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Wamoyi, Joyce; Ranganathan, Meghna; Kyegombe, Nambusi; Stoebenau, Kirsten; (2018)Improving the measurement of transactional sex in sub-Saharan Africa: A critical re-JAIDS-Journal of Acquired Immune Deficiency Syndromes. ISSN 1525-4135 DOI: $\rm https://doi.org/10.1097/QAI.0000000000001928$

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Improving the Measurement of Transactional Sex in Sub-Saharan Africa: A Critical Review

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Background: Transactional sex, or informal sexual exchange, is considered to be an important contributing factor to the disproportionately high HIV infection rates experienced by adolescent girls and young women in sub-Saharan Africa. Nonetheless, confusion remains over how best to define and measure this practice, hindering efforts to mitigate the role of transactional sex in the epidemic. We critically review current measures and offer evidence-based recommendations for improvement.

Setting: Although transactional sex is practiced around the world, we focus attention on the definition and measurement of this practice in sub-Saharan Africa, given the role it plays in young women's risk of HIV in this region.

Methods: We relied on both secondary and primary data sources. We draw on a systematic review of literature on transactional sex from sub-Saharan Africa and interview data from both key informants and cognitive interviews (n = 160) with young women (ages 14-24) and men (ages 18-35) in Uganda and Tanzania.

Results: We find current measures are inconsistent, conflate transactional sex with sex work, and fail to capture the gendered nature of the practice. We provide an evidence-based definition of transactional sex that guides our measurement recommendations. We then detail the development of improved measures through cognitive interviews. Finally, we offer recommended approaches to improved

Received for publication June 22, 2018; accepted November 11, 2018. From the *Department of Sexual and Reproductive Health, National Institute for Medical Research, Mwanza Centre, Tanzania; †Department of Global Health and Development, Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, United Kingdom; ‡Department of Sociology, Center on Health, Risk and Society, American University, Washington, DC; and \$Behavioral and Community Health Department, University of Maryland School of Public Health, College Park, MD.

UK Aid Department for International Development. The funders had no role in the consolidation of information, in the decision to publish or in the preparation of the manuscript, and hence the views expressed do not necessarily reflect the department's official policies.

The authors have no funding or conflicts of interest to disclose.

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measurement of transactional sex for women and men in large-scale surveys.

Conclusions: Improved measures are critical for accurate estimation of the prevalence of transactional sex and assessment of the extent to which transactional sex determines HIV risk.

Key Words: transactional sex, sub-Saharan Africa, measurement, interventions, adolescent girls, young women

(J Acquir Immune Defic Syndr 2019;80:367-374)

INTRODUCTION

In sub-Saharan Africa (sSA), over 25% of all new HIV infections occur in adolescent girls and young women (AGYW) aged 15–24 years. 1,2 Transactional sex, or informal sexual exchange, has received increased attention in the public health literature because it is considered to be an important contributing factor to the high HIV infection rates observed among AGYW in the region. 3–5 In our recent systematic review, we found that having ever engaged in transactional sex increased women's risk of HIV by almost 50%. 5 Evidence shows that transactional sex is associated with a number of individual- and interpersonal-level sources of HIV risk including different forms of abuse and violence, low sexual relationship power, alcohol use, multiple partners, the nonuse of condoms, and age-disparate sex, among AGYW. 6–11

Yet, as attention to the role of transactional sex for AGYW's HIV risk has grown, so too has misunderstanding over its definition and how best to measure it. "Transactional sex" is often mistakenly understood as encompassing all forms of sexual exchange, including sex work. However, this conceptualization runs counter to findings from studies conducted by social scientists over the past 25 years across sSA, which describe transactional sex as informal sexual exchange relationships that are different from sex work. 11 The confusion that persists over the definition of transactional sex has significantly compromised measurement, and therefore limits the understanding of how, and to what extent, transactional sex explains AGYW's disproportionate risk of acquiring HIV. For example, this confusion limited the pool of eligible studies for our systematic review.⁵ An improved measure of transactional sex will help to better identify those at risk of HIV through transactional sex and can in turn facilitate more effective interventions. In this article, we review how transactional sex has been defined and measured to date. We then offer evidence-based recommendations for definition and measurement; with a focus on improving measures for large-scale, multicountry surveys.

