Joint end of project evaluation – HIV Self-Testing (HIVST) area for intervention

Executive Summary

Unitaid

10 June 2022
Important notice

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<th>Full description</th>
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<td>AfI</td>
<td>Area for Intervention</td>
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<tr>
<td>AGYW</td>
<td>Adolescent girls and young women</td>
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<tr>
<td>BBT</td>
<td>Blood Based Tests</td>
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<tr>
<td>CBO</td>
<td>Community-Based Organisation</td>
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<tr>
<td>CEPA</td>
<td>Cambridge Economic Policy Associates</td>
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<td>CNLS</td>
<td>Centre National de lutte contre le Sida (Cameroon)</td>
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<td>CSO</td>
<td>Civil Society Organisations</td>
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<td>EMAV</td>
<td>Early Market Access Vehicle</td>
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<td>FSW</td>
<td>Female Sex Workers</td>
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<td>HIVST</td>
<td>HIV Self-Testing</td>
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<td>HTS</td>
<td>HIV Testing Services</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<td>KII</td>
<td>Key Informant Interview</td>
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<td>KP</td>
<td>Key Population</td>
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<td>LMIC</td>
<td>Low- and Middle-Income Country</td>
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<td>MSM</td>
<td>Gay men and other men who have sex with men</td>
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<td>MTV SAF</td>
<td>MTV Staying Alive Foundation</td>
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<td>NACO</td>
<td>National AIDS Control Organization (NACO)</td>
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<td>NCE</td>
<td>No-Cost Extension</td>
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<td>NFM</td>
<td>New Funding Model (for Global Fund grants)</td>
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<td>PEPFAR</td>
<td>United States President's Emergency Plan For AIDS Relief</td>
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<td>PLHIV</td>
<td>People living with HIV</td>
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<tr>
<td>PR</td>
<td>Principal Recipient (for Global Fund grants)</td>
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<td>PrEP</td>
<td>Pre-Exposure Prophylaxis</td>
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<td>PSI</td>
<td>Population Services International</td>
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<td>PSM</td>
<td>Procurement and Supply Management</td>
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<td>PWID</td>
<td>People who inject drugs</td>
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<td>STI</td>
<td>Sexually-Transmitted Infections</td>
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<td>TA</td>
<td>Technical Assistance</td>
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<tr>
<td>TG</td>
<td>Transgender</td>
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<tr>
<td>TAG</td>
<td>Technical Advisory Group</td>
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<tr>
<td>TWG</td>
<td>Technical Working Group</td>
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<tr>
<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
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<td>VMMC</td>
<td>Voluntary Medical Male Circumcision</td>
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<td>WCA</td>
<td>Western and Central Africa</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WHO CRP</td>
<td>World Health Organization Collaborative Registration Procedure</td>
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<td>WHO PQ</td>
<td>World Health Organization Prequalification</td>
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1. BACKGROUND AND SUMMARY OF UNITAID’S HIVST PORTFOLIO

Knowledge of HIV status is critical for curbing the HIV epidemic and is the first of the global 95-95-95 targets: for 95% of people living with HIV (PLHIV) to learn their HIV status by 2030. In 2015 prior to any Unitaid investment in HIV self-testing (HIVST), UNAIDS estimated that of 36.9 million PLHIV, 46%, did not know their status. While this decreased through global efforts to 16% in 2020, progress towards the first -95 target has been slower than in other areas of the HIV cascade and further slowed as a consequence of the COVID-19 pandemic. Certain groups remain underserved with conventional HIV testing approaches, including key populations (KP) – female sex workers (FSW), men who have sex with men (MSM), transgender (TG), people who inject drugs (PWID) – as well as high risk groups including partners of PLHIV, adolescents and men. Additionally, there are regional disparities: in Eastern and Southern Africa, 89% of PLHIV know their status, in contrast with an estimated 77% in West and Central Africa.

Meeting the ambitious HIV -95 targets requires innovation to reach new people with testing. HIV self-testing (HIVST) has emerged as an accessible, convenient and confidential method to diagnose people living with HIV; support prevention of HIV in high-risk HIV-negative individuals; ensure access to treatment or preventative services; expand coverage of HIV testing (including for KPs); and improve the efficiency and effectiveness of health systems.1,2

Unitaid has made investments amounting to US$120.2 over the period 2015-22 to expedite access to HIVST across Africa and Asia and overcome barriers related to demand and adoption, supply and delivery, and affordability. Figure 1.1 presents the Unitaid HIVST portfolio, also highlighting the grants in scope for the current evaluation which are described in more detail after the figure.

Figure 1.1: Timeline of Unitaid’s HIVST Grants

Unitaid’s HIVST portfolio includes the following three projects over 2015-2022:

1. HIV Self-Testing AfRica (STAR) Initiative, PSI: 2015 – 2022: STAR was designed to address key market challenges limiting access to HIV self-testing.3 STAR Phase 1 (2015-2017) aimed to generate evidence on how to distribute HIVST products effectively, ethically and efficiently through investments in Malawi, Zambia and Zimbabwe. Phase 2 built on this foundation and scaled up self-testing in the Phase 1 and additional countries (South Africa, Swaziland and Lesotho). STAR was implemented by a consortium led by PSI that included the London School of Hygiene and Tropical Medicine (LSHTM), the Liverpool School of Tropical Medicine (LSTM), University College London (UCL), WHO and local research partners. Evaluations of STAR 1 & 2 found the project generated a strong evidence base on the acceptability, feasibility, usability and cost effectiveness of HIVST and

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1 WHO (2016), Guidelines on HIV self-testing and partner notification- supplement to consolidated guidelines on HIV test services
3 PSI (2017), HIV Self-Testing Africa Initiative Brochure
optimal distribution models to close the testing gap.\textsuperscript{4,5} It also successfully built national supply chains and regulatory capacity. By the end of STAR 2 in July 2020, 88 countries had policies which allowed HIVST and 31 had policies in development (up from 6 countries with HIVST policies in October 2015). STAR evidence contributed to informing the 2016 WHO normative guidelines on HIVST, and the updated 2019 guidance (\textit{with strong recommendation}). STAR also contributed to catalysing the market for HIVST products, and by 2019 four products had received WHO PQ.

STAR 3 (US$16.9M), which is the focus of this evaluation, aimed to establish the structures, systems and oversight mechanisms necessary for long-term sustainability of HIVST in Cameroon, India, Indonesia, Mozambique, Nigeria Tanzania and Uganda. This was to pave the way for a Global Fund and CIFF Matching Fund catalytic investment in the STAR 3 African countries. STAR 3 was accompanied by a market shaping component initiated in 2020 to improve supply security and affordability of blood-based HIVST kits (BBTs).

