

From Integration to Impact: Immediate Policy Actions to Accelerate HIV Control within Indonesia's Primary Health Care Reform

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Abstract. Background: Indonesia has reduced new HIV infections by nearly half since 2010, yet AIDS-related mortality continues to rise. This paradox reflects persistent gaps in early diagnosis, treatment initiation, retention, and strategic targeting, occurring amid Indonesia's major Primary Health Care (PHC) reform, which involves integrated primary health care or Integrasi Pelayanan Kesehatan Primer (ILP). **Evidence:** Joint HIV Programme Review (JPR) 2023–2025 data show strong treatment quality once patients are retained (~95% viral suppression among those tested), but weak cascade performance overall: only ~64% of people living with HIV (PLHIV) know their status, <50% are on antiretroviral therapy (ART), and fewer than one-third are virally suppressed. The epidemic remains concentrated among key populations nationally, while Tanah Papua exhibits a mixed-to-generalized epidemic with severe service access constraints. **Policy Options:** Options include maintaining vertical optimization, full facility-based integration under ILP, or a hybrid model that integrates services while preserving community-led delivery and differentiated care (preferred option). **Recommendations:** We propose an immediate, operational package centered on (1) a prevention shift plus retention fix; (2) accelerated ILP integration with explicit safeguards for key populations; (3) rapid ART decentralization with multi-month dispensing (MMD); (4) strategic information integration for decision intelligence; and (5) a differentiated, community-centered strategy for Tanah Papua. **Implications:** Acting now can bend both incidence and mortality curves, safeguard reform momentum, and align HIV control with Universal Health Coverage (UHC) goals.



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Key Messages (Policy Highlights)

- Indonesia's HIV response is **prevention-strong but treatment-weak**; mortality will continue to rise without immediate action on diagnosis, linkage, and retention.
- **ILP integration is necessary but insufficient** unless paired with stigma reduction, community delivery, and differentiated service models.
- **Multi-Month Dispensing (MMD)** and decentralized ART are the fastest levers to improve retention and reduce mortality.
- **Strategic information must move from reporting to intelligence** through the HIV information system or *Sistem Informasi HIV-AIDS (SIHA)*– the national

health information system of SATUSEHAT integration and district-level analytics.

- **Tanah Papua requires a distinct service architecture**, prioritizing community-based ART, mobile services, and culturally grounded engagement.

1. Background and Policy Context

Indonesia's HIV epidemic has evolved into a dual pattern. Nationally, transmission remains concentrated among key populations, men who have sex with men (MSM), transgender women (TG), female sex workers (FSW), and people who inject drugs (PWID)[1,2], reflecting a response historically shaped by selective, disease-specific primary health care approaches heavily supported by external donors[3]. In contrast, Tanah Papua faces a mixed-to-generalized epidemic, with HIV prevalence exceeding 1% in the general population and antenatal positivity consistently above the national average[4]. As global HIV financing contracts and donor-supported vertical programmes are progressively scaled back, this legacy model is increasingly misaligned with Indonesia's epidemiological diversity and sustainability needs, underscoring the urgency of transitioning toward integrated, domestically anchored primary health care responses that can address both concentrated and generalized epidemic settings[5].

At the same time, Indonesia is undertaking its most far-reaching primary health care (PHC) reform in decades through ILP, which reorganizes primary health centers (Puskesmas) and their network (Pustu and Posyandu) into life-course service clusters and embeds promotive, preventive, and long-term care within routine primary care delivery [6]. This reform represents a deliberate shift away from fragmented, disease-specific programmes toward a comprehensive PHC model aligned with Universal Health Coverage[7-10]. The integration of HIV services within ILP, therefore, constitutes a critical stress test of the reform itself: whether a comprehensive PHC platform can absorb a historically vertical, stigma-laden programme without eroding access, quality, and continuity for key and marginalized populations[3,11-13].

The policy challenge is acute. Although Indonesia has reduced new HIV infections by approximately 49% since 2010, AIDS-related mortality has increased by nearly 59% over the same period, and the national incidence-to-mortality ratio has converged toward 1.0, an epidemiological signal of stagnation rather than transition toward epidemic control[14]. This divergence indicates that prevention gains are being offset by persistent failures in early diagnosis, timely treatment initiation, and long-term retention in care. Without immediate corrective action, particularly within the context of ILP implementation, current projections suggest that HIV-related mortality may begin to exceed new infections by 2030, fundamentally undermining both epidemic control goals and the credibility of the ongoing health system reform.

2. Evidence Base and Rationale

2.1 Cascade Performance and Mortality Risk

National programme data show gradual gains in HIV testing coverage and antiretroviral therapy (ART) initiation; however, these advances have not translated into a robust treatment cascade. An estimated one-third of people living with HIV (PLHIV) remain undiagnosed, representing the single most significant bottleneck to epidemic control. Among those diagnosed, linkage to care and long-term retention remain highly uneven, with disproportionate attrition observed among men, adolescents, transgender women (TG), female sex workers (FSW), and populations in geographically remote settings[4,14]. Although viral load testing capacity has expanded substantially in recent years, coverage remains inconsistent across provinces, particularly in eastern Indonesia, limiting the health system's ability to identify treatment failure early, initiate timely regimen switches, and prevent avoidable morbidity and mortality[14]. As a result, high-quality treatment outcomes among those retained in care coexist with persistently elevated AIDS-related deaths at the population level, underscoring a critical gap between service availability and effective continuity of care.

