

Rapid HIV/AIDS Diagnostic Testing in Children in Harare, Zimbabwe: A Mixed-Methods Study Comparing Accuracy and Acceptability of Oral Mucosal Transudate Test and Blood Serum Test

While I was thinking about my summer fieldwork in Zimbabwe, I was presented with a unique opportunity. My fieldwork supervisor had a brilliant idea to test the diagnostic validity of the oral fluid HIV test against the standard of care rapid blood test in children. The oral fluid test has already been proven to work in adults; however, the diagnostic accuracy of the test had never been tested in children. This project would allow me to explore a novel approach to HIV testing in children and adolescents. I immediately felt passionate about this project even though I knew there would be many hurdles along the way.

The first hurdle I ran into was my sample size. In order to have the accuracy we needed to say that the oral fluid test worked well in children, we would need to find 150 HIV positive children aged 2-18. I knew this would be difficult; however, I wanted to try. My research team suggested hiring four research assistants instead of hiring two for data collection. Given my budget, I knew this would be impossible. I began to seek out funding opportunities and was lucky enough to find the Duke University Center for International & Global Studies (DUCIGS) Award for Research and Training. I applied for the grant and was lucky enough to receive the award. Receiving this award helped to fund two additional research assistants for data collection.

Once I arrived in Harare, Zimbabwe, we began training our research assistants immediately. Data collection began two weeks after my arrival. We knew there would be hiccups along the way, but the research assistants we hired were amazing problem solvers and overcame most issues they faced. After the first two weeks of data collection, it became clear that most children living with HIV have already been diagnosed. This was a great finding for Zimbabwe as their focus on the prevention of mother to child transmission (PMTCT) was working; however, it meant my research would take longer. I knew for my research to be successful, data collection would need to continue after my departure from Zimbabwe.

In addition to my quantitative research, I also designed a qualitative study to determine if parents or guardians are interested in testing their children for HIV using the oral fluid test. I was extremely excited to answer this research question. Once again, the research moved slower than I had hoped, and we had no choice other than to extend our qualitative research timeline. Hopefully, all qualitative data will be collected and translated by the end of October and I can begin the task of analyzing the data.

As of right now, the quantitative and qualitative research is on-going. While this is not ideal given I am no longer in Zimbabwe, I know the research is in good hands as the local research team in Harare is amazing. The study would not have happened without their help along every step of the way. With their help, we have recruited 658 participants in the quantitative study and 20 participants in the qualitative study. I am excited and optimistic about the progress of our study and am looking forward analyzing the data. The most exciting part of the study is that 658 children now know their HIV status and through their experience with HIV testing may inspire others to also seek HIV testing. I am dedicated to seeing this study through no matter how long it takes. I see the oral fluid test as potentially having a positive impact in the lives of children as its ease of use may encourage more parents to learn the HIV status of their children.