2. \textbf{Autotest de dépistage du VIH (ATLAS), Solthis: 2018 – 2022, $US15.7M}: ATLAS aimed to introduce HIVST in Côte d’Ivoire, Mali and Senegal in order to assess the feasibility and effectiveness of HIVST in reaching specific population groups in concentrated epidemics and in the West African context.


2. \textbf{EVALUATION OBJECTIVES AND METHODOLOGY}

Cambridge Economic Policy Associates (CEPA) was appointed by Unitaid to conduct a joint end of project evaluation for grants in the area for intervention (AfI) of HIVST across OECD DAC evaluation criteria, including analysis of lessons learned with a focus on Unitaid’s contribution to closing the testing gap through HIVST. The aim was to inform Unitaid’s future investments including where possible course correction for the ongoing grant implementation. As noted, the evaluation covered Unitaid’s HIVST grants: STAR 3, ATLAS, MTV Shuga, and the market shaping intervention (Early Market Access Vehicle, EMAV) implemented under STAR 3.

The evaluation framework is depicted in figure 2.1. Quantitative assessment of public health and economic impact were not in scope, instead qualitative impact including equity aspects were.

\textit{Figure 2.1: HIV Self Testing Evaluation Framework}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{evaluation_framework.png}
\caption{HIV Self Testing Evaluation Framework}
\end{figure}

\textsuperscript{4} APMG Health (2021), UNITAID STAR (Self-Testing Africa) initiative: Phase 2 end of project evaluation report.

\textsuperscript{5} CEPA (2019), Unitaid Mid-Term Evaluation of the PSI HIV Testing AfRica (STAR) Project.
Methods

The evaluation employed a theory-of-change based approach and a mixed-methods methodology. A robustness assessment framework was employed for all findings based on the quality and quantity (i.e. triangulation) of evidence. Methods comprised the following:

- **Desk-based document review.** Comprehensive document review of HIVST AfI materials and STAR 3, ATLAS, MTV Shuga documents (including project plans, logframes, budgets, reports and previous evaluations) and relevant Unitaid HIV Strategy materials, plus materials from other key stakeholders including the Global Fund, PEPFAR, and WHO, supplemented with academic and grey literature;

- **Stakeholder interviews.** Semi-structured key informant interviews gathered a range of perspectives and insights, as follows (# indicates interviewees): Grantees/sub-grantees, including civil society organisations (28), Unitaid (12), Donors (7), Technical/Advocacy partners (11), HIVST manufacturers (5), Government stakeholders in countries, in addition to the case studies (4).

- **Country case studies in Cameroon, Côte d'Ivoire, and India.** These included document review of project and country materials and key informant consultations including with Ministry of Health and other government stakeholders, lead HIVST grantees, sub-grantees and community-based organisations, technical partners and donors (average of 10 interviews/country). Case studies in Cameroon and Côte d’Ivoire were performed in collaboration with in-country CEPA associates.

3. **KEY FINDINGS**

Table 3.1 presents the evaluation’s overall assessment of the Unitaid HIVST portfolio against OECD-DAC evaluation criteria. The key evaluation findings for each evaluation question are expanded on in the text below, with an assessment of the contribution of Unitaid grants to overcoming the Unitaid access barrier also provided.

Table 3.1: Summary Evaluation Findings by OECD-DAC Evaluation Criteria

<table>
<thead>
<tr>
<th>Evaluation dimension</th>
<th>Extent achieved*</th>
<th>Strength of evidence**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Fully achieved</td>
<td></td>
</tr>
<tr>
<td>Coherence</td>
<td>Largely achieved</td>
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<tr>
<td>Efficiency</td>
<td>Largely achieved</td>
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<tr>
<td>Effectiveness</td>
<td>Largely achieved</td>
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<tr>
<td>Sustainability and scalability</td>
<td>Largely achieved</td>
<td></td>
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<tr>
<td>Impact</td>
<td>Fully achieved</td>
<td></td>
</tr>
</tbody>
</table>

*Scale: Not achieved, slightly achieved, moderately achieved, largely achieved, fully achieved

** Scale: Poor, limited, moderate, strong

Relevance

1. To what extent were the projects appropriately designed and have they adequately responded to the needs of the target beneficiaries? Did the projects suitably adapt to changes in context?

Key Findings:

Overall, Unitaid’s HIVST portfolio was highly relevant and fit-for-purpose to the objectives of bringing HIVST to scale in high burden countries with a large testing gap and creating sustainable market conditions for a new and innovative diagnostic tool. The investments highlighted the complexity in moving from evidence to policy, and country readiness, and encouraging donor financing for scale.

The phasing of all HIVST grants was appropriate as they leveraged the foundation created by early STAR phases and catalytic impact of the 2019 WHO guidelines on donor readiness.
PSI, Solthis and MTV SAF were appropriate partners for the HIVST grants, suitably expanding and partnering with relevant sub-grantees in select countries.

HIVST projects were suitably tailored to reach high-risk populations not accessing conventional HIV testing services, including in highly stigmatised contexts.

The catalytic EMAV for blood-based tests (BBT) has been highly relevant for expediting access to HIVST by creating conditions for a more diverse range of available products. However earlier intervention to lower the price of BBTs may have mitigated current lower demand for BBT.

The HIVST portfolio responds to several STAR 1&2 evaluation recommendations, including a greater focus on demand generation via MTV Shuga. Notably, private sector models were introduced in the final year of STAR 3.

Highly relevant and responsive project design- Co-creation of STAR 3 with the Global Fund and CIFF, alongside WHO, was highly significant to address country operational bottlenecks and the need to encourage scale-up funding. Project countries accounted for nearly 40% of the testing gap in LMICs and were regarded as key HIVST markets. Although Francophone West African countries were considered too small from a volume perspective to significantly influence HIVST market goals, ATLAS was considered an important investment in improving equitable access to HIV testing and services in the region. HIVST channels within STAR 3 and ATLAS included a variety of facility-based and community-based models (e.g. peer-to-peer models, hotspot distribution), and STAR 3 countries also employed, to a varied extent, workplace, online, pharmacy and private sector distribution. ATLAS placed an emphasis on reaching peripheral populations through secondary distribution of HIVST by KP-networks. The use of edutainment, mass media and peer education through the MTV Shuga platform complemented HIVST demand generation and supply in two countries covered by Unitaid’s projects (South Africa and Côte d’Ivoire, and specifically targeted youth (and wider) audiences.

