

Achieving 90²: Young People, HIV Testing Services and Linkage to Treatment

YouthPower Action
Hosted with YouthPower Learning
August 10, 2017



YouthPower Action strives to...

Increase opportunities and services available to youth:

Young people will be able to access youth-friendly services in youth-friendly spaces located within their communities.

Improve quality of services offered to youth:

Services will acknowledge the unique needs of young people and leverage their talents and ambitions.

Engage youth in policy making and development activities:

Youth are involved in all stages of development to ensure quality programming. Through these opportunities, young people build decision-making, teamwork and leadership skills to solve community problems.

For more information, email us: youthpoweraction@fhi360.org

Find resources at: www.youthpower.org



Join the conversation on Twitter

Please feel free to submit questions through the chat box or via Twitter using the [#9090PYD](#) hashtag.



Speakers



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Moderator



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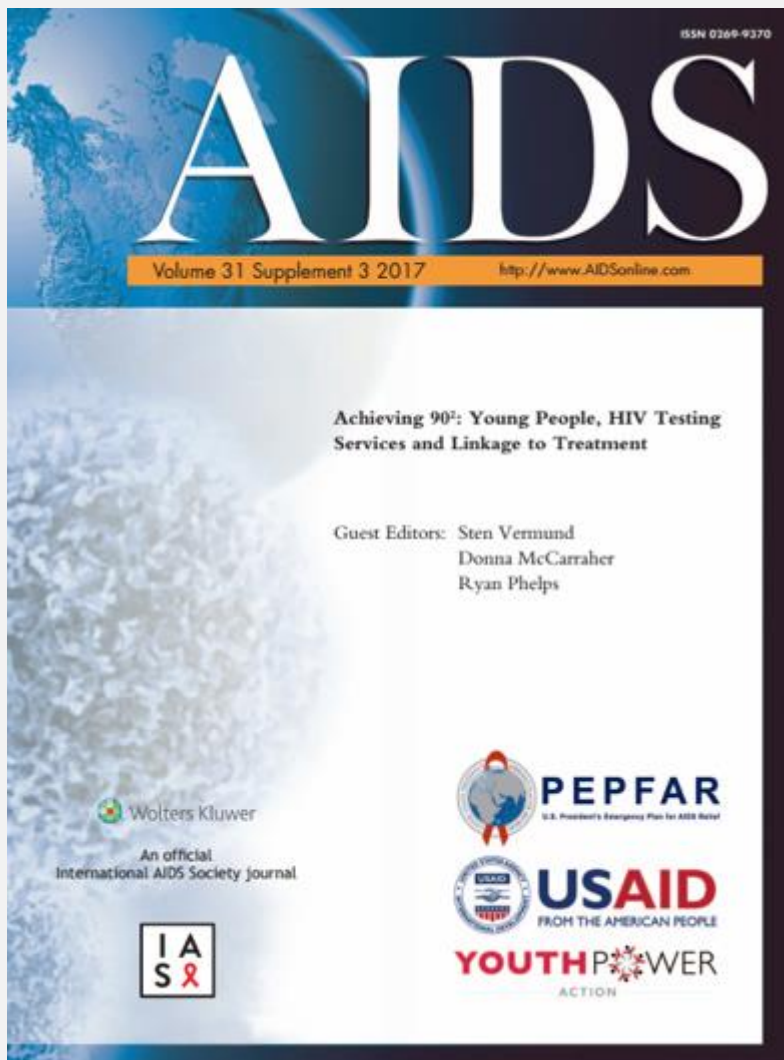
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University



Pitchaya Indravudh, MA
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Wellcome Trust



Andres Camacho-Gonzalez, MD
Emory
University



Guest Editors:

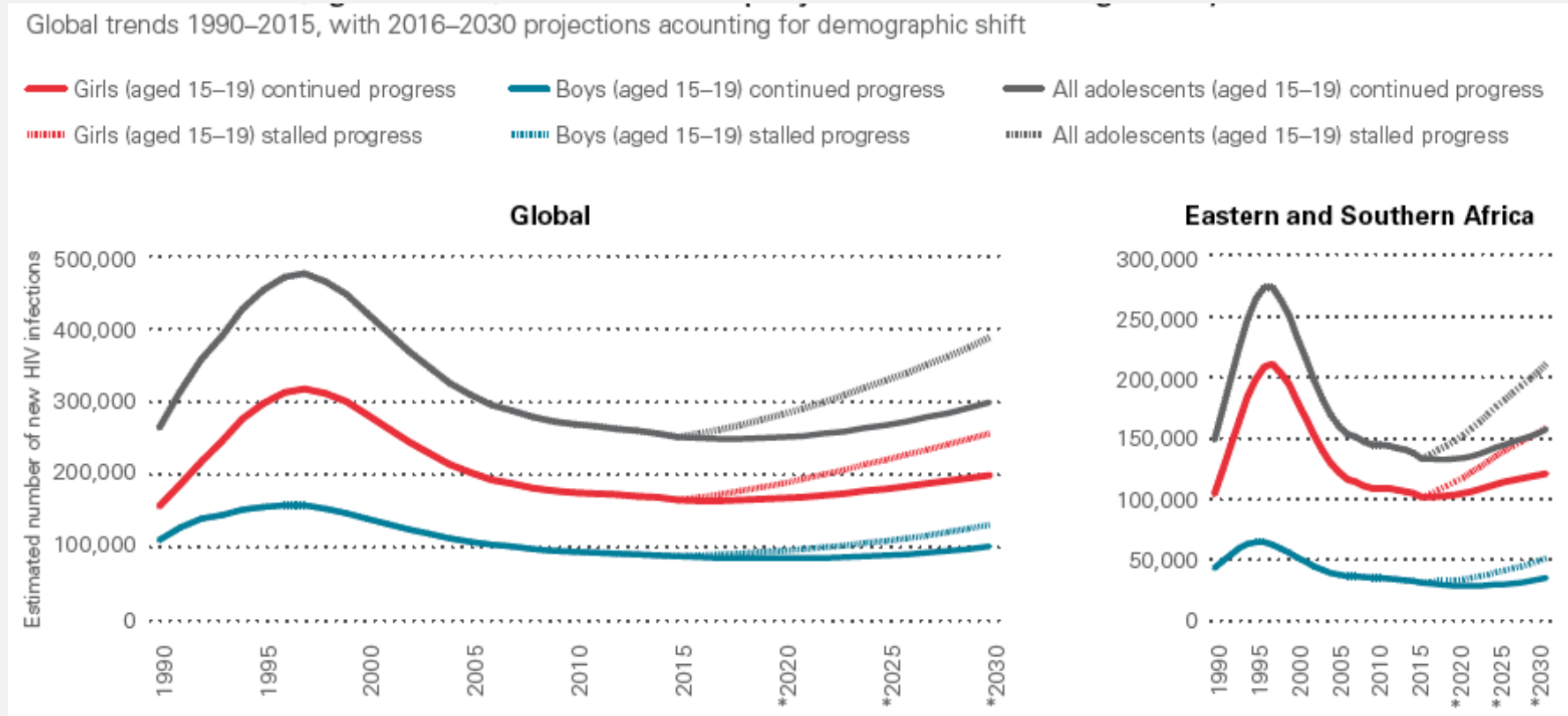
- Sten H. Vermund, MD, PhD
- Donna R. McCarraher, PhD, MPH
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<http://journals.lww.com/aidsonline/toc/2017/07013>

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Projected increases in new adolescent infections globally



Approximately 1/3 of all new infections worldwide occur in AY 15–24 years old

Source: UNICEF, 2016

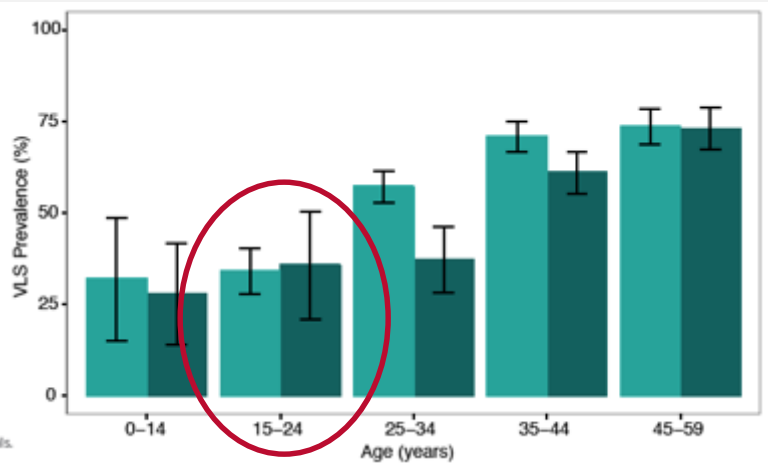
(Low) rates of HIV diagnosis among Adols/YP

- Limited data on % undiagnosed by age band.
- One US estimate: 59% of adolescents and young PLHIV are undiagnosed (Zanoni et al. 2014)
- Survey of US MSM: 52% undiagnosed (Stein et al, 2017)
- UNICEF reports 20% of HIV positive adolescent girls are diagnosed. (UNICEF, 2013)
- Zimbabwe household survey (Simms, 2017): 2.6% Positivity and 38% were undiagnosed previously.

