



Ugandan Academy  
for Health Innovation  
and Impact



# Integrated Community Based Initiatives (ICOBI)

## Piloting an HIV/TB case-based e-surveillance system in Sheema & Rubirizi Districts: a 'proof of Concept'



**Infectious Diseases Institute**  
College of Health Sciences, Makerere University, Uganda  
Investing In The Future – Impacting Real Lives



# Background

- Without innovative approaches, the achievement of UNAIDS 2020 target of 90-90-90 and that of 2030 of 95-95-95 may continue to be a challenge in Uganda.
- ICOBI is piloting an innovative HIV/TB case-based e-surveillance system to improve timely linkage, retention and adherence of HIV/TB clients in care in Sheema & Rubirizi Districts .
- It is hoped that this will contribute to achievement 90% of those diagnosed with HIV to be ART; and 90% of those treated will achieve viral suppression by 2020

# Project objectives

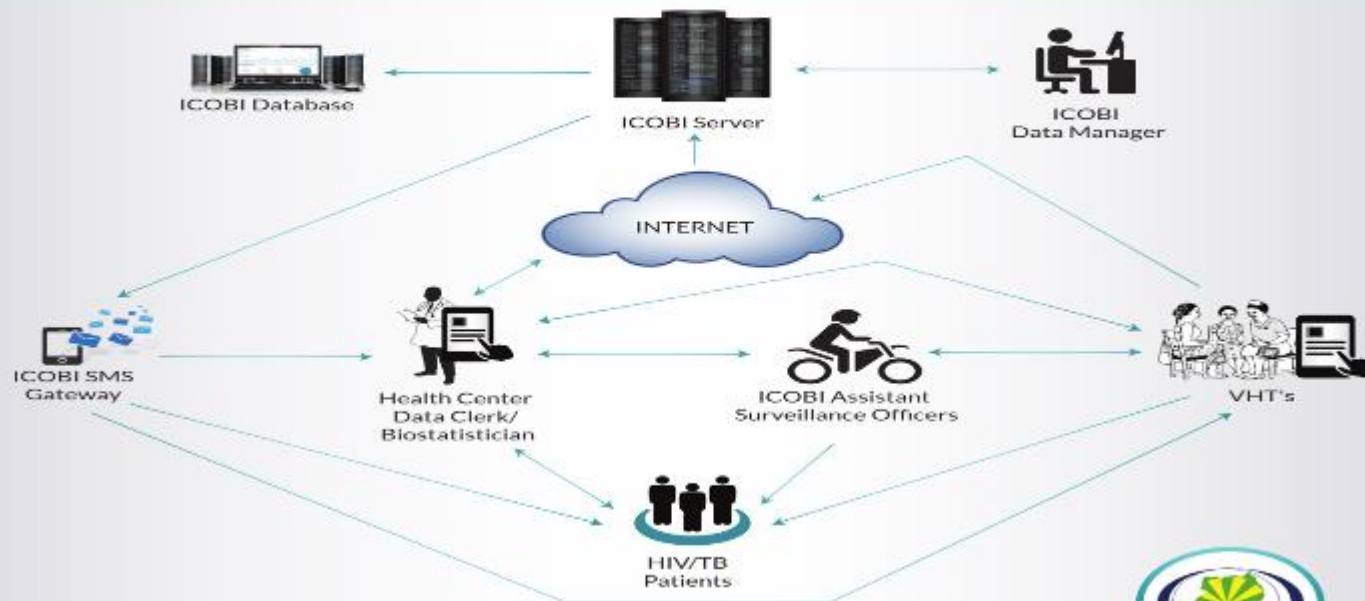
1. To demonstrate the utility of the HIV/TB case-based e-surveillance system in improving treatment outcomes
2. To strengthen the capacity of community health workers to identify, link and track HIV/TB clients with missed appointments
3. To improve HIV and TB case reporting and timely management for better treatment outcome

