

Knowledge, Attitudes, and Practices Towards Chagas Disease in Northern and Southern Belize

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INTRODUCTION

Chagas is recognized by the W.H.O. as one of the world's neglected tropical diseases. *Trypanosoma cruzii*, the causative parasite of Chagas, is transmitted to humans living in tropical and subtropical climates by members of the Reduviid bug family. Although Chagas is endemic in 21 central and south American countries, Belize was chosen as the focus of this study given the intercountry differences in climate, housing, and vector prevalence.

HYPOTHESIS

The knowledge of Chagas Disease would be greater in the southern regions of Belize due to higher vector presence.

METHODS

A 69 question, cross-sectional study was conducted June – August 2017 to compare the knowledge, attitudes, and practices (KAP) between villages in northern and southern Belize. Knowledge of Chagas disease was assessed based on:

- ability to identify the vector
- recognition of disease symptoms
- understanding of transmission dynamics

Surveys were digitally administered using ONA's survey platform. Data analysis was conducted in ONA and excel. Review and approval of this research was provided by the Belize Ministry of Health and the Eck Institute for Global Health at Notre Dame University.

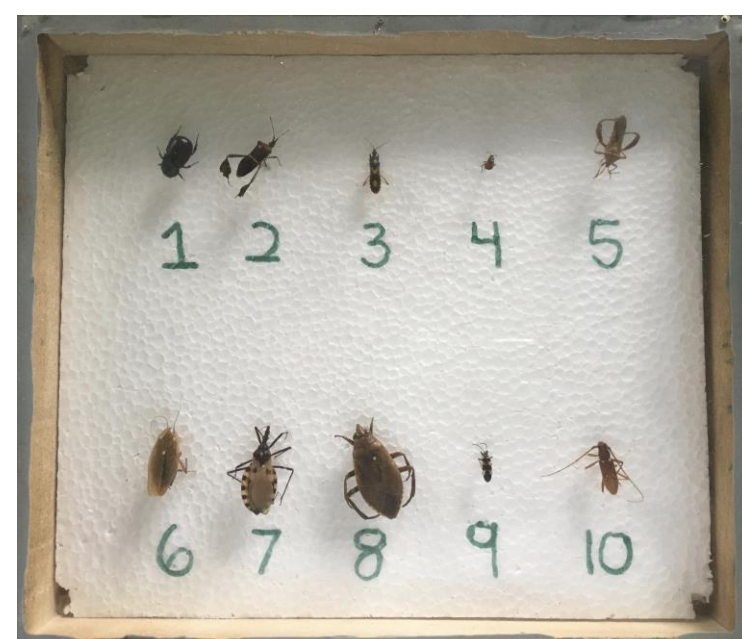


Image 1: Bug Box – Participants were asked to select which bug(s) could make them sick and identify which bug transmitted Chagas using local names. *T. dimidiata* is bug 7 and the only bug that feeds on humans.

