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## EFFECTIVENESS OF POINTCARE CD4/CBC TESTING MACHINES AT HEALTH FACILITIES IN UGANDA

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# Introduction

- Services rendered varies from the most basic at Health Centre Levels III and IV, through general and regional referral hospital to national reference laboratories.
- Districts have 1-2 hospitals, 4-5 Health Centre IV's and 5-10 HC III's.
- 60% of Health Centre IIIs have laboratories (600/991).

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# Introduction (2)

- Limited access to baseline CD4 testing has often led to delays in initiation of HAART among HIV/AIDS clients.
- Goal: To increase the No. of Patients accessing ART through availing CBC/CD4 test

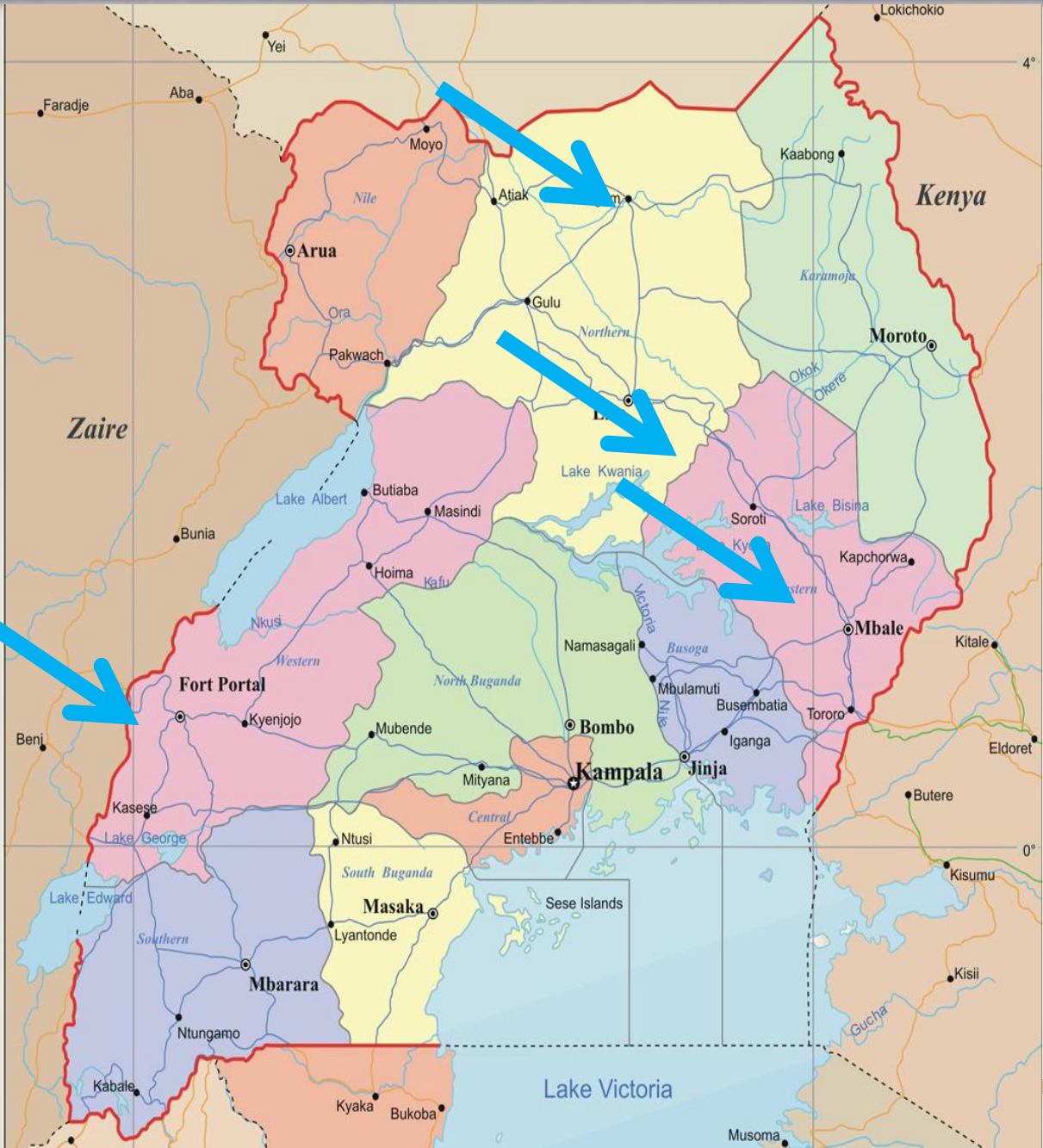
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# Introduction (3)

