# TITLE

Risky Sexual Behavior among Urban Youth in Post-Conflict Liberia

# AUTHORS

<sup>1</sup>Albert O. Harris, MSc.; <sup>1,2</sup>Stephen B. Kennedy, MD, MPH; <sup>1</sup>Pearl W. Fahnbulleh, MA; <sup>1</sup>Momolu T. Massaquoi, BSc.; <sup>1</sup>Ernlee Mukee Bee Barbu, BA; <sup>1</sup>Salome Garber; <sup>1</sup>Oretha Perry, BBA; <sup>1</sup>Prince M. Korvah; <sup>1</sup>Moses Kolubah, MLT; <sup>1</sup>Mawen Gobeh, BBA; <sup>1</sup>Jemee Tegli, BA.

## AFFILIATIONS

<sup>1</sup>UL-PIRE Africa Center A. M. Dogliotti College of Medicine University of Liberia Monrovia, Liberia

 <sup>2</sup>Pacific Institute for Research & Evaluation (PIRE) Louisville Center
1300 S. 4<sup>th</sup> Street, Suite 300
Louisville, KY

### **CORRESPONDING AUTHOR**

Albert O. Harris UL-PIRE Africa Center A. M. Dogliotti College of Medicine Monrovia, Liberia E-mail: <u>AHARRIS@PIRE.ORG</u>

### ACKNOWLEDGMENT

This study is funded by a grant [R01 HD 045133] from the National Institute of Child Health and Human Development (NICHD) of the National Institutes of Health (NIH) in Bethesda, Maryland, USA.

### ABSTRACT

Globally, young people aged 15-24 years account for an estimated 45% of new HIV infections; of which, Sub-Saharan Africa (SSA) is gravely affected (UNAIDS 2008). Liberia, a country west of SSA has not escaped the massive and terrible effect of this HIV/AIDS epidemic, especially among vulnerable populations like youths. For example, HIV prevalence among 15-24 year-olds was estimated as 5.7% (NACP Survey report 2007), which is generally assumed to be higher than reported. However, scanty information is available on the HIV risk behaviors of urban youth in post-conflict Liberia. In this presentation, we report the correlates of risky sexual behaviors from the baseline data of 709 youth aged 15-17 years enrolled in an ongoing randomized controlled trial (RCT) with 12-months of follow up. We anticipate that the findings from this report has the potentially to contribute to the research and policy gaps associated with risky sexual behaviors in post-conflict Liberia.

### INTRODUCTION

Globally, young people aged 15-24 years account for an estimated 45% of new HIV infection worldwide (UNAIDS 2008). Sub-Saharan Africa (SSA) accounts for greater than 68% of HIV-positive individuals and more than 76% of all AIDS deaths during 2007. Moreover, people newly infected with HIV in 2007 were estimated at 1.7 million, accumulating to 22.5 million people living with the virus; of which, women account for 61% of those living with HIV (UNAIDS Epidemic update 2007).

Liberia, a country West of Sub-Saharan Africa, has not escaped the massive and terrible effects of the HIV/AIDS epidemic. The estimated HIV prevalence in the country is 5.2% (NHP, 2007). Documents on risk behaviors revealed that by aged 15 years, 19% of adolescents in Liberia have reportedly engaged in sexual intercourse. By age 16 years, 1.6% of HIV-positive adolescents have had their first sexual encounter, between aged 16-17 years 1.7%, and between aged 18-19 years 1.8%. Also, the number of sexual partners in the past 12 months among HIV-positive adolescents was higher among women, 2.5% than against men with 1.1% (LDHS 2007). Between aged 13-17 years, adolescents in Liberia were reportedly more likely to have had co-habitated (15%) and to have been pregnant or gotten someone pregnant (25%). Of nearly 1,000 youth aged 13-19 years interviewed about sexual practices, 90% stated that they do not intent to use a condom during their next sexual encounter, over 75% admittedly had multiple sexual partners, and 95% reportedly would not abstain from sexual activity as a strategy to prevent STDs (LDHS 2000).

