



A MIXED-METHODS STUDY OF VACCINE FINANCING ON THE THAI-MYANMAR BORDER: QUANTIFYING GAPS AND EXPLAINING BARRIERS IN FIVE THAI PROVINCES AND ADJACENT MYANMAR STATES/REGION

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BACKGROUND/INTRODUCTION

The Thai-Myanmar border, home to an estimated 4.1 million migrants, faces a deepening immunization crisis shaped by protracted conflict, political instability, and sustained migration. Following the 2021 coup, Myanmar ranks 10th globally with 1.2 millions zero-dose children—a vulnerability now realised through outbreaks of vaccine-preventable diseases (VPDs), highlighting the intersection of demographic pressures, fragile governance, and regional health security risks. This crisis extends into Thailand, where EPI coverage for non-Thai children is critically low (18–45%) along the border provinces.

METHODOLOGY

- Mixed-methods: quantitative demand estimation + qualitative interviews + stakeholder consultation.
- Thai estimates: MOI/MOE/IOM records with PIP adjustment.
- Myanmar estimates: 2024 Ethnic and Demographic Health Survey by HISWG, 2019/2024 census, ECBHO program data.
- Costs: NHSO vaccine price (Thailand) and Gavi/NGO models (Myanmar).

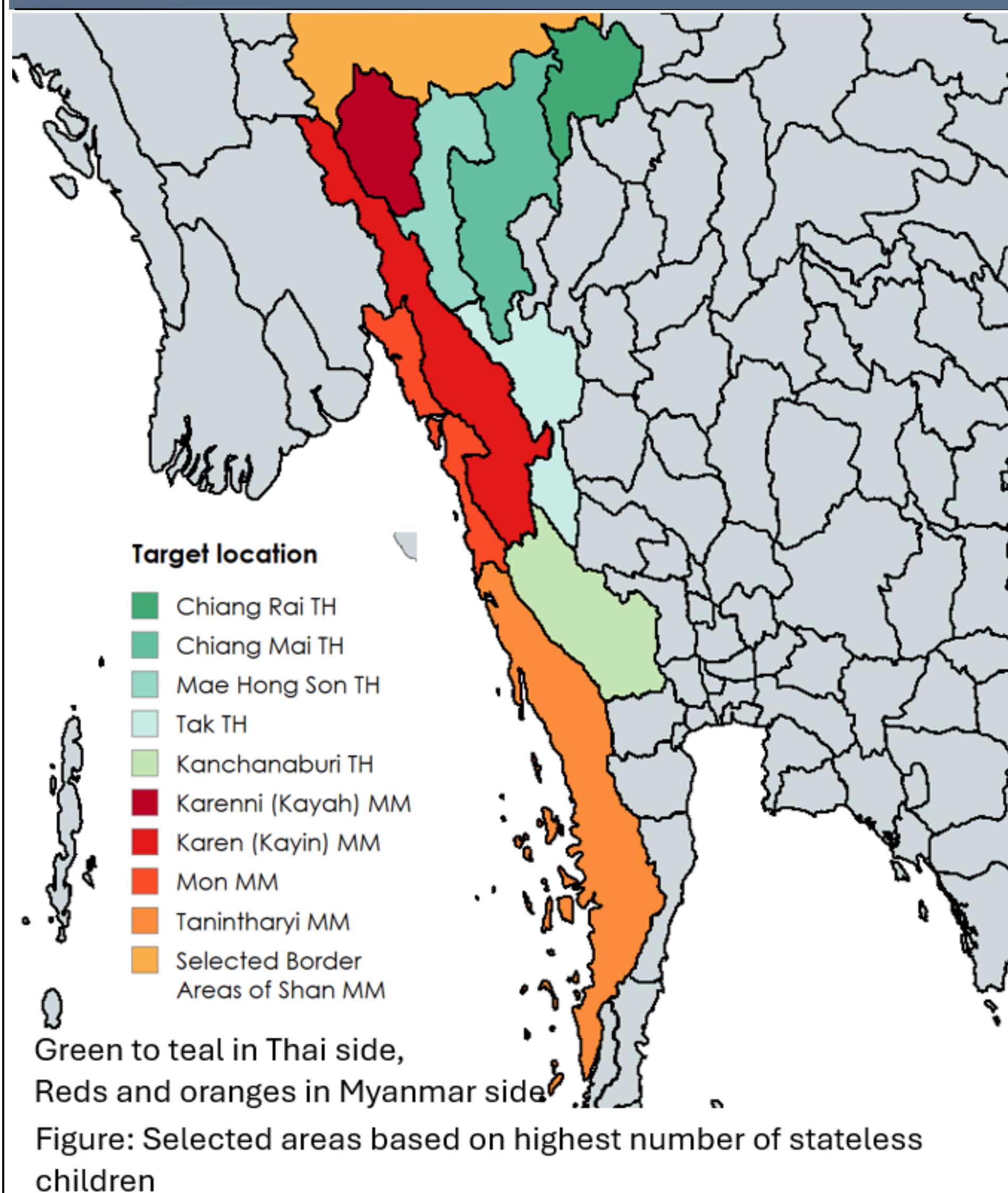
OBJECTIVES

- To estimate cross-border vaccine demand for non-Thai and Myanmar children (0–4 years) across five Thai provinces and five Myanmar states/regions.
- To assess vaccine financing requirements using Thai, Gavi, and NGO cost models.
- To identify delivery and financing barriers using qualitative interviews and stakeholder consultations.
- To propose feasible, scalable financing pathways for Thailand and cross-border partners

RESULTS/FINDINGS

- Cross-border data are fragmented, and mobile or unregistered children are routinely missed.
- Myanmar's 0–4 population is far larger, and Thai figures likely represent only the visible fraction of the true need.
- Key barriers include data invisibility, access and security challenges, unstable financing, and overstretched frontline workers.

Data Visualization Summary