# Methods

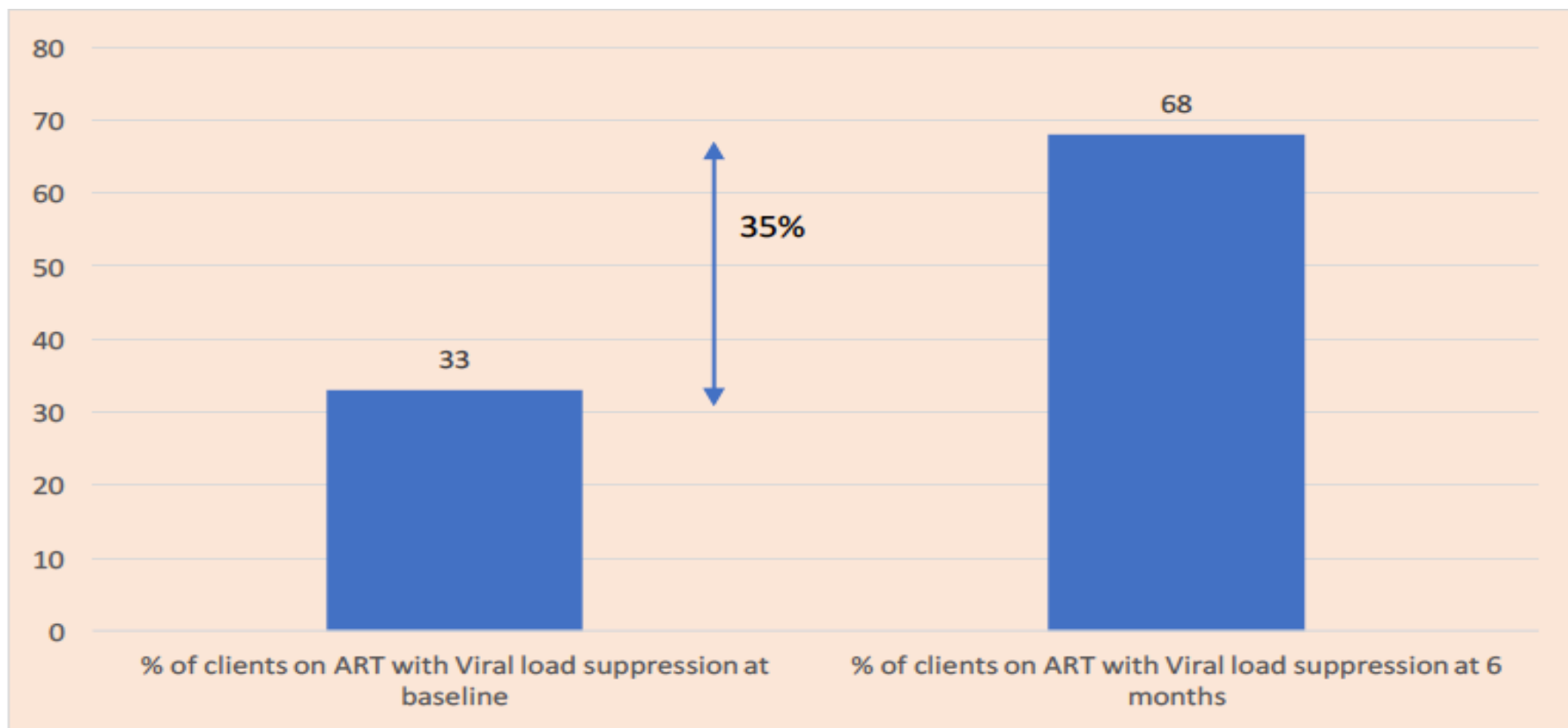
- Using the e-surveillance platform (an application loaded on the smartphones) Individual client' data (name, age, contacts, date of enrolment, ART start date, next appointment) is entered at enrolment by a surveillance officer.
- This data is relayed to a central database located at the ICOBI.
- The e-surveillance system automatically generates a unique ID
- Before 3 days to the next appointments, the system automatically generates and sends SMS reminders to clients.
- On a daily basis, the system generates a list of expected clients with appointments and sends it to surveillance officer to facilitate intra-facility linkages.
- After 7 days of missed appointments, the system sends a list of lost to follow up clients to Surveillance Officer for tracking and targeted follow-up.

