**Supplementary Table S1.** Overview of services/infrastructure and staff at each health centre

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|  |  | **Services/Infrastructure** |  | **Staff** |
| **National level centres** | | |  |  |
|  | NRL | Complete range of services, including chemistry, haematology, pathology, cytology, histopathology, immunohistochemistry, back-up generator |  | Technicians (diploma holders) (3 years study): 6 Advanced technicians (diploma holders) (5 years study): 4 Lab scientists: 3 |
| **Dar es Salaam centres** | | |  |  |
|  | ReH | Chemistry, haematology, CD4 counts, parasitology, back-up generator |  | Technicians (diploma holders):5 Advanced technicians (diploma holders): 2 Lab scientists: 1 |
|  | DiH | Haematology, chemistry, ELISA, CD4 counts, testing for blood transfusion, serology, microbiology culture, back-up generator |  | Technicians (diploma holders): 14 Advanced technicians (diploma holders): 3 Lab scientists: 4  Lab assistants (certificate holders): 3 |
|  | PHC | Basic services: parasitology (stools, sputum [TB]), blood (counts, glucose, pregnancy tests, syphilis tests, HIV), no back-up generator |  | Technicians (diploma holders): 4 |
| **Kilimanjaro centres** | | |  |  |
|  | ReH | Complete range of services, including chemistry, haematology, pathology, cytology, histopathology, immunohistochemistry, back-up generator |  | Technicians (diploma holders): 8  Lab scientists: 28 Lab assistants (certificate holders): 4 |
|  | DiH | Chemistry, haematology, parasitology, and CD4 counts, no back-up generator (usually the power supply is smooth) |  | Technicians (diploma holders): 2 Lab scientists: 1 Lab assistants (certificate holders): 3 |
|  | PHC | Basic services: blood slide malaria, sputum (TB), stools, urine, pregnancy test, HIV test, no back-up generator |  | Lab assistants (certificate holders): 1 |