

Title – Critical Control Point Analysis in Zacapa, Guatemala: Surveillance for Foodborne Disease Outbreaks

Program of Study - Public Health: Global Health

Presentation Type – Print Poster

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Category – Applied

Abstract: The purpose of this study is to spend a week in Guatemala completing an assessment and to develop interventions afterwards as needed. Assessments will include inspecting the kitchen, food handling, and water sources; reviewing current procedures in place for handling water; and tracking any illnesses and infections in the group. This study seeks to solve the problem of foodborne disease outbreaks at Hope of Life in Zacapa, Guatemala. Over the course of the past several mission trips to Guatemala, a significant number of students from Liberty University's College of Osteopathic Medicine have fallen ill with diarrhea. The goal of this study is to identify the factors that are leading to disease and to implement protocol that can protect our students, as well as the staff and patients of Hope of Life.

This study will examine the condition of the clinic's cleanliness and visually examine the personal hygiene of the staff. The processes that are in place to maintain the hygiene of the facility and staff will be evaluated. Water quality and sanitation will be assessed, including how the water is processed and distributed. Another factor relating to water sanitation is the ice that is used to chill the beverages; does the ice come from a pure source and is it maintained sanitary? Food preparation will be evaluated. Factors pertaining to food preparation and food safety include proper cooking time and temperatures, proper cooling time and temperatures, proper hot

and cold holding temperatures, proper date marking, food handling procedures, and cross-contamination prevention. Food service will be evaluated; this includes components such as proper storage of in-use utensils, proper storage and handling of utensils and linens, and proper use of gloves. Additionally, foodborne illness outbreaks will be recorded and monitored, and the Hope of Life staff will be asked to monitor further foodborne disease outbreaks.

Christian worldview integration: Hope of Life (HOL) seeks to provide vital, lifesaving help to people in both physical and spiritual need. HOL exists to provide people with nutritious food, clean shelter, medical aid, school supplies, and more. I desire to effect changes that will protect the health of the doctors and students who are serving the people at HOL so that they can help the people of Guatemala to the best of their ability. The information gathered from this research could protect medical teams during these trips, as well as help HOL become more effective at reducing infectious risk.

Matthew 25:40 tells us, “Truly I tell you, whatever you did for one of the least of these brothers and sisters of mine, you did for me.” I Corinthians 12:27 says, “All of you together are Christ’s body, and each of you is a part of it.” Because each human is made in the image of God, each individual carries much value, and the quality of our healthcare should reflect this belief. As a member of Christ’s body, I feel a responsibility to extend Christ’s love and healing in any way that I am able, and I desire to be a help to others. I have been blessed with the resources and given the opportunity to help and care for God’s children; therefore, I must act and use the knowledge and resources that I have been given. I look forward to the research that I will be able to conduct, because its finding will be able to protect future volunteers, workers, and patients, as well as hopefully improve the health of the people who are currently in Zacapa, Guatemala.