Toward the first 90: Identifying and testing younger populations for HIV at community outreach events in Kenya

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Background

90% of all living with HIV will know their HIV status

90% of all living with HIV will receive antiretroviral therapy

90% of all receiving antiretroviral therapy will have viral suppression

Cause for Concern

- Low HIV status awareness among children and adolescents
- 12,940 new HIV infections among children
- Rising adolescent AIDS-related deaths in Kenya
- Delayed HIV identification associated with poor health outcomes

This study examined HIV testing outcomes and characteristics of younger (age <19) populations attending Targeted Community Outreach Events (TCOEs)

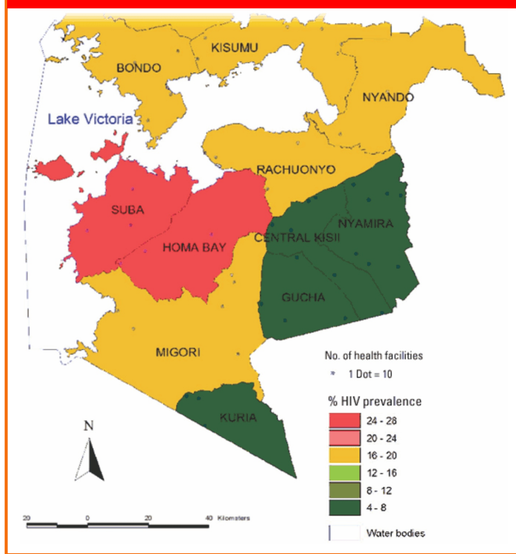
Methods

Context

- Family AIDS Care and Education Services (FACES) is a collaborative **KEMRI** and **UCSF** comprehensive HIV prevention, care, and treatment program
- FACES partners with the Ministry of Health (MOH) for health service delivery and capacity building
- 12 year of experience supporting health facilities across the Nyanza region of western Kenya

Photo courtesy of Beth Novey

Location and Approach



- Conducted in Homa Bay, Migori, and Kisumu counties in Kenya
- Catchment areas surrounding148 health facilities
- 492 Targeted Community Outreach Events carried out
  - o July – December 2015
  - o HIV testing and identification
  - o Counselling and education

Data and Analysis

•REDCap database
- o Aggregated HIV testing (number tested)
- o Yield (number identified HIV positive)
- o Gender among eligible children (age <15) and adolescents (age 15-19)

•Analysis
- o Negative binomial models used to assess age and gender differences in HIV testing and yield and generate estimated means

Results

Figure 1: TCOE frequencies and proportions by age and gender: testing and yield

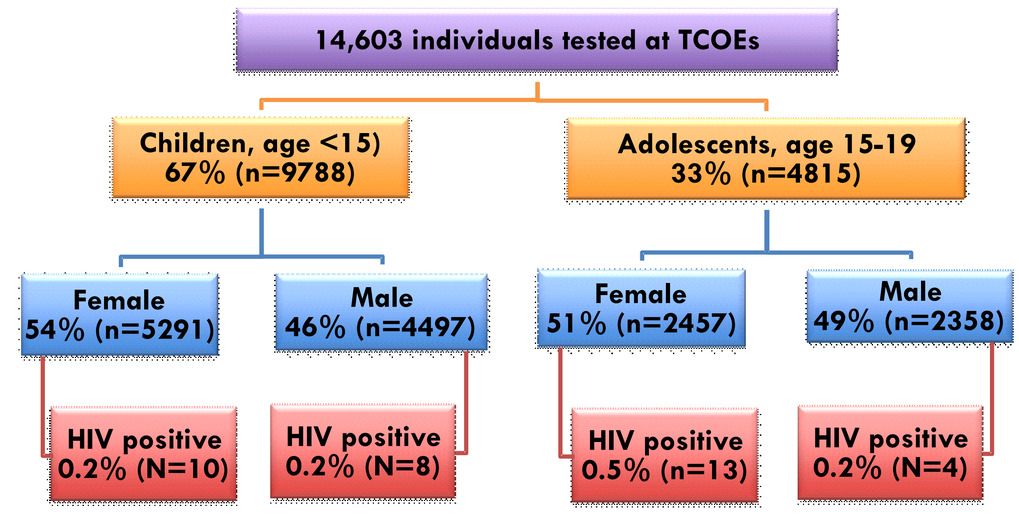
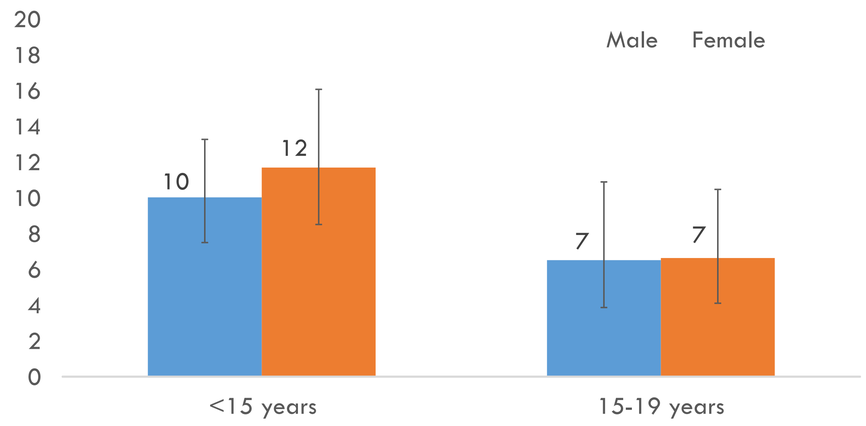


