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# Research Week 2024

## Strong Hearts Program: the results of a novel primary-care based diagnostic and referral program for Chagas disease in East Boston, MA, USA

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### Keywords

Chagas Disease; Prevalence; Continuity of Patient Care; Antiparasitic Agents; Primary Health Care; Insurance; Referral and Consultation; Centers for Disease Control and Prevention, U.S.

### Abstract

**Introduction:** Chagas disease, a neglected parasitic infection, affects ~300,000 people in the US. Untreated, Chagas disease leads to irreversible cardiac morbidity and death in 20-30% of cases, yet <1% receive antitrypanosomal therapy in the US. We describe the program structure, diagnostic uptake, local epidemiology, and care continuum for Chagas disease from the Strong Hearts Program, a Chagas care initiative at the East Boston Neighborhood Health Center (EBNHC) in Boston, MA.

**Methods:** Following provider and community information sessions, 14,354 patients were screened at EBNHC from March 2017 - May 2023, following a prespecified protocol. Confirmed Chagas patients were referred to Boston Medical Center for further evaluation and treatment if indicated. Using chi-squared tests, we analyze diagnostic uptake and prevalence stratified by demographics. We then abstract information from the records of Chagas patients' to identify and report on barriers in the continuum of care, many of which were addressed by Strong Hearts' care navigators.

**Results:** Per quarter, a median of 572 were screened (IQR: 393 - 712). 3.4% of screening tests were positive. After confirmation, the overall prevalence of Chagas in the population was 0.7% (95% CI: 0.6% - 0.9%) with no sex difference. There was a statistically significant age gradient, with the lowest prevalence observed in <20 year olds (0.0%) and the highest in 40-49 year olds (0.8%;  $p < 0.001$ ). 32% of Chagas patients completed antiparasitic therapy. For patients eligible for treatment, barriers included the effort required to obtain confirmatory results from CDC and the related delays, number of steps between referral and initial appointment, and insurance and billing issues.

Conclusion: Given the significant prevalence of Chagas disease in high-risk US communities, increased access to screening, confirmatory testing and diagnostics are needed. Chagas care by motivated primary care providers is feasible when support for confirmatory testing and care navigation are in place.