METHODS

The recommendations we present are the result of a multiyear effort of the STRIVE working group on transactional sex and HIV, and represent a core aim of the group to better understand and mitigate the role of transactional sex for young women's HIV risk in SSA. ¹² To that end, in addition to our own research across the region, ^{5,11,13–15} we conducted secondary and primary data collection and analyses. Secondary analyses included both a review of the meaning and motivations for the practice, ¹¹ as well as a systematic review of the association between transactional sex and HIV. ⁵ Primary data collection and analyses included key informant interviews with researchers who have expertise on the topic and cognitive interviews, described below.

Research Methods for Measurement Development

We conducted cognitive interviews in Uganda (March–July, 2016) and Tanzania (September–November, 2016) to develop and test new approaches to measure the prevalence of transactional sex among women and men in sSA in large-scale surveys. Cognitive interviewing is an iterative qualitative research technique used primarily to assess whether close-ended survey questions are understood by respondents as intended. ¹⁶ In these interviews, research "subjects" are not only asked to respond to the survey question, but they are also asked to explain how they understood the question and arrived at their answer.

We used cognitive interviews to develop 2 types of survey questions. The first, a "relationship module" question, was designed to be included in a module asking about relationships with up to 3 sexual partners in the past 12 months. After establishing these partners, questions then probe on partner characteristics and sexual behavior with each partner. The second "stand-alone" question was designed for surveys that only include a short sexual behavior module (eg, demographic surveillance sites). This question could be added to any survey that includes even a few questions on sexual behavior.

We conducted 2 rounds of cognitive interviews in Uganda (n = 80) and Tanzania (n = 80). Selected participants were sexually active AGYW (ages 14-24) and men (ages 25-47), corresponding to the age-sex composition of HIV risk. Participants were interviewed only once. Analysis of the first round of interviews was used to guide the wording of questions in the subsequent round. We stratified participants on relevant sociodemographic characteristics identified in the literature including rural versus urban residence, age group (women: 15-19, 20-24; men: 25-34; 35+), and sex. Within each stratum, we also captured a range in education levels (primary through secondary). We ensured a range in age and education to capture potential variation in comprehension of questions by cognitive reasoning, developmental stage, and sexual experience. Most of the participants from rural Tanzania were from the Sukuma ethnicity, whereas the urban

population was of mixed ethnicity. In Uganda, most of the participants came from the Baganda ethnicity.

The questions that were asked are listed in columns 3 and 4 in Table 3. Examples of questions that were asked in round 1 for women and men, respectively, are: Did you enter into a relationship with (initials of partner) because (initials) provided you, or you expected that he would provide you with gifts, help you to pay for things, or help you in other ways?, and "Did you provide (initials) with gifts or help her to pay for things or help her in other ways in order to enter into a relationship with (initials)? Furthermore, examples of the probes that we used during the interviews were: Can you repeat the question I just asked in your own words? Which parts of the question were the most difficult to understand? What do you think this question is about? What does the phrase "started a sexual relationship" mean to you? If you were told to ask your friends this question, how would you ask it? How comfortable did you feel answering the question? Through successive rounds of interviews and analyses, questions were refined to arrive at a measure that better captures transactional sex. Interviews were audio-recorded and transcribed. All coauthors participated in the analyses and interpretation. Data were reduced for analysis using matrices that summarized responses across participants.

