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JABOYA VS. *JAKAMBI*: STATUS, NEGOTIATION, AND HIV RISKS AMONG FEMALE MIGRANTS IN THE "SEX FOR FISH" ECONOMY IN NYANZA PROVINCE, KENYA

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Abstract

In Nyanza Province, Kenya, HIV incidence is highest (26.2%) in the beach communities along Lake Victoria. Prior research documented high mobility and HIV risks among fishermen; mobility patterns and HIV risks faced by women in fishing communities are less well researched. This study aimed to characterize forms of mobility among women in the fish trade in Nyanza; describe the spatial and social features of beaches; and assess characteristics of the "sex-for-fish" economy and its implications for HIV prevention. We used qualitative methods, including participant observation in 6 beach villages and other key destinations in the Kisumu area of Nyanza that attract female migrants, and we recruited individuals for in-depth semi-structured interviews at those destinations. We interviewed 40 women, of whom 18 were fish traders, and 15 men, of whom 7 were fishermen. Data were analyzed using Atlas.ti software. We found that female fish traders are often migrants to beaches; they are also highly mobile. They are at high risk of HIV acquisition *and* transmission via their exchange of sex for fish with *jaboya* fishermen.

The early burden of the HIV epidemic in East Africa was borne disproportionately by populations living in areas near the shores of Lake Victoria, in the Rakai District of Uganda, Mwanza, and Kagera Provinces in Tanzania, and Nyanza Province in Kenya (Mojola, 2011), and still today, the region's highest HIV prevalence and incidence rates are found in the fishing communities surrounding the lake. Among fisherfolk in southwest Uganda, HIV prevalence was 29% in 2009 (33.9% in women and 23.9% in men), far exceeding the national level of 6.4% in adults (Asiki et al., 2011). Across the lake in Kenya, Nyanza Province is heavily affected by HIV, with a 15.4% prevalence that is double the national average (National AIDS Control Programme, 2009). A recent study from Kisumu in Nyanza found that 25% of women and 16% of men were HIV seropositive (Cohen et al., 2009). HIV incidence is especially pronounced in the population living in beach villages at the lake; an estimated 26.2% of new infections occur in these fishing communities (UNAIDS–Kenya, 2008). There are approximately 142 such beaches along the Lake Victoria Fisheries Organisation, 2007), as boat owners, fishermen, net-makers and repairers, and brokers. A study of

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fishermen in Kisumu District found 25.6% to be HIV infected (Kwena, Bukusi et al., 2010). While the data on HIV rates in fishing communities have been described as limited but convincing, there is in particular a paucity of robust data on infection rates among female fish traders in Kenya.

The mobility of fishermen is believed to have contributed to the sustained, enormous epidemic in the areas surrounding Lake Victoria (Kwena, Bukusi et al., 2010; Ng'ayo et al., 2008). Fishermen in Nyanza have been difficult to reach with interventions because of their high mobility, but several interventions have aimed to address their high HIV acquisition and transmission risks (Kwena, Cohen et al., 2010). However, to our knowledge, the mobility of female fish traders, who are involved in the processing, transporting, and retailing of fish in the region, has never been studied; nor have the HIV risks to female fish traders been explored in HIV research.

HIV studies often have been grounded in the presupposition that women's HIV risks are derived from their status as the "stay at home" spouses and sexual partners of migrant men, rather than from their direct participation in migration and the risks it confers (Hunter, 2010), yet across sub-Saharan Africa, the studies that have examined HIV risks to female migrants found higher risk behavior and HIV prevalence among migrant compared to nonmigrant women (Abdool Karim, Abdool Karim, Singh, Short, & Ngxongo, 1992; Boerma et al., 2002; Brockerhoff & Biddlecom, 1999; Camlin et al., 2010; Kishamawe et al., 2006; Lydie et al., 2004; Pison, Le Guenno, Lagarde, Enel, & Seck, 1993; Zuma, Gouws, Williams, & Lurie, 2003) and to migrant men (Camlin et al., 2010). In Kenya, previous studies have found high levels of participation in migration by both men and women (Brockerhoff, 1995; Thadani, 1982) and higher sexual risk behaviors among migrants than non-migrants (Brockerhoff & Biddlecom, 1999). Women's mobility is high and possibly increasing in Kenya (Brockerhoff, 1995; Brockerhoff & Biddlecom, 1999; Hugo, 1993), and the highest levels of HIV prevalence in Kenya have been found in women in Nyanza Province, but to our knowledge, no studies have yet described the migration and mobility patterns of women in fishing communities in Nyanza Province, nor explored the role women's mobility may play in fueling the enormous HIV epidemic in western Kenya.

An estimated 30,000 women also migrate to the beaches in Nyanza Province to buy fish, prepare them for the market, and broker sales of fish to other female traders (LVFO, 2007). Locally, and anecdotally, many women in the fishing industry are known to also be highly mobile, as they transport fish from beach villages to market areas. Many maintain dual residences or have several temporary residences or lodgings between which they circulate. Beaches are also known, locally, to attract female migrants in search of economic opportunities, particularly widows and women fleeing marital and family conflicts. This study is the first to directly address this gap in the literature and to describe migration and short-term mobility among women in the fish trade in Kenya.

In addition to the mobility of male fishermen, a key factor thought to contribute to the HIV epidemic among fisherfolk is a phenomenon in lakeside communities that has been alternatively termed "Fish-for-Sex" (Béné & Merten, 2008; Merten & Haller, 2007) and "Sex-for-Fish" (Mojola, 2011), in which transactional sexual relationships are established between female fish traders and fishermen as a part of the local fish trade economy. In this arrangement, fishermen grant preferential access to fish to female fish traders whom they select as "customers" (in Nyanza, known as *jakambi*), in exchange for sex. In our study, women said that fish traders "pay twice"—with money as well as with their bodies—in order to secure access to a steady supply of fish which they then buy, process, transport, and sell in local markets. In Nyanza, among other meanings, the term *jaboya* refers primarily to fishermen in these relationships and to the system of sex-for-fish relationships (Mojola,

2011). Prior research on sex-for-fish economies has been limited, but a small number of studies, largely in the fisheries and development literature, have documented its occurrence in other small-scale fishery settings across sub-Saharan Africa (Asiki et al., 2011; Béné & Merten, 2008; Merten & Haller, 2007; Mwanga, Mshana, Kaatano, & Changalucha, 2011).

