Targeting Key Populations with HIV Testing Services in Emergency Care in Nairobi, Kenya

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INTRODUCTION

- HIV and injury levy significant health burdens in low-and middle-income countries such as Kenya[1]
- Those most likely to need emergency care for injuries have high risks profiles for HIV
- The HIV Enhanced Access Testing IN Emergency Departments (HEATED) program was implemented at Kenyatta National Hospital (KNH) Accident & Emergency (A&E) to improve HIV Testing Services (HTS) with a focus on high-risk injury populations
- **Aim: to assess HEATED program impacts on HTS delivery to key populations (KPs) and vulnerable populations (VPs)**

METHODS

HEATED employed behavior-change interventions to promote ED-HTS utilizing existing resources. KPs included commercial sex workers (CSWs), gay men, men who have sex with men (MSM), transgender persons (TG), and persons who inject drugs (PWID). Selected VPs included persons 18-24 years of age (YA), victims of interpersonal violence (IPV), persons with hazardous alcohol use (HAU), and persons who have never been tested for HIV (NT). Data sources included systems-level HTS and enrolled participants.

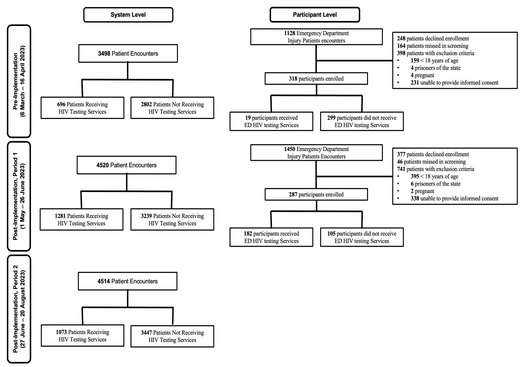

Figure 1. Flow diagram of data collection from systems-level sources and enrolled participants

RESULTS

SYSTEMS-LEVEL

Table 1. A&E patient testing outcomes across phases

	Pre-implementation (Period 0: March 6 - April 16)	Post-Implementation (Period 1: May 1 - June 26)	p-value	Post-Implementation (Period 2: June 27 - August 20)	p-value
Facilities-based HIV Testing					
Persons completing testing	585	1031		860	
Female gender	286 (48.9)	456 (44.23)		350 (40.7)	0.008
Young adult (15-24 years)	95 (16.24)	164 (15.91)	0.861	159 (18.5)	0.270
Any previous HIV testing					
No	381 (65.1)	673 (65.3)	0.046	565 (65.7)	0.027
Yes	194 (33.2)	353 (34.2)		292 (36.0)	
Missing	10 (1.7)	5 (0.5)		3 (0.03)	
Positive Test Result in A&E	24 (4.10)	53(5.14)	0.453	43 (5.0)	0.703
HIV Self-Test					
Persons accepting self-test	111	250		213	
Female gender	59(53.15)	121(48.4)	0.090	74(34.7)	0.001
HIVST Follow up Completed					
No	21(18.92)	64 (25.6)		42 (19.72)	
Yes	0 (0.0)	186 (74.4)	<0.001	171 (80.28)	<0.001
Missing	90 (81.09)	0 (0.0)		0 (0.0)	

