Supporting Triple Elimination in Papua New Guinea and Timor Leste (STEPT)

Midterm Review, July 2025

Australian Aid

Maluk Timor
Advancing quality healthcare together

Catholic Church Health Services
Papua New Guinea
Care & Compassion

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Acknowledgment of Country

ASHM acknowledges the Traditional Owners of Country across the various lands on which our staff live and work. We recognise Aboriginal and Torres Strait Islander peoples' continuing connection to land, water, and community and we pay our respects to Elders past and present. ASHM acknowledges Sovereignty in this country has never been ceded. It always was, and always will be, Aboriginal land.

Funding acknowledgement

The Supporting Triple Elimination in Papua New Guinea and Timor Leste (STEPT) project is support by the Australian Government through the Australian NGO Cooperation Program (ANCP) and ASHM members.

Acronyms

ANC	Antenatal Care
CCHS	Catholic Church Health Services
CHC	Community Health Clinic
EID	Early Infant Diagnosis
GEDSI	Gender Equity, Disability and Social Inclusion
MoH	Ministry of Health (Timor-Leste)
NDoH	National Department of Health (PNG)
PHA	Provincial Health Authority
PNG	Papua New Guinea
STEPT	Supporting Triple Elimination in PNG and Timor-Leste
EMTCT	Elimination of Mother to Child Transmission of HIV, Syphilis and Hepatitis B

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Executive Summary

Brief overview of the STEPT project

The Supporting Triple Elimination in Papua New Guinea and Timor-Leste (STEPT) program aims to reduce mother-to-child transmission of HIV, hepatitis B, and syphilis by strengthening sub-national and facility-level health systems. The program supports the delivery of person-centred, integrated, and sustainable Elimination of Mother to Child Transmission of HIV, Syphilis and Hepatitis B (EMTCT) services through locally led approaches in both countries.

In Timor-Leste, the project focuses on developing a centre of excellence at a high case load health facility in Dili, where systems have been established to support the integration of EMTCT services into routine antenatal care (ANC). Clinical capacity building and the coordination and review of EMTCT training materials are led by ASHM in partnership with the local implementing partner, Maluk Timor.

In Papua New Guinea (PNG), the project operates at the provincial level in Milne Bay, working with the Provincial Health Authority, hospitals, and government and church-run clinics to improve access to EMTCT1 services by strengthening clinical capacity and service delivery, reporting, and procurement systems. Implementation is led by ASHM's partner, the Catholic Church Health Service (Milne Bay Diocese), in collaboration with the National Department of Health (NDoH).

Purpose and scope of the midterm review

The midterm review was undertaken to provide a structured reflection on the progress of the STEPT program at its halfway point. The review offers a snapshot of how the project is tracking against its objectives, highlighting what is working well and identifying areas for improvement, examining impact where possible. The findings are intended to inform adaptive implementation in the second half of the program and ensure continued alignment with national priorities and EMTCT goals.

Guided by the OECD-DAC evaluation criteria the review focused on three core questions:

- Relevance, does the project continue to align with national and international priorities?
- Effectiveness, is the project making progress towards its outcomes?
- Sustainability, will the progress being made, last?

[1] *In PNG this is often referred to as Parent to Child Transmission of HIV, Syphilis and Hepatitis B (PPTCT).*

A mixed-methods approach was used, combining desk-based analysis of key project documents and data with in-country consultations in Timor-Leste and PNG during May and June 2025. Semi-structured interviews and group discussions were conducted with over 50 stakeholders across both countries, including frontline health workers, government officials, civil society organisations, and implementing partners. A participatory and iterative process was used to ensure that findings were grounded in local experience and informed by diverse perspectives.

Summary of key findings

Relevance

The STEPT program remains relevant to national health priorities in both PNG and Timor-Leste. It was co-designed with national stakeholders and continues to align with emerging national EMTCT strategies. Stakeholders across both contexts emphasised the program's timeliness and importance. However, the absence of consistent inclusion of infant monitoring and hepatitis B testing and treating in both settings leaves room for further alignment with regional and international guidelines.

Effectiveness

The program has made solid progress in key areas such as capacity-building for midwives, improving HIV and syphilis testing and treatment in ANC settings and increasing Hepatitis B birth dose vaccination rates. Early successes include new testing and treatment pathways, improved confidence among health staff and the establishment or strengthening of EMTCT data collection and reporting. However, these gains are subject to ongoing implementation challenges and several barriers to access which are beyond the influence of the project. Key areas requiring continued focus include strengthening ownership of the project at some levels of local partner and health facility leadership, addressing persistent data systems and reporting challenges, and ensuring that Gender Equity, Disability and Social Inclusion (GEDSI) is not limited to one activity but meaningfully embedded across all components of the program to support equitable and sustainable outcomes.

Sustainability

The project's intention to work within existing health systems rather than create parallel structures is a positive foundation for sustainability. Efforts to localise training, strengthen sub-national leadership, and support midwife-led testing (or other health workers conducting ANC activities) and treatment have created momentum. Some challenges remain which might impede sustainability including health workforce gaps and reliance on external technical support. In Timor-Leste, the absence of dedicated MoH staff and uneven national buy-in constrain integration into routine services. In PNG fragmented coordination including of data collection and reporting undermines sustained program success. Strengthening local

leadership, systems, and cross-sector engagement will be essential to long-term sustainability.

Key recommendations

The review identified a range of recommendations aimed at strengthening sustainability, improving service delivery, and supporting program scale-up. At the country levels these include enhancing national and facility-level data systems to enable timely and appropriate procurement of commodities and understand the country situation and project impact, ensuring training participants feel sufficiently empowered to prescribe ART following training, and deepening partnerships with key stakeholders, particularly government, civil society, and representative groups. Emphasis was placed on improving GEDSI, reducing loss to follow-up, and supporting midwife-led ownership of EMTCT services. At the program level, recommendations focus on formally integrating exposed infant follow-up, strengthening peer worker involvement, enhancing training quality and delivery, and promoting cross-country learning. A full list of country-specific and program-wide recommendations is included in Section 4.

1. Introduction

Background on the STEPT Program

The Supporting Triple Elimination in PNG and Timor-Leste (STEPT) program aims to reduce mother-to-child transmission of HIV, Hepatitis B, and Syphilis in PNG and Timor-Leste. The project is designed to strengthen sub national and facility level health systems to test and treat for HIV and syphilis at the point of care for pregnant women attending ANC services, and to ensure delivery of hepatitis B birth dose to all infants. The program supports partner governments and service providers to deliver person-centred and integrated EMTCT services that are locally led, sustainable, and inclusive.

The EMTCT contexts of PNG and Timor-Leste are different and, accordingly, project activities are different in each country. In Timor-Leste the project has focussed on developing a 'centre of excellence' at a health centre in Dili, establishing systems, coordinating the integration of services and building clinical competency to provide EMTCT services to women attending the clinic for their antenatal care. This includes developing a National EMTCT clinical training package. The project is implemented by ASHM's partner, Maluk Timor with technical inputs and program management provided by ASHM.

In PNG, ASHM worked with the National Department of Health to strengthen the national EMTCT training which was then piloted under the STEPT project in Mt Hagen. The focus is on increasing access to quality EMTCT services through strengthening health systems and processes in line with national and provincial guidelines and systems, including reporting and procurement, and increasing clinical competency for testing and treating women in ANC for HIV and syphilis and providing the hepatitis B birth dose to infants. The project is implemented by ASHM's partner, the Catholic Church Health Service (CCHS), Milne Bay Diocese, however is delivered in partnership with the PHA and the NDoH.

Annex 2 provides an overview of key project activities in each country since its inception.

Our implementing partners

Catholic Church Health Services is one of Papua New Guinea's largest non-profit health providers, with roots in the Catholic Church's century-long tradition of care. It operates more than 250 facilities across all provinces, including rural hospitals, health centres, and training institutions, serving some of the country's most remote populations. CCHS delivers services in maternal and child health, TB, HIV, nutrition, and community outreach, reaching over a million people annually. Working in long-standing partnership with the National Department of Health, it contributes directly to national health priorities and universal health coverage. Since separating from Christian Health Services in 2016, CCHS has continued to strengthen governance and service delivery, guided by its 10-year Strategic Health Plan (2021–2030).

Maluk Timor is a non-profit health organisation strengthening Timor-Leste's primary healthcare system by providing professional development to local doctors, nurses, midwives, community health workers and other health professionals. Leveraging a network of local and international clinical expertise, it supports government services with practical quality-improvement coaching, equipment and technology so frontline teams can deliver greater impact. Maluk Timor began work in 2017 and has since worked closely with the Ministry of Health to improve healthcare nationwide. Program areas include HIV care, tuberculosis, rheumatic heart disease, oral health, maternal and child health, nutrition, and health workforce development

Objectives of the midterm review

This midterm review provides a structured reflection on program progress and identifies emerging strengths and challenges. It is a deep dive into how the program is tracking against its objectives, what is working well, what course corrections or enhancements may be needed and where possible, examines the impact of the project. The aim is to inform adaptive implementation in the second half of the program and ensure alignment with national priorities and EMTCT goals.

Key evaluation questions

The midterm review has been guided by the following high-level evaluation questions relating to relevance, effectiveness and sustainability, as guided by the OECD evaluation criteria:

Q1. To what extent are project strategies and activities relevant to achieving the outcomes of the project?
Q2. To what extent is the project achieving its outcomes?
Q3. In what ways will the benefits of the STEPT project be sustained?

See Annex 1 for further detail on the key evaluation questions.

2. Methodology

This midterm review employed a mixed-methods approach combining desk-based analysis with in-country consultations to assess project progress against stated objectives and identify opportunities for strengthening and sustainability.

Desk-based Review

The review included a detailed analysis of existing documentation, including narrative reports, trip reports, and available health service delivery data. This data was reviewed against the project's monitoring, evaluation and learning indicators at each country and the overall program levels. In addition, the review examined key project materials, including the training packages used in each country to assess alignment with relevant regional EMTCT guidelines. This element of the review was conducted by an external consultant with historic knowledge of the project and technical expertise in EMTCT and health systems strengthening.

Country visits

In-country visits were conducted in both Timor-Leste and PNG over May and June 2025. During each visit, a series of semi-structured interviews and group discussions were held with key project stakeholders, including frontline health workers, implementing partners, and representatives from government and civil society. Discussions were guided by a pre-defined set of review questions shared in advance with participants to allow for reflection and preparation however discussions were not limited to these questions.

The data from interviews and group discussions was analysed to identify themes and was also used to build stories of change and case studies, showcasing different elements of the project.

The review employed a reflexive and participatory approach throughout. Preliminary findings and emerging themes were shared informally with stakeholders during interviews and meetings in order to verify and deepen understanding. This iterative process allowed for ongoing analysis and ensured that findings were grounded in the lived experience and insights of those directly involved in implementation.

Stakeholder interviews/discussions

In Timor-Leste 7 individual interviews were conducted and a further 13 stakeholders participated in group discussions. Participants included representatives from the STEPT EMTCT team, the Maluk Timor HIV/STI team, the Formosa CHC midwives, Maluk Timor staff, Estrela+, RHTO and the Ministry of Health (MoH).

In PNG 10 individual interviews were conducted (some of these were conducted remotely) and a further 29 stakeholders participated in group discussions. Participants included CCHS project implementing staff, PHA clinicians including senior staff and Hagu Clinic staff, Milne Bay Public Health team (Disease Control, Family Health, Health Promotion), health facility staff, as well as representatives from UNAIDs, WHO and the NDoH.

Limitations of the review

- Travel disruptions affected the original schedule of in-country visits, leading to the cancellation or rescheduling of some key meetings and, in a few cases, the replacement of in-person sessions with online discussions.
- Limited availability of some key stakeholders, including senior leadership from partner organisations and government agencies, meant that certain perspectives, particularly on future planning and sustainability, may not be fully captured.
- Informal, ongoing feedback processes were used in place of structured in-country validation workshops, due to time and logistical constraints. While this allowed for reflection on emerging findings, it may not have achieved full consensus or cross-stakeholder validation.
- Cross-country scope of the review provided valuable comparative insight but may have resulted in the loss of some country-specific detail or nuance, especially in areas where context and implementation models diverged.
- Timing of the review, just past the midpoint of implementation, means that some systems-strengthening efforts and outcome indicators may not yet show their full effects, making it difficult to assess longer-term change or sustainability. These however will be the focus of the end of project evaluation.

3. Findings and Analysis

3.1 Relevance: To what extent are project strategies and activities relevant to achieving the outcomes of the project?

Alignment with national and international strategies

The STEPT project was initially co-designed with government and implementing partner representatives from both Timor-Leste and PNG. During the midterm review, stakeholders who had been involved in this early co-design process reflected positively on it, noting its collaborative nature and its critical role in ensuring that the project was aligned with both national health priorities and regional EMTCT strategies.

Since inception, the project has prioritised engagement with key government stakeholders to maintain alignment with national strategies and evolving policy priorities. In PNG, while the national EMTCT strategy has been delayed in its release, government officials consulted during the midterm review confirmed that the STEPT project aligns well with the strategic direction and priorities outlined in the draft EMTCT framework.

One of the gaps identified in both countries, however, is the limited integration of long-term infant monitoring within the project. While prophylaxis for HIV and syphilis-exposed infants was already included in the project scope, stakeholders across both Timor-Leste and PNG emphasised the need to ensure that national guidance on ongoing infant testing and follow-up, up to the point of confirmed HIV-free status, is formally incorporated into project activities moving forward.

More broadly, the STEPT project is not currently implementing any hepatitis B testing or treating, beyond the birth dose in infants. Whilst this is included in regional guidelines there are challenges in both countries with limited, to no testing, treatment and monitoring options and no established national protocols for the management of hepatitis B in pregnancy. With additional funding the project scope could include advocacy and education for a greater focus on hepatitis B in both countries, one such example is through a fellowship program for senior government personnel to attend the annual Australasian Viral Hepatitis Conference and regional EMTCT workshops.

Alignment of training packages with regional frameworks

Training health workers in delivering EMTCT services is a key element of the STEPT project. Project activities in both countries have included developing new, or strengthening existing training packages. The training package for PNG was assessed to identify strengths and gaps in alignment with two key regional documents:

- Regional framework for the EMTCT of HIV, Hepatitis B and Syphilis in Asia and the Pacific 2018-2030[2]
- Regional Roadmap for the EMTCT of HIV, Syphilis and Hepatitis B in the Asia and Pacific Region for 2024-2030[3]

At the time of the review, the training package for Timor-Leste was still in the process of being developed and has therefore not been included in this analysis.

This element of the midterm review was conducted by an external consultant and the full report is attached (Annex 5). The below table, from the report, shows the key ways the training package is aligned with the Regional Frameworks and where there are gaps. The report provides additional detail including specific strengths and recommendations for further improvement. The limitations of this assessment are acknowledged in the report.

Regional Framework Pillars	STEPT Alignment
	Papua New Guinea
Pillar 1: Policy *Coordinated national policy and strategy*	• Training adapted from PNG EMTCT training manual • National Policy & Guidelines as first module, introduces how EMTCT is positioned within national strategies including NHP 2021-2030 and the National EMTCT Framework & Operational Plan 2021-2025 (requires update to National Triple Elimination Strategy Framework 2024-2028) • Training aligned with national guidelines on HIV point-of-care testing, syphilis testing and treatment in pregnancy and HBV vaccination of newborn • Knowledge checks throughout training request prompt participants to consider national strategies and guidelines.