- Baylor-Uganda procured four PointCare CD4/CBC testing equipment in 2009 for Kitgum , Kilembe mines and Pallisa Hosp, and Kaberamaido HC IV
- Dual platform – Total WBC count, haemoglobin, four-part haematology differential, CD4 count and CD4 %



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## PointCare Now Features

- adapted for rural use

- ✓ Fully automated – No manual steps for pipetting, incubation, vortexing, etc

- ✓ Results in 8 minutes; 50 samples a day

- ✓ Flexible power options – UPS, Battery Pack and Solar Panel for extended battery life and battery re-charge



## Features (2)

- Automated data analysis – No manual gating or interpretation of data
- Calibration – Factory calibrated; does not require gain adjustments or colour compensation
- Easy and safe to use – full automation and closed-cap sampling
- Minimal operator training
- Heat-stable reagents to 30°C – no cold chain shipping

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# Objectives

- To determine the effect of availing on site CD4/ CBC testing on:
  - number of people initiated on HAART
  - time to HAART initiation

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# Materials and Methods

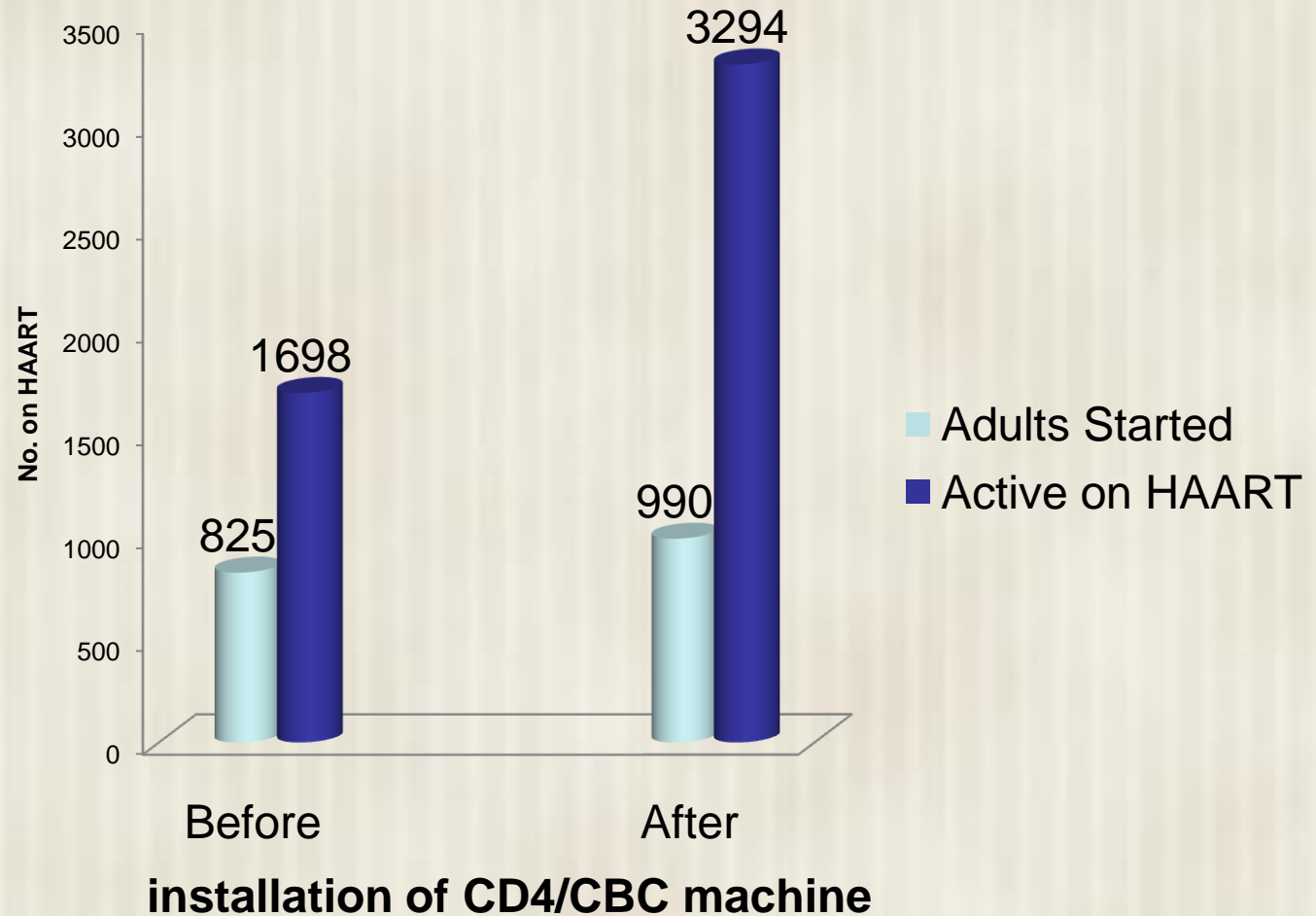
- Records of CD4 tests done, number of patients started on HAART and average time to initiation of HAART a year before and after installation of the equipment were compared
- Sites: Kaberamaido HCIV, Pallisa and Kitgum hosp. Kilembe mines hospital
- Time of comparison: 2008/09 vs 2009/10

