Costs and scale-up costs of integrating HIV self-testing into civil society organisation-led programmes for key populations in Côte d'Ivoire, Senegal, and Mali

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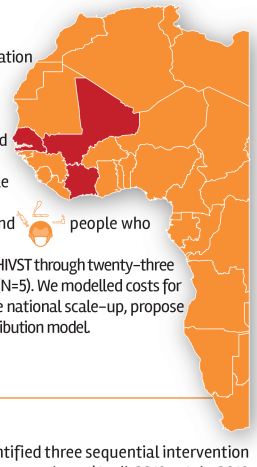
INTRODUCTION

The ATLAS project, coordinated by the international partner organisation Solthis (IPO), introduced HIV self-testing (HIVST) into civil society organisations (CSO) programmes offering community-based HIV testing services for key populations (KP), namely female sex workers (FSW), men who have sex with men (MSM), and people who use drugs (PWUD). In this study, we estimate the costs of implementing HIVST through twenty-three CSO-led models for KP in Côte d'Ivoire (N=7), Senegal (N=11), and Mali (N=5). We modelled costs for programme transition (2021) and early scale-up (2022–2023) to guide national scale-up, propose costed operational plans and inform about the sustainability of this distribution model.

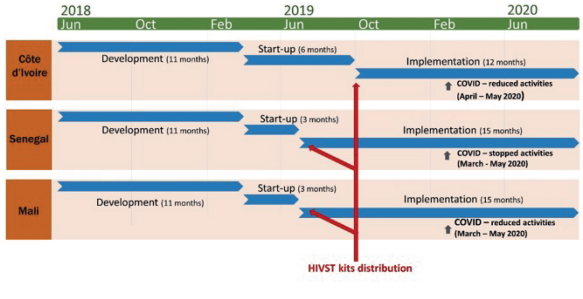


METHODS

From June 2018 to September 2020, the deployment strategy identified three sequential intervention phases: 1) development phase (June 2018 – March 2019); 2) start-up phase (April 2019 – July 2019 (Senegal / Mali), – October 2019 (Côte d'Ivoire)); and 3) early implementation phase (until September 2020) (Figure 1). The costing teams followed the guidelines of the Global Health Cost Consortium to estimate the economic costs of HIVST kits provision.

We analysed IPO and CSO financial reports capturing all costs spent, ensuring high comparability of analyses between CSO and between countries (top-down costing). We conducted field observations to estimate the economic costs (donations of goods and services) as well as identifying and collecting allocation factors between delivery channels (bottom-up costing). We also conducted a time and motion study, observing dispensing agents for the allocation of field personnel costs. We then categorised costs as central, development/start-up, field and HIVST kit costs. Scale up modelling used an accounting cost function and identified fixed costs and variable costs assumed to vary linearly with the scale.

Figure 1. Description of the ATLAS project's three HIV self-testing (HIVST) deployment phases in Côte d'Ivoire, Senegal, and Mali over 2018–2020



RESULTS

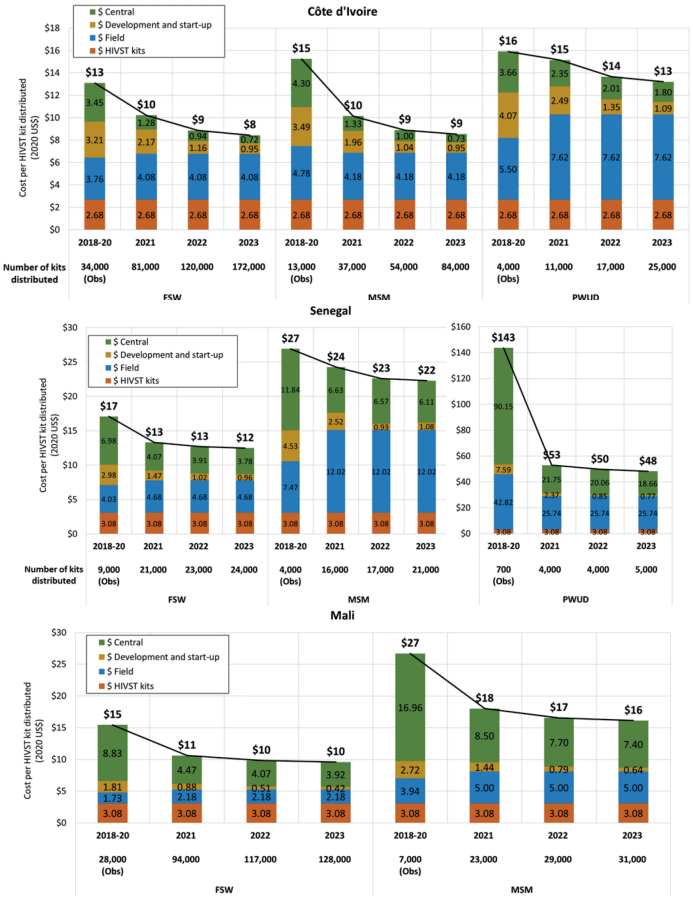
Monitoring and evaluation data analysis

Between 2018–2020, 51,028, 14,472, and 34,353 HIVST kits were distributed in Côte d'Ivoire, Senegal and Mali through a total of 161, 48, and 191 peers educators, respectively. The average number of HIVST kits distributed was 7,290 per CSO in Côte d'Ivoire, 3,618 in Senegal and 6,871 in Mali. Across countries, 64%–80% of HIVST kits were distributed to FSW, 20%–31% to MSM, and 5%–8% to PWUD.

Costs data analysis

Average costs per HIVST kit distributed were $15 for FSW (Côte d'Ivoire: $13, Senegal: $17, Mali: $15), $23 for MSM (Côte d'Ivoire: $15, Senegal: $27, Mali: $27), and $80 for PWUD (Côte d'Ivoire: $16, Senegal: $143), driven by personnel costs (47%–78% of total costs), and HIVST kits costs (2%–20%).

Figure 2. HIVST average costs and cost composition: observed (2018–2020), in transition (2021), and early scale-up (2022–2023) – Côte d'Ivoire, Senegal, Mali



Large variations in the average costs per HIVST kit distributed were found among CSO. In Côte d'Ivoire, the average cost per kit distributed ranged $9–$27 for FSW, $10–$29 for MSM, and only one CSO worked with PWUD. In Senegal, the average costs were $13–$32 for FSW, $25–$28 for MSM, and $121–$156 for PWUD. In Mali, the average cost per kit distributed ranged $15–$27 for FSW and $17–$59 for MSM.

Average costs at scale-up were $11 for FSW (Côte d'Ivoire: $9, Senegal: $13, Mali: $10), $16 for MSM (Côte d'Ivoire: $9, Senegal: $23, Mali: $17), and $32 for PWUD (Côte d'Ivoire: $14, Senegal: $50). Cost reductions were mainly explained by the spreading of IPO costs over higher HIVST distribution volumes and progressive IPO withdrawal at scale-up.

CONCLUSION

In all countries, CSO-led HIVST kit provision to KP showed relatively high costs during the study period related to the progressive integration of the programme to CSO activities and contextual challenges (COVID-19 pandemic, country safety concerns). In transition to scale-up and integration of the HIVST programme into CSO activities, this model shows large potential for substantial economies of scale. Further research will assess the overall cost-effectiveness of this model.

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