[2] *WHO. (2018). Regional framework for the triple elimination of mother-to-child transmission of HIV, hepatitis B and syphilis in Asia and the Pacific, 2018-2030.*

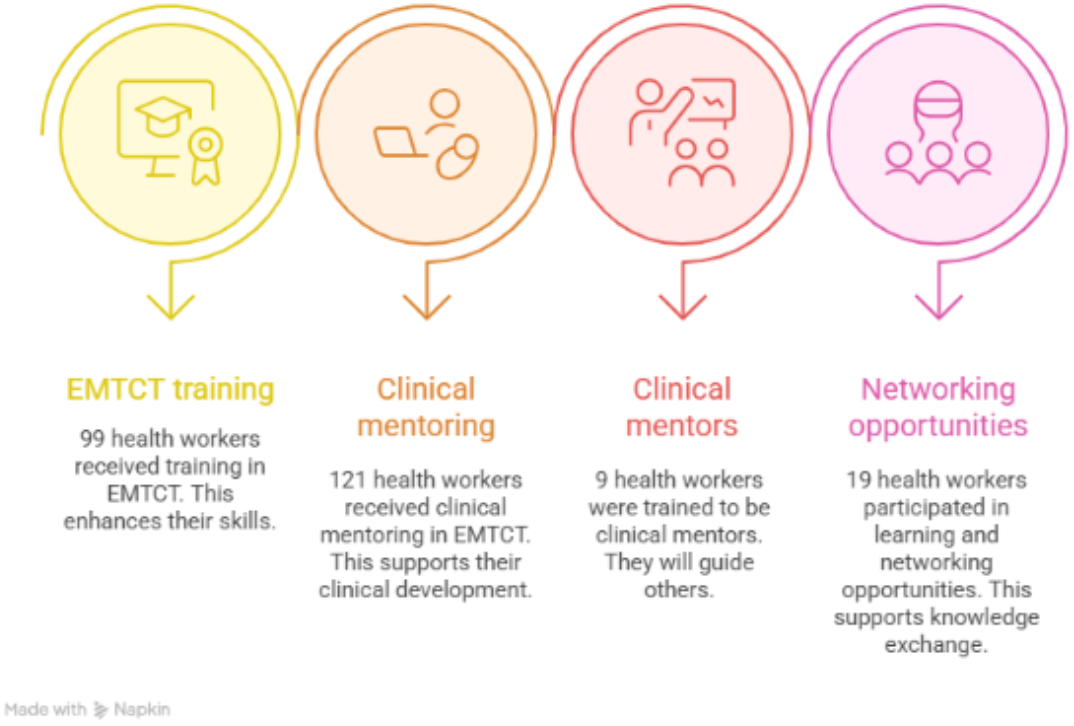
[3] *NICEF, WHO, UNAIDS & Nossal Institute for Global Health. (2025). Regional Roadmap for Elimination of Mother-to-Child Transmission of HIV, Syphilis and Hepatitis B in the Asia and Pacific Region for 2024–2030.*

Pillar 2: Service Delivery *Seamless quality care for women, newborns, children and their families*	• Detailed modules providing overview of HIV, Syphilis and HBV in adults and children leading to general and antenatal management for triple elimination • Regular reference to relevant national clinical guidelines and strategies • Clinical case studies throughout workbook to encourage applied knowledge • Module on Person-Centred Care & Communication and evidence of consideration of individual including privacy throughout training modules • Good inclusion of safety and supportive care in the work environment including universal precautions and management of occupational exposure • Inclusion of comprehensive module on stigma and discrimination but training could be more overt in discussion of barriers to perinatal services for key and priority populations (1 case study based on female sex worker) • Training timetable includes 2 sessions for disability overview, however, content for these is not included in the Participant Workbook.
Pillar 3: Monitoring & Evaluation *Coordinated monitoring and evaluation of elimination*	• Reference throughout relevant modules to documenting results, including roles and responsibilities for surveillance and NHIS reporting within different perinatal settings (ANC, labour/delivery and primary care).

It was also noted in the desk evaluation that the STEPT M&E Framework aligns with the Regional Framework Programme Targets.

3.2 Effectiveness: To what extent is the project achieving its outcomes?

Progress against outcome areas



Since its inception in 2022, the program has delivered training to almost 100 health workers, facilitated regional knowledge exchange, and supported coordination and implementation of EMTCT services in a targeted facility in Timor-Leste, Formosa Community Health Clinic (CHC) and across the province of Milne Bay in PNG. Activities have included in-country clinical training, mentoring, capacity building of facilities, a regional learning exchange, development of training materials aligned with national guidelines, and partnership building with governments and local organisations.

A purpose of this midterm review is to consider how the project is tracking against its objectives. Annex 4 provides detailed numbers and, or commentary against each indicator of the project's monitoring, evaluation and learning framework. The review also identified several indicators that are not appropriate, as they are, for measuring the progress of the project. These are mainly related to indicators aiming to assess partner and facility capacity building.

These indicators do not fully reflect ASHM's collaborative, localised approach to partnership. ASHM primarily works with professional organisations that are embedded within their own regulatory and operational frameworks and therefore retains limited authority over their internal processes. Rather than imposing externally driven capacity-building frameworks, ASHM's role is to offer tailored technical assistance, facilitate opportunities for clinical training, and strengthen systems through trusted relationships. ASHM's approach is advisory rather than directive, grounded in principles of mutual respect and shared goals. Due diligence requirements are met to manage risk, identify partner organisational strengthening needs and satisfy donor accountability. ASHM prioritises responsive, needs-based support aligned to each partner's self-determined priorities. As such, traditional indicators, such as tracking the percentage of partner organisations completing specific assessments or adopting externally prescribed plans, may not meaningfully capture the value added by ASHM. These indicators should be revisited and revised to better align with ASHM's partnership model and to develop more suitable measures that reflect advisory input, co-developed solutions, and influence on systems and clinical practice.

The M&E framework was updated in 2024 to include a number of impact level indicators and the remainder of this section highlights some of the EMTCT health service delivery data collected against these indicators.

Timor-Leste

The most recent national data in Timor-Leste shows that 71% pregnant women are tested at least once for HIV during pregnancy. Testing of pregnant women *during their first ANC visit* for HIV and syphilis at Formosa Clinic has increased from 44% when a baseline was recorded in 2023 to currently sitting around 80%, as seen in Figure 1. The increase in testing can be partially attributed to the introduction of point of care testing which has been integrated into routine ANC appointments. Women attending ANC now undergo testing and receive their results within the same visit and in the same physical location, rather than having to attend the lab in a different part of the facility which often led to the disengagement of women. In addition to this, the reporting and recording of data has been strengthened which now captures antenatal testing numbers which might not have been previously recorded. Continuing to strengthen recording processes will help to further increase testing numbers as one of the current challenges is in separating out first ANC visits, from repeat visits. So, whilst there may be more testing done in first ANC visits, the data cannot always verify this. Strengthening this requires working with broader hospital documentation and reporting which takes time.

Figure 1

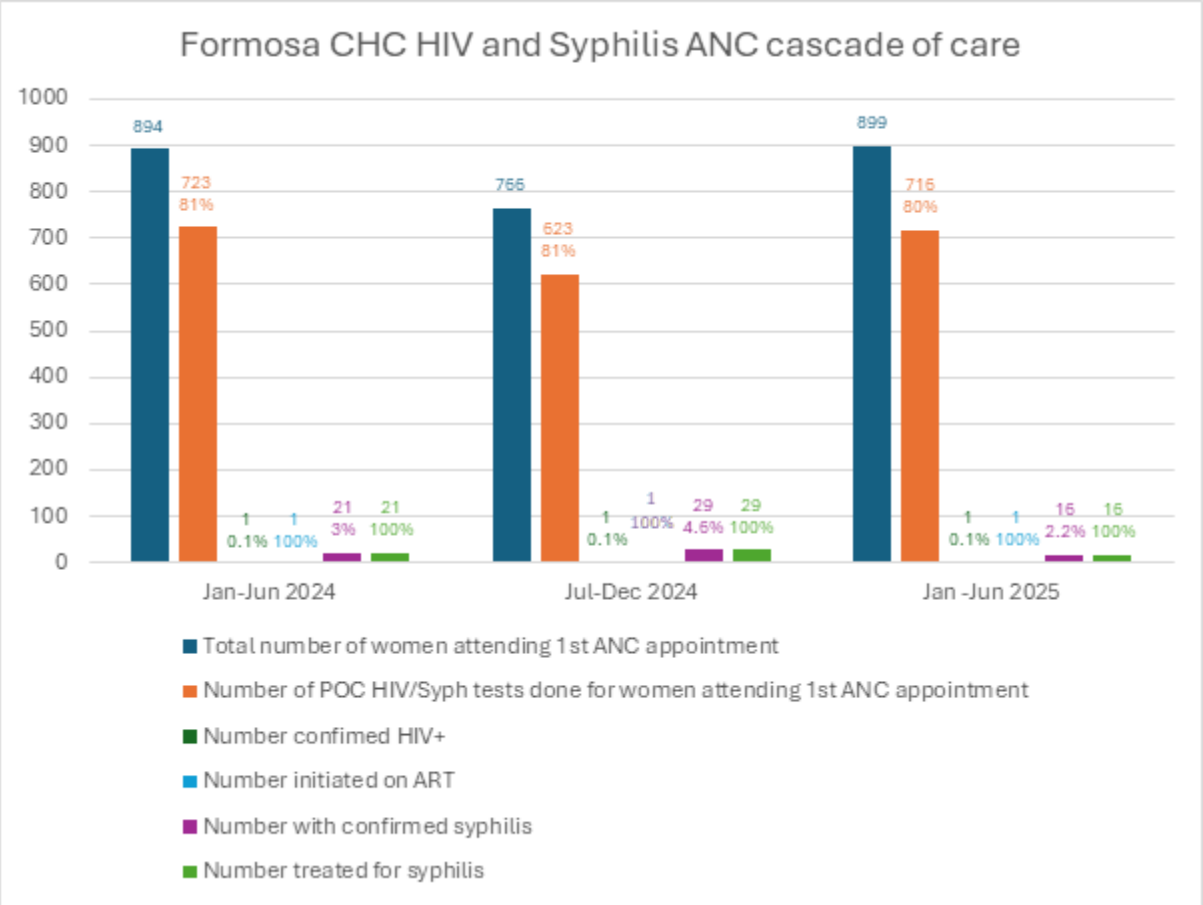
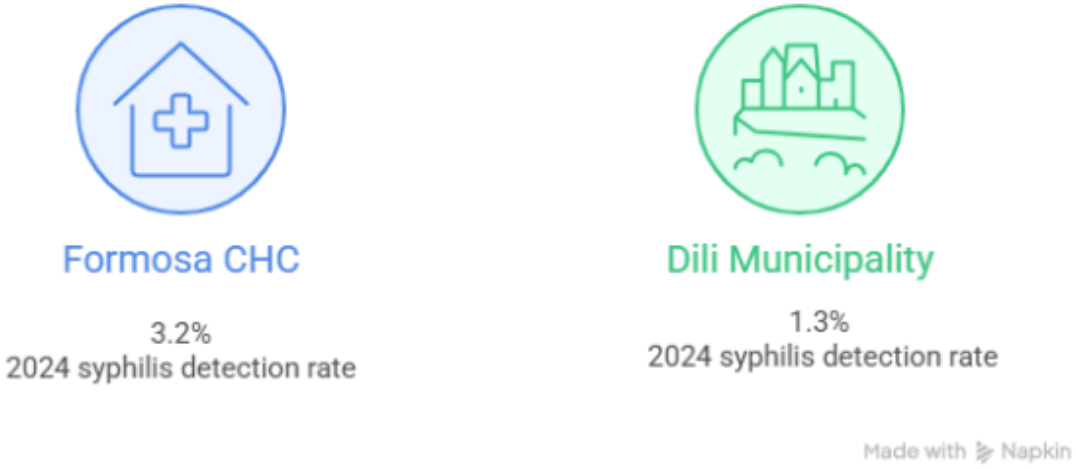

Formosa CHC HIV and Syphilis ANC cascade of care
1000
900
800
700
600
500
400
300
200
100
0
894
723
81%
1
0.1%
1
100%
21
3%
21
100%
766
623
81%
1
0.1%
1
100%
29
4.6%
29
100%
899
716
80%
1
0.1%
1
100%
16
2.2%
16
100%
Jan-Jun 2024
Jul-Dec 2024
Jan -Jun 2025
Total number of women attending 1st ANC appointment
Number of POC HIV/Syph tests done for women attending 1st ANC appointment
Number confimed HIV+
Number initiated on ART
Number with confirmed syphilis
Number treated for syphilis

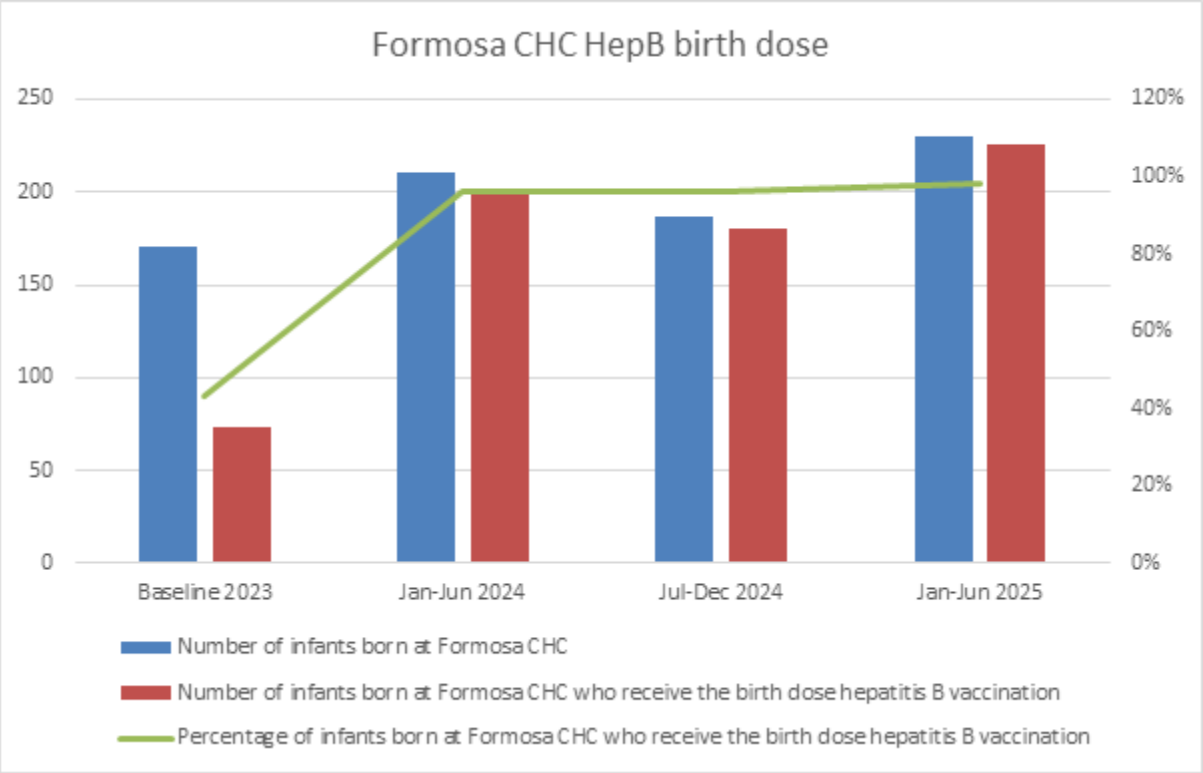
Figure 2



The project has also seen an increase in the detection of syphilis, since its beginning at Formosa CHC. In 2023 Formosa recorded only 7 positive syphilis screening tests in pregnant women. This has increased to 50 in 2024 and 16 in the first half of 2025. In 2024, the syphilis detection rate in pregnant women at Formosa CHC was significantly higher than the same rate for Dili. This could be a result of the point of care testing approach in ANC taken at Formosa CHC which has resulted in a greater number of women being tested and their results recorded in the same visit.

