

Cost analysis of differentiated HIV self-testing kits distribution strategies in Zambia

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Background

HIV self-testing is a process whereby a person who wants to know his or her HIV status collects a specimen, performs the test and interprets the test result him/herself. The HIV Self-Testing Africa (STAR) project in Zambia utilised community-based distribution agents (CBDAs), voluntary medical male circumcision (VMMC) and health facility (HF) services to distribute HIVST kits. We present the costs per HIVST kits distributed and examine the key cost drivers in Zambia.

Objectives

To determine the unit costs per kit distributed using CBDA, VMMC, and HF distribution models.

Methods

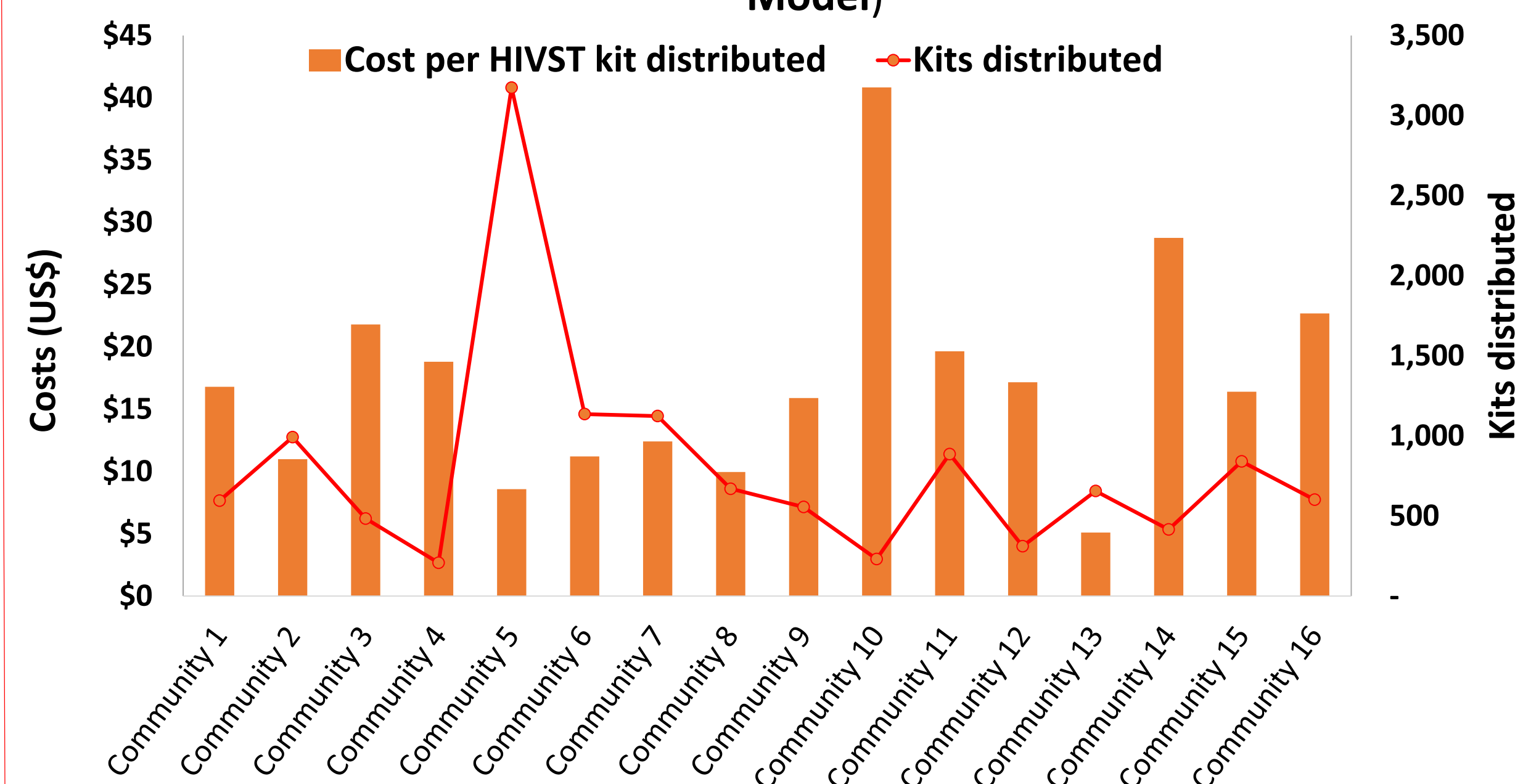
We analysed project financial expenditure data between July 2016 and May 2017. All costs are presented in 2016 US\$. Total and unit costs per kit distributed were estimated for CBDA, VMMC, and HF distribution.