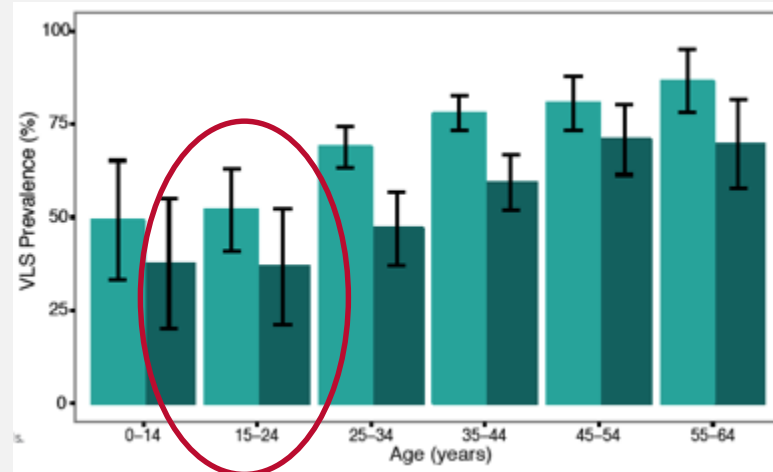
V limited data on linkage to treatment among adolescents and young people

- Poor retention among younger ages documented in the US (Ulett et al, 2009 and Giordano et al 2005)
- One US Study estimated 62% at 15 clinics (Philbin et al. 2014)
- Factors posited of delayed linkage in US adols include: lack of provider 'friendliness', older ages, being female, ethnicity differences

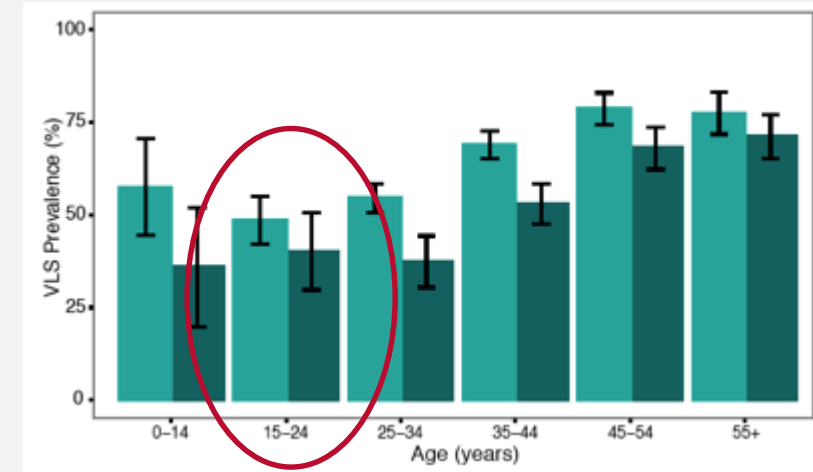
Lower rates of viral suppression among adolescents and young people



Zambia



Malawi

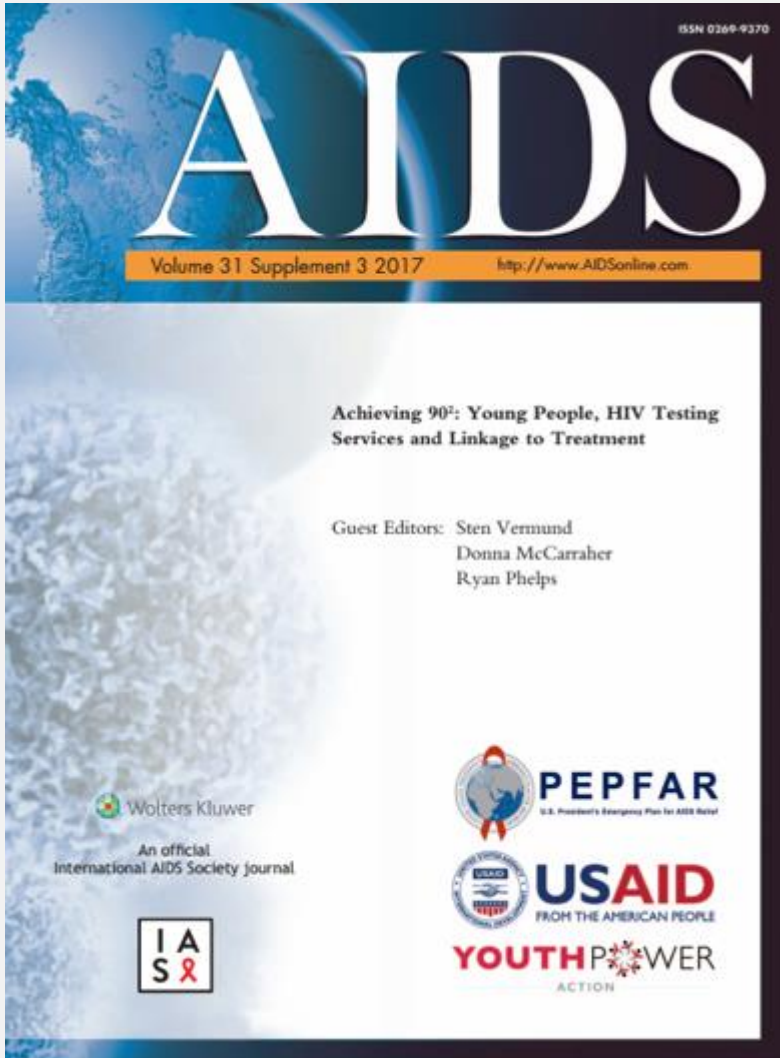


Zimbabwe

ICAP. Summary Sheet: Preliminary Findings: Zimbabwe population-based HIV impact assessment ZIMPHIA 2015–2016. In; 2016.
 ICAP. Summary Sheet: Preliminary Findings: Malawi population-based HIV impact assessment MPHIA 2015–2016. In; 2016.
 ICAP. Summary Sheet: Preliminary Findings: Zambia population-based HIV impact assessment ZAMPHIA 2015–2016. In; 2016.

Females
Males

Error bars represent 95% confidence intervals.



Goal of this journal supplement:

To provide new evidence and insight to enable funders, program planners, researchers and policy makers to improve or develop HIV programs, policies and approaches for adolescents and youth

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<http://journals.lww.com/aidsonline/toc/2017/07013>



Supplement Summary

- **Youth engagement in the design of programs and research** that aim to meet their needs (**Denison et al.**).
- **HIV self-testing (Indravudh et al.)** is acceptable to young people in Malawi and Zimbabwe
- **Voluntary Male Circumcision Services (VMMC) (Kaufman et al.)** in South Africa, Tanzania, and Zimbabwe and counseling on HIV prevention and care.
- **Delivering a community-level door-to-door combination HIV prevention package (Shanaube et al.)** is acceptable to adolescents and feasible in Zambia.
- **Continuous Quality Improvement (CQI) interventions (Wagner et al.)** in Kenya on HIV knowledge and testing among adolescents
- **Improving services for adolescents at health centers and establishing linkages between schools and health centers (Ruria et al.)** in Kenya
- **Youth value the support of caregivers and health care workers (Wilson et al.)** in deciding to seek HIV testing and linking to care in Kenya.
- **Atlanta Community Adolescent Rapid Testing Initiative (Camacho-Gonzalez et al.): venue-based testing, motivational interviewing, and case management** to improve linkage to care and timing to linkage to care.
- **U.S. CDC and non-healthcare facilities provide HIV tests to adolescent MSM (Marano et al.)**.



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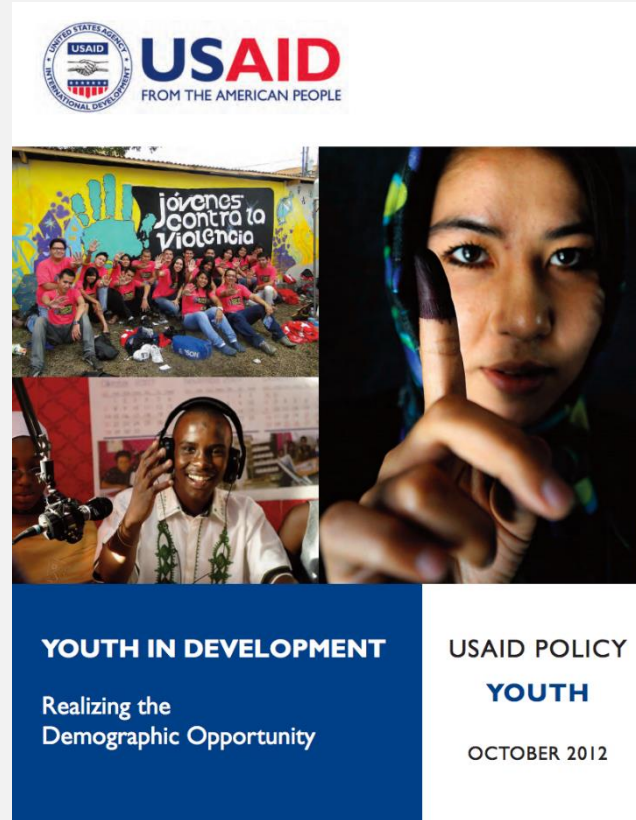
Engaging Youth in the Achieving 90²: Young People, HIV Testing Services and Linkage to Treatment Journal Supplement

Calvin Robinson MPH CHES
USAID
August 2017



Young People are Assets

Opens doors and provides opportunities that help build **productive** and **engaged** citizens.



“Efforts to engage youth involve elevating their **voices** and ensuring meaningful opportunities to **contribute** to resolving issues and promoting **positive change** in their communities and nations.”

Benefits For Youth

Connectedness

Belonging

Sense of Value &
Purpose

**Promote Outlet for
Positive Risk Taking**



Skills

Knowledge

Self-esteem

Sources:
ACT for Youth Center of Excellence
Advocates for Youth

Benefits For Adults, Communities & Organizations



Positive Perceptions



**New ideas & Innovative
Approaches**



**Better Results for
Development**

Youth Review Process

- Created a call for youth reviewers
- Assigned each youth reviewer to a supplement article
- Disseminated youth review template to youth reviewers
- Convened meetings with youth reviewers and supplement editors
- Incorporated youth reviewer comments into supplement articles

Reception of Youth Review Process

- Feedback from youth reviewers and the supplement editors was positive
- Youth reviewers gained experience participating in a scientific review
- Editors appreciated the critique of the articles from a youth perspective

Thank You Youth Reviewers!