There has also been a significant increase in the percentage of infants receiving the hepatitis B birth dose within 24 hours of birth, from 43% in 2023 to almost 100% in 2025. From time to time a newborn will be transferred to the national hospital so will not receive the vaccination at Formosa CHC, which results in the numbers being just under 100% of live births at Formosa CHC receiving hepatitis B birth dose within 24 hours. These changes can be largely attributed to training of the midwives and side-by-side support from the EMTCT team in learning how to administer the benzathine penicillin vaccination. Another significant factor was an initial assessment of the facility which identified that the fridge storing the Hepatitis B birth dose vaccination was in a room that was locked at night and on the weekend, sometimes precluding babies born at these times from having the vaccination within 24 hours. The fridge was subsequently moved to a location accessible by the midwives at all times, which has helped increase the rate of vaccination as shown in Figure 3.

Figure 3



Papua New Guinea

Service level data collection and reporting is one of the key challenges in PNG. In contrast with Timor-Leste where the project is focussed on one facility, the aim in PNG is to strengthen EMTCT services across the whole Milne Bay province, which includes 43 facilities run by a mix of government and church organisations and the provincial government-run hospital. CCHS runs eight of the facilities and the project has been able to collect service level data from those facilities. To date however, there has not been a consolidated provincial level data set. The specific challenges contributing to this are noted in this report and improving data collection and reporting will be a key focus of the project in PNG going forward. Some of the available data is presented below in Figure 4 and in Annex 4.

Figure 4

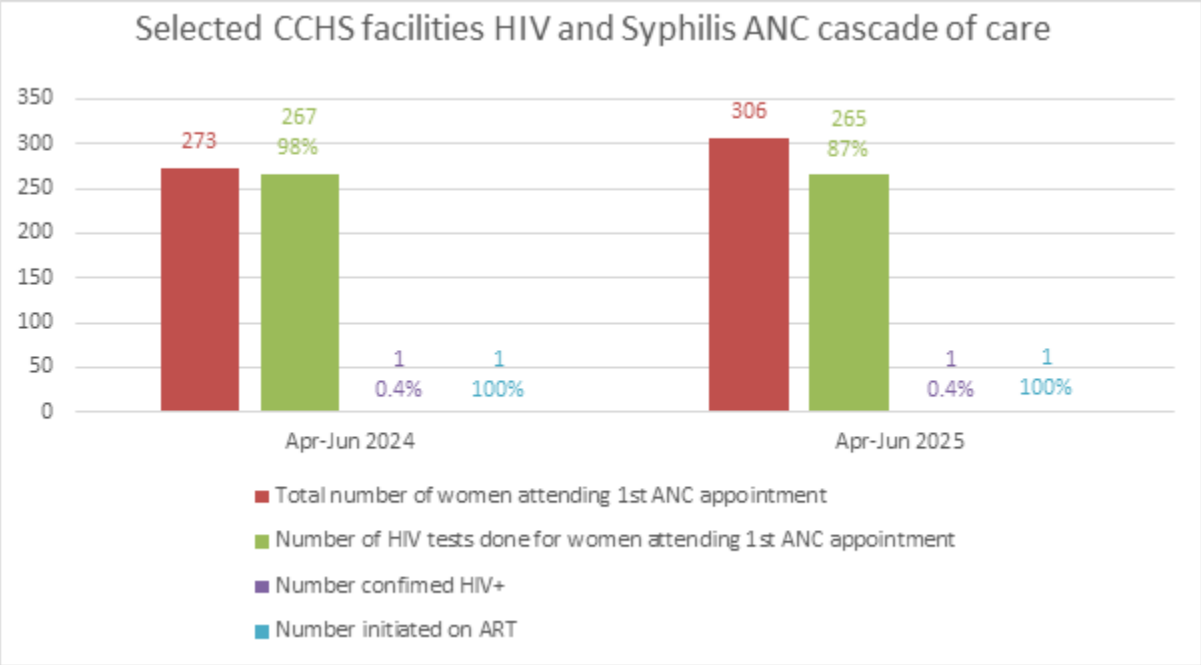
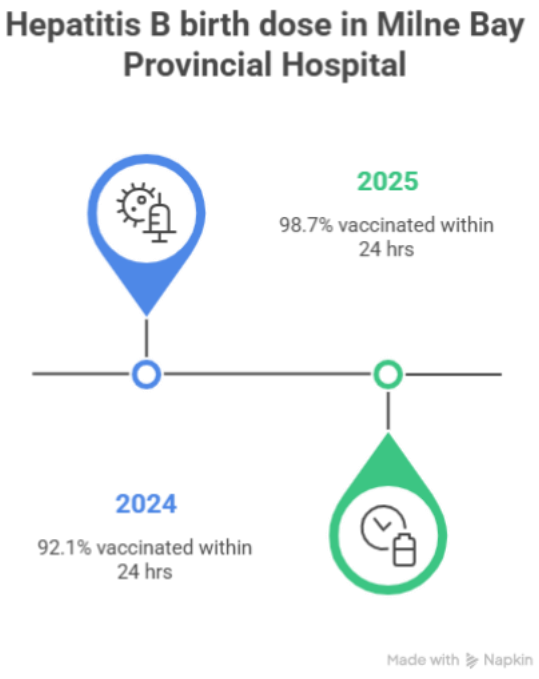


Figure 4 shows HIV and syphilis testing data from 2024 and 2025 in selected CCHS facilities. In comparison, the proportion of women tested in their first ANC visit nationally in 2022 was 32%. The low national testing number is partially a result of poor data collection processes in PNG. The relatively high levels of testing in the CCHS facilities demonstrates the historical institutional experience CCHS has working in this area. Another reason for the higher testing numbers in CCHS facilities is their dedicated staff member at the national level in Port Moresby who follows up on the procurement of test kits and drugs, which can speed up the processing of orders and the delivery of supplies. This support means CCHS facilities are more likely to have tests in stock than government facilities. The decrease in the proportion of women tested from 2023 to 2024 is most likely a result of test kit stockouts.

Figure 5

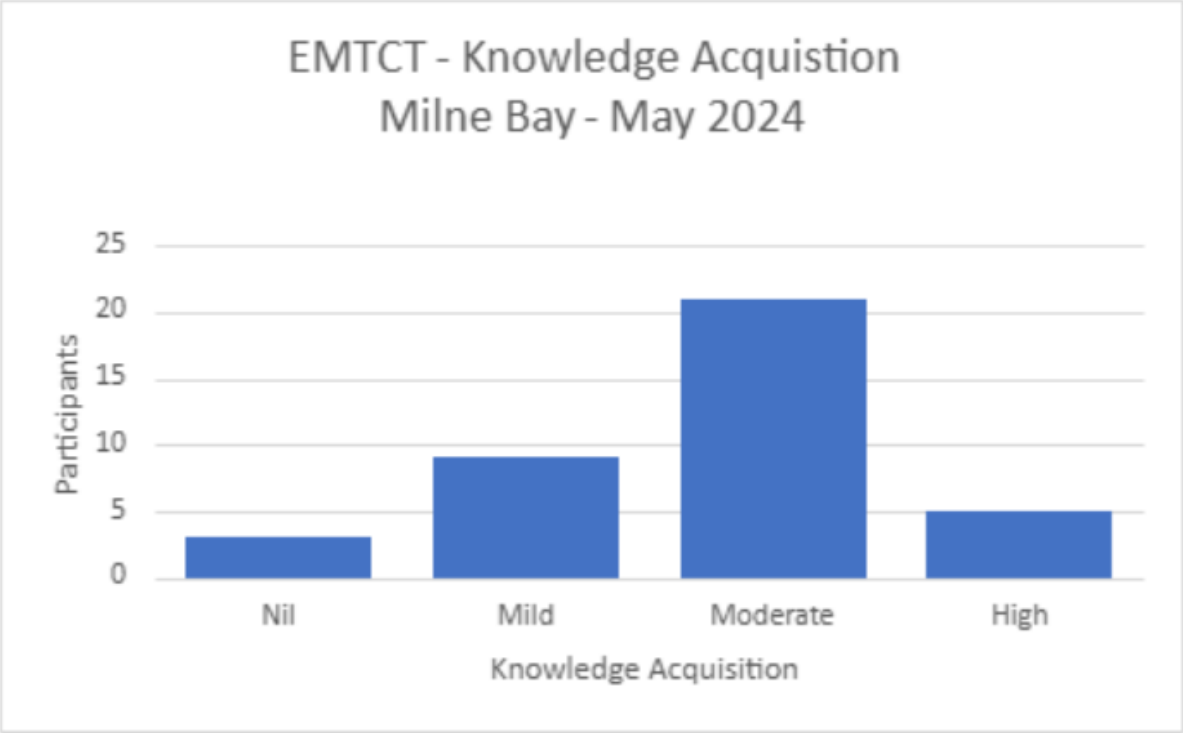


The rate of Hepatitis B birth dose within 24 hours has shown an encouraging increase between 2024 and 2025 in the Milne Bay Provincial Hospital, following the EMTCT

training in Milne Bay which a number of hospital staff attended. Although the total vaccination rate has remained excellent, at 100%, the rate of babies vaccinated within 24 hours, which is important for reducing the chance of vertical transmission of Hepatitis B, has increased from 92.1% to almost 99%. Reasons for delayed vaccination include babies born before arrival at the hospital, babies with low and very low birth weights, and babies who are very sick. At this stage in the project this data does not exist in full for the smaller facilities across the province, however this is a focus of the project and it is anticipated that it will be available in the future.

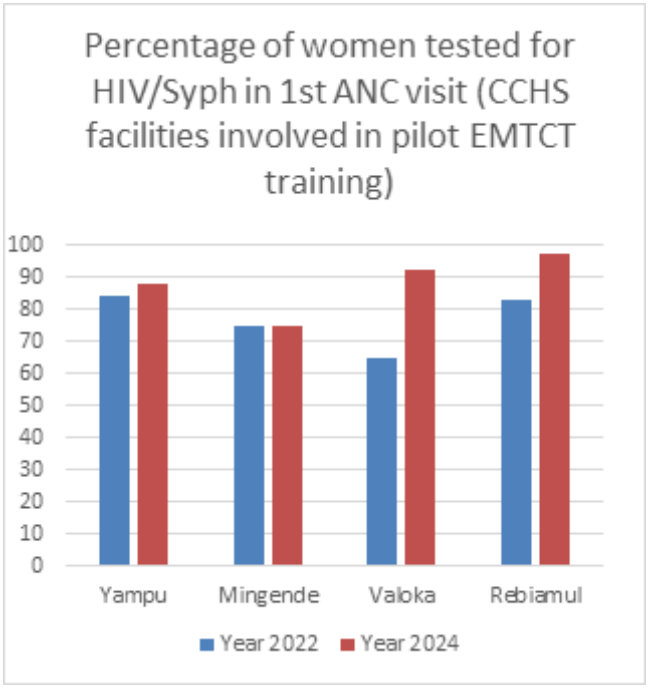
Training is a central component of the STEPT program, with workforce capacity building forming the foundation for improved outcomes for women and babies. While most of the data presented in this section has focused on service delivery, it is equally important to reflect on knowledge acquisition among health workers as a critical early indicator of progress. The comparison of pre and post-testing scores for the EMTCT training conducted in Milne Bay in May 2024 demonstrated participants experienced a 92% positive shift in knowledge, with most of the knowledge change categorised as moderate to high, as the Figure 6 below illustrates.

Figure 6



Pilot Training: Testing and adapting EMTCT Materials

Figure 7



In March 2023, a pilot EMTCT training was held in Mt Hagen, Western Highlands to trial the NDoH's Triple Elimination training package and explore its applicability for frontline ANC and maternity staff. The five-day training brought together 33 participants (9 men, 24 women) from Enga, Southern Highlands, Western Highlands, Simbu, and West New Britain, with representation from CCHS, PHAs, provincial HIV coordinators, corrective services and 3 members from the ACT UP team. Practical sessions were also facilitated in collaboration with staff at Rebiamul Clinic. The training piloted the NDoH EMTCT materials and the feedback and lessons learned then informed adaptation of the materials to better align with the needs of frontline workers. Clinical mentoring components were also added to equip participants to cascade learning to peers and promote routine HIV/syphilis testing in ANC.

Although it was later determined that the project would not be extended into these particular provinces due to their existing capacity in EMTCT, facility data (as per Figure 7) still shows an improvement in testing during 1st ANC visits. Lessons from the pilot directly informed refinements to the national training package and laid important groundwork for implementation of the STEPT project in Milne Bay.

> *"This training is very effective so I will go back and have an in-house training with all facility staff and pass the information on Triple Elimination on HIV, Syphilis and Hepatitis B to prevent mother-to-child transmission" - Training participant*

Photo: Mt Hagen training participants with certificates

Implementation successes and challenges

Timor Leste successes

Service-delivery effectiveness

Integration of testing into the antenatal clinic has seen significant progress and positive change, as evidenced by the clinical data (Annex 4). Most women attending ANC appointments now undergo point of care HIV/syphilis testing and receive their results within the same visit, eliminating the previous disconnect between their ANC visit and having to attend the lab (in a different area of the facility) that saw results lost and women disengaged, and lost to follow up. The shift has driven a measurable rise in testing coverage and treatment initiation.

Midwives now consistently administer benzathine penicillin to all syphilis-exposed newborns and give hepatitis B birth dose to newborns within 24 hours, supported by wall-mounted dosing tables and better access to vaccine fridges.

Capacity building and mentoring

The project has built capacity of staff at several levels. The HIV/STI staff involved in the project reported increased knowledge and capacity to manage HIV and syphilis testing, diagnosis and treatment in pregnant women and babies.

"Before the project I thought that if a mother tested positive for HIV we could just try and decrease the viral load for her, but that that was all we could do.… but after being a part of this project I now know that we can reduce the chance of HIV being transmitted during the pregnancy, during delivery and during breastfeeding. And now we can hope to completely stop transmission of HIV to the baby." - Doctor from HIV/STI team

The HIV/STI team and EMTCT team noted the culture of teamwork and collaboration that has been built as a result of the project and the importance of this for achieving successful outcomes. They felt that one of the changes they had observed was that, "*The midwives, the doctors, the peers, we're the same team*". The EMTCT team and HIV/STI staff also noted their increased capacity to mentor and coach other staff in EMTCT service delivery.

Photo: Side-by-side training of midwives to administer Hepatitis B birth dose vaccination.

The project's blended learning model which incorporates training content with side-by-side mentoring, games and on-the-job practice was repeatedly praised by midwives, nurses and doctors alike for turning knowledge into habit: *"You don't practice in a traditional training, so you don't know. Here you have a case, and you do the training directly, immediately, doing it as we learn means we don't forget."* - Midwife

Confidence among the participating nurses and midwives has also significantly increased, from "observing only" in the first quarter to independent counselling, testing and neonatal prophylaxis today. However, this is not consistent across all midwives, with variation depending on how much time they have spent with the EMTCT team and HIV/STI doctors. It is anticipated that this will become more consistent when further rotations of staff begin.

Data systems and learning culture

The project has made significant progress in data collection and collation. Due to the separation between HIV/STI services, lab services and ANC services it was initially very difficult to collect data that captured EMTCT care pathways. The project has established processes for collecting testing data and hepatitis B birth dose data from ANC records and introduced a mother-baby database which monitors and tracks the pathway of care for mothers who receive a positive HIV or syphilis test (or those transferred to Formosa with a positive HIV or syphilis diagnosis) and their exposed babies. Project data is used to report to

the various stakeholders as required (e.g. to the National AIDS Program and the municipal health authority).