State of the Evidence Defining Transactional Sex

As outlined by key informant researchers who led some of the earlier work on this topic, the definition and perceived meaning of transactional sex has differed across disciplines, contributing to current inconsistencies in measurement. Perhaps, most importantly, those who have understood the practice from a Western perspective of sexual relationships have tended to conflate transactional sex with sex work. ^{17,18}

However, "transactional sex" was initially adopted by social scientists writing about sexual exchange relationships in SSA in the 1980s and 1990s as a way to distinguish exchange-based relationships in this region from Western connotations of "sex work." Some argued that it would be a mistake to mislabel those who participate in informal exchange-based relationships as "prostitutes" and "clients," as participants in these transactional relationships do not selfidentify as such. 19,20 Social science studies have continued to emphasize that transactional sex relationships are largely distinct from sex work. Although evidence shows that transactional sex takes place across a range of socioeconomic contexts and for multiple reasons, 11 we identified characteristics common to these relationships across contexts, and regardless of motivation, which serve as the basis for the following definition of transactional sex (Table 1):

Noncommercial, nonmarital sexual relationships motivated by an implicit assumption that sex will be exchanged for material support or other benefits. ¹² We explain each of the key elements of this definition below.

• *Implicit assumption of exchange*: In sex work, the terms of sex-for-money-exchange are explicitly acknowledged and negotiated. Transactional sex relationships, however, stem

TABLE 1. Distinctions Between Transactional Sex and Sex Work

Sex Work	Transactional sex
Self-identifies as sex worker	Does not self-identify as sex worker
Money or goods explicitly exchanged	Exchange of money or goods implicit in sexual relationship
Often little shared emotional intimacy	Often at least some shared emotional intimacy
Exchange of money or goods for sex often occurs at the time of sex	Provision of money or goods may be temporally disassociated from the sex (may occur before or after sex)

from broader expectations about the roles of women and men in relationships. Men are expected to provide financial and material support; and women, in turn, are expected to offer sexual and domestic services.²¹ The length of these relationships may vary from a few days to many years. They may include a low or high degree of emotional intimacy, but they are primarily motivated by exchange of material support or other benefits for sex.

- Noncommercial: In sex work, sexual encounters are prenegotiated, immediately remunerated, and discrete sex acts, and are not framed within broader gender expectations of male provision in romantic relationships, but rather are framed in terms of a commodity exchange.²² Importantly, those engaging in transactional sex relationships do not self-identify as sex workers or clients.
- *Nonmarital*: Marriage differs from transactional sex on the bases of the level and type of commitment made between partners, the resulting duration of the relationship, and the meaning of marriage as an institution in society.¹¹

Weaknesses in the Measurement of Transactional Sex in Standardized Surveys to Date

The measurement of transactional sex has been compromised by a poor definitional basis, a lack of consistency in

measures and their period of exposure, and a failure to capture the gendered nature of the practice. Measures of transactional sex often have stemmed from questions such as "Have you ever exchanged sex for gifts or money?" This phrasing reflects a conflation of the practice with sex work (Table 2) and unfortunately has been a commonly used approach in large-scale surveys, until quite recently.²³

Questions have also varied significantly. Table 2 reports transactional sex prevalence from studies of sexually active young women younger than 26 years of age in South Africa. Prevalence estimates were lower in studies that relied on more conventional measures of transactional sex, which tend to conflate it with sex work, and higher in studies that drew on more nuanced measures. Although the specific settings and study populations likely explain some of the observed variation, the differences in the approach to measurement also likely contribute to observed variation in prevalence, indicating the value of improving measurement.

Previous measures also varied with respect to the length of time being assessed.⁵ The exposure period varied from "ever" practiced transactional sex to having transactional sex with their "last partner," "a recent partner," or "in the past 12 months." This variability renders cross-study comparisons difficult, compromising assessment of the association of the practice with HIV.

Finally, the gendered nature of the practice is often overlooked, particularly for measurement questions directed to men. Although studies point to young men occasionally being the recipients of gifts and money from women, as well as providers of goods in transactional sex relationships, ^{28,29} questions that aim to assess men's participation in transactional sex have often relied solely on the same questions asked of women. Presuming men as the receivers of goods in exchange for sex has almost certainly resulted in underreporting of men's participation in the practice, and may explain why the association between transactional sex and HIV is unclear for men.⁵ Together, these weaknesses limit our