# Methods cont'

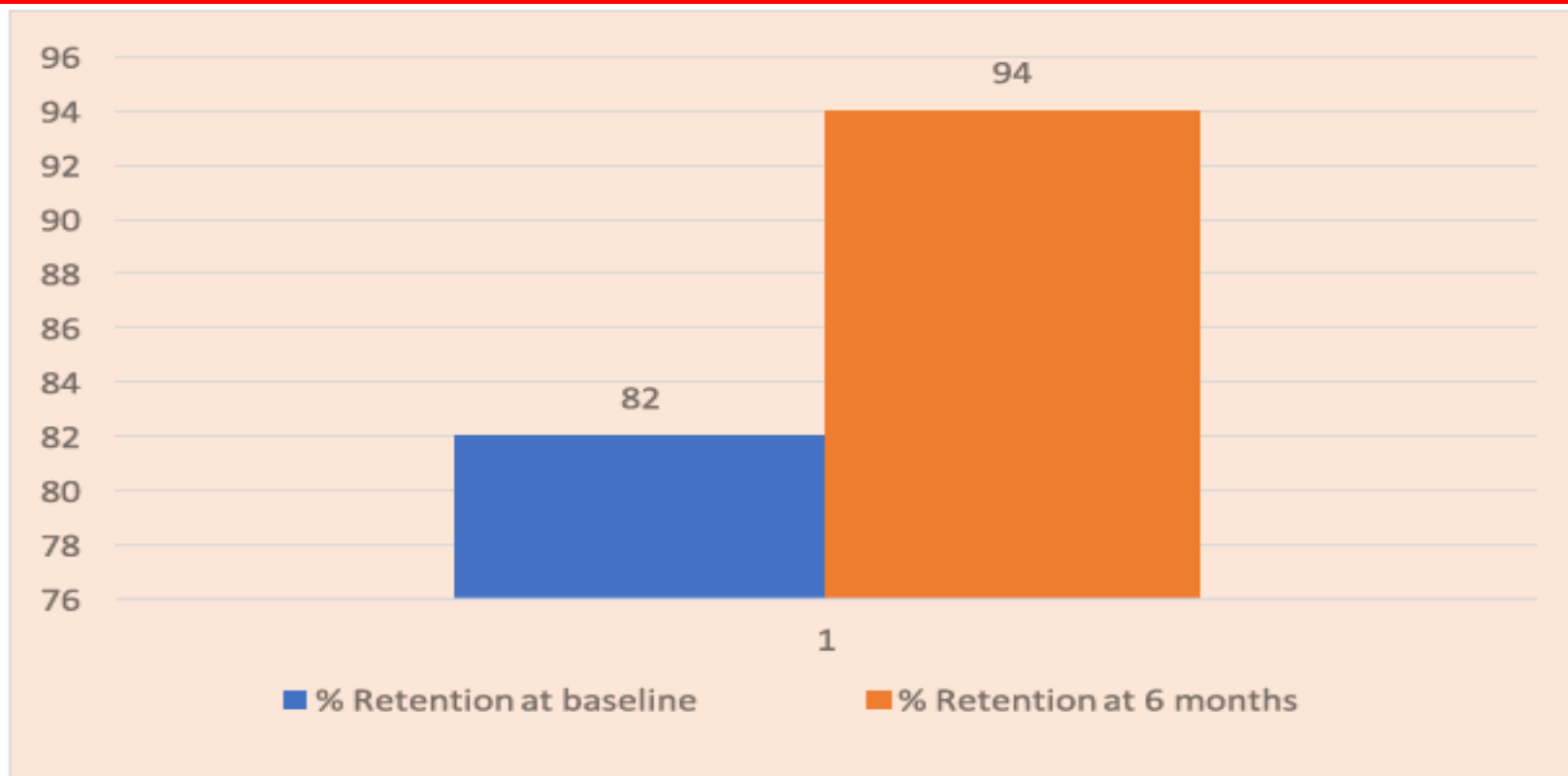
## ICOBI HIV/TB Case Based e-Surveillance Framework