It has been posited that the sex-for-fish economy is "new" in the region (Béné & Merten, 2008; Merten & Haller, 2007), and scholars have attributed its origins to a convergence of economic and ecological processes underway over the past three decades rather than to "tradition" or long-standing cultural practices. Mojola (2011) has highlighted linkages between the sex-for-fish trade and the deteriorating ecology of the lake: Declines in Kenya's formal sector economy since the 1980s led to increased dependence on the lake for subsistence, resulting in environmental degradation, declining fish populations, and greater competition for fish. The ecological context, she argues, converged with the "gendered economy" in Kenya-the gendered structure of the local labor markets, skewed compensation structures, and unequal gender power relations-to make women vulnerable to participation in transactional sex for subsistence. Béné and Merten (2008) have argued that inland fisheries in Africa are not well linked to outside systems of consumption and production and that, under these conditions, fish traders have to find strategies to reduce the transaction costs of "hunting" for fish in situations where the fish supply is highly uncertain and fishermen are highly mobile. Sex-for-fish is a strategy to ensure a stable access to fish supplies, greatly reducing the risks and transaction costs of the trade in an unstable market situation.

In their analyses of sex-for-fish exchanges at the Kafue River Flats of Zambia, Merten and Haller (2007) posited that a stigmatization of women involved in sex-for-fish deals has increased, as the discourses of HIV prevention programs converge with the moral prescriptions of Christianity to produce shame, moral distress, and social exclusion of female fish traders. In Zambia, women involved in the trade have invoked *lumambo*, a former customary regulation of extramarital sexual relations among the Ila, to provide legitimacy and a cover of respectability for sex-for-fish exchanges. According to Béné and Merten (2008), a stigmatization of women involved in the sex-for-fish trade has been perpetuated in the fisheries literature, in which fish-for-sex has been confused with prostitution, and women are discursively placed as victims within the fisheries sector economy. With women viewed "only as sexual partners, spouse or prostitute," this literature has overlooked the active role that women play as economically productive agents within the sector. Women involved in the sex-for-fish economy process, transport, and retail fish, and they are thus integrated in the "fish value-chain" (Béné & Merten, 2008).

In this paper, we focus on aspects of the sex-for-fish economy that have been neglected in the literature to date. First, the existing literature on sex-for-fish has replicated a gender bias in its attention to the mobility of male fishermen and its implications for the spread of the HIV epidemic, while the mobility of female fish traders has not yet been studied. Examining the mobility of female traders is important not only for a full understanding of the dynamics of the local epidemic, but also for understanding other aspects of women's agency, social status, and livelihood strategies. Second, this study complicates models of gender power relations as they have been applied to accounts of sex-for-fish economies. As we describe, the gendered power relations between *jaboya* fishermen and their *jakambi* female partners are complex, and women's levels of empowerment and disempowerment vary by situation and specific points of interaction. We document women's accounts of their exchanges of sex-for-fish as *jakambi*, or customers of the *jaboya* fishermen, and contextualize these experiences within the broader rubric of their mobility trajectories. As we show, not all fish traders engage in exchanges of sex-for-fish; rather, the most socially or economically

vulnerable women at the beaches choose to do so, as a result of their status as migrants and of the circumstances that drove their migration.

METHODS

This study is a subset of a larger study of female migration and HIV risks in Nyanza Province, which focuses not only on female migrants in the fish trade but on a broader population of women in the Kisumu area who are migrant (undertook a permanent change of residence, not for marriage, over a district, provincial, or national boundary) or highly mobile (travel frequently away from a primary residence for livelihoods, or circulate between two or more residences.) We used two qualitative research methods: 1) six months of participant observation and field notes (Bernard, 1994) in common migration destinations in and near the Kisumu area of Nyanza Province, and 2) in-depth semi-structured interviews with 15 male and 40 female migrants selected from these destinations using theoretical sampling techniques (Strauss & Corbin, 1998). Interviews with men were carried out to explore men's perspectives on findings that emerged from daily debriefing and preliminary reading of women's interviews in the same locations. The field research team comprised American and Kenyan co-principal investigators and two research assistants (RAs) from Kisumu who were native speakers of the local languages. Both were trained in the qualitative data collection methods.

In the preliminary research, we identified potential typologies of female migrants and highly mobile women in the area, and we garnered information about their potential migration destinations. The key typologies emergent from our formative ethnographic research in the area were widows, who are often drawn by economic opportunities in the fish trade at the beaches; other (non-widowed) independent female migrants who trade in fish at the beaches; market-based traders; female "house helps," predominantly adolescent and often orphaned, who provide domestic service in households in Kisumu; highly mobile commercial sex workers; and women who have fled from their residences (either independently or with their families) during periods of politically instigated post-election violence in Kenya, most recently in 2007–2008. For this study, we focused on our research with highly mobile and migrant female fish traders and fishermen.

The research team visited potential sites on the basis of key informant recommendations and selected several sites for intensive participant observation. The sites included the largest market in Kisumu (Kibuye, one of the largest markets in East Africa), held daily, at which all manner of retail goods are sold and wholesale goods are purchased for resale at smaller markets in Kisumu, regional markets, and beyond. Traders in goods from Uganda, Tanzania, and Kenyan cities some distance from Kisumu (e.g., Nairobi and Mombasa) also circulate through the market. We selected commercial sex venues (brothels, hostels, and bars in Kisumu) for observations and interviews with commercial sex workers. We also selected six beach villages within a day's driving distance from Kisumu, including a beach village on an island; these were selected to characterize the range of small, medium, and large beaches and island beaches on Lake Victoria. The team obtained permission to carry out research at the beaches with the Beach Management Unit, a local governance structure, at each setting. This study focused on our research conducted at the beaches.

