

The following is a summary of a brief tour at the CIDRZ Kalingalinga laboratory. Although your “pitches” for Module 1 have already been completed, you may still find the information interesting or useful if you decide to pursue your ideas further.

As an overview to the facility, it is managed by an American who has a PhD in Immunology. He is not the Principal Investigator for the CIDRZ clinical studies, but acts as the Laboratory manager and support person on the studies. The lab is operated by 12 Zambian-trained medical technicians (the same training as technicians in the government hospitals), 12 lab assistants, and 7 general staff for administration and other duties. Within the 7 general staff members, there are 2-3 people who collect samples from ART centers. The lab currently services 16 clinical centers and is soon expanding to 24.

Overall, the facility runs approximately 16,000 tests per month, of which there are roughly 100 tests/day/machine (2 machines) for CD4 counts. Although the number of CD4 samples run daily fluctuates and can be as much as 300 tests/day/machine, the manager feels they are running at near capacity because they continually run tests and the daily number of CD4 counts depends on the number of samples that are received and the number of other tests that have been ordered. The samples are run in batches of 30 (the limit for the plates they use).

One of the main motivations for CIDRZ is obtaining clinical data for research purposes. Their current studies are both epidemiologic and trial based, including:

- PMTCT trial on using multiple dose ARVs
- Efficacy studies on drug combinations
- Epidemiologic studies on Neviripine levels found in the core blood of people receiving ART

Soon the laboratory will expand its services to include microbiology (i.e. gram stain, TB testing) and PCR for viral load testing, but there was no mention of expanding the number of medical technicians at the lab.

Regarding the 1-2 week turnaround time on laboratory data addressed in Module 1, it seems that the greatest barrier to rapid reporting of results is the recording and handling of information. Currently the tracking of patient samples and recording of data is done with a paper-based system. The lab manager admitted that this is the least efficient step in their process and the visible disarray of paper forms confirmed that. Otherwise, the tests are completed within 24 hours of receiving samples, but the results are not returned to the ART center until all data is received and entered into the CIDRZ system. Only the paper lab reporting form is return and samples remain stored at the CIDRZ facility. As a final note, we must keep in mind here that CIDRZ has two motivations, one to provide a service to PLWHA and the other to conduct thorough research. Accordingly, their processes are not purely driven by clinical needs, but rather a combination of what is required to both conduct good scientific research and a necessary clinical service.