The EMAV intervention to lower the price of WHO PQ blood-based test (BBTs) from US$ 3-3.50 to <US$ 2 to match the established OraQuick HIVST price point responded to the need to diversify the HIVST market and addressed the significant price differential combined with country registration and procurement and supply procurement management (PSM) strengthening. The lower price point made BBTs more feasible to introduce, encouraged stability and sustainability of the HIVST market, and supported choice for end-users.

HIVST grants responded to STAR 1&2 evaluation recommendations through flexibility in M&E, working more with communities, and allowing greater autonomy for grantees. Multiple stakeholder groups welcomed the introduction of private sector models in Uganda, Nigeria and South Africa in the final year of STAR 3, which responded to lessons from previous evaluations and seen in the past as a missed opportunity to grow HIVST volumes, reach men, decongest health facilities, and overall advance the self-care agenda in LMICs.

Appropriate phasing but some questions around timing of a focused effort on BBT- Some global partners considered that STAR 3 could have happened sooner, however, the 2019 WHO HIVST guidelines are regarded as a near prerequisite to Global Fund readiness to expand HIVST and form the STAR 3 partnership. Introduction of West African countries through ATLAS in 2018 seized on evidence generated by STAR, pilot experience in the region, WHO PQ of OraQuick HIVST, and a regional convening by WHO/UNAIDS where WCA was shown to have the largest HIV testing gap. The sole use of oral tests in earlier STAR phases (despite work under STAR 2 to established country experience with BBT and evidence of safety and user preferences) may have contributed to complacency and unwillingness of some countries to diversify their supply by the time the EMAV intervention for BBTs was launched in 2020. While donor commitments for HIVST were not as robust in earlier STAR phases, a larger effort on use of BBT/ emphasis on product choice may have increased equivalence in decision-makers’ minds and sensitised programs to the importance of a product mix for both market and end-user optimisation.

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6 Private sector distribution in South Africa, Uganda and Nigeria was included in the final year of the STAR 3 project and was not in scope for the evaluation (South Africa was a STAR 2 country and activities continued under STAR were not in scope).
Coherence

2. To what extent are the projects synergistic with other interventions at the global and country levels?

Key Findings:

The HIVST portfolio was highly coherent with global partners in that it intentionally sought to establish alignment with HIV scale-up donors and a multisectoral HIV response via ILO collaboration.

At country level, there was strong synergy with existing HIV service provision and partners. Linkage to prevention services was weak in some contexts and also limited by service availability.

STAR 3 was jointly planned with the Global Fund, CIFF and WHO, with CIFF providing a US$ 25m matching grant to the Global Fund earmarked for HIVST in STAR 3 countries. Country level work under STAR 3 focused on preparation of Global Fund NFM3 bids, and establishing the policies, operational models, product registration and PSM systems for scaling HIVST through national HIV testing services. STAR 3 and ATLAS also closely engaged PEPFAR in preparation for COP processes. Key to the STAR 3 and ATLAS approach was intentional partnership with many existing Global Fund and PEPFAR grantees at national level and community based sub-grantees, whereby HIVST was integrated within existing HIV testing community programs. While the intended outcome of STAR 3 included increasing linkage to treatment and prevention services, the connection to prevention was not consistently included in pilot designs and service availability varied by context. For instance, in Uganda, country stakeholders report models were linked to condoms, PrEP and VMMC. However in Cameroon and Tanzania, PrEP and VMMC were not available due to small scale of PrEP implementation and limited geographic overlap with HIVST projects (noting VMMC was not relevant to the HIVST project countries in WCA). Workplace models under STAR 3 integrated HIVST within the ILO’s HIV programme in formal and informal workplaces. These were positively regarded by country informants and grantees who spoke of the convenience of HIVST as particularly valuable for improving access among workers in the informal economy.

3. Do the projects adequately build upon and leverage Unitaid’s existing HIV and self-testing portfolios and are they internally aligned?

Key Findings:

Unitaid’s HIVST investments have been conceptually coherent as a portfolio and are being leveraged for other Unitaid self-testing investments. At an operational level there are some examples of synergies between the HIVST investments but also missed opportunities.

Demand creation for PrEP and HIVST through the MTV Shuga platform was a novel channel supporting the goals of Unitaid’s AfIs and promoting self-care in target populations.

Overall strong synergies across the portfolio, though less alignment between demand creation and supply investments – STAR 1&2 and its influence on global evidence and development of HIVST tools served as the blueprint for ATLAS and STAR 3, giving projects a ‘leg up’ on preparatory groundwork. Operational synergies within the HIVST portfolio included ATLAS leveraging STAR’s research Technical Advisory Group (TAG) and working with the same STAR 2 team of economic modelers. In the WCA region, there was cross-learning between ATLAS and STAR 3 given similarities in the epidemic and context. The EMAV was strongly coherent with the country-level HIVST investments, and through PSI, supplied different HIVST products to STAR 3 projects as well as worked to increase price transparency across HIVST products and for public and private sectors. Demand creation through the recognised MTV Shuga brand in South Africa and Côte d’Ivoire enabled Unitaid to reach key audiences for HIV services across digital, social media, television and radio channels, and to show people taking both HIVST and PrEP, underpinning the concept of self-care (PrEP in South Africa only). However in terms of linking demand generation to HIVST supply, alignment was weak in both countries. In Côte d’Ivoire, HIVST distribution focused on KP networks and facility models without an explicit youth focus. In South Africa there was alignment in target population, but few instances of direct collaboration with Unitaid grantees to connect the MTV Shuga demand generation platform to HIVST access.

Strong synergies benefitting other AfIs Unitaid investments in COVID-19 and HCV self-testing have strongly leveraged and benefitted from the HIVST portfolio. This includes operational synergies (e.g. layering HCV and COVID-
19 projects onto STAR 3 country grants), and the expedited WHO guideline process for HCV self-testing, which benefitted from STAR evidence. This is discussed further in positive externalities from HIVST grants.

**Efficiency**

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<thead>
<tr>
<th>Extent achieved</th>
<th>Strength of evidence</th>
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<td>Largely achieved</td>
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**4. How well were resources used and how timely, cost-efficient and cost-effective was implementation?**

**Key Findings:**

Across the portfolio, grants underestimated the time required for preparatory groundwork prior to HIVST delivery. Notwithstanding these delays, as well as the COVID-19 pandemic, milestones were largely on track at the end of 2021.

Risks due to the COVID-19 pandemic were well-managed by implementers and Unitaid. The COVID-19 pandemic most significantly disrupted the Global Fund/STAR 3 timelines and ATLAS research.

