

Abstract

Background

Scaling up services to achieve HIV targets will require that countries optimize the use of available funding. Robust unit cost estimates are essential for the better use of resources, and information on the heterogeneity in the unit cost of delivering HIV services across facilities – both within and across countries – is critical to identifying and addressing inefficiencies. There is limited information on the unit cost of HIV prevention services in sub-Saharan Africa and information on the heterogeneity within and across countries and determinants of this variation is even more scarce. The “Optimizing the Response in Prevention: HIV Efficiency in Africa” (ORPHEA) study aims to add to the empirical body of knowledge on the cost and technical efficiency of HIV prevention services that decision makers can use to inform policy and planning.

Methods/Design

ORPHEA is a cross-sectional observational study conducted in 304 service delivery sites in Kenya, Rwanda, South Africa, and Zambia to assess the cost, cost structure, cost variability, and the determinants of efficiency for four HIV interventions: HIV testing and counselling (HTC), prevention of mother-to-child transmission (PMTCT), voluntary medical male circumcision (VMMC), and HIV prevention for sex workers. ORPHEA collected information at three levels (district, facility, and individual) on inputs to HIV prevention service production and their prices, outputs produced along the cascade of services, facility-level characteristics and contextual factors, district-level factors likely to influence the performance of facilities as well as the demand for HIV prevention services, and information on process quality for HTC, PMTCT, and VMMC services.

Discussion

ORPHEA is one of the most comprehensive studies on the cost and technical efficiency of HIV prevention interventions to date. The study applied a robust methodological design to collect comparable information to estimate the cost of HTC, PMTCT, VMMC, and sex worker prevention services in Kenya, Rwanda, South Africa, and Zambia, the level of efficiency in the current delivery of these services, and the key determinants of efficiency. The results of the study will be important to decision makers in the study countries as well as those in countries facing similar circumstances and contexts.

Keywords: Cost, Economic evaluation, Technical efficiency, HIV, AIDS, Prevention, Testing, Male circumcision, PMTCT, Sex workers