Maintenance of data records has shifted from sporadic, end-of-month backlog entry to daily updates, thanks to processes put in place by the EMTCT team. These processes are helping to shift the view to data entry as an ongoing part of clinical practice, reflection and learning rather than simply an administrative task. The mother-baby database has also been useful in monitoring when women become lost to follow up and beginning to establish processes for reconnecting them.

Story of Change – Midwives at Formosa Clinic

In the past, at Formosa CHC, pregnant women diagnosed with HIV or syphilis were often immediately referred to the national hospital. Midwives reported feeling unprepared to manage such cases and were frequently fearful of providing care, particularly for women living with HIV. Testing processes also presented significant barriers: women attending ANC appointments were required to visit a separate laboratory for HIV and syphilis screening, with limited integration between services. As a result, follow-up was inconsistent, results were sometimes delayed or lost, and many women slipped through the cracks of the system.

With support from the STEPT project, this is changing. Midwives have received training in point-of-care testing for HIV and syphilis, including pre- and post-test counselling and follow-up procedures. Testing now often takes place during ANC consultations, with results available immediately. This integrated approach has strengthened both clinical care and continuity. Equipped with new skills and confidence, midwives are taking a more active role in managing testing, counselling, follow-up, and internal referrals to relevant clinical teams—ensuring patients are not lost to care.

Midwives are also now routinely administering the hepatitis B birth dose within 24 hours and delivering benzathine penicillin to syphilis-exposed newborns, significantly reducing the risk of vertical transmission from mothers to their babies.

Crucially, attitudes toward HIV have shifted. Where there was once fear and uncertainty, there is now greater understanding and professional assurance. Midwives involved in the STEPT project feel more capable of caring for women with HIV and syphilis throughout pregnancy and childbirth, and of safeguarding the health of their babies. What was once considered too ‘complex’ or ‘risky’ to handle as part of antenatal care is increasingly embedded as part of routine, compassionate, and comprehensive maternal care.

GEDSI successes

Disability inclusion and reduction of stigma have been important elements of the project to date. Training materials address stigma and how to actively decrease it as part of EMTCT service provision. Clinical staff who have participated in these training activities reported a perceptible attitudinal shift, from fear of "catching HIV" to pride in supporting healthy pregnancies for all women, regardless of HIV status or disability. The HIV/STI team and the EMTCT team have also increased their confidence and knowledge of strategies for talking to partners and family members about HIV in order to reduce stigma and discrimination.

The project has taken a proactive approach to building capacity relating to disability inclusion and has engaged with RHTO, the national disabled person's organisation in Timor-Leste. The project has funded RHTO to provide in-person training for health workers at Formosa CHC and has conducted an informal facility assessment of the clinic. There are plans in place to continue this relationship, with RHTO providing the disability inclusion modules of the broader EMTCT training.

Photo: RHTO in-person training for Formosa health workers.

The project has also established 'peer worker' roles to support women newly diagnosed or living with HIV. The peer workers in these roles are seconded from Estrela+, the national membership association for people living with HIV in Timor-Leste. Having peer workers has been extremely beneficial to the project, helping to ensure women are supported through their journey, connecting them with services as needed and decreasing HIV stigma amongst families and friends. Project participants felt that their involvement has helped reduce the number of women becoming lost to follow up.

Cristina's[4] story: compassion, confidence, and care on the journey with HIV

At just 16 years old, Cristina was diagnosed with HIV during routine antenatal care at her local community clinic. The diagnosis came as a shock. "I was very scared. I thought I might die," she shared. Her fear wasn't just about her health, but also about what people might say if they found out.

After being referred to Formosa Clinic for ongoing antenatal care and access to antiretroviral treatment, Cristina slowly began to feel more at ease. "At first, I didn't feel comfortable," she recalled. "But the more I came back and spoke with the midwives, the more I felt safe. I wasn't worried they would tell anyone." The clinical team's respectful and confidential approach helped rebuild her trust and confidence.

Support from the triple elimination team played a key role in Cristina's journey. They accompanied her to appointments, explained the treatment process, and reassured her that her baby could be born HIV-free if she followed her care plan. When Cristina gave birth unexpectedly at another clinic, the team quickly coordinated with Formosa doctors to ensure the newborn received timely prophylaxis at home.

The diagnosis also affected Cristina's relationship with her family. Initially, they were fearful and made her live separately. But after Cristina's cousin spoke with one of the doctors on the triple elimination team, and shared accurate information with the family, attitudes began to shift. Cristina's mother has since connected with a peer worker, which has helped the family better understand and support her.

Accessing care isn't always easy. Cristina walks 45 minutes to reach transport to the clinic, but she prefers this to home visits, which could raise unwanted questions from neighbours. "My mother has asked the peer worker to be discreet if she visits," she said, "so neighbours don't start to ask questions."

Despite the challenges, Cristina feels hopeful about the future. "I know the staff here will support me and my baby. I can ask them anything," she said. Her goal now is to return to school once her baby is old enough to stay with her mother.

[4] *Name has been changed for anonymity.*

Papua New Guinea successes

Improved health worker capacity and training outcomes

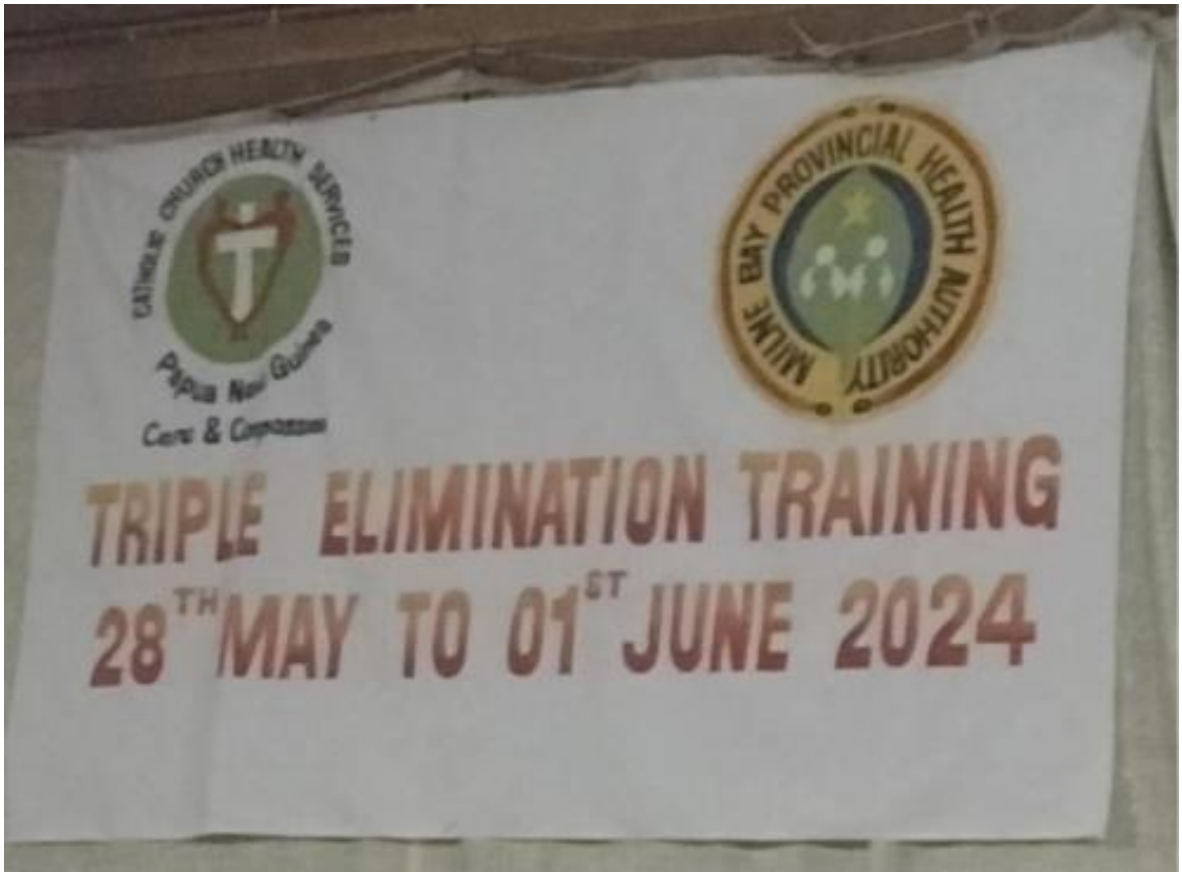


Photo: Triple elimination training in Milne Bay, 2024.

The project has significantly enhanced the knowledge, confidence, and practical capacity of health workers, particularly those at CCHS facilities. The workshop run in Alotau in May 2024 empowered clinical staff to integrate HIV, syphilis, and hepatitis B services in a cohesive, routine manner. Training participants reported improved ability to conduct point-of-care testing, provide counselling, initiate ART promptly, and follow national protocols. Notably, midwives working at the hospital now feel equipped to manage inconclusive results, initiate viral load testing, and begin treatment without delay, contributing to earlier diagnoses and more timely care for pregnant women.

Another project success has been the transfer and dissemination of knowledge amongst health workers, especially those in more remote facilities. A key example of this is the short (1-2 hours) in-service trainings, in the three-step testing algorithm and data collection and reporting being delivered by a member of the Disease Control team at the Provincial Health Authority. These short courses are delivered to facility health workers when they visit Alotau to help build their capacity in HIV/syphilis testing and reporting, including for women attending

ANC. Other stakeholders reported the informal sharing of EMTCT knowledge from health workers who attended the training, on return to their facilities, demonstrating the expanded impact of the training and cost effectiveness of this project activity. This kind of knowledge dissemination is strengthened and built upon during mentoring visits by clinical mentors which provide a point of quality verification and assurance.

Case study: peer-to-peer knowledge sharing strengthens maternal HIV response in Milne Bay

At a small rural facility outside Alotau in Milne Bay Province, the impact of training extended far beyond the initial participants. Two health workers described how their Sister-in-Charge, after attending the EMTCT training, returned and actively shared her new knowledge with the rest of the team. She explained recent updates, including the introduction of dual HIV/syphilis testing, new surveillance forms, and how to properly manage and document cases. Prior to this, the facility had limited testing capacity, but following this peer-to-peer knowledge transfer, the team was able to begin routine testing for pregnant women during their ANC visits.

"We've seen a good number of mothers coming in," one staff member reported, "and we've been able to commence all the treatment for our antenatal syphilis cases and take HIV cases directly to the clinic in Alotau."

They also described a shift in their management of women who arrive directly at the labour ward without having attended any prior ANC visits, now, immediate testing is conducted, and treatment is initiated when needed. This case highlights how practical training, combined with strong leadership and knowledge-sharing, can quickly translate into improved care and outcomes, even in remote and resource-limited settings.

Strengthened linkages between ANC, testing and treatment

A key achievement has been the shift toward integrated, ANC-based testing for syphilis and HIV. This has improved continuity of care and reduced missed opportunities for prevention. In ANC and delivery wards, ART initiation for HIV+ women is now more routine. Hepatitis B birth dose coverage has also improved, with only rare interruptions in supply. Improved linkage between ANC and treatment services has helped ensure babies born to HIV or syphilis positive mothers receive timely prophylaxis and follow-up.

> *"Before the training, when we did testing, if we had a positive screening result we would have to collect blood to take to the lab. Only once we had confirmation would she be put on treatment, separately through Hagu (the HIV/STI clinic). Since the training, we keep*

some ART in the labour ward, now, even if a doctor isn't around, if a screening test comes back reactive we can give them treatment so at least it's started. Then we link the mother with the Hagu team and get a paediatric consult. So now we don't delay treatment to mothers who will deliver soon." - Midwife working in the labour ward at the provincial hospital

Provincial coordination and formalisation of the triple elimination approach

The project has helped unify previously more siloed services around the triple elimination framework. The project, beginning in Milne Bay with the training in May 2024, has provided a shared language, space and coordinated strategy for health staff to focus their efforts around, with regard to triple elimination. In particular, it helped bring the different health providers together with the PHA - CCHS, and to a lesser extent the United Church and Anglicare. These relationships are essential for continuing to strengthen provincial coordination.

"We were doing PPTCT before but without the project we would be scrambling in a non-systematic way to implement the changes (such as new testing kits). It isn't just the technical parts of the training, but since the start of the project, we have been working on mechanisms and pathways too. If the project hadn't come we wouldn't have followed up with discussion between all the different parties. The project gave us a reason to come together and have these conversations, we still would have been talking to each other, but not in this way, the project has facilitated the connections, has helped us prioritise those things and give them space. It definitely made a big difference, it gave us the push" - Senior clinician at Milne Bay provincial hospital

Expanded testing and early intervention in facilities

Photo: EMTCT training in Milne Bay, 2024

Since the EMTCT training and follow-up activities, several facilities have seen increased testing volumes, particularly among ANC clients. Staff who had participated in the training reported increased confidence in prescribing and improved readiness to manage complex cases. Reporting has also begun to improve, with some facilities now requesting their own supplies of ART and test kits. A growing number of women are being tested during pregnancy and linked to follow-up care at Hagu or other clinical sites.

The capacity is varied across different facilities. CCHS facilities generally have a higher capacity to deliver EMTCT services due to CCHS's institutional experience delivering HIV services in rural areas. They also have a higher number of formally trained 'prescribers' due to additional training that was delivered by ASHM (separate to STEPT).

Improved data collection, reporting and use

Data management is beginning to improve across the province. Since participating in the May 2024 training the disease control team at the PHA has been working towards compiling a province level dataset, including for EMTCT. Available data was shared at a recent province level quarterly meeting and a range of stakeholders commented on how helpful it was to see it brought together for the purposes of reflection and learning. Challenges remain in identifying and facilitating data and reporting pathways but good progress has been made.

The project also facilitated capacity building specifically for the use of the HIV Patient Database (HPDB). This still faces a number of challenges however there is now shared awareness of its importance and efforts are being made to enable more consistent data entry.

Program level shared successes

Across both Timor-Leste and Papua New Guinea, the STEPT project has driven important shifts in how EMTCT services are delivered. A major achievement has been the integration of HIV, syphilis, and hepatitis B testing and treatment into routine antenatal care, replacing fragmented service delivery with point-of-care testing and treatment. This change has reduced loss to follow-up, enabled quicker initiation of ART, and improved continuity of care for mothers and infants. Health workers, especially midwives, have played a central role in this transition. Through structured training and ongoing mentoring, they have gained new skills in counselling, testing, treatment initiation, and data entry, and report greater confidence and independence in providing care. Informal and in-service training sessions have further extended these benefits to staff who were unable to attend formal training.

The project has also catalysed a positive shift in attitudes and ways of working. In Timor-Leste, health workers reported reduced stigma and increased willingness to care for women living with HIV or syphilis, while in PNG, collaboration between government and church-run facilities has strengthened through joint training and regular review meetings. In both contexts, the project has helped build trust, improve teamwork, and break down silos in service delivery. Alongside this, progress in data systems has been another shared success. New tools such as the mother-baby database in Timor-Leste and a province-wide EMTCT dataset in PNG are improving oversight and coordination, while also changing how health workers view data — from an administrative task to a valuable resource for learning, decision-making, and service improvement. Together, these achievements demonstrate the project's contribution not only to improved technical capacity, but also to building stronger systems and more supportive working environments that will sustain progress over time.

Learning exchange

A key early success of the STEPT project was the knowledge exchange visit undertaken by Timor-Leste stakeholders to Papua New Guinea, which yielded valuable insights into practical models for integrated and decentralised HIV and EMTCT service delivery.

