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## Understanding the financial lives of female sex workers in Abidjan, Côte d'Ivoire: implications for economic strengthening interventions for HIV prevention

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### ABSTRACT

Many women's decisions about whether and how to participate in sex work are driven by financial considerations. Despite the recognized importance of economic factors in HIV risk among female sex workers (FSWs), many HIV prevention programs focus narrowly on sexual risk behaviors. We collected data on the financial practices of FSWs in Abidjan, Côte d'Ivoire, to better inform economic strengthening programs for HIV risk reduction with this population. We conducted "walk-along" participant observations ( $N = 74$ ) during FSWs' daily non-working routines and analyzed resultant notes using qualitative thematic analysis. We used a financial diary methodology to collect detailed quantitative data on income, spending, savings and lending from a sub-sample of participants ( $n = 33$ ) over six weeks; these data were analyzed using descriptive statistics. All women in our sample reported sex work as their primary source of earned income. Median weekly income was roughly US \$114, with a wide range across the sample and from week to week. Cash expenses related primarily to routine needs (e.g., food, housing, transportation) and accounted, on average, for approximately 90% of weekly spending. Around one-quarter of weekly expenses were directly associated with sex work (e.g., clothing, beauty products, and alcohol). FSWs held "savings" in boxes, mobile money platforms, informal savings groups, or banks, though most withdrew cash from these funds frequently. These findings suggest that this group of FSWs in Abidjan, Côte d'Ivoire, are not cash-poor: median weekly income is greater than the estimated Ivorian weekly per capita gross national income. Yet the erratic nature of income alongside routine spending needs suggests that effective economic strengthening programs in this context should include financial management education, group-based savings and lending, and links to formal financial institutions. These economic strengthening activities hold promise to empower FSWs financially for downstream HIV-risk reduction benefits by building economic resilience to reduce financially-driven sexual risk decisions.

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## Introduction

In sub-Saharan Africa, sex work was recognized as an early driver of HIV incidence (Needle et al., 2012) and continues to factor heavily in concentrated HIV epidemics. HIV prevalence among female sex workers (FSWs) across the region is about 14 times the HIV prevalence among the general population of women ages 15–49 (Baral et al., 2012; USAID, 2014). Given sexual transmission of the disease, much of our knowledge about FSWs and HIV prevention is at the proximate level of individual sexual risk behavior – number and types of partner(s), condom use, etc. – and draws on a range of public health theories of change (Operario, Kuo, Sosa-Rubí, & Gálarraga, 2013). However, contextual, social, and structural factors such

as stigma, criminalization, discriminatory policies, gender-based violence, and poverty further exacerbate sex workers' vulnerability to HIV (Baral et al., 2012; Papworth et al., 2013; WHO, 2015) by reducing opportunities for or disincentivizing HIV risk-reduction practices. For example, underlying economic determinants of HIV risk affect women's decisions about whether and how they will take part in sex work (Baleta, 2015; Bamba et al., 2014; Karamouzian et al., 2016; Kiernan, Mishori, & Masoda, 2016; Scorgie et al., 2012; Strathdee, Crago, Butler, Bekker, & Beyrer, 2015), and many economic strengthening programs for FSWs are premised on observations that economic vulnerability and food insecurity can lead to

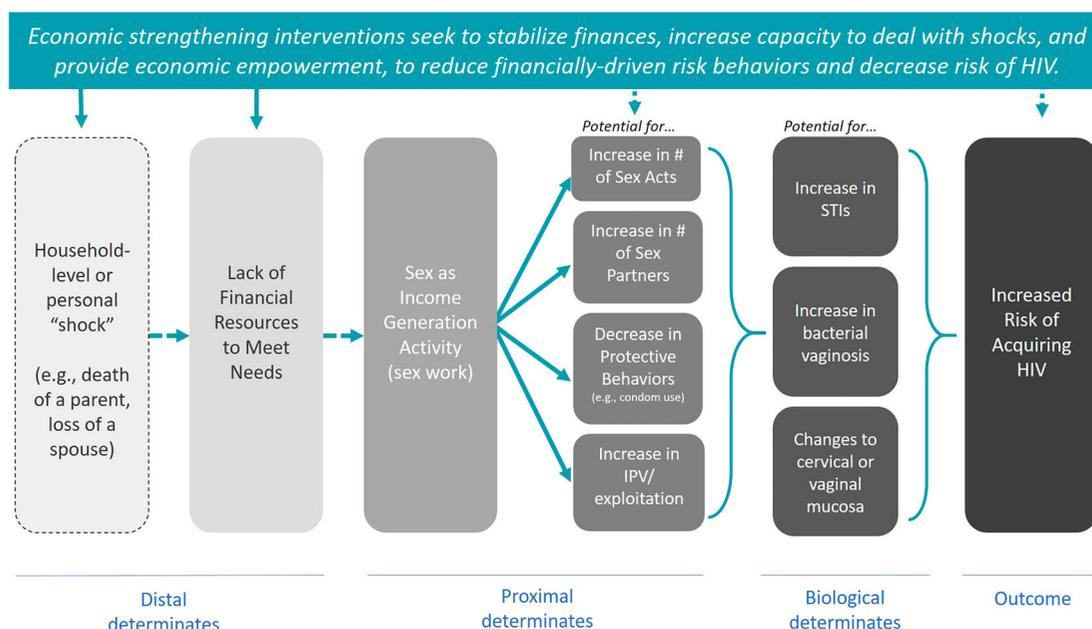
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**Figure 1.** Relationship of economic strengthening to HIV prevention among FSWs.