Keikanyemang Francis

Allison Ficht

Rebecca Hershow

Jacqueline Mtage Kihwele

Kyendikuwa Allen Namayanja

Mercy Hamisi

Gabriela Carolus

Madalitso Mbewe

Calvin Robinson



Youth engagement in developing an implementation science research agenda

Julie Denison, PhD

**Johns Hopkins Bloomberg School of Public Health
Project SOAR**

**Achieving 90²: Young people, HIV testing services and linkages to treatment, YouthPower
Learning Journal Supplement Webinar**

August 10, 2017



OPEN

Youth engagement in developing an implementation science research agenda on adolescent HIV testing and care linkages in sub-Saharan Africa

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Susan Kasedde^d, Rebecca Marcus^e, Katongo J. Konayuma^g,
Katlego Koboto^g, Mmangaliso Luyanda Ngcobo^e, Nokuthula Ndleleni^e,
Julie Pulerwitz^f and Deanna Kerrigan^a

Background: The importance of youth engagement in designing, implementing and evaluating programs has garnered more attention as international initiatives seek to address the HIV crisis among this population. Adolescents, however, are not often included in HIV implementation science research and have not had opportunities to contribute to the development of HIV-related research agendas. Project Supporting Operational AIDS Research (SOAR), a United States Agency for International Development-funded global operations research project, involved youth living with HIV in a meeting to develop a strategic implementation science research agenda to improve adolescent HIV care continuum outcomes, including HIV testing and counseling (HTC) and linkage to care.

Methods: Project SOAR convened a 2-day meeting of 50 experts, including four youth living with HIV. Participants examined the literature, developed research questions, and voted to prioritize these questions for the implementation science research agenda. This article presents the process of involving youth, how they shaped the course of discussions, and the resulting priority research gaps identified at the meeting.

Results: Youth participation influenced working group discussions and the development of the implementation science agenda. Research gaps identified included how to engage vulnerable adolescents, determining the role that stigma, peers, and self-testing have in shaping adolescent HTC behaviors, and examining the costs of different HTC and linkage to care strategies.

Conclusion: The meeting participants developed the research agenda to guide future implementation science research to improve HIV outcomes among adolescents in sub-Saharan Africa. This process highlighted the importance of youth in shaping implementation science research agendas and the need for greater youth engagement.

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AIDS 2017, 31 (Suppl 3):S195–S201

Keywords: adolescent, HIV linkages to care, HIV seropositivity/diagnosis, HIV testing and counseling, sub-Saharan Africa

Project SOAR

- USAID-funded, Led by Population Council
- Consortium of Partners: Avenir Health, Elizabeth Glaser Pediatric AIDS Foundation, Johns Hopkins University, Palladium, University of North Carolina

Outline

1. Project SOAR's Technical Advisory Network (TAN)
Meeting on Adolescents Living with HIV —Feb 2016
2. How we engaged youth living with HIV
3. Lessons learned and moving forward

Collective Commitment, Collective Action

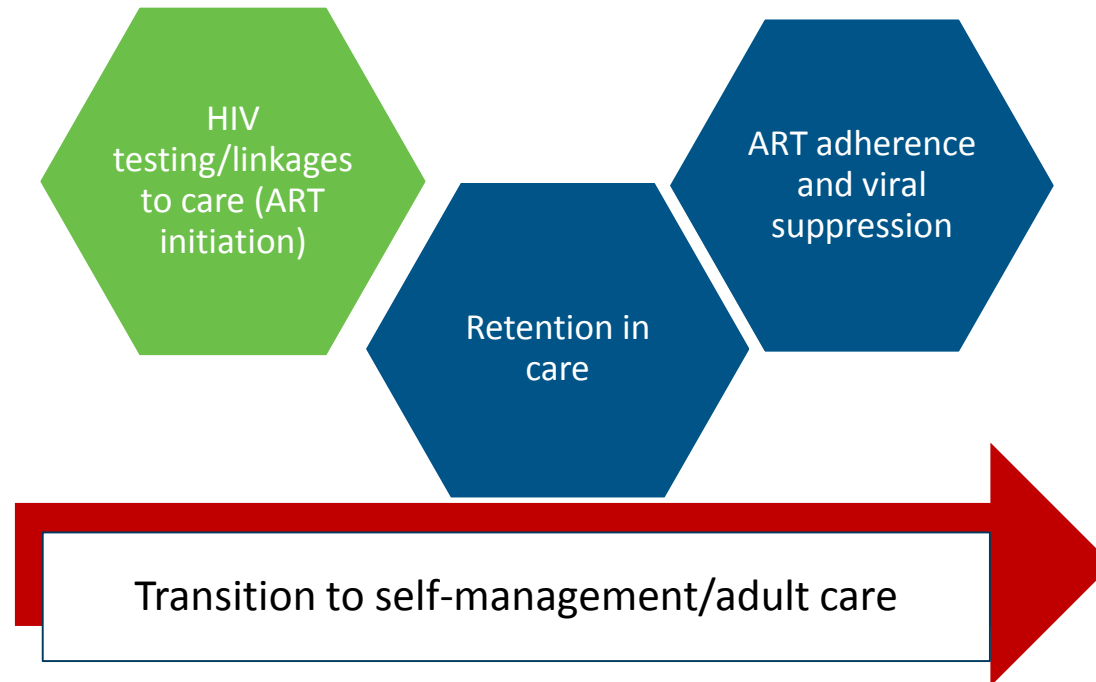
- USAID/Project SOAR held a 2-day meeting with experts on adolescents living with HIV (ALHIV) in sub-Saharan Africa (SSA) in Feb 2016:
 - Youth living with HIV, researchers, policy makers, and program implementers
 - US government and international agencies, NGO's and Universities

Purpose of the Expert Meeting

- Where are we now?
 - Take stock of current knowledge of HIV care continuum outcomes among adolescents living with HIV in sub-Saharan Africa.
- What do we need to know?
 - Identify priority research questions that if answered will contribute to improving HIV care continuum outcomes.

Purpose of the Expert Meeting

Identify and prioritize implementation science research questions across the care continuum



Engaging Youth

- Identifying youth
 - Reached out to consortium partners
 - Characteristics of youth
 - comfort discussing HIV status, ability to travel alone, passport, ability to travel alone
- Supporting youth
 - Pre-meeting preparations

Engaging Youth

- Meeting began with a youth panel
 - Learning their status
 - Growing up with HIV—navigating care, disclosing to others, school
- Youth participated in working group on transitioning to adult care

Engaging Youth

- Youth voted on priority questions
- Ended with a Youth Panel

“HIV has been a curse and a blessing. If it wasn’t for HIV, I would never have met Desmond Tutu, or travelled to Washington, DC to be at this meeting”

—18-year-old participant

Priority IS research questions for HIV testing/linkages to care

HIV Testing/Linkages to Care	Order based on number of votes
What are the effects and costs of a stigma reduction intervention on uptake of HIV testing and linkage to care among adolescents?	Tied for 1st
What is the effectiveness and costs of a peer navigator model in improving linkage to care rates in the context of a community-based or mobile testing program?	
How do you identify those ALHIV who are at high risk of not linking to care? (Phase 1) What strategies are effective in addressing barriers to linking to care? (Phase 2)	2nd
Do adolescents who self-test, including members of key populations, get linked to care and if so, how?	3rd

Lessons Learned

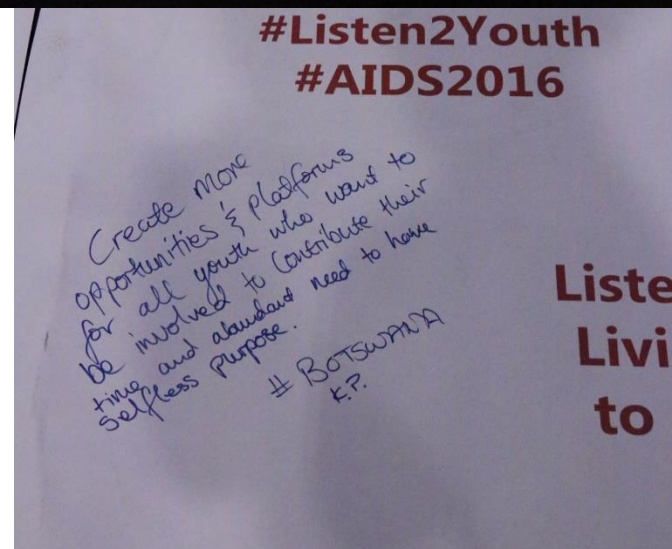
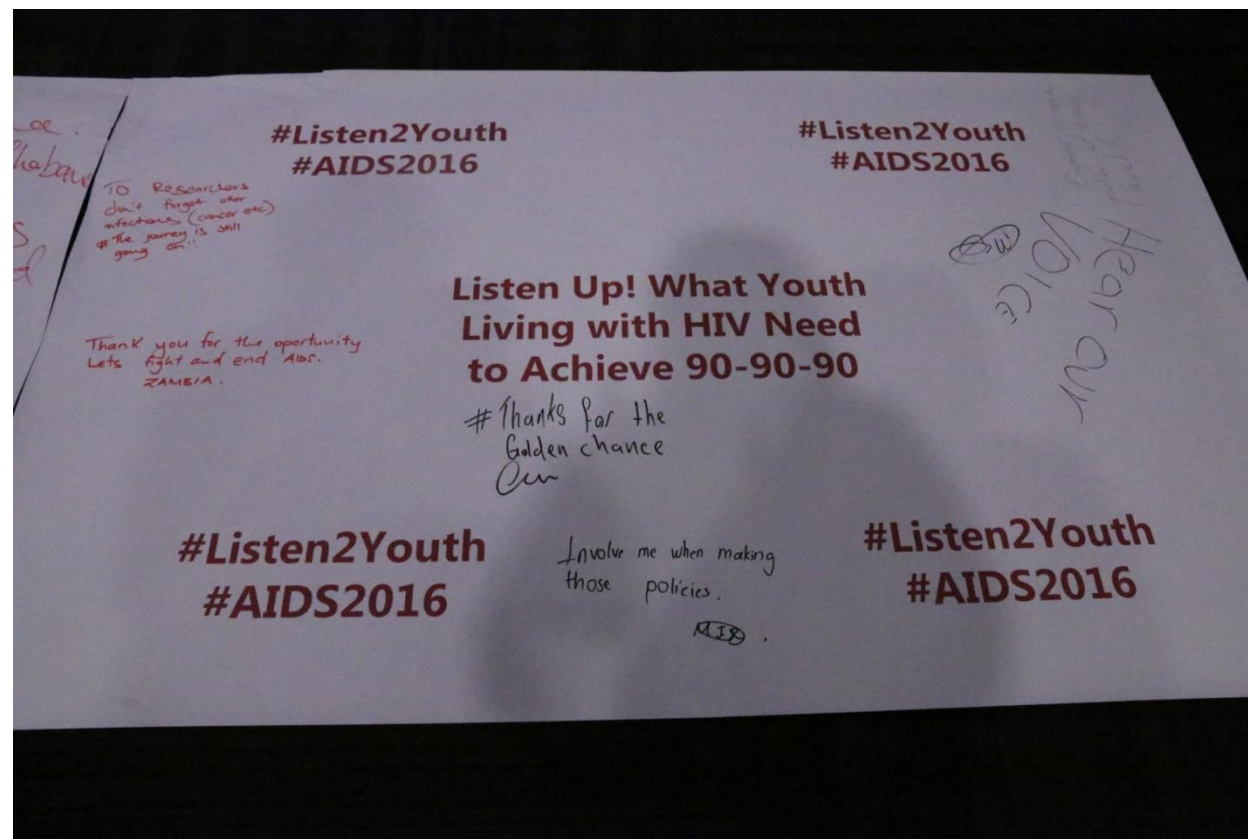
- Youth engagement
 - Strengthens research agenda setting process
 - Builds the capacity of youth