We carried out participant observation in the selected destinations and used theoretical sampling to select participants for in-depth interviews, according to the initial typologies of female mobility garnered from preliminary research, followed by sampling based on typologies emergent from findings of the research. The two RAs carried out intensive participant observation in the research sites under the supervision of the two PIs. Through informal conversations in the research settings during participant observation, the RAs

identified individuals eligible for participation in the study and invited their informed consent to participate in interviews. In accordance with principles of grounded theory (Strauss & Corbin, 1998), the team continued to sample as the study progressed on the basis of emergent findings and analysis, until theoretical saturation was obtained.

The RAs prepared field notes focused on their observations of the environment, social actors, and relations within the settings, and they discussed their observations with the PIs at the end of each day of data collection. These field notes were analyzed in conjunction with data from the interviews. In some instances, the triangulation of multiple qualitative data sources, combining analysis of field notes from participant observation and interviews, revealed inconsistencies in reporting (i.e., the under-report of stigmatized behaviors such as *jaboya* relations) that were resolved only through repeated visits to settings and informal follow-up conversations with participants in the settings.

The criteria for selection for participation in interviews were either having participated in at least one adult migration or engaging in high levels of mobility. Women whose only migration was for the purpose of marriage were not eligible for participation in this study (migration for nuptiality is typical in the exogamous patrilineal marriage cultures of Kenya and the region.) We aimed to capture as wide a variation as possible in the forms of migration and mobility among women in the Kisumu area, and we therefore used measures that were inclusive of complex, localized mobility. This study defined migration as a permanent change of residence over national, provincial, or district boundaries. We defined mobility as a pattern of frequent travel away from the home area of residence, involving sleeping away from the residence at least once per month. The latter category was primarily comprised of individuals who typically slept away from home several nights each month.

The semi-structured in-depth interviews for this study adapted the life history approach (Chase, 2008). We asked women to narrate their history of migration and current patterns of movement; the events that led up to, and reasons for, their migrations; current relationships and household arrangements; income-generating activities and social relationships in migration destinations, including discussion of who helped them in the migration process; positive benefits and negative consequences of their migration; sexual relationships; and perceptions and beliefs related to HIV risks, both those they face personally and those they perceive to be faced by others. We explored the topic of the *jaboya* economy via a series of questions to elicit participants' perceptions of its occurrence and characteristics in the setting as well as their personal experience of *jabova* relationships. The interview guide included these domains of inquiry, yet permitted the exploration of topics not anticipated. Consistent with human subjects research guidelines in Kenya, participants were offered a payment equivalent to U.S. \$4 to reimburse costs of transportation. Audio recordings of interviews were transcribed verbatim in their native language (either Kiswahili or Luo) and translated into English for analysis using ATLAS.ti (version 6.2.27, Cincom Systems, Berlin, 1993-2011), which facilitates the sorting, organizing, and relating of coded segments of textual data. We analyzed the interviews and field notes and developed a common set of codes describing patterns observed in the data. New sub-codes were defined in relation to the existing broad codes in the analysis process.

The study protocol was reviewed by the University of California at San Francisco Committee on Human Research and the Ethical Review Committee of the Kenya Medical Research Institute, and approval of the procedures for protection of human subjects was garnered prior to the start of data collection. In this article, pseudonyms are used, and the names of beach villages are omitted, to protect the confidentiality of study participants. In the results that follow, we describe the physical and social features of the beaches, including the gendered structure of economic activities, the mobility and migration patterns observed among participants, and features of the sex-for-fish economy.

RESULTS

SAMPLE CHARACTERISTICS

For this article, we analyzed data from participant observation at beaches and interviews with women and men engaged in fishing and fish trade. Of the overall sample of 40 women, 18 were primarily engaged in the fish trade, and 7 of the 15 men interviewed for the study were fishermen. The age range of the overall sample was 18 to 58, with an average age of 33 among both men and women (as well as among fish traders). Seven of the female fish traders were widowed, and 11 were currently married, among whom 6 were living with their husband and 5 were living apart.

PHYSICAL AND SOCIAL FEATURES OF LAKE VICTORIA BEACHES

The beaches lining the shoreline of Lake Victoria range from small, relatively quiet and remote beaches to large and bustling beaches replete with hotels, bars and cafes, and small market areas. The beaches visited by the research team consisted of a shoreline area with a large *banda* or open-air structure at which large fish are brought in and weighed. Dwellings of various size and number typically adjoin the shore area; infrastructure (electricity, piped water) is generally poor, reflecting the high absolute poverty rates in the area (proportions living on less than \$1 per day), which range from 53% to 69% (Mojola, 2011).

Our participant observation revealed that the division of labor within beach villages is highly gendered: Fishing at the Lake exclusively involved men, while women were engaged in post-harvest activities such as drying, scaling, frying, and marketing, which often, if not always, yielded a lower profit margin than that made by fish catchers. Both men and women worked as fish brokers, but men alone acted as brokers of large fish to large restaurateurs and export companies. Women predominated as brokers of smaller fish sales to other female fish traders. Women also worked as cooks and hoteliers for crews of fishermen, usually combining such work with fish sales.

The daily rhythm of life in the beach villages visited by the research team have a typical pattern, shaped by the types of fish caught nearby and the methods required to extract them. Boats with crews fishing at night return in the early morning and are met at the shore by throngs of female fish traders, who jockey for position and negotiate fish purchases either directly with the fishermen or indirectly with a female fish broker. Following sales of the fish, the men typically find places to sleep at the beach, and women begin cleaning and processing the fish for the market (drying or frying). Other boat crews embark in the mornings for daytime fishing, and their boats return in the late afternoons, eliciting the same flurry of activity at the shoreline. Throngs of fish traders ebb and flow along the shore in concert with the arrival and departure of boats. Taxis, including *matatu* busses, motorcycles, and bicycles, carry women and their packed bags of prepared fish in the mornings and evenings to and from the beaches (or main roads nearby) and markets in Kisumu and the other towns in the region, on a daily basis.

