



National Center for HIV/AIDS Dermatology and STD

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

Annual Report 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 Annual Report of 2025, covering the period from January 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:** 132 tests conducted.
- Total Number of Unique Infants Tested:** 105 infants.
- Positive Infants Identified:** 1.
- Positivity Rate:** 0.75% of total tests.
- Average Turnaround Time (TAT) for EID:** 08 Hours and 13 Minutes.

2.2. EID Results by Test Outcome

Result	Total of Test	Percentage (%)
Positive	1	0.75%
Negative	113	85.60%
Invalid	18	13.63%
Total	132	100.00%

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

2.3. Number of Infants by Result

Result	Total of Test	Percentage (%)
Positive	1	0.95%
Negative	98	93.33%
Invalid	6	5.71%
Total	105	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	75	56.82	67
PCR at 4-6 weeks	31	23.48	25
PCR at 9 months	24	18.18	24
Confirmatory PCR	0	0.00	0
Other	2	1.52	2
Total	132	100.00	118

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	1	63	11
PCR at 4-6 weeks	0	25	6
PCR at 9 months	0	23	1
Confirmatory PCR	0	0	0
Other	0	2	0

2.6. EID Testing by Site

A total of 132 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	9
3	Kampong Cham Provincial Hospital	18
4	Kampong Speu Provincial Hospital	14
5	Kampong Trach Referral Hospital	13
6	Pailin Provincial Hospital	15
7	Poipet Referral Hospital	11
8	Preah Sihanouk Provincial Hospital	15
9	Rattanakiri Provincial Hospital	0
10	Sampov Loun Referral Hospital	7
11	Serey Sophorn Referral Hospital	4
12	Siem Reap Provincial Hospital	7
13	Stung Treng Provincial Hospital	8
14	Preah Norodom Sihanouk Tbong Khmum Referral Hospital	5
15	Thmor Kul Referral Hospital	6

2.7. EID Testing Trend (2025)

Month	Test Count
January	3
February	6
March	6
April	0
May	0
June	7
July	14
August	20
September	24
October	19
November	17
December 2025	16
Total of tests for 2025	132

3. Viral Load (VL) Diagnostics

3.1. Overall Performance

- **Total Number of Tests:** 46 tests conducted.
- **Total Number of Pregnancy/Breastfeeding Tests:** 44.
- **Detected Pregnancy/Breastfeeding Cases:** 17.
- **Positivity Rate:** 36.95%.
- **Average Turnaround Time (TAT) for Pregnancy/Breastfeeding-VL:** 05 Hours and 00 Minutes.

3.2. Mother Testing by Result

Result	Number of Tests	Percentage (%)
VL: Detected \geq 1000 copies/mL	11	23.91%
VL: Detected \geq 40 – 999 copies/mL	6	13.04%
VL: Undetected <40 copies/mL	28	60.86%
VL: Invalid	1	2.17%
Total	46	100.00%

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

3.3. Reason for Testing

Reason	Number of Test	Percentage (%)
Pregnancy	35	79.55%
Breastfeeding	9	20.45%
Total	44	100.00%

3.4. Number of Mother Testing by Site

A total of 46 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	21
4	Kampong Speu Provincial Hospital	0
5	Kampong Trach Referral Hospital	4
6	Pailin Provincial Hospital	0
7	Poipet Referral Hospital	5
8	Preah Sihanouk Provincial Hospital	0
9	Rattanakiri Provincial Hospital	0
10	Sampov Loun Referral Hospital	0
11	Serey Sophorn Referral Hospital	1
12	Siem Reap Provincial Hospital	0
13	Stung Treng Provincial Hospital	1
14	Preah Norodom Sihanouk Tbong Khmum Referral Hospital	0
15	Thmor Kul Referral Hospital	14

4. Conclusion

In summary, the 2025 performance data confirms that the POC-PMTCT program remains a cornerstone of the national HIV response. The successful decentralization of testing has maintained impressive turnaround times, **averaging 08:13 for EID and 05:00 for VL**, allowing for faster clinical decision-making.

However, the data reveals critical areas for improvement. A significant volume of **EID tests (13.6%) resulted in "Invalid/Error" outcomes**, indicating a need for enhanced quality control and technical training. Furthermore, testing remains concentrated in specific locations like **Kampong Cham** and **Thmor Kul**, while other referral hospitals reported zero tests. In 2026, the program will focus on increasing uptake at underutilized sites and providing targeted technical support to minimize wasted resources from invalid results. By addressing these gaps, the program will continue to lead the national strategy toward the total elimination of mother-to-child HIV transmission.

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