The Prevalence of Selected Neglected Tropical Diseases and the Effect of Disease Co-Infection on Morbidity in Camiri, Santa Cruz Department, Bolivia

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Project Goals
1. Determine the epidemiology and prevalence of the neglected tropical diseases caused by *Trypanosoma cruzi* (*T. cruzi*) and the soil-transmitted helminthes (STH) in rural communities of Camiri, Bolivia
2. Assess the morbidity associated with *T. cruzi* infection (cause of Chagas disease) via physical exam, electrocardiogram (ECG), and echocardiogram
3. Further characterize the morbidity associated with STHs, specifically, by comparing coinfection with STH and *T. cruzi* to STH alone

Population
The community of Eiti, Bolivia is in the Gran Chaco region of South America, where the prevalence of Chagas disease is among the highest in the world. Individuals >1 year old are included in the study, with children <2 years old excluded from blood draws unless the mother is found to have Chagas disease.

Expected Outcomes
• Identify undiagnosed cases of Chagas disease and STHs
• Provide medical attention for newly diagnosed Chagas disease, including treatment for children <15 years old
• Treat all cases of STH
• Use ECG data to improve methods to assess treatment outcomes and advance clinical management of *T. cruzi* infection
• Improve prevention strategies for *T. cruzi*, and STH infections by better characterizing risk factors
• Build microbiology laboratory capacity at the hospital in Camiri

Project Timeline

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<th>MAY 2011</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
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<th>JAN</th>
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<th>MAR</th>
<th>APR 2012</th>
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<tr>
<td>Identify local partners</td>
<td>Student at field site</td>
<td>Field team training, survey administration, blood and stool sample collection</td>
<td>Perform cardiac exams</td>
<td>Treatment for STH in all participants and Chagas in children &lt;15</td>
<td>Data Analysis</td>
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Next Steps
• Continue informing participants of test results and begin treatment
• Continue cardiac examinations
• Conduct formal data analysis, including geospatial analysis

Progress to date
• Established local partners, hired and trained lab personnel
• Collected risk factor data, blood and stool samples, and anthropometric data
• Test results delivered to participants,
• Preliminary analysis of *T. cruzi* prevalence