MIGRATION AND MOBILITY PATTERNS AMONG FEMALE FISH TRADERS

Women participated in complex forms of migration and mobility. While the rural to urban flow predominated as a category of permanent internal migration, alternative flows were common. Women engaged in several forms of short-term mobility associated with flexible, seasonally driven livelihood strategies. Common migration destinations and transit hubs for highly mobile women in Nyanza Province included the beaches along Lake Victoria;

commercial sex work areas and venues in Kisumu, regional towns, and other large cities across Kenya; and large markets, lodgings, and bus stops in Kisumu and regional towns, all of which may be HIV transmission "hotspots." The beach villages of Nyanza Province, an important rural destination for female migrants in the region, are the focus of this manuscript. This study focused on women's independent migrations (specifically excluding migrations undertaken purely for the purpose of joining a husband's household), but it found that multiple migrations were common among women, precipitated by household shocks and major life events. These events often triggered a series of moves, before women eventually settled in a new destination. In one example, "Mary," a 37-year-old mother of three, became separated from her husband due to post-election violence (as happened to many inter-ethnic marital couples in Kenya in 2007–2008). She returned first to her mother's home, then migrated to a beach with her mother's help: "I came alone, and I stayed, because my cousin was here. [My mother told me], 'come, I take you; there is a sister of yours at this beach and she'll teach you how to sell fish." She also received support from her husband: "When I shared this with my husband, he said, ... let me send money through Mpesa [cell phone technology so that you use it to start up business. And he did send 5,000 shillings. This is the money I used to start, little by little." The motivations for women's migration, including shocks to the household following widowhood, separation, and divorce, as well as gender-based violence and family conflicts, are described in greater detail in another publication (Camlin et al., 2013. Whether they migrated with or without husbands or partners, women in almost every instance migrated with children.

They undertook migrations from Kisumu to beaches along Lake Victoria (an urban to rural migration flow) and from farming villages in Nyanza as well as Western and Rift Valley Provinces to the beaches (a rural to rural flow.) The traders in this study included women with a single primary residence at a rural beach village; women with two primary residences, one at the beach and another either in Kisumu or in another village or town in the region; and women with a primary residence in Kisumu who traveled to the beaches. Study participants thus included either women who were migrants, but not otherwise highly mobile, as well as women who were not migrant but were nevertheless highly mobile. However, a high level of mobility was seen among the migrants, as the livelihood strategies available to female migrants often necessitated frequent travel: A typical pattern of mobility is the weekly circulation between beaches, where women obtain and process fish, and another inland village or town, where they sell the fish. Selected case studies summarizing typical life contexts of female fish traders engaging in several common typologies of migration and mobility are shown in Table 1.

Most women involved in the fish trade travelled to multiple beaches as needed to obtain fish. Both fishermen and traders used cell phone text messaging to stay abreast of fish stock and pricing in various markets on a daily basis. Just as the fishermen often travelled great distances across the lake and land at multiple beaches as needed to off-load fish, female traders follow the fish on land in order to arrive when the fish arrive. They calculated transport costs and trade-offs of expected returns if they made trips of various distances; often they had a particular set of beaches between which they circulated and at which they maintained relationships with fishermen.

THE JABOYA SEX-FOR-FISH ECONOMY

The fish trade was considered by participants in this study to be a "good business" in Nyanza, offering women opportunities to quickly earn subsistence-level income. Start-up costs were considered low (roughly equivalent to a local day's wages) and the demand for fish high; as a last resort, even if the fish were not sold, the stock could be used to feed children. Since the work also requires little training or education, the trade in fish at beaches along Lake Victoria is a common livelihood strategy undertaken by female migrants. This

may be particularly the case for women recently widowed, or fleeing other forms of strife or shocks to the household, who tend to lack the capital required to start up small-scale trading of other commodities (such as secondhand clothing or shoes, cosmetics, and agricultural products) or other informal sector work, such as sewing or beer-brewing. As one fisherman told us, "The reason why sometimes women migrate ... when the husband dies, and she sees that it's hard to survive where she is. So she can say, 'Aah, let me go down the beach, may be I can even get my 20 shillings, or 50 shillings even from *chumbu* [a type of fish], to help my children, yes." This participant also voiced one of the common stereotypes of sexual promiscuity that circulated about widows who migrate to the beaches: "And apart from that then that is just a woman who Luos refer to as 'bright faced.' She knows she does not behave well in the village and the villagers do not entertain such behaviors."

Unless women are socially connected to fishermen via marital or family relationships, or they are wealthy enough to pay a surcharge to fish brokers to obtain fish, women's access to fish hinges on their participation in the *jaboya* economy. The *jaboya* system, as it is known locally, is highly stigmatized, due to its association with transactional sex and fears about HIV spread in Nyanza, and study participants even in the same locations offered widely divergent accounts about the extent to which the practice is common at their beach.

GENDERED DISCOURSES OF RESPONSIBILITY AND BLAME FOR THE JABOYA SYSTEM

Male and female participants alike commented that widows find an easy startup business at beaches, but female fish traders were both more reticent to discuss the *jaboya* economy than the fishermen and more apt to cast women as disempowered participants in it. As one trader noted, the *jaboya* economy is considered by women to be a major drawback of the fish trade: "They [*jaboya*] are stubborn ... Even if you have money, they might first want to have sex with you before giving you the fish. They are hard people to deal with in the lake." The consequences of not having at least one *jaboya*, for those who do not otherwise have a familial relationship with a fisherman, are high: Such women must purchase fish from another trader, who levies a surcharge (typically KSh 20 for every KSh 100 in fish). At least one woman in the study who resisted participation in the *jaboya* economy found it impossible to afford to continue to trade in fish, and she switched her business to small-scale trade in another commodity.

Women who had resisted participation in the sex-for-fish economy voiced moral approbation of those involved in it, and many blamed the rampant local HIV epidemic on the fatalism of the fish traders who have transactional sex with fishermen. "Sarah", a 37-year-old married mother of five, said the following about such women: "Their life is little, because when she gets someone there, she doesn't care to know their status, whether the person is sick or not. She will go with him, so that she can get fish tomorrow ... won't she become infected and die soon?"