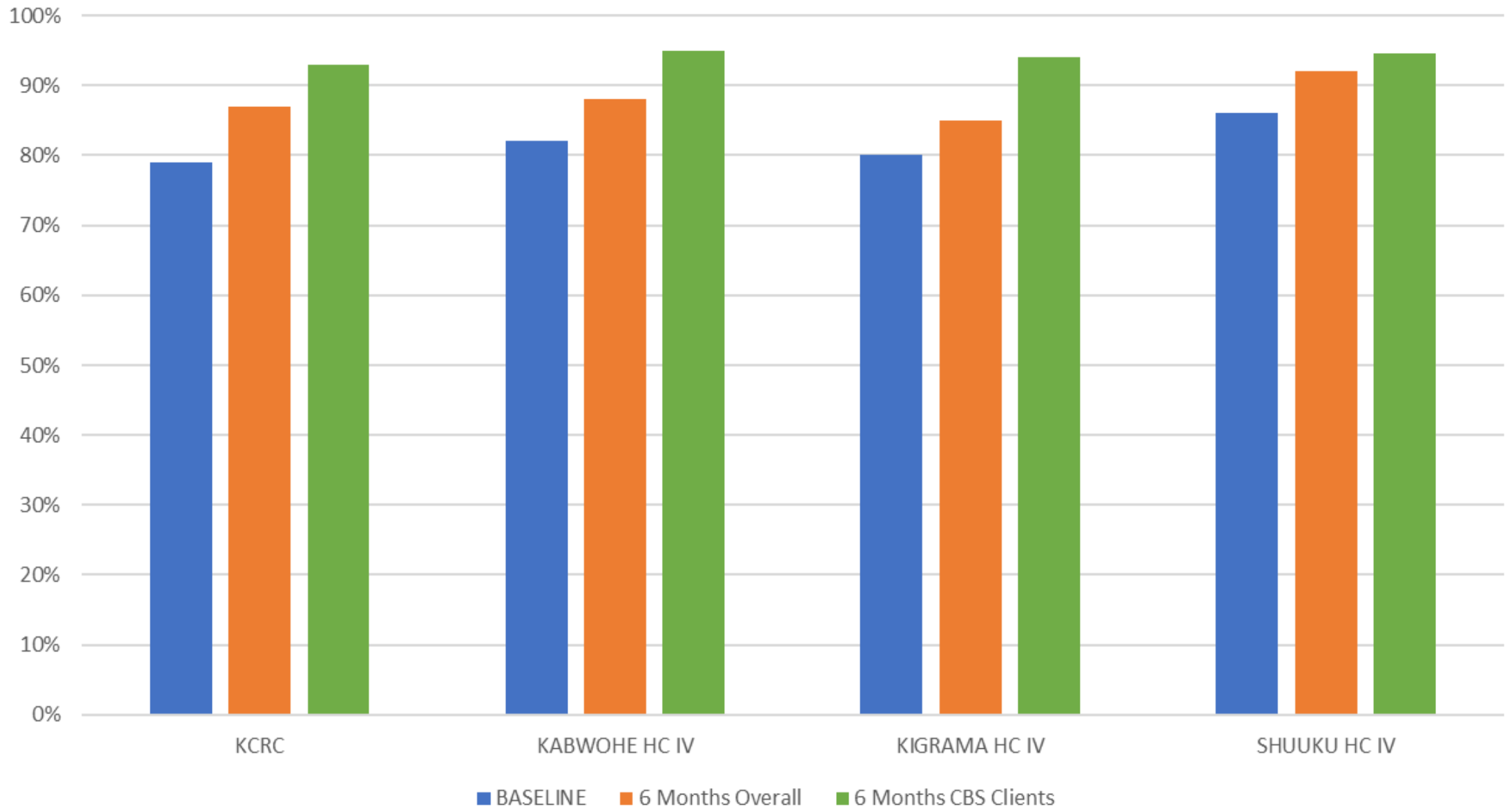
# Results (1): Viral Load Suppression



## Results (2): Retention in care



# RETENTION ACROSS HEALTH FACILITIES SHEEMA DISTRICT





# Results:

- 8 out of 14 TB clients have documented good treatment outcomes (Cured and treatment completed). Only 2 clients (14%) lost to follow up.
- By December 2017, 28 of the 47 clients enrolled on the e-surveillance systems with missed appointments were tracked and returned to care with.



# Lessons learnt

- The HIV/TB case-based e-surveillance system enables reporting on individual patient data for proper linkage and management of HIV and TB clients.
- The e-surveillance system allows for real time data transmission ensuring that case based events are reported as they occur and follow up is done timely.
- The results of this project demonstrate that the use of auto-generated e-surveillance system SMS reminders reduce the rate of missed appointments at facilities.
- However, e-surveillance system SMS reminders rely on good mobile network and availability of internet.

# Acknowledgement

- Infectious Diseases Institute (IDI)
- Ugandan Academy for Health Innovation and Impact
- District Local Governments of Sheema and Rubirizi