riskier sexual transactions, including condomless and anal sex (Beckham, Shembilu, Winch, Beyrer, & Kerrigan, 2015; Cange et al., 2017; Elmes et al., 2014; Scorgie et al., 2012; Tsai et al., 2013; Tucker, Krishna, Prabhakar, Panyam, & Anand, 2012; Veldhuijzen et al., 2011; Weiser et al., 2007). Rather than attempting to directly change proximal-level sexual risk behaviors, these economic strengthening-focused HIV prevention programs attempt to change distal economic factors, by stabilizing income and/or increasing economic resilience, as a means of empowering women to reduce financially-driven decisions about sex partners or practices (Ndoye, 2010; Odek et al., 2009) (see Figure 1). Therefore, to design effective programs that aim to reduce HIV risk through economic strengthening activities, we must understand the financial and economic contexts that generate risk-taking or resilience behaviors among FSWs.

### **Efforts to address structural drivers of HIV transmission**

Given the importance of “upstream” drivers of HIV (Auerbach, Parkhurst, & Caceres, 2011; Gupta, Ogden, & Warner, 2011), there have been calls to address structural issues and economic factors that impede or facilitate HIV risk-reduction (Blankenship, Friedman, Dworkin, & Mantell, 2006; Joint United Nations Programme on HIV/AIDS, 2012; Sumartojo, 2000; Sumartojo, Doll, Holtgrave, Gayle, & Merson, 2000; WHO, 2005), but there is surprisingly little information on the financial needs and habits of FSWs, aside from two examples from Asia (Ngo et al., 2007; Tsai et al., 2013). Integrated economic

strengthening approaches to HIV prevention for FSWs have proceeded nonetheless, to mixed results.

For instance, Witte et al. (2015) found that FSWs in Mongolia who received a savings-led microfinance activity in addition to standard HIV prevention activities reported fewer paying partners and were more likely to report zero unprotected sex acts with paying partners after six months, though the dose effect of exposure to study staff between the two arms (4 sessions for HIV prevention-only versus 34 sessions for the integrated intervention) was not controlled for. Several large FSW HIV prevention projects in India have bridged the structural and individual through community mobilization and microfinance activities, respectively, with resultant reductions in STI rates and increased reported condom use (Basu et al., 2004; Euser et al., 2012; Pillai, Bhattacharjee, Ramesh, & Isac, 2012; Sovereign et al., 2013; Swendeman, Basu, Das, Jana, & Rotheram-Borus, 2009). Yet Fehrenbacher, Chowdhury, Ghose, and Swendeman (2016), also working within a community mobilization framework in India, concluded that “interventions with FSW must prioritize economic security, as economic insecurity may undermine the efficacy of more direct condom use intervention strategies,” highlighting the foundational effects of economic vulnerability on HIV vulnerability. Further, replication of such community-based approaches is difficult across much of sub-Saharan Africa, where sex work is illegal.

Accordingly, most economic strengthening programs for FSWs in sub-Saharan Africa have been aimed at individual-level economic determinants of risk. In Kenya, for example, the Strengthening STD/HIV Control Project

tested the effects of adding microcredit for small business development, business development training, and the promotion of savings practices to HIV prevention for FSWs, and found that two-thirds of participants had operational businesses two years after implementation, nearly half had stopped sex work, and women reported fewer weekly paying partners (Odek et al., 2009). Several reviews of the literature, however, confirm that a limited number of studies evaluate the impact of economic interventions for FSWs (Gibbs, Jacobson, & Kerr Wilson, 2017; Moret, 2014) and, as discussed elsewhere in this issue, the evidence of economic strengthening program effectiveness for HIV prevention generally is inconclusive and based on research of varying quality (Dworkin & Blankenship, 2009; Kennedy, Fonner, O'Reilly, & Sweat, 2014; Swann 2018). As Mayoux notes, it may be that we fail to see effects because economic strengthening “best practices” are not yet tailored closely enough to women’s economic lives and contexts (2002), about which we know little.

To address this gap, and following guidance that sex workers be proactively involved in program design (WHO, 2014), we conducted formative research among FSWs in Abidjan, Côte d’Ivoire, to learn about their financial lives and financial service needs. We focused specifically on the economic contexts of these women’s lives – their income, expenditures, saving and borrowing – to help describe potential distal financial determinants of HIV risk and to inform the development of a pilot economic strengthening program.