During the visit stakeholders observed strong linkages between ANC and ART services at the facility level, supported by clear referral pathways, same-day testing and treatment initiation, and active follow-up mechanisms. They observed in action the central role played by midwives, many who were trained to provide HIV testing, counselling, and ART prescribing, supported by structured training and clinical mentoring.

The use of treatment-as-prevention messaging was highlighted as a powerful tool to encourage HIV testing among pregnant women. In addition innovations such as point-of-care viral load testing, multi-month ART dispensing, and ward-based drug stocks for labour and delivery improved service efficiency and accessibility were observed and discussed.

Participants noted that coordination across all levels of the system, facilitated by a national technical working group, ensured alignment between health programs, church health providers and NGOs. The integration of HIV testing and EMTCT indicators into the digital health information system, while protecting confidentiality, was of particular interest. This visit helped reinforce the importance of system-wide coordination, decentralised capacity, and community-based service delivery models.

Timor-Leste challenges

Leadership and ownership

While day-to-day activities are progressing well, the transition toward full local ownership is still underway. Continued leadership engagement, particularly at the facility and municipal levels, will be critical to embedding EMTCT activities into routine practice. Competing priorities and approval processes at both levels can sometimes delay decisions on critical project approaches, staff rotations, training participation, or resource use. Where leadership has actively endorsed EMTCT integration, staff uptake appears stronger.

Increased ownership at the facility senior leadership level could also aid in building awareness of EMTCT more broadly across the whole clinic. Some staff involved in the EMTCT activities noted that there is still some reluctance to handle HIV-related cases in other clinic departments such as the emergency department. Staff noted the need for awareness raising across the whole of Formosa CHC to decrease HIV related stigma and increase knowledge of triple elimination.

Whilst ownership of the project and the EMTCT services is strong amongst the HIV/STI team and the EMTCT team it is inconsistent across the midwives. This is due to the nature of shiftwork and changeover in the workforce. As would be expected, midwives that have participated in EMTCT training activities show a higher level of confidence and ownership than those who have not, or have had less input. This should be addressed when the formalised training rotation for the midwives begins. In the meantime the EMTCT team have been able to bridge gaps by working, on-the-job with midwives as required.

Supplies and infrastructure

Progress in clinical practice is periodically undercut by stock-outs of test kits, ART, and, less frequently, hepatitis B vaccine. Although national supply chains are beyond the project's direct control, insufficient buffer stocks and limited real-time reporting aggravates disruptions.

Physical space is another constraint, consultation rooms are often shared by patients limiting confidentiality for example at peak times three pregnant women share one consultation room, discouraging disclosure of sensitive information.

Introduction of non-traditional training package

The approach to training and capacity building being developed as part of the project is quite different from more traditional training approaches in Timor-Leste. As previously noted those who have participated in these activities to date have found the approach to be very effective. They did however note some potential challenges in rolling out the more formalised training including:

- Having the training accredited by INSPTL and ensuring that it can be delivered effectively by a broader pool of trainers from Timor-Leste
- Not being able to pay per diems (usually training participants would be paid a per diem for each day of training) in the rotations style on-the-job training planned for the midwives at Formosa CHC. The suggestion was made to consider paying three days of per diems at the beginning of a training rotation.

In addition, the development of the training package has been delayed which has had implications for the progress of the project including building connections with local clinical experts who will be key to building sustainability of the training beyond the life of the project.

Data, reporting and M&E

Data collection and reporting processes have benefited from clinical oversight, ensuring accuracy and accountability. At the same time, current review protocols, where senior clinicians take personal responsibility for validating final data sets, may benefit from shared workflows or delegation mechanisms. This would help build broader capacity for data ownership while reducing delays and could support more timely use of data for quality improvement at the facility level. The review acknowledges that the need for capacity building

in this area has already been identified by the EMTCT team, and efforts are underway to work towards decreasing dependence on key staff for data collection and reporting.

Referral pathways and linkages

Continuity of care weakens once women leave Formosa CHC. A number of women who undergo ANC at Formosa CHC go on to deliver their baby at the national hospital, or elsewhere, and it can be challenging to monitor ongoing care of the mother and baby, sometimes leading to them becoming lost to follow up. To date, the project has not included an explicit focus on addressing women and babies who have become lost to follow-up however it is a time and resource intensive process which should be factored into future project planning.

Whilst hepatitis B birth dose has increased dramatically through the EMTCT program the subsequent doses are administered through the infant and child immunisation program so it is difficult to monitor beyond the birth dose. The project could benefit from establishing a stronger relationship with the immunisation clinic at Formosa CHC.

Another challenge relates to the continued monitoring of babies born to HIV+ women. To date the project has not directly included the ongoing monitoring of babies born to HIV+ mothers following their initial prophylaxis. The EMTCT team has noted the importance of this being included as part of the project, if possible, going forwards. However, currently the national laboratory is not stocking paediatric cartridges for viral load testing making early infant diagnosis (EID) testing very challenging.

External coordination and policy environment

At a policy level, EMTCT activities intersect with multiple channels of health service delivery including, HIV/STI services, maternal health, immunisation and laboratory services, yet coordination mechanisms remain ad-hoc. Whilst the focussed coordination at Formosa CHC has led to positive change within the facility this is not yet mirrored at a municipal or national level.

GEDSI challenges

HIV-related stigma is an ongoing social issue for HIV+ women and also for health workers operating in this space. Conversations with health workers, including peer workers from Estrela+ and with a recently diagnosed HIV+ mother highlighted the lengths many women go to, to hide their diagnosis from their husbands and other family members. For example, it is common for pregnant women on ART to say their tablets are pre-natal vitamins. When women do share their diagnosis with their families they often face negative consequences, as experienced by a young mother we spoke to (see patient story on p.18). The support of peer workers through Estrela+ is an important way the project is working to address this stigma and help women deal with its impact, however their limited time capacity with the STEPT

project was noted as a challenge by project staff who often bridge the gap themselves to provide specific support required by HIV+ women.

As mentioned previously, stigma and discrimination also persists amongst some health workers within the Formosa CHC facility. Project stakeholders felt there would be value in an awareness raising activity across the facility relating to the STEPT project for decreasing stigma amongst health workers.

Although the project has benefitted from the input from RHTO, as previously mentioned, RHTO representatives noted the ongoing challenges faced by women in general for accessing healthcare in Timor Leste, especially antenatal care. These included:

- Negative attitudes from health workers
- Physical inaccessibility of facilities (e.g. lack of ramps, inaccessible examination beds)
- Challenges with transport to facilities
- Stigma and a lack of support from family members.

This results in women with disabilities being more likely to not attend any ANC and to deliver at home with traditional birth attendants greatly reducing the chance of being offered any EMTCT related services.

RHTO reiterated the importance of addressing physical facility related barriers and continuing to invest in disability inclusion training for health workers as part of the project. They also suggested the idea of some of the trained midwives joining them in community outreach to talk about the importance of ANC.

Papua New Guinea challenges

Gaps in workforce training

Despite consistent praise for the EMTCT training and the capacity building it provided, as it wasn't framed as a 'prescriber' training, not all participants felt empowered to prescribe ART when they returned to their places of work. This was despite being explicitly told at the training that they could prescribe. Many project participants flagged the need for including prescriber trainings as part of future project activities. Whilst further trainings will be a part of the project going forward it will also be important to ensure training participants are appropriately empowered to go back and put into action what they have learned.

Processes for early infant diagnosis were also flagged as an area requiring capacity building among the Milne Bay workforce. Currently there is only one clinician in the province formally trained in EID. Future trainings should include Dry Blood Spot testing for babies and a

provincial level process should be established to ensure that these all go through the paediatric clinician trained in EID.

There are also gaps in workforce capacity relating to data collection and reporting, leading to some of the challenges previously mentioned. Also of note, the officer responsible for EMTCT related data collection and reporting at the PHA was on leave for most of the first year of the project. This caused substantial delays in bringing together the provincial level dataset and general progress towards centralising reporting and procuring at the provincial level. Since her return to work there has been significant progress and supporting this should be a focus of the project moving forwards.

Leadership and coordination

One of the strengths of the STEPT project in PNG is its multi-stakeholder model, which brings together the NDoH, the Provincial Health Authority (PHA), and the CCHS Diocese in Milne Bay, with some coordination still managed nationally through CCHS. This structure is well-aligned with the project's intent to strengthen health systems across all levels. However, establishing this model early in the project presented challenges. A lack of clarity was noted by some stakeholders, around leadership roles and coordination mechanisms, particularly during project start-up. Initial delays at the national level meant that the CCHS diocese team was left to lead implementation without adequate support, and with limited project management capacity. While the CCHS diocese partner in Milne Bay has shown strong commitment, there is an ongoing need for greater ownership and increased support from national CCHS leadership to ensure sufficient capacity and effectiveness across all levels.

Data systems and reporting

Data collection and reporting remain inconsistent across facilities. While progress has been made, especially with the oversight of the disease control team at the PHA who are now working on bringing together a provincial level dataset, there remain some blockages in reporting pathways particularly between the hospital (which includes Hagu Clinic) and the PHA. At the facility level standard registers and forms are often unavailable, and many facilities rely on handwritten records. Some facilities do not have consistent access to the internet and are therefore required to send physical forms to Alotau by boat. The CCHS Data Officer described instances of having to 'dry out' reporting forms that had arrived wet after coming by boat from island facilities.

Photo: Boats used for travel around Milne Bay province.

Data verification is limited due to capacity constraints, and frontline staff seldom receive feedback on the information they submit. The absence of a standardised tool to track the full EMTCT cascade also limits the ability to monitor progress effectively.

Despite informal HIV Patient Database training delivered in late 2024 there has been very few records entered since. The reasons for this include low computer literacy amongst the users, new mandatory fields in the online form that make entering old patient records difficult and a lack of clear roles and responsibilities.

Procurement and supply chain

Procurement is dependent on reporting so the above-mentioned challenges ultimately impact procurement of test kits and drugs. A lack of clear reporting and procurement pathways has led to disjointed province level procurement with orders coming from several different actors making it very difficult to establish a coordinated process.

Stock-outs of ART, HIV test kits, and prophylaxis remain a major obstacle, reported as lasting up to 6 - 8 weeks each year. Some facilities lack the essential forms and drugs needed for service delivery. Supply chain gaps are compounded by unreliable transport and internet access. Stakeholders described receiving only “trickles” of supplies, and health workers reported diminished morale when essential commodities are unavailable.

There is also an observed disconnect between national and facility-level understandings of supply chain functionality. At the facility level, staff expressed frustration with chronic shortages of essential supplies, despite following official processes. One clinician shared: "It dampens the spirit. If the supplies and the ART were there we could easily get the coverage and then work on quality...We’re willing, we’re passionate, we just need the tests." She described lodging monthly supply requests, only to face delays of several months. In contrast, a representative from the NDoH commented: “If they request monthly, they should get the supplies monthly”, highlighting a gap between policy and operational realities. Addressing this disconnect is critical to ensuring timely access to essential diagnostics and treatment and to maintaining staff motivation on the ground

Male involvement in ANC and couples counselling

Male engagement in ANC remains low, limiting the uptake of couple testing and joint decision-making. Despite now feeling confident to provide testing and counselling to women during ANC many health workers felt less confident to talk to couples or male partners. Some of this related to the risk of intimate partner violence. Staff at Hagu Clinic however have experience and confidence in this area which could perhaps be used to help build the capacity of other health workers. There is also a need to identify processes for when and where couples counselling takes place, in some facilities health workers have instituted their own systems for doing this, in others they have not had the confidence or tools to do so.

GEDSI challenges

The lack of an active Disabled Person's Organisation in Milne Bay has made disability inclusion in project activities challenging. Disability inclusion was included as a module in the EMTCT training but has not been a focus of the project. When asked about the inclusion of women with disabilities in ANC and EMTCT services health workers reported not having extensive experience of this, though several referred to instances of working with women who had physical disabilities. The head physiotherapist at the PHA is working towards establishing a DPO, however at this stage these plans are primarily around marking the International Day of Persons with Disabilities in December.

Another challenge in this area is that the national reporting forms do not include a way of disaggregating ANC women with disabilities so there is currently no direct data relating to this.

HIV related stigma is also an ongoing challenge. Patients frequently avoid Hagu Clinic due to its association with HIV, sometimes resulting in their becoming lost to follow-up. Women often conceal their status from their families and some fear judgement from health workers or domestic repercussions following disclosure. There are currently no formal peer or social support systems in place for women diagnosed with HIV during pregnancy.

Program level shared challenges

Despite clear progress, both Timor-Leste and Papua New Guinea continue to face common challenges that limit the full effectiveness and sustainability of EMTCT services. Leadership and ownership remain uneven, with gaps in engagement from clinic, municipal, and provincial managers slowing decisions on staffing, rotations, and resource allocation. Coordination challenges have also emerged, particularly in PNG where decentralised implementation has sometimes stretched local management capacity. Continuity of care is another shared concern. In both countries, women and infants remain at high risk of being lost to follow-up, often due to weak referral pathways, limited systematic tracking, and geographical barriers that make returning to facilities difficult. The absence of consistent early infant diagnosis compounds this problem, leaving many HIV-exposed infants without timely monitoring and

support. Stock-outs of test kits, ART, and prophylaxis further exacerbate these risks, as supply chain inefficiencies disrupt treatment continuity and undermine staff and patient confidence in the system.

Other systemic challenges include uneven data systems and gaps in workforce coverage. In Timor-Leste, reporting processes often rely heavily on individual clinicians, while in PNG the absence of standard registers, low computer literacy, and poor connectivity slow timely reporting. Staff turnover, shift work, and limited training opportunities mean that not all frontline workers have received the necessary skills to deliver EMTCT services confidently. At the same time, gender and social inclusion barriers continue to restrict access. Persistent stigma, fear of disclosure, and limited psychosocial or peer support discourage some women from seeking care, while the visibility of HIV services can act as a deterrent. Both countries also lack adequate strategies for ensuring that key populations, such as female sex workers, are reached with EMTCT services, highlighting the need for deeper engagement with community-based organisations and more inclusive service design.

Barriers to Access

In both country contexts women face a number of barriers to accessing health services and in particular ANC and EMTCT services offered as a part of it. These are summarised in the following table.

Barrier	Program-Level Summary	Timor-Leste	Papua New Guinea
Gender and socio-cultural norms	Women's access to care is influenced by patriarchal norms, requiring male approval or accompaniment. Single women and adolescents often face shame or judgement. HIV status disclosure is particularly sensitive.	In some cases husbands must approve ANC visits; some women hide ART use by calling it prenatal vitamins.	Similar issues of disclosure and stigma; male partners often absent from care; risk of violence as a result of disclosure.

Financial and logistical constraints	Transport costs, remote locations, and caregiving duties limit women's ability to attend or return for services. This results in high loss to follow-up (LTFU).	Urban clinic-based model is more accessible, but outreach to remote districts limited.	Distance, security issues, lack of transport in islands/rural areas; physical risks to outreach workers.
Stigma and discrimination	HIV-related stigma discourages women from attending services or disclosing their status. Key populations (e.g. FSW, adolescents) face added judgement.	Peer support (e.g. Estrela+) helps reduce stigma. Some health workers still fear treating HIV+ women.	Stigma relating to Hagu Clinic; no peer support model in place; some staff and patients avoid care.
Systemic and structural barriers	Limited inclusion of disability; low awareness of ANC/TE value; fragmented systems (lab, STI, MCH). Coordination across departments and levels of government remains weak.	Partnering with RHTO for disability inclusion; still limited facility accessibility.	No active DPO; health workers report little experience with patients with disabilities.
Challenges for priority populations	FSWs, adolescents, and women with disabilities face higher stigma and require targeted support. Project teams are beginning to adapt models but more structured support is needed.	Peer workers from Estrela+ provide support and linkage to care.	No structured support systems yet in place for key populations.
Geographic and safety barriers	Particularly relevant for PNG, physical access challenges and safety concerns impact women and outreach workers, contributing to LTFU.	Access to EMTCT services in rural districts is limited.	Terrain, law and order, and resource constraints present barriers to both outreach and patient travel.