RESULTS

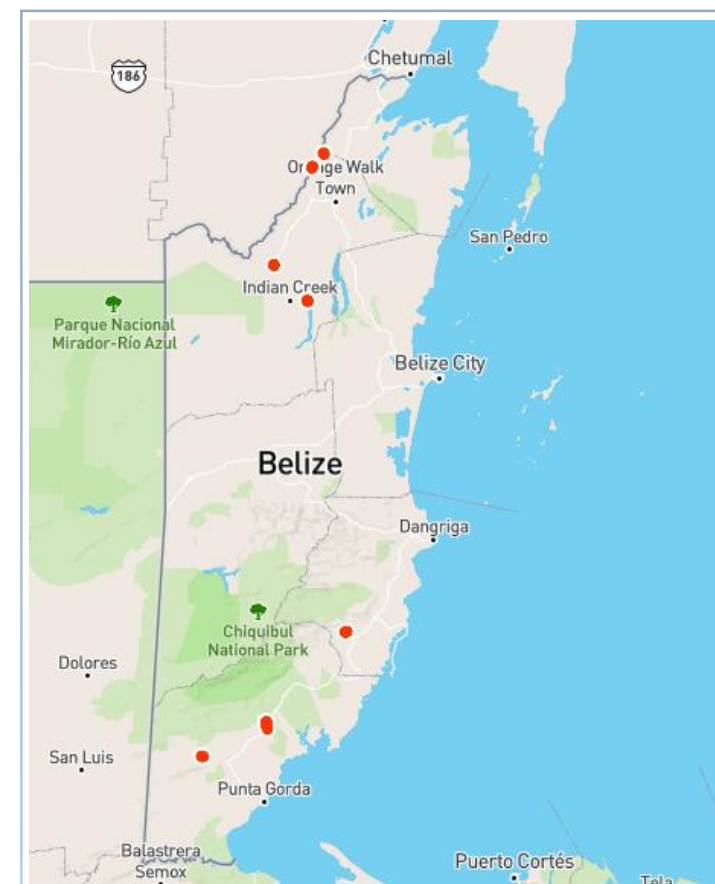
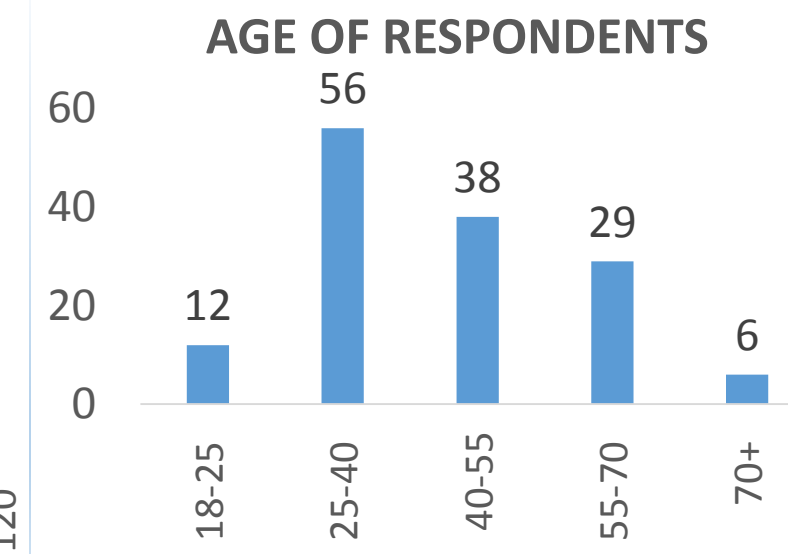
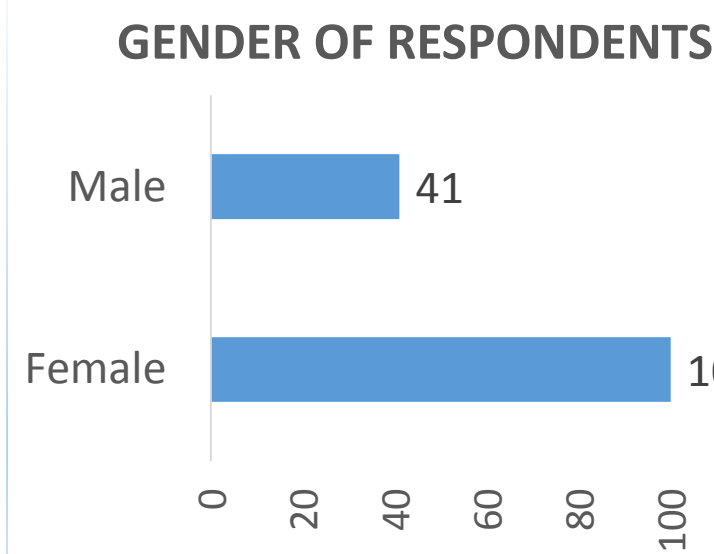


