

HIV/Syphilis Dual-RDT Market Brief



September 2025

This brief marks the inaugural edition of CHAI’s “**Triple Elimination Series**,” examining market-shaping strategies to prevent vertical transmission of HIV, syphilis, and hepatitis B (collectively known as “triple elimination”). It focuses on the introduction and scale-up of dual HIV/syphilis rapid diagnostic tests (RDTs) and details CHAI’s collaboration with global and country-level partners to build an enabling environment for their adoption. The data and insights presented here draw on CHAI’s implementation experience across six countries and reflect progress as of June 2025.



Understanding the key enablers in HIV/syphilis dual RDT scale-up can inform rapid rollout of future multiplex testing solutions, supporting integrated testing strategies to advance triple-elimination efforts and sustain progress toward testing goals even amid funding decreased and shifting priorities.

Background

Each year, vertical (mother-to-child) transmission of HIV and syphilis, cause significant yet preventable infant morbidity, mortality, and stillbirths—particularly in sub-Saharan Africa. Syphilis alone remains a leading cause of stillbirths, with congenital cases rising globally.

While HIV testing and treatment coverage among pregnant women has steadily improved since 2015, screening for syphilis remains inconsistent, limiting timely access to care.

Dual HIV/syphilis-RDTs offer a practical solution to efficiently and effectively address the screening gap. Despite these tests having WHO-PQ for over a decade and global recommendations for their routine use, adoption and uptake was slow until substantial efforts were undertaken by CHAI and partners to establish an enabling environment.

Enabling environment pillars

The introduction and scale-up of HIV/syphilis dual RDTs was made possible through a combination of global and national level actions that shaped the enabling environment and gradually converged to support uptake. Viewed holistically, these pillars can be grouped into three categories—policy & evidence, product & market readiness, and financing & implementation.

Policy Change & Stakeholder Coordination + Advocacy
National and global TWGs drove policy alignment that prioritized dual testing

Early Evidence
Data demonstrated feasibility, impact, and value

Country Pilots
Real-world pilots built confidence in the usability of format, feasibility of implementation, and generated early demand

Algorithm Revision
Testing process updated to include new product

Robust Product Pipeline
Multiple suppliers ensured competition and a secure supply

Stringent Regulatory Authority Approval
Enabled widespread confidence in procurement of quality-assured tests

Market Intelligence
Demand forecasting across uptake scenarios reduced uncertainty and enhanced planning

Affordable Pricing
Established competitive pricing agreements and installed a volume guarantee to unlock introduction

Catalytic Financing and Procurement
Early investments accelerated introduction and reduced risk for manufacturers, donors, and governments

Implementation Planning
Structured scale-up plans enabled system readiness and faster uptake across all tiers of the health system