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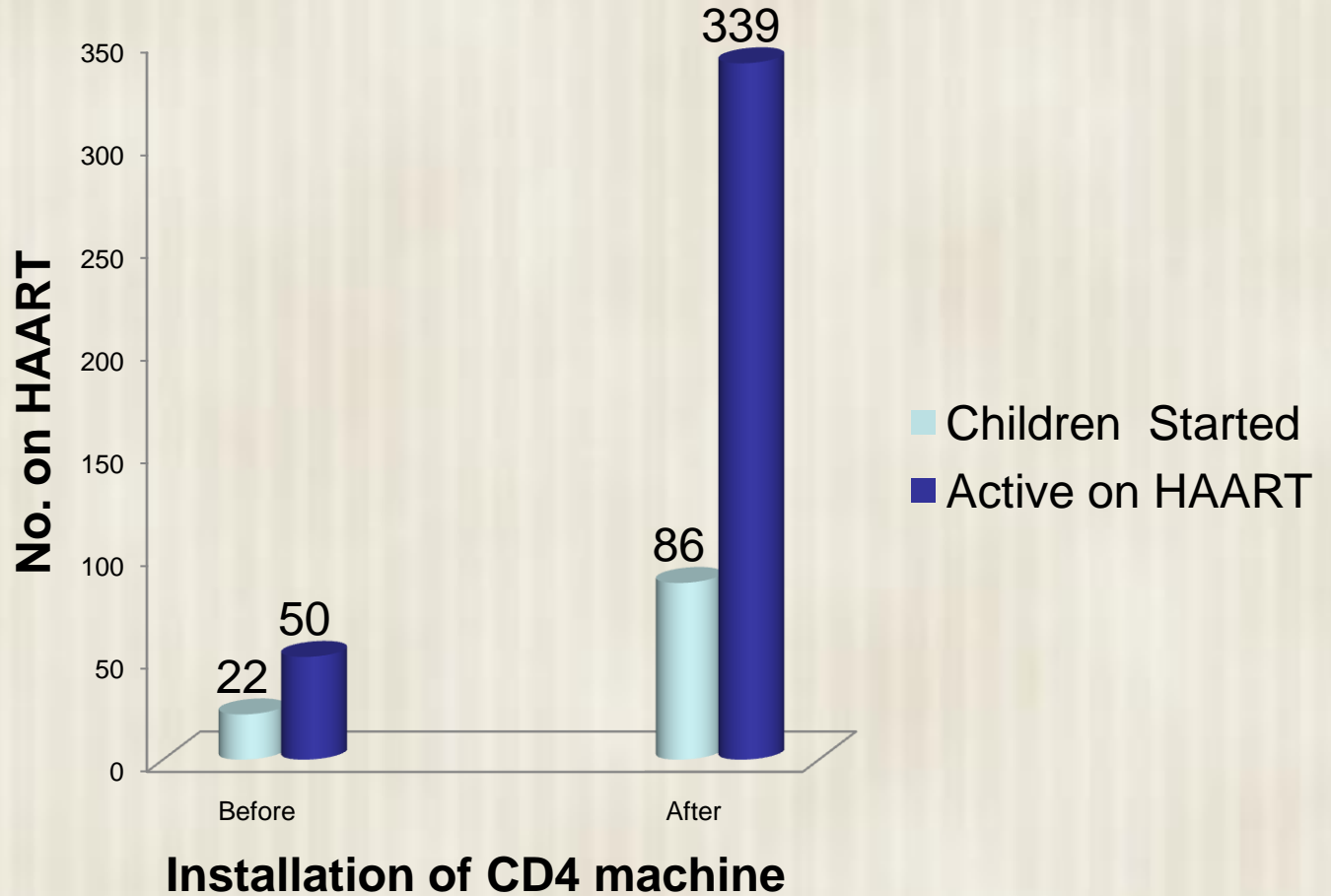