Regarding HIV-related knowledge, 50% of adolescents have never heard of diseases that can be transmitted sexually, nearly 40% had not heard of HIV/AIDS, and 60% felt they had no risk at all for contracting HIV (LDHS, 2000). Approximately 50% of women and 71% of men in urban areas know that HIV can be prevented by using condoms, 58% of women know that HIV can be prevented by being in a monogamous relationship with an uninfected partner, and 47% know that HIV can be prevented by abstaining from sexual intercourse. In addition, 14% of women know that transmission can be reduced by mother taking drugs during pregnancy (LDHS 2007).

# METHODS

The study was a randomized controlled trial (RCT). Participants randomly assigned to the intervention arm received 8 sessions of an adapted version of Making Proud Choices (MPC), an effective behavior-based intervention for high risk youth; participants assigned to the comparison arm received 8 sessions of a general health program (GHP) regarding the prevention of common diseases such as malaria, tuberculosis, etc.

A total sample of 2000 urban youths within the four zones was approached by field workers for recruitment into the study. Of the 2000 participants we had approached, 35% (709) completed the self-administered baseline survey. As such, the findings from this baseline survey are reported in this paper. Moreover, the remaining 65% (1,076) of those participants we had approached did not participate in the baseline survey or the research study for variety of reasons that included ineligibility for enrollment, refusal of parents for their children to participate, lack of interest in the research study, etc. Consequently, no further study-related information on demographic and /or risk behavioral characteristics was obtained from those participants.

We developed a 60-90 minute self-administered pencil and paper questionnaire to elicit relevant data from urban youths in Monrovia and its environs. The variables included (1) demographic characteristics such as participant's age, educational level or lifetime substance; (2) HIV/AIDS-related prevention knowledge such as knowledge regarding HIV/AIDS prevention, myths and misconceptions, risky sexual behaviors and effective prevention practices; (3) Perceived HIV/AIDS-related vulnerability to assess a participant's perceived vulnerability for contracting HIV/STDs; (4) condom-use intention such as consistent, accurate and effective condom use; (5) condom-use attitudes such as participants' perceived attitudes toward condom use; and (6) condom-use barriers such as participants perceived barriers to use condoms correctly, consistently and effectively, among others.

In this presentation, we present the risk behavioral characteristics of 709 Liberian youth who completed the baseline survey.

# RESULTS

The completed survey data were entered into a data management system and verified. Prior to data analyses, all variables were checked for non-logical responses. Finally, a series of  $x^2$  tests (2 x 2) of significance were computed to assess association and/or relationships between various dependent and independent variables. All analyses were performed using the statistical package for the social sciences (SPSS version 14)

### General characteristics

Generally, 709 Liberian youth aged 15-17 years completed the baseline survey, of which 51% (348) were males and 49% (339) females (see Table 1). Descriptive analyses showed that the mean aged was 16 years and 31% (215) of enrolled participants were 15 years old, 34% (237) 16 years old, and 35% (240) 17 years old. By the time of survey administration, 59% (408) of enrolled participants were reportedly in junior high school (grades 7<sup>th</sup> -9<sup>th</sup>), 28% (194) in senior high school (grade 10<sup>th</sup> -12<sup>th</sup>) while 13% (92) were in elementary/primary school (grade 1-6).

## Risky sexual behaviors

The analyses showed that risky sexual behavior was high among enrolled participants. For example, 42% (288) of enrolled participants have had sexual intercourse. Moreover, sexual activities during the past 90 days were 24% (167) and condom use during the past 90 days was 16% (109) for relatively consistent users and 64% (431) for never/inconsistent users. The chi square test shows that the difference between never/inconsistent condom use and prior 90 days sexual intercourse was statistically significance (p-value=.000). In addition, there was statistical difference regarding the intent to engage in sexual intercourse during the next 90 days and condom use during the next 90 days (p-value=.022).