Across the portfolio, there were intentional approaches that helped ensure value for money and work towards affordable and sustainable models.

Grant expenditure reflects the slower pace of project delivery during year 1, rising in subsequent years. The composition of grant budgets across Unitaid categories was regarded as appropriate by stakeholders and key to the overall success of grants.

Overall, Unitaid management of the HIVST portfolio was regarded as highly supportive and responsive. Some decision-making processes however were viewed as lengthy, resulting in uncertainty, misalignment and compressed timelines for grantees.

**Grant design overestimated how quickly HIVST models would get off the ground:** Projects had long start-up periods before HIVST model implementation began. The slower pace than projected in grant design was in part a result of the STAR 3 and ATLAS model of being government-led, thus the imperative to engage with multiple levels of government and other key country stakeholders. For STAR 3, delays had a knock-on misalignment effect in that NFM3 grants were written prior to testing HIVST models. Some stakeholders viewed these risks might have been foreseen and better handled particularly in the case of STAR 3 given historic experience. Notwithstanding the slow start, the positive effects from this approach are discussed in the effectiveness and scale sections.

In terms of value for money the design of the country projects to insert HIVST as an additional tool as compared to introducing a vertical project, and to closely engage civil society and community partners, brought efficiencies in HIVST delivery. The EMAV pricing agreement negotiations were implemented through a timely, efficient, and transparent approach that engaged all manufacturers and set the stage for collaborative negotiations moving forward. In addition, volume guarantees were not included to keep down cost commitments from Unitaid.

**Unitaid management added significant value, though delayed decision-making compressed program delivery:** Unitaid’s strong technical grasp of HIVST and proactive work to connect HIVST grantees with one another, share information with grantees, and establish connections with external stakeholders including WHO were all highly regarded by grantees. Grantees regarded some delayed decision-making by Unitaid as affecting ideal program delivery. This transpired for the evaluation component of the MTV Shuga grant, leading to uncertainty and compressed timeline for the work. Unitaid’s responsiveness and flexibility in the first year of the COVID-19 pandemic was well regarded by grantees, particularly the decision for a No-Cost Extension (NCE) of 7-12 months. HIVST programmes individually adapted well to COVID-19 which varied by country during 2020 and into 2021. Programme materials indicate STAR 3 work in Indonesia and India were most affected by the pandemic. Crucially, the ATLAS research led by IRD was significantly delayed by the pandemic effects and will be completed during the NCE period.
As shown in Figure 3.2, a large portion of project milestones were completed by the end of 2021 despite initial project delays. The high proportion of STAR 3 milestones reported as having ‘Significant progress’ rather than ‘Completed’, is due to one or two countries not having achieved the milestone, with the majority of countries achieving. STAR 3 milestones where ‘Limited progress’ has been made as of December 2021 include final-year activities (e.g. dissemination work, development of national scale-up toolkits and post-market surveillance systems). The MTV Shuga milestone not yet started is related to the LSHTM evaluation and is planned for Q2 2022.

5. How well did implementers collaborate with national authorities and community/civil society stakeholders to promote integration into health systems?

Key Findings:

STAR 3 and ATLAS are widely regarded as ‘government owned and led’ through intentionally integrating the projects within national HIV programmes.

Overall, there was strong engagement of civil society and community-based organisations involved in national HIV responses, reflecting the focus of the HIVST portfolio to reach KP and AGYW communities.

STAR 3 and ATLAS were situated as TA to government-led design and delivery of HIVST models (including through CSOs and CBOs). While there were differences in the approach between the two projects, in general, HIVST elements were embedded within national Technical Working Groups (TWGs) such as in PSM, M&E and training. Monitoring with new HIVST indicators was integrated in HMIS (Cameroon, Nigeria, Tanzania, Uganda) and DHIS2 (ATLAS countries, Mozambique). A number of STAR 3 countries and all ATLAS countries deliberately engaged government officials in research teams to strengthen the link between evidence generation and national policy.

Civil society and community-based organisations and actors were engaged either as service providers in HIVST models, and/or within country TWGs and had a fundamental role across pilot design, delivery and review. This integration is regarded as crucial for responding to the needs of target populations. While inclusion in the HIVST models has helped establish HIVST experience among these stakeholders, several interviewees voiced the need for explicit capacity strengthening of community organisations given their crucial role in reaching people not using conventional HIV testing services.

Effectiveness

6. To what extent were the intended investment objectives on removing priority access barriers achieved?

Key Findings: Demand and adoption barriers

The HIVST portfolio of grants has significantly “moved the needle” on the enabling national policy environment for HIVST.

Unitaid catalytic funding for HIVST in West Africa has helped ‘break the barriers’ to country demand and adoption, with the ATLAS project demonstrating feasibility of HIVST in a concentrated epidemic and providing engaged TA across multiple countries to facilitate wider regional uptake.

STAR programmatic data indicate evidence of good linkage to treatment in many settings, though weak linkage to prevention (VMMC and PrEP). While overall country partners highly regarded HIVST as a valuable addition to HTS, concerns were raised regarding confidentiality and linkage approaches, and messaging within the workplace model.
The MTV Shuga demand creation model was positively associated with HIVST awareness and use, and with knowledge of PrEP, however in South Africa young people did not have confidence in supply. More upfront work to prime programmes for introduction and use of Blood-based tests (BBT) (both at the end-user and programmatic levels) may have paved the way for more rapid demand and uptake of BBTs.

**Enabling policy environment significantly advanced, with slower progress in India**- As of end 2021, all ATLAS and STAR 3 countries apart from India had included HIVST within national guidelines on HIV testing services (Box 1). Grants have supported project countries in achieving ‘operational readiness’, evidenced by national HIVST training guidelines and tools and cascade training of providers in a majority of project countries, development of data collection and reporting tools, and HIVST delivery channels validated. In the WCA region which had less experience in HIVST than east and southern Africa, close to 90% of countries have included HIVST introduction/pilot or scale up within Global Fund NFM3 grants, leaning heavily on TA from ATLAS/Solthis and lessons from ATLAS experience.

“The enabling environment work in STAR 3 has been fantastic.”

– Government stakeholder from project country

**Box 1. India remains the only STAR 3 country that has not integrated HIVST into national HIV testing policy.**

There has been hesitancy to move ahead in India with HIVST, despite small scoping activities since 2018, including 2 qualitative studies on acceptability among MSM. A central principle of India’s HIV program has been the provision of pre- and post-test counselling, and the government has yet to conclude on HIVST linkages to counselling/treatment and perceived risks of social harm. Equally, give the size and diversity within India, the government requires evidence from India to inform its policies. The STAR 3 demonstration study established the groundwork for a future introduction of HIVST and better understanding of the service delivery models. Progress, although slower than other STAR countries, was made, notably with a NACO white paper being released in Q2 of 2022, entitled “HIVST, The Way Forward.” The next steps will be to ensure the evidence generated by STAR 3 effectively informs advocacy for policy change.