Policy & Evidence

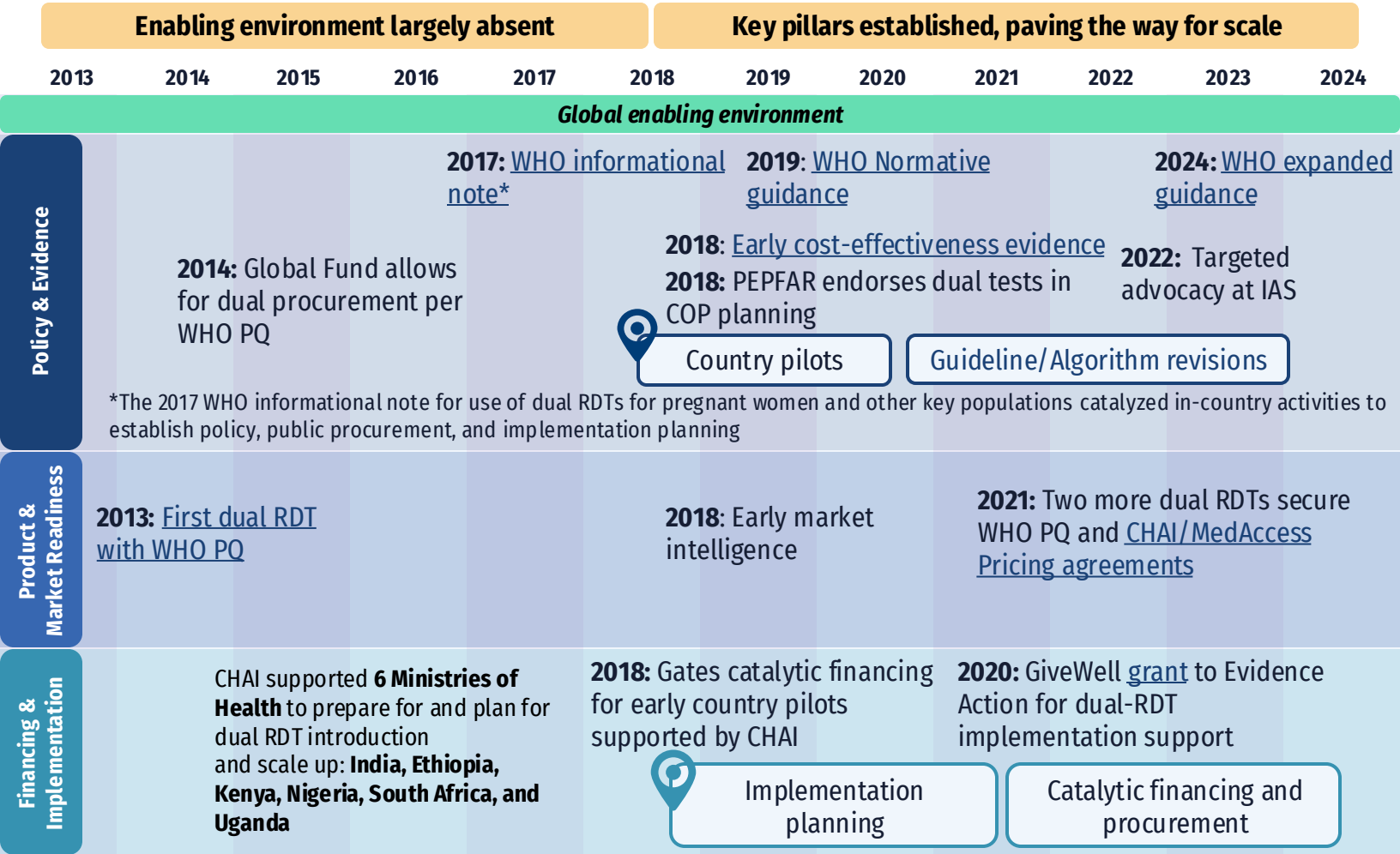
Product & Market Readiness

Financing & Implementation

The 10-year uptake story

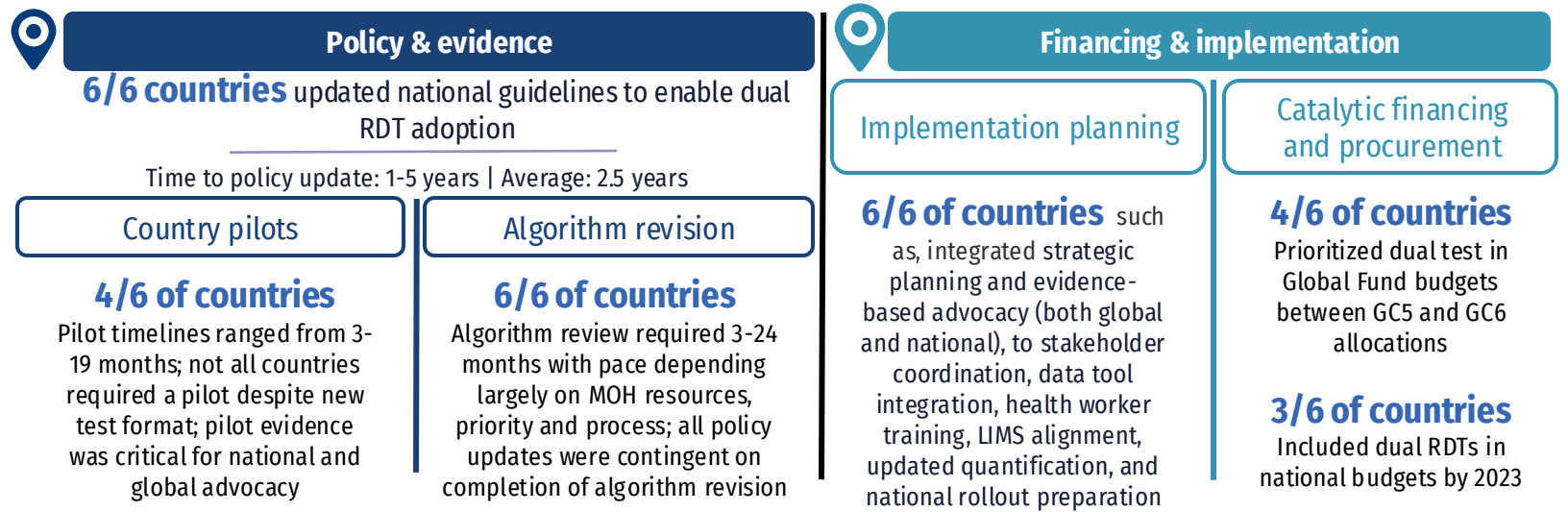
The scale-up of HIV/syphilis dual RDTs took nearly a decade, with timelines varying widely across countries. While WHO pre-qualification and accompanying Global Fund procurement eligibility allowed for product introduction, widespread adoption and scale up began after the 2017 WHO informational note. This helped countries move from pilots to policy updates, algorithm changes, and procurement planning. Some scaled quickly, while others took more time—highlighting that success depended not just on tools, but on coordinated and sustained action.

