



National Center for HIV/AIDS Dermatology and STD

Quarterly report on the point of care for HIV viral load for pregnant and breastfeeding women and exposed infants using GeneXpert.

Quarter 4, 2025

1. Executive Summary

This report presents a comprehensive overview of the Point-of-Care Prevention of Mother-to-Child Transmission (POC-PMTCT) program's Early Infant Diagnosis (EID) and Viral Load (VL) Diagnostics activities for Quarter 4 (Q4) of 2025, covering the period from October 1, 2025, to December 31, 2025. Key performance indicators, including testing volumes, positivity rates, and turnaround times, are detailed, alongside a breakdown of results by testing line and site.

2. Early Infant Diagnosis (EID) Diagnostics

2.1. Overall Performance

- **Total Number of Tests:** 52 tests conducted.
- **Total Number of Unique Infants Tested:** 50 infants.
- **Positive Infants Identified:** 0.
- **Positivity Rate:** 0.00% of total tests.
- **Average Turnaround Time (TAT) for EID:** 06 Hours and 55 Minutes.

2.2. EID Results by Test Outcome

Result	Total of Test	Percentage (%)
Positive	0	0.00%
Negative	49	94.23%
Invalid	3	5.76%
Total	52	100.00%

Note: Invalid includes invalid, error, and no result.

2.3. Number of Infants by Result

Result	Total of Test	Percentage (%)
Positive	0	0.00%
Negative	48	96.08%
Invalid	2	3.92%
Total	50	100.00%

Note: Count unique patient ID by result.

2.4. EID Testing in Line Analysis

This section details the distribution of EID tests across different testing lines.

EID Testing Line	Number of Tests	Percentage (%)	Infants Tested (Unique ID)
PCR at birth	28	53.85	28
PCR at 4-6 weeks	12	23.08	12
PCR at 9 months	12	23.08	12
Confirmatory PCR	0	0.00	0
Other	0	0.00	0
Total	52	100.00	52

Note: Infants Tested (Unique ID) counts unique patient IDs at each testing line. Sum of unique IDs can exceed total infants due to multiple tests per infant.

2.5. EID Results by Testing Line (Positive, Negative, Invalid)

Testing in Line	Positive	Negative	Invalid
PCR at birth	0	26	2
PCR at 4-6 weeks	0	12	0
PCR at 9 months	0	11	1
Confirmatory PCR	0	0	0
Other	0	0	0

2.6. EID Testing by Site

A total of 52 EID tests were conducted across various sites:

Nº	Provincial/Referral Hospital Name	Number of Tests
1	Ang Rokar Referral Hospital	0
2	Cambodia-Japan Friendship Mongkul Borey Provincial Hospital	6
3	Kampong Cham Provincial Hospital	8
4	Kampong Speu Provincial Hospital	4
5	Kampong Trach Referral Hospital	6
6	Pailin Provincial Hospital	4
7	Poipet Referral Hospital	0
8	Preah Sihanouk Provincial Hospital	11
9	Rattanakiri Provincial Hospital	0
10	Sampov Loun Referral Hospital	3
11	Serey Sophorn Referral Hospital	2
12	Siem Reap Provincial Hospital	1
13	Stung Treng Provincial Hospital	2
14	Preah Norodom Sihanouk Tbong Khmum Referral Hospital	2
15	Thmor Kul Referral Hospital	3

2.7. EID Testing Trend (Q4 2025)

Month	Test Count
October 2025	19
November 2025	17
December 2025	16
Total of tests for Q4 2025	52

3. Viral Load (VL) Diagnostics

3.1. Overall Performance

- **Total Number of Tests:** 11 tests conducted.
- **Total Number of Pregnancy/Breastfeeding Tests:** 11.
- **Detected Pregnancy/Breastfeeding Cases:** 4.
- **Positivity Rate:** 36.36%.
- **Average Turnaround Time (TAT) for Pregnancy/Breastfeeding-VL:** 06 Hours and 33 Minutes.

3.2. Mother Testing by Result

Result	Number of Tests	Percentage (%)
VL: Detected ≥ 1000 copies/mL	2	18.18%
VL: Detected ≥ 40 – 999 copies/mL	2	18.18%
VL: Undetected <40 copies/mL	7	63.63%
Total	11	100.00%

Note: Invalid includes invalid, error, and no result.

3.3. Reason for Testing

Reason	Number of Test	Percentage (%)
Pregnancy	9	81.82%
Breastfeeding	2	18.18%
Total	11	100.00%

3.4. Number of Mother Testing by Site

A total of 11 VL tests were conducted for mothers across the following sites:

Nº	Provincial/Referral Hospital Name	Number of Tests
1	Ang Rokar Referral Hospital	0
2	Cambodia-Japan Friendship Mongkul Borey Provincial Hospital	0
3	Kampong Cham Provincial Hospital	9
4	Kampong Speu Provincial Hospital	0
5	Kampong Trach Referral Hospital	0

6	Pailin Provincial Hospital	0
7	Poipet Referral Hospital	0
8	Preah Sihanouk Provincial Hospital	0
9	Rattanakiri Provincial Hospital	0
10	Sampov Loun Referral Hospital	0
11	Serey Sophorn Referral Hospital	0
12	Siem Reap Provincial Hospital	0
13	Stung Treng Provincial Hospital	0
14	Preah Norodom Sihanouk Tbong Khmum Referral Hospital	0
15	Thmor Kul Referral Hospital	2

4. Conclusion

In Q4 2025, the POC-PMTCT program demonstrated excellent performance with **zero HIV-positive infants** identified across 50 unique cases and an average **turnaround time of less than 7 hours** for all diagnostic lines. While infant outcomes were optimal, a **36.36% viral detection rate among mothers** highlights a priority area for ongoing clinical management. These results validate the efficiency of the GeneXpert point-of-care platform in providing rapid diagnostics to support the goal of eliminating mother-to-child HIV transmission.

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Seen and Approved
NCHADS Director

Checked by

Verified by

Prepared by

Assist. Prof. Ouk Vichea

Dr. Kim Bunna
Head of Technical Bureau

Dr. Kaoeun Chetra
Deputy Head of Technical Bureau

Mr. LY Sokny
B-IACM Officer