Indicator	Thailand (5 Border Provinces)	Myanmar (ECBHO / Ethnic-Controlled Areas)	Myanmar (Overall 5 Border States & Regions)
Geographic Scope	Tak, Chiang Mai, Mae Hong Son, Chiang Rai, Kanchanaburi	Kayin (Karen), Kayah (Karen), Tanintharyi, Southern Shan, Mon	Kayin (Karen), Kayah (Karen), Tanintharyi, Southern Shan, Mon
Estimated 0–4 Population (Total)	≈ 52,000 children	≈ 105,981 children	≈ 687,000 children
Newborns Requiring Vaccination	≈ 13,000	≈ 25,000	≈ 172,000
Proportion Fully Vaccinated (%)	17.49 (10.6–24.3)	14.31 (10.6–24.3)	14.31 (10.6–24.3)
Average Vaccine Cost per Child (THB / USD)	1,996 (≈ 61.8 USD)	GAVI 2,364 (≈ 73.2 USD) / NGO 4,857 (≈ 150.5 USD)	GAVI 2,364 (≈ 73.2 USD) / NGO 4,857 (≈ 150.5 USD)
Catch-up Cost per Child (THB / USD)	1,397 (≈ 43.3 USD)	GAVI 1,655 (≈ 51.3 USD) / NGO 3,400 (≈ 105.3 USD)	GAVI 1,655 (≈ 51.3 USD) / NGO 3,400 (≈ 105.3 USD)
Total Vaccination Cost (Million THB / USD)	≈ 93 M THB (≈ 2.9 M USD)	GAVI: ≈ 210 M THB (≈ 6.5 M USD) NGO: ≈ 480 M THB (≈ 15 M USD)	GAVI: ≈ 1,480 M THB (≈ 46 M USD) NGO: ≈ 3,045 M THB (≈ 94 M USD)

Table: Comparative Summary: Vaccine Demand and Cost (Thailand vs. Myanmar, 0–4 Years)

RECOMMENDATIONS

- Formalize Thai-side financing, either through expanded NHO coverage or a pooled Humanitarian Health Fund.
- Secure lower-cost vaccine procurement via Gavi-price mechanisms or direct manufacturer agreements.
- Improve delivery through proactive outreach, school-based vaccination, and strengthened cross-border partnerships.
- Strengthen systems with mobile/offline child tracking, better cold-chain support, and formal recognition of Myanmar health workers operating in border areas.

CONCLUSION

- Cross-border immunization gaps pose urgent health-security risks for both Thai and non-Thai populations.
- Addressing them requires formal financing, access to affordable vaccines, and reliable outreach capacity.
- Stronger data systems and coordinated Thai-Myanmar delivery mechanisms are essential to stabilize access for mobile and conflict-affected children.
- Closing these gaps is critical to reducing zero-dose burden and strengthening regional health security.