TABLE 2. Variation in	the Prevalence of	of Transactional Sex	by Measurement Approach
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Study	Study Design	Transactional Sex Questions	% Reporting TS	Reflection on Measurement
Hallman, 2005 ²⁴	2194 sexually active young women aged 14–24 years in 2 districts of KwaZulu- Natal, South Africa	Have you ever received goods, money, or favors in exchange for sex?	6%	Measure conflates transactional sex with sex work
Abel, 2011 ²⁵	263 sexually active 1st year university students in Western Cape, South Africa	Have you ever received money or gifts in exchange for sexual intercourse?	2%	
*Nduna et al, 2010 ²⁶	1294 sexually active HIV negative, young women ages 15–26, recruited from schools in mostly rural Eastern Cape, South Africa	Have you ever had a sexual relationship (or act) with a (main partner, roll-on, or once-off partner) because he provided you with or you expected that he would provide you with food, cosmetics, clothes, transportation, school fees, somewhere to sleep, alcohol, or a "fun night out", or cash? (as described in Dunkle, 2004) ²⁷	25%	Better measure that distinguishes transactional sex from sex work
*Jewkes, 2012 ³		(with just "casual partners"—roll-on; once-off)	9%	

^{*}These articles are based on the same study (Stepping Stones) and same study populations.

ability to adequately account for the role of transactional sex for HIV risk and illustrate the importance of improved questions that can better measure transactional sex consistently across countries, over time, and especially within large, repeat nationally representative surveys.

Results From Cognitive Interviews

Table 3 provides details on the evolution of the majority of measurement questions we tested by question type, country, and sex. These questions aimed to distinguish transactional sex from both sex work and other sexual relationships more generally, and to reduce underreporting through response bias by removing more judgmental or potentially stigmatizing language. We began with the same questionnaire in both sites for round 1 and then allowed country-level findings to direct context-relevant changes for round 2. As the "stand-alone" questions were worded similarly to the "relationship module" questions, we did not test these in Uganda in the first round, but developed these as based on analyses from round 1, which we used to inform work in Tanzania.

The findings we present below apply to both the relationship module and stand-alone questions with 2 exceptions. First, the stand-alone question requires a specific exposure period. Second, with men in particular, we found the stand-alone question required directing men to a specific type of partner, distinct from a sex worker or a spouse.

Measurement of Transactional Sex Among Women

In both settings, we concentrated efforts on capturing wording that could (1) distinguish transactional sex from sex work (become sexually involved, enter/start a sexual relationship with); (2) describe the motivation for the relationship (in order to, mainly, because) to differentiate transactional sex from other relationships; and (3) describe the items of exchange (money, gifts, help with paying for things, things important to you) in salient ways.

We found "relationship" differentiated this practice from discrete sex work exchanges, and "enter into a sexual relationship" was less stigmatizing or judgmental than "become sexually involved." We also noted the importance of context-specific language differences. For example, in English, "enter into" is a better phrasing than "start," as "start" suggests the woman initiated the relationship, which is not consistent with the gender expectation that only men should initiate relationships. However, in Tanzania, "enter into" does not denote the beginning of a relationship in Swahili. As a result, both phrases "enter into" and "start" a relationship were retained. We also found the need to specify "sexual relationship" was context specific. This specification was not needed in Tanzania where a "relationship" between opposite sex individuals equates to a sexual relationship. In the case of Uganda, a relationship and sex within that relationship are not necessarily synonymous, therefore specifying "sexual relationship" was necessary. This specification did not impact the meaning or acceptability of the question in Tanzania.

To differentiate transactional sex from other relationships, we needed phrases that addressed the motivation for the relationship. After multiple rounds, we added "mainly" to "in order to" to further emphasize the motivation for entering the relationship.

The phrase "mainly in order to" directs attention to the motivation for the relationship. "Mainly" indicates that the main intention of the relationship is to access money or related support. The phrase "mainly in order to" tries to distinguish "relationships that include exchange" from "relationships that are primarily motivated by exchange." As guided by our definition, we are interested in identifying participation in relationships where exchange is the primary motivation.