2.2 Key Populations and Network Transmission

The 2023 Integrated Biological and Behavioral Surveillance (IBBS) documented a marked increase in HIV prevalence among transgender women (TG) and men who have sex with men (MSM), confirming that these populations remain the dominant drivers of ongoing transmission in Indonesia[15]. These epidemiological trends are closely linked to persistent structural and behavioral barriers, particularly stigma and discrimination within health facilities, which continue to drive healthcare avoidance, delayed testing, and weak retention in care[4,14].

Notably, the IBBS and programmatic data demonstrate that innovative approaches, most notably social network strategies (SNS) and community-based screening, achieve substantially higher case detection yields than routine facility-based testing[14]. However, these high-impact modalities remain largely project-based and donor-dependent, operating outside formal national monitoring, financing, and referral frameworks. The absence of regulatory recognition, standardized reporting pathways, and sustainable domestic funding limits their scalability, integration with primary health care reforms, and long-term contribution to epidemic control.

2.3 Tanah Papua: A Distinct Epidemic

Tanah Papua is a geographical area in eastern Indonesia, encompassing the western part of Papua Island and comprising several provinces, including Papua,

West Papua, South Papua, Central Papua, and Mountainous Papua. The term refers not only to the identity and culture but also to the land itself; it is more than just a place. "Tanah Papua" holds spiritual and philosophical significance as the "mama" or mother who gives life, reflecting the close relationship of indigenous peoples with their land.

In the context of the HIV epidemic, Tanah Papua represents the most acute failure point in Indonesia's HIV cascade, with only approximately 42% of people living with HIV aware of their status, around 38% receiving ART, and fewer than one in five accessing viral load testing[14]. These gaps are not primarily driven by individual behavior but by entrenched structural constraints, including extreme geographic isolation, limited transportation and laboratory networks, recurrent security disruptions, cultural mistrust of state health services, and a very small number of ART-providing facilities serving vast and sparsely populated territories. Under these conditions, standard facility-based delivery models are insufficient and often inaccessible, underscoring the necessity for a fundamentally differentiated service architecture that prioritizes community-based ART delivery, extended multi-month dispensing, mobile and outreach services, and culturally grounded engagement with local religious and customary leaders.

3. Policy Problem Analysis

Three interlinked structural problems continue to undermine HIV programme impact in Indonesia:

1) **Late diagnosis and weak retention in a changing financing and priority environment**

Although HIV testing volumes and ART initiation have increased, case-finding remains inefficient and poorly targeted, and linkage-to-care and long-term retention are fragile. Short ARV refill cycles, facility-centric service models, and limited differentiated service delivery continue to drive loss to follow-up, particularly among men, adolescents, transgender women (TG), female sex workers (FSW), and populations in remote areas[4]. These weaknesses are increasingly exposed by shifts in the global donor landscape, characterized by plateauing or declining external funding and stronger expectations for domestic ownership, while HIV is no longer positioned as a national "quick win" priority within the current health transformation agenda. As a result, prevention gains are not being matched by sustained treatment continuity, placing mortality reduction at risk.

2) **Fragmented service delivery during the transition from vertical programmes to ILP.**

The transition from historically vertical HIV programmes to the ILP creates both opportunity and risk. Without explicit safeguards, the absorption of HIV

into life-course-based PHC clusters risks diluting specialized outreach, community-led delivery, and key population-focused approaches that have been central to epidemic control. Community systems, such as peer navigators, social network strategies, community-based screening, and differentiated ART delivery, remain insufficiently formalized within ILP governance, financing, and accountability mechanisms. This fragmentation is compounded by uneven subnational capacity, limited operational guidance, and competing district-level priorities, increasing the likelihood that HIV services “fall through the cracks” during integration.

3) Underutilized data systems and an unresolved role for private providers and the private sector.

Strategic information systems, including SIHA, TB registers (SITB), laboratory information systems, and community-based data platforms, remain fragmented and oriented mainly toward upward reporting rather than real-time decision-making, particularly at the district and facility levels. At the same time, the role of private providers and the broader private sector is poorly defined and underleveraged. A substantial proportion of HIV testing, TB care, antenatal services, and STI management occurs in private clinics, hospitals, laboratories, and workplaces. Yet, data reporting, referral pathways, financing arrangements, and accountability mechanisms remain weak or inconsistent. The absence of systematic integration of private-sector services into national information systems, financing frameworks, and quality assurance processes limits visibility of the epidemic, undermines continuity of care, and constrains the scalability and sustainability of the national HIV response in an era of declining donor dependence.

4. Policy Options

As Indonesia advances its ILP reform amid tightening fiscal space and shifting donor landscapes, a strategic decision is required on how to position HIV services within the reformed primary health care system. Maintaining parallel vertical programmes is increasingly unsustainable, yet rapid full integration into facility-based care risks eroding access for key and marginalized populations. Three policy pathways, therefore, merit consideration, reflecting different trade-offs between sustainability, equity, efficiency, and population reach.

