

During my summer research project with the Center for Global Health, I worked on the Malnutrition and Enteric Disease (MAL-ED) project in Limpopo Province, South Africa. The title reflects the interest of the study, asking the question of how malnourishment and enteric disease effect the cognitive and physical development of neonates. Collaborating with another CGH scholar and investigators at the University of Venda (UNIVEN), I was involved in preparing internal standard operating procedures (SOPs), analyzing maternal depression data, and planning a community engagement fair.

The MAL-ED study is a multi-faceted study being conducted in eight international sites. It is funded by an award from the Bill and Melinda Gates Foundation to the Foundation for the National Institutes of Health (FNIH). This study, which is ongoing, posits the hypothesis that specific enteropathogens can adversely affect the physical and cognitive development of children. The same enteropathogens may also affect the immune system of those exposed, contributing to the importance of the study. Due to the multi-national nature of the study, the SOPs used by UNIVEN needed specific information about how to conduct the study in the surrounding region. This information included specific locations to obtain items, where to transport specimens, and other details that were unique to this study site. The internal SOPs were completed for many procedures at the UNIVEN research site.

A portion of the MAL-ED study included psychological evaluation of mothers, post-partum. This evaluation analyzed depression, and investigates the correlation between maternal depression and the child's development. This portion of the study is being collated as part of the data collected by the FNIH, but an internal analysis was requested. The maternal depression evaluation involved the administration of an SRQ-20 form (self-reporting quiz) by psychology students from UNIVEN. There are 20 questions asked, with a positive answer increasing the score towards reported depression. Using the available data, the sample from the study site appeared to exhibit low rates of depression. However, the study is incomplete and more statistical analysis is still being completed.

Before leaving the South African research site, Nikita Kohli and I were asked to help plan a community engagement fair to inform the participants of the study and to say "thank you" to these participants for their continued participation. With the nature of the study, it was understood that retaining participants for the duration of the study would pose a challenge. To this end, the community engagement fair would provide a way of letting the community know that they are contributing to a study that may provide great benefits to future generations.

Having the ability to participate with the Center for Global Health students and the students at UNIVEN provided a rich experience that expanded my knowledge of international medical research beyond my expectations. I gained experience working with others in an area that I would have never dreamed of visiting. The time spent working with students in South Africa defined one of the most exciting and dynamic periods of my life. I will be forever changed, and look forward to revisiting my friends in Limpopo in the near future.