At the same time, women reported that the benefits of involvement in the sex-for-fish economy were substantial, for those who pursued *jaboya* relationships. It was clear that the sex-for-fish trade brought economic stability and, for many, provided the income that lifted their household out of destitution-level poverty. One fish trader commented, "If you get to go to bed with a *jaboya*, then you can get more fish than you wanted." In informal conversation during participant observation in the settings, fishermen told stories about women arriving at the beach in desperate straits. Female migrants who recently arrived at the beach without a pre-existing familial connection to a fisherman were especially vulnerable to establishing *jaboya* relationships. If women were particularly poor, or young and attractive, or both, they were more likely to be hired as a cook for a boat crew. The research team was told that cooks were expected not only to provide food and tea for the crew members, but also sex; thus, female traders who work as cooks may especially be at

high risk of HIV acquisition and transmission via multiple concurrent sexual partnerships. In her field notes from participant observation, an RA from our research team recounted a conversation with a fisherman in which he described how a crew cook also becomes like a "mother" to the crew:

I met this lady yesterday through a fisherman who employed her as his crew cook. The fisherman narrated to me that the lady had come to the beach while very desperate. She used to carry *omena* [small, sardine-like fish] and dry it for other well-established traders at a fee of Ksh.20 per basin. Slowly, she made friends with one of his crew members. The crew appointed her as a cook. Every day she was given Ksh.250 and a big fish chosen by the crew. She was sometimes also given free *omena*. He was also quick to warn me that being a cook is not an easy job since the crew members are always drunk. Sometimes this lady has to feed them like small babies so that by the time they go to the lake they are full throughout the night.

She told me that the fishermen are bad people because they like touching her body and insist on going to bed with her, but she normally tries her best to avoid it without offending them, since she needs them for her upkeep.

While women were more likely to cast themselves (or other women) as "victims" within an economic system in which men hold the fish, and therefore the power to force women to exchange sex for it, fishermen often contend that women were to blame for the perpetuation of the *jaboya* system. Because competition between traders for the limited fish stock is fierce, especially in times of scarcity, they reported that it is often the women who initiate the sex-for-fish transactions in order to obtain a steady and reliable supply. Demand for fish is always high, and a steady supply thus guarantees economic stability. One fisherman joked, "The *jakambi* [customers] love the fishermen too much ... they love them more than they love their husbands!" In some settings, there were female traders who had earned enough money in the fish trade to become not only brokers, but also boat owners. Some fishermen noted that such women held enough power to themselves become *jaboya*. We were told that in some instances female boat owners might make fish available to male fish brokers in exchange for money and sex, the same way a fisherman would.

STATUS, NEGOTIATION AND INTERDEPENDENCE

The economic dependence of female fish traders on male fishermen was apparent in the settings observed in this study. Yet fishermen and traders described their economic interdependence as well: Especially in the context of declining fish stocks, many fishermen rely on their *jakambi* to stake them with cash or food when fish are scarce. Fish traders are also relied upon to help pay for boats and net repairs and to provide hooks and lines. "Dinah," age 26, married and the mother of three children, explained how her financial support for the fishermen makes it hard for them to refuse her their catch:

Where I get fish, I am the one who cooks for them. I also get their fish. I bought for them a mat [made from papyrus reed], a knife and a torch. If the boat sleeps outside, you look for ways of pulling it with a rope and repairing the rope. And if the boat did not go fishing, then you give them money for tea, two hundred shillings. And because of that, it is very hard for any other person to go to that boat to get fish and actually be given the fish.

"Beatrice," a fish trader and broker who is married but living apart from her husband, told us that fish traders may use money initially to draw men into *jaboya* relationships: "You seduce him with money for you to get closer ... that's just the beginning of the closeness, just money." Women may then use sex to cement these relationships of mutual economic dependence; however, the claims they make for preferential access to fish extend beyond

just the sex-for-fish exchange. Women not involved in *jaboya* relationships—that is, wives or relatives of fishermen—provide these forms of economic support to fishermen as well. Through these forms of economic interdependence, the role of the *jakambi* in many settings serves to elevate the woman's status to one of the more socially acceptable categories of wife, mother, or auntie to a fisherman. Moreover, even if the women participate in a sex-forfish exchange—in which, some argue, that they have less power than the male fisherman we found that they are actively engaged in negotiating and setting the terms of such arrangements. Beatrice openly discussed trying to limit her sexual contact with her *jaboya* to the minimum required to maintain the relationship. Using the euphemism of "giving tea" for the sexual exchange, she said, "So long as you give them that tea, though it's not a must, you give it all the time … You tell them, 'yesterday I gave you something, today let's just work, I'm not very fine.""

While moral judgments surrounding the *jaboya* economy were expressed within every setting of this study by both traders and fishermen, a competing narrative about its positive effects for women was also voiced by participants, grounded in the everyday realities of food purchased and school fees paid in exchange for the fish procured via transactional sex. "Grace," age 35, living apart from her husband, also relished the independence she gained after migrating to the beach: "I can get money to send to my children whenever they want it. I live alone here— the man who used to nag me all the time there is not here now. I now live alone, I rest, with my own mind."

Because of their reliable access to fish, female traders with *jaboyas* were also able to work as brokers to the female traders without such relationships, ensuring their steady cash income. They also held a higher social status within the community of fishermen. One trader and broker, after having established jaboya relationships with a crew of fishermen, established a jaboya relationship with their boss, the boat owner. She told us that these fishermen said, "Look, this customer of ours has become friends with our boss.' They just like you and respect your opinion." The research team was told that *jakambi* of highest status, such as those who maintain transactional sexual relationships with boat owners, will often act as arbiters of the sex-for-fish trade for other women, granting access to the fishermen to newcomers to the beaches. Social hierarchies exist among women in the fish trade at beaches, whereby higher status is accorded to those who either are married to fishermen or who participate in the sex-for-fish economy, and lower status is accorded to those lacking secure access to fish via those relationships. In summary, the levels and types of empowerment and disempowerment that women derived from participation in the *jaboya* economy are more complex and nuanced than perhaps has been fully recognized in the research to date.