We also explored capturing the motivation for the relationship by asking about potential motivations to leave rather than enter a relationship. Based on the results from the first and second iterations, this approach to the question was dropped. Although this question was easy for everyone to understand, it did not perform well in practice. First, many women particularly in Tanzania explained that they do not actively "leave" a relationship. Second, women gave conditional responses or felt they needed to offer explanations before responding (eg, it would depend on why he has stopped providing). Finally, many women found this wording more stigmatizing, as it revealed a purely instrumental motivation on their part.

With respect to the basis of exchange, as noted in the literature, money and gifts were common items provided in transactional sex relationships. 11 We then added vague terminology such as "things that are important to you" (Uganda) and "things that you need" (Tanzania) to allow for a subjective interpretation across socioeconomic status. Research subjects named goods and services they had thought of when hearing these phrases ranging from houses and cars to food, sanitary pads, transport, and medicines, indicating these phrases applied across economic status and aspirations. Finally, we have since pilot tested these questions with young women in central Uganda. We found that among 78 community-based sampled sexually active 15-24-year-old not currently married women, 43% reported practicing transactional sex in the past 12 months.

Measurement of Transactional Sex Among Men

In addition to the measurement aims described above, for men, specifically, we aimed to improve on the extent to which the questions accurately reflected the gendered assumptions underlying transactional sex. We developed questions that presumed men as the providers of goods and services motivated by an interest in having sex.

Unlike the case for women in these settings, it is both expected and socially accepted for men to have multiple partners and to desire to have sex. Therefore, we were less concerned about ensuring questions were worded in ways that would be considered less stigmatizing. However, we found that, as was the case for women, men preferred wording that denoted provision for a "sexual relationship" rather than for "sex."

TABLE 3. Results of Iterative Cognitive Interviews for Women and Men in Uganda and Tanzania, 2016

		Round 1	Round 2	Country-Level Result	Recommended Question
Women Relationship	Tanzania	Did you enter into a	Women have relationships for	Did you start a	Did you enter into a sexual
module		relationship with (initials) because (initials) provided you, or you expected that he would provide you with gifts, help you to pay for things, or help you in other ways?	a lot of different reasons, none of which are good or bad. Did you have a sexual relationship with (initials) in order to get money, or things that you want?	sexual relationship with (INITIALS) in order to get money, gifts, or help with paying for things that you need?	relationship with (initials) mainly in order to get things you need, money, gifts, or other things that are important to you?
		Did you become sexually involved with (initials) because (initials) provided you, or you expected that he would provide you with gifts, help you to pay for things, or help you in other ways?	Did you start a relationship with (initials) in order to get money, gifts, or help with paying for things that you need?		
	Uganda	Did you enter into a relationship with (initials) because (initials) provided you, or you expected that he would provide you with gifts, help you to pay for things, or help you in other ways?	Many women like you enter into relationships for different reasons. None of these reasons are good or bad. Did you enter into a sexual relationship with (initials) in order to receive money, for help with your expenses, or in order to receive things that are important to you?	Did you enter into a sexual relationship with (initials) mainly to get things you need, money, gifts, or other things that are important to you?	
		Did you become sexually involved with (initials) because (initials) provided you, or you expected that he would provide you with gifts, help you to pay for things, or help you in other ways?	Did you enter into a sexual relationship with (initials) in order to receive money, for help with your expenses, or in order to receive things that are important to you?		
	Tanzania	Did/would you leave the relationship with (initials) if/because he no longer provided gifts, money, or helped you to pay for things, or helped you in other ways?"	Did/would you stop having a sexual relationship with (initials) if/because he no longer gave you things you need, money, gifts, or other things that are important to you?	Dropped this approach to the question.	None
Ug		Did/would you stop having sex with (initials) if he no longer provided gifts, helped you to pay for things, or helped you in other ways?			
	Uganda	Did/would you leave the relationship with (initials) if he no longer provided gifts, helped you to pay for things, or helped you in other ways?	Did/would you stop having a sexual relationship with (initials) if/because he no longer gave you things you need, money, gifts or other things that are important to you?	Dropped this approach to the question	
		Did/would you stop having sex with (initials) if/because he stopped giving you money, or help with your expenses or help to receive things that are important to you?			