**STAR 3 models performed overall well on linkage to treatment, less so prevention**-

Across STAR 3 countries program data indicate 76% of individuals receiving a confirmatory test following a HIVST were linked to treatment. Linkage to prevention was significantly lower than treatment in all countries apart from India, with a key issue being availability of PrEP for high-risk individuals taking an HIVST and availability of VMMC. Countries used different means of tracking HIVST depending on the distribution channel, with some following up over telephone (e.g. Mozambique and Cameroon). In Cameroon, an assisted linkage strategy relying on follow-up was regarded as infringing on confidentiality and undermining access by target populations. Workplace models were implemented in all STAR 3 countries in partnership with the ILO and its country partners (in Cameroon the workplace model was ultimately implemented by the government). Tanzania distributed the highest number of HIVST kits through the workplace model, and stakeholders were highly enthusiastic regarding demand generated with this approach. Figure 3.3 shows successful referrals to treatment and prevention following a confirmatory test across STAR 3 countries.

![Figure 3.3: STAR 3 Linkage to care and prevention](image-url)

- % of eligible target population that tested negative using an HIVST, enrolled in prevention services (PrEP and VMMC)
- % of people enrolled in ART services after a confirmatory positive test

* No data due to delay in HIVST distribution

Source: STAR 3 2021 Annual Report
New approach in West Africa for KP secondary distribution-

ATLAS demonstrated the ability to reach “hidden” groups and first-time testers through secondary distribution models for HIVST through KP-networks. Across the three ATLAS countries, the program reports 40% of people using HIVST are first time testers, with a high of 57% in Mali. Interviewees report this estimate was obtained through a first of its kind phone survey in the region to understand the profile of HIVST users through secondary distribution (Figure 3.4). ATLAS also uniquely developed a new channel of HIVST distribution to the partners of people diagnosed with an STI, with results to be published.

Monitoring of HIVST programs remains unresolved-

The Côte d’Ivoire and Cameroon case studies highlighted issues regarding confidentiality of monitoring and follow up mechanisms (Cameroon), and different monitoring requirements for PEPFAR implementing partners (Côte d’Ivoire). A proposed ‘triangulation’ method developed by ATLAS to use a set of routine programmatic HIV indicators to attribute changes in prevention and treatment uptake to HIVST in concentrated epidemics is under discussion with PEPFAR.

The MTV Shuga edutainment platform influenced HIV behaviours, but low access to supply limited confidence in HIVST among youth-

The LSHTM evaluation of MTV Shuga showed the effectiveness of targeted demand generation and the importance of media in introducing new health services, reaching both men and women equally. By packaging the information in teen-friendly content, the study reports MTV Shuga campaigns proved to be most effective for generating awareness with youth first-time users of HIV-testing and PrEP. Exposure to the MTV Shuga Down South 2 series (DS2) was associated with higher knowledge of HIV status versus those who were not (58% vs. 35%), increased awareness of HIVST (60% vs 28%) and use of HIVST (29% vs 10%). One-third of respondents were aware of PrEp, with higher proportions among DS2-audiences (52% vs 27%).

In South Africa, the LSHTM evaluation found DS2 helped raise awareness of HIVST, but its limitation was the lack of influence on supply where viewers were skeptical about the existence of services, real or perceived, in their region. Interviews for this evaluation are consistent with this finding. The Côte d’Ivoire MTV Shuga program is being evaluated separately and results are not yet available.

Demand for BBT lagging but progress made-

willingness of countries to adopt BBTs has been a challenge, especially since the BBT pricing does not offer a cost advantage over oral fluid HIVST. As of December 2021, Uganda, Nigeria, Mozambique, and Tanzania have registered at least one BBT, and the registration process in India, Indonesia is ongoing (Mozambique and Indonesia used only oral fluid HIVST in the STAR 3 delivery models). Though no ATLAS countries have registered a BBT, Cameroon is preparing a feasibility study with multiple BBTs. In the longer term such country experiences may help to influence the region to diversify HIVST. Upcoming Global Fund guidelines for NFM4 will include a policy to allow alternate procurement of oral or BB HIVST in country grants, which should help ensure continued expansion of the BBT market and demand.

Key findings: Affordability barriers

The market intervention was critical in achieving price parity between blood based and oral fluid HIVST (< US$2), facilitating integration of BBTs into the global HIVST arena and country experience with BBT. This likely would not have been possible without the Unitaid investment. Work to improve understanding and transparency of HIVST pricing has been beneficial, including with regards to its cost effectiveness, but the more expensive HIVST sticker price remains a concern for some stakeholders.

Affordability in the private sector remains a key concern for stakeholders who are highly supportive of expanding HIVST availability in this channel.

Good progress with the first BBT priced on-par with OraQuick and wider price transparency for HIVST costs—
Prior to the EMAV, a deadlock existed for BBT (i.e., weak demand for BBT because of higher prices and inability to lower price due to low demand). Unitaid's Mylan/ Viatris pricing agreement to lower the cost of the Mylan BBT to <US$2 addressed this bottleneck, set the stage for more country experience with BBTs, and generated of demand. PSI’s cost benchmarking and negotiations for components along the supply chain has significantly raised the awareness of global and country stakeholders (including manufacturers) on the need for transparency and attention to all-in prices for diagnostic products. However, some stakeholders view that pricing expectations for some components (e.g., local distributors) were unrealistic and unfeasible. While price trends are headed in the right direction, and there is some appreciation of the cost effectiveness of HIVST, donors and at least one country stakeholder interviewed still regard the continued higher price of HIVST over conventional tests (at ~US$0.7) a fundamental bottleneck for market growth within public-sector programs where HIV testing budgets are finite.

High enthusiasm for private sector work, with need for affordability. Although the STAR 3 pharmacy models initiated in 2021 are not within the scope of this evaluation, multiple stakeholder groups voiced this is a key area for HIVST market growth and reaching men and other groups not engaging in conventional testing services. ATLAS countries are also progressing work on an enabling environment for private sector sales. In Côte d'Ivoire where efforts are more advanced, the consumer ceiling price agreed of CFA5000 (equivalent to approximately US$8) is regarded as too high for most customers. Within public sector Global Fund and PEPFAR grants, HIVST are provided at no cost to users.