### Setting

HIV prevalence in Côte d’Ivoire is estimated at 3.7% for the overall population, but is approximately 11.4% – 28.7% among FSWs (Bamba et al., 2014; Institut National de la Statistique (INS) et ICF International, 2012; Papworth et al., 2013; Vuylsteke et al., 2012). Private sex work is officially legal, however all forms of promotion and gain from prostitution are illegal, as is sex work in facilities such as hotels, drinking establishments and clubs (Latham & Watkins, 2012). The resultant environment for FSWs is therefore much the same as if sex work were fully prohibited by law: sex work typically takes place clandestinely, and FSWs are stigmatized and without legal recourse in reporting abuses.

### Methods

#### Research design

We used a mixed methods approach to collect data on FSWs’ routine patterns of cash flows, borrowing, and

saving. We first employed qualitative participant observation methods (Guest, Namey, & Mitchell, 2013), conducting “walk-along” narratives (Carpiano, 2009) during FSWs’ daily, non-working, routines. Observation is recommended when little is known about a particular subject, when behaviors or practices might go unreported or be missed due to the limitations of memory, and when understanding behavior requires a holistic appreciation of location and cultural setting (Guest et al., 2013). Walk-along observations also offer unique pathways to building rapport with research participants, when those participants might otherwise be reluctant to share details about their behavior and lives, due to participation in an illicit activity. All of these conditions apply to this research. The study team was trained on ethnographic observation techniques and used guiding questions to focus walk-alongs and structure field notes. Information obtained during these roughly 2-hour observation events was recorded in hand-written notes and expanded into a typed narrative immediately after.

A sub-sample of FSWs participated in a financial diary activity for six weeks, to generate detailed quantitative records of their financial transactions. Following Microfinance Opportunity’s methodology (n.d.) participants took note of all inflow and outflow transactions each day over the course of a week, using notepads and paper or, where literacy skills prevented this, using charcoal symbols on walls or making mental notes of their financial transactions. At the end of each week, participants met individually with research staff to discuss their transactions in detail. Participants used their own notes as prompts to report transactions; researchers asked questions about each transaction and recorded information on inflows, outflows, and bartering, and about the exchanged currency/goods and the source/recipient of the transaction. We also asked women to categorize each transaction as for personal, business, or mixed use. Additionally, participants took part in a qualitative exit interview, to review a summary of their financial diary and reflect on their financial service needs. All data collection took place in Abidjan, Côte d’Ivoire, between September and October 2014.

#### Sampling and recruitment

For the purposes of this research, we defined FSWs as women over 18 years of age who reported receiving money or goods in exchange for sexual services (UNAIDS, 2012) and having had three or more such sex events with at least two different partners over the past two weeks. For the walk-alongs, we employed a purposive sampling approach (Guest et al., 2013; Guest & Namey, 2014) to recruit 75 participants stratified by city district and different FSW work environments (e.g., street, bar, etc.). We reviewed available

data on the distribution of FSWs across the city (Ministère de la lutte contre le sida Cote d'Ivoire, 2008), then conferred with two local FSW-serving organizations to devise recruitment targets to ensure a range of FSW contexts and experiences in our sample. Case workers from local organizations identified prospective participants and accompanied research staff to facilitate introductions with FSWs. Recruitment proceeded iteratively, with both direct (local organization-introductions) and indirect (word-of-mouth peer referral) recruitment of FSWs. FSWs who expressed interest in participating completed a demographic questionnaire as part of the eligibility screening process where they provided information on age, educational attainment, country of origin, transactional sex practices, and financial behaviors. Only the information on age and transactional sex practices was used for eligibility; however, information provided on these open-ended screening questionnaires later served as demographic background information on the sample.

All women who were screened and met eligibility criteria provided oral informed consent and were enrolled. Following the same stratified purposive approach, we selected a sub-sample of 35 FSWs from the observation group to participate in the financial diary activity. The study was approved by FHI 360's Protection of Human Subjects Committee in the US and by the Comité National d'Éthique et de la Recherche in Côte d'Ivoire.

### Data analysis

We conducted a thematic analysis of the walk-along data using NVivo 10 software (QSR, 2012). A codebook was developed to include pre-determined key topics (e.g., income, savings) and emergent, theme-based codes (Guest, MacQueen, & Namey, 2012). One analyst coded all observation narratives, while a second analyst independently coded 20% of the narratives as coding progressed. Analysts assessed inter-coder agreement on these double-coded narratives and resolved all discrepancies through discussion. The codebook was revised and data recoded as necessary, based on the outcome of the discussions (Guest et al., 2012). Summary reports of coded material were generated for each of the key topics, disaggregated by sex work environment where applicable. Data from the financial diary exit interviews were summarized following this approach as well. We use general signifiers to report theme salience (e.g., many, most, some or few) but refrain from reporting code frequencies since the observation narratives were loosely guided around key topics, rather than highly structured (Guest et al., 2012).