(continued on next page)

TABLE 3. (Continued)	Results of Iterative	Cognitive	Interviews for	Women and	d Men in	Uganda and	Tanzania, 2016

		Round 1	Round 2	Country-Level Result	Recommended Question
Stand-alone question	uestion become sexually involved starts with someone because they provided you with, or you gifts,		In the past 12 months, have you started a sexual relationship with a man in order to get gifts, money, or other things that you needed?	In the past 12 months, did you start a sexual relationship with a man mainly in order to get things you need, money, gifts, or other things that are important to you?	In the past 12 months, did you enter into a sexual relationship with a man mainly in order to get things that you need, money, gifts, or other things that are important to you?
	Uganda	Not tested	In the past 12 months, have you entered into a sexual relationship with anyone in order to receive money, help to pay your expenses, or to receive things that are important to you?	In the past 12 months, have you entered into a sexual relationship with anyone in order to receive money, help to pay your expenses, or to receive things that are important to you?	
Men					
Relationship module	Tanzania	Did you provide (initials) with gifts or help her to pay for things or help her in other ways in order to enter into a relationship with (initials)?	Have you helped [initials] to pay for things or used money or gifts mainly to start or maintain a sexual relationship with her?	Have you given [initials] any money, gifts, or helped her to pay for things, in order to start or maintain a sexual relationship with her?	Have you given [initials] any money, (gifts) or helped her to pay for things mainly in order to start or continue a sexual relationship with her?
		Did you provide (initials) with gifts or help her to pay for things or help her in other ways in order to become sexually involved with (initials)?			
	Uganda	Did you provide (initials) with gifts or help her to pay for things or help her in other ways in order to enter into a relationship with (initials)?	Did you provide (initials) with money or help her with her expenses mainly to become sexually involved with her or to be able to keep having sex with her?	Have you given [initials] any money, gifts, or helped her to pay for things, mainly to start or continue a sexual relationship with her?	
		Did you provide (initials) with gifts or help her to pay for things or help her in other ways in order to become sexually involved with (initials)?			
Stand-alone question	Tanzania	In the past 12 months, have you provided someone with gifts or helped them pay for things or helped them in other ways in order to have sex with them, or because you had sex with them?	In the past 12 months, have you used money or gifts to start or continue a sexual relationship with a woman who is not your wife and is also not a sex worker?	In the past 12 months, have you given a woman who is not your wife and is also not a sex worker any money or gifts or paid for her expenses mainly so you could start or continue a sexual relationship with her?	In the past 12 months, have you given a woman who is not your wife and is also not a sex worker any money, (gifts) or helped her to pay for things mainly in order to start or continue a sexual relationship with her?
	Uganda	Not tested	In the past 12 months, have you provided someone who is not a sex worker with money or help to pay for her expenses mainly to become sexually involved with her or to be able to keep having sex with her?	In the past 12 months, have you provided a woman who is not your wife and is also not a sex worker any money or paid for her expenses mainly so you could keep having sex with her?	

Men were also sensitive to the expectation that they should provide. During the interviews, some men seemed to stop listening to the question after determining that it was about provision, missing the phrase that made explicit that such provision was *in order to* have sex. This could lead to overreporting. The gendered expectation that men should provide for their partners is very strong in both settings.

Although men understood the question, they did not want to suggest that they were exploiting the expectation that they should provide for their partners. They would rather think that they were fulfilling their roles, but that this provision came with certain expectations (that they may, or may not ask to have met). They also wanted to be able to think that girls/women were with them for reasons other than just money.

Therefore, as we had with women, we added "mainly" to "in order to" to further emphasize the primary motivation for the relationship, in this case, sex.

As indicated in the literature and revealed in the cognitive interviews, "to start or continue" recognizes that men feel they must continue to provide for a woman if they wish to continue the sexual relationship. This wording also recognizes that men sometimes provide goods before sex, or only once the relationship begins. Unlike for women, we found the word "gifts" did not work in Uganda where for men the term was understood as an item offered without any expectation of reciprocation.

