

The results of a primary care-based screening program for *Trypanosoma cruzi* in East Boston, Massachusetts

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INTRODUCTION

Of the 300,000 people in the United States that may be infected with *Trypanosoma cruzi*, the causal agent of Chagas disease, >3,000 reside in Massachusetts.

This study reports the outcomes of the Strong Hearts pilot project to integrate screening for *Trypanosoma cruzi* into a primary care setting & facilitate referral for treatment at East Boston Neighborhood Health Center (EBNHC).

METHODS

- Continuing education about Chagas disease was offered to healthcare providers & community-based education to patients
- Program recommended one-time screening for all patients ≤50 years old who had lived in Mexico, South or Central America for ≥6 months
- Initial screen performed at a commercial lab (Hemagen Chagas ELISA) & confirmatory testing performed at the US CDC
- Confirmed positive = positive screening & positive confirmatory tests; confirmed positive individuals were referred to the Pediatric & Adult ID clinics at Boston Medical Center
- We compared the proportion of confirmed positives by sex, age & self-reported national origin using chi-squared tests; multivariable logistic regression was used to assess predictors of (1) confirmed positive or (2) false positive testing

Figure 1. Strong Hearts Screening Outcomes

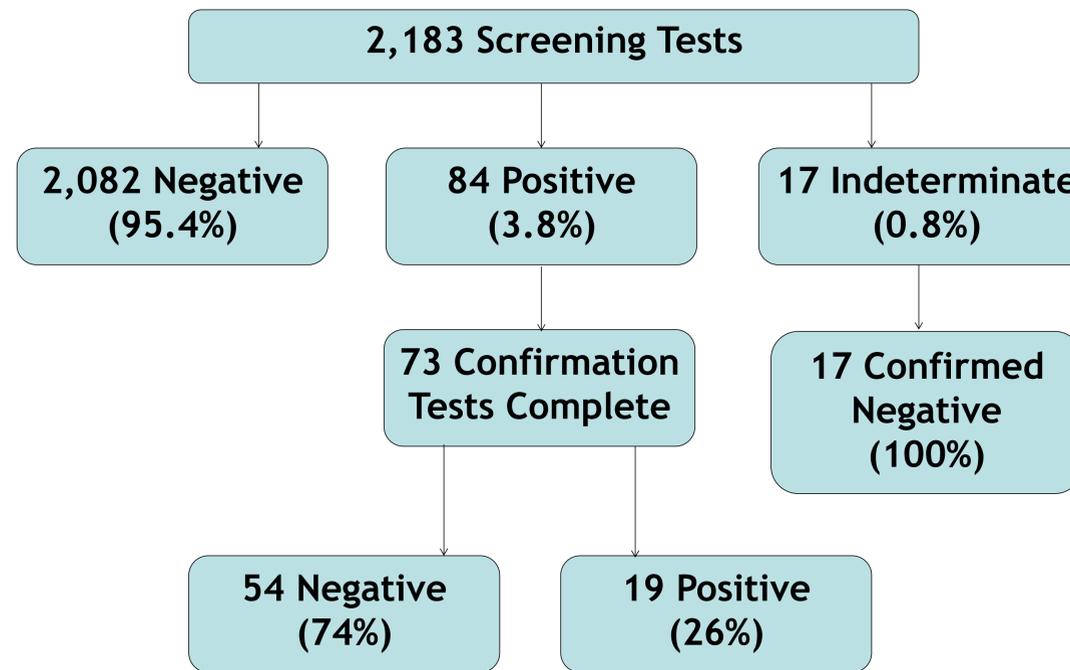


Table 1. Prevalence of Chagas disease by age at EBNHC

| Age (years) | # Positive | # Screened | Prevalence (%) |
|-------------|------------|------------|----------------|
| ≤19 | 0 | 101 | 0.0 |
| 20-29 | 3 | 742 | 0.4 |
| 30-39 | 7 | 820 | 0.9 |
| 40-49 | 5 | 392 | 1.3 |
| ≥50 | 4 | 115 | 3.5 |

RESULTS

- There were no significant differences by sex (M: 8/757, F: 11/1413, p=0.51) or national origin (p=0.79)
- 19 confirmed positive patients have been evaluated and 6 initiated benznidazole to date
- 3 confirmed positive individuals were pregnant and a system was put into place for post-partum follow-up
- In multivariable models, there were no significant predictors of confirmed positive or false positive testing.

CONCLUSIONS

This pilot shows that integration of screening for Chagas disease is feasible in primary care.

Though the prevalence of *T. cruzi* infection was higher in older age groups, there were no clear demographic predictors of a confirmed positive or false positive test.

We also found a high false positive rate of the screening test, highlighting the need for improved serologic testing options.

ACKNOWLEDGEMENTS

- The Strong Hearts initiative is funded by the Mundo Sano Foundation and supported by the David Rockefeller Center for Latin American Studies at Harvard University.