

Discloser slide

- Objectives:
 - Describe the need for clean water in rural villages in Guatemala
 - Explain the collaborative project with respect to methods, protocol, outcomes, and significance
- No conflicts of interest, sponsorship, or commercial support

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A story



The opportunity

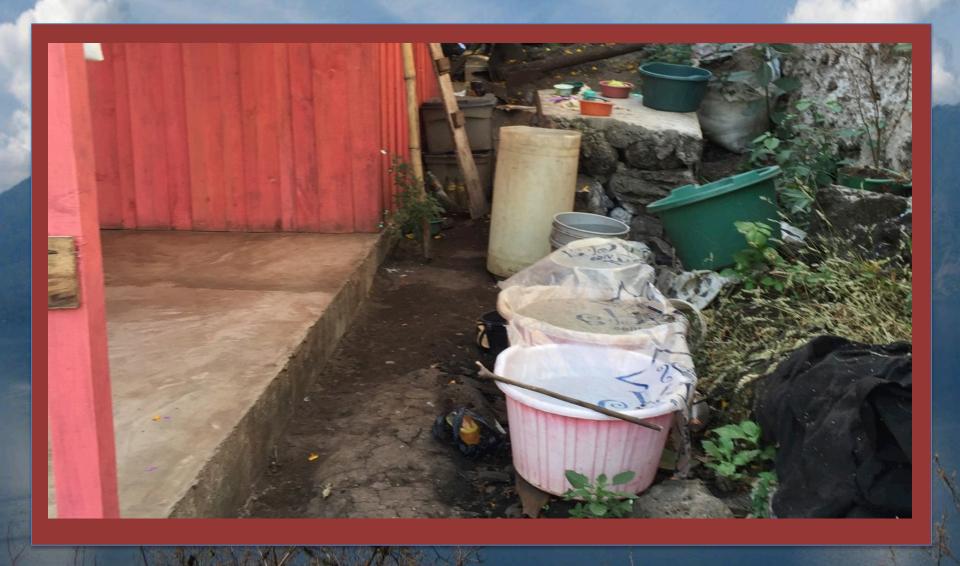
- Give and Teach ministry
- Rescuing children through education and the Gospel
- Feeding program
- Water filters
- Home building
- Vented cook stoves
- Building local churches



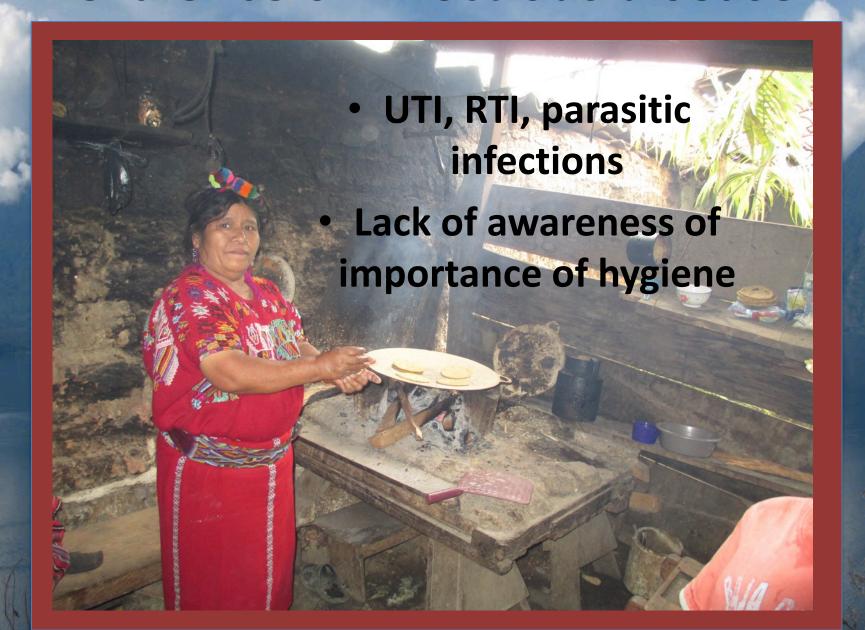
Medical outreach 3 villages



Awareness of needs



Prevalence of infectious disease



The need for clean water globally

- Sanitation
- Food production
- Scarcity and contamination
- Disease burden (cholera, dysentery, typhoid)
 - UN goal "...universal access to safe and afforable drinking water for all by 2030"

Global Initiatives toward the Goal

- Boiling
- Exposure to UV light
- Chemical disinfecting methods
 - Germicidal treatments
 - Chlorination
- Engineering projects to improve sanitation

The Guatemalan clean water project

Strategies that are inexpensive, easily understood, acceptable and community oriented can be effective in developing countries

- Installation of clean water filters
- Teaching of hygiene classes
- Follow-up visits by local MD
- Assessment of infections post intervention

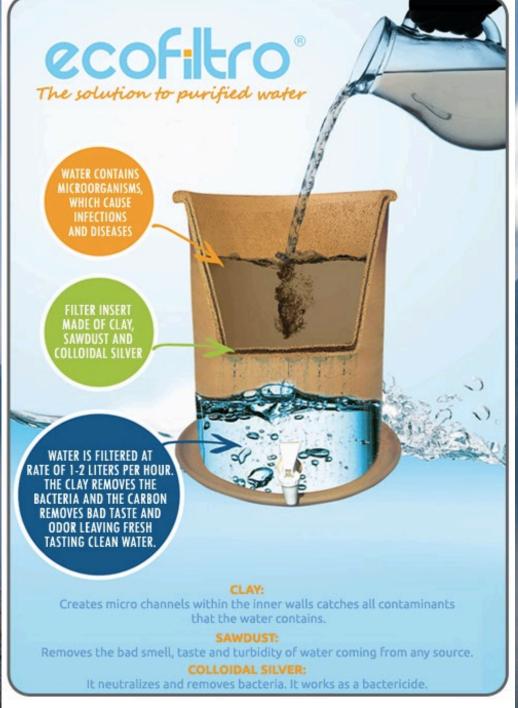


Specifics

- Funding for the filters
- Offering the filters
- Teaching
- Follow-up MD
- Installation of filters
 - 83/150 families in El Amante
 - 130/500 in Bijagues
 - Overall 33% in 2 villages received filters







Outcomes

 Post-intervention assessment of infections one year later, 6 months after filters installed

	Pre-installation of water filters	Post-installation of water filters	Marginal totals
Infection	62	44	106
No infection	122	118	240
Marginal totals	184	162	346

Chi-square with 1 df = 1.73 (ns at confidence level .05)

Table 1. Comparison of incidence of infection in all Guatemalan villagers assessed pre and post installation of clean water filters in the villages.

Significance

- Representative of a trend
- Follow up by the Guatemalan MD: preintervention 53 infections/ post: 3.5 per mo.
- Brought safe water to 213 homes
- Education about water safety, health and importance of hygiene
- Collection of rainwater reduced
- Collaboration built a strong working relationship

Continued ideas and collaborations: chicken coops!





Questions?

