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 in 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/caretakers 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 NBD 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:

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Sample tested for PCR1</td>
<td>1,072</td>
<td>1,647</td>
<td>1,800</td>
<td>1,530</td>
<td>1,444</td>
</tr>
<tr>
<td>Tested positive at 6 weeks</td>
<td>73 (6.9%)</td>
<td>137 (8.3%)</td>
<td>124 (6.9%)</td>
<td>87 (5.7%)</td>
<td>74 (5.1%)</td>
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<tr>
<td>Median TAT</td>
<td>77</td>
<td>65</td>
<td>25</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>ART Initiation</td>
<td>NA</td>
<td>NA</td>
<td>84 (67.7%)</td>
<td>56 (64.1%)</td>
<td>52 (70.3%)</td>
</tr>
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</table>

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.