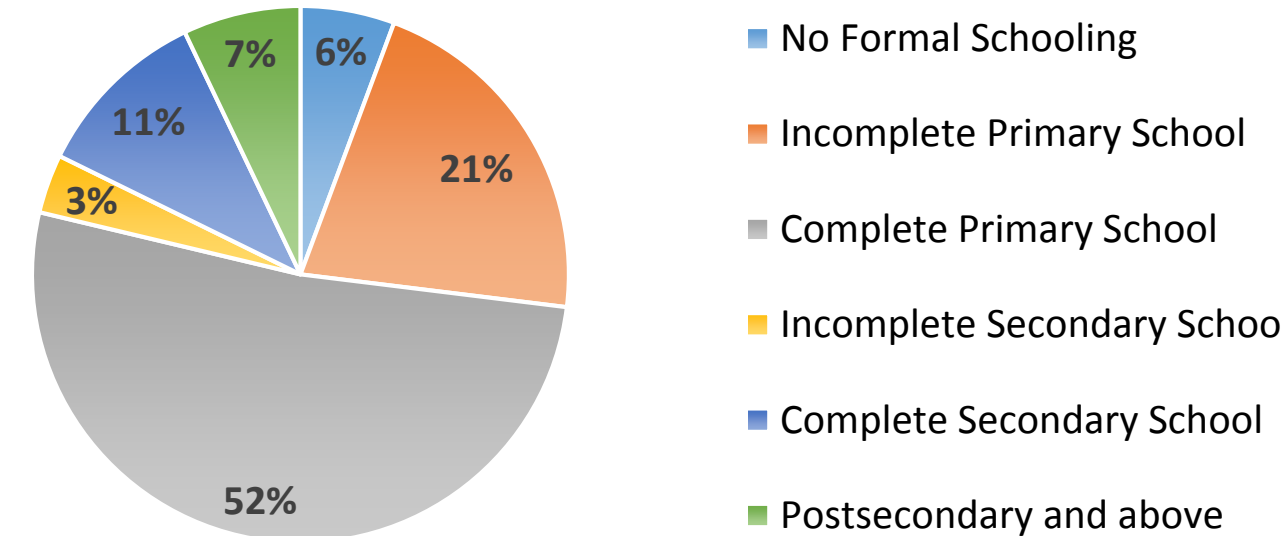
Image 2: Survey Distribution
Surveys were administered in Golden Stream, Maya Mopan, San Antonio, Douglas, Indian Church, San Filipe and San Roman



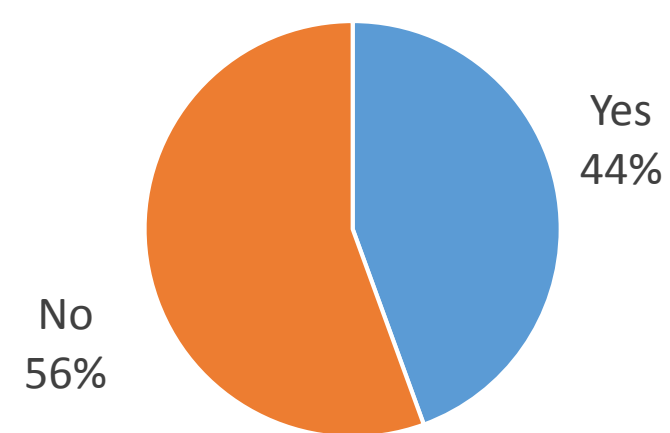
CURRENT OCCUPATION OF RESPONDENTS

Housewife	84
Agriculture	16
Trade/Commerce	14
Formal Employment	14
Crafting	6
Other	4
Seasonal	2
Transport	1

