Chagas Disease-Awareness Program for CHWs

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A Brief Review

• Chagas diseases CAN be transmitted congenitally
• If the child is diagnosed with Chagas early after birth treatments can be up to 90% effective
• In the US, an estimated 40,000 women of childbearing age have Chagas disease
• Many infants with congenital infection are asymptomatic at birth
• Testing for children needs to be done at multiple intervals, including after 9 to 12 months of age when they are clear of mother’s antibodies
• Infants are treated by either benznidazole or nifurtimox, dosing is age-specific
Ningun Bebe con Chagas Campaign

https://youtu.be/FAXVP7Fzmog
Session 4:

Talking about Chagas disease and prevention
Myths about Chagas Prevention

- Kissing bugs native to US don’t readily invade houses or feed on people
- Prolonged feeding to defecation interval limits human exposure
- Higher standard of housing limits exposure
- Indigenous T. cruzi strains are not pathogenic
How do kissing bugs get inside?

Kissing bugs can enter your home through:

• Crawl spaces
• Exposed cracks
• Gaps around patio doors
• Open chimney flues
• Windows
Kissing Bug Hideouts

- Openings in door fixtures
- Gaps under siding
- Gaps in exterior walls
How do you get rid of Kissing Bugs?

Some procedures to prevent kissing bugs include the following:

• Caulk around openings for utility lines, plumbing pipes, and cables.
• Change porch lights to "bug light" bulbs.
• Close exterior doors tightly.
• Inspect pets for these bugs in their fur.
• Move firewood piles away from the house.
• Repair any damaged screens on all windows, crawlspace vents, and attic vents.
• Repair cracks in foundation that would allow insects to enter.
• Replace missing or damaged weather stripping.
More Prevention Tips

- Eliminate vector contact:
  - Improve housing/kennels
  - Use insecticides
  - Control vegetation & debris around home
  - Eliminate cracks & crevices in home
  - Regular cleaning
  - Deter wild animals

- Surveillance:
  - Collect and submit kissing bugs
  - Investigate suspect bites
  - Look for fecal spots (bedding)
  - Eggs, nymphs or adults around beds or around pet sleeping areas
Let's play a game: Identify the Kissing Bug!
What’s wrong with this video?!?!?!?

This is typical BAD info shared with the public! Most of these bugs are NOT kissing bugs!!!

https://www.youtube.com/watch?v=mncCqE1YMik
Chagas’ Disease Biology:

**The Tropics**
- Bug colonization of human habitation in roofs, walls, other sites
- Regular/continued exposure likely
- Bug infection rate 21-46%
- T. infestans

**South Central Texas**
- Bug colonization of human habitation in exterior walls, yard, some inside
- Intermittent exposure possible
- Bug infection rate ~ 64%
- T. gerstaeckeri

Courtesy of Dr. Edward Wozniak
Colonias - High Risk Populations?

Courtesy of Dr. Sarah Hamer
Which of These are Kissing Bug Habitats?
Which of These Does **NOT** Represent a Blood Meal for a Kissing Bug?
Kissing Bug Bites
Chagas Disease in the United States

https://youtu.be/R01YQhl5Plw
Model for Targeted Outreach
Stigmas Associated with Chagas disease

- Chagas almost always associated with poverty in rural areas and impoverished houses infested with triatomine bugs
- Infection with *T. cruzi* can lead to social rejection
- Infection can also mean work restriction because its association with poor health and potential difficulties in performing work, and even sudden death, creating a fear of financial losses by employers
- Social consequences of stigma can be extremely severe so many people are reluctant to seek screening and medical help, which can lead to more serious complications and further spread of the disease.
Emotional Burden of Chagas Disease

- Studies have shown that local communities of endemic countries do not have a clear understanding of Chagas disease.
- Chagas disease is not necessarily associated with its vector or its symptoms.
- Chagas disease associated with feelings of despair, fear of death, and suffering.
- Negativity affects health-seeking behavior as people develop adaptive behaviors:
  - Ex. Compromising both treatment and diagnosis by refusing to get screened.
Chagas Disease Diagnosis in Non-endemic Countries

• Practitioners in non-endemic countries tend to consider Chagas disease a tropical illness restricted to Latin America

• Misconception causes misdiagnoses when presented with symptoms

• Patients infected with T. cruzi in non-endemic countries may not be aware of their condition which can lead to further transmission

• Some countries require mandatory T. cruzi testing for employment resulting in discrimination against infected individuals

• Lack of understanding, lack of knowledge, and incorrect beliefs are clear obstacles in promoting health-seeking behavior.
Chagas: Let’s Raise Our Voices!

https://vimeo.com/79476592
HOW WOULD YOU REDUCE STIGMA ABOUT CHAGAS DISEASE AMONG COMMUNITY MEMBERS?

IF YOU ARE DOING A HOME VISIT, WHAT SIGNS COULD YOU LOOK FOR THAT MIGHT INDICATE A RISK FOR CHAGAS?
Advocacy & Teaching about Chagas

• Successfully navigate online resources so you can advocate with passion and facts.

• Use 211Texas.org to find resources in your community to assist individuals and families.

• Enhance small group presentation skills.

• Know your subject. Know more than you will present. Understand the cycle of infection.

• Be familiar with connecting to vulnerable populations.

• Practice using the assets/strengths in a community...its existing network of relationships.

• Practice mobilizing similar interest groups into larger more impactful groups.

• Use your new knowledge to educate families and providers
Case Study 4:

Pet tests positive for Chagas disease
Summary

• Regular home cleanings and upkeep can help to control for vector
• South Central Texas has an infection rate of ~ 64%
• Globalization has led to a rise in awareness about Chagas disease as an emerging issue in non-endemic regions, but some challenges still exist
• Training health personnel to facilitate diagnosis and provide medical care can greatly help to mitigate transmission and improve prognosis
• Lack of understanding and knowledge of Chagas disease, along with incorrect beliefs, are clear obstacles to promoting health-seeking behavior
• CHWs are a critical link between health providers and the community
Thank you!

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