“Meetings about adolescents are usually held without adolescent participation....[this meeting gave me] ...the opportunity to be heard by others from around the world.”

Lessons Learned

- Two youth went on to facilitate a subsequent AIDS 2016 satellite session





Reflections

- Supporting meaningful involvement
 - Beneficiaries - Engagement as Partners- Supporting as Leaders



Thank You

Project SOAR (Cooperative Agreement AID-OAA-A-14-00060) is made possible by the generous support of the American people through the President's Emergency Plan for AIDS Relief (PEPFAR) and United States Agency for International Development (USAID). The contents of this presentation are the sole responsibility of Project SOAR and Population Council and do not necessarily reflect the views of USAID or the United States Government.

Through operations research, Project SOAR will determine how best to address challenges and gaps that remain in the delivery of HIV and AIDS care and support, treatment, and prevention services. Project SOAR will produce a large, multifaceted body of high-quality evidence to guide the planning and implementation of HIV and AIDS programs and policies. Led by the Population Council, Project SOAR is implemented in collaboration with Avenir Health, Elizabeth Glaser Pediatric AIDS Foundation, Johns Hopkins University, Palladium, and The University of North Carolina.



Voluntary Medical Male Circumcision Among Adolescents: A Missed Opportunity for HIV Behavioral Interventions

Michelle R. Kaufman, PhD

Johns Hopkins Bloomberg School of Public
Health



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**HEALTH
COMMUNICATION
CAPACITY
COLLABORATIVE**

VMMC as HIV Prevention Tool

- Voluntary medical male circumcision (VMMC) reduces heterosexual HIV acquisition by up to 60% and reduces other STIs
 - 3 randomized trials (Kenya, Uganda, South Africa) [1, 2, 3] and more than 40 observational studies.
- WHO and UNAIDS recommend VMMC in countries with low circumcision rates and high HIV prevalence [4]

VMMC Scale-Up Initiatives

- VMMC initiatives in east and southern Africa resulted in +11 million VMMCs as of 2015 [5]
- Most clients are 10-19 year old adolescents (though not specifically targeted) [6]
- Little known about quality of VMMC counseling and health service delivery for young males

VMMC Service Elements

1. HIV testing and counseling
2. Education regarding VMMC benefits
3. Procedure details
4. Procedure itself
5. Wound care instructions
6. Counseling on other preventive behaviors



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Study Rationale

- Male adolescents have reported health providers:
(Summarized in Kaufman et al., 2016, PLoS One)
 - Lack commitment to serving young clients
 - Rush through appointments
 - Lack of privacy and confidentiality
 - Demonstrate little respect for youth
- Unknown if VMMC providers in sub-Saharan Africa address specific needs of male adolescent clients



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Adolescent VMMC Assessment – Goal & Objectives

Goal: to understand whether VMMC programs adequately meet adolescent needs in appropriate ways by exploring counseling, communication, and client-provider interaction disaggregated by age.

1. Assess quality of VMMC in-service communication to determine whether age appropriate for adolescents 10-14 and 15-19 years old.
2. Develop recommendations for strengthening VMMC guidelines to ensure education and counseling are appropriate for adolescent VMMC clients.

Methodology

- Data Collection:
 - *Tanzania*: June 2015 to September 2015
 - *Zimbabwe*: August 2015 to December 2015
 - *South Africa*: February 2015 to June 2016
- **In-depth interviews:**
 - **male clients** (Tanzania: n=36, South Africa: n=36, Zimbabwe, n=20)
 - **providers** (Tanzania: n=9, South Africa n=9, Zimbabwe n=12)
- **Focus group discussions**
- **Key informant interviews**
- **Pre/post-procedure surveys**
- Interviews audio recorded, transcribed, and translated into English for coding and analysis.
- Two coders independently coded data using two-step process and Atlas.ti qualitative coding software with minimum 85% agreement.

Adolescent Perspectives VS. Provider Perspectives



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Adolescent client perspective

Limited information about HIV-testing process

- Explanations regarding HIV-testing varied, with some reporting having blood drawn **without knowing why**
- Others reported agreeing after provider gave **a clear explanation** of importance of HIV testing

He [the provider] said that if you want to circumcise you must do the test first. And he told us that if you are HIV positive you are not allowed to circumcise. He told us that the reason they test us is to see if we are HIV negative and then circumcise us . . . **He explained to us the importance of getting tested for HIV until we saw the need of doing it.**

Umkhanyakude, South Africa, age 14



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Adolescent client perspective

Not told about HIV transmission during vaginal sex

VMMC and HIV protection

- Link between VMMC and partial HIV protection **not well understood** by younger adolescents, especially 10–12 year olds.

Condoms

- Messages regarding importance of condom use after VMMC **varied by age client and provider**, not by adolescent's sexual experience.
- Only six adolescents reported receiving condoms to take with them.

She [the provider] said we were still young, and so we were **not supposed to use condoms nor have sex**...we have to wait until we are 18 years old.

Mutare, Zimbabwe, age 15

She [the provider] said we must not have sex with females especially as we are still young, and she said **there is no need for condoms.**

KwaMashu, South Africa, age 13



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Provider perspective

Limited info about HIV-testing process

HIV prevention counseling

- Provider discussions about HIV prevention less common with younger adolescents
- Providers based counseling content on their perceptions of adolescent readiness for sexual health information.



I tell them [10 – 14 year olds] about the partial protection [from HIV] from circumcision, but I don't put emphasis on sex. I tell them that they already have a 60% protection from circumcision, but if they do things such as picking up used razor blades or sharp objects, they could still be infected.

Mbeya, Tanzania



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Provider perspective

Challenges in HIV disclosure

HIV testing and linkage to care

- Disclosure and appropriate linkage to care for young men challenging for many providers
 - Possessing skills to reveal a positive status to a young male and refer him to appropriate services was a challenge



Except when the child is positive, that is when we involve the parent. But when we are giving out results, we say, 'Your blood is clean,' which means a lot to many. So he will go and say, 'Mummy, my blood is clean.' **If you say 'clean' they will understand that they are negative.**

Bulawayo, Zimbabwe



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Summary: A missed Opportunity

HIV counseling adolescent males clients receive is **suboptimal**, especially for younger adolescents (under age 15).

Inconsistency with sharing HIV test results with adolescent clients.

Incomplete information provided regarding other forms of prevention.



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Implications

1. Counselors require **training in counseling adolescents** infected with HIV, how to link them to care, and whether to offer VMMC to these clients.
2. VMMC may be more effective in providing **complete HIV prevention and care messaging** if all adolescents are given age and sexual experience-appropriate information.
3. Strengthening VMMC counselors' **interpersonal communication** and **counseling skills** requires guidelines and training to fully address range of adolescent client needs.

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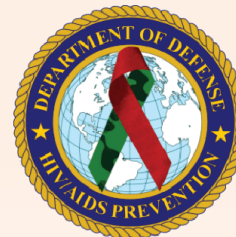
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Thank you!

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Kaufman, M. R., Dam, K. H., Van Lith, L. M., Hatzold, K., Mavhu, W., Kahabuka, C., ... & Tobian, A. A. R. (2017). Voluntary medical male circumcision among adolescents: a missed opportunity for HIV behavioral interventions. *AIDS*, 31, S233-S241.