Recommended New Measures of Transactional Sex for the Sub-Saharan African Context

The findings from the sum of our work provide the basis for our measurement recommendations for large-scale surveys in the region. These questions are listed in the final column in Table 3. For both sets of questions and to both sexes, we recommend that marital partners be excluded; this can be accomplished through sampling, skip patterns, or built into the question itself.

Relationship Module

For men and women, we recommend using a relationship module where possible because it allows for exploration of transactional sex across multiple partners at different time points in the past 12 months. It also facilitates avoiding attributing transactional sex to marriage or sex work by first asking about partner characteristics and relationship to the respondent.

Stand-Alone Questions

We recommend the stand-alone question for short surveys that do not include many questions on sexual behavior, but wish to capture transactional sex. We chose a 12-month exposure period for this question for a few reasons: to facilitate recall, to standardize a question for both older and younger respondents, and to allow a long enough time frame for younger respondents, who sometimes have larger gaps between sexual partners and sexual activity, to be captured. However, for surveys that are strictly with youth (15–24 years), we recommend using "ever" as it is easier to understand and for young people, there is less risk of recall bias.

Unlike with the relationship module, the challenge is to ensure the question is not being directed to a marital or sex work/client relationship. For women, this question could be asked to unmarried women, or could be analyzed among all women, excluding those who married within the past 12 months (as those married for more than a year would be addressing any other relationships they entered in the past 12 months). For men, we built clarification into the question by including the clause "who is not your wife and is also not a sex worker," given men's greater likelihood of multiple partners in the prior 12 months regardless of marital status.

For questions with men in general, although we prioritize addressing men's expected role in transactional sex as the providers of material goods and services, because there are cases where men are the recipients, it is advisable to ask men questions capturing both roles (ie, provider and recipient of support).

Limitations

These recommendations come with caveats. In as much as the recommended questions were understood as intended by the majority of subjects in Uganda and Tanzania, it is important to be cautious because they could be "heard" by a few as a question simply asking if their partner had provided for them (for women) or if they provided for their partner (for men). We observed that this could lead to slight overreporting. In addition, these questions have only been cognitively tested in 2 countries. These recommendations will certainly mark an improvement on questions used in large-scale surveys in the past; however, for researchers specifically interested in transactional sex in a different setting, we would recommend using these questions as a very good basis for developing and then pretesting a local language equivalent. Finally, and importantly, it is unclear whether these questions work well in contexts where transactional sex is a stigmatized practice. Where that is the case, regardless of accurate comprehension, there is a risk of underreporting.

CONCLUSIONS

Improved measures of transactional sex are critical for researchers and policy makers to make accurate estimations of the prevalence of transactional sex in order to assess how it contributes to the transmission and acquisition of HIV within a given context. The recommended measures are also important for policy makers and programmers to understand trends in the practice over time. This in turn will provide critical information for the design and targeting of interventions to reduce young women's vulnerability to HIV.

The definition of transactional sex we propose here has direct implications for how we should measure transactional sex. It is critical for understanding the practice of transactional sex and for directing measurement approaches. Following the definition that was informed by an extensive systematic literature review, and based on our own research experience with measurement development, including the cognitive interviews, we recommend that the following 5 elements should be captured in any measurement of transactional sex: (1) questions must clearly differentiate transactional sex from sex work to be certain that the measurement reflects noncommercial relationships; (2) questions must include a clear statement of the motivation for the sexual relationship; (3) measures must ensure the wording is nonjudgmental to minimize response bias, and resultant underreporting, while accurately capturing the prevalence of the practice; (4) transactional sex measures should not include marital relationships (but may include married individuals' extramarital relationships); and (5) measures should account for the gendered roles expected of women and men in transactional sexual relationships. Internationally comparable, contextually situated questions that better capture transactional sex and provide critical insight toward reducing HIV risk for AGYW in SSA are vital. The guidelines and recommended questions provided above seek to inform the development of such questions.

ACKNOWLEDGMENTS

The authors are very grateful to UK Aid Department for International Development for funding the STRIVE research consortium on tackling the structural drivers of HIV/AIDS through an award to the London School of Hygiene and Tropical Medicine, and its partners. It is through the STRIVE initiative that this critical review was made possible.

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