Financial diary data were entered into Excel, cleaned to systematize categories of transactions, and compiled into a master spreadsheet. All analyses were conducted in the

original currency (FCFA) and were converted to US dollars for presentation in this article using the average rate during the period of data collection of 512.74 FCFA per 1.00 USD (OANDA, 2018). We used descriptive statistics to summarize the findings on income, expenditures, savings, and borrowing. We disaggregated by sex work environment where relevant to descriptively compare trends and point to areas for potential differences in financial service needs.

## Results

### Sample characteristics

We recruited 78 FSWs for observation walk-alongs; 74 agreed to participate. The sample included bar/hotel (22%), brothel-based (31%), "luxury" (23%), and street-based (24%) sex workers. The median age of participants was 28 years with a range from 19 to 55; nearly half of the sample (45%) reported no formal education. Participants were drawn from eight districts of Abidjan and represented seven West African countries of origin. Overall, women reported a median of nine sexual partners (range 3-20) and 13 sexual acts (range 4 - >50) in the previous two weeks. About 20% of FSWs reported having some earned income source other than sex work; 74% described at least one child or adult dependent. Over half (58%) of the women indicated some attempt at small-scale savings, and a similar percentage (59%) reported borrowing money more than once in the past month. Thirty-three women completed the financial diary activity, representing 197 person-weeks of data. The financial diary sub-sample characteristics were very similar to the larger sample (Table 1).

### Entry into sex work

Nearly all women in our observation sample cited a specific situational loss of primary income or support that precipitated their involvement in sex work as a way to cover household needs. Events included the death of a parent (often linked with political crisis); loss of a partner (e.g., through death, divorce, or abandonment); loss of housing or job; or loss of financial support from parents. Table 2 provides examples of common narratives. Women who had not experienced a precipitating event frequently cited the need or desire for more money as their reason for entering sex work, to pay for their education, take care of family, generate funds for a future business, and/or to leave poverty.

### Financial transactions and income

Across our sample, nearly 90% of women's cash income over the six-week period came from only

**Table 1.** Demographic, sexual behavior, and financial management characteristics of samples.

Sample characteristic	PO Walk-alongs		Financial diaries	
	N = 74 <sup>a</sup>	%	n = 33	%
Age (years)				
Range	19–55		21–55	
Median	28		27	
Highest education level				
None	33	45%	12	36%
Primary	14	19%	7	21%
Secondary	22	30%	13	39%
Country of origin				
Côte d'Ivoire	44	59%	17	52%
Ghana	9	12%	4	12%
Mali	7	9%	5	15%
Nigeria	5	7%	2	6%
Other (Benin, Burkina Faso, Guinea)	4	5%	4	12%
Years FSW in ABJ				
<1	9	12%	6	18%
1–5	47	64%	21	64%
6–10	8	11%	4	12%
>10	6	8%	1	3%
Sex work environment				
Bar/Hotel	16	22%	9	27%
Brothel	23	31%	13	39%
Luxury	17	23%	6	18%
Street	18	24%	5	15%
Number sex partners, past two weeks				
3–5	14	19%	7	21%
6–10	36	49%	19	58%
≥11	19	26%	6	18%
Number paid sex acts, past two weeks				
4–10	28	38%	16	48%
11–20	23	31%	8	24%
21–30	8	11%	1	3%
>30	10	14%	7	21%
Any other income source	15	20%	6	18%
Borrowed money > once in past month	44	59%	20	61%
Number of dependents				
0	15	20%	7	21%
1–2	34	46%	15	45%
≥3	20	28%	10	30%

<sup>a</sup>Some categories do not sum to 74 due to missing data. One woman's demographic data was missing from the FD sample.

three sources: sex work (71%), cash gifts (10%), and loans (7%) (Table 3). Women in the financial diary sample reported a median weekly cash income of about \$114, with a range from \$0 to \$338 per week. The range illustrates how widely cash income could fluctuate. On week five, for example, the average cash

income across all participants was \$88 compared with \$141 the following week. These aggregate averages also obscure some women's non-earning weeks, which were reported six times over the period of observation. Bar/hotel- and brothel-based FSWs reported the lowest median weekly incomes (\$75 and \$118,