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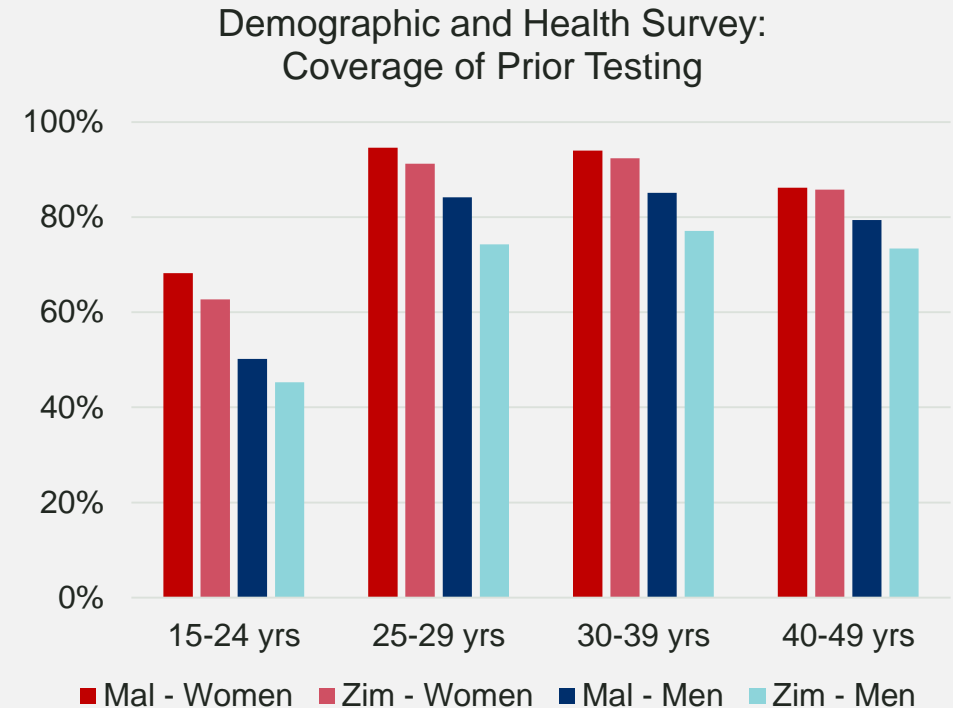


“I will choose when to test and where to test”: investigating young people’s preferences for HIV self-testing in Malawi and Zimbabwe

Pitchaya Indravudh, Malawi-Liverpool-Wellcome Trust
August 2017

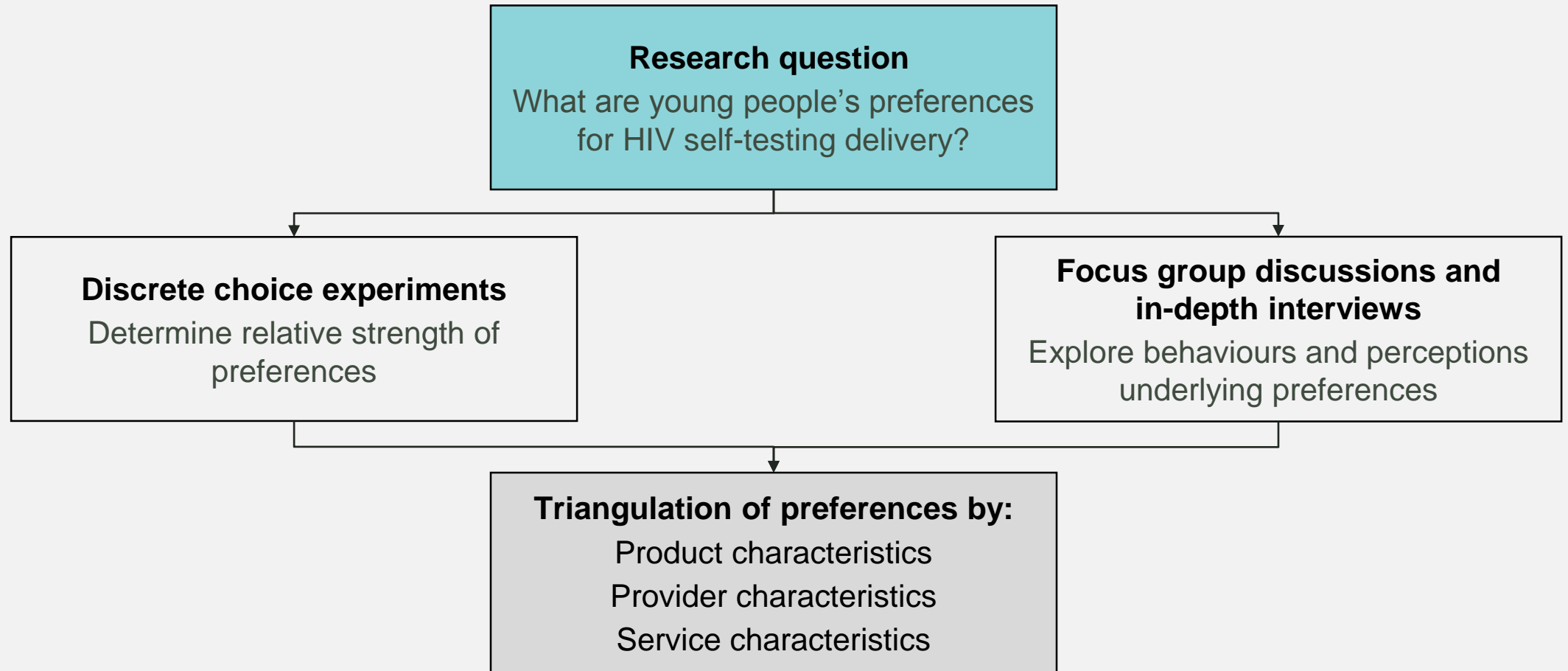
Background

- Low coverage of HIV testing among young people
 - Barriers include stigma and discrimination, fear of testing positive, agency
- HIV self-testing (HIVST) has potential to reduce this gap
 - Evidence of high acceptability among young people, but limited research on preferences to inform optimal HIVST delivery models



NSO and ICF Macro DHS 2015; ZIMSTAT and ICF International DHS 2016; Armstrong et al. WHO 2013; Choko et al. PLOS Med 2015

Methods: overview














Methods: data collection and analysis

DCEs

Design and pilot

Literature review, interviews and pilot

Please choose between Alternative 1 [verbally describe scenario],
Alternative 2 [verbally describe scenario] or neither of them.

Attributes	Alternative 1	Alternative 2	Opt out
Location			
Provider			
Pre-test support			
Type of test			
Test price	MK0 "Free"		
Post-test support			
			Neither of these options

Data collection

DCE nested in household surveys

Data analysis

Multinomial logistic*
Random parameter logit
Generalised mixed logit

FGDs and IDIs

Data collection

12 FGDs, 15 IDIs

Data analysis

Framework analysis

Results: participant characteristics

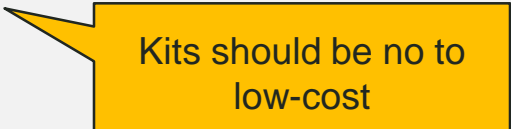
	In-depth interviews		Focus group discussions		Discrete choice experiments	
	Malawi		Malawi		Malawi	Zimbabwe
	<i>n</i> (%)		<i>n</i> (%)		<i>n</i> (%)	<i>n</i> (%)
Sex						
Male	7	(46.7)	10	(43.5)	37	(44.0)
Female	8	(53.5)	13	(56.5)	47	(56.0)
Age [median (IQR)]	20	(18, 21)	20	(19, 23)	21	(19, 23)
Education						
No formal schooling	2	(13.3)	0	(0.0)	0	(0.0)
Started or completed primary school	11	(73.3)	13	(56.5)	6	(7.1)
Started or completed secondary school	2	(13.3)	10	(43.5)	78	(92.9)
Tertiary	0	(0.0)	0	(0.0)	0	(0.0)
Employed with regular salary	2	(13.3)	10	(43.5)	N/A	
Married	7	(46.7)	12	(52.5)	35	(41.7)
Ever tested for HIV	7	(46.7)	14	(60.9)	N/A	
Total	15	(100.0)	23	(100.0)	84	(100.0)

IQR, interquartile range.

Results: product characteristics

I will choose when to test, where I want to test, and I can determine how private the place of testing is ... 19-year-old man, FGD, Zim

“Many said [oral-fluid tests were not] reliable because ... the virus is in the blood. So many were not satisfied with this self-testing.”
16-year-old woman, FGD, Zim

	(A) Model I (Malawi)				(B) Model II (Zimbabwe)		
	Coefficient		St. Err.		Coefficient		St. Err.
Product characteristics				Product characteristics			
<i>Test price</i>	−4.874	*	0.440	<i>Test price</i>	−1.691	*	0.480
<i>Sample collection method</i>							
Oral-fluid self-test	0.082		0.062				
Blood-based self-test	−0.025		0.057				
Provider-delivered blood-based test	−0.057		0.096				

*Is significant at P value < 0.01 .

**Is significant at P value < 0.10 .

***Is significant at P value < 0.05 .

Kits should be no to low-cost



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Results: provider characteristics

(A) Model I (Malawi)				(B) Model II (Zimbabwe)			
		Coefficient	St. Err.			Coefficient	St. Err.
Provider characteristics				Provider characteristics			
<i>Type of provider</i>				<i>Provider age</i>			
Healthcare worker		0.037	0.053	≤30 years		0.012	0.036
Lay distributor		0.085	** 0.050	>30 years		−0.012	0.036
Intimate partner		−0.122	** 0.068	<i>Residence of provider</i>			
				Same community		0.070	0.054
				Outside of the community		−0.070	0.054

Preference for untrained community members; concerns with counselling qualifications

*Is significant at P value < 0.01.
 **Is significant at P value < 0.10.
 ***Is significant at P value < 0.05.