Of interest is the fact that despite the apparent intimacy between some *jaboya* and *jakambi*, both men and women insisted that these relationships were strictly transactional. Most of the men and some of the women in *jaboya* relationships are married and sometimes co-habiting with spouses. Despite this, jealousy and possessiveness can still enter these relationships. In her field notes, one RA described a conversation with a trader about attempts women make to cultivate romantic relationships away from the beach:

In the evenings [the fish traders] spend their time doing different things. Some fry fish if they are to go to the market the following day; others take the opportunity to enjoy themselves by visiting the bar. But even though there is a bar at the beach, they prefer going to the bar in the other shopping center in [nearby town A]. According to them, this minimizes gossip at the beach. *Agnes* told me that when you visit the bar you can even dance with somebody [...] with no strings attached, but when the lover of the person gets to hear about it, you will be the talk of the

beach, and this can even ruin your relationship with the fishermen. So to avoid all that, it's better you relax in the bar far from the beach.

This conversation illustrates the emotional resiliency of female fish traders, many of whom, despite engagement in a form of transactional sex for their day-to-day livelihood, nevertheless seek out the fulfillment and pleasure of purely romantic, non-transactional relationships as well. It also illustrates the transitory nature of relationships for many at the beaches, contexts where alcohol and marijuana use is normative even among women, and where risk-taking (both occupational and sexual) is also common. As one woman commented, "A beach is a place where relationships are broken."

DISCUSSION

This study is the first to describe migration and mobility patterns among women in fishing communities on Lake Victoria in Nyanza Province, Kenya. This aspect of the *jaboya* sexfor-fish economy is crucial for understanding the phenomenon and its implications for the local HIV epidemic. Not all women in the fishing communities participate in the sex-for-fish economy within the fisheries sector; those who were married to fishermen in these settings were less likely than others to engage in *jaboya* relationships, because they were given access to fish by their husbands. It is precisely those who were once outsiders and newcomers to these communities, that is, migrants, who may be more likely to do so.

The circumstances that drove their migration were not a primary focus of this paper and were described elsewhere (Camlin et al., 2013), but they are relevant to this discussion. These circumstances were largely associated with household shocks caused by changes in marital status that resulted in loss of property and livelihood—widowhood, especially, but also separation due to gender-based violence, the post-election violence of 2007-2008, or conflicts with co-wives or in-laws. The death of a husband especially precipitated women's migration, for economic as well as cultural reasons. In Luo culture, some forms of widow inheritance (ritual sex with a hired "inheritor" or "cleanser," or with a male relative of the deceased that permits the widow and her children to remain within the deceased family's patrilineage and homestead) are controversial, due to their association with the spread of HIV, but they continue to be practiced (Ayikukwei et al., 2008; Luginaah et al., 2005). Narratives of the practices and their relation to women's migration were complex. While many women reported migrating in order to avoid widow inheritance, others migrated after humiliating or abusive experiences with cleansers and/or inheritors. Many women migrated because their in-laws stripped them of property and assets. Thus, this population of migrant and highly mobile women often arrived at the beach having already experienced circumstances that may have placed them at high risk of HIV. As newcomers at the beach, they may have been particularly vulnerable to seeking out *jaboya* relationships in order gain a foothold in the fish trade.

The mobility of fishermen on Lake Victoria has received a great deal of attention in the literature on HIV in the region, because it is known that these fishermen engage in transactional sexual relationships with traders at the beaches. What is less well known, and what this study has revealed, is that the female traders involved in these transactions are highly mobile and at risk of HIV as well. They follow the fishermen who follow the fish, and they then process and transport the fish to markets in rural villages, towns, and cities, where many of them maintain second homes and sexual relationships. (The use of condoms within relationships of almost any kind was virtually unheard of among participants in this study. In our larger study, commercial sex workers reported that they came to Kisumu to "rest," as the city was less stressful than Nairobi, but they complained that condom use was rarely practiced in the area.) Thus, study participants were at high risk of HIV transmission *and* acquisition. The circumstances that drove their migration were also likely to have placed

them at high risk of HIV infection at point of origin; and the social contexts at their migration destination facilitated their having multiple sexual partners and engaging in an exchange of sex-for-fish, often with multiple *jaboya* fishermen.

Despite the fact that women's migration to Lake Victoria is a key livelihood strategy for the poorest households in Nyanza, especially those headed by women, the participants in this study would be unlikely to have been defined as "labor migrants" in conventional approaches to the study of migration and HIV. Women's work is unstable, informal sector labor; also includes transactional and commercial sex. Our study highlights the ways in which traditional approaches to definitions of the labor migrant fall short in understanding the role of women's migration in HIV epidemics. This may especially be the case in the high HIV prevalence, resource-poor settings in sub-Saharan Africa, in which complex forms of mobility are emerging, driven by women's increasing participation.

The stigma surrounding the sex-for-fish economy described in this study, reported in prior literature in a similar setting (Merten & Haller, 2007), cannot be over-emphasized. Many women were very reticent to discuss their own participation in the *jaboya* system, although discussions about the phenomenon among others at the beach were readily elicited. The research team encountered both participants who fiercely denied the occurrence of the *jaboya* economy and others who were quite open about the benefits of involvement in such relationships. As HIV prevention and treatment programs and services continue to develop in the region, we can expect that the discourses of blame within the fishing communities may continue to be aimed at *jaboya* practices. Whether the *jaboya* economy subsides as a result, or becomes yet more clandestine to the outsiders to these communities, is a topic under discussion in these communities today. At a workshop held in January 2012 to disseminate the results of this study to local communities involved in the research, representatives of the Beach Management Units expressed concern that the *jaboya* economy persists despite HIV prevention messaging—because of the ever-declining fish stock—but that it is going "underground."