Figure 1 provides frequencies and proportions of testing and yield by age and gender

Figure 2: Negative binomial model generated estimated mean number of individuals tested at Target Community Outreach Events by age and gender



- Comparisons by age and gender showed that at TCOEs (Figure 2):
  - Adolescents were less likely to be tested compared to children (IRR: 0.46; 95% CI: 0.34, 62; p<0.01)
  - Fewer males than females tested overall (IRR: 0.85; 95% CI: 0.78, 0.93; p<0.01)
  - The decrease in males testing from the children age group to the adolescent age group was smaller than in females (IRR: 1.13, 95% CI: 1.02, 1.25, p=0.02)
  - There was no significant difference in age and gender among those testing positive

Conclusion

- Targeted Community Outreach Events reached twice as many children as adolescents for HIV testing and identification and female HIV testing declined in adolescence

- The Targeted Community Outreach Event approach appears useful in reaching children, however a better understanding of what type of community approaches would draw adolescents, particularly females, is needed

Acknowledgement

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MINISTRY OF HEALTH

Evaluation of the Impact of the Accelerating Children's HIV/AIDS Treatment (ACT) Initiative on Pediatric and Adolescent HIV Testing and Yield in Western Kenya

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Background

- Despite decreasing new HIV infections, pediatric HIV remains substantial
  - 150,000 annual new HIV infections globally (<15 years)
  - 1.8 million children living with HIV (<15 years)
  - < 30% of children tested in Nyanza region of Kenya
  - HIV testing - gateway to achieving 90-90-90

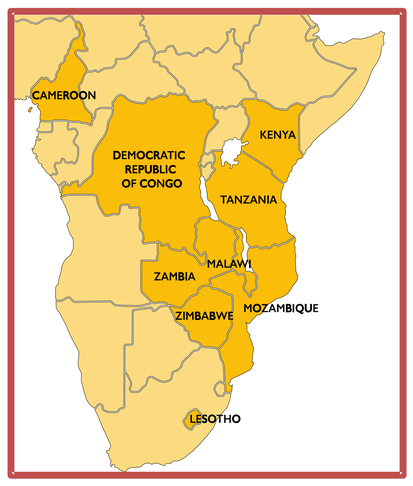
What was ACT

Accelerating Children's HIV/AIDS Treatment (ACT)

ACT is a publie private partnership between PEPFAR and CIFF

Strategic response to treatment gap for children

Initiate 300,000 with HIV on treatment in 9 priority counties in 2 years



Location and Approach

Examine whether activities under the Accelerating Children's HIV/AIDS Treatment (ACT) initiative increased testing and identification of children with HIV