[The distributor] could give the kit ... and must come back again to provide support, which is easier if he is from our community. 20-year-old man, FGD, Zim



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Results: service characteristics

I thought it wise to go for [self-testing] when ... introduced in this community, so I decided to test because I had access

I was not supposed to walk a distance for testing. 23-year-old man, IDI, Mal

Preference for availability of some in-person support

(A) Model I (Malawi)				(B) Model II (Zimbabwe)			
		Coefficient	St. Err.			Coefficient	St. Err.
Service delivery characteristics				Service delivery characteristics			
<i>Location of distribution</i>				<i>Location of distribution</i>			
Health facility	−0.140	**	0.081	Health facility	−0.030		0.078
Mobile clinic	−0.170	*	0.065	Mobile clinic	−0.669	***	0.275
Home	0.350	*	0.080	Home	0.699	***	0.301
Home of distributor	−0.040		0.065				
<i>Pretest support</i>				<i>Pretest support</i>			
Instruction leaflet	−0.096		0.064	Instruction leaflet	−0.049		0.105
Hotline	0.024		0.068	Hotline	0.039		0.110
In-person	−0.024		0.064	In-person	0.010		0.067
Hotline and in-person	0.096		0.080				
<i>Posttest support</i>				<i>Hours of operation</i>			
Instruction leaflet	−0.141	***	0.068	Regular hours	0.078		0.070
Hotline	0.014		0.060	Regular hours and evenings and weekends	−0.078		0.070
In-person	0.126	***	0.062	<i>Batch or individual distribution</i>			
Hotline and in-person	0.002		0.075	Individual distribution	−0.018		0.036
				Batch distribution	0.018		0.036

*Is significant at P value < 0.01 .

**Is significant at P value < 0.10 .

***Is significant at P value < 0.05 .

Mixed preferences for collection at health facilities and mobile clinics

Clash between autonomy and household dynamics



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Conclusion

- HIVST is highly acceptable to young people: empowering, convenient, confidential
- Uptake of HIVST among young people can be optimised if provided at home at no cost, with consideration for them as autonomous individual
- Limitations: differences in designs, small sample size, lack of exposure to HIVST
- Results largely consistent across methods and countries, strengthening findings

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Study participants

UNITAID PSI
HIV SELF-TESTING AFRICA

* Co-authors



Non-Traditional Venue Rapid Testing, Case Management, and Motivational Interviewing to Diagnose, Link, and Retain Youth in HIV Care

The MACARTI Trial

Name, Andres F. Camacho-Gonzalez MD, MSc
August, 2017



Disclosures

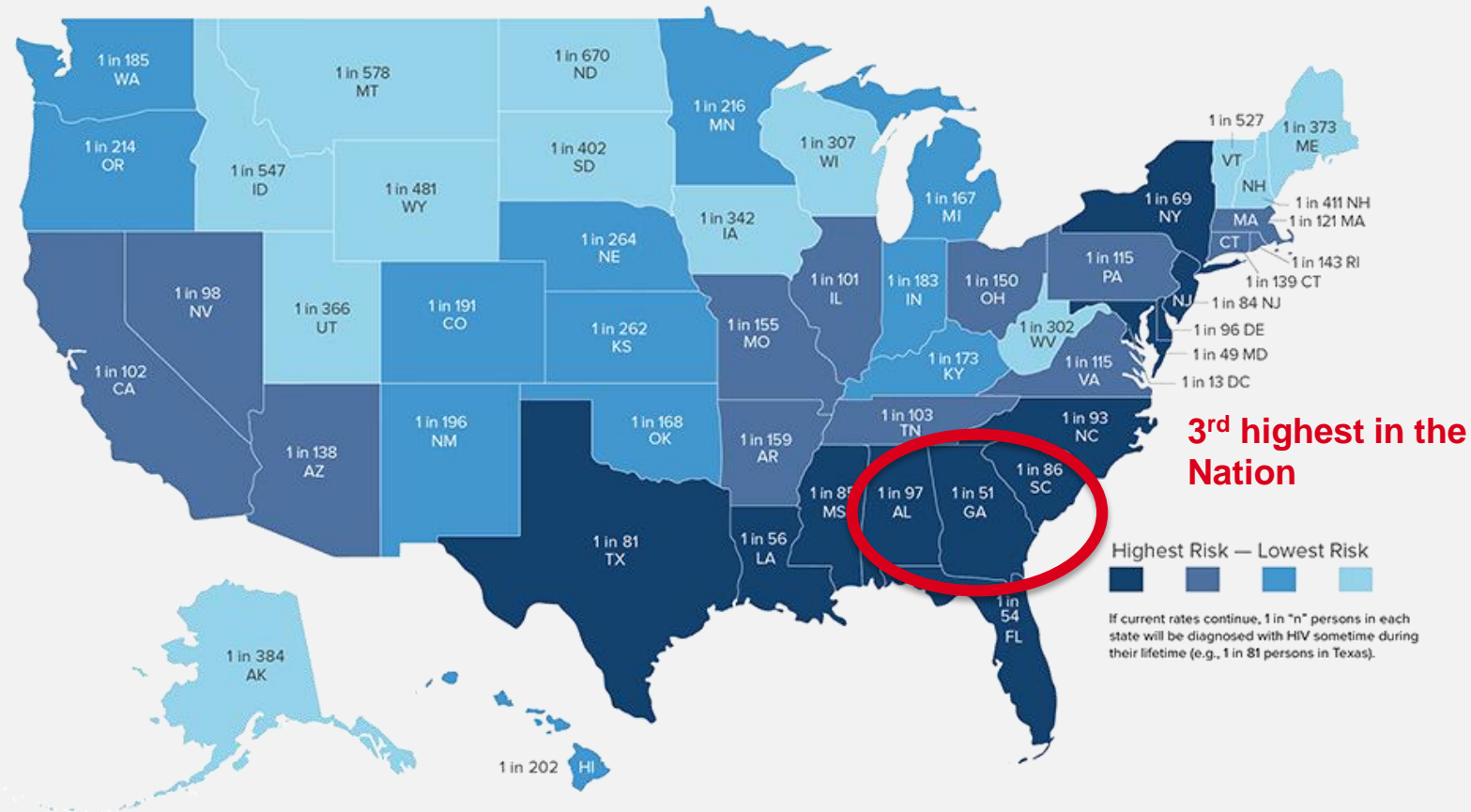
- I have received research support from Janssen Pharmaceuticals and Gilead
- I will not discuss of label use and/or investigational use in my presentation

HIV in Georgia-US

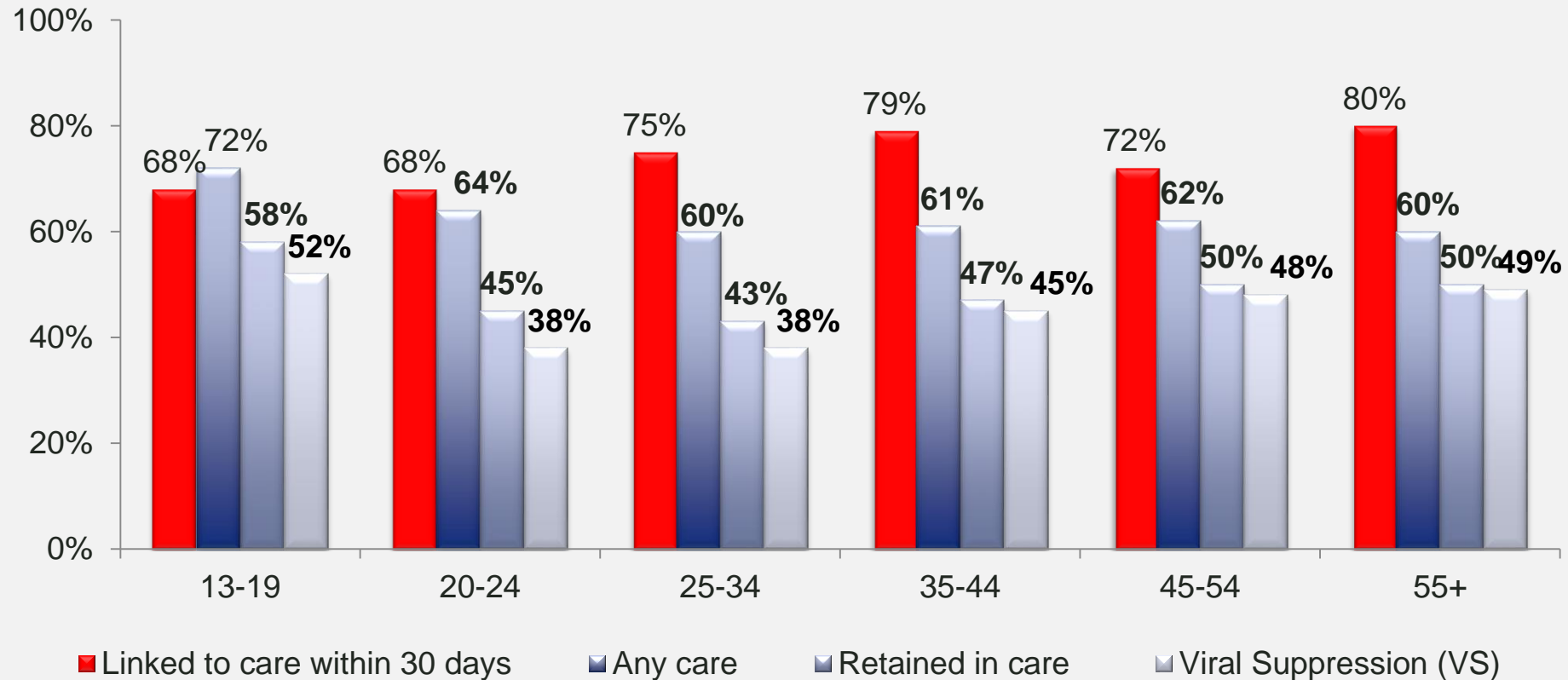
- Georgia ranked 5th highest in the nation for total number of new HIV diagnosis: 12.9/100,000
 - 22% of people diagnosed in 2014 had AIDS within 3 months
 - 11% of these new HIV diagnoses in youth was Stage 3
 - 40% among adolescent and young adults between 13-29 years
 - 72% were Black
 - 83% of male diagnoses were in MSM



