

MEASURING THE IMPACT OF REINFORCED INTEGRATION OF INFANT HIV TESTING AND IMMUNIZATION SERVICES



EVIDENCE FROM A 3DE EVALUATION IN SOUTHERN PROVINCE, ZAMBIA

INTRODUCTION

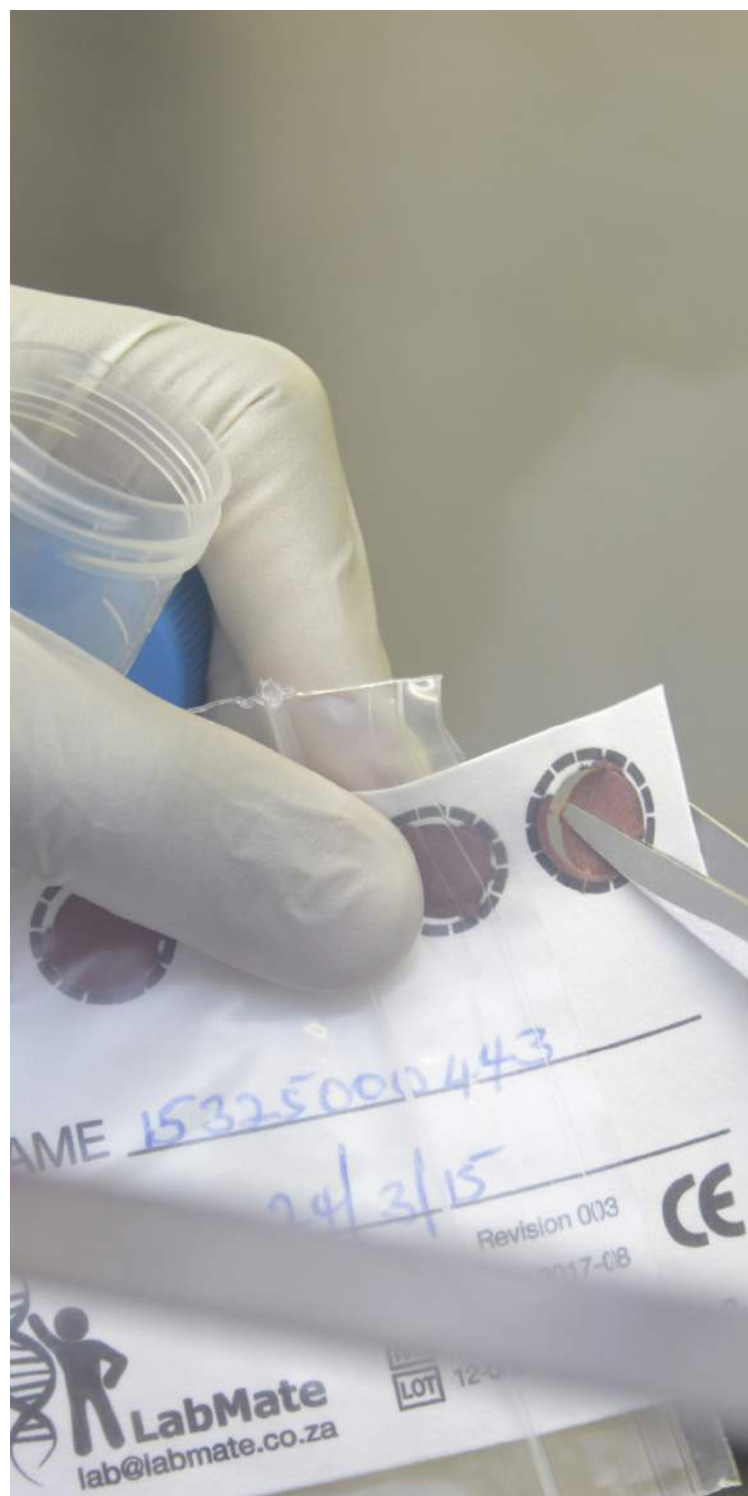
Early testing of HIV-exposed infants and the initiation of antiretroviral therapy for HIV-positive infants is critical to improving infant survival. While Zambia has made significant progress in expanding services for mothers living with HIV, gaps still remain in the identification of HIV-infected infants. Although an estimated 160,000-180,000 infant HIV tests would be expected annually to meet the current Ministry of Health (MOH) guidelines, only 45,000-48,000 infant tests were conducted in 2012.¹ In contrast, rates of coverage of the Expanded Program on Immunizations (EPI) exceed 90 percent of the target population and provides an opportunity to integrate services to improve coverage of infant testing.