**Table 2.** Entry into sex work – illustrative narratives.

<i>Providing for children after leaving an abusive relationship</i>	Twenty-five year old Geneviève <sup>a</sup> became a FSW after divorcing her abusive husband. She described her ex-husband as an alcoholic who beat her and put her luggage out every day. She moved her two daughters into the home of a friend, who is a FSW. This FSW trained Geneviève on how to make a living doing bar-based sex work. Geneviève left the home of her FSW peer after earning over \$500 in one month for a down payment on a house. She expects to have about a \$425 payout from her <i>tontine</i> (informal savings group) to undertake a business. Her daughters know she is a waitress in a large open-air restaurant; she does not want her daughters or her parents to know she's a sex worker because they would be disappointed in her, as "sex work is a profession frowned upon in Côte d'Ivoire."
<i>Moving to the city to help her family</i>	Thérèse traveled to Abidjan last year at age 18 from a central city, where her parents live with her younger siblings. A friend of her mother brought her to Abidjan to be a housekeeper. She spent six months working in a home without pay. She then left for another household job in the city where she was paid about \$25/month. She often let a friend – who was a FSW – stay in her room, because the friend had no home. When the owner of the home found out, Thérèse was fired. Her friend advised her to become a FSW to earn more money, which is how she became a bar-based FSW, living and splitting rent with another FSW from the bar. She stated that her parents think she is still a maid in Abidjan and that they would ask her to return home if they knew she was doing sex work. She prefers to stay in Abidjan to have enough money to take care of them.

<sup>a</sup>All names in this article are pseudonyms.

**Table 3.** Source and value of cash income during six-week period, FD sample ( $n = 33$ ).

Item type	Number of participants reporting	Total value over six-week period	Mean weekly value <sup>a</sup>
Sex work	33	\$18,300.08	\$92.43
Cash gifts	28	\$2,661.02	\$15.84
Loan	18	\$1,828.55	\$16.93
Sales profits	4	\$871.14	\$36.29
Petty trading	5	\$611.25	\$20.38
Theft	3	\$228.70	\$12.70
Tips	7	\$115.18	\$2.74
Salary	3	\$76.09	\$4.23
Intra-household transactions	2	\$53.02	\$4.42
Total value of cash income		<b>\$24,745.03</b>	
Median weekly income per capita		<b>\$114.35</b>	

<sup>a</sup>For those women reporting.

respectively), while luxury and street-based FSW earned more (\$130 and \$136, respectively). In addition to this cash income, women reported economic inflows in the form of food, alcohol, clothing, transportation, air time coverage, and household supplies with an average weekly value of roughly \$4.

### Expenditures

Twenty-six types of outflowing transactions were noted in the financial diaries. The median weekly per capita expenditure over six weeks was \$105. The top seven categories of cash expenses—all costs of daily life—accounted, on average, for over \$100 of spending per week (Table 4). Food accounted for over twice as much as any other category of expenditure. There were no major observed differences in overall categories of expenses by FSW type, however median weekly expenditures varied: bar/hotel- and street-based FSWs reported the lowest median weekly expenditures (\$57 and \$95, respectively), while brothel-based and luxury FSW spent more (\$126 and \$167, respectively). In any given week of data collection, at least one-third of the financial diary sample reported expenditures that outstripped incoming resources (Table 5). Non-cash income/gifts and savings (as discussed below) helped women bridge the income gaps during these weeks.

### Work-related expenses

During observation narratives, most participants mentioned incurring routine expenses specifically related to sex work, including expenses necessary to conduct business (e.g., transportation, right-to-work fees) or to attract more clients (e.g., clothing and grooming). Per the financial diaries, roughly 28% of all reported expenses were categorized as specifically related to the costs of doing business as a sex worker; this percentage increases

**Table 4.** Cash expenditures over six-week period, FD sample ( $n = 33$ ).

Item type	Total value of transactions	% of overall expenditures	# participants reporting	Mean weekly value <sup>a</sup>
Food	\$ 5,940.92	22	33	\$ 30.01
Household supplies	\$ 2,880.19	10	33	\$ 14.54
Clothing	\$ 2,864.98	10	30	\$ 15.91
Transportation	\$ 2,503.21	9	33	\$ 12.65
Cash gifts	\$ 2,333.46	8	31	\$ 12.54
Beauty	\$ 1,941.45	7	30	\$ 10.78
Communication	\$ 1,815.87	7	33	\$ 9.17
Child expenses	\$ 1,645.90	6	11	\$ 24.94
House rent	\$ 1,619.61	6	19	\$ 14.21
Loan/debt payments	\$ 797.96	3	23	\$ 5.78
Alcohol	\$ 620.09	2	23	\$ 4.49
Health	\$ 549.21	2	26	\$ 3.52
Petty trading	\$ 311.35	1	5	\$ 10.37
Family expenses	\$ 295.23	1	4	\$ 12.30
Water	\$ 274.44	1	20	\$ 2.28
Payments to police	\$ 230.78	1	1	\$ 38.46
Cigarettes	\$ 229.27	1	9	\$ 4.25
Right-to-work	\$ 154.69	1	10	\$ 2.58
Condoms	\$ 125.37	<1	15	\$ 1.39
Miscellaneous	\$ 116.84	<1	9	\$ 2.16
Church offering	\$ 115.80	<1	8	\$ 2.41
Funeral	\$ 91.48	<1	6	\$ 2.54
Security	\$ 41.58	<1	1	\$ 6.93
Education	\$ 39.71	<1	4	\$ 1.66
Sex work products	\$ 31.19	<1	4	\$ 1.30
Total expenditures				\$27,570.58
Mean weekly expenditure per capita				<b>\$105.07</b>