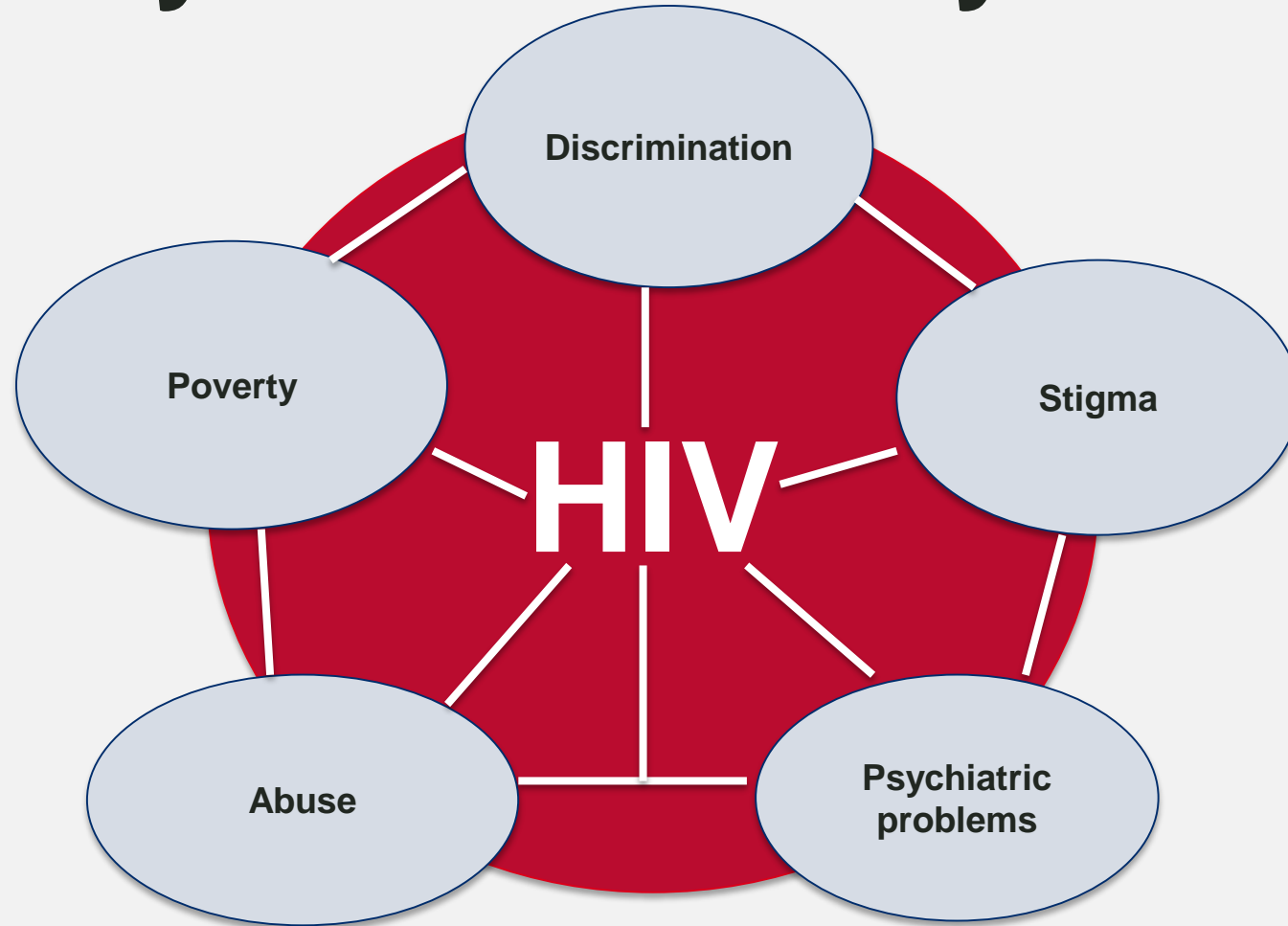
Lifetime Risk of HIV Diagnosis by State



Adults and Adolescents Living with Diagnosed HIV, Georgia, 2014, by Current Age (in Years)



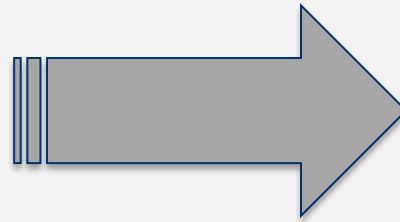
Singer Syndemic Theory



Metropolitan Atlanta Community Adolescent Rapid Testing Initiative (MACARTI)

MACARTI

18-24 year old



LINKAGE

RETENTION

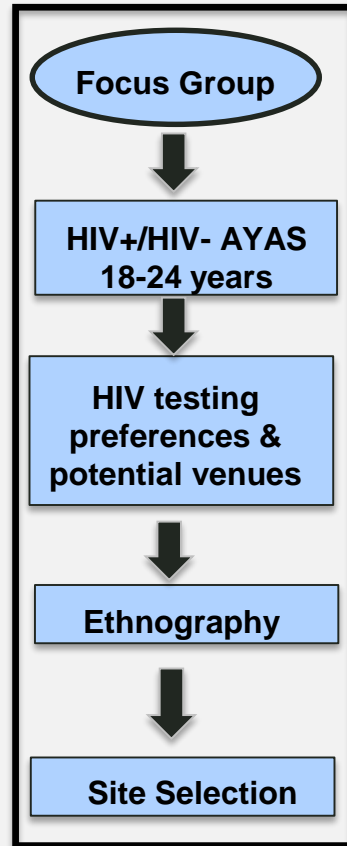
A strategy created by youth and for youth

MACARTI: Specific Aims

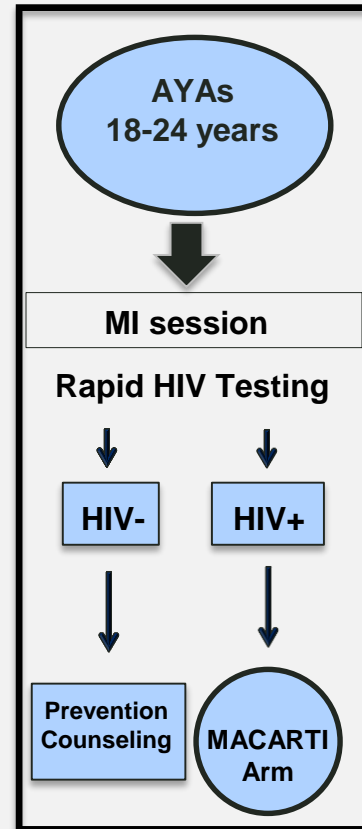
- To determine the feasibility and acceptability of HIV testing in non-traditional venues
- To determine if the MACARTI model improves linkage to and retention in care of newly diagnosed HIV-infected adolescents and young adults 18-24 years

MACARTI Study Flow Diagram

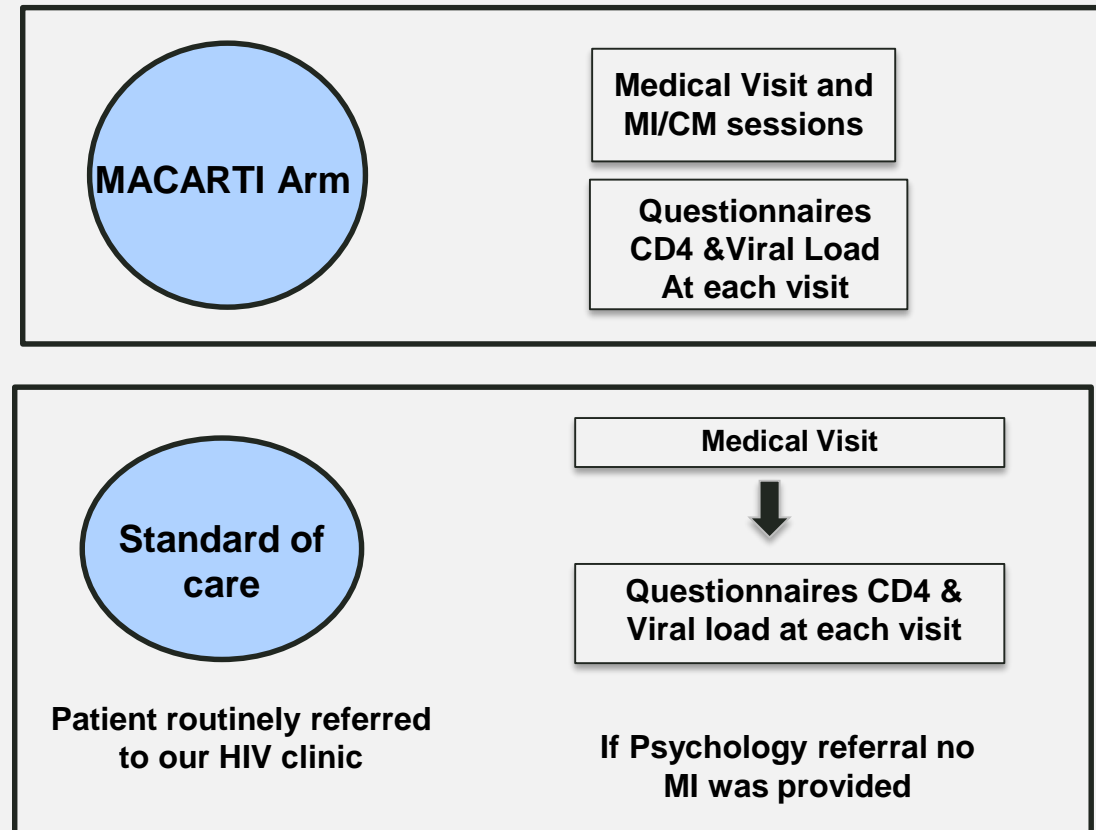
Formative Phase



Testing Phase



HIV Treatment and 1 year Follow-up



MACARTI Intervention Components

Venue HIV-
Testing

Motivational
Interviewing



Motivational
Interviewing

4 Sessions-1 year

Case
Management

Linkage in care
First medical care visit
occurred within 90 days
after HIV diagnosis

Retention in care
Number of complete
visits/number of total
scheduled visits during
12 month follow-up

HIV Clinical Parameters
CD4 count and Viral load
At each study visit.