3.3 Sustainability: In what ways will the benefits of the STEPT project be sustained?

To ensure the long-term impact of the STEPT project, it is important to consider both the opportunities that can support sustainability and scale-up, and the challenges that may limit progress. The table below summarises the main opportunities and constraints identified in Timor-Leste and Papua New Guinea, highlighting areas of strength that can be built upon as well as barriers that will need to be addressed.

Timor-Leste

Opportunities for sustainability and scale-up	Key challenges
- Midwife leadership and ownership: Formosa midwives show strong pride and commitment, which is central to sustaining EMTCT services. - Rotation model: Planned midwife rotation could spread skills, standardise practice, and reduce variability across shifts. - Accredited EMTCT training package: Securing INSPTL approval would give institutional legitimacy and allow national integration beyond the project lifecycle. - Integration with existing systems: Linking EMTCT with outreach, maternal and child health, and immunisation services embeds it within routine care. - Facility expansion: Strong stakeholder interest in expanding services to rural areas like Baucau, positioning Formosa CHC as a centre of excellence to support rollout. - Sustained training approaches: Workplace-based adult learning methods have been widely praised and could be sustained by developing a pool of local trainers. - Local partnerships: Continued collaboration with INSPTL and local experts will be critical for curriculum approval, training coordination, and long-term scale-up.	- Human resource gaps: Lack of long-term MoH staff for HIV/EMTCT tasks leaves complex care (ART adherence, viral load monitoring, infant follow-up) dependent on Maluk Timor staff. - Dependence on external leadership: Strategic and clinical decision-making often requires external confirmation; local leadership capacity needs strengthening. - Policy and institutional support: Mixed buy-in from national stakeholders limits scale-up, especially around point-of-care testing. - Perceived workload concerns: Some midwives worry EMTCT duties could increase workload without compensation; reframing EMTCT as part of routine ANC will be key.

- Integration with Maluk Timor: Stronger links with broader Maluk Timor systems (M&E, leadership, organisational resources) could reinforce quality and sustainability.	

Papua New Guinea

Opportunities for sustainability and scale-up	Key challenges
- Locally led solutions: By using existing systems and avoiding parallel structures, the project has laid foundations for long-term integration and resilience. - Provincial coordination: Strong support for regular, province-led EMTCT meetings to unify stakeholders, improve data use, and address supply chain challenges. - Empowering health workers: With reliable ART supply and clearer authorisation, trained ANC staff could initiate treatment directly, reducing loss to follow-up. - Integrated training models: Proposals to combine prescriber training with HIV/TB and GBV-sensitive counselling could efficiently build staff competence. - National–provincial links: Budgeting for NDoH visits to provinces would reinforce ownership and strengthen system links. - Strong leadership: Engaging provincial champions (e.g. PHA obstetricians, District Health Managers) is vital for long-term buy-in. - Peer navigation: Introducing peer workers could help women living with HIV navigate services, reduce stigma, and improve care continuity. - Expansion potential: Pilot work in Mt Hagen and Milne Bay has provided a tested model for scaling EMTCT to additional provinces.	- Procurement and supply chain gaps: Frequent ART and test kit stockouts undermine staff morale and prevent consistent care delivery. - Project coordination capacity: Diocese-led implementation has faced challenges due to limited project management capacity, requiring stronger leadership. - Limited partner inclusion: After initial training, other church-run facilities (e.g. Anglicare, United Church) have had little ongoing involvement, limiting reach. - Training gaps: Some staff lack confidence to prescribe ART post-training; future training should include GBV-sensitive counselling and stronger HIV/TB integration.

4. Recommendations

Timor-Leste

- Monitor midwife confidence and competence in EMTCT as rotations expand.
- Provide short per diems at the start of rotations to support engagement.
- Broaden data management capacity to reduce reliance on individual staff.
- Conduct a facility-wide HIV awareness campaign at Formosa CHC to strengthen ownership and reduce stigma amongst staff not directly involved in the project.
- Deepen engagement with RHTO and explore joint outreach to improve ANC uptake among women with disabilities.
- Local EMTCT team strengthen partnerships with local clinical experts to increase sustainability.
- Continue MoH advocacy for dedicated HIV/EMTCT staffing.
- Scope expansion to an additional facility if funding permits.
- Develop EMTCT educational materials for pregnant women and partners.

Papua New Guinea

- Make data collection, validation, and reporting a project priority, developing a provincial dataset for EMTCT quarterly review meetings.
- Strengthen national–facility links with budgeted NDoH provincial visits to align policy and practice, including HPDB use.
- Ensure EMTCT training participants are confident in their ability to formally prescribe ART (e.g., stating on certificates).
- Integrate DBS collection into training and establish provincial processes for EID.
- Leverage Hagu Clinic's experience in couple counselling to build capacity in other facilities.
- Increase disability inclusion, engaging PHA physiotherapists and using tools like the CCHS GEDSI framework.
- Explore introduction of peer workers to improve retention and navigation.
- Consider a national EMTCT coordinator to support project operations and strengthen links between provincial facilities and national stakeholders.
- Expand engagement with other delivery partners (Anglicare, United Church) for sustainability.
- Explore combined HIV/TB training at provincial level.
- Scope expansion into a new province if funding permits.

Program-Level

- Formally include exposed infant testing and follow-up to 'all-clear' status in project design.
- Continue engaging with government and partners around integrating hepatitis B testing and treatment into ANC services.
- Revise capacity-building indicators to reflect ASHM's advisory/partnership model (e.g., SQ4.2, SQ7.1, SQ7.2).
- Address loss to follow-up challenges, for example through peer worker involvement.
- Organise another learning exchange to share lessons on leadership and point-of-care testing.
- Partner with organisations working with female sex workers to assess service adaptations.
- Develop a clinical competency framework to measure training/mentoring impact.
- Involve GEDSI groups (women's orgs, OPDs, priority population networks) in training delivery.
- Merge and adapt training packages into one context-flexible version, deliverable by multiple facilitators and adaptable for in-service training.

See Training Package Desk Review for detailed recommendations relating to PNG training package attached at Annex 5.

5. Conclusion

Despite early delays, the STEPT program has demonstrated promising progress across both countries, reinforcing its relevance and potential impact. The project's alignment with national priorities, early successes in service delivery, and growing momentum toward scale-up are encouraging. At the same time, this mid-term review highlights several areas requiring further attention to consolidate progress and ensure long-term sustainability, particularly around national ownership, data systems, and the integration of GEDSI principles. As the project moves into its next phase, there is a clear opportunity to build on lessons learned, strengthen strategic partnerships, and expand in ways that are locally driven and contextually grounded.

Looking forward, the project is well-positioned for this next phase. Addressing the recommendations from this review will help consolidate gains and strengthen the foundation for future success. Stakeholders in both countries have expressed strong enthusiasm for scale-up, and the project has now established viable models for expansion, whether by extending to new facilities in Timor-Leste or a new province in PNG. Importantly, there are transferable lessons between contexts: Timor-Leste's strong engagement with civil society has enhanced GEDSI integration, while PNG's localisation approach has reinforced sustainability through the leadership of provincial systems. The next phase offers an opportunity to deepen effectiveness, embed learning, and broaden impact.

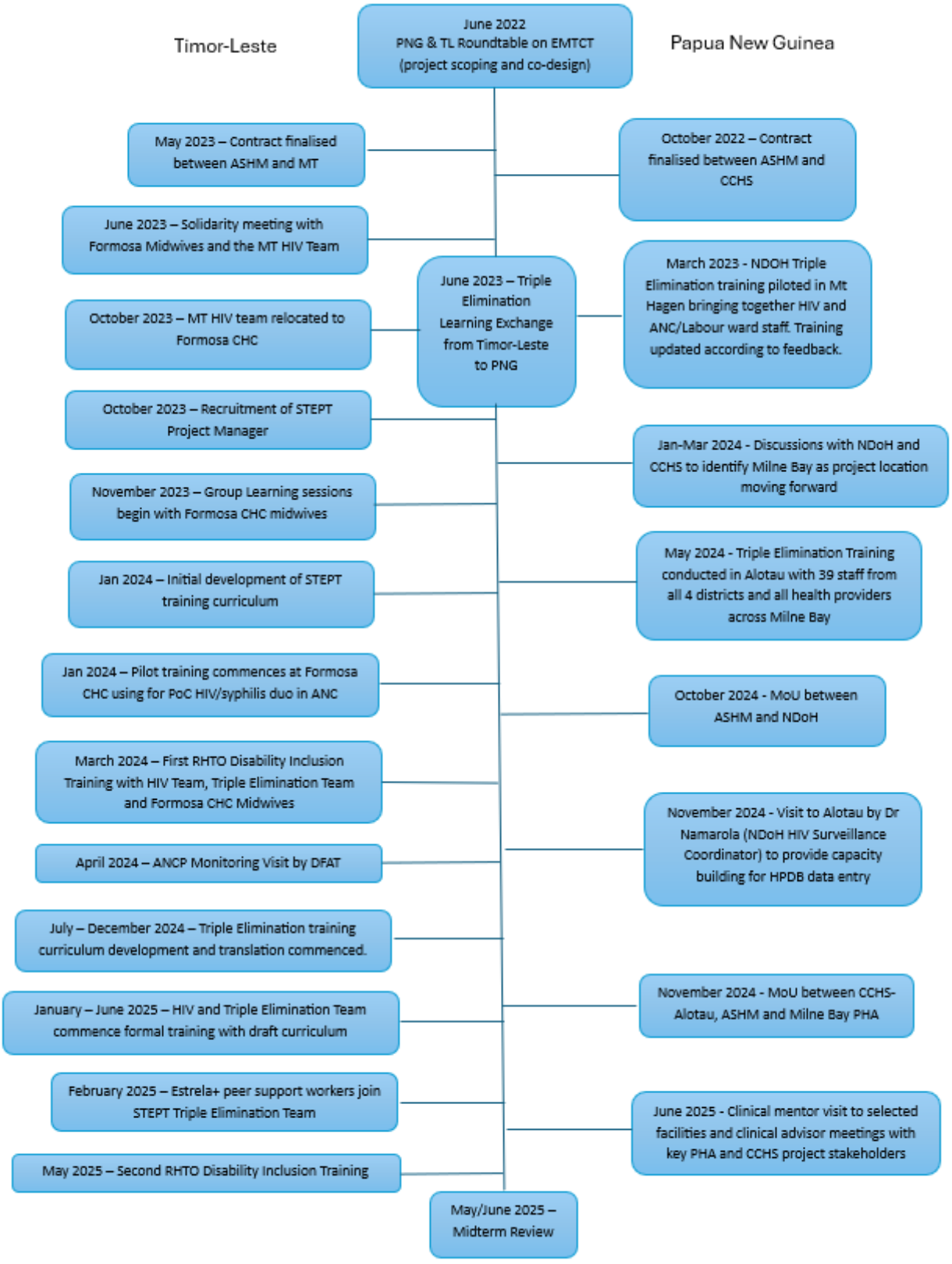
6. Annexes

Annex 1: Midterm Review key evaluation questions and sources of data

OECD evaluation criteria	MTR questions	MTR sub-questions	Sources of data
Relevance (Is the project doing the right things?)	Q1. To what extent are project strategies and activities relevant to achieving the outcomes of the project?	1.1 Are the activities of the STEPT project relevant in achieving the key objectives of the associated national and international guiding documents and strategies? 1.2 Are the activities relevant and appropriate in meeting the needs of beneficiaries including priority and key populations	Document review to assess alignment of the key activities with relevant national policy and with international strategies for Triple Elimination WHO Introducing a framework for implementing EMTC of HIV, syphilis and HepB virus Regional Framework for the EMTCT of HIV, HepB and Syphilis in Asia and the Pacific, 2018-2030
			Interviews/facilitated discussions to understand stakeholder perceptions regarding how well the STEPT project is performing in relation to national and international Triple Elimination policies and strategies
			Interviews/facilitated discussions with relevant CSOs (where possible) to elicit feedback on project approaches in relation to vulnerable groups
			Interviews/facilitated discussions with project implementing and health service delivery staff to understand their perceptions of relevance and appropriateness of the triple elimination related

			services in general and in meeting the needs of vulnerable groups
Effectiveness (Is the project achieving its objectives?)	Q2. To what extent is the project achieving its outcomes?	2.1 What changes have been achieved against the three outcome areas of the STEPT project?	Review and analysis of project reports and other monitoring documents as required (including, where available, activity/influence logs, training/participant trackers, organisational capacity assessments, stories of change/case studies) as per KEQs in MELF
		2.2 What are the successes and challenges faced by staff in implementing and monitoring the project?	Interviews/facilitated group discussions with project delivery staff
		2.3 What are the barriers faced by priority and key populations in accessing triple elimination services?	Interviews/facilitated group discussions with health service delivery staff
Sustainability (Will the benefits last?)	Q3. In what ways will the benefits of the STEPT project be sustained?	3.1 To what extent is the project strengthening local capacity, systems and ownership?	Review and analysis of sustainability sections in project reports where available. Interviews and facilitated group discussions with project delivery staff, health service delivery staff, key MoH staff to gain their reflections relating to sustainability
		3.2 What are the challenges and opportunities relating to sustainability of the STEPT activities and approaches?	

Annex 2: Timeline of key project activities


Timor-Leste
June 2022
PNG & TL Roundtable on EMTCT
(project scoping and co-design)
Papua New Guinea
May 2023 – Contract finalised between ASHM and MT
October 2022 – Contract finalised between ASHM and CCHS
June 2023 – Solidarity meeting with Formosa Midwives and the MT HIV Team
June 2023 – Triple Elimination Learning Exchange from Timor-Leste to PNG
March 2023 - NDOH Triple Elimination training piloted in Mt Hagen bringing together HIV and ANC/Labour ward staff. Training updated according to feedback.
October 2023 – MT HIV team relocated to Formosa CHC
October 2023 – Recruitment of STEPT Project Manager
Jan-Mar 2024 - Discussions with NDoH and CCHS to identify Milne Bay as project location moving forward
November 2023 – Group Learning sessions begin with Formosa CHC midwives
May 2024 - Triple Elimination Training conducted in Alotau with 39 staff from all 4 districts and all health providers across Milne Bay
Jan 2024 – Initial development of STEPT training curriculum
Jan 2024 – Pilot training commences at Formosa CHC using for PoC HIV/syphilis duo in ANC
October 2024 - MoU between ASHM and NDoH
March 2024 – First RHTO Disability Inclusion Training with HIV Team, Triple Elimination Team and Formosa CHC Midwives
November 2024 - Visit to Alotau by Dr Namarola (NDoH HIV Surveillance Coordinator) to provide capacity building for HPDB data entry
April 2024 – ANCP Monitoring Visit by DFAT
July – December 2024 – Triple Elimination training curriculum development and translation commenced.
November 2024 - MoU between CCHS-Alotau, ASHM and Milne Bay PHA
January – June 2025 – HIV and Triple Elimination Team commence formal training with draft curriculum
February 2025 – Estrela+ peer support workers join STEPT Triple Elimination Team
June 2025 - Clinical mentor visit to selected facilities and clinical advisor meetings with key PHA and CCHS project stakeholders
May 2025 – Second RHTO Disability Inclusion Training
May/June 2025 – Midterm Review

Annex 3: Interview/focus group discussion question guides

Senior staff, MoH, NdoH

- What do you know of the STEPT project and how have you been involved, or connected to it?
- How well do you think it aligns with national health strategies/policies that you are aware of, or involved with?
- Do you think the STEPT activities are addressing an unmet need?
- Are you aware of any changes that have come about as a result of the STEPT project? What would you say is the most significant change you've seen?
- Do you think the STEPT project is strengthening the public health system's capacity to deliver ongoing triple elimination services? How?
- What do you think are the greatest challenges for achieving triple elimination in PNG/TL?
- Do you think enough is being done to ensure marginalised groups are benefitting from EMTCT service delivery?

