



Evaluating Water Purification Systems in the Quiché and Sololá Departments of Guatemala

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Guatemala

Guatemala is the northernmost country in Central America and most populous, with over 15 million inhabitants. Spanish is the official language, but 41% of the population is made up of indigenous peoples that speak an additional 21 Mayan languages. The representative democracy is divided into 22 departments. Guatemala is ranked 'medium' on the Human Development Index (HDI).

According to WHO/UNICEF 2010 estimates, approximately 92% of the total population and 87% of the rural population has access to an improved water source.

Clean Water Access



In 2013, an estimated 783 million people worldwide did not have access to clean water, according to the UN. Lack of clean water and poor sanitation causes an estimated 80% of illness in developing countries and is the leading cause of child mortality. Water-borne diseases reduce the likelihood of accessing education and economic stability.

Placement/Project Information

Our evaluation team traveled to the departments of Quiché and Sololá to assess the **functionality, utilization, and impact** of water purifiers in these locations. A Participatory Action Research (PAR) framework informed our evaluation approach. In total, 7 water purifiers were visited in four different towns. We worked with *Caritas* to engage the Quiché communities of Chinaton, Chicua II, and La Puerta in the Quiché district in mixed-methods evaluation. In Sololá, sites were visited in San Lucas and San Juan.

Community Partners

Clean Water for the World: nonprofit organization dedicated to providing water purification systems that are simple and adaptable at no cost to communities without access to potable water

Caritas: a social service organization based in Quiché that promotes human development, especially focusing on improving conditions for rural families living in extreme poverty.

The Friends of San Lucas: nonprofit focused on holistic enhancement and enrichment in communities around Lake Atitlan.

IMAP: Mesoamerican Institute of Permaculture, focused on development of self-sufficient communities

ODIM: Organization for the Development of the Indigenous Maya

Outcomes

6 of 7 water purifiers were tested and confirmed to improve water quality according to 3M E. coli and coliform count plates.

1 purifier was reconnected and 1 redistributed
11%, 32%, and 48% of community members in Quiché communities drank purified water always

Health records suggested a 5% decrease in diarrhea in community with purified water, implying health and economic benefits.

Connections

Classes:

SW 685 provided a foundation for applied methods in evaluation such as survey and focus group development and implementation, data interpretation, and report writing

SW 823 gave me a framework from which to analyze and understand social service programs and implementation in another global context

Career: I plan to pursue doing nonprofit consulting work with social service organizations in Latin America and organizations working with immigrant populations. This on the field exposure to culturally competent evaluation will influence my evaluation methodology.

Skills Developed

Process of quantitative measurement development to assess impact

Ability to adapt evaluation methods and engagement to needs and desires of communities

Empowering collaboration with local and international nonprofit organizations

Evaluation implementation strategies

Lessons Learned

Cross-cultural evaluation must be done in partnership with locals who know the context, language, and social norms.

Community needs and desires must take precedent over the pre-established evaluation plan. Community change requires education, buy-in, and continued support.

Quality evaluation takes time.



Advice: take advantage of the opportunity to learn and live in another context. If approached with humility, cross-cultural engagement will change your worldview.

Acknowledgements

Many thanks to the *Office of Global Activities* for the financial support provided, and especially to *Larry Root* and *Katie Lopez* for their guidance and patience.

Thank you *Janet Ray* and the evaluation team for their dedication to the evaluation project and learning experience.

Finally, thank you to our passionate *community partners* from *Caritas* the other NGOs and to *community members* who invited us in and shared their inspirational vision for change.