Methods

- **Family AIDS Care & Education Services (FACES)**
  - KEMRI & UCSF collaboration
  - Comprehensive HIV prevention, care, and treatment program
  - 144 health facilities supported
    - Migori, Homa Bay, and Kisumu counties
    - Nyanza region of Kenya
- **Evaluation time frame**
  - October 2015 – September 2016

Health Facilities

Characteristics

85% rural

Peri-urban **8%**

6% urban

Health dispensaries **66%**

26% comprehensive outpatient

Sub county hospitals and county referral hospitals **8%**

Intervention Steps for Pediatric Testing

Family testing focus:
Family Information Table (FIT)
FIT chart audits

Additional HIV counselors
Create HTC space

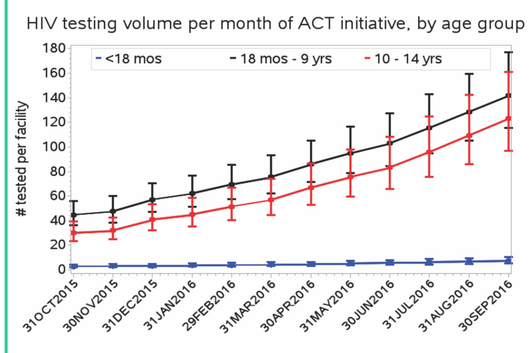
Community outreach testing
HIV - exposed infants text messages

Integrated intervention steps

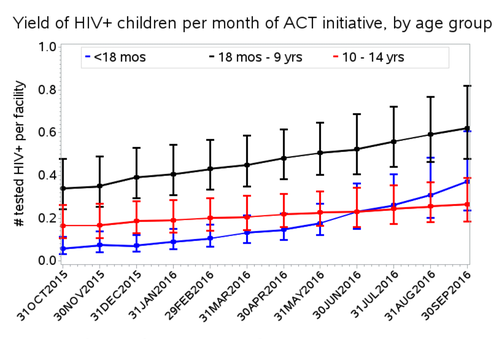
Evaluation Methods

Design	Data Collection	Analysis
• Convenience sample of clinics • Intervention and control sites • Sites assigned to intervention vs. control dependent on whether the intervention was actively being implemented in a given month	• Facility level • Tracking logs • Number tested • Number HIV positive • Infants <18 months • Children 18 months – 9 years • Adolescents 10 years – 14 years	• Intervention and control sites compared • Negative binomial generalized estimating equations • Adjusted for repeated measures, geographic location, health facility tier, and test kit stock-outs

HIV Testing/Identification of HIV Positives



HIV Testing



Identification of HIV Positives

Results

Age Group	October 2015	September 2016	p-value
Mean number tested per facility per month			
< 18 months	2.8	7.2	<.0001
18 months to 9 years	44.8	142.0	<.0001
10-14 years	30.1	123.3	<.0001
Mean number identified HIV positive per facility per month			
< 18 months	0.06	0.37	<.0001
18 months to 9 years	0.34	0.62	0.002
10-14 years	0.17	0.26	0.03

Effect of Specific Interventions on HIV Testing

Age Group	Intervention	IRR, 95%CI	p-value
Infants <18 months	Family Information Table	2.89 (1.53, 5.49)	<0.001
Children 18 months to 10 years	FIT chart audits	2.15 (1.36, 3.40)	<0.001
Adolescents 10 to 14 years	HTC space improvements	1.45 (1.09, 1.93)	<0.01

Effect of Specific Interventions on Identification

Age Group	Intervention	IRR, 95%CI	p-value
Infants <18 months	Family Information Table	8.71 (1.45, 52.4)	0.02

Conclusion and Recommendation

Family testing works

Creating space boosts adolescent testing

ACT interventions → Large testing gains & HIV + yield

- Optimize the family unit to increase testing reach and care cascade entry
- Don't let the untested slip away, track closely and conduct chart audits for follow up
- Consider structural improvements to facilitate testing, especially among adolescents
- Try multi-faceted approaches to test children and adolescents

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We would like to thank UCSF, CIFF, KEMRI, FACES, the Kenyan MOH, our staff, and above all the clients and families served.
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