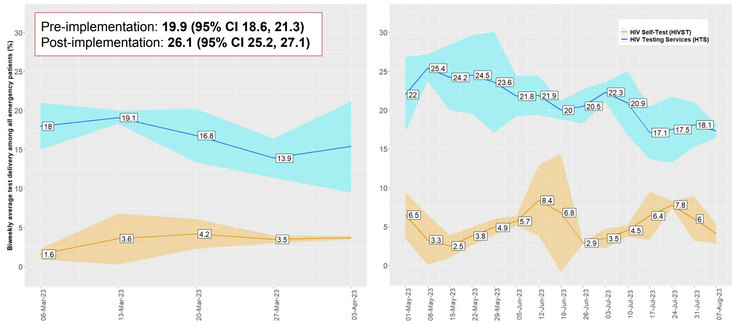

Figure 2. Average test delivery improvement in A&E patients across phases

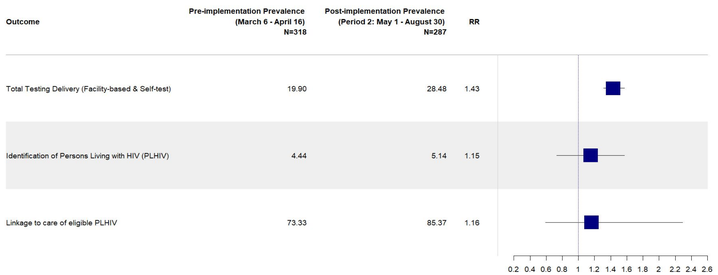

Figure 3. Relative risks of testing indicators in A&E patients across phases

PARTICIPANT-LEVEL

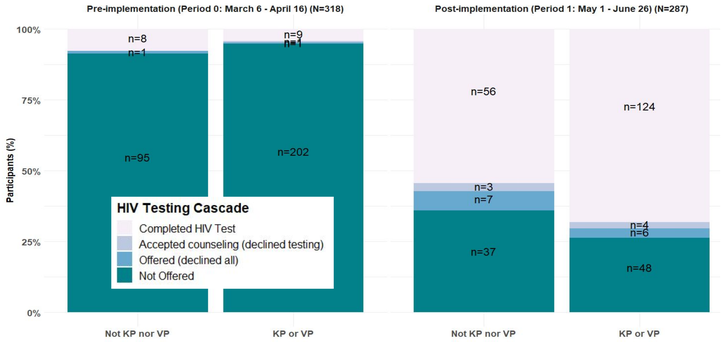

Figure 4. Testing cascade pre- versus post-implementation phases among key and vulnerable populations

Table 2. Test delivery for key and vulnerable populations across phases

	Pre-implementation N=318	Post-Implementation 1 N=286	p-value
	n (%)	n (%)	
Individuals from Key & Vulnerable Populations	216 (67.9)	184 (64.3)	0.345
Key & Vulnerable Populations HTS Delivery	206 (95.4)	51 (27.7)	<0.001
Receiving HTS	10 (4.6)	133 (72.3)	
Not receiving any HTS	206 (95.4)	51 (27.7)	
Identity Categorizations of Key & Vulnerable Populations Receiving HTS*	**N=10**	**N=133**	<0.001
Young Adult	4 (40.0)	49 (37.4)	
Never Previously Tested for HIV	1 (10.0)	10 (7.6)	
Hazardous Alcohol Use	2 (10.0)	41 (31.3)	
Interpersonal Violence Victim	2 (20.0)	30 (22.9)	
Commercial Sex Work	0 (0.0)	1 (0.8)	
Gay	1 (10.0)	0 (0.0)	

*not mutually exclusive categories (i.e. persons in each group may hold multiple identities)

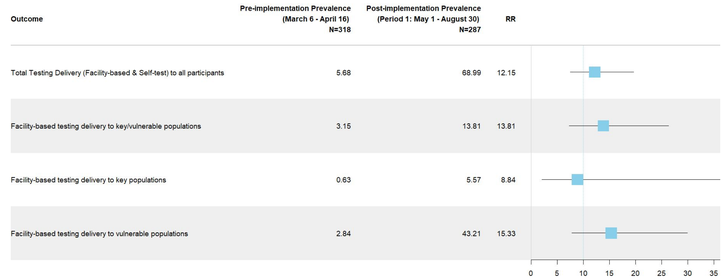

Figure 5. Relative risks of testing indicators in enrolled participants across phases

CONCLUSIONS

- HTS delivery increased overall, with a more pronounced effect size for KP/VP, likely due to to the sensitization of staff around the care needs of KP/VP.
- Identification of new HIV diagnoses and linkage of those persons to care increased during the post-intervention period, indicating the program addressed HIV care cascade outcomes
- These findings suggest **broader implementation of such programs in Kenyan ED settings** could support service delivery for high-risk persons already in contact with health systems

DISCUSSION

Limitations

- Limited maintenance data period
- Few observed HIV positive enrolled participants (n=3), limiting analysis of disease identification
- Pre-post design limits evaluating causality

Future work

- Cost-effectiveness analysis of HEATED program
- Examination of test experience among high-risk populations
- Long-term evaluation of impact on linkage to care
- Evaluation of PrEP service delivery

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