<sup>a</sup>For those women reporting.

to 61% if we include all expenses recorded as for “mixed” purposes (both household and business-related). The top work-related expenses reported, in order of per capita spending over the six-week period, were clothing (\$96), household supplies (\$54), beauty products (\$54), alcohol (\$25), right to work payments (\$13), religious offerings (\$10), and condoms (\$7). Work-related expenses varied by sex work context. For example, bar/hotel-based sex workers more often reported paying for alcohol and right-to-work payments, while brothel-based sex workers needed to pay for electricity and rent for their workplaces; street-based sex workers reported air time and transportation costs among their top work-related expenses (see Table 6 for qualitative examples of site-specific work-related expenses).

### Loans

Nearly all FSWs in the observation sample reported borrowing money regularly to deal with the inconsistencies of income and expenses. Most borrowed as a form of cash advance during slow periods, and these loans were almost always used to cover daily expenses (rather than large financial “shocks”). In the financial diary data, the average loan amount was \$35. Trust was a major

**Table 5.** Summary of cash income and expenditure data, balance sheets for FD sample.

	Aggregate (N = 33)	Bar/hotel (n = 9)	Brothel (n = 13)	Luxury (n = 6)	Street (n = 5)
<b>Weekly cash income</b>					
Range	\$0–\$338.14	\$0–\$220.79	\$0–\$517.69	\$0–\$352.82	\$24.95–\$572.76
Median	\$114.24	\$79.27	\$98.76	\$132.02	\$126.82
<b>Weekly expenditures</b>					
Range	\$7.28–1,325.62	\$7.28–\$294.92	\$20.89–\$1325.62	\$20.43–\$449.08	\$19.96–\$719.83
Median	\$104.14	\$56.66	\$125.66	\$166.78	\$94.76
<b># women with negative balance</b>					
week 1	14	4	8	3	0
week 2	12	0	5	5	2
week 3	12	2	8	2	0
week 4	13	3	5	4	1
week 5	16	4	7	3	2
week 6	15	3	7	3	2
Overall for 6-week period	15	1	9	4	1

factor in choosing a lender, and both observation and financial diary data show a strong trend toward borrowing from other women. Of 24 loans recorded in financial diaries, all were from informal sources, and 20 were from FSW peers. As one woman stated, she is satisfied with this source of borrowing because she and her neighbor “understand each other”. Very few women mentioned paying interest on their loans and a large majority specifically described the loans as interest-free and without a fixed repayment window.

### Saving

Observation participants described saving their money primarily in boxes at home (30%), in mobile money platforms (28%), and through *tontines* (informal savings groups) among fellow sex workers (24%), with few reporting formal bank-based savings accounts (5%). Many FSWs mentioned barriers to formal savings mechanisms and perceived them as inaccessible, both in terms of the documentation necessary to open an account and because bank hours would limit when women could

access their money. Conversely, participants perceived mobile money platforms – services common across Africa for sending, receiving, and storing funds digitally via mobile devices – as convenient and accessible, particularly for transferring money to distant family members or to collect funds from their clients. Boxes at home were places for FSWs to keep their money more securely, off their person, with less fear of robbery by thieves or clients. The *tontines* and their pay-out funds were generally regarded as helpful, as evidenced by the number of women who reported repeated deposits in the financial diaries, though some complained of their irregularity and lack of structure. Many participants desired a way to secure and manage longer-term savings, typically for opening a business and leaving sex work, to buy a house, to support children, to get married, to obtain needed healthcare, or to return home. Among the financial diary sub-sample, 19 FSWs reported saving in some form during the six-week recording period (Table 7).

Some women had multiple forms of saving while others had none. Except for bank-based savings, these

**Table 6.** Costs of doing business in different working environments.

Working in a bar setting	Audrey is a 21-year old FSW who describes working independently (without a pimp) at a local bar. Audrey sells beverages as an ordinary waitress. On each beverage she earns a small commission, less than a dollar, depending on the quality/price of the drink. These commissions represent her wages. She is also free to provide sexual services in the bar and can request a room for her sexual activities for the amount of about \$4 per hour. If she leaves the bar to go with a client, she must register with the bar manager and pay about \$6 to the manager for her “right of absence”. The minimum price for sex outside the bar is \$19; sexual activities within the bar start at \$6. Audrey can also fix an appointment for after her shift to avoid paying fees. On a typical week, she earns about \$38 from this work; she does not have another source of income.
Working on the streets	In Yopougon, Kady is a 28-year old street-based sex worker. When she has “enough” clients, she makes roughly \$25/day. Her standard rate is around \$2/sexual act; some men give her \$2–\$3 more after sex. In Kady’s area there is a site manager, a policeman, who comes every evening to collect from the FSWs what they call a “labor law” payment. He then works to free FSWs when they are arrested by the central police, who conduct sweeps each month. FSWs phone peers to signal the arrival of the central police in the neighborhood. She says they all wear very flat shoes, to be able to run as fast as possible when the central police arrive. FSWs who are caught are taken to jail where they must pay over \$95 for their freedom. Those who are not caught often organize themselves and contribute ~\$4 each to support those who have been imprisoned.
Working in a brothel	Aimée is a 31-year old from Burkina Faso who works in two areas of Abidjan, Site A and Site B. She began sex work two years ago when her father died, so she could take care of her mother. She rents a room in an informal brothel in Site A for \$57/month and meets her clients during the afternoon twice a week. The rest of the week she works from Site B at a brothel with about 20 other FSWs. She must pay to work in the brothel in Site B. To avoid these right-to-work payments, she often tries to leave a little early before the owner, who Aimée identifies as a policeman, returns. However, her peers reported her and she now owes over \$90 in back payments. She reports that the owner of the site wants to have sex with her, and might write off some of her debt if she does, but she has not yet agreed to have sex with him. She is paying off the debt at about \$2/day.

