

# Is unintended pregnancy associated internalized stigma experienced by women living with HIV in Kenya?

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## Introduction

Internalized stigma refers to the negative thoughts and feelings that a person may have about themselves because of their HIV status. This may include feelings of being a bad person, blame, guilt or shame. The manifestations of these internalized feelings can influence an individual's health seeking behaviors or lead to depression or suicide. Little is known about the associations between unintended pregnancy and internalized stigma. Unintended pregnancy among HIV positive is estimated between 53% to 84% (Wanyenze RK et al., 2011; Rochat TJ, et al., 2006) and is preventable with the use of family planning services.

In Kenya, approximately 1.6 million people in Kenya living with HIV and of which, 57% are aged 15 and older (UNAIDS, 2017). Close to 3 in 4 (71%) of women aged 15 and older are on anti-retroviral treatment (UNAIDS, 2017). Contraceptive prevalence among married women aged 15-49 is 58% (Kenya DHS, 2015), with about half using modern contraceptive methods.

The purpose of this study is to explore the relationship between unintended last pregnancy and internalized stigma, and to understand why women living with HIV who had an unintended last pregnancy were not using family planning.

## Methods

The data presented in this study are drawn from a baseline survey that is part of a larger implementation study aimed at testing community-based approaches to integrate family planning services into existing HIV services. A quasi-experimental, pre- and post-test study was designed and includes a control community. The study sites selected for the overall implementation research study are Samia sub-County and Butula sub-County both in Busia County, Republic of Kenya.

### Study Population

The study population for the baseline survey was HIV positive women, aged 18-49 years, who sought HIV healthcare services. The total number of women recruited is 1,090 in Samia and 519 in Butula. The analytic sample is limited to respondent who had a pregnancy in past five years of the survey (n=1550).

Community health volunteers (CHVs) assisted in the recruitment of study participants. CHVs contacted HIV positive support-group networks and introduced the study objectives to people who belonged to these groups. HIV positive females who were interested in the study were then linked to the research assistants who were trained by the research team. Research assistants met with potential respondents and provided complete information about the study's aims, voluntariness of participation and the process employed by the study to ensure confidentiality throughout study participation. After the briefing session, the research assistants invited eligible respondents to enroll in the study and obtained informed consent in privacy. The survey was conducted in Kiswahili using a semi-structured questionnaire.

### Dependent variable

The dependent variable is internalized stigma and is measured by seven questions that were adapted from the HIV Stigma Scale (Berger et al., 2001). Respondents were asked to answer a series of attitudinal questions on a 4-point Likert scale ranging from strongly agree to strongly disagree. They were prompted with the following statement: "Now, I'm going to read you some statements on your own and

other people's thoughts about living with HIV. As we did before, please tell me how much you agree with these statements by indicating whether you Strongly Disagree, Disagree, Agree, or Strongly Agree." The seven items were combined and formed to form a composite index ranging from 0 to 7, which was then dichotomized into 0=no agreement across all seven items and 1= agreement on at least one item.

#### Independent variables

The main independent variable is unintended last pregnancy. Unintended last pregnancy is coded at 1 for did not want pregnancy at all or wanted it later and 0 if the pregnancy was wanted then.

Other independent variables include length of time on ARVs (>1year vs 1 year or less/no treatment), in the 12 months before the survey because of HIV status was measured by four scenarios: excluded from family activities, aware of being gossiped about, rejected by a sexual partner, treated unfairly or discriminated against by a healthcare provider. Experience of violence/abuse in the 12 months before the survey was measured by three scenarios of verbally insulted, physically abused, and sexually insulted or forced to have sex. Other independent variables include age, marital status, education, length of time living in same village, and sub-county residence.

#### Data analysis

Bivariate analysis and multivariate logistic regression models were run to assess the association unintended pregnancy and internalized stigma. All analyses were conducted in STATA SE, Version 12.

### **Results**

Table 1 shows the respondent characteristics. Thirty-seven percent of respondents were between 30-39 years old, half were married (55%), most did not complete primary school (75%), and most lived in the same village for over 10 year (74%). The majority rated their health as fair or good (89%) and had been on ARVs for more than 1 year (78%). About half at experienced some form of discrimination in the 12 months before the survey (52%) and slightly fewer had experienced violence/abuse (40%). A little more than half had an unintended last pregnancy (56%).

Figure 1 shows the proportion of respondents who reported experiencing each of the seven internalized stigma questions. Less than 20 percent of respondents agreed with 6 of the items while 26 percent reported agreeing with the statement *people's attitudes towards PLWHIV make me feel worse about myself*. Nearly half (46%) of respondents reported agreement with at least one internalized stigma statement.