Clearly, the populations living in beach villages on Lake Victoria are in urgent need of accelerated access to HIV testing, treatment, and prevention services. To date, models for such services have been explored for fishermen (e.g., male microbicide and circumcision trials), and such efforts should continue to be rolled out; but to adequately respond to the epidemic, women in the fishing industry need to be reached as well. Efforts to engage women in income generation programs to empower them in their relationships with men and reduce their dependence on the jaboya economy are underway in a small number of communities on the Lake (e.g., a local non-governmental organization, Women in the Fishing Industry Programme, carries out a promising project: http://www.wifip.org/), but such efforts must be broadened, rigorously evaluated, and met by a multi-sector response appropriate to the scale of the epidemic. Moreover, the findings of this study suggest that a dialogue about gender between men and women-that is, within entire communities-will be needed to fully engage communities in finding solutions to the problem of HIV as it has converged with an emerging sex-for-fish economy. At present, dueling discourses of blame and victimization may serve only to stigmatize and blame *jaboya* or *jakambi*, while offering few solutions to the problems of an HIV epidemic that continues to place a heavy burden on these communities. Women's position within gendered opportunity structures of the local economy and in sexual relations within the culture undoubtedly constrains their choices and places their health at risk, yet those same unequal power relations place men in these communities at high HIV risk as well. For various complex reasons, both men and women have a stake in the sex-for-fish economy. Interventions to expand testing, treatment, and prevention in fishing communities may not be successful unless they also engage

communities in grappling with the issue of the *jaboya* economy in ways that critically appraise its connection to the lake ecology as well as to gendered power relations.

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REFERENCES

- Abdool Karim Q, Abdool Karim SS, Singh B, Short R, Ngxongo S. Seroprevalence of HIV infection in rural South Africa. AIDS. 1992; 6(12):1535–1539. [PubMed: 1492937]
- Asiki G, Mpendo J, Abaasa A, Agaba C, Nanvubya A, Nielsen L, Kamali A. HIV and syphilis prevalence and associated risk factors among fishing communities of Lake Victoria, Uganda. Sexually Transmitted Infections. 2011; 87(6):511–515. doi:10.1136/sti.2010.046805. [PubMed: 21835763]
- Ayikukwei R, Ngare D, Sidle J, Ayuku D, Baliddawa J, Greene J. HIV/AIDS and cultural practices in western Kenya: The impact of sexual cleansing rituals on sexual behaviours. Culture, Health & Sexuality. 2008; 10(6):587–599.
- Béné C, Merten S. Women and fishfor-sex: Transactional Sex, HIV/AIDS and gender in African fisheries. World Development. 2008; 36(5):875–899.
- Bernard, HR. Research methods in anthropology: Qualitative and quantitative approaches. Sage; Thousand Oaks, CA: 1994.
- Boerma JT, Urassa M, Nnko S, Ng'weshemi J, Isingo R, Zaba B, Mwaluko G. Sociodemographic context of the AIDS epidemic in a rural area in Tanzania with a focus on people's mobility and marriage. Sexually Transmitted Infections. 2002; 78(Suppl. 1):i97–105. [PubMed: 12083453]
- Brockerhoff M. Fertility and family planning in African cities: The impact of female migration. Journal of Biosocial Science. 1995; 27:347–358. [PubMed: 7650052]
- Brockerhoff M, Biddlecom AE. Migration, sexual behavior and the risk of HIV in Kenya (statistical data included). International Migration Review. 1999; 33(4):833.
- Camlin CS, Hosegood V, Newell ML, McGrath N, Barnighausen T, Snow RC. Gender, migration and HIV in rural KwaZulu-Natal, South Africa. PLoS One. 2010; 5(7):e11539. [PubMed: 20634965]
- Camlin, CS.; Kwena, Z.; Dworkin, SL.; Cohen, CR.; Bukusi, E. "She mixes her business": HIV transmission and acquisition risks among migrant and highly mobile women in western Kenya.. 2013. (under review)
- Chase, SE. Narrative inquiry: Multiple lenses, approaches, voices.. In: Denzin, NK.; Lincoln, YS., editors. Collecting and interpreting qualitative materials. Sage; Thousand Oaks, CA: 2008.
- Cohen CR, Montandon M, Carrico AW, Shiboski S, Bostrom A, Obure A, Bukusi EA. Association of attitudes and beliefs towards antiretroviral therapy with HIV-seroprevalence in the general population of Kisumu, Kenya. PLoS One. 2009; 4(3):e4573. [PubMed: 19259267]
- Hugo, G. Migrant women in developing countries.. In: Department of Economic and Social Information and Policy Analysis., editor. Internal migration of women in developing countries. United Nations; New York: 1993.
- Hunter M. Beyond the male-migrant: South Africa's long history of health geography and the contemporary AIDS pandemic. Health & Place. 2010; 16(1):25–33. doi:10.1016/j.healthplace. 2009.08.003. [PubMed: 19744874]
- Kishamawe C, Vissers DC, Urassa M, Isingo R, Mwaluko G, Borsboom GJ, de Vlas SJ. Mobility and HIV in Tanzanian couples: Both mobile persons and their partners show increased risk. AIDS. 2006; 20(4):601–608. [PubMed: 16470125]
- Kwena ZA, Bukusi EA, Ng'ayo MO, Buffardi AL, Nguti R, Richardson B, Holmes K. Prevalence and risk factors for sexually transmitted infections in a high-risk occupational group: The case of

fishermen along Lake Victoria in Kisumu, Kenya. International Journal of STD & AIDS. 2010; 21(10):708–713. doi:10.1258/ijsa.2010.010160. [PubMed: 21139150]

