

# Cost and Cost Drivers Associated with Setting-up A Prime Vendor System to Complement the National Medicines Supply Chain in Tanzania

August Kuwawenaruwa<sup>1</sup>, Kaspar Wyss<sup>2</sup>, Karin Wiedenmayer<sup>2</sup>, Fabrizio Tediosi<sup>2</sup>

<sup>1</sup>Ifakara Health Institute, Dar es Salaam, Tanzania. Swiss Tropical and Public Health Institute (Swiss TPH), Basel, Switzerland. University of Basel, Basel, Switzerland.

<sup>2</sup>Swiss Tropical and Public Health Institute (Swiss TPH), Basel, Switzerland. University of Basel, Basel, Switzerland.

**Introduction:** Economic analysis of supply chain interventions to improve the availability of healthcare commodities at healthcare facilities is vital in generating evidence for decision-makers. The current study assesses the cost and cost drivers for setting up a public-private partnership program in Tanzania. All public healthcare facility orders for complementary medicines are pooled at the district level and then purchased from one contracted supplier at the regional level, the prime vendor. This health system intervention is referred to as Jazia Prime Vendor System (Jazia PVS).

**Methodology:** Financial and economic costs of Jazia PVS were collected retrospectively and using the ingredients approach. The financial costs were spread over the implementation period of January 2014–July 2019. In addition, we estimated the financial rollout costs of Jazia PVS to the other 23 regions in the country over two years (2018–2019). A multivariate sensitivity analysis was conducted on the estimates.

**Results:** Jazia PVS start-up and recurrent financial costs amounted to US\$2'170'989 and US\$709'302, respectively. The main cost drivers were costs for short-term experts, staff and healthcare workers training, and the Jazia PVS technical and board management activities. The start-up financial cost per facility was US\$2819, and the cost per capita was US\$0.37.

**Conclusion:** The study provides valuable information on the cost and cost drivers for setting up a complementary pharmaceutical supply system to complement an existing system in low-income settings. Despite the substantial costs incurred in the initial investment and operations of the Jazia PVS, the new framework effectively achieves the desired purpose of improving the availability of healthcare commodities.

**Keywords:** Cost, cost drivers, Prime vendor system, Tanzania