Results

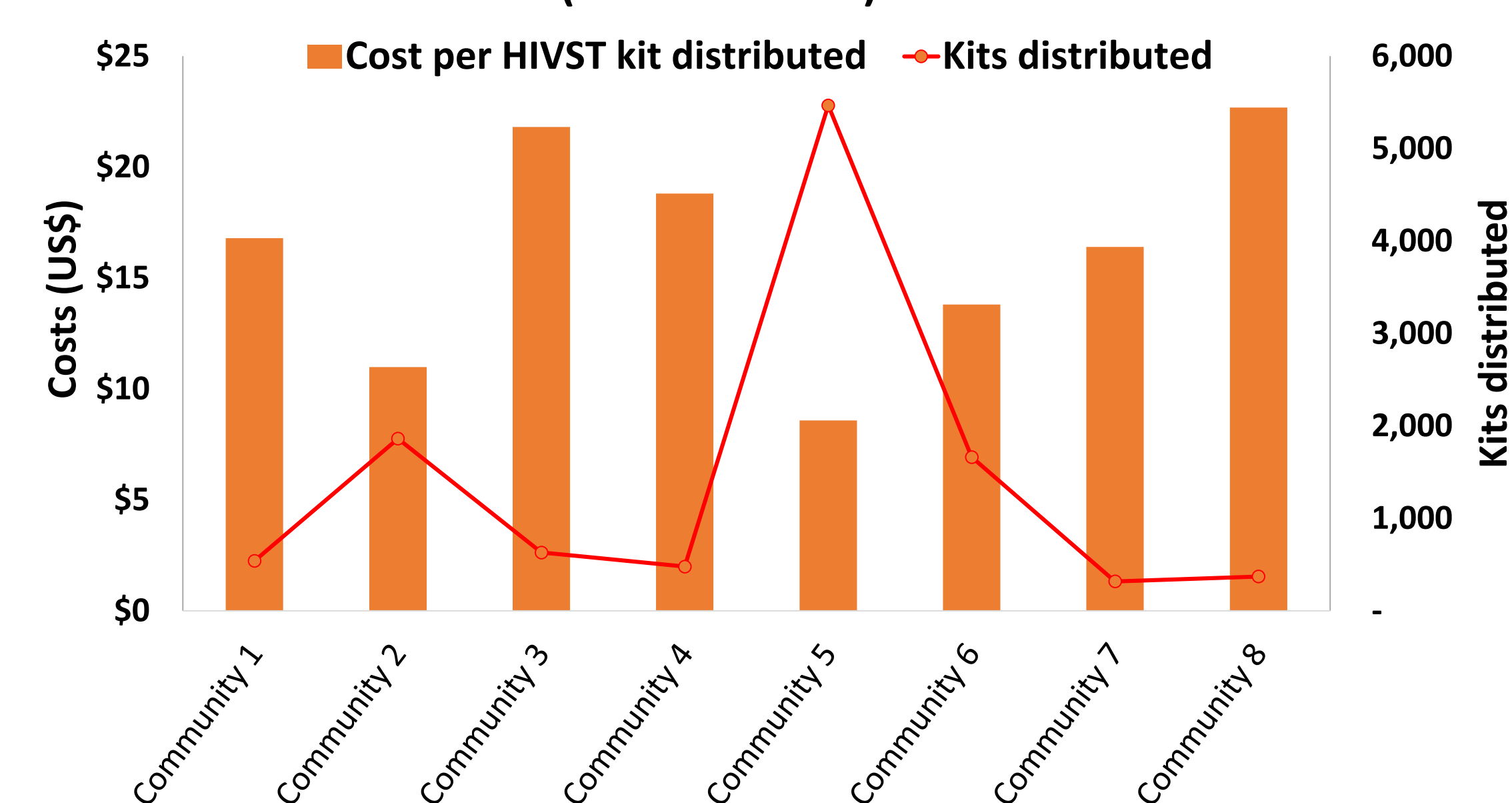
Over the lifespan of the project, 127,804 HIVST kits were distributed across 16 communities. The CBDA model distributed the vast majority of kits (83%), followed by HF (10%) and VMMC (7%) models. Personnel, HIVST prices and transport were the key cost drivers accounting for 49%, 24% and 12% of the total costs, respectively. The unit cost per HIVST kits distributed were \$14.81 for CBDA, \$11.90 for VMMC and \$14.40 for the HF.