Option 1: Optimize Vertical Programmes

This option prioritizes strengthening existing disease-specific HIV programmes, largely donor-supported and community-led, that have historically delivered high coverage and yield among key populations in concentrated epidemic settings. While optimization could preserve short-term effectiveness and minimize transition risks,

continued reliance on vertical platforms is increasingly constrained by declining external financing, limited domestic absorption capacity, and growing misalignment with Indonesia's integrated primary health care reform, rendering this pathway difficult to sustain or scale over the medium term.

Option 2: Full Facility-Based Integration under ILP

This option entails fully mainstreaming HIV services into facility-based primary health care under ILP, treating HIV as a routine chronic condition within life-course service clusters. While this approach aligns strongly with UHC and health system efficiency objectives, rapid integration without explicit safeguards risks exacerbating stigma, overburdening primary care providers, and reducing access for key populations who rely on flexible, community-based, and trust-centered service delivery models.

Option 3: Hybrid Integration Model (Preferred Policy Option)

This option is the recommended pathway for Indonesia's HIV response. It embeds HIV services within the *Integrasi Layanan Primer* (ILP) framework while formally institutionalizing community-led delivery, differentiated service models, and structured public-private partnerships as core components of the primary health care system. By preserving high-yield outreach to key populations, reducing stigma-related access barriers, and anchoring services within domestic financing and governance structures, the hybrid model offers the most feasible and sustainable approach to simultaneously protect past gains, address emerging generalized epidemics such as in Tanah Papua, and ensure continuity of care in a context of constrained fiscal space and declining donor support.

5. Recommended Policy Actions (Immediate)

5.1 Prevention Shift + Retention Fix

- Rebalance prevention toward MSM, TG, youth, and intimate partner networks using social network strategy (SNS), Preexposure Prophylaxis (PrEP), and self-testing.
- Implement MMD nationally (3–6 months), prioritizing high-burden districts and Tanah Papua.
- Expand differentiated service delivery (after-hours clinics, teleconsultation, community refills).

5.2 Operationalize HIV Integration within ILP

- Define minimum HIV service standards for ILP clusters (testing, same-day ART, VL monitoring).
- Mandate stigma-free competencies and confidentiality safeguards for all Puskesmas.

- Formally accredit community service points or *Pos Layanan Komunitas* (PLK) as extensions of PHC networks with referral and data flows.

5.3 Decentralize Treatment and Reduce Mortality

- Rapidly expand ART initiation at primary health centers or Puskesmas and community settings.
- Strengthen TB–HIV one-stop service (OSS) models to ensure bidirectional screening and preventive therapy.
- Prioritize pediatric and maternal cascades through integrated maternal and child health (MCH) workflows.

5.4 Turn Data into Decision Intelligence

- Fast-track SIHA–SATUSEHAT integration, including viral load (VL), ART cohorts, TB, MCH, and PrEP.
- Establish district dashboards with routine cascade reviews and corrective action loops.
- Institutionalize domestic financing for IBBS, PSE, and modelling to reduce donor dependence.

5.5 A Differentiated Strategy for Tanah Papua

- Deploy community-based ART, mobile clinics, and extended MMD.
- Invest in VL sample transport and remote connectivity.
- Engage religious and customary leaders for stigma reduction and service acceptability.

6. Implementation Considerations

- **Governance:** Create a national HIV–PHC integration task force linking MoH directorates, provinces, and partners.
- **Financing:** Align national budget (APBN), local budget (APBD), and national health insurance (JKN) to cover core HIV services within PHC; plan a donor transition for community systems.
- **Workforce:** Rapid training via national learning management system (LMS) on HIV competencies, stigma reduction, and data use.
- **Monitoring:** Include stigma and retention indicators in routine reviews; leverage community-led monitoring.

7. Equity, Ethics, and Human Rights

HIV outcomes are driven by stigma, discrimination, and gender-based barriers. Embedding rights-based standards within ILP, such as confidentiality, non-discrimination, and grievance mechanisms, is essential to avoid excluding those most at risk. Tanah Papua requires culturally grounded approaches that respect local norms while guaranteeing access to life-saving care.

8. Implications for Policy and Research

Immediate policy action can reverse mortality trends in the medium term. Research priorities include evaluating hybrid integration models, assessing the cost-effectiveness of differentiated delivery, and developing culturally adapted interventions in distinct epidemic settings in Papua. Strengthening district-level analytics will enable adaptive, precision responses.

Conclusion

Indonesia stands at a pivotal moment. PHC reform through ILP provides a once-in-a-generation opportunity to embed HIV services within a sustainable health system. Yet integration without differentiation risks losing hard-won gains. By implementing an immediate package, prevention shift, retention fix, decentralized ART, data integration, and a Papua-specific strategy, Indonesia can bend both incidence and mortality curves and move decisively toward ending AIDS as a public health threat.

Declarations of Funding:

Not applicable.

Conflicts of Interest:

None declared.

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