Health service delivery staff who have been participants in project training/activities

- Can you describe how [training or other project activity] has affected your day-to-day work?
- Has the training and/or mentoring helped you feel more confident in delivering testing and treatment services?
- Is there anything that you have found hard or challenging in delivering EMTCT services?
- How do women using the health services respond to testing and treatment?
- Do you think there are people or groups in the community who find it hard to access these services? Why?
- Have you seen any changes in your place of work since participating in [whichever STEPT activities are relevant to them]?
- What are the barriers to implementing PMTCT services and how could the delivery of these services be improved?

Project implementation/management staff

- What do you think are the biggest achievements of the project so far?
- What have been the most significant barriers/challenges to implementing the project so far?
- How is the project reducing barriers for women from marginalised groups to access the services? What are the opportunities and challenges relating to this?

- Do you think there are opportunities to scale up the project? What suggestions would you have for scaling it up?
    - How do you think the project has contributed to strengthening local health systems?
    - To what extent do you think the health workers involved feel ownership over the project?
    - How are local partners/stakeholders (including MoH/NDoH) involved in planning, implementation and decision making?
    - What new partnerships/relationships/networks have been built that could help carry forward the work of the project into the future?
    - What do you see as the biggest opportunities for sustaining project outcomes?
    - What are the main risks or challenges to sustainability, and how might the project address these moving forward?
    - Has the capacity of [implementing partner] been strengthened as a result of the project?
    - What opportunities are there for capacity strengthening as the project moves forward?

Annex 4: Progress against M&E Framework

Key Evaluation Question	Sub-question	Indicator	Timor Leste				PNG (4 CCHS facilities)	
			2023	Jan-Jun 24	Jul-Dec 24	Jan-Jun 25	Apr-Jun 24	Apr-Jun 25
KEQ1: To what extent has ASHM improved health outcomes for people at risk of or diagnosed with HIV and BBVs, and SRH health and wellbeing?	SQ1.1 To what extent has ASHM improved health outcomes and wellbeing of people living with HIV or BBVs?	Impact for People Indicators						
		Number of people (women tested in ANC) who know their HIV status through testing		968	877	868	348	299
		Number of people living with HIV who are on treatment		7	3	2*	1	1
	SQ1.2: To what extent has ASHM reduced the risk of mother-to-child transmission of HIV, syphilis, and hepatitis B?	Number of babies protected from potential HIV infection		723	624	716	273	306
		Number of babies born to mothers with HIV with increased protection from mother-to-child transmission		7	3	2	1	1
		Number of babies protected from potential syphilis infection		723	624	716	208	220
		Number of babies born to mothers with syphilis with increased protection from mother-to-child		24	34	18	25	35

		transmission of syphilis						
		Number of babies protected from hepatitis B infection through birth dose vaccination		201	180	226	177	110
		EMTCT of HIV – indicators for pregnant women						
		Number of women tested for HIV at any point during pregnancy	44%					
		Number of women attending 1st ANC appointment		894	766	899	273	306
		Number and % or women who attend 1st ANC who are tested for HIV**		723, 81%	624, 81%	716, 80%	267, 98%	265, 87%
		Number and % of pregnant women tested with newly diagnosed HIV status		1, 0.14%	1, 0.16%	1, 0.14%	1, 0.37%	1, 0.38%
		Number and % of pregnant women who tested positive for HIV and initiated ART		1, 100%	1, 100%	1, 100%	1, 100%	1, 100%
		Number and % of pregnant women living with HIV started or continued		7, 100%	3, 100%	2*, 100%		

		on ART during pregnancy						
		Number and % of pregnant women living with HIV who birth in the health facility		6	5	4*		
		Number and % of pregnant women living with HIV who have a viral load test performed during pregnancy		2, 33%	3, 60%	2*, 50%		
		Number and % of pregnant women with HIV supported to achieve a suppressed viral load		2, 33%	3, 60%	2, 50%		
		EMTCT of syphilis						
		Number of women attending 1st ANC appointment		894	766	899	273	306
		Number and % of pregnant women attending ANC who are tested for syphilis at first antenatal visit ****		723, 81%	624, 81%	716, 80%	208	220
		Number and % of pregnant women attending ANC 1st visit with reactive syphilis rapid test		21, 2.9%	29, 4.6%	16, 2.2%	25, 12%	39, 18%

		Number and % of pregnant women attending ANC 1st visit with reactive syphilis rapid test who receive treatment of some kind***		24, 92%	34, 100%	18, 100%	25, 100%	35, 90%
		Number and % of pregnant women attending ANC with reactive syphilis rapid test who receive adequate syphilis treatment during pregnancy		21, 88%	29, 85%	18, 100%		
		EMTCT of hepatitis B						
		Number and % of infants receiving a birth dose of Hepatitis B vaccine within 24 hours of delivery		73 of 170, 43%	201 of 210, 96%	180 of 187, 96%	177 of 178, 99%	110 of 107, 100%

*doesn't include Apr-Jun 2025

**Tests in 1st ANC visit are currently recorded with a less restrictive definition and a more restrictive definition to accommodate the ANC reporting system which is not always clear in relation to if this is a woman's first ANC visit or not. These numbers use the 'more restrictive' definition so actual numbers are most likely higher.

*** includes positive syph screening at Formosa PLUS positive screening from elsewhere

**** In PNG the syphilis testing numbers are for any point during ANC (not just 1st visit)

Key Evaluation Question	Sub-question	Indicator	Timor-Leste	Papua New Guinea
KEQ3: To what extent has ASHM contributed to government and non-government health organisations resourcing and implementing HIV, BBV and SRH policies and systems?	SQ3.1: How did ASHM support and engage at the regional level, and what was the result?	Description of support/engagement at regional level	- Regular engagement with WPRO and updates provided to WPRO & SEARO on all ASHM EMTCT work in the Asia and Pacific Region and initiate discussion on potential opportunities for collaboration on EMTCT across the region. - Regular attendance and updates provided at quarterly meeting of the International Sexual and Reproductive Health & Rights consortia	
		Instances of effective engagement and influence at regional level. This could include instances of: - Influential engagement and contribution to regional fora, working groups etc. - Improved regional policy, guidelines, implementation plans - Improved resourcing, commodity supply financing and systems, and workforce development		
	SQ3.2: How did ASHM support and engage at the national level, and what was the result?	Description of support/engagement at national level	- Regular engagement and updates provided to the National AIDS Program of the MoH including data updates and opportunities for collaboration and scaling up project activities across TL. - Advocating to the NAP and MoH on the importance of improved resourcing	- Regular engagement and updates provided to the NDoH national HIV program including discussion relating to the scale up of project activities to new provinces - Contributed to development of
		Instances of government and non-government organisations improving resourcing, policies and systems for HIV, BBVs and SRH.		

		This could include instances of: - Improved leadership and governance - Influential engagement and contribution to national fora, working groups etc. - Improved policy, guidelines, implementation plans - Governments enabling scaling of projects to new locations - Improved resourcing, commodity supply financing and systems, and workforce development - Improved information management and use	and workforce development opportunities for health care workers in TL on PMTCT/EMTCT initatives. - Supporting Formosa CHC to improved M&E data collection and reporting systems and using these to advocate for further support. - Engagement and collaboration with local NGOs, CSO and disability inclusion organisations to support project activities.	PNG national EMTCT Strategy (soon to be launched) - Piloted and adapted national EMTCT training guidelines, subsequently used in Milne Bay training
	SQ3.3: What did ASHM do to build the capability of sub-national health authorities, and what was the result?	Description of support/engagement with sub-national health authorities (e.g. PHAs and CCHS management in PNG, and MHAs in Timor-Leste) Instances of sub-national health authorities improving resourcing and implementation of	- Currently no capacity building work at the sub-national level	- Coordination at the provincial level of PHA, CCHS and other health service providers around EMTCT as evidenced by provinicial level EMTCT data being collected and discussed at quarterly review meeting in Q2 2025.

		policies and systems for HIV, BBVs and SRH. This could include instances of: - Improved policy, guidelines, implementation plans - Improved resourcing, commodity supply financing and systems, and workforce development - Improved information management and use - Enabling scaling of interventions and approaches to new facilities		- Improving data collection processes (M&E support to PHA staff) following training, moving towards provincial level EMTCT reporting with a view to streamlining commodity procurement systems
KEQ4: To what extent has ASHM contributed to health facilities having the capability and systems to deliver quality services?	SQ4.1: What did ASHM do to build the capability and systems of health facilities?	Number of health facilities supported by ASHM, and description of support provided	- Support provided through training and mentoring of 11 midwives to ensure consistent testing and treatment of HIV and syphilis at ANC visits and ensure infants receive the hep B birth dose vaccine within 24 hours of birth. - Capacity building of triple elimination team in M&E processes and systems	- 6 facilities with staff who participated in pilot training received clinical mentoring (Western Highlands, West New Britain, Simbu, Southern Highlands) - 9 facilities in Milne Bay provided with clinical mentoring - 20 health workers provided with informal in-service training focussing on 3 test algorithm and data and reporting processes

				- 3 CCHS facilities provided with data and reporting support
		Number of facilities supported by ASHM with a Capability Assessment completed and Improvement Plan in place	- Assessment of Formosa CHC as part of scoping for new project location	- 9 facilities supported with facility assessment as part of clinical mentoring visit
	SQ4.2: To what extent do health facilities have improved capability and systems for service delivery?	Number and % of health facilities demonstrating improved rating in annual Capability Assessment	As per SQ7.1 and 7.2, these indicators require a rethinking. It is important for ASHM to understand the way facilities are improving however given ASHM's approach which prioritises localisation and which has limited influence over the operations of facilities, this should not be achieved through an externally driven results framework.	
		Number and % of health facilities demonstrating adherence to minimum standards and essential package compliance		
KEQ5: To what extent have ASHM contributed to healthcare providers delivering person-centred health services for HIV, BBVs, and SRH?	SQ5.1: What did ASHM do to build healthcare provider capability?	Number and description of trainings delivered	- Informal, on-the-job EMTCT training since Nov 2023 - Disability-inclusion training delivered by RHTO	- 2 EMTCT trainings - 4 Inservice trainings
		% of trainings where cross-cutting issues are addressed (e.g. GEDSI, stigma and discrimination)	100%	100%

		Number of people trained	- Informal, on-the-job EMTCT training (15 midwives + 12 HIV and TE team) - Disability inclusion training (27 staff)	- EMTCT training (72 health workers) - In-service trainings (78 health workers)
		Number of healthcare workers that receive clinical mentoring	- 4 MoH staff - 7 HIV/TE team members	- 110 health workers
		Number of local clinicians trained/supported to be clinical mentors	- 9 from MT	
		Number of healthcare providers supported to participate in regional and national learning and networking opportunities supported by ASHM	- Viral Hepatitis Conference 2022: 5 TL, 2 PNG - Study tour PNG: 3 TL - IAS: 4 TL, 3 PNG - IUSTI: 2 PNG	
	SQ5.3: How did healthcare providers capability (knowledge, attitudes, skills) improve?	Number and % of healthcare providers reporting improved clinical confidence and competence	This has been a gap, to date, in the project. There is a need to develop a clinical competency framework/tool to measure change in clinical confidence and competence.	
KEQ7: To what extent have ASHM built the capacity of partner organisations?	SQ7.1: What has ASHM done to build the organisational	Number of partner organisations supported by ASHM, and description of support provided	ASHM works with both STEPT implementing partners to identify if there are areas in which ASHM can provide support or add value however these indicators are not appropriate for	

	capacity of partners, and what is the result?		measuring the way ASHM works with partners. See section 3.2 of the midterm review report for further explanation.	
		Number and % of partner organisations who complete Organisational Capacity Assessment, including for cross-cutting issues	The initial due diligence process conducted by ASHM concluded that Maluk Timor did not require an additional Organisational Capacity Assessment.	CCHS has completed an Organisational Capacity Assessment
		Number and % of partner organisations with ASHM Capacity Building Support Plan in place as indicated by the organisational capacity assessment	- CCHS has a Capacity Building Support Plan in place - The initial due diligence process conducted by ASHM concluded that Maluk Timor did not require a capacity building support plan. - Periodic spot checks are undertaken with both partners to review policies and other due diligence obligations.	
	SQ7.2: What has ASHM done to build partner capacity on cross-cutting issues, and what is the result?	Number and % of project staff at partner organisations trained in child protection, anti-fraud & corruption and PSEAH	- All staff directly engaged in the STEPT project have completed ASHM trainings covering these cross-cuting issues. - More broadly, ASHM works with partner organisations to embed contextualised safeguarding content into the EMTCT trainings. For example, a social worker from the family health unit in the Milne Bay PHA was invited to the Alotau EMTCT training to talk about safeguarding mechanisms in the province.	
	SQ7.3: To what extent has ASHM established	Instances of strong collaboration, ways of working and shared decision-making	- Year one discussion on clinical needs and most acceptable approach to	-Though not a primary partner organisation the STEPT project in

	strong, collaborative relationships with partner organisations?	between ASHM and partner organisations	training/mentoring by MT HIV team and Dr Eleanor MacMorran. Session led by MT HIV team and STEPT team in Dili. - Working with Estrela+ on the needs of pregnant women with HIV and support required. As a result, two Estrela+ peer workers are now supported by the STEPT project and are an integrated part of the team. - Strong engagement with the Ministry of Solidarity and Social Services in TL to support vulnerable women attending Formosa clinic with food for their families and support with employment if needed. - Strong engagement and collaboration with MT, shared decision making on project activities and budgets - engagement with stakeholders including the MoH and NAP are conducted by both teams together - Regular collaboration at local events between MT HIV team and STEPT team to raise awareness with	PNG has had strong collaboration with the NDoH, using their PPTCT training package as the foundation for training going forward. -Strong engagement and collaboration with CCHS, shared decision-making on project activities and budgets, for example, CCHS in Milne Bay has suggested a change to the logistics of the training workshop later in 2025 to minimise costs and increase participation -Coordination of EMTCT activities in Milne Bay sits with several key leaders with existing roles in CCHS, the hospital and the PHA (rather than specific STEPT roles), ensuring a high level of integration and strong collaboration within existing structures.

			communities on preventions of PMTCT, other BBVs and STIs. - STEPT project manager in TL integrated into the MT HIV team, both teams working side by side at the Formosa clinic on a daily basis. - MT HIV team and STEPT team are trained together by Dr Eleanor MacMorran and train midwives together as one team. - Responsibility for developing PMTCT training modules, checklists, facilitator and participant manual etc is shared across both the HIV and STEPT teams.	

Annex 5: Desk review of PNG EMTCT training package

ASHM STEPT Evaluation: Desk Review of PNG EMTCT Training Package

Background

The Supporting Triple Elimination in Papua New Guinea and Timor-Leste (STEPT) project, implemented by ASHM Global in partnership with in-country health organisations, aims to strengthen health system capacity to eliminate mother-to-child transmission (EMTCT) of HIV, syphilis and hepatitis B.

