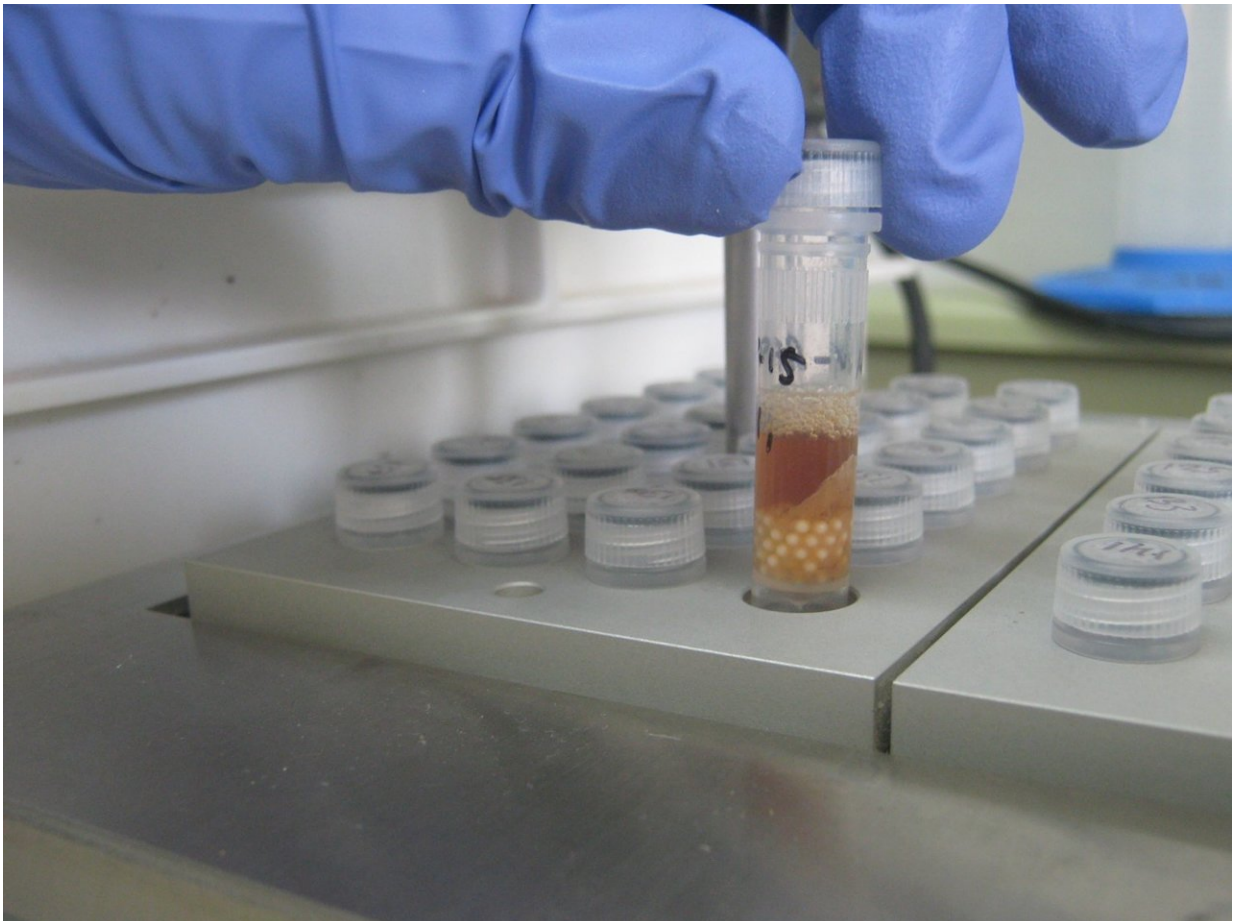


# Polio labs equipped to study rare tropical diseases

January 25 2018

---



The author's hand. Credit: Lucas Cunningham, 2017

In 1988, the World Health Organization set out to eradicate polio and

established a network of 145 labs around the world that are designed to process polio tests. Now, those labs are well-equipped to help tackle neglected tropical diseases, researchers report in *PLOS Neglected Tropical Diseases*.

The Global Polio Laboratory Network (GPLN) receives samples from local health clinics where individuals have presented with signs of polio, and carries out necessary culture screens and gene-based PCR tests to diagnose the disease. Across Africa, there are 16 GPLN labs that have received an average of 22,017 samples per year over the past five years.

In the new work, Lucas Cunningham, of the Liverpool School of Tropical Medicine, UK, and colleagues examined the possibility of expanding the tests conducted at GPLN labs to include other pathogens of public health importance, namely soil transmitted helminths and schistosoma. A pilot study of the expansion was carried out at the Ghana GPLN lab, where 448 fecal samples were tested for helminths.

The Ghana GPLN lab was able to successfully [test](#) for helminths, identifying prevalence of 22% for the combined helminth infections. The design of the current study was not suitable to make any epidemiological conclusions, but did demonstrate the suitability of adapting a GPLN lab for the detection of helminths. Additionally, 1% of samples were infected with Strongyloides for which there is no surveillance system.

"Even though the current narrow clinical symptoms required to qualify a [sample](#) to be sent to the GPLN limits their epidemiological use," the researchers say. "The study demonstrates a potential way forward in the monitoring and control of neglected [tropical diseases](#) that could be included in the legacy plan of the GPLN.

**More information:** Cunningham LJ, Odoom J, Pratt D, Boatemaa L,

Asante-Ntim N, Attiku K, et al. (2018) Expanding molecular diagnostics of helminthiasis: Piloting use of the GPLN platform for surveillance of soil transmitted helminthiasis and schistosomiasis in Ghana. PLoS Negl Trop Dis 12(1): e0006129. [doi.org/10.1371/journal.pntd.0006129](https://doi.org/10.1371/journal.pntd.0006129)

Provided by Public Library of Science

Citation: Polio labs equipped to study rare tropical diseases (2018, January 25) retrieved 23 April 2024 from <https://medicalxpress.com/news/2018-01-polio-labs-equipped-rare-tropical.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.