Statistical Methods

- Parametric and non parametric approaches were used to understand differences at baseline
- Inverse propensity score analysis was used to control for baseline study arm disparities
- Linear mixed-effects growth models were used to evaluate statistical differences over study visit in CD4 T cell count and Viral Load

Results

	Standard Arm	MACARTI Arm
Patients Screened/Enrolled	62/49	435/49

- **MACARTI HIV positivity rate for study participants: 11.3% (49/435)**
- **Fulton/Dekalb counties reported positivity rate in 2013 was 1% (207/16,616)**

Testing Venues and Positivity Rate

Venue Type	Number Tested	Identified Positives	Positivity Rate
Night Clubs	122	37	30%
College Campus	98	5	5%
Street Testing ¹	38	7	18%
Private Parties	19	0	0%
Pride Events	38	0	0%
Malls and surroundings	6	0	0%
Fairs	19	0	0%
Shelters	95	0	0%
Total	435	49	

Baseline Characteristics by Study Arm

Characteristic, N (%)	Overall N = 98	SOC N = 49	MACARTI N = 49	P-Value	Unweighted Std. Diff	Weighted Std. Diff ²
Gender						
Male	83 (84.7%)	36 (73.5%)	47 (95.9%)	0.004	0.656	0.097
Race						
Black	89 (90.8%)	47 (95.9%)	42 (85.7%)	0.159	0.359	0.230
Age (yr), Mean ± SD	21.5 ± 1.8	21.3 ± 1.8	21.7 ± 1.7	0.175	0.276	0.083
Work Status						
Employed/In School	74 (75.5%)	32 (65.3%)	42 (85.7%)	0.019	0.489	0.139
Education, N = 97						
High school or Less	60 (61.9%)	35 (72.9%)	25 (51%)	0.026	0.463	0.154
College or More	37 (38.1%)	13 (27.1%)	24 (49%)			
Ever Abused Alcohol	15 (15.3%)	3 (6.1%)	12 (24.5%)	0.022	0.528	0.083
Currently Using Drugs	22 (22.5%)	9 (18.4%)	13 (26.5%)	0.333	0.197	0.008
Abused Type						
No Abuse	84 (85.7%)	42 (85.7%)	42 (85.7%)	1.000	<0.001	<0.001
Sexual Orientation						
Straight	22 (22.5%)	19 (38.8%)	3 (6.1%)	<0.001	0.850	0.198
Gay/Bisexual/Queer	76 (77.5%)	30 (61.2%)	46 (93.9%)			
Condom Usage						
Always/Usually	71 (72.5%)	33 (67.4%)	38 (77.6%)	0.258	0.230	0.249
Ever had STI ¹ – Patient Report, N = 97	47 (48.5%)	28 (57.1%)	19 (39.6%)	0.084	0.357	0.071
Any AIDS defining conditions, N = 94	34 (36.2%)	25 (51%)	9 (20%)	0.002	0.685	0.112

Baseline HIV Characteristics

		Participant Type		
Characteristic	Level	Standard (N=49) N%	MACARTI (N=45) N%	p-value
Any AIDS defining conditions	Yes	25 (51%)	9 (20%)	0.002
Psychological referral	Yes	21 (43%)	14 (31%)	0.288
History of STI different from HIV	Yes	7 (26%)	8 (18%)	0.550
CD4 count (cells/mm ³)	Mean (IQR)	196.5 (61-377.5)	317 (218-512)	0.007
Viral load (copies/ml)	Median (range)	26660 (40-1,731,070)	25010 (50-8,383,820)	0.821

Linkage to Care

- Overall 63% of participants were linked to care within 90 days
- Linked (weighted)

MACARTI vs. Standard of Care: 96% vs 57% ($P < 0.001$)

- Median linkage time (weighted):

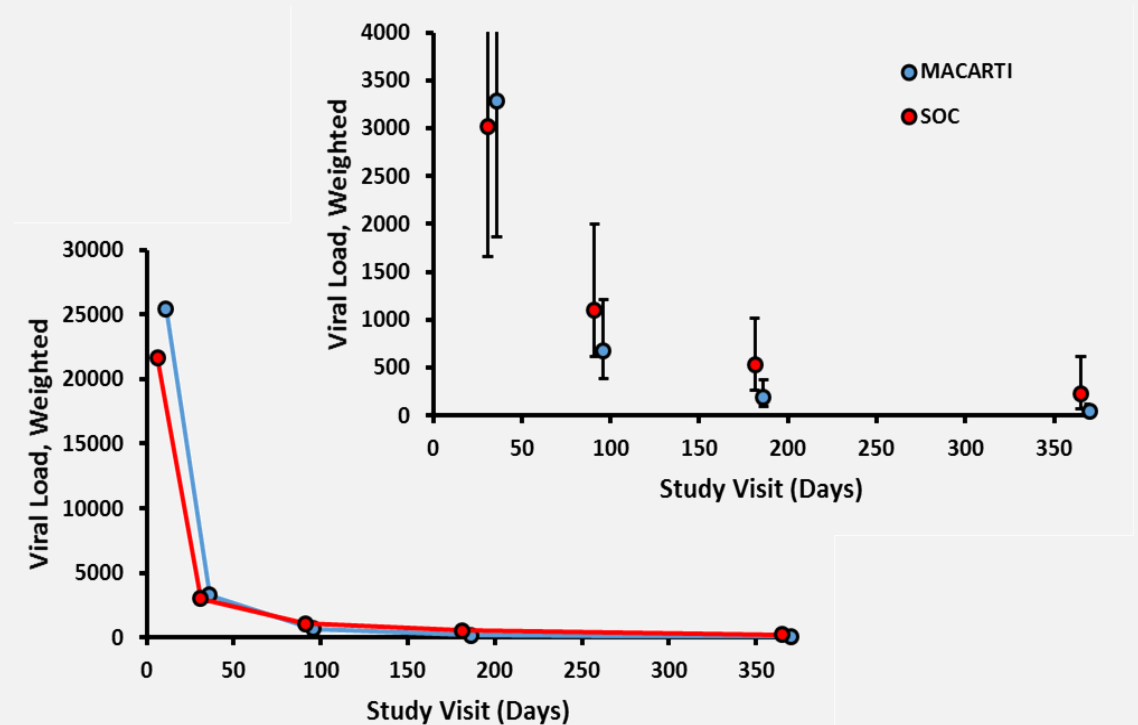
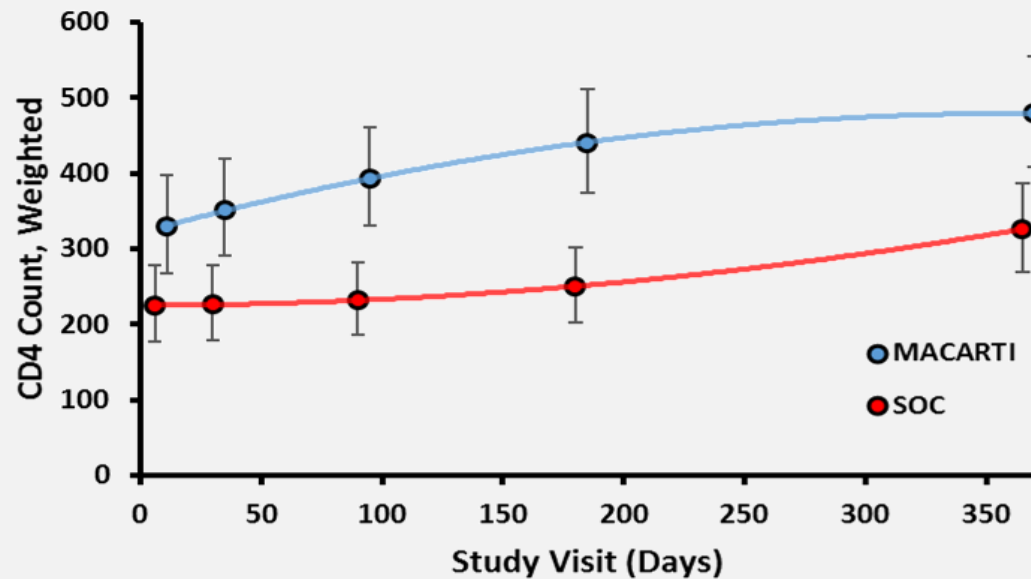
MACARTI vs Standard of Care

0.39 (IQR: 0.20-0.72) vs. 1.77 (IQR: 1.12-12.65) months ($p < 0.001$)

Retention in Care: Proportion of Appointment Adherence by Study Arm

Visit, n/N (%)	Standard Arm Appointment Adherence	MACARTI Arm Appointment Adherence	P-Value
Weighted			
30 Days	42.6/52.7 (80.8%)	30/37.8 (79.3%)	0.864
90 Days	36.8/52.7 (69.9%)	36.1/37.8 (95.6%)	0.002
6 Months	32.4/52.7 (61.5%)	29.1/37.8 (77%)	0.119
12 Months	39/52.7 (74%)	29.8/37.8 (78.8%)	0.603
Overall	203.6/263.6 (77.2%)	162.7/188.9 (86.1%)	0.018

Clinical Parameters: CD4-T Cell/Viral Load Change Over Time by Study Arm



Limitations

- Single center study: HIV epidemiology in GA reflects the current US epidemic
- Differences in baseline characteristics: Propensity score analysis
- Significant differences in clinical parameters were seen; however our sample size was small and we were not power to look at such differences.

Conclusions

- The MACARTI intervention was successful in:
 - Identifying new HIV infections among youth 18-24 years of age in Atlanta
 - Achieving high linkage and retention rates
 - Improving CD4 T cell count and viral loads
 - The combination of non-traditional venue testing, MI and CM has the potential to effectively decrease gaps for youth along the HIV care continuum.

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Grady Health System



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Q & A

Thank you for participating in the YouthPower Action and YouthPower Learning event!

The recording, presentation, and any resources shared during this event will be sent to all registrants and posted on YouthPower.org.



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