# Adult HAART Initiation

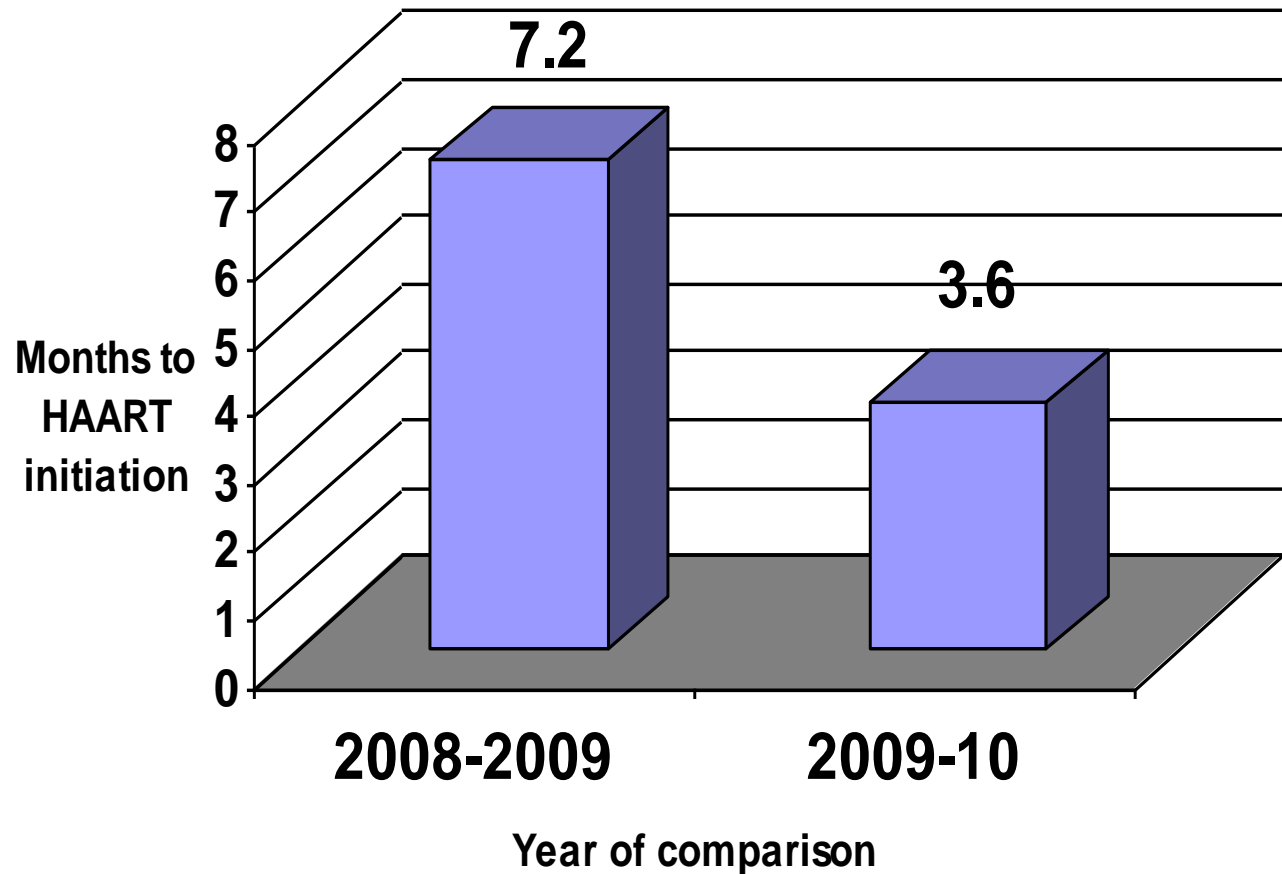


# Children HAART Initiation

Chart Title



# Time to HAART initiation



# Other Benefits

- EID improved- tagged to CD4 testing and sample transportation
- TAT for laboratory investigations *Hb* and CBC
- Logistics management of supplies, reagents and commodities improved
- Clinic flow synchronised

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# Challenges

- Attrition of trained lab staff after installation
- Administrative support to keep equipment running
- The heavy patient load of the ART clinic in need of CD4/CBC results overwhelmed staff members.

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# Conclusions

- No of patients initiating HAART did not change significantly
- However no of active clients in care and on HAART increased by 48% for adults and 85% for children
  - transfer in for better service
- Average time to HAART initiation decreased by 50%

# Thank you



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# Acknowledgement

- CHAI
- Abbot Fund
- CDC
- Baylor Uganda staff
- Staff at Kitgum, Pallisa, Kilembe Mines Hospital and Kaberamaido HC IV & CEO
- BIPAI & Baylor Lesotho

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