Key Findings: Supply and delivery barriers

STAR 3 and ATLAS have demonstrably strengthened national Procurement and Supply Management (PSM) for HIVST. Overall country capacity in procurement and supply chain remains a weaker aspect in the transition to Global Fund grants.

According to interviews and documentary evidence, there has been significant progress in program milestones related to registration, market quantification, and regulation and quality assurance mechanisms (in all countries apart from India). Less progress has been made in developing post-market surveillance systems although work is ongoing.

By the end of 2021, a majority of project countries had ended procurement, with handover to NFM3 and PEPFAR procurement underway or shortly anticipated. This donor procurement is underpinned by significant project support in supply chain planning and quantification. In STAR 3 countries despite the significant PSM preparatory work, some countries have since struggled to now lead on HIVST procurement and supply chain management, including Mozambique and to a degree Cameroon per stakeholder interviews. In STAR 3, PSI directly procured HIVST kits to expedite the HIVST projects required to inform Global Fund grants. This approach on top of the relative short implementation period of STAR 3 technical support may be partly a reason for HIVST PSM remaining weaker in some contexts.
In summary, the following enabling factors are regarded as contributing to the effectiveness of the HIVST portfolio:

- A key value add of Unitaid’s HIVST portfolio has been to establish significant technical capacity in PSI and Solthis for the purpose of transferring their expertise to project country partners and stakeholders in other countries (and STAR 3 co-partners Jhpiego and PATH). This has been crucial to catalysing the HIVST enabling environment in non-project countries and is highly complementary to preparatory work for Global Fund NFM3 and PEPFAR COP22. The ATLAS grant included funds for TA to non-project countries for this purpose.
- Integration of both STAR 3 and ATLAS in government systems from inception was key in that it gave full leadership to national authorities. This is widely cited by all stakeholders as a key enabling factor.
- ATLAS production and distribution of French-language HIVST technical products further accelerated the enabling environment in the WCA region.
- Unitaid facilitation of close working between STAR 3, ATLAS, MTV Shuga and with technical support from WHO was highly valued by grantees.
- Introduction of HIVST was regarded by target population groups as a new choice that catered to their needs, and appreciated by community service providers as adding another tool for HTS.
- A continuous learning approach also helped to build ownership and alleviate initial doubts about HIVST in ATLAS countries newer to HIVST.

Factors hindering effectiveness of the HIVST portfolio were:

- Weak internal coherence between demand generation among youth by MTV Shuga and the HIVST distribution models.
- Late inclusion of private sector models in STAR 3 may have hampered market growth of HIVST and reach to new populations not served by conventional testing. This was referred by one country stakeholder as the ‘sleeping giant’ in regard to the potential for HIVST and self-care more broadly.
- The COVID-19 pandemic delays on ATLAS research has meant some results will not be published until the end of the grant in 2022. Some stakeholders voiced concerns the dissemination of the final set of learnings from ATLAS may be de-prioritized as a result.
- PEPFAR monitoring indicators were different than those of the governments involved in STAR 3 and ATLAS (relevant only for countries with significant PEPFAR support). This manifested challenges for implementing partners involved in HIVST projects (cited in both the India and Côte d’Ivoire case studies where PEPFAR is a significant funder). In the WCA region, ATLAS has proposed a method to triangulate monitoring indicators for the purpose of evaluating HIV services employing HIVST.
- Structural challenges in WCA regarding highly medicalized HIV services with clinicians seeking to be the ‘gatekeepers’ of a new technology was a challenge for facility-based models.

Sustainability/Scale

7. To what extent have the projects contributed to national readiness for scale, and an enabling global environment for scale up? Which core elements of the intervention have been most critical in national and global scale up readiness?

Key Findings:

Unitaid’s HIVST portfolio has significantly accelerated global conditions for scale across dimensions of sustainable access conditions, coordination with donors/partners and evidence dissemination.

STAR 3 and ATLAS have significantly contributed to country readiness to scale HIVST. As the projects were sub-national there remains significant work to scale nationally (or in key areas).

Significant increase in HIVST funding, with HIVST to be mandated within Global Fund NFM4 HIV grants-

Between NFM2 and NFM3, the Global Fund increased its HIVST investment from US$17m to US$71.8m (the matching CIFF grant comprises US$47.9m of the NFM3 value). The Global Fund is now preparing the Modular Framework for NFM4 (2024) which will require all country HIV funding requests to include HIVST and to report on
HIVST (not a requirement of NFM3). Unitaid’s HIVST investments also supported PEPFAR COP processes through providing evidence on country implementation and HIVST tools.

The 2021 WHO HIVST demand forecast projects total LMIC demand will reach 27.7m tests by 2025. This is a slight reduction from the 2020 forecast of 29m tests in 2025 (Figure 3.5), driven by slower growth for early adopter countries and reduced expectations for India, Indonesia and the Democratic Republic of the Congo.

Sub-national HIVST models are being expanded, albeit at a slower pace with some challenges. All STAR 3 and ATLAS countries, (excluding India and Indonesia) are early in the process of scaling HIVST through donor support (most significantly Global Fund and PEPFAR). In regards to capacity for scale, the Global Fund indicated increased Unitaid funding of organisations who are PRs/ SRs (particularly local organisations) would be valuable in that it would help prepare Global Fund recipients to maintain the pace of implementation set by Unitaid grantees. Examples include procurement challenges in Mozambique and delays in initiating provider trainings (see Box 3 for Cameroon example).

When asked about expected challenges in expanding HIVST as a whole, country respondents indicated logistics and data-reporting would be weaker/more challenging areas. Several stakeholders in WCA with insight on NFM3 country proposals (outside of ATLAS countries) report several lacked adequate budgets for wrap-around services, including for training on HIVST. This is considered a risk to successful expansion of HIVST. Some countries were also too ambitious in their NFM3 proposals and as they move to implementation are using ATLAS evidence to modify approaches and targets.

Box 3. Expanding HIVST in Cameroon

STAR 3 provided technical support to Cameroon’s NFM3 proposal including i) mapping of KP and priority regions for Global Fund support, ii) quantification of HIVST, and iii) a distribution plan based on geographic need. As of end 2021, HIVST procurement was expected to grow from 70k kits in 2021 (STAR 3) to 548k over 2022-23 (Global Fund). CAMNAFAW, the Global Fund PR for civil society was a key STAR 3 partner. Following handover, CAMNAFAW and the CNLS were leading NFM3 procurement and scale of HIVST. This transition was not without hiccups as initially an order of BBT were procured by the Global Fund procurement agent instead of oral fluid tests. Continued technical support for M&E and PSM is being financed by the Global Fund (and led by ACMS/PSI). Interviewees noted the pace of HIVST scale by CAMNAFAW and its community-based partners had been slow and regarded CAMNAFAW’s overall capacity as the key risk to meeting national targets. (Note as of May 2022 CAMNAFAW is no longer the Global Fund PR. Source: PSI communication, June 2022).
The components most critical for readiness to scale HIVST at the global and country levels were:

1. Co-creation of STAR 3 with the Global Fund and CIFF that linked STAR 3 to NFM3 country proposals, along with continued engagement of PEPFAR and WHO.