Results and Conclusions

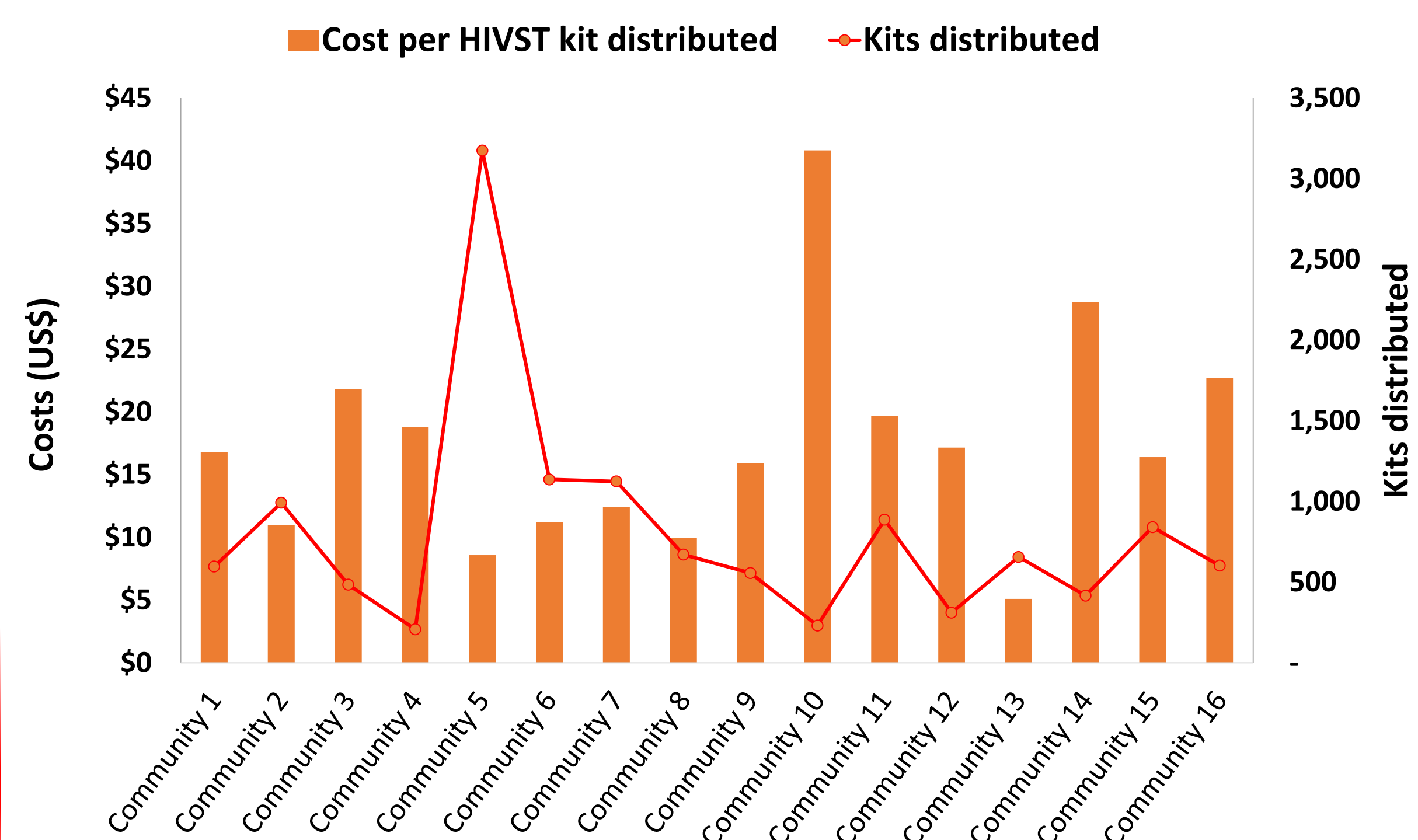
Cost per HIVST kit distributed with HIVST kits distributed (CBDA Model)



Cost per HIVST kit distributed with HIVST kits distributed (VMMC Model)



Cost per HIVST kit distributed with HIVST kits distributed (HF Model)



Conclusions

These data show that HIVST kits can be delivered affordably using supportive distribution models (CBDA and VMMC mobilisers). Marked variation between communities in the average cost per kit distributed (range \$5.09 to \$40.84 for CBDA model) underscores the need to explore and optimise economic efficiency. We anticipate cost savings through economies of scale when high volumes and larger populations are covered, and as distribution is integrated into routine service delivery systems. Further research will evaluate how distribution costs change as programmes mature and scale up.

Acknowledgements

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