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Can task shifting improve efficiency of HIV self-testing kits distribution? A case study in Mali

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INTRODUCTION

The ATLAS project introduced HIV self-testing (HIVST) in consultations of people living with HIV (PLHIV) at public health facilities in Côte d'Ivoire, Mali and Senegal for secondary distribution to their partners. Preliminary data from a qualitative study (observations of consultations, interviews with distributing agents) carried out in two clinics in Mali highlight implementation challenges associated with the counselling on self-testing and kit distribution currently done by the medical staff (doctor/nurse) and reported time-consuming. While implementation teams are considering the possibility of delegating certain tasks, it is important to consider the cost of alternative delivery models.

METHODS

We analysed preliminary economic costs data for the provision of rapid HIV testing services (HTS) (analysis period: October 2018 – September 2019) and HIVST services (August 2019 – October 2019) in these same two Malian clinics. Above service level costs are excluded. We then modelled the costs of provision using alternative cadres of medical and non-medical staff (psychosocial counsellors/peer educators) and the consumables used to simulate task shifting scenarios for the provision of HTS and HIVST services (Figure 1). The three scenarios correspond to 1. partial delegation: individual counselling done by non-medical staff and HIVST distribution by the medical staff; 2. total delegation: individual counselling and distribution done by non-medical staff only; and 3. total delegation with group counselling (around 5 people): where group counselling and distribution are done by non-medical staff only.

RESULTS

Results (Table 1) show that the costs of dispensing HIVST according to the observed model are much higher (+ 59%) than those of a conventional rapid screening test. Costs

are greatly reduced with partial or total delegation but still higher than rapid testing due to the high cost of the HIVST kit. Finally, in the context of a model where information and sensitization would be done in groups, the costs per kit dispensed would become lower than those of a rapid test.

Costs (US\$ 2019) for 1 rapid test conducted or 1 HIVST kit distributed	Conventional HIV testing Observed model	HIV self-testing			
		Observed model	Partial delegation	Total delegation	Group sensitisation
Medical personnel	\$0,27	\$4,64	\$0,22	\$0,00	\$0,00
Non-medical personnel	\$0,22	\$0,83	\$2,37	\$2,43	\$1,58
Other personnel costs	\$3,18	\$1,81	\$1,81	\$1,81	\$1,81
Supplies	\$1,32	\$2,86	\$2,86	\$2,86	\$2,86
Building operation and maintenance	\$0,54	\$0,00	\$0,00	\$0,00	\$0,00
Other recurrent costs	\$0,87	\$0,00	\$0,00	\$0,00	\$0,00
Cost per HIV test	\$6,40	\$10,14	\$7,25	\$7,10	\$6,25
% variation from observed conventional HIV test	-	59%	13%	11%	-2%

Table 1. Costs (US\$2019) per HIV test performed / HIVST kit distributed according to different task delegation scenarios

In addition, the costs of medical personnel account for a significant part (46%) of the total costs (Figure 2). During a partial delegation of the tasks of HIVST distribution, these costs would represent just about 3% of the total costs.

In the absence of involvement of doctors/nurses (scenario 2 and 3), the economies of scale resulting from group sensitization reduce the relative share of the costs in non-medical personnel by 5% (59% vs. 54%). Thus, the costs of consumables represent a relative value a little higher (46% vs. 40%) for group sensitisation.

CONCLUSION

Task delegation from medical to non-medical staff can generate substantial cost savings. These preliminary results can guide the implementation strategy of HIVST in care consultations, to ensure sustainability from early introduction through scale-up.

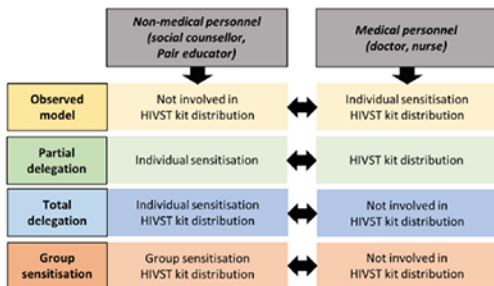


Figure 1. Distribution of tasks in the different delegation scenarios considered for the economic analysis

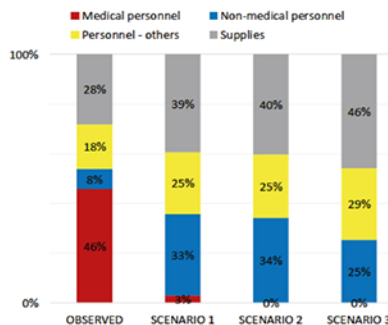


Figure 2. HIVST costs composition for the observed model and scenarios



Photo: Data collection at the clinique Halles de Bamako, October 2019, Mali

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