### Substance use

Self-reported account of substance use was not very common among the enrolled participants. For example, over half of study participants have never drank alcohol (57%, 394) or smoked marijuana (98%, 674). In addition, 16% (109) of enrolled participants intend to drink alcohol in the next 90 days while 2% (12) reportedly intend to smoke marijuana in the next 90 days. Chi square test to determine the relationship between intend for alcohol and marijuana use during the next 90 days, and the intend to engage in sexual intercourse with someone who was not your boyfriend or girlfriend during the same time frame shows a statistical significant difference with p-value=.000

### Health-related behavior

As HIV/AIDS, as well as others STDs, become a major public health challenge in post conflict Liberia, the survey data showed that 14% (88) of enrolled participants personally knew someone with HIV/AIDS, 23% (154) knew someone who had died of AIDS, and 20% (130) knew someone with STDs. In regard to HIV/STD testing, 8% (55) of study participants were reportedly tested for HIV and 11% (72) of study participants have been tested for other STDs. Moreover, 62% (417) of enrolled participants agreed a lot or agreed a little that condom protects against HIV/STDs, 28% (189) were not too sure while 10% (70) had doubts about the role of condoms as a protective device against HIV/STDs (disagreed a lot or disagreed a little). Also, over half of enrolled participants i.e. 63% (401) felt very strongly that their chances of getting HIV were not at all likely/somewhat likely, 34% (223) were not too sure while 4% (25) felt very likely/extremely likely of their chances of getting HIV. Lastly, over half of survey participants (55%, 362) feel that their chances of getting STD is not at all likely/somewhat likely, 42% (275) were not too sure whereas 3% (20) felt very likely/extremely likely about their chances of getting STD.

# DISCUSSION

The purpose of this study was to provide risk reduction training for high-risk urban youth aged 15-17 years old enrolled in an HIV/STD prevention program via a randomized controlled trial. The results indicate that risky

sexual behaviors emerging as a significant public health problem for urban youth in post-conflict Liberia. Accordingly, there is a need to scale up prevention programming to promote, support and sustain HIV-related behavioral skills.

			DANTOOTTO
Variables	No. with characteristic	Total respondents	Percentages
Ages (years)			
15 years	215		31
	215	000	51
16 years	237	692	34
17 years	240		35
Sex			
Mala	240	607	51
	340	007	51
Female	339		49
Educational level			
Grade Under 6 <sup>th</sup>	02		13
	52	00.4	15
Grade 7" - 9"	408	694	59
Grade 10 <sup>m</sup> - 12 <sup>m</sup>	194		28
Substance use (Age first drink alcohol)			
Never	204	<u> </u>	F7
INever	394	689	57
9-11 years	49		7
12-14 years	132		19
15+ yoars	114		17
10+ years	114		17
Age first smoked Marijuana			
Never	674		98
11-17 years	14	688	2
Next 2 menthe drink clockel	17		<u> </u>
Next 3 months drink alconol			
Yes	109	684	16
No	575		84
Novt 2 months smake merilyana	010	1	
ivext 5 months smoke marijuana			
Yes	12	691	2
No	679		98
Ever had veginal cox	0.0		
Ever hau vaginai sex			
Yes	288	685	42
No	397		58
Ever use a condom			
	100	005	07
Yes	188	695	27
No	507		73
Ever had anal sex			
Yee	21	694	E
res	31	084	Э
No	653		96
Sex past 3 months			
Voc	167	600	24
Tes	107	090	24
No	523		76
Condom use past 3 months			
Never/inconsistent	385		64
Deletively experietent	100	070	04
Relatively consistent	109	672	16
Sex next 3 months			
Yes	84	663	13
No	570		97
	579		0/
Condom use next 3 month			1
Never/inconsistent	375	662	57
Relatively consistent	287		43
	201	<u> </u>	<del>ت -</del>
Past 3 months # of sexual partners			
Never had sex past 3 months	478		69
1 partner	169	694	24
2-3 partners	37		5
	37		
>4 partners	10		1.4
Know someone with HIV/AIDS			
Yes	88	652	14
No	446	002	69
	440		00
Know someone who died of AIDS			
Yes	154	660	23
No	423		64
Know come one with OTD-	720	<u> </u>	
Know someone with STDS			
Yes	130	660	20
No	424		64
Ever tested for STDs (not HIV)			<u> </u>
		070	
res	12	673	11
No	547		81
Ever tested for HIV			
Voo	55	600	0
100	55	090	0
I NO	635	1	92

DEMOGRAPHIC AND PSYCHOSOCIAL CHARACTERISTIC OF 709 URBAN YOUTHS

Missing data not included in analysis. Percentages may/may not sum up to 100% due to responses such as do not know, undecided, rounding, etc.