2. Focus of the portfolio’s country level work on core country readiness milestones.

3. Integration of STAR 3 and ATLAS within the national HIV response.

4. Delivery of HIVST projects by existing Global Fund and PEPFAR country partners (to a large extent).

5. Evidence generation and dissemination, with the involvement of WHO.

6. EMAV to reduce the price of a blood-based HIVST product, with country support for registration and PSM

Table 3.1 indicates the change in status of the global conditions for scale as a result of the HIVST grants. As indicated, 8 conditions are regarded as fully achieved, and 5 partially achieved. The partially achieved conditions reflect the unfinished research and dissemination activities of ATLAS, and the improved, but still unfinished work to establish a sustainable, diverse, and affordable HIVST market. Unitaid’s investments are regarded as significantly contributing to progress across all conditions (ranging from a medium to high level of contribution across global scale conditions).

**Table 3.1: Change in global conditions for HIVST scale-up**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Global Condition</th>
<th>1 Limited/ nothing in place</th>
<th>2 Plan under development</th>
<th>3 Plan developed and activities underway</th>
<th>4 Condition partially achieved</th>
<th>5 Condition fully achieved</th>
<th>Unitaid contribution</th>
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<tbody>
<tr>
<td></td>
<td>Evidence</td>
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<td>Medium</td>
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<td>High</td>
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<td>High</td>
</tr>
<tr>
<td></td>
<td>Appropriate delivery models</td>
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<tr>
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<tr>
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</tbody>
</table>

**Impact**

8. To what extent was the impact of the projects equitable? What strategic benefits and positive externalities have resulted from this investment?

**Key Findings:**

The HIVST portfolio has contributed to more equitable access to HIV services and information among different populations and regions, and accelerated access to HIV innovations in under-invested regions.

Unitaid’s HIVST portfolio has contributed to opening the gates for self-testing of other diseases, provided a platform for Covid-19 and HCV self-testing introduction and accelerated global guidelines on self-testing.

The COVID-19 pandemic has helped to normalize self-testing, and has been an accelerator for self-care, including HIVST.
Highly equitable portfolio that contributed to democratising access to HIV testing services – Both STAR 3 and ATLAS have increased reach of HIV services to key populations and untested populations. This finding is supported through program evidence and interviews with country stakeholders who view the HIVST models identified new and hidden untested populations within communities. The EMAV made BBT more accessible to LMIC markets, and increased transparency in landed costs for HIVST products. Price parity between BBT and oral fluid HIVST is also a step forward in widening choice for communities where there are preferences for BBT over oral fluid HIVST.

Improved access to HIV innovations in WCA region and entry to self-care - In general, the portfolio’s inclusion of WCA countries resulted in catalysing funding for HIVST in the region and expansion of the MTV Shuga established behaviour change platform to a new market with French-language content more contextually relevant to the WCA region. The necessity of a foundational first MTV Shuga series in Côte d’Ivoire underscored the significant need in WCA to destigmatise HIV and increase information on HIV prevention and care targeted to young people. The research component of ATLAS is also regarded as having strengthened local research capacity in a region with less donor funding, which respondents view as critical for WCA. The STAR 2 evaluation found HIVST encouraged entry to self-care at the individual level and shifted thinking about HIV testing overall. In WCA, where self-care is less developed, stakeholders regard HIVST as contributing to a mindset shift in self-care, with more work needed to consider the self-care agenda within the weaker health system context.

STAR has helped accelerate self-care for other diseases and sped up WHO guidance – The WHO 2021 HCV self-testing guidelines benefited from applicable evidence generated for HIVST under STAR. WHO estimates the 2019 HIVST guidelines took approximately six years given the need to establish the evidence-base, whereas the HCV guidelines released in July 2021 took one year. Unitaid's COVID-19 and HCV portfolios have also leveraged STAR where grantees in India, Cameroon and Nigeria are introducing HCV self-testing (also in Vietnam and South Africa), and COVID-19 self-testing in India, Malawi, Nigeria, South Africa, Uganda and Zimbabwe. In Cameroon, ACMS reports the government relationships established for piloting HIVST have aided the HCV project. The STAR research platform in Zimbabwe was a research site for COVID-19 self-testing, contributing to WHO’s Interim Guidance on COVID-19 self-testing using rapid antigen diagnostic tests (March 2022).

4. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Unitaid's HIVST portfolio has been highly significant and successful at facilitating the catalytic introduction of HIVST and delivering end-to-end support for expansion and scale-up of this innovative technology, especially in the ESA and WCA regions. The progress achieved through the portfolio will significantly impact the HIV testing gap.

What worked well:

1. The STAR 3 partnership of Global Fund-CIFF-Unitaid, directly linked to NFM3, filled the crucial ‘country enabling environment’ gap that sits between the evidence-base for an innovation and donor readiness to make significant investments in scale. Involvement of PEPFAR and WHO further supported inclusion of HIVST in PEPFAR COP processes and dissemination of HIVST evidence amongst global HIV stakeholders.

2. The time required to integrate HIVST within national programmes and build capacity was underestimated but has paid off from the perspective of sustainable inclusion of HIVST within government, civil society and community-led HIV testing services.

3. The EMAV investment catalysed price parity between a WHO PQ BBT and oral fluid HIVST. Support for country registration and PSM strengthening was important for sustainability of HIVST supply, building country experience in both product types, and strengthening the HIVST market.

4. MTV Shuga critically demonstrated the value of ‘edutainment’ in creating demand for HIVST and PrEP and influencing healthy behaviours.

5. ATLAS secondary distribution via KP-networks has demonstrated models for reaching KP and hidden populations in the WCA region and a high proportion of first time testers. Lessons from ATLAS plus provision of TA in the region through Solthis are supporting other countries’ HIVST plans.
6. STAR 3 workplace models were an important multisectoral channel for reaching men and workers in the informal economy with HIV services. Solthis has since proposed implementing a similar intervention in Côte d’Ivoire, learning from Cameroon’s model.