ASHM is conducting a midterm review to explore STEPT achievements, learnings and challenges to date with specific focus on relevance, effectiveness and sustainability. Findings will inform reorientation of activities to better meet defined project outcomes in next implementation period.

As part of the process, this desk-based review sought to explore how the ASHM STEPT training package for PNG[5] aligns with, and supports, key triple elimination documents - the Regional Framework for the EMTCT of HIV, Hepatitis B and Syphilis in Asia and the Pacific 2018-2030[6] (Regional Framework) and the Regional Roadmap for the EMTCT of HIV, Syphilis and Hepatitis B in the Asia and Pacific region 2024-2030[7] (Regional Roadmap).

Objectives of the desk review were:

- To review STEPT project documents in the context of the Regional Framework and Regional Roadmap
- To assess alignment, gaps and opportunities for improvement in the next STEPT implementation period
- To provide recommendations for improved alignment and ongoing adherence to guidelines.

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[5] *The Timor Leste training package was still under development at the time of the review and has therefore not been included in this report.*

[6] WHO. (2018). Regional framework for the triple elimination of mother-to-child transmission of HIV, hepatitis B and syphilis in Asia and the Pacific, 2018-2030.

[7] UNICEF, WHO, UNAIDS & Nossal Institute for Global Health. (2025). Regional Roadmap for Elimination of Mother-to-Child Transmission of HIV, Syphilis and Hepatitis B in the Asia and Pacific Region for 2024–2030.

The desk review assessed the EMTCT training package developed (or adapted) by ASHM under STEPT to train health workers in defined locations of Papua New Guinea, considering strengths and gaps in alignment to the Regional Framework and Regional Roadmap. The documents made available for the review are listed below.

High level findings of the desk review are presented on:

1. General alignment of the project to the 3 Pillars of the Regional Framework and the 7 Strategic Objectives of the Regional Roadmap as well as the recommended actions by other regional partners
2. The PNG Elimination of Parent to Child Transmission (EPTCT) of HIV, Hepatitis B and Syphilis Health Worker Training Participant Workbook alignment to regional documents

General training feedback (strengths and recommendations) is also presented - to improve training alignment with regional documents, ensure strong adult-based learning training curricula and promote greater advance towards project outcomes in the next project phase.

Limitations

The following limitations are acknowledged for this desk review:

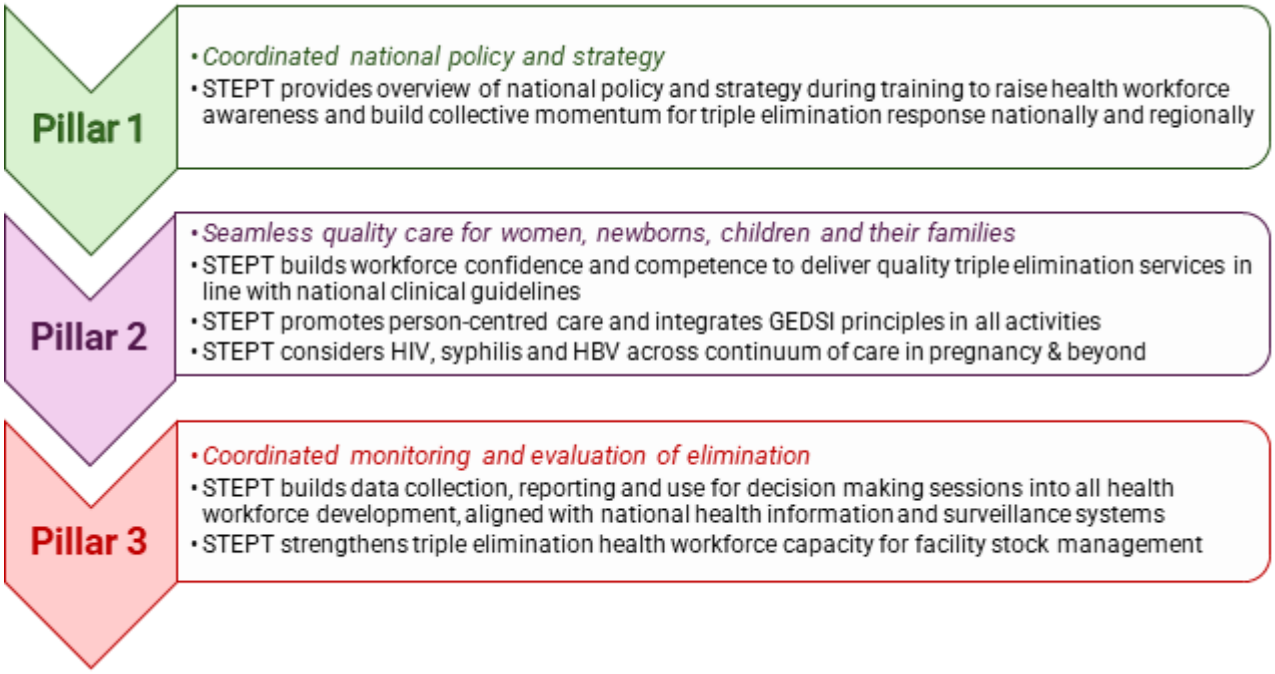
- STEPT operates in limited geographical settings of PNG and Timor-Leste. As such, the training of health workers and STEPT outcomes are centred on these locations and do not represent nationwide progress in triple elimination - the regional documents focus on national and regional programming and targets
- There is no national Hepatitis B treatment program in PNG or Timor-Leste, with birth dose and infant course vaccination providing EMTCT focus for HBV under STEPT (1st tier HBV intervention)
- The skills, expertise and experience of the facilitator play a large role in effective delivery of training for knowledge acquisition. This review focussed only on the training materials made available and is not a reflection of how trainings were delivered in PNG or Timor-Leste or consequent learning outcomes
- Knowledge acquisition during training must be teamed with capacity (time and resources) within the workplace to enable applied learning and positive practice change. Hence, even quality training does not always equate to change in practice and advances in health outcomes
- Minimum days allocated to desk review reflected in depth of analysis and reporting
- Revision of clinical content not requested or conducted – reviewed prior by ASHM Clinical Advisors.

STEPT Training Package Desk Review

STEPT aims to support both regional and country-based triple elimination strategies and targets. The original project design document details alignment with the Regional Framework and relevant national strategies for PNG and Timor-Leste.

Regional Framework

The graphic below outlines how STEPT could align with the 3 Pillars of the Regional Framework. The country sections provide details on whether the training materials reviewed achieve this alignment.



It is noted that the STEPT M&E Framework also aligns with Regional Framework Programme Targets. Progress against these indicators and targets was not a focus on this desk review.

Regional Roadmap

The table below outlines how STEPT could align with a number of the Strategic Priorities of the Regional Roadmap. The country sections note where this potential alignment has been achieved within the training materials reviewed.

Strategic Priority	STEPT Potential Alignment
Strategic Priority 2	STEPT builds a health workforce confident and competent in clinical management of EMTCT for HIV, syphilis and HBV

Universal and equitable access to triple EMTCT services	across perinatal and HIV sites to increase reach of triple elimination care
Strategic Priority 3 Contextualising integration of EMTCT into RMNCAH systems	STEPT includes perinatal (ANC, birthing/delivery and postnatal) health workers as well as HIV and primary care staff in training to promote access to triple elimination care, in line with national EMTCT programs
Strategic Priority 4 Data-driven and context-specific decision-making, M&E of EMTCT programs	STEPT includes data collection, reporting and use for decision making sessions into all health workforce development, aligned with national health information and surveillance systems
Strategic Priority 5 Community engagement and social accountability	STEPT engages with community including women's organisations and organisations of people with disability (OPDs) in development and delivery of trainings, and across the project cycle
Strategic Priority 6 Populations with higher prevalence of MTCT of HIV, syphilis and/or hepatitis B	STEPT engages with key and priority population networks and representatives in development and delivery of trainings, and across the project cycle

STEPT also demonstrates addresses one recommended Actions by Other Regional Partners from the Regional Roadmap, that academic institutions in the region can also support the establishment of centres of excellence, practice guidelines and training for health professionals.

Papua New Guinea

Training Documents

The following documents were used for the desk review of ASHM EMTCT training in PNG:

- Regional Roadmap Case Study on Papua New Guinea
- Elimination of Parent to Child Transmission (EPTCT) of HIV, Hepatitis B and Syphilis Health Worker Training: Participant Workbook

Training Development

The ASHM EPTCT of HIV, HBV and Syphilis Health Worker Training was conducted as a pilot in Mt Hagen, PNG during March 2024 with attendance by CCHS health workers and PHA staff from Western Highlands, Enga, Simbu, and West New Britain. The curriculum for the pilot was adapted from the PNG Elimination of Parent to Child Transmission of HIV, Syphilis and Hepatitis B: a training manual for health workers in Papua New Guinea. The Participant Workbook available for desk review is an updated version from the pilot, inclusive of feedback from that training group.

ASHM acknowledges the technical input and approval of the PNG HIV TWG in Participant Workbook to development of the project and training, along with invaluable contributions from NDoH, CCHS, PHA and other stakeholders. There is no acknowledgement of specific GEDSI organisations in training development.

Training Alignment

Regional Framework

Regional Framework Pillars	STEPT Alignment
Pillar 1: Policy *Coordinated national policy and strategy*	• Training adapted from PNG EPTCT training manual • National Policy & Guidelines as first module, introduces how EPTCT is positioned within national strategies including NHP 2021-2030 and the National EPTCT Framework & Operational Plan 2021-2025 (requires update to National Triple Elimination Strategy Framework 2024-2028) • Training aligned with national guidelines on HIV point-of-care testing, syphilis testing and treatment in pregnancy and HBV vaccination of newborn • Knowledge checks throughout training request prompt participants to consider national strategies and guidelines.
Pillar 2: Service Delivery *Seamless quality care for women, newborns, children and their families*	• Detailed modules providing overview of HIV, Syphilis and HBV in adults and children leading to general and antenatal management for triple elimination • Regular reference to relevant national clinical guidelines and strategies • Clinical case studies throughout workbook to encourage applied knowledge

	• Module on Person-Centred Care & Communication and evidence of consideration of individual including privacy throughout training modules • Good inclusion of safety and supportive care in the work environment including universal precautions and management of occupational exposure • Inclusion of comprehensive module on stigma and discrimination but training could be more overt in discussion of barriers to perinatal services for key and priority populations (1 case study based on female sex worker) • Training timetable includes 2 sessions for disability overview, however, content for these is not included in the Participant Workbook.
Pillar 3: Monitoring & Evaluation *Coordinated monitoring and evaluation of elimination*	• Reference throughout relevant modules to documenting results, including roles and responsibilities for surveillance and NHIS reporting within different perinatal settings (ANC, labour/delivery and primary care).

Regional Roadmap

The PNG EPTCT Training achieves alignment with the following Strategic Priorities of the Roadmap:

- SP2: Universal and equitable access to triple EMTCT services
- SP3: Contextualising integration of EMTCT into RMNCAH systems
- SP4: Data-driven and context-specific decision-making, monitoring and evaluation of EMTCT programs.

Further, the training supports 2 of 5 Way Forward recommendations specific to the PNG case study in the Regional Roadmap by effectively utilising the existing, trusted healthcare workforce through appropriate retention and training, and ensuring consistency in diagnosis and referral for target diseases, including quality of care upon referral.

Training Feedback

Strengths

- The Participant Workbook outlines a comprehensive, robust training for EMTCT of HIV, Syphilis and HBV which aligns well with national strategy and guidelines, and the regional framework and roadmap

- Strong use of knowledge checks, case studies, summaries of key points and visuals (graphics and images) throughout the training, including detailed photographs of HIV testing process
- Key concepts of integration with Family Health, EPTCT, ANC, Family Planning and other family health services embedded from introduction session
- Strong application of adult-learning principles with clear focus on building health worker knowledge and skills on EMTCT of HIV, syphilis and HBV
- Logical training progression from an overview of national strategies to person-centred HIV, syphilis and HBV clinical management including skill building (knowledge and practice sessions), to social and environmental factors and risks (workplace safety, stigma and discrimination, child protection and disability) and a final day of revision, assessments and workshop close.

Recommendations

- Update training to reflect recent data and the National Triple Elimination Strategy Framework 2024-2028 and National STI & HIV Strategy 2024-2028
- 13 outcomes listed is extensive, however, mirror those in the PNG EPTCT Training Manual and do use some competency-based language so can remain – develop training objectives to sit above these
- Use terminology from UNAIDS Terminology Guidelines 2024 (ie AIDS to Advanced HIV Disease)
- Increase promotion of engagement of pregnant women with services across perinatal period
- Broaden narrative on testing and treatment to promote inclusion of partner and family (index testing)
- Remove old 2-test algorithm and train participants only on 3-test algorithm for HIV
- Check infant prophylaxis regime – was changing in 2025 due to high treatment resistance in newborns
- Be clear on lack of national HBV treatment program and further emphasise importance of birth dose and infant course vaccination in reducing MTCT of HBV in workbook
- Remove pre-test counselling component once this is amended in national guidelines to reduce barriers to testing for pregnant women
- Ensure terminology in training aligns with national guidelines on immunisation – training states infant course at 6, 10 and 14 weeks (in line with WHO recommendations) on p38 but PNG Immunisation Schedule 2019 states 1, 2 and 3 months (correct on p87 of workbook)
- Focus the Day 4 clinical case studies on triple elimination and increase focus on key and priority populations across case studies in training. Add elements of, or questions about, respectful maternal care to case studies to demonstrate service integration

- Include PSEAH under supportive care in work environment – if not already in the training slides
- Ensure consistent spelling of syphilis through Participant Workbook
- Improved structure and formatting could improve the flow of the Participant Workbook as a standalone tool, but the occasional inconsistent presentation is likely mitigated by the way the training is facilitated
- No overt inclusion of GEDSI in Participant Workbook – disability sessions listed in training timetable but no content included in workbook. Participant Workbook would rate as Gender Sensitive on the WHO Five-Level Gender-Responsive Assessment scale due to content on heightened physiological and other risks for women acquiring HIV. Aim for Gender Specific rating by acknowledging cultural norms and demonstrating consideration of gender issues and risks in access of perinatal services. Increase reference also to GBV management and referral. Note, this may be covered in training slides but not included in the workbook.
- Engage GEDSI representatives (women's groups, OPDs and key or priority population networks to review and participate in the training and acknowledge their involvement in training development and delivery.

Reference Documents

ASHM. (2022). Supporting Triple Elimination in PNG and Timor-Leste Project Design Document.

ASHM. (2023). Elimination of Parent to Child Transmission (EPTCT) of HIV, Hepatitis B and Syphilis Health Worker Training: Participant Workbook

PNG NDoH & NACS. (2024). National STI & HIV Strategy 2024-2028.

PNG NDoH. (2024). Triple Elimination of HIV, Syphilis and Hepatitis B Strategy Framework 2024-2028.

PNG NDoH. (2021). Elimination of Parent-to-Child Transmission of HIV, Syphilis and Hepatitis B Strategic Framework 2021-2025 and Operational Plan 2021-2023.

PNG NDoH. (2021). Elimination of Parent-to-Child Transmission of HIV, Syphilis and Hepatitis B: A Training Manual for Health Care Workers in Papua New Guinea.

UNAIDS. (2024). UNAIDS Terminology Guidelines.

UNICEF, WHO, UNAIDS & Nossal Institute for Global Health. (2025). Regional Roadmap for Elimination of Mother-to-Child Transmission of HIV, Syphilis and Hepatitis B in the Asia and Pacific Region for 2024–2030.

WHO. (2018). Regional framework for the triple elimination of mother-to-child transmission of HIV, hepatitis B and syphilis in Asia and the Pacific, 2018-2030.