Table 2 shows unadjusted and adjusted odds ratios. HIV positive women who reported that their last pregnancy was unintended were 1.34 times (95% CI: 1.09-1.67) more likely to agree with an internalized stigma item. Experience of discrimination in the 12 months preceding the survey also increased the likelihood of agreement with internalized stigma measure (AOR: 2.05; 95% CI: 1.62-2.60). Respondents who reported experiencing violence/abuse were 32% (95% CI: 1.03-1.67) more likely to agree with an internalized stigma measure.

### **Conclusion**

This study highlights the importance of considering factors like unintended pregnancy when addressing internalized stigma among HIV positive women. The paper will also explore the determinants of unintended pregnancy among HIV positive women including family use and reasons for non-use.

Table 1: Demographic profile of female HIV positive respondents (n=1550)

	%
Age	
18-24	4.8
25-29	11.9
30-34	15.0
35-39	21.6
40-44	18.7
45-49	28.0
Marital status*	
Single	2.1
Living together	2.2
Married	55.1
Divorced/separated/widowed	40.2
Education	
None	13.1
Did not complete primary	74.8
Completed primary	11.1
Secondary or more	1.0
Duration living in same village	
<10 years	26.5
≥ 10 years	73.5
Sub-County	
Samia	67.6
Butula	32.4
Self-reported health status	
Poor	10.9
Fair	41.3
Good	47.3
Don't know	0.4
Length of time on ARV treatment	
No treatment/ 1 year or less	21.9
More than 1 year	78.1
Experienced discrimination in 12 months before survey	
Yes	51.5
Experienced violence/abuse in 12 months before survey	
Yes	39.5
Unintended last pregnancy	
Yes (did not want pregnancy at all)	33.5
Yes (wanted pregnancy later)	22.3
No (wanted pregnancy then)	44.2

\*May not equal 100% due to missing data

Figure 1: Percent of respondents agreeing with internalized stigma measures (n=1550)

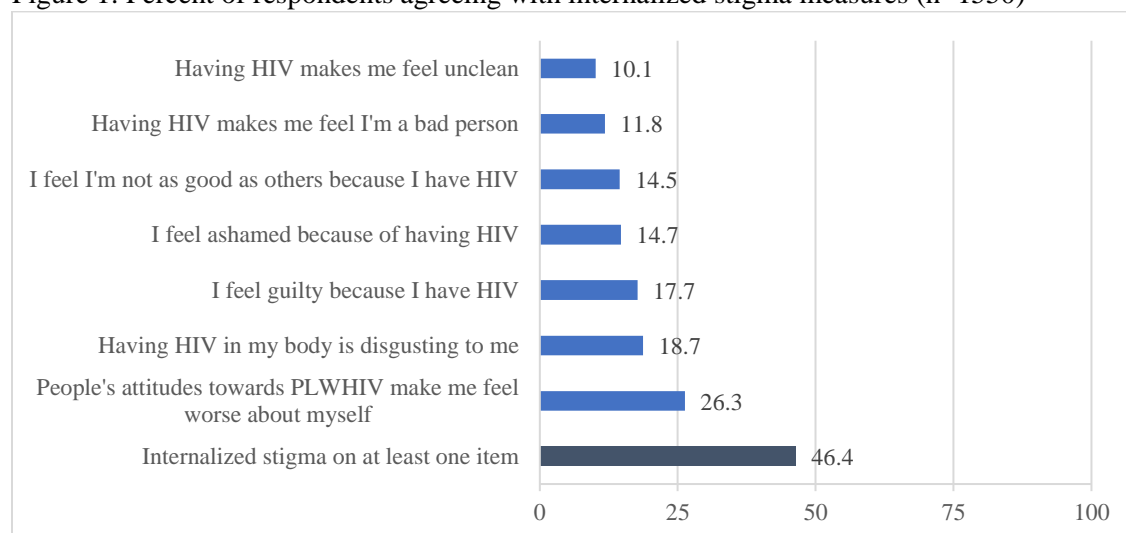


Table 2: Unadjusted and adjusted logistic regression models of unintended last pregnancy on internalized stigma (n=1550)

	Unadjusted Model		Adjusted Model	
	OR	95% CI	AOR	95% CI
Unintended last pregnancy				
No	ref		ref	
Yes	1.46***	(1.19-1.79)	1.34**	(1.09-1.67)
Length of time on ARV treatment				
No treatment/ 1 year or less	0.97	(0.76-1.23)	0.92	(0.71-1.20)
More than 1 year	ref		ref	
Experienced discrimination				
Yes	2.32***	(0.98-2.36)	2.05***	(1.62-2.60)
No	ref		ref	
Experienced violence/abuse				
Yes	1.92***	(1.56-2.36)	1.32*	(1.03-1.67)
No	ref		ref	

\* Adjusted for age, marital status, education, duration living in same village, sub-county, self-reported health status, children living with HIV