**Table 7.** Deposits into “savings” over six-week period, FD sample ( $n = 33$ ) (savings categories are not mutually exclusive).

	Total value of deposits	No. of participants reporting ( $n = 19$ )	Number of transactions	Mean value per transaction
Tontine	\$2,186.37	14	48	\$45.55
Mobile platforms	\$773.50	7	12	\$64.46
Informal location	\$54.60	2	3	\$18.20
Total deposits over 6 weeks			<b>\$3,014.47</b>	

practices were more akin to short-term cash storage than savings per se, as FSWs described withdrawing from saved funds almost daily, rather than accruing funds over time.

### **FSW reflections on financial diaries and suggestions for economic strengthening services**

During exit interviews, financial diary participants reflected on the experience of keeping a record of their financial transactions for six weeks. Nearly all participants stated their perceptions of money had changed, noting that they had not previously considered their financial management strategy or behavior, nor recognized “wasteful spending”. Women generally felt they could now better manage their money to meet their needs. A 32-year old brothel-based sex worker stated, “I now know I must no longer spend my money in disorder, without calculation, and avoid taking on debt to buy the jewelry I especially love.” Over three-quarters of exit interview respondents requested some type of loan services for FSWs, though a few expressed skepticism that they or their peers would repay a loan. Over half of respondents felt formal savings accounts would be beneficial, but again raised concerns about the difficulty of opening an account. Additionally, women suggested training and coaching on financial management topics – budgeting, saving, managing loans – and income generating activities/trade.

## **Discussion**

As we know from previous research and was confirmed in this study, financial concerns often drive women’s decisions about participation in sex work (Baleta, 2015; Bamba et al., 2014; Ditmore et al., 2006; Scorgie et al., 2012; Strathdee et al., 2015). Sex work itself presents multiple risks for HIV acquisition, and continued financial instability and economic anxiety within this context can lead to more frequent and even riskier sexual transactions, including condomless and anal sex (Beckham et al., 2015; Cange et al., 2017; Elmes et al., 2014;

Ngo et al., 2007; Scorgie et al., 2012; Tsai et al., 2013; Tucker et al., 2012; Veldhuijzen et al., 2011; Weiser et al., 2007). Our study examined the financial lives and behaviors of FSWs to better understand these underlying financial determinants of HIV risk, and the findings have implications for economic strengthening approaches for HIV prevention for this key population.

First, FSWs’ reported median weekly income (~\$114) suggests that most women in our sample are not cash-poor: this is higher than the estimated Ivoirian per capita GNI of ~\$60/week (World Bank, 2014) and on the high end of households in vulnerable neighborhoods in Abidjan where weekly income was estimated at approximately \$56 to \$108 (Conaway, 2012). While individual and seasonal fluctuations may affect these comparisons, the women in our sample generally earned a considerable amount per week through sex work, typically enough to accommodate daily needs, and used gifts and small loans from peers, partners, and family to cover expenses when necessary. The financial diary spending profiles also suggest that this population is not currently food insecure, a factor that has been identified as driving sex work and increasing HIV risk in other contexts (Fielding-Miller, Mnisi, Adams, Baral, & Kennedy, 2014; Oyefara, 2007). However, food was the greatest category of expenditure for nearly all women, and the erratic and uneven nature of income, often coupled with poor money management practices (by their own admission), created financial hardship on a regular basis. Also, the expenditure data illustrated that sex work is an expensive profession; women spent nearly 30% of their earnings on costs associated with doing business. Still, the aggregate findings minimize the impetus for consumption-support-based interventions (e.g., cash transfers) for FSWs in this area, since these are usually recommended as a way to help destitute populations meet daily basic needs (Bass & Reid, 2014; Carmichael & Rutherford, 2015; de Montesquiou, Sheldon, DeGiovanni, & Hashemi, 2014). Instead, the financial backgrounds of the FSWs in our sample suggest a need for better ways to manage the resources they do have through asset protection and consumption smoothing (Carmichael & Rutherford, 2015).