7. The emphasis of HIVST on reaching first time testers and under-served populations, including groups facing significant levels of stigma contributed to improving equity in access to HIV services.

8. The STAR platform established for HIVST has accelerated self-testing global guidelines for HCV and COVID-19 and benefitted country implementation of Unitaid HCV and COVID-19 self-testing investments.

What worked less well:

1. The pace of implementation has slowed in some contexts following handover of STAR 3 to Global Fund grants and the Global Fund is supporting TA to fill capacity strengthening needs. While acknowledging the significant capacity strengthening within STAR 3 already, in hindsight, potential bottlenecks (e.g. procurement) and capacity needs could have been identified even earlier, with greater resources directed to strengthening of national partners.

2. Some countries remain hesitant to diversify their HIVST supply with BBT, despite the work under STAR 2 to established country experience with BBT and evidence of safety and user preference. Earlier work within the HIVST portfolio to underscore the importance of supply diversity with decision-makers and build experience with BBT in the countries that currently do not authorize use of BBT may have helped to boost BBT orders after the EMAV lowered the unit price.

3. Demand generation through MTV Shuga and the supply of HIVST to target populations could have been more strongly aligned.

4. It remains a challenge to connect high risk individuals who have taken an HIVST to prevention services. In some STAR 3 countries (e.g. Cameroon), this was underscored by limited availability of PrEP services.

5. While the introduction of private sector models was strongly welcomed by country and global stakeholders, they also expressed a desire for this to have come sooner in Unitaid’s portfolio. Overall there is a view that the private sector is an untapped platform for HIVST with scope for global leadership to address HIVST access barriers.

Recommendations

The HIVST AfI is the most mature of Unitaid’s portfolios within the broader umbrella of self-care, therefore the evaluation considered two sets of recommendations: 1. Specific recommendations for Unitaid and its key partners with regards to HIVST and the current grants ending in 2022, and 2. Considerations for other investments by Unitaid across its portfolio in general and for self-care in particular.

1. Recommendations for Unitaid in HIVST and current grants

Recommendation 1. Unitaid should ‘finish the business of HIVST’ by focusing on discreet, strategic actions which concern barriers to scale and equitable access, building on Unitaid’s HIVST and self-care expertise and funder relationships.

Noting the substantial progress Unitaid has achieved in catalysing the global and country enabling environment for scaling HIVST, with over $120m invested since 2015, there remains a set of core ‘unfinished’ issues where Unitaid brings a comparative advantage. Continued Unitaid leadership on the following priorities, in continued close collaboration with WHO and other key stakeholders, would serve to maximise the catalytic effect of Unitaid’s significant investments to date and enhance effectiveness and VFM.

1a. Unitaid should consider expanding support for private sector access and scale up of HIVST. This includes existing models under STAR 3 (e.g. pharmacy, workplace) and new platforms which harness the private sector. Unitaid should also consider how HIVST private sector models can include other self-care products and services (discussed further in recommendations for wider self-care investments).
1b. Unitaid should continue supporting dissemination of evidence and country experience (for e.g. in tandem with NFM4/COP22) to:

- Increase the awareness and understanding of governments on the importance of HIVST product mix and diversity for market security (e.g. including the importance of offering product choice);
- Ensure lessons from STAR 3 and ATLAS are included in NFM4 country proposals and COP22 onwards (e.g. funding TA to ensure development of sound and adequately budgeted proposals); and
- Continue advocacy and evidence dissemination on the effectiveness and cost-effectiveness of including HIVST within national HTS.

2. **Recommendations for other Unitaid AfIs and investments, particularly in self-care:**

There are a number of best practises and learnings from the HIVST portfolio that Unitaid should consider in other AfIs, particularly self-care solutions. These include:

**Recommendation 2. Partner early with scale-up funders, collaborate closely with WHO and foster grantee collaboration.**

STAR 3 began 1.5-2 years prior to ‘handover’ to Global Fund-supported grants and synced with NFM3 timing. This early planning with scale-up funders created confidence amongst countries and manufacturers and served to de-risk Unitaid-GLOBAL Fund-CIFF investments. This model of collaboration between Unitaid and key scale-up funders should be considered and replicated for other portfolios/AfIs as appropriate. Further, close working with WHO on HIVST was highly meaningful for governments and funders, and grantee collaborations brought efficiencies to the portfolio.

**Recommendation 3. Consider working with the private sector as a service platform.**

As identified in the HIVST portfolio, there is a significant gap in product introduction and affordability in the private sector. Given the private sector is a significant provider of health services in LMICs, AfIs and country-specific investments should explore where a “total market approach” is appropriate to the context and health priority area. This is an important aspect to consider in coordination with national stakeholders and scale up partners.

**Recommendation 4. Increase the emphasis within Unitaid grants in local organisational capacity strengthening (grassroots and implementing partners (IP) of scale-up funders) and purposely establish a pool of TA resources to transfer knowledge to countries for product introduction and scale.**

Unitaid should increase investment in local partner capacity strengthening – both at the grassroots level, and with IPs of scale up funders. This would serve to build capacities for scale, and ultimately more equitable access to health innovations, given the central role of local partners in reaching under-served and marginalised populations. Second, the model whereby a pool of expert technical capacity was established within Unitaid grantees which served to transfer HIVST knowledge to project and non-project country stakeholders should be considered where relevant to other Unitaid portfolios, given it was highly complementary to the Global Fund and PEPFAR.

**Recommendation 5. Expand HIVST channels to be person-centric by bundling products/services.**

Other products where Unitaid’s expertise and HIVST platforms can be expanded on, relevant to Unitaid AfIs are notably: the use of HIVST within PrEP services; dual HIV and syphilis testing; services for pregnant women (ANC/FP/PrEP). In doing so, Unitaid in collaboration with other partners, should move away from single product-focused investments and models and instead invest in models that start from the client’s perspective and products and services relevant to their needs. This could be considered both within supply side investments and follow the synergistic approach of the PrEP/HIVST MTV Shuga demand generation in South Africa.

**Recommendation 6. Consider designing a longer period for research and dissemination that continue beyond programmatic activities.**

Evidence generation and dissemination require a longer tail to maximise the influence from Unitaid grants.
UK
Queens House
55-56 Lincoln’s Inn Fields
London WC2A 3LJ

T. +44 (0)20 7269 0210
E. info@cepa.co.uk

www.cepa.co.uk

Australia
Level 20, Tower 2 Darling Park
201 Sussex Street
Sydney NSW 2000

T. +61 2 9006 1308
E. info@cepa.net.au

www.cepa.net.au