- Kwena ZA, Cohen CR, Sang NM, Ng'ayo MO, Ochieng JH, Bukusi EA. Fishermen as a suitable population for HIV intervention trials. AIDS Research & Treatment. 2010; 2010:865903. doi: 10.1155/2010/865903. [PubMed: 21490906]
- Lake Victoria Fisheries Organisation (LVFO). Lake Victoria Fisheries Frame Survey, 2006. Government Printers; Nairobi, Kenya: 2007.
- Luginaah I, Elkins D, Maticka-Tyndale E, Landry T, Mathui M. Challenges of a pandemic: HIV/ AIDS-related problems affecting Kenyan widows. Social Science & Medicine. 2005; 60:1219– 1228. [PubMed: 15626519]
- Lydie N, Robinson NJ, Ferry B, Akam E, De Loenzien M, Abega S. Mobility, sexual behavior, and HIV infection in an urban population in Cameroon. Journal of Acquired Immune Deficiency Syndromes. 2004; 35(1):67–74. [PubMed: 14707795]
- Merten S, Haller T. Culture, changing livelihoods, and HIV/AIDS discourse: Re-framing the institutionalization of fish-forsex exchange in the Zambian Kafue Flats. Culture Health & Sexuality. 2007; 9(1):69–83. doi:10.1080/13691050600965968.
- Mojola SA. Fishing in dangerous waters: Ecology, gender and economy in HIV risk. Social Science and Medicine. 2011; 72(2):149–156. doi:10.1016/j.socscimed.2010.11.006. [PubMed: 21146910]
- Mwanga JR, Mshana G, Kaatano G, Changalucha J. "Half plate of rice to a male casual sexual partner, full plate belongs to the husband": Findings from a qualitative study on sexual behaviour in relation to HIV and AIDS in northern Tanzania. BMC Public Health. 2011; 11:957. doi: 10.1186/1471-2458-11-957. [PubMed: 22202562]
- National AIDS Control Programme (NACP). Kenya AIDS Indicator Survey, 2007. Ministry of Health, Government of Kenya; Nairobi, Kenya: 2009.
- Ng'ayo MO, Bukusi E, Rowhani-Rahbar A, Koutsky LA, Feng Q, Kwena ZA, Holmes KK. Epidemiology of human papillomavirus infection among fishermen along Lake Victoria Shore in the Kisumu District, Kenya. Sexually Transmitted Infections. 2008; 84(1):62–66. doi:10.1136/sti. 2007.027508. [PubMed: 17991686]
- Pison G, Le Guenno B, Lagarde E, Enel C, Seck C. Seasonal migration: A risk factor for HIV infection in rural Senegal. Journal of Acquired Immune Deficiency Syndromes. 1993; 6(2):196– 200. [PubMed: 8433284]
- Strauss, A.; Corbin, J. Basics of qualitative research: Techniques and procedures for developing grounded theory. 2nd ed.. Sage; Thousand Oaks, CA: 1998.
- Thadani, VN. Social relations and geographic mobility: Male and female migration in Kenya. The Population Council; New York: 1982.
- UNAIDS-Kenya. Kenya Modes of Transmission Study 2008: Analysis of prevention response & modes of transmission. UNAIDS; Nairobi, Kenya: 2008.
- Zuma K, Gouws E, Williams B, Lurie M. Risk factors for HIV infection among women in Carletonville, South Africa: Migration, demography and sexually transmitted diseases. International Journal of STD & AIDS. 2003; 14(12):814–817. [PubMed: 14678589]

TABLE 1

Case Studies of Migration and Mobility Typologies Among Women in the Fish Trade in Kenya

Rural to rural migrant/rural circular mobility (2 primary residences)

Mary, age 35, was born and raised in a rural village in Nyanza. She is married to a polygamous husband and has 5 children. She was introduced into fish business by a relative. She has 2 houses, one at her matrimonial home in rural Nyanza and another at a beach where she buys and prepares her fish stock. In a typical week, she spends 3 days at the beach and 4 days at her home in the village, selling fish at a nearby market.

Agnes, a widow age 27, was inherited and remarried, but separated from both men due to their unfaithfulness. She has 4 children, 3 from the deceased husband and 1 from the man to whom she was temporarily remarried. She trades in fish and spends 2–3 days at the beach collecting and preparing fish for the market and the rest of the days at her rural home near the market. She spends more time at her rural home during planting seasons. After the death of her husband, she did manual work that involved helping people on their farms for low pay that was not enough to feed her 4 children—even then, this was seasonal. Her sister, who was a fish trader, saw the difficulties she was going through and invited her to stay with her at the beach to help in her business so that she could raise some money to begin her own. She started her own fish business and now rents a house at the beach where her youngest 3 children live.

Urban to urban migrant/frequent short- and long-distance mobility

Mercy, a 45-year-old mother of 2, born and raised in Nairobi, is separated from her husband. She traveled from Nairobi to Kisumu in 2007 to vote but never returned after her property was destroyed during the post-election violence. She decided to stay in Kisumu and start a clothing business. She also sells fish when she stays with her mother at a beach village in South Nyanza. She gets her fish from 2 beaches nearby and may stay overnight to collect enough stock to return with. With accumulated cash from fish sales, she makes frequent trips to Busia (on the Ugandan border) to buy clothes stock. She travels to 6 different markets in Nyanza and Western provinces to sell clothes. When she goes to the beaches to buy fish, she also carries some clothes to sell to the fishermen and fellow traders.

Rural to urban migrant/frequent short-distance mobility

Rose, age 33, was born in rural Nyanza but raised in Rift Valley. She is married with 3 children, but lives apart from her husband, who lives and works as a carpenter in a town in Western Province. Occasionally, when he gets time off, he visits Rose at the beach where she rents a house. She migrated from Rift Valley to Nyanza, her matrimonial home, in 2007 during post-election violence, and then moved to the beach in 2009 to start a fish and food kiosk business. She travels weekly to 2 Nyanza markets to sell fish and returns to the beach at night. She stays for 2 days at her sister's when she goes to sell fish in a Rift Valley rural market, seasonally, when fish are abundant.

Rural resident/frequent short- and long-distance mobility

Stella, age 37, is a Luo woman married to a Kikuyu. Although still married, the couple was forced to live apart due to the post-election violence of 2007, and still live apart. Their 3 children live with their paternal grandmother in town in Central Province. She lives at a beach in Nyanza where she buys and prepares her fish stock for the market, and her husband lives in Nairobi, where he operates a food kiosk. Stella has frequent phone contact with her husband and travels to Nairobi and the regional town from time to time to see him and the 3 children. She trades in fish but also runs a food kiosk at the beach. She takes fish to markets in regional towns in Nyanza. She also acts as a fish broker and trades in potatoes when they are plentiful.