Second, the range and value of FSWs’ informal lending and borrowing strategies provide a source of economic resilience for these women. Women’s participation in *tontines* suggests that group savings-based interventions would be an acceptable and feasible medium for asset protection and a way to encourage more formalized community-based loans, thereby addressing the FSWs’ requests for availability of small-scale lending. Further, our data indicate that social relationships with peers and family members, particularly women, factored heavily in

economic transactions. This complements previous evidence on the importance of social ties among FSWs for HIV prevention (Qiao, Li, & Stanton, 2014), and suggests that group-based economic strengthening approaches could likely serve as a “highly efficient platform” (Hufstader, 2013) for delivering paired economic and HIV-prevention interventions. The regularity of group-based savings meetings and the self-selecting nature of the groups built on existing peer relationships could facilitate the introduction or reinforcement of health promotion and/or risk reduction messages. Additionally, recent research with FSWs in Tanzania found that savings group membership was significantly associated with nearly two times greater odds of consistent condom use with new clients (Mantsios et al., 2018).

Third, the FSWs in our sample expressed tremendous interest in our financial diary activity. At the outset, this interest likely derived, at least in part, from the small tokens of appreciation (e.g., soap, oil) provided to participants, and from their sense of remaining engaged with a project that might ultimately benefit them. Yet by the end of the six weeks, participants were eager to review their aggregated results and commented on how eye-opening it had been to see where their earnings were going each week. Their positive reflections on seeing their own transaction patterns during exit interviews included appreciation of and demand for financial education, particularly around budgeting. We saw in both the financial diary and observation data that income from sex work is “choppy” – an average weekly income of just over \$100 may mean \$200 one week and \$20 the next. In those \$20 weeks, without reserves to draw upon, FSWs look for no-interest loans based on social relationships, or may engage in higher-risk/higher-pay sexual acts to cover the costs of food and other necessities. Financial capabilities training, including budgeting and goal setting, could help women smooth their consumption and allow them to better manage the money they do have. Additionally, FSWs with limited literacy/numeracy skills successfully participated in the financial diary activity, providing evidence of the feasibility of financial management without traditional forms of record keeping.

Finally, though many women in our study were wary of or intimidated by formal financial services, they also expressed a desire to have a secure place to accrue long-term savings, suggesting that facilitation of links to FSW-friendly banks could serve unmet need, while entrepreneurship or business skills training could help FSWs use those savings to reach their stated financial goals – many of which involved acquiring capital to invest in income generating activities to replace sex work.

In short, we see various opportunities for providing economic strengthening assistance to FSWs in this context to increase their economic resilience. In partnership with established HIV prevention programs, these types of economic strengthening interventions may help to reduce FSWs’ HIV risk by lessening or removing the underlying financial drivers motivating engagement in sex work as an income generating activity.

We believe the data presented here are some of the first on the financial behaviors of FSWs, and that the methods we used to perform a relatively rapid assessment of FSWs’ financial lives and needs in Abidjan could be easily replicated elsewhere to inform local economic strengthening efforts for FSW HIV prevention. There are, of course, limitations to our assessment, including a relatively small sample size and a short window for financial diary data collection. The underlying goal of our purposive sampling strategy was to capture the range of financial experiences and behaviors across the spectrum of FSWs in Abidjan, to guide development of an economic strengthening program for a broad base of potential FSW beneficiaries. We believe we captured sufficient range using this purposive sample, however generalizability would be improved with a larger sample. Similarly, the relatively short six-week data collection period for the financial diary activity may not account for seasonal volatility or other longer-term trends; however, the data provide a very detailed snapshot of financial transactions during this period, and the qualitative narrative data served to fill in the gaps about longer-term financial context. These findings and recommendations may not generalize to other locations, where debt or trafficking factor heavily into FSWs’ experiences, or where pimps or other gatekeepers play a greater role in controlling women’s finances. However, the diversity of sex work experiences and structural contexts reinforces Mayoux’s point about the importance of tailoring economic strengthening programs to fit local needs (2002).

## Conclusion

PEPFAR and other funders continue to prioritize programming for FSWs as they are a key population to engage for reaching an AIDS-free generation (The Office of the U.S. Global AIDS Coordinator, 2014). As we work toward “combination prevention” interventions, we should consider including approaches that respond to the financial needs of FSWs, as a way of addressing underlying determinants of HIV risk. The findings presented here provide comprehensive data on the financial lives and behaviors of FSWs and the types of transactions that both drive and support women’s participation in sex work in one West African city, along with

recommendations for economic strengthening programming based on those findings. We encourage further research in different locations (e.g., peri-urban or rural, East Africa, Asia) to identify similarities and differences across contexts to better tailor economic strengthening programming to FSW needs, and rigorous evaluation of any economic strengthening programs piloted with FSWs, to assess their impact on both economic and HIV-risk indicators.

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