



## BIKERS FOR HEALTH AND SMS PRINTERS; INNOVATIVE APPROACHES IMPLEMENTED TO IMPROVE EARLY INFANT DIAGNOSIS (EID) SERVICES IN THE SOUTH WEST REGION

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### INTRODUCTION:

- Rapid and accurate EID of HIV facilitates effective treatment and follow-up.
- In Cameroon, EID services were limited due to; few sites covered, insufficient number of testing labs , increased turnaround time (TAT), poor documentation and tracking of samples and results.
- This resulted to low EID uptake and coverage delaying access to treatment for HIV infected infants.
- CBC Health Services (CBCHS) has been supporting the Prevention of Mother- to-Child Transmission/Early Infant Diagnosis (PMTCT/EID) programs in about 229 facilities in the SWR from 2011 till date.
- The 2012, NACC report indicated that the 18 months MTCT rate was 25%, outlining the need to expand EID capacities to identify all PMTCT failure cases for early ART initiation.
- CBCHS and partners, with funds from CDC/PEPFAR, employed innovative strategies to enhance EID services in the SW region of Cameroon.
- The aim was to evaluate the innovative strategies put in place by CBCHS to improve EID services.

### METHODOLOGY:

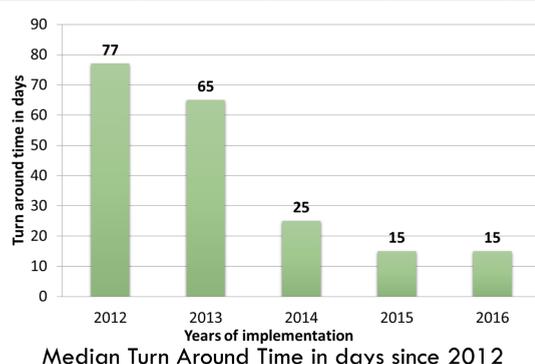
- Training was provided by CBCHS/CDC/CHAI to Health personnel from the 18 health districts.
- This centered on identifying HIV Exposed Infants (HEIs), sample collection, drying, packaging and shipment according to national guidelines.
- Bikers for health (BFH) were engaged in all districts to transport samples from sites to the districts for onward transmission to the reference Lab.
- Results were sent electronically as short messages to the SMS printers stationed in the districts alongside a message to the mothers/caretaker's informing them of the availability of their results at the health facilities.
- Later on in 2015 the Reference Laboratory was renovated and equipped with an automated platform for better performance.
- The regional EID focal point & field coordinators coordinated the activities, supervised the bikers and provided technical assistance (TA) to health facilities.
- Monthly review of EID results enabled the identification of HIV positive infants not yet on ART and ensured that they were enrolled into care and treatment.

### Results

The proportion of children tested positive in the NEID dropped from 8.3% in 2013 to 5.1 in 2016, Median TAT dropped from 77 days in 2012 to 15 in 2016 and the number of children initiated on ART increased from 67.7% in 2014 to 70.3%. These and other results are shown in the table and graph below.

#### PCR1 Testing, Turn around time and linkage to care

SN	INDICATOR	2012	2013	2014	2015	2016
1	Sample tested for PCR1	1,072	1,647	1,802	1,520	1,445
2	Tested positive at 6 weeks	75 (6.9%)	137 (8.3%)	124 (6.9%)	87 (5.7%)	74 (5.1%)
3	Median TAT	77	65	25	15	15
4	ART initiation	NA	NA	84 (67.7%)	56 (64.4%)	52 (70.3%)



### BRIEF DESCRIPTION OF THE BIKERS FOR HEALTH SYSTEM AND SMS PRINTERS

- Each district employed bikers with skills specific for the position.
- Selected bikers were then trained to transport samples and results to and from sites. They also were to transport commodities, request forms, monthly reports, mails and blood samples for CD4 testing.
- They transported samples to the lab weekly and took results from the lab back to the sites as soon as they were available.
- They recorded every trip in a logbook and their activities reviewed monthly by field coordinators.
- They meet quarterly for an activity review meeting during which strategies were developed to fill any gaps identified.
- Printed SMS results were taken to the health facility by the BFH, while waiting for hard copies of the results to be forwarded to the sites from the lab.



### Results Cont.

- There was a major decrease in TAT when comparing the TAT observed in 2012 (when bikers' initiative started) to when it was fully functional in 2014.
- Major increase in the number of EID functional sites (229) covering all 18 districts.
- CDC Mutengene reference laboratory was fully renovated, staffed, equipped with automated platforms and obtained full accreditation in 2016 from SANAS.
- There was an increase in the enrolment of infected infants into HIV care and treatment
- BFH succeeded in streamlining the transport of samples and the report of PCR results to patient.
- BFH removed transport task from nurses and midwives, which allowed for more staff time to patients.
- Proper selection, training, deployment, supervision and regular motivation of BFH proved to be successful in reducing TAT of samples and results from health facilities to and from the testing laboratory



### CHALLENGES

- Regular change of address by mothers and drop out along the PMTCT cascade made follow up and final HIV status at 18 months challenging.
- Stock out of reagents and other laboratory consumables.
- Regular break down of some motor bikes due to poor road condition during the raining season
- Poor documentation and poor quality samples due to transfer of trained staff

### Way forward

- Continue to follow up and document the outcome of all the children tested.
- Regular check and shelf count of reagents and early ordering.
- Regular maintenance of roads and tarring.
- Regular onsite training and mentoring.

**CONCLUSION:** The rapid scale up of EID services to improve access and linkage of infected children to care and treatment services, are some of the many achievements of the HIV free SW project. The BFH system has been effective in transporting samples, results, and other items together with the SMS printers to reduce the TAT. The use of Bikers for Sample Transport and SMS printer has already been replicated in the Northwest, Littoral and Center regions with similar results. This is cheap, effective and worth replicating in the whole country.