Timeline



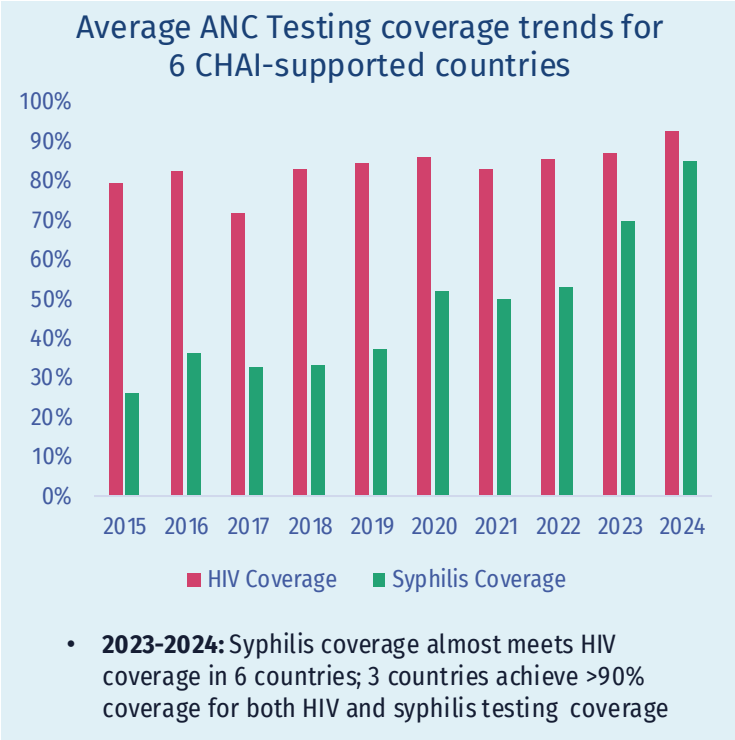
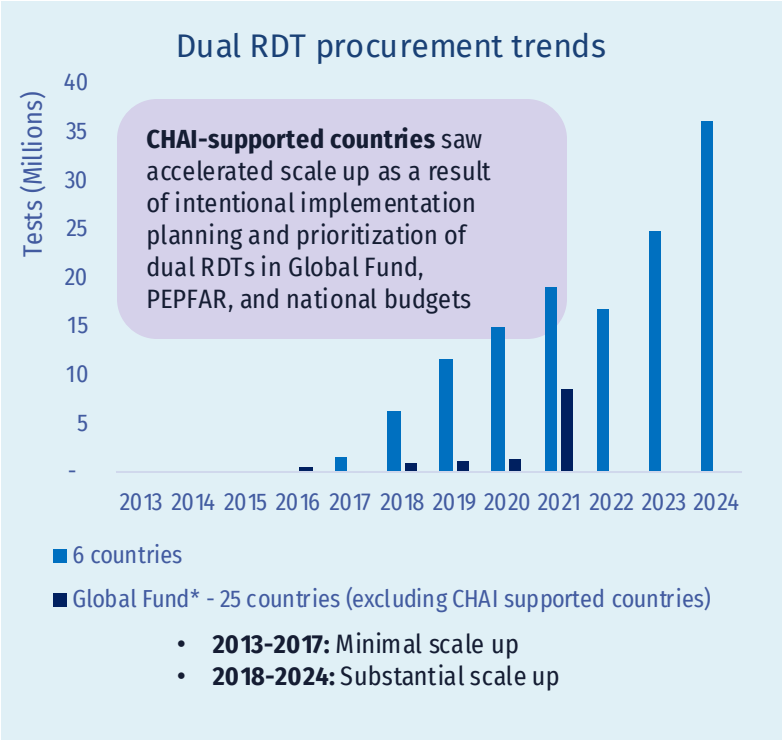
The successful uptake of HIV/syphilis dual RDTs relied on critical sequencing between global and country-level actions. Global efforts, such as normative guidance, product prequalification, and market-shaping, often served as prerequisites for national adoption. In turn, country pilots and algorithm revisions were necessary to finalize country policies which opened doors for further implementation planning, procurement, and generate demand - reinforcing global investments. Understanding these interdependencies is essential for accelerating future scale-up of integrated diagnostics.

Country pillar details



Impact

Establishing the enabling environment for the HIV/syphilis dual test led to tangible results across countries. The following figures highlight increased procurement volumes, improved syphilis testing coverage, and qualitative accounts of greater testing efficiency through integrated screening. Uptake acceleration clearly follows the establishment of the enabling environment pillars.




***NOTE:** Data is from Global Fund Price and Quality Reporting: Transaction Summary; downloaded July, 2025. Data from 2022-2025 is incomplete and was excluded from the analysis


Service delivery efficiencies

6/6 of countries


Indicated efficiencies at the point of service delivery




Fewer blood draws for patients and HCWs



Improved patient experience



Faster time to diagnosis




Reduced missed testing


System efficiencies

6/6 of countries


Indicated efficiencies across the health system




Simplified provider training




Waste reduction



Streamlined program planning and monitoring



Integrated reporting



Lower cost per patient tested

Looking forward

This brief highlights the key enabling environment pillars that were essential to effectively introduce and scale dual HIV/syphilis testing across multiple countries. As uptake of the dual RDT expanded, countries saw improved testing coverage and greater efficiency in ANC screening service delivery, leading to a projected reduction in congenital syphilis. These lessons now serve as a blueprint for future diagnostic product introductions.

Considering the significant changes in health resourcing, sustained global collaboration will be critical to accelerate the adoption of next-generation combination diagnostics, including triple tests for HIV, syphilis, and hepatitis B. Early investments in policy alignment, market shaping, and financing will help minimize delays between product availability and uptake. Lessons from the dual RDT experience underscore the importance of clearly owned, flexible, country-led approaches that integrate planning, service delivery, and program monitoring. By aligning demand, supply, and financing stakeholders were able to drive faster adoption of the dual -RDT. As the diagnostics landscape continues to evolve, applying these insights will be key to achieving triple elimination goals more efficiently and equitably.