EVALUATION DESIGN AND INTERVENTION TESTED

A total of 60 clinics in Southern province were randomly assigned into three groups:

INTERVENTION COMPONENTS	STUDY ARMS		
	1 Basic	2 Comprehensive	3 Control
Resupply facilities with HIV test kits and dried blood spot (DBS) bundle when stock outs are imminent	●	●	
"Pep talk" by the district health office to reinforce existing HIV testing guidelines	●	●	
On-site workshops to optimize HIV/EPI operations at under-5 clinics		●	
Opt-out testing at 6-week under-5 visit for all mothers with prior unknown or negative HIV status		●	

Data was collected regarding the number of DBS tests, post-partum maternal retests and first doses of diphtheria, pertussis and tetanus (DPT1) immunizations administered using routinely collected data between 1st October 2013 and 31st March 2014. Quantitative findings from regression analysis were complemented by qualitative discussions to assess client and health staff perceptions toward HIV testing and under-five visit activities within each intervention group.



Sources:

1. Zambia Country Report, United Nations General Assembly Special Session on HIV and AIDS. 2014.

RESULTS



IMMUNIZATIONS

The integration of EID with EPI did not have any deleterious effects on immunization uptake; 0.86 more DPT1 vaccinations per facility per month were administered in the intervention groups compared to the control group (90% CI -1.40 to 3.12, p-value 0.53).



MATERNAL HIV TESTING

Both groups 1 and 2 significantly increased maternal re-testing. Facilities in Group 1 conducted 4.60 additional six-week tests over baseline (90% CI: 2.19, 7.01, p-value < 0.01) compared to the control, and Group 2 conducted an increase of 5.76 tests (90% CI: 2.63, 8.91, p-value < 0.01) compared to the control.



PATIENT INTERVIEWS

Interviews revealed that the integration of services was feasible and acceptable to the population. Staff and caregivers viewed the provision of HIV testing at the under-5 clinic positively.



INFANT HIV TESTING

Both groups 1 and 2 found a small, non-significant increase in infant testing. Group 1 experienced a 16.6% (90% CI: -7%, 46%, p-value = 0.26) greater change in average monthly testing compared to control, and the comprehensive intervention resulted in a 10% (90% CI: -10%, 36%, p-value = 0.43) greater change compared to control.

DISCUSSION AND RECOMMENDATIONS

The results presented from this evaluation indicate that integrating EID with EPI services is feasible and acceptable. Integration improved rates of maternal re-testing, did not result in deleterious effects on vaccine uptake, and likely improved flow to infant testing. Zambian HIV and immunization guidelines already state that health providers should take the opportunity to conduct HIV testing at every health service contact point, including immunization visits. Findings from the evaluation alleviate concerns that formal integration of services would have a negative impact on immunization service provision.

The Zambian Ministry of Community Development, Mother and Child Health (MCDMCH) distributed a memo to all health facilities to reinforce the policy for integration of EID and EPI services and are working with partners to operationalize this approach. In addition, efforts are also being focused on improving the availability of HIV testing commodities through the integration of the EID commodities into the HIV commodities supply chain. Finally, the measurement of performance through the inclusion of under-5 HIV testing as part of district performance assessments is considered a critical step to scale up the integration of services. In line with the results of this evaluation, early indications show that these improvements are helping to increase maternal HIV testing so that preventive measures can be taken in pregnancy and child birth and so that HIV exposed infants can be identified early. It is expected that this work will also increase infant testing in order to facilitate the early initiation onto ART and increased survival of Zambian infants.

FOR FURTHER INFORMATION:

Wang, P. C. et al. A Cluster Randomised Trial on the Impact of Integrating Early Infant HIV Diagnosis with the Expanded Programme on Immunization on Immunization and HIV Testing Rates in Rural Health Facilities in Southern Zambia. PLoS One. 2015 October. DOI: 10.1371/journal.pone.0141455.

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0141455>

ABOUT THE 3DE PROGRAM

The Demand-Driven Evaluations for Decisions (3DE) program is a pioneering approach to support ministries active in the health sector with evidence-based decision-making by using rigorous impact evaluations in a demand-driven, rapid and efficient way. It seeks to generate reliable impact evidence that meets the ministries' needs and is used to catalyze implementation of cost effective action.