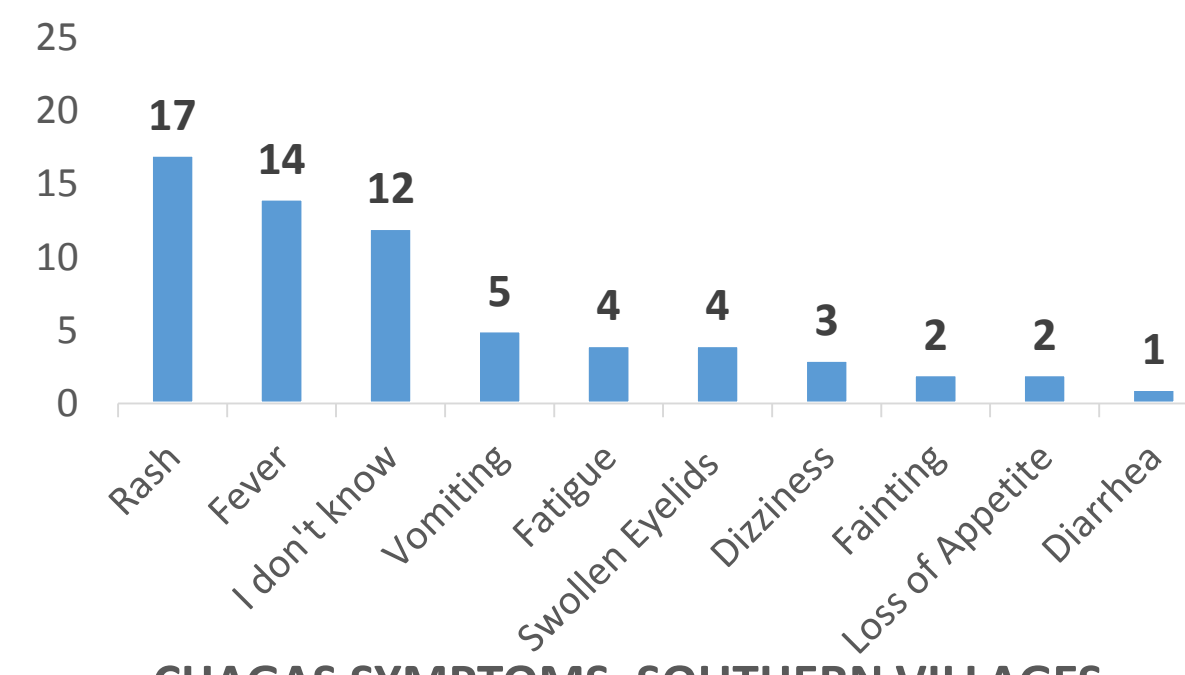
Education Level of Respondents



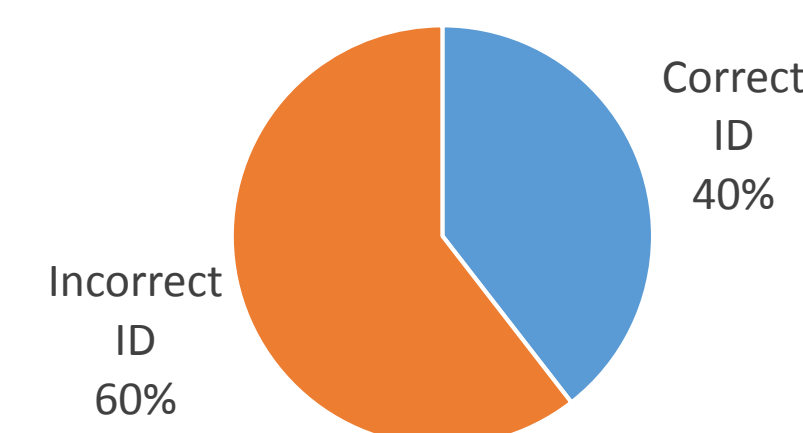
HEARD OF CHAGAS DISEASE: NORTHERN VILLAGES



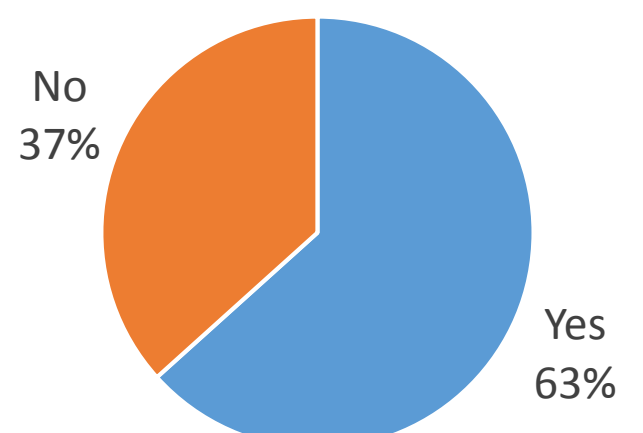
CHAGAS SYMPTOMS: NORTHERN VILLAGES



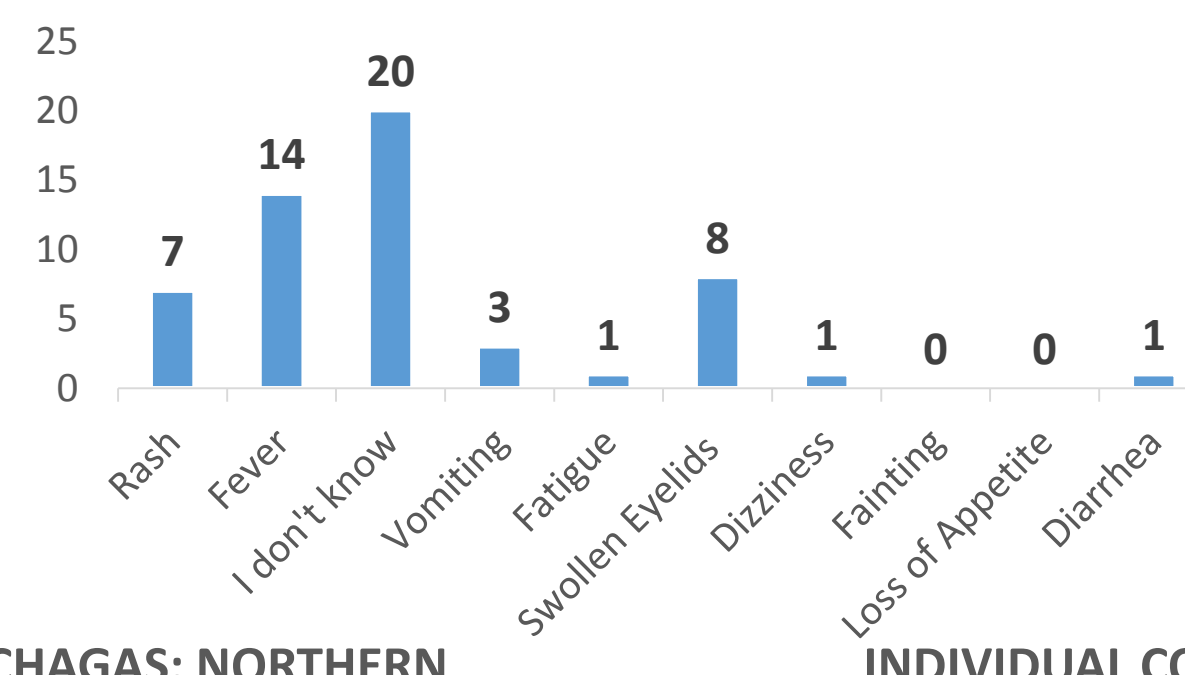
IDENTIFICATION OF VECTOR: NORTHERN VILLAGES



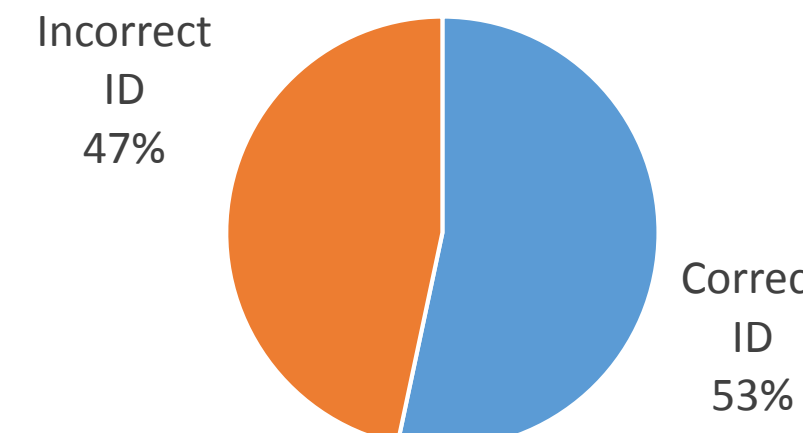
HEARD OF CHAGAS DISEASE: SOUTHERN VILLAGES



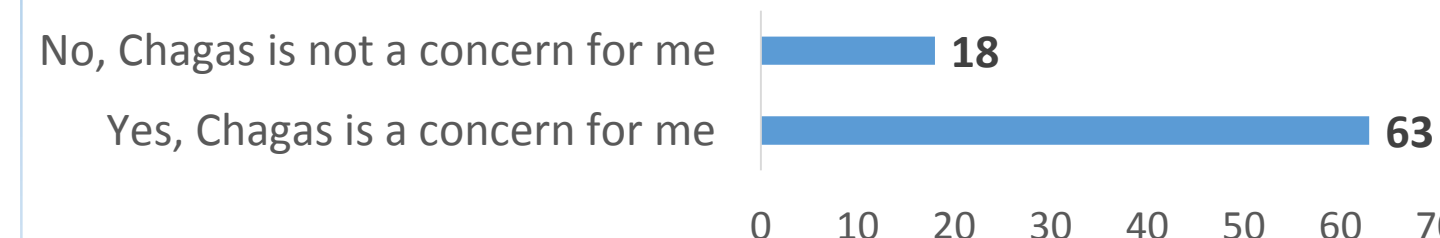
CHAGAS SYMPTOMS: SOUTHERN VILLAGES



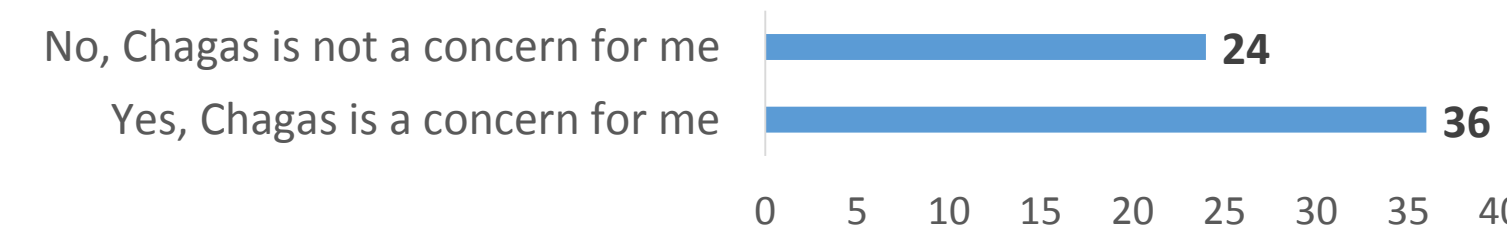
IDENTIFICATION OF VECTOR: SOUTHERN VILLAGES



INDIVIDUAL CONCERN ABOUT CHAGAS: NORTHERN VILLAGES



INDIVIDUAL CONCERN ABOUT CHAGAS: SOUTHERN VILLAGES



DISCUSSION

- 41 males and 100 females were surveyed
- 44% of northerners and 63% of southerners had heard of Chagas Disease
- 40% of northerners compared to 50% of southerners were able to identify the vector
- 53% of southerners could not identify a symptom of Chagas Disease
- 78% of northerners expressed individual concern about Chagas, compared to only 60% of southerners
- Education level did not seem to correlate with disease knowledge

CONCLUSION

We conclude that while the knowledge of Chagas Disease and the disease vector is higher in southern Belize, less is known of the illness and associated symptoms.

NEXT STEPS

- Continued data analysis
- Expansion of KAP administration into additional villages